

Technical Reference Guide, MML commands

COMMAND DESCRIPTION



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1 AC - AUTOMATIC CALL DISTRIBUTION

1.1 ACBGE

Automatic Call Distribution Back-up Group End

1.1.1 FORMAT

ACBGE:GRP=;

GRP = Group number. Directory number of ACD group.

1.1.2 FUNCTION

The command removes the back-up group for an ACD group.

1.1.3 EXAMPLE

Remove the back-up group for the ACD group 8000.

```
ACBGE:GRP=8000;
EXECUTED
```

1.1.4 COMMAND CATEGORY

Dangerous = **No**

1.2 ACBGI

Automatic Call Distribution Back-up Group Initiate

1.2.1 FORMAT

ACBGI:GRP=,BKG=;

BKG = Back-up group number. Directory number of ACD group.

GRP = Group number. Directory number of ACD group.

1.2.2 FUNCTION

The command initiates a back-up group for an ACD group.

1.2.3 EXAMPLE

Initiate the ACD group 8500 as the back-up group for the ACD group 8000.

```
ACBGI:GRP=8000,BKG=8500;
EXECUTED
```

1.2.4 COMMAND CATEGORY

Dangerous = **No**

1.3 ACBGP

Automatic Call Distribution Back-up Group Print

1.3.1 FORMAT

ACBGP:GRP=;

GRP = Group number. Directory number of ACD group.
&, && and ALL are permitted for this parameter.

1.3.2 FUNCTION

The command prints the back-up group information for ACD groups.

1.3.3 PRINTOUT

ACD BACK-UP GROUP DATA			
GRP	LIM	BKG	LIM
.	.	.	.
.	.	.	.
.	.	.	.
END			

BKG Back-up group number.

LIM LIM number.

1.3.4

EXAMPLE

Print the back-up group information for the ACD group 8000.

```
ACBGP:GRP=8000;
ACD BACK-UP GROUP DATA
GRP          LIM          BKG          LIM
8000         1            8500         2
END
```

The ACD group 8000 in LIM 1 has the ACD group 8500 in LIM 2 as its back-up group.

1.3.5

COMMAND CATEGORY

Dangerous = **No**

1.4

ACCSP

Automatic Call Distribution Current Status Print

1.4.1

FORMAT

ACCSP: $\left[\begin{array}{l} \text{DIR=...} \\ \text{GRP=...} \end{array} \right];$

DIR = Directory number. Directory number of group member or agent position.
& and && are permitted for this parameter.

GRP = Group number. Directory number of ACD group.
& and && are permitted for this parameter.

1.4.2

FUNCTION

The command gives the current status for ACD groups.

1.4.3

PRINTOUT (GRP)

ACD GROUP STATUS								
STATUS			BUSY		DELAYED CALLS		STATISTICS	
GRP	MEMBERS	AVAILABLE	OWN	OTHER	CURRENT	MAXIMUM	AVCT	EWT
.
.
.
END								

STATUS	Common heading for parameters MEMBERS and AVAILABLE.
BUSY	Common heading for parameters OWN and OTHER.
DELAYED CALLS	Common heading for parameters CURRENT and MAXIMUM.
STATISTICS	Common heading for parameters AVCT and EWT.
GRP	Group number. Directory number of ACD group.
MEMBERS	Number of initiated members in an ACD group.
AVAILABLE	Number of available (free or busy) members in an ACD group.
OWN	Number of busy members in an ACD group.
OTHER	Number of multi member busy members in an ACD group (there are other members busy on the same agent position).
CURRENT	Current number of delayed calls towards an ACD group.
MAXIMUM	Maximum number of delayed calls an ACD group can handle.
AVCT	Average conversation time in an ACD group.
EWT	Estimated waiting time in queue in an ACD group.

1.4.4

EXAMPLE (GRP)

Print data for ACD group number 8000.

ACCSP:GRP=8000;								
ACD GROUP STATUS								
	STATUS		BUSY		DELAYED CALLS		STATISTICS	
	-----		-----		-----		-----	
GRP	MEMBERS	AVAILABLE	OWN	OTHER	CURRENT	MAXIMUM	AVCT	EWT
8000	20	20	4	3	4	13	120	65
END								

The ACD group's directory number is 8000. There are twenty members initiated in the group. Seven of these members are available (free or busy). Four of the members are busy in this group. Three of the members have other members on the same agent position occupying their ACD groups. There are four delayed calls. Maximum fourteen delayed calls can be handled at the same time. Average conversation time for all agents in the group is 120 seconds. Estimated waiting time in queue is 65 seconds.

1.4.5

COMMAND CATEGORY

Dangerous = **No**

1.5

ACGCC

Automatic Call Distribution Group Category Change

1.5.1

FORMAT

ACGCC:GRP=[,SERV=][,TRAF=][,SEL=][,QUE=][,ACTC=][,TPCS=];

ACTC =	Average conversation time constant. If the parameter is omitted ACTC will be set to 180 seconds.
GRP =	Group number. Directory number of ACD group. & and && are permitted for this parameter. No multiple values are to be stated for GRP when the QIC parameter is stated.
QUE =	Queue handling.
SEL =	Selection category.
SERV =	Service category.
TPCS =	Third party CSTA support category.
TRAF =	Traffic category.

1.5.2

FUNCTION

The command is used to alter the category characteristics of an ACD group.

The categories to be altered for the entire group are stated for the group:

- whether direct in-dialing traffic to the group is permitted
- whether the A-subscriber will be charged and requested to send A-number (Swiss MFC).
- whether music-on-wait is provided
- whether the ACD group is classified as a CTI group, (and in case of CTI group also stated whether the selected member or the group shall be displayed for the calling party. The group option is only valid when the selected number is generic extension).
- whether the ACD group is permitted to accept collect calls (Brazil)
- whether automatic extending to busy ACD group is permitted or not
- to which traffic group the group shall belong
- the hunting order for selection of free members
- whether internal calls towards the group shall be queued or not
- whether calls to a group are permitted/not permitted to overflow
- the number of simultaneous calls to an external destination
- the queue handling for the ACD group
- the average conversation time constant.
- whether third party CSTA applications shall be supported for the group.

In alteration of previously initiated categories those parameters of SERV, TRAF, SEL, QUE, ACTC and TPCS that are to be altered are to be stated. The existing values of non-stated parameters are retained.

At least one of the parameters SERV, TRAF, SEL, QUE, ACTC and TPCS must be stated.

1.5.3

EXAMPLE

Alter the category characteristics for the group with directory number 8000 so that direct in-dialing traffic is forbidden. The A-subscriber will not be charged and no A-number is requested (Swiss MFC). Music-on-wait is provided. The ACD group is classified as a CTI group, and the number and name for the selected group member is

to be used for the calling party display. The ACD group is not permitted to accept collect calls (Brazil). The ACD group should permit automatic extending of queued calls for busy ACD group. The group shall have traffic group 8. The selection for free members shall use the sequential method. Internal calls towards the group shall be queued. Calls to an ACD group are not permitted to overflow when all group members are unavailable. Number of simultaneous calls to an external destination are 5. Dynamic queue is used. Minimum number of delayed calls which can be handle are 15. Maximum number of delayed calls which can be handle are 75. Value of the queue constant is 25. Value for the common queue or selection priority is 25.

```
ACGCC:GRP=8000,SERV=001101,TRAF=8,SEL=01105,
QUE=10150752525;
EXECUTED
```

1.5.4 COMMAND CATEGORY

Dangerous = **No**

1.6 ACGCP

Automatic Call Distribution Group Category Print

1.6.1 FORMAT

ACGCP:GRP=;

GRP = Group number. Directory number of ACD group.
&, && and ALL are permitted for this parameter.

1.6.2 FUNCTION

The command is used to print the category for an ACD group.

1.6.3 PRINTOUT

ACD GROUP CALL DATA

GRP	LIM	SERV	TRAF	SEL	QUE	QIC	CUST	SAT	TPCS	ACTC
.
.										
.										
END										

ACTC Average conversation time constant.

CUST Customer number.

GRP Group number. Directory number of ACD group.

LIM LIM number. LIM in which the group's data are situated.

QIC Not valid for the MX-ONE.

QUE	Queue handling. States maximum number of queuing calls towards the group and type of queuing and calculation of dynamic queue.
SAT	Satellite group information. Information if the group is defined as a Satellite group in an ANCD network.
SEL	Selection category.
SERV	Service category.
TPCS	Third party CSTA support category.
TRAF	Traffic category.

1.6.4

EXAMPLE

Print data for ACD group number 8000.

ACGCP:GRP=8000;										
ACD GROUP CALL DATA										
GRP	LIM	SERV	TRAF	SEL	QUE	QIC	CUST	SAT	TPCS	ACTC
8000	1	101001	9	00305	10159752525	-	1	NO	YES	180
.										
.										
END										

The ACD group's directory number is 8000. The group data are placed in LIM 1. The group is permitted to accept direct in-dialing traffic. The A-subscriber will not be charged and no A-number is requested (Swiss MFC). Music-on-wait is always provided. The ACD group is not classified as a CTI group. The ACD group is not permitted to accept collect calls (Brazil). The busy ACD group allows automatic extending of queued calls.

The traffic group is 9. Free members of the group are hunted in sequential order, that is, in accordance with the order in which they were initiated into the group. Internal calls towards the group shall not be queued. Calls to an ACD group are not permitted to overflow. The number of simultaneous calls to an external destination is 5. Dynamic queue is used. The minimum number of delayed calls which can be handle is 15. The maximum number of delayed calls which can be handle is 75. The value of the queue constant is 25. The value for the common queue or selection priority is 25. The group is affiliated to customer number 1. The group is not defined as a Satellite group. Third party CSTA applications are supported. The average conversation time constant ACTC is 180 seconds.

1.6.5

COMMAND CATEGORY

Dangerous = **No**

1.7

ACGMC

Automatic Call Distribution Group Member Change

1.7.1

FORMAT

$$\text{ACGMC:DIR}=\left[\begin{array}{l} \text{,CLT=} \\ \text{,PRA=} \\ \text{,CLT=, PRI=} \end{array}\right];$$

CLT = Clerical time.

DIR = Directory number. Directory number of group member.
& and && are permitted for this parameter.

PRI = Individual queue or selection priority for the member.

1.7.2

FUNCTION

The command is used to change clerical time, or individual queue or selection priority, or both, for the ACD members.

1.7.3

EXAMPLE 1

Extensions 4492 to 4496 and 5023 are ACD members. Change the clerical time to 60 seconds for these members.

```
ACGMC:DIR=4492&&4496&5023,CLT=60;
EXECUTED
```

1.7.4

EXAMPLE 2

Extensions 4492 to 4496 and 5023 are ACD members. Change the individual queue or selection priority to 3 for these members.

```
ACGMC:DIR=4492&&4496&5023,PRI=3;
EXECUTED
```

1.7.5

EXAMPLE 3

Extension 4492 is ACD member. Change the clerical time to 60 seconds for this member. Also change the queue or selection priority for the member to the common queue or selection priority for the ACD group.

```
ACGMC:DIR=4492,CLT=60,PRI=GRP;
EXECUTED
```

1.7.6

COMMAND CATEGORY

Dangerous = **No**

1.8 ACGME

Automatic Call Distribution Group Member End

1.8.1 FORMAT

ACGME:DIR=;

DIR = Directory number. Directory number of group member.
& and && are permitted for this parameter.

1.8.2 FUNCTION

Remove one or more extensions from a group.

1.8.3 EXAMPLE

Extensions 4492 to 4496 and 5023 shall be removed from the ACD groups they belong to.

ACGME:DIR=4492&&4496&5023;
EXECUTED

1.8.4 COMMAND CATEGORY

Dangerous = **No**

1.9 ACGMI

Automatic Call Distribution Group Member Initiate

1.9.1 FORMAT

ACGMI:GRP=,DIR=[,CLT=][,PRI=];

CLT = Clerical time.
If the parameter is omitted CLT will be set to 0.

DIR = Directory number. Directory number of group member.
& and && are permitted for this parameter.

GRP = Group number. Directory number of ACD group.

PRI = Individual queue or selection priority for the member.
If the parameter is omitted the common queue or selection priority defined for the ACD group will be used.

1.9.2 FUNCTION

The command is used to initiate members into an ACD group and to initiate clerical time, or individual queue/selection priority, or both, for the member.

1.9.3

EXAMPLE 1

Initiate extensions 4496, 4494, and 4492 as members of ACD group 8000. The order in which the extensions are initiated is important if sequential selection has been selected for the group.

```
ACGMI:GRP=8000,DIR=4496&4494&4492;
EXECUTED
```

1.9.4

EXAMPLE 2

Initiate extensions 5024 and 5023 as members of ACD group 8002. The members shall have the clerical time set to 25 seconds and the individual queue or selection priority set to 3.

```
ACGMI:GRP=8002,DIR=5024&5023,CLT=25,PRI=3;
EXECUTED
```

1.9.5

COMMAND CATEGORY

Dangerous = **No**

1.10

ACGMP

Automatic Call Distribution Group Member Print

1.10.1

FORMAT

ACGMP: $\left[\begin{array}{l} \text{DIR=...} \\ \text{GRP=...[,SORT=...]} \end{array} \right];$

DIR = Directory number. Directory number of group member or agent position. & and && are permitted for this parameter.

GRP = Group number. Directory number of ACD group. & and && and ALL are permitted for this parameter.

SORT = Sorting method.
If the parameter is omitted the sorting method used will be numerical order.

1.10.2

FUNCTION

The command is used to print data for an ACD group, group member, or an agent position.

1.10.3

PRINTOUT 1 (GRP)

```
ACD GROUP MEMBER DATA
```

GRP	DIR	PRI	CLT
.	.	.	.
.	.	.	.
.	.	.	.
END			

1.10.4 PRINTOUT 2 (DIR)

ACD GROUP MEMBER DATA			
DIR	GRP	PRI	CLT
.	.	.	.
.	.	.	.
.	.	.	.
END			

- CLT** Clerical time.
- DIR** Directory number.
- GRP** Group number.
- PRI** Individual queue or selection priority for the member.
If individual priority is set, the individual value will be printed marked with (I).

1.10.5 EXAMPLE 1 (GRP)

Print data for all ACD groups.

ACGMP:GRP=ALL;			
ACD GROUP MEMBER DATA			
GRP	DIR	PRI	CLT
8000	4492	25	0
	4494	25	0
	4496	25	0
8002	5023	2	25
	5024	1 (I)	25
8012			
END			

ACD group 8000 consists of three members with directory numbers 4492, 4494, and 4496. The queue or selection priority is 25 (common) for all members and no clerical time is used. ACD group 8002 consists of two members with directory numbers 5023 and 5024. The queue or selection priority is 2 (common) for 5023 and 1 (individual) for 5024 and both members use a clerical time set to 25 sec. ACD group 8012 does not have any members initiated.

1.10.6 EXAMPLE 2 (GRP)

Print data for ACD group 8002 sorted by the initiated order of the members.

```

ACGMP:GRP=8002,SORT=1;
ACD GROUP MEMBER DATA
GRP      DIR      PRI      CLT
8002     5024      1 (I)    25
         5023      2      25
END

```

ACD group 8002 consists of two members initiated in the order 5024 and 5023. The queue or selection priority is 1 (individual) for 5024 and 2 (common) for 5023 and both members use a clerical time set to 25 sec.

1.10.7

EXAMPLE 3 (DIR)

Print data for ACD group members 4492, 4494, 4496, 5023, and 5024.

```

ACGMP:DIR=4492&4494&4496&5023&5024;
ACD GROUP MEMBER DATA
DIR      GRP      PRI      CLT
4492     8000      25      0
4494     8000      25      0
4496     8000      25      0
5023     8002      2      25
5024     8002      1 (I)    25
END

```

The ACD group members 4492, 4494, and 4496 belong to ACD group 8000. The queue or selection priority is 25 (common) for all members and no clerical time is used. ACD group members 5023 and 5024 belong to ACD group 8002. The queue or selection priority is 2 (common) for 5023 and 1 (individual) for 5024 and both members use a clerical time set to 25 sec.

1.10.8

EXAMPLE 4 (DIR)

Print data for the agent position with directory number 4490.

```

ACGMP:DIR=4490;
ACD GROUP MEMBER DATA
DIR      GRP      PRI      CLT
4490     8000      25      0
         8002      1 (I)    25
         8011      4      30
END

```

The agent position with directory number 4490 is assigned in three ACD groups 8000, 8002 and 8011 each with different queue or selection priority. The members in the groups have been given different clerical times.

1.10.9 COMMAND CATEGORY

Dangerous = **No**

1.11 ACGRE

Automatic Call Distribution Group End

1.11.1 FORMAT

ACGRE:GRP=;

GRP = Group number. Directory number of ACD group.
& is permitted for this parameter.

1.11.2 FUNCTION

The command is used to remove an ACD group.

1.11.3 EXAMPLE

ACD groups 8000 and 8003 shall be removed.

ACGRE:GRP=8000&8003;
EXECUTED

1.11.4 COMMAND CATEGORY

Dangerous = **No**

1.12 ACGRI

Automatic Call Distribution Group Initiate

1.12.1 FORMAT

ACGRI:GRP=[,LIM=],SERV=,TRAF=,SEL=,QUE=[,CUST=][,ACTC=] [,TPCS=];

ACTC = Average conversation time constant.
If the parameter is omitted ACTC will be set to 180 seconds.

CUST = Customer number.
If the parameter is omitted no customer number will be assigned.

GRP = Group number. Directory number of ACD group.

LIM= LIM number. Number of the LIM in which the group is to be placed.
If parameter LIM is omitted the LIM with the least number of ACD groups will be selected.

QUE = Queue handling.

SEL = Selection category.
SERV = Service category.
TPCS = Third party CSTA support category.
TRAF = Traffic category.

1.12.2

FUNCTION

The command is used to initiate an ACD group.

The categories that shall apply for the group, in which LIM the group data shall be placed and which customer number the group shall belong to, are stated:

- the ACD group number
- in which LIM the group's data shall be placed
- whether direct in-dialing traffic is permitted to the group
- whether the A-subscriber will be charged and requested to send A-number (Swiss MFC).
- whether music-on-wait is provided
- whether the ACD group is classified as a CTI group, (and in case of CTI group also stated whether the selected member or the group shall be displayed for the calling party. The group option is only valid when the selected number is generic extension.)
- whether the ACD group is permitted to accept collect calls (Brazil)
- whether automatic extending to busy ACD group is permitted or not.
- which traffic group the group shall belong to
- the search order for selection of free members
- whether internal calls towards the group shall be queued or not
- whether calls to a group are permitted/not permitted to overflow
- the number of simultaneous calls to an external destination
- queue handling for the group
- which customer number the group shall belong to
- the average conversation time constant.
- whether third party CSTA applications shall be supported for the group.

1.12.3

EXAMPLE 1

Initiate an ACD group with directory number 8000. The group's data is to be placed in LIM number 1. Direct in-dialing traffic shall be permitted to the group number. The A-subscriber will not be charged and no A-number is requested (Swiss MFC). Music-on-wait is always provided. The ACD group is not classified as a CTI group. The ACD group is not permitted to accept collect calls (Brazil). The ACD group allows automatic extending of queued calls for busy ACD group. The group shall belong to traffic group 9. Free members of the group are hunted in sequential order, that is, in accordance with the order in which they were initiated into the group. Internal calls towards the group shall not be queued. Calls to an ACD group are not permitted to overflow. The number of simultaneous calls to an external destination is 5. Dynamic queue is used. The minimum number of delayed calls which can be handled is 15. The

maximum number of delayed calls which can be handled is 75. The value of the queue constant is 25. The value for the common queue or selection priority is 25. The group number shall be affiliated to customer number 1. The average conversation time constant shall be 100 seconds. Third party CSTA applications shall be supported.

```
ACGRI:GRP=8000,LIM=1,SERV=101001,TRAF=9,SEL=00305,
QUE=10150752525,CUST=1,ACTC=100,TPCS=YES;
EXECUTED
```

1.12.4

EXAMPLE 2

Initiate an ACD group with directory number 8002. The group's data is to be placed in LIM number 1. Direct in-dialing to the group number shall be permitted. The A-subscriber will not be charged and no A-number is requested (Swiss MFC). No music-on-wait is provided. The ACD group is classified as a CTI group, (and in case of CTI group also stated whether the selected member or the group shall be displayed for the calling party. The group option is only valid when the selected number is generic extension). The ACD group is not permitted to accept collect calls (Brazil). The ACD group doesn't allow automatic extending of queued calls for busy ACD group. The group shall belong to traffic group 9. Searching for a free member shall be according to the even load principle, that is, the member who has been free the longest time will be selected first. Internal calls towards the group shall not be queued. Calls to an ACD group are not permitted to overflow. Calls to an external destination is not allowed. Dynamic queue is not used. The minimum number of delayed calls which can be handled is 15. The maximum number of delayed calls which can be handled is 75. The value of the queue constant is 25. The value for the common queue or selection priority is 1. It is not necessary to affiliate the group number to any particular specific customer.

```
ACGRI:GRP=8002,LIM=1,SERV=100100,TRAF=9,SEL=10300,
QUE=00150752501;
EXECUTED
```

1.12.5

COMMAND CATEGORY

Dangerous = **No**

1.13

ACPAC

Automatic Call Distribution Parameter Change

1.13.1

FORMAT

ACPAC:ACDNUM=, ACDVAL=;

ACDNUM = ACD parameter number.

ACDVAL = ACD parameter value.

1.13.2

FUNCTION

The command is used to change the ACD parameter value.

1.13.3

EXAMPLE

Change ACD parameter value to 0 for ACD parameter number 1.

```
ACPAC:ACDNUM=1,ACDVAL=0;
WAIT
EXECUTED
```

1.13.4

COMMAND CATEGORY

Dangerous = **No**

1.14

ACPAP

Automatic Call Distribution Parameter Print

1.14.1

FORMAT

ACPAP:ACDNUM=;

ACDNUM = ACD parameter number.
&, && and ALL are permitted for this parameter.

1.14.2

FUNCTION

The command is used to print the ACD parameter value for an ACD parameter number.

1.14.3

PRINTOUT

```
ACD SYSTEM PARAMETER
ACDNUM          ACDVAL
.
.
.
END
```

ACDVAL ACD parameter value.

1.14.4

EXAMPLE

Print the ACD parameter value for ACD parameter number 1.

```

ACPA:ACDNUM=1;
ACD SYSTEM PARAMETER
ACDNUM          ACDVAL
1                0
END
    
```

The ACD parameter value for ACD parameter number 1 is 0. This means that selection of delayed calls when an agent position becomes free shall be done according to individual selection.

1.14.5

COMMAND CATEGORY

Dangerous = **No**

1.15

ACTNE

Automatic Call Distribution Translation Number End

1.15.1

FORMAT

ACTNE:DNUM=;

DNUM = DNIS number. Directory number of DNIS.
& is permitted for this parameter.

1.15.2

FUNCTION

The command is used to remove an affiliated service group from a DNIS number.

1.15.3

EXAMPLE

Remove the affiliation between the service group or groups and the DNIS number 1000 and 1001.

```

ACTNE:DNUM=1000&1001;
EXECUTED
    
```

1.15.4

COMMAND CATEGORY

Dangerous = **No**

1.16

ACTNI

Automatic Call Distribution Translation Number Initiate

1.16.1

FORMAT

ACTNI:DNUM=,SGRP=[REP=];

DNUM = DNIS number. Directory number of DNIS.
& and && are permitted for this parameter.

REP = REP = Replace value.
REP states whether existing DNIS information (number and name) is replaced with the new DNIS information.

SGRP = Service group number. Directory number of an ACD or ANCD group.

1.16.2

FUNCTION

The command is used to initiate service group numbers to DNIS numbers.

1.16.3

EXAMPLE

Initiate DNIS number 1000 to an ACD group with directory number 6000 and replace the DNIS number if Diversion/Deflection is executed.

ACTNI:DNUM=1000,SGRP=6000,REP=1;
EXECUTED

1.16.4

COMMAND CATEGORY

Dangerous = **No**

1.17

ACTNP

Automatic Call Distribution Translation Number Print

1.17.1

FORMAT

**ACTNP: [DNUM=...
SGRP=...];**

DNUM = DNIS number. Directory number of DNIS.
&, && and ALL are permitted for this parameter.

SGRP = Service group number. Directory number of ACD or ANCD group.
&, && and ALL are permitted for this parameter.

1.17.2

FUNCTION

The command is used to print data stored for DNIS numbers or service group numbers.

1.17.3 PRINTOUT 1 (DNUM)

DNIS DATA PRINT				
DNIS NO	DNIS NAME	SGRP	STYPE	REP
.
.				
.				
END				

1.17.4 PRINTOUT 2 (SGRP)

DNIS DATA PRINT				
SGRP	STYPE	REP	DNIS NO	DNIS NAME
.
.				
.				
END				

DNIS NAME	The DNIS numbers alphanumeric identity.
DNIS NO	DNIS number.
REP	REP = Replace value. REP states whether existing DNIS information (number and name) is replaced with the new DNIS information.
STYPE	Service group number type. States the group type in SGRP, that is, ACD or ANCD.

1.17.5 EXAMPLE 1 (DNUM)

Print data for DNIS number 12121.

ACTNP:DNUM=12121;				
DNIS DATA PRINT				
DNIS NO	DNIS NAME	SGRP	STYPE	REP
12121	SOFTWARE	71000	ANCD	YES
END				

The DNIS number is 12121. The DNIS number's alphanumeric name is SOFTWARE. The service group is an ANCD group and the DNIS information for this DNIS number replaces any existing DNIS when deflect or diversion has been executed.

1.17.6

EXAMPLE 2 (DNUM)

Print data for all DNIS numbers.

```

ACTNP:DNUM=ALL;
DNIS DATA PRINT
DNIS NO      DNIS NAME      SGRP      STYPE      REP
12121        SOFTWARE        71000     ANCD       YES
12345        VIP CUSTOMERS    68000     ACD        NO
55444        EUROPOLITAN     65000     ACD        YES
90900        TELESTAR        71000     ANCD       YES
END
  
```

Both DNIS number 12121 and 90900 are assigned to the ANCD service group 71000 and the information associated with these DNIS numbers replaces any existing DNIS at deflect or divert to DNIS. The DNIS number 12345 with name VIP CUSTOMERS is assigned to the service group 68000, which is an ACD group and this DNIS number does not replace an existing DNIS when diversion or deflection to the DNIS has been executed. The DNIS number 55444 is assigned to the ACD service group 65000 and this DNIS information replaces an existing DNIS.

1.17.7

EXAMPLE 3 (SGRP)

Print data for service group number 68000 and 71000.

```

ACTNP:SGRP=68000&71000;
DNIS DATA PRINT
SGRP      STYPE      REP      DNIS NO      DNIS NAME
68000     ACD           YES      12345        VIP CUSTOMERS
71000     ANCD          NO       12121        SOFTWARE
          90900        TELESTAR
END
  
```

The service group with number 68000 is an ACD group which has the DNIS number 12345 assigned and this DNIS information replaces any existing DNIS when diversion or deflect to DNIS is executed. The service group with number 71000 is an ANCD group and both DNIS numbers and 90900 are assigned and this DNIS information does not replace existing DNIS information.

1.17.8

COMMAND CATEGORY

Dangerous = **No**

2 AD - ABBREVIATED DIALING

2.1 ADCDP

Abbreviated Dialing Common Number Data Print

2.1.1 FORMAT

ADCDP:ABB=[,COUNT=][,CUST=];

- ABB =** Common or individual abbreviated number
&, &&, and ALL are permitted for this parameter.
- COUNT =** Counter. Request for printout that shows the number of times the common number has been used.
If the parameter is omitted, there will be no printout of the counter value.
- CUST =** Customer to which the parameters for this common abbreviated number belongs. If the parameter is omitted, only abbreviated number for customer 0 is printed.
A single value or ALL are permitted for this parameter

2.1.2 FUNCTION

The command is used to print the complete translated numbers of common abbreviated numbers, the number presentation restriction category, and the number of times that each number has been used.

In addition, the counter can be reset in conjunction with read-off.

2.1.3 PRINTOUT

COMMON ABBREVIATED DIALING FACILITY DATA				
ABB	TRA	CLASS	COUNT	NPRES
.
.
.
END				

- CLASS** Abbreviated number classes. A user must have one of these classes in order to use the abbreviated number.
- NPRES** Translated number presentation restriction.
- TRA** Complete translated number.

2.1.4 EXAMPLE

Print information for abbreviated numbers 0360 to 0399 and the number of times each abbreviated number has been used.

```
ADCDP:ABB=0360&&0399,COUNT=1;
```

COMMON ABBREVIATED DIALLING FACILITY DATA

ABB	TRA	CLASS	COUNT	NPRES
0361	000047C2788060	123	22	0
0397	000061C22904231	0	5	1
0399	0005C11E13D11675	2	3	1
END				

Abbreviated numbers 0361, 0397 and 0399 in abbreviated number series 0360 to 0399 are initiated.

Users that have been assigned any of the abbreviated number traffic classes 1, 2, or 3 may use abbreviated number 0361, which has been translated into route access code 00, international prefix 00, country code 47, for NORWAY, normal PTS is expected, 2788060. The abbreviated number has been used 22 times. The translated number presentation restriction is set to default.

Abbreviated number 0399 has been translated into route access code 00 and destination code 05, after the destination code a normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the external line is disconnected. That PTS is followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time-out DTMF sending of digits is performed. That PTS is followed by the digits 11675. The translated number presentation restriction is set to 1. The abbreviated number may be used by the users possessing abbreviated number traffic class 2. The abbreviated number has been used three times.

2.1.5

COMMAND CATEGORY

Dangerous = **No**

2.2

ADCOE

Abbreviated Dialing Common Number End

2.2.1

FORMAT

ADCOE: ABB=[,CUST=];

ABB = Common or individual abbreviated number.
& and && are permitted for this parameter.

CUST = Customer to which the parameter for this common abbreviated number belongs

2.2.2

FUNCTION

The command is used to erase a common abbreviated number and all affiliated information.

2.2.3

EXAMPLE

Erase the common abbreviated numbers 0360 to 0380 and 0399.


```
ADCOE:ABB=0360&&0380&0399;
EXECUTED
```

2.2.4 COMMAND CATEGORY

Dangerous = **No**

2.3 ADCOI

Abbreviated Dialing Common Number Initiate

2.3.1 FORMAT

ADCOI:ABB=,TRA=,CLASS=[,NPRES=][,CUST=];

- ABB =** Common or individual abbreviated number.
- CLASS =** Abbreviated number classes.
A user must have one of these classes in order to use the abbreviated number.
& and && are permitted for this parameter.
- CUST =** Customer to which the parameter for this common abbreviated number belongs.
- NPRES =** Translated number presentation restriction.
If the parameter is omitted, a default value will be used.
- TRA =** Complete translated number.

2.3.2 FUNCTION

The command is used to initiate a common abbreviated number, its translated number with or without presentation restriction, and the abbreviated number traffic classes that may use the abbreviated number in question. If a proceed-to-send (PTS) is included in the translated number, the position in the translated number where the PTS shall be obtained is to be stated. Up to six new PTS positions can be stated.

A common abbreviated number can also be used in order to generate a procedure, that is, the digit and character volume that state a procedure for the system.

Each customer may have their own set of parameters for any common abbreviated number. If no customer specific parameters exists, the parameters for customer less (CUST=0) set is used.

2.3.3

EXAMPLE 1

Initiate common abbreviated number 0361 with route access code 00, international prefix 00, country code 47 for Norway, normal PTS is expected, 2788060. The abbreviated number may be used by the users possessing abbreviated number traffic class 1, 2, or 3.

```
ADCOI:ABB=0361,TRA=000047C2788060,CLASS=1&&3;
EXECUTED
```

2.3.4

EXAMPLE 2

Initiate common abbreviated number 0399, with the route access code 00, destination code 05, normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the trunk line shall be disconnected. That PTS shall be followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time out DTMF sending of digits shall be performed. That PTS shall be followed by the digits 11675. The abbreviated number may be used by the users possessing abbreviated number traffic class 2.

```
ADCOI:ABB=0399,TRA=0005C11E13D11675,CLASS=2;
EXECUTED
```

2.3.5

EXAMPLE 3

Initiate a common abbreviated number with the translated number presentation restriction on.

```
ADCOI:ABB=012,TRA=1239012111, CLASS=3, NPRES=1;
EXECUTED
```

2.3.6

COMMAND CATEGORY

Dangerous = **No**

2.4

ADIDP

Abbreviated Dialing Individual Data Print

2.4.1

FORMAT

ADIDP:DIR=;

DIR = Directory number.
 &, &&, and ALL are permitted for this parameter.

2.4.2

FUNCTION

The command is used to print individual abbreviated numbers with complete translated numbers and the type of individual abbreviated numbers for stated extensions.

2.4.3

PRINTOUT

INDIVIDUAL ABBREVIATED DIALLING FACILITY DATA			
DIR	ABB	TRA	IADTYP
.	.	.	.
.	.	.	.
.	.	.	.
END			

ABB = Common or individual abbreviated number.

IADTYP Type of individual abbreviated number.

LIM Common or individual abbreviated number.
The individual abbreviated number and the complete translated number are stored in the block for individual abbreviated number.

TRA Complete translated number.

2.4.4

EXAMPLE

Print the individual abbreviated numbers initiated by the extensions in the series 4490 to 4498.

ADIDP:DIR=4490&&4498;			
INDIVIDUAL	ABBREVIATED DIALLING FACILITY DATA		
DIR	ABB	TRA	IADTYP
4492			
	1	4457	NORMAL NUMBER
	5	000047C2405060	NORMAL NUMBER
	9	007499230	NORMAL NUMBER
4494			
	1	0005C11E13D11675	NORMAL NUMBER
4495			
4496			
4498			
	1	4492	NORMAL NUMBER
	2	007499752	NORMAL NUMBER
	5	1234567	AUTH CODE
	6	123456789012345	ACCOUNT CODE
	7	12345	REG AUTH CODE
END			

Only the possessors of directory numbers 4492, 4494, and 4498 in the stated series, 4490 to 4498, have programmed individual abbreviated numbers.

Directory number possessors 4495 and 4496 have been given permission to use the facility individual abbreviated dialling, but have not yet programmed any numbers for their own use.

Directory number possessor 4492 has programmed three individual abbreviated numbers 1, 5, and 9. When using individual abbreviated number 5, route access code 00, international prefix 00, country code 47 (Norway), normal PTS is expected and the subscriber digits 2405060 will be generated.

Directory number possessor 4494 has programmed one individual abbreviated number 1. When using individual abbreviated number 1, route access code 00 and the destination code 05, after the destination code a normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the external line is disconnected. That PTS is followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time-out DTMF sending of digits will be performed. That PTS is followed by the digits 11675.

Directory number possessor 4498 has programmed four individual abbreviated numbers 1, 2, 5, and 6. When using individual abbreviated number 5, central authorization code 1234567 will be generated, when using individual abbreviated number 6 account code 123456789012345 will be generated and when using individual abbreviated number 7 regional authorization code 12345 will be generated.

2.4.5 COMMAND CATEGORY

Dangerous = **No**

2.5 ADINE

Abbreviated Dialing Individual Number End

2.5.1 FORMAT

ADINE:DIR=;

DIR = Directory number
&, &&, and ALL are permitted for this parameter.

2.5.2 FUNCTION

The command is used to remove the possibility for possessors of stated directory numbers to initiate and use individual abbreviated numbers.

2.5.3 EXAMPLE

Remove the possibility to initiate and erase individual abbreviated numbers for directory possessors number 4492 up to and including 4495, and 4498.

```
ADINE:DIR=4492&&4495&4498;
EXECUTED
```

2.5.4 COMMAND CATEGORY

Dangerous = **No**

2.6

ADINI

Abbreviated Dialing Individual Number Initiate

2.6.1

FORMAT

ADINI: $\left[\begin{array}{l} \text{DIR=...} \\ \text{DIR=,ABB=,TRA=,IADTYP=} \end{array} \right];$

ABB = Common or individual abbreviated number.

DIR = Directory number.
If ABB, TRA, and IADTYP are omitted, & and && are permitted for this parameter.

IADTYP = Type of individual abbreviated number.

TRA = Translated number.

2.6.2

FUNCTION

The command is used to permit possessors of stated directory numbers to initiate and use individual abbreviated numbers and for a specified directory number to initiate individual abbreviated numbers from a telephone. Each extension may have a maximum of 10 individual abbreviated numbers. Changing an initiated individual abbreviated number is done by re-initiating it.

If only DIR is given, the user may initiate and use individual abbreviated numbers.

If DIR, ABB, TRA, and IADTYP are given, the user may initiate and use individual abbreviated numbers. This combination is used when assigning an individual abbreviated number a translated number.

2.6.3

EXAMPLE 1

Permit directory number possessors 4492 up to and including 4495, and 4498 to initiate and use individual abbreviated numbers.

```
ADINI:DIR=4492&&4495&4498;
EXECUTED
```

2.6.4

EXAMPLE 2

Initiate individual abbreviated numbers from the terminal for directory number owner 4500. For individual abbreviated number 1, the translated number shall be 00622135.

```
ADINI:DIR=4500, ABB=1, TRA=00622135, IADTYP=NN;
EXECUTED
```

2.6.5

EXAMPLE 3

Initiate individual abbreviated number from the terminal for directory number owner 4494. For individual abbreviated number 1 the translated number shall consist of the

number for external traffic access code 00, destination code 05, normal PTS is expected, 11, a PTS followed by DTMF sending of digits is expected, if time-out the external line shall be disconnected. That PTS shall be followed by the digits 13, a PTS followed by DTMF sending of digits is after that expected, if time-out DTMF sending of digits shall be performed. That PTS shall be followed by the digits 11675.

```
ADINI:DIR=4494, ABB=1, TRA=0005C11E13D11675, IADTYP=NN;
EXECUTED
```

2.6.6

EXAMPLE 4

Initiate individual abbreviated numbers from the terminal for directory number owner 4498. For individual abbreviated number 5, the translated number shall be central authorization code 1234567, for individual abbreviated number 6 the translated number shall be account code 123456789012345, and for individual abbreviated number 7 the translated number shall be regional authorization code 12345.

```
ADINI:DIR=4498, ABB=5, TRA=1234567, IADTYP=AU;
EXECUTED
ADINI:DIR=4498, ABB=6, TRA=123456789012345, IADTYP=AO;
EXECUTED
ADINI:DIR=4498, ABB=7, TRA=12345, IADTYP=RA;
EXECUTED
```

2.6.7

COMMAND CATEGORY

Dangerous = **No**

2.7

ADIPP

Abbreviated Dialing Individual Possessors Print

2.7.1

FORMAT

ADIPP: $\left[\begin{array}{l} \text{LIM=...} \\ \text{DIR=...} \end{array} \right];$

DIR = Directory number.
If ABB, TRA, and IADTYP are omitted, & and && are permitted for this parameter.

LIM = LIM number.
& and && are permitted for this parameter.

2.7.2

FUNCTION

The command is used to print directory numbers for possessors of the facility permitted to initiate and use individual abbreviated numbers. Printouts can be done in two different ways:

2.7.3 PRINTOUT 1 (DIR)

With respect to the directory numbers stated in parameter DIR having the facility irrespective of the LIM in which they are situated.

```
INDIVIDUAL ABBREVIATED DIALLING POSSESSORS
DIR
.
.
.
END
```

2.7.4 PRINTOUT 2 (LIM)

With respect to which directory numbers in the stated LIMs having the facility.

```
INDIVIDUAL ABBREVIATED DIALLING POSSESSORS
LIMNO...
DIR
.
.
.
END
```

2.7.5 EXAMPLE 1

Print the directory numbers within the series 4400 to 4499 whose possessors have permission to initiate and use individual abbreviated numbers.

```
ADIPP:DIR=4400&&4499;
INDIVIDUAL ABBREVIATED DIALLING POSSESSORS
DIR
4421
4430
4494
4495
END
```

In the series 4400 to 4499, directory number possessors 4421, 4430, 4494 and 4495 are permitted to initiate and use individual abbreviated numbers.

2.7.6

EXAMPLE 2

Print the directory number possessors that in LIM 1 have permission to initiate and use individual abbreviated numbers.

```
ADIPP:LIM=1;  
INDIVIDUAL ABBREVIATED DIALING POSSESSORS  
LIMNO 001  
DIR  
4421  
4430  
4492  
4494  
4495  
4498  
4500  
END
```

In LIM 1 only the possessors of directory numbers 4421, 4430, 4492, 4494, 4495, 4498, and 4500 have been given permission to initiate and use individual abbreviated numbers.

2.7.7

COMMON CATEGORY

Dangerous = **No**

3 AS - APPLICATION SYSTEM PARAMETERS

3.1 ASPAC

Application system parameters change

3.1.1 FORMAT

ASPAC:PARNUM=,PARVAL=;

PARNUM = Parameter number.

PARVAL = Parameter value.

3.1.2 FUNCTION

The command is used to alter the value of the application system parameters (AS parameters) which are changeable for the relevant market.

The AS parameters which can be changed with the command 3.1 ASPAC on page 33 ASPAC are numbered in accordance with the sequence number, corresponding to the parameter description for the application system parameters. This number is given as the parameter value in PARNUM which identifies the relevant AS parameter.

The parameter value in PARVAL identifies the value which the AS parameter will get after the change. An application system parameter can control a function or a time in the system.

3.1.3 EXAMPLE

The time before recall to the PBX operator from a parked party (*PARNUM* = 2) is to be changed to 30 seconds.

```
ASPAC: PARNUM2, PARVAL=30;
ASPAC: PARNUM2, PARVAL=30;
SURE? (YES/NO)
YES;
EXECUTED
```

3.1.4 COMMAND CATEGORY

Dangerous = **Yes**

3.2 ASPAP

Application system parameters print

3.2.1 FORMAT

ASPAP:PARNUM=;

PARNUM = Parameter number.
 &, && and ALL are permitted for this parameter.

3.2.2 FUNCTION

The command is used to print out the value for the changeable application system parameters for the relevant market.

The printout indicates the sequence number and the value of the changeable application system parameters.

For interpretation of the printout consult parameter description for application system parameters.

3.2.3 PRINTOUT

APPLICATION SYSTEM PARAMETERS	
PARNUM	PARVAL
.	.
.	.
.	.
END	

PARVAL Parameter value.

3.2.4 EXAMPLE

Printout the value for the application system parameter which has sequence number 2.

ASPAP:PARNUM=2;	
APPLICATION SYSTEM PARAMETERS	
PARNUM	PARVAL
2	30
END	

The time before recall from the parked party to the PBX operator is 30 seconds.

3.2.5 COMMAND CATEGORY

Dangerous = **No**

3.3 ASUVP

Application system parameters, unit value validation print

3.3.1 FORMAT

ASUVP:PARNUM=;

PARNUM = Parameter number.
&, && and ALL are permitted for this parameter.

3.3.2 FUNCTION

The command is used to print out the current, minimum and maximum values for the application system parameters, and which units that store the values.

For parameters that are stored in several units, the printout also indicates if the involved units store different values.

3.3.3 PRINTOUT

APPLICATION SYSTEM PARAMETER VALUES FOR UNIT						
PARNUM	CHA	PARVAL	MINVAL	MAXVAL	UNIT	REMARK
.
.
.
END						

CHA Is YES if the PARNUM is changeable for this market. It is NO otherwise.

MAXVAL Parameter maximum value.
A hyphen (-) is printed if no value is fetched.

MINVAL Parameter minimum value.
A hyphen (-) is printed if no value is fetched.

PARVAL Parameter current value.
A hyphen (-) is printed if no value is fetched.

REMARK A short fault description, if any. One example when remark may be used: for AS parameters that are stored in several units, this field indicates if the involved units store different values, which must be an error.

UNIT Name of the unit which stores the values.

For the unit column there are some additional notations used:

unit The unit name as it is. The unit uses the value.

(unit) The unit is enclosed by parentheses, means the unit does not use the parameter value.

*unit The unit is preceded by a star, means the unit is not loaded.

-unit The unit is preceded by a hyphen, means the unit does not answer.

3.3.4 EXAMPLE

Printout the value for the application system parameter which has sequence number 2.

```
ASUVP:PARNUM=2;
```

APPLICATION SYSTEM PARAMETER VALUES FOR UNIT						
PARNUM	CHA	PARVAL	MINVAL	MAXVAL	UNIT	REMARK
2	YES	30	0	32768	CMP	
END						

The time before recall from the parked party to the PBX operator is 30 seconds. The minimum allowed value is 0 and the maximum allowed value is 32768, and the value is stored in unit CMP.

3.3.5

COMMAND CATEGORY

Dangerous = **No**

4 CB - COMMON BELL GROUP

4.1 CBCAC

Common Bell Category Change

4.1.1 FORMAT

CBCAC:GRP=[,SERV=][,TRAF=][,QUE=];

GRP = Group number.
Directory number of the Common Bell Group.
& and && are permitted for this parameter.

QUE = Queue length.
States the maximum number of queuing calls towards the group.

SERV = Service category.
States whether direct in-dialing traffic or collect calls (Brazil) is permitted.

TRAF = Traffic category.
States the traffic group for calls to the Common Bell Group.

4.1.2 FUNCTION

The command is used to alter category characteristics for a Common Bell Group.

A Common Bell Group comprises a number of extensions that have been assigned a common call number. When this number is called the call will be placed in a queue and the signal device of the group will be activated. A member of the group can pick up the first call in the queue by dialing a code on the telephone.

At least one of the category characteristics must be stated in the command.

4.1.3 EXAMPLE

Alter categories for the Common Bell Group with directory number 8000 so that direct indialling traffic is not permitted to the group. The traffic group shall be 8 and the maximum number of queuing calls 9.

```
CBCAC: GRP=8000, SERV=0, TRAF=8, QUE=9;
EXECUTED
```

4.1.4 COMMAND CATEGORY

Dangerous = **No**

4.2 CBDAP

Common Bell Data Print

4.2.1

FORMAT

CBDAP:GRP=;

GRP = Group number.
 Directory number of the Common Bell Group.
 &, &&, and ALL are permitted for this parameter.

4.2.2

FUNCTION

The command is used to print data for a Common Bell Group. A printout is obtained stating which customer the Common Bell Group belongs to, on which position the group signal device is situated, group traffic data, and directory numbers of the group members.

4.2.3

PRINTOUT

COMMON BELL DATA						
GRP	EQU	SERV	TRAF	QUE	CUST	DIR
.
.						.
.						.
END						

CUST Customer number.

DIR Directory number of group member.
 Directory number data is not printed if the group lacks members.

EQU Equipment number. Equipment position of signal equipment.

QUE Queue length. States the maximum number of queuing calls towards the group.

SERV Service category.
 States whether direct indialling traffic or collect calls (Brazil) is permitted.

TRAF Traffic category. States the traffic group for calls to the Common Bell Group.

4.2.4

EXAMPLE

Print data for the Common Bell Group with directory number 8000.

CBDAP: GRP=8000;						
COMMON BELL DATA						
GRP	EQU	SERV	TRAF	QUE	CUST	DIR
8000	001A-1-10-01	1	9	10	1	2345
						2346
						2347
END						

The Common Bell Group with directory number 8000 belonging to customer number 1 has its signal equipment on an equipment position in LIM 1, gateway A, magazine = 1, board position 10 with individual number 1. Direct indialling traffic is permitted, traffic

group 9, maximum queue length 10 calls. Extensions 2345 to 2347 are members of the group.

4.2.5 COMMAND CATEGORY

Dangerous = **No**

4.3 CBELI

Common Bell Initiate

4.3.1 FORMAT

CBELI:GRP=,EQU=,SERV=,TRAF=,QUE=[,CUST=]

- CUST =** Customer number.
- EQU =** Equipment number. Hardware position of the signal equipment.
- GRP =** Group number. Directory number of the Common Bell Group.
- QUE =** Queue length. States the maximum number of queuing calls towards the group.
- SERV =** Service category. States whether direct indialling traffic or collect calls (Brazil) is permitted.
- TRAF =** Traffic category. States the traffic group for calls to the Common Bell Group.

4.3.2 FUNCTION

The command is used to initiate a Common Bell Group and (if applicable) the customer to whom the Common Bell Group shall belong. The command also assigns an equipment position for the signal equipment, states whether direct indialling traffic or collect calls (Brazil) or both of these, is permitted, assigns a traffic group and a maximum queue length towards the group.

A Common Bell Group comprises a number of extensions that have been assigned a common call number. When this number is called the call is placed in a queue and the signal device of the group is activated. A member of the group can pick up the first call in the queue by dialling a code on the telephone.

If the customer group function is used in the PBX the Common Bell Group should be affiliated to a customer.

4.3.3 EXAMPLE 1

Initiate a Common Bell Group with directory number 8000 affiliated to customer number 1 on the equipment position in LIM 1, gateway B, magazine = 1, board position 10, individual 1, with direct in-dialing permitted, traffic group 9, and maximum 10 queuing calls towards the group.

```
CBELI: GRP=8000, EQU=1B-1-10-1, SERV=1, TRAF=9, QUE=10, CUST=1;
EXECUTED
```

4.3.4 EXAMPLE 2

Initiate a Common Bell Group with directory number 8001 on the equipment position in LIM 1, gateway A, in magazine 1, board position 10, individual 2 with direct indialling traffic permitted, traffic group 9, and maximum 10 calls to the group permitted.

The Common Bell Group does not need to be affiliated to any specific customer.

CBELI: GRP=8001, EQU=1A-1-10-2, SERV=1, TRAF=9, QUE=10;
EXECUTED

4.3.5 COMMAND CATEGORY

Dangerous = **No**

4.4 CBGME

Common Bell Group End

4.4.1 FORMAT

CBGME:GRP=,DIR=;

DIR = Directory number of group member.
&, && and ALL are permitted for this parameter. If & or && is used for the parameter GRP only the value ALL will be permitted for DIR.

GRP = Group number.
Directory number of the Common Bell Group. & and && are permitted for this parameter.

4.4.2 FUNCTION

The command is used to erase Common Bell Groups and group members. When DIR = ALL or if the last member in a Common Bell Group is erased then the group itself will be erased also.

4.4.3 EXAMPLE 1

Erase extensions 2345 and 2346 from a Common Bell Group with directory number 8000.

CBGME: GRP=8000, DIR=2345&2346;
EXECUTED

4.4.4 EXAMPLE 2

Erase the Common Bell Group with directory number 8000.

CBGME: GRP=8000, DIR=ALL;
EXECUTED

All members of the Common Bell Group have now been erased from the group.

4.4.5 COMMAND CATEGORY

Dangerous = **No**

4.5 CBGMI

Common Bell Group Member Initiate

4.5.1 FORMAT

CBGMI:GRP=,DIR=;

DIR = Directory number of group member.
& and && are permitted for this parameter.

GRP = Group number.
Directory number of a Common Bell Group.

4.5.2 FUNCTION

The command is used to initiate members of a Common Bell Group.

4.5.3 EXAMPLE

Initiate extensions 2345 up to and including 2347 as members of the Common Bell Group with directory number 8000.

```
CBGMI: GRP=8000, DIR=2345&&2347;
EXECUTED
```

4.5.4 COMMAND CATEGORY

Dangerous = **No**

5 CH - CHARGING

5.1 CHCME

Charging cost model end

5.1.1 FORMAT

CHCME:TARIFF=;

TARIFF = A list of telephony charging rates.

5.1.2 FUNCTION

By keying this command the cost per unit pulse value of the given charging tariff model is reset to zero.

5.1.3 EXAMPLE

End the charging tariff model 4.

CHCME:TARIFF=4; EXECUTED

Ends the charging tariff model 4, thereby sets the cost per unit pulse value for the charging tariff model 4 to zero.

5.1.4 COMMAND CATEGORY

Dangerous = **No**

5.2 CHCMI

Charging cost model initiate

5.2.1 FORMAT

CHCMI:TARIFF= COST=;

COST = Cost per unit pulse.
This cost is associated with the given charging model.

TARIFF = A list of telephony charging rates.

5.2.2 FUNCTION

The command initiates a charging tariff model and associates it with the cost per unit pulse value.

5.2.3 EXAMPLE 1

Associate the charging tariff model 1 with cost per unit pulse value as 4320.

```
CHCMI:TARIFF=1,COST=4320;
EXECUTED
```

5.2.4 EXAMPLE 2

Associate the charging tariff model 5 with cost per unit pulse value as 835.

```
CHCMI:TARIFF=5,COST=835;
EXECUTED
```

5.2.5 COMMAND CATEGORY

Dangerous = **No**

5.3 CHCMP

Charging cost model print

5.3.1 FORMAT

CHCMP:TARIFF=;

TARIFF= A list of telephony charging rates.
ALL is permitted for this parameter.

5.3.2 FUNCTION

Using this command a printout of the charging tariff models with its associated cost per unit pulse value is obtained.

5.3.3 PRINTOUT

```
ASSOCIATED CHARGING MODEL
TARIFF      COST
.
.
.
END
```

COST Cost per unit pulse.
This cost is associated with the given charging model.

5.3.4

EXAMPLE 1

Print the cost per unit value associated with charging tariff model 3.

```
CHCMP:TARIFF=3;
ASSOCIATED CHARGING MODEL
TARIFF          COST
3                5498
END
```

Printout of the cost per unit pulse value associated with charging tariff model 3.

5.3.5

EXAMPLE 2

Print the cost per unit pulse value associated with all the charging models.

```
CHCMP:TARIFF=ALL;
ASSOCIATED CHARGING MODEL
TARIFF          COST
1                128
2                222
3                8399
4                2209
5                5784
6                7384
7                22
END
```

Printout of all the charging tariff models and its associated cost per unit pulse values.

5.3.6

COMMAND CATEGORY

Dangerous = **No**

5.4

CHGAP

Charging group association print

5.4.1

FORMAT

CHGAP: $\left[\begin{array}{l} \text{DIR=...} \\ \text{ROU=...} \end{array} \right];$

DIR = Directory number.
Directory number for voice extension or PBX operator.
ALL, & and && are permitted for this parameter.

ROU = Route number.
ALL, & and && are permitted for this parameter.

5.4.2 FUNCTION

By keying this command a printout of the group to which the given extensions, PBX operators, or routes belong, is obtained.

During a call on a secondary extension, extra or own directory number, the charging is executed on the primary extension or the own directory number respectively.

5.4.3 PRINTOUT 1 (DIR)

CHARGING GROUP ASSOCIATION	
DIR	GRP
.	.
.	.
END	

5.4.4 PRINTOUT 2 (ROU)

CHARGING GROUP ASSOCIATION	
ROU	GRP
.	.
END	

GRP Charging group number.

5.4.5 EXAMPLE 1

Print the group association for extensions 1261 and 9743.

CHGAP:DIR=1261&9743;	
CHARGING GROUP ASSOCIATION	
DIR	GRP
1261	17
9743	8
END	

Printout of the group association for extensions 1261 and 9743.

Extension 1261 belongs to group 17 and extension 9743 belongs to group 8.

5.4.6

EXAMPLE 2

Print the group association for routes 6 and 17.

```
CHGAP:ROU=6&17;
CHARGING GROUP ASSOCIATION
ROU          GRP
6            128
17          8
END
```

Printout of the group association for routes 6 and 17. Route 6 belongs to charging group 128 and route 17 belongs to charging group 8.

5.4.7

COMMAND CATEGORY

Dangerous = **No**

5.5

CHGCE

Charging group counters end

5.5.1

FORMAT

CHGCE:GRP=;

GRP = Charging group number.
ALL, & and && are permitted for this parameter.

5.5.2

FUNCTION

The command is accompanied by a printout and reset of a group's charging counters. During a call on a secondary extension or an extra directory number, the charging is executed on the primary extension or own directory number respectively.

5.5.3

PRINTOUT

```
hh:mm DDMMYY
CHARGING GROUP COUNTER
GRP          COUNTER
.            .
.            .
EXECUTED
```

hh:mm Time of printout, as hour and minutes
DDMMYY Date of printout, as day, month, and year

COUNTER Meter for the number of charging pulses.

5.5.4

EXAMPLE

Reset the counters for charging groups 9, 10 and 12.

```
CHGCE:GRP=9&10&12;
12:30 20DEC02
CHARGING GROUP COUNTER
GRP          COUNTER
9            00096743
10           00863461
12           00042632
EXECUTED
```

At 12:30 on 20th December 2002 the counters for groups 9, 10 and 12 were reset. Before the counters were reset group 9 registered 96743, group 10 863461 and group 12 42632 charging pulses.

5.5.5

COMMAND CATEGORY

Dangerous = **No**

5.6

CHGCP

Charging group counter print

5.6.1

FORMAT

CHGCP:GRP=;

GRP = Charging group number.
ALL, & and && are permitted for this parameter.

5.6.2

FUNCTION

The command is accompanied by a printout of one or more group's charging counters.

During a call on a secondary extension or an extra directory number, charging is executed on the primary extension and the own directory number respectively.

If a group is given and its counter is 0, or if more groups are given and their counters are 0, the printout GROUP COUNTER EMPTY is obtained.

5.6.3

PRINTOUT

```
hh:mm DDMMYY
CHARGING GROUP COUNTER
```

GRP	COUNTER
.	.
.	.
.	.
END	

hh:mm Time of printout, as hour and minutes

DDMMYY Date of printout, as day, month, and year

COUNTER Meter for the number of charging pulses.

5.6.4

EXAMPLE

Print the charging counters for the groups 9 to 12 inclusive, and for group 36.

CHGCP:GRP=9&&12&36;	
12:30 20DEC92	
CHARGING GROUP COUNTER	
GRP	COUNTER
9	00096743
10	00863461
12	00042632
END	

At 12:30 on 20th December 1992, the group charging counters have registered the following:

Group	9	96743	charging	pulses
Group	10	863461	charging	pulses
Group	12	42632	charging	pulses

Group 11 has no members and is therefore not printed. Group 36 has no charging pulses and is therefore not printed.

5.6.5

COMMAND CATEGORY

Dangerous = **No**

5.7

CHGME

Charging group member end

5.7.1 FORMAT

$$\text{CHGME:GRP=,} \left\{ \begin{array}{l} \text{DIR= ...} \\ \text{ROU= ...} \end{array} \right\} ;$$

DIR = Directory number.
Directory number for voice extension or PBX operator.
ALL, & and && are permitted for this parameter.

GRP = Charging group number.

ROU = Route number.
ALL, & and && are permitted for this parameter.

5.7.2 FUNCTION

The command initiates the removal of a number of voice extensions, PBX operators, or routes from a given charging group.

5.7.3 EXAMPLE 1

Remove route 17 from charging group 8.

```
CHGME:GRP=8,ROU=17;
EXECUTED
```

5.7.4 EXAMPLE 2

Remove all voice extensions and PBX operators in charging group 8. The charging group remains.

```
CHGME:GRP=8,DIR=ALL
EXECUTED
```

5.7.5 COMMAND CATEGORY

Dangerous = **No**

5.8 CHGMI

Charging group member initiate

5.8.1 FORMAT

$$\text{CHGMI:GRP=,} \left\{ \begin{array}{l} \text{DIR= ...} \\ \text{ROU= ...} \end{array} \right\} ;$$

DIR = Directory number.
Directory number for voice extension or PBX operator.
& and && are permitted for this parameter.

GRP = Charging group number.

ROU = Route number.
& and && are permitted for this parameter.

5.8.2

FUNCTION

The command initiates a number of voice extensions, PBX operators, or routes to form the given charging groups.

A voice extension, PBX operator, or route may not be contained in any other charging group.

Secondary extensions as well as additional directory number are not permitted in this charging group.

The previously metered pulses of the members will not be supplied to the group. Therefore only pulses which the members have received after they have become members are supplied to the charging group.

As it is only the A party who can initiate the charging pulses and thereby be a group member, a charging group can only be composed of the type of routes which contain connection lines.

5.8.3

EXAMPLE 1

Extensions 9743 to 9756 inclusive are to be included in charging group 8.

```
CHGMI:GRP=8,DIR=9743&&9756;
EXECUTED
```

5.8.4

EXAMPLE 2

Initiate route 17 to charging group 8.

```
CHGMI:GRP=8,ROU=17;
EXECUTED
```

5.8.5

COMMAND CATEGORY

Dangerous = **No**

5.9

CHGMP

Charging group member print

5.9.1

FORMAT

CHGMP:GRP=;

GRP = Charging group number.
ALL, & and && are permitted for this parameter.

5.9.2 FUNCTION

By keying this command a printout of the voice extensions, PBX operators, and routes which are part of the given charging groups, is obtained.

5.9.3 PRINTOUT

[WAIT]				
CHARGING GROUP MEMBER INDIVIDUALS				
GRP	ROU	LIM	DIR	EXNT
.
.
.
END				

- ROU** Route number.
Route number does not belong to any specific LIM.
- LIM** LIM number.
- DIR** Directory number.
Directory number for voice extension or PBX operator.
- EXNT** Extension type.
S = Voice extension
O = PBX operator
- WAIT** Printout by long execution times.
New time for next time out is set in same sequence.

5.9.4

EXAMPLE

Print the members of charging group 8.

CHGMP:GRP=8;				
WAIT				
CHARGIN GROUP MEMBER INDIVIDUALS				
GRP	ROU	LIM	DIR	EXNT
8		2	9743	S
			9756	S
			1000	O
		3	9314	S
	17			
	19			
END				

Voice extensions 9743 and 9756 in LIM 2 are contained in charging group 8. The PBX operator has number 1000. Voice extension 9314 is contained in LIM 3. Routes 17 and 19 are also in the charging group.

5.9.5

COMMAND CATEGORY

Dangerous = **No**

5.10

CHICE

Charging individual counters end

5.10.1

FORMAT

CHICE: $\left\{ \begin{array}{l} \text{DIR= } \dots \\ \text{ROU= } \dots \end{array} \right\};$

- DIR =** Directory number.
 Directory number for voice extension or PBX operator.
 ALL, & and && are permitted for this parameter.
- ROU =** Route number.
 ALL, & and && are permitted for this parameter.

5.10.2

FUNCTION

The command is accompanied by a printout and reset of the individual charging counters.

During a call on the secondary extension or extra additional directory number, the charging is executed on the primary extension or own directory number respectively.

5.10.3 PRINTOUT 1 (DIR)

```
hh:mm DDMMYY
INDIVIDUAL CHARGING COUNTER
DIR          COUNTER
.            .
.            .
EXECUTED
```

5.10.4 PRINTOUT 2 (ROU)

```
hh:mm DDMMYY
INDIVIDUAL CHARGING COUNTER
DIR          COUNTER
.            .
.            .
EXECUTED
```

hh:mm Time of printout, as hour and minutes
DDMMYY Date of printout, as day, month, and year
COUNTER Counter for the number of charging pulses.

5.10.5 EXAMPLE 1

Reset the charging counters for routes 15 and 18.

```
CHICE:ROU=15&18;
12:30 20DEC82
INDIVIDUAL CHARGING COUNTER
ROU          COUNTER
15           00061357
18           00004962
EXECUTED
```

At 12:30 on 20th December 1982, the counters for routes 15 and 18 were reset. Route 15 had previously registered 61357 pulses and route 18 had previously registered 4962 pulses.

5.10.6

EXAMPLE 2

Reset the charging counters for directory number 63643 as well as for 94267 to 94269 inclusive.

```
CHICE:DIR=63643&94267&&94269;
13:10 20DEC82
INDIVIDUAL CHARGING COUNTER
DIR          COUNTER
63643        00004634
94267        00012110
94268        00000023
94269        00004735
EXECUTED
```

At 13:10 on 20th December 1982, the counters for directory numbers 63643 and 94267 to 94269 inclusive are reset. Before the counters were reset they registered pulses as listed in the table above.

5.10.7

COMMAND CATEGORY

Dangerous = **No**

5.11

CHICP

Charging individual counters print

5.11.1

FORMAT

CHICP: $\left[\begin{array}{l} \text{DIR=...} \\ \text{ROU=...} \end{array} \right];$

DIR = Directory number.
Directory number for voice extension or PBX operator.
ALL, & and && are permitted for this parameter.

ROU = Route number.
ALL, & and && are permitted for this parameter.

5.11.2

FUNCTION

The command is accompanied by a printout of the charging counters for the individual extensions, PBX operators, or routes. During a call on a secondary extension or an extra directory number, the charging is executed on the primary extension and own directory number respectively.

5.11.3 PRINTOUT 1 (DIR)

```
hh:mm DDMMYY
INDIVIDUAL CHARGING COUNTER
DIR          COUNTER
.            .
.            .
END
```

5.11.4 PRINTOUT 2 (ROU)

```
hh:mm DDMMYY
INDIVIDUAL CHARGING COUNTER
ROU          COUNTER
.            .
.            .
END
```

hh:mm Time of printout, as hour and minutes
DDMMYY Date of printout, as day, month, and year
COUNTER Counter for the number of charging pulses.

5.11.5 EXAMPLE 1

Print the charging counters for the directory numbers 63643 and 94267 to 94270 inclusive.

```
CHICP:DIR=63643&94267&&94270;
14:10 20DEC82
INDIVIDUAL CHARGING COUNTER
DIR          COUNTER
63643        00034651
94267        00006475
94268        00411123
94269        00097113
END
```

At 14:10 on 20th December 1982 the following was registered:

Directory	number	63643	34651	charging	pulses.
Directory	number	94267	6475	charging	pulses.
Directory	number	94268	411123	charging	pulses.
Directory	number	94269	971113	charging	pulses.

Directory number 94270 does not exist and is therefore not printed.

5.11.6

EXAMPLE 2

Print the charging counters for routes 15 and 18.

```
CHICP:ROU=15&18
15:10 10DEC82
INDIVIDUAL CHARGING COUNTER
ROU          COUNTER
15           00061357
18           00004962
END
```

At 15:10 on the 10th of December 1982 the charging counters registered for route 15, 61357 charging pulses, and for route 18, 4962 charging pulses.

If the routes do not exist then they are not printed.

5.11.7

COMMAND CATEGORY

Dangerous = **No**

5.12

CHRC

Route charging counters end

5.12.1

FORMAT

CHRC:ROU= [,TRU=];

ROU = Route number.
&, && and ALL are permitted for this parameter, if parameter TRU is omitted

TRU = Trunk line number.
LIM and sequence number for external lines. If more than one value has been given for parameter ROU, this parameter must not be given.
&, && and ALL are permitted for this parameter.

5.12.2

FUNCTION

The command is used to print and reset charging counters for outgoing routes and external lines.

5.12.3

PRINTOUT 1 (ROU, TRU)

```
hh:mm DDMMYY
ROUTE CHARGING COUNTER
ROU= . . .
TRU          COUNTER
.            .
```


.

EXECUTED

5.12.4

PRINTOUT 2 (ROU)

hh:mm DDMMYY

ROUTE CHARGING COUNTER

ROU COUNTER

.

.

EXECUTED

hh:mm

Time of printout, as hour and minutes

DDMMYY

Date of printout, as day, month, and year

COUNTER

Counter for the number of charging pulses for the external line.

5.12.5

EXAMPLE 1

The charging counters for the external lines for route 45, that is, line 10 in LIM 1, line 15 in LIM 2 and line 12 in LIM 3 are to be reset.

CHRCE:ROU=45,TRU=001-10&002-15&003-12;

13:50 09MAR04

ROUTE CHARGING COUNTER

ROU = 45

TRU COUNTER

001-10 00001234

002-15 00001425

003-12 00000237

EXECUTED

At 13:50 on 9th March 2004, the charging counters in route 45 for the external lines 10 in LIM 1, 15 in LIM 2 and 12 in LIM 3 were reset. Before the charging counters were reset they registered 1234, 1425 and 237 charging pulses for these external lines.

5.12.6

EXAMPLE 2

The charging counters for routes 45, 52 and 99 are to be reset.

```

CHRCE:ROU=45&52&99;
13:50 09MAR84
ROUTE CHARGING COUNTER
ROU          COUNTER
45           00002896
52           12346761
99           00000456
EXECUTED

```

At 13:50 on 9th March 1984, the charging counters for routes 45, 52 and 99 were reset. Before the counters were reset, they registered 2896, 12346761 and 456 charging pulses.

5.12.7

EXAMPLE 3

The charging counters for the external lines for route 45 are to be reset.

```

CHRCE:ROU=45,TRU=ALL;
13:50 09MAR84
ROUTE CHARGING COUNTER
ROU = 45
TRU          COUNTER
001-10       00001234
002-15       00001425
003-99       00654239
EXECUTED

```

At 13:50 on 9th March, the charging counters for external lines 10 in LIM 1, 15 in LIM 2 and 99 in LIM 3 for route 45 were reset.

Before the charging counters were reset they registered 1234, 1425 and 654239 charging pulses for these external lines.

5.12.8

COMMAND CATEGORY

Dangerous = **No**

5.13

CHRCP

Route charging counters print

5.13.1

FORMAT

CHRCP:ROU= [,TRU=];

ROU = Route number.
&, && and ALL are permitted for this parameter, if parameter TRU is omitted.

TRU = Trunk line number.
LIM and sequence number for external lines. The parameter must be omitted if more than one value have been stated for the parameter ROU.
&, && and ALL are permitted for this parameter.

5.13.2 FUNCTION

The command is used to obtain a printout of the charging counters for outgoing routes and external lines. The counters stop at the maximum value.

5.13.3 PRINTOUT 1 (ROU, TRU)

```
hh:mm DDMMYY
ROUTE CHARGING COUNTER
ROU=...
TRU          COUNTER
.
END
```

5.13.4 PRINTOUT 2 (ROU)

```
hh:mm DDMMYY
INDIVIDUAL CHARGING COUNTER
ROU          COUNTER
.
END
```

hh:mm Time of printout, as hour and minutes

DDMMYY Date of printout, as day, month, and year

COUNTER Counter for the number of charging pulses for outgoing external line.

5.13.5 EXAMPLE 1

The charging counters for route 45's external lines, LIM 1, line 10, LIM 2, line 15 and LIM 3, line 12, are to be printed.

```
CHRCP:ROU=45,TRU=001-10&002-15&003-12;
13:25 09MAR94
ROUTE CHARGING COUNTER
ROU = 45
TRU          COUNTER
001-10      00001234
002-15      00001425
003-12      00000237
```

END

At 13:25 on 9th March 1994, the charging counters registered in route 45, 1234 charging pulses for external line 10 in LIM 1, 1425 charging pulses for external line 15 in LIM 2 and 237 charging pulses for external line 12 in LIM 3.

5.13.6

EXAMPLE 2

Initiate a printout of the charging counters for routes 45, 52 and 99.

CHRCP:ROU=45&52&99;	
13:23 09MAR84	
ROUTE CHARGING COUNTER	
ROU	COUNTER
45	00002896
52	12346761
99	00000456
END	

At 13:23 on 9th March 1984 the charging counters registered 2896 charging pulses for route 45, 12346761 charging pulses for route 52 and 456 charging pulses for route 99.

5.13.7

EXAMPLE 3

Initiate a printout of the charging counters for route 45's external lines.

CHRCP:ROU=45,TRU=ALL;	
13:23 09MAR84	
ROUTE CHARGING COUNTER	
ROU = 45	
TRU	COUNTER
001-10	00001234
002-15	00001425
003-99	00076542
END	

At 13:23 on 9th March 1984 the charging counters registered in route 45, 1234 charging pulses for external line 10 in LIM 1, 1425 charging pulses for external line 15 in LIM 2 and 76542 charging pulses for external line 99 in LIM 3.

5.13.8

COMMAND CATEGORY

Dangerous = **No**

6 CS - COMPUTER SUPPORTED TELECOM- MUNICATIONS APPLICATIONS (CSTA)

6.1 CSTLE

Computer Supported Telecommunications Applications Link End

6.1.1 FORMAT

CSTLE:LGRP=,LPORT=,IP=;

IP = Local IP address where the local CSTA connection point for the link is initiated.

LGRP = Link group identity.

LPORT = Local port where the CSTA connection is initiated.

6.1.2 FUNCTION

The command is used to remove a CSTA link from a link group.

6.1.3 EXAMPLE

Remove a CSTA link from a CSTA link group.

```
CSTLE:LGRP=APPLINK1,LPORT=6500,IP=154.48.107.240;
EXECUTED
```

6.1.4 COMMAND CATEGORY

Dangerous = **No**

6.2 CSTLI

Computer Supported Telecommunications Applications Link Initiate

6.2.1 FORMAT

CSTLI:LGRP=,LIM=,LPORT=,[IP=],[SERV]=;

IP = Local IP address where the local CSTA connection point for the link is to be initiated.
If the parameter is omitted, a default value associated to the host machine is used.

LGRP = Link group identity.

LIM =	The LIM-number of the LIM that resides on the exchange to which an Application Link client will connect.
LPORT =	Local port where the CSTA connection is to be initiated.
SERV =	Service category to the link group for CSTA Deflect and for sending encryption keys of H323/SIP extensions.

6.2.2

FUNCTION

The command is used to initiate a CSTA link for a link group.

6.2.3

EXAMPLE 1

Initiate a CSTA link for a CSTA link group with the LIM-number 1.

Set SERV parameter value to 1111 so that, for Deflect/SST from CTI groups:

- IRD will be bypassed
- Diversion after deflection is allowed
- Replace dialed number with deflected-to number is allowed

And for H323 or SIP extensions:

- Send the encryption keys, if any.

```
CSTLI:LGRP=APPLINK1,LIM=1,LPORT=5000,SERV=1111,
IP=164.48.107.25;
EXECUTED
```

6.2.4

EXAMPLE 2

Initiate a CSTA link for a CSTA link group with the LIM-number 2. Default SERV parameter value is 0000.

For Deflect/SST from CTI groups:

- IRD will not be bypassed
- Diversion after deflection is not allowed
- Replace dialed number with deflected-to number is not allowed

And for H323 or SIP extensions:

- Do not send any encryption keys.

```
CSTLI:LGRP=APPLINK1,LIM=2,LPORT=5000,
IP=164.48.107.25;
EXECUTED
```

6.2.5

EXAMPLE 3

Initiate a CSTA link for a CSTA link group with the LIM-number 1.

Set SERV parameter value to 1000 so that, for Deflect/SST from CTI groups:

- IRD will be bypassed
- Diversion after deflection is not allowed

- Replace dialed number with deflected-to number is not allowed

And for H323 or SIP extensions:

- Do not send any encryption keys.

```
CSTLI:LGRP=APPLINK1,LIM=1,LPORT=5000,SERV=1000,
IP=164.48.107.25;
EXECUTED
```

6.2.6 COMMAND CATEGORY

Dangerous = **No**

6.3 CSTLP

Computer Supported Telecommunications Applications Link Group Print

6.3.1 FORMAT

CSTLP [:LGRP=];

LGRP = Link group identity.

6.3.2 FUNCTION

The command is used to print data about the CSTA link groups in the system.

If the parameter is omitted, all of the link groups in the system will have their data printed.

6.3.3 PRINTOUT

COMPUTER SUPPORTED TELECOMMUNICATIONS APPLICATIONS LINK GROUP DATA

LGRP	ACTIVE JOBS	IP ADDRESS	:LPORT	SERV	LIM STATUS
.
.
.
END					

ACTIVE JOBS The number of CSTA monitored devices per link group.

IP IP address.

LIM The LIM-number.

LPORT Local port identity.

SERV Service category initiated to the link group for CSTA Deflect and for sending encryption keys of H323 or SIP extensions.

STATUS Status of the CSTA port. The possible values are as follows:

CONNECTED	The client is connected to the server.
CONNECTED (NOT RESPONDING)	The client is connected to the server, but the client is not responding.
FAULTY	There is an error with the link.
NOT CONNECTED	The client is not connected to the server.

6.3.4

EXAMPLE

Make a printout of CSTA link group data in the system.

```
CSTLP;
COMPUTER SUPPORTED TELECOMMUNICATIONS APPLICATIONS LINK GROUP DATA
LGRP      ACTIVE JOBS      IP ADDRESS      :LPORT      SERV      LIM STATUS
APPLINK1   88              164.48.103.24   3000        0000      CONNECTED
APPLINK2    0              164.48.103.24   8080        1001      NOT CONNECTED
APPLINK3    0              164.48.103.24   4000        1110      FAULTY
END
```

The IP address for the MX-ONE Service Node NIC 1 is 164.48.103.24

Link group APPLINK1 has 88 monitored devices reporting events to the client. Do not Bypass IRD (Personal Number deflect), do not permit diversion after deflection and do not replace dialed number with deflected-to number for CSTA Deflect requests from CTI groups. Do not send encryption keys. The port number is 3000 and is located in MX-ONE Service Node number 1.

Link group APPLINK2 is not connected. Bypass IRD (Personal Number Deflect), do not permit diversion after deflection and do not replace dialed number with deflected-to number for CSTA Deflect requests from CTI groups. Send encryption keys for H323 or SIP extensions, if any. The port number is 8080 and is located in MX-ONE Service Node 1.

Link group APPLINK3 is faulty. Bypass IRD (Personal Number Deflect), permit diversion after deflection and replace dialed number with deflected-to number for CSTA Deflect requests from CTI groups. Do not send encryption keys. The port number is 4000 and is located in MX-ONE Service Node 1.

6.3.5

COMMAND CATEGORY

Dangerous = **No**

6.4

CSTMP

CSTA Monitored Directory Numbers Print

6.4.1

FORMAT

CSTMP:LGRP=;

LGRP = Link group identity.

6.4.2 FUNCTION

The command is used to print data about the CSTA Monitored Directory Numbers in the system.

6.4.3 PRINTOUT

CSTA MONITORED DIRECTORY NUMBERS						
DIRNO	LPORT-LIM	STATUS	MD-CR.ID	MD-CR.ID-ADRCTRL	DEV.LIM	DEV.TYPE
.
.
.
END						

DIRNO

The number of CSTA monitored devices per link group.

LPORT-LIM

I/O port identity.

STATUS

Status of the Directory Number. The possible values are as follows:

ACTIVE	The directory number monitored is active.
IDLE	The directory number is Idle.
PASSIVE	The directory number is not responding.
SEIZED	The directory number is blocked.

MD.CR-ID

Cross Reference Identifier.

MD.CR-ID-ADRCTRL

Cross Reference Identifier Address Control.

DEV-LIM

LIM number 1 -124.

DEV-TYPE

Extension Type.

6.4.4 EXAMPLE

Make a printout of CSTA Monitored Directory Numbers by Application Link for LIMs in the system.

CSTMP: LGRP= APPLINK;						
CSTA MONITORED DIRECTORY NUMBERS						
DIRNO	LPORT-LIM	STATUS	MD.CR-ID	MD.CR-ID-ADRCTRL	DEV.LIM	DEV.TYPE
3364	1	ACTIVE	H'0000	H'91	1	IP-EXTN
4945	1	ACTIVE	H'0003	H'FF	6	IP-EXTN
3646	1	ACTIVE	H'0004	H'73	6	REM-EXT
3367	1	ACTIVE	H'0005	H'7A	6	REM-EXT
3366	1	ACTIVE	H'0007	H'99	6	REM-EXT

61007	1	ACTIVE	H'000D	H'B0	1	REM-EXT
61008	1	ACTIVE	H'000F	H'B0	1	REM-EXT

Link group APPLINK has the directory numbers monitored through CSTA. The directory numbers belong to various extension types, for example, remote extensions, and IP extensions.

6.4.5

COMMAND CATEGORY

Dangerous = **No**

7 EX - ANALOG EXTENSION

7.1 EXADC

Extension Additional Data Change

7.1.1 FORMAT

EXADC:ADDNUM=,DIR=;

ADDNUM = Additional number.
The directory number which is used for presentation on the display of the other party.

DIR = Directory number.
The directory number for primary or secondary extensions.
& is permitted for this parameter.

7.1.2 FUNCTION

The command sets an additional number for an extension that is presented on the display of the other party. The additional number should be a previously assigned directory number which represents a physical extension that can be called.

More than one directory number can have the same additional number. If no additional number is assigned, the directory number will be the default additional number.

7.1.3 EXAMPLE 1

Change the additional number for extension 4498 to 4600.

```
EXADC:DIR=4498,ADDNUM=4600;
EXECUTED
```

7.1.4

EXAMPLE 2

Change the additional number for extensions 4401 and 4402 to 4400.

```
EXADC:DIR=4401&4402,ADDNUM=4400;
EXECUTED
```

7.1.5

COMMAND CATEGORY

Dangerous = **No**

7.2

EXADP

Extension Additional Data Print

7.2.1

FORMAT

EXADP:DIR=;

DIR = Directory number. Directory number for primary or secondary extensions. &, &&, and ALL are permitted for this parameter.

7.2.2

FUNCTION

The command is used to print the additional data for the given extension.

7.2.3

PRINTOUT

```
EXTENSION ADDITIONAL DATA
DIR          ADDNUM
.            .
.            .
.            .
END
```

ADDNUM = Additional number.

7.2.4

EXAMPLE

Print the additional data for extensions 4491 and 4498.

```
EXADP:DIR=4491&4498;
EXTENSION ADDITIONAL DATA
DIR      ADDNUM
4491     4600
4498     4610
END
```

The additional number for extension 4491 is 4600 and for extension 4498 it is 4610.

7.2.5

COMMAND CATEGORY

Dangerous = **No**

7.3

EXCAC

Extension Category Change

7.3.1

FORMAT

EXCAC: DIR= $\left[\left[\begin{array}{l} \text{CAT=} \\ \text{TRAF=} \end{array} \right] \left[\text{SERV=} \right] \left[\text{CDIV=} \right] \left[\text{OFTIME=} \right] \left[\text{ROC=} \right] \left[\text{FDTIME=} \right] \right] \left[\text{TRM=} \right] \left[\text{ADC=} \right] \left[\text{ICAT=} \right] \left[\text{MCOST=} \right];$

ADC= Additional category

CAT= Common category code. Common category code for parameters TRAF, SERV CDIV, OFTIME, and ROC.

CDIV = Call diversion category. Including the category for individual do not disturb (DND).

DIR= Directory number. Directory number for primary or secondary extensions. & and && are permitted for this parameter.

FDTIME = Forced disconnection time

ICAT = Instrument category

MCOST = Maximum charging cost

OFTIME = Offered Time Category

ROC = Routing category

SERV = Service category

TRAF = Traffic category.

TRM = Transmission category. Indicates the transmission characteristics (attenuation or amplification) which is to be valid for the extension.

7.3.2

FUNCTION

The command, which changes the categories of one or more extensions, may be used in the following ways:

- To change from an existing category to a common category code for an extension
- To change any of the individual categories for an extension
- To change the transmission, additional, and instrument categories for an extension
- To change, remove, or assign the maximum charging cost (in terms of pulses) associated with an extension

Categories that are not stated will remain unchanged.

The D_5 and D_6 values of ICAT are unique for an EL6 type of extension. The D_7 value of ICAT is unique for an EL6 type of extension that is connected to a ELU34 board.

Note: At least one of the category parameters must be stated.

Note: If parameter SERV is stated, the only allowed changes of the hospitality classes are the ones from Room vacant to Room occupied and the other way round.

7.3.3

EXAMPLE 1

Extensions 4430 and 4498 are to change category code for parameters TRAF, SERV, CDIV, and ROC, so that they obtain the values given in the common category code 3, and also to change its maximum charging cost MCOST to 180 (maximum usable pulses).

```
EXCAC:DIR=4430&4498,CAT=3,MCOST=180;
EXECUTED
```

7.3.4

EXAMPLE 2

Change the call diversion category for extensions 3320 through 3350, so that these extensions have no rerouting limitations and are permitted to use the individual do-not-disturb facility. External follow-me is not permitted.

These extensions are permitted to request call diversion on busy, and they possess the internal follow-me function. Diversion on origin feature is allowed. Diversion options for calling party's origin are internal extension, public external line, and private external line. Default settings for remote programming of diversion should be used.

For diversion on origin, use only local type of origin.

```
EXCAC:DIR=3320&&3350,CDIV=010101321000;
EXECUTED
```

7.3.5

EXAMPLE 3

Change the transmission category for extension 4498 to transmission category 1 and offered time to 25 seconds.

```
EXCAC:DIR=4498,OFTIME=25,TRM=1;
EXECUTED
```

7.3.6

EXAMPLE 4

Alter the categories for extension 4498 so that SERV, TRAF, CDIV, and ROC correspond to CAT number 3.

The additional categories shall be changed to:

- It is a normal extension so it can only handle the bearer services speech and 3.1-kHz audio.
- The feature request A-number from PSTN is not used in the system.
- The feature extension number presentation category is not loaded into the system.
- Calls are metered per extension.
- The extension is permitted to initiate malicious call tracing.
- Manual message waiting is not allowed.
- The extension shall be permitted to accept transferred outgoing external calls.
- It is allowed to use authorization code without any call information logging check.
- As the extension's directory number is included in the public network number series, it shall be permitted to send its own directory number to the public network.

```
EXCAC:DIR=4498,CAT=3,ADC=000110201;
EXECUTED
```

7.3.7

EXAMPLE 5

Change the Hospitality class for extension 3310 to Room vacant. Call distribution shall be controlled by an external application.

```
EXCAC:DIR=3310,SERV=02111205110100;
EXECUTED
```

7.3.8

EXAMPLE 6

Change the authorization category for transfer of outgoing external calls for extension 4498, so that it is permitted to transfer outgoing external public calls and also permitted to transfer the call to an intruded extension.

```
EXCAC:DIR=4498,CAT=3,ADC=000110901
EXECUTED
```

7.3.9

COMMAND CATEGORY

Dangerous = **No**

7.4

EXCAP

Extension Category Print

7.4.1 FORMAT

EXCAP:DIR=;

DIR = Directory number. Directory number for primary or secondary extensions. &, &&, and ALL are permitted for this parameter.

7.4.2 FUNCTION

The command is used to print category information for the given extensions.

7.4.3 PRINTOUT

EXTENSION CATEGORY FIELDS								
DIR	TRAF	SERV	CDIV	ROC	TRM	ADC	OFTIME	FDTIME
.
.
.
END							.	.

ADC = Additional category.

CDIV = Call diversion category. Including the category for individual do not disturb (DND).

FDTIME = Forced disconnection time

OFTIME = Offered time category

ROC = Routing category.

SERV = Service category.

TRAF = Traffic category.

TRM = Transmission category.

7.4.4 EXAMPLE

Print category information for extension 4498.

EXCAP:DIR=4498;								
EXTENSION CATEGORY FIELDS								
DIR	TRAF	SERV	CDIV	ROC	TRM	ADC	OFTIME	FDTIME
4498	00151501	0002120700000000	000071221000	401001	0	000110901	25	300
END								

For an interpretation of the values for TRAF, SERV, CDIV, ROC, TRM, ADC, OFTIME and FDTIME, see the parameter description for ANALOG EXTENSION.

7.4.5 COMMAND CATEGORY

Dangerous = **No**

7.5

EXCCP

Extension Common Category Code Print

7.5.1

FORMAT

EXCCP: [CAT=];
 [CCAT=];

- CAT =**
- Common category code. Common category code for parameters TRAF, SERV CDIV, OFTIME, and ROC.
&, &&, and ALL are permitted for this parameter.
- CCAT =**
- Check common category code in order to verify which extensions have the stated common category code CAT.

7.5.2

FUNCTION

The command is used in two ways:

- To print the values of TRAF, SERV, CDIV, OFTIME, ROC and FDTIME for the stated common category codes CAT. At the end of the normal printout, an authorization code is printed, if any of the printed CATs have been set with the CATTYP parameter.
- Parameter CCAT is used to print those extensions in the system that have the same common category code as the stated common category code CAT.

Note: This can take a long time in large systems.

7.5.3

PRINTOUT 1 (CAT)

EXTENSION CATEGORY CODE						
CAT	TRAF	SERV	CDIV	ROC	OTIME	FDTIME
.
.
.
[MINIMUM CATEGORY CODE FOR AUTHORIZATION CODE IS...]						
[DEFAULT CATEGORY CODE FOR AUTHORIZATION CODE IS...]						
END						

The ellipsis points (...) stand for the common category codes to be used when there is a need for minimum or default authorization code categories.

For more information, see the operational directions for AUTHORIZATION CODE FOR EXTENSION.

7.5.4

PRINTOUT 2 (CCAT)

EXTENSION CATEGORY CODE	
CAT	DIR

```

.
.
.
END

```

CDIV = Call diversion category. Including the category for individual do not disturb (DND).

DIR = Directory number. Directory number for primary or secondary extensions.

FDTIME = Forced disconnection time

OFTIME = Offered time category.

ROC = Routing category.

SERV = Service category.

TRAF = Traffic category.

7.5.5

EXAMPLE 1 (CAT)

Print the value ranges of category codes 3 - 7.

```

EXCCP:CAT=3&&7;
EXTENSION CATEGORY CODE
CAT   TRAF      SERV          CDIV          ROC      OFTIME
3     03151501   0002110701000  000100000000  110701   5
4     00151501   0002120701010  000061131000  202601   0
5     01121509   0003120501001  000151111000  122001   20
6     00000000   0000000000000  000000000000  000001   0
7     00000000   0000000000000  000000000000  000001   0
DEFAULT CATEGORY CODE FOR AUTHORIZATION CODE IS 4
END

```

The common category codes 6 and 7 have not been assigned any values.

The common category codes 3, 4, and 5 have stated values for parameters TRAF, SERV, CDIV, OFTIME, and ROC.

Authorization Code default value is affiliated to CAT=4.

For the interpretation of the values of TRAF, SERV, CDIV, OFTIME, and ROC, see the parameter description for ANALOG EXTENSION.

7.5.6

EXAMPLE 2 (CCAT)

Verify the extensions in the system that possess the values for parameters TRAF, SERV, CDIV, OFTIME, and ROC that agree with the value for the common category code 5.

```

EXCCP:CCAT=5;
EXTENSION CATEGORY CODE
CAT          DIR
5            1266
            4492

```

END

The categories of the extensions 1266 and 4492 agree with the common category code 5.

7.5.7 COMMAND CATEGORY

Dangerous = **No**

7.6 EXCCS

Extension Category Code Set

7.6.1 FORMAT

EXCCS:CAT=[,CATTYP=][,CDIV=][,OFTIME=][,ROC=][,SERV=] [,TRAF=][,FDTIME=];

CAT =	Common category code. Common category code for parameters TRAF, SERV CDIV, and ROC.
CATTYP =	Type of common category code. Used for authorization code. This is not a category in a common category code. It is used to define different types of common category codes in conjunction with an authorization code.
CDIV =	Call diversion category. Including the category for individual do not disturb (DND).
FDTIME =	Forced disconnection time.
OFTIME =	Offered time category.
ROC =	Routing category.
SERV =	Service category.
TRAF =	Traffic category.

7.6.2 FUNCTION

The command is used to form a common category code or to alter the values of an existing common category code. The category codes are used to create a number of standard categories for extensions. This simplifies the categorization of the extension.

The command can also be used to specify minimum or default common category codes for authorization code.

- Form a common category code.
To create a common category code (CAT) parameters TRAF, SERV, CDIV, OFTIME, and ROC are assigned values. These values are stored in the stated common category code, CAT. All category parameters, TRAF, SERV, CDIV, OFTIME, and ROC must be assigned values on formation of the new common category code.
- Alter an existing common category code.
On alteration of an previously formed common category code (CAT), parameters TRAF, SERV, CDIV, OFTIME, and ROC which are to be altered must be stated with their new values. Parameters that are not stated are not altered.

At least one of the parameters TRAF, SERV, CDIV, OFTIME, and ROC must be stated.

- Change categories for authorization code.

This can be done in two ways. Either the CAT can change value as shown in (2), or the affiliated CAT can be changed. To do this, enter CATTYP and the new CAT. Since CATTYP can only be assigned to one CAT for each value of CATTYP at a time, the affiliation is changed to the new CAT entered.

7.6.3

EXAMPLE 1

Create category code 4 with traffic category TRAF: Fully open during both system day service and night service. With abbreviated dialing traffic class 00 and traffic-switching class 01.

Service category SERV: Open for intrusion and for reception of call waiting tone from another party and open for direct in-dialing traffic. Permitted to execute automatic call-back to another extension or an external line. Permitted to initiate a call waiting tone to another party. Permitted to accept call waiting tone from another extension, PBX operator, or external line. The extension belongs to the Hospitality class Normal extension. Permitted to accept collect calls (Brazil). Call distribution shall be controlled by an external application. The extension shall be able to park the existing call and make an inquiry call even when intruded by supervisor. Tone shall not be provided at answer from external application.

Diversion category: No rerouting limitations. Individual do not disturb and external follow-me are not allowed. Diversion to individual diverttee position on busy and on no reply is allowed. Diversion on origin feature is allowed. Diversion options for calling party's origin are option 1 for internal extension, option 2 for public external line, and option 3 for private external line.

Routing categories: FRL category 2 is assigned. Forced account code is not required. LCR number 2 is to be used, and class B is the authorization type for route selection. Toll exchange category (AON) is not used.

Offered Time category: The duration of the offered state is 5 seconds. Default settings for Remote programming of diversion should be used.

For diversion on origin, use only local type of origin.

```
EXCCS:CAT=4,TRAF=00151501,SERV=00021207010110,
CDIV=000061123000,ROC=222201,OFTIME=5;
EXECUTED
```

7.6.4

EXAMPLE 2

Category code 4 was formed earlier with values for parameters TRAF, SERV, CDIV, and ROC. The diversion category shall be altered so that no rerouting limitations are stated. It is not permitted to request Individual Do Not Disturb and External Follow-Me. It is permitted to request diversion on busy to an individual diverttee position, Internal Follow-Me. Diversion On Origin feature is not allowed. Default settings for Remote programming of diversion should be used.

For diversion on origin, use only local type of origin.

```
EXCCS:CAT=4,CDIV=000100000000;
EXECUTED
```

7.6.5

EXAMPLE 3

Affiliate category code 4 to authorization code both as a minimum value and a default value.

```
EXCCS:CAT=4,CATTYP=1;
EXECUTED
EXCCS:CAT=4,CATTYP=2;
EXECUTED
```

7.6.6

COMMAND CATEGORY

Dangerous = **No**

7.7

EXCUC

Extension Customer Number Change

7.7.1

FORMAT

EXCUC:DIR=[,CUST=];

CUST = Customer number. The parameter is not optional in the customary sense. If the parameter is omitted, the customer number for the extension will be removed.

DIR = Directory number. Directory number for primary or secondary extensions. & and && are permitted for this parameter.

7.7.2

FUNCTION

The command is used to initiate, alter, or remove the extension's customer affiliation.

7.7.3

EXAMPLE

The extension with directory number 4491 shall alter customer number to 12.

```
EXCUC:DIR=4491,CUST=12;
EXECUTED
```

7.7.4

COMMAND CATEGORY

Dangerous = **No**

7.8

EXDDP

Extension Directory Data Print

7.8.1

FORMAT

EXDDP:DIR=;

DIR = Directory number. Directory number for primary or secondary extensions. &, &&, and ALL are permitted for this parameter.

7.8.2

FUNCTION

The command is used for stated directory numbers to print the equipment position, customer number, common category code, instrument category, maximum charging cost, and whether the directory number belongs to a primary or secondary extension with respect to stated directory numbers.

For those extensions whose categories do not agree with any existing common category code, a hyphen (-) will be printed in the column for CAT as an indication of this.

7.8.3

PRINTOUT

EXTENSION DIRECTORY DATA							
DIR	CUST	EQU	CAT	TYPE	ICAT	MCOST	AUX
.
.
.
END							

AUX = Auxiliary number. Secondary directory number.
If the extension directory number is stated under DIR but is a secondary extension, this will be indicated with an A under AUX. On the other hand, if the extension stated under DIR has secondary numbers, these will be stated under AUX.

CAT = Common category code. Common category code for parameters TRAF, SERV CDIV, and ROC.

CUST = Customer number.

EQU= Equipment position.

ICAT = Instrument category.

MCOST = Maximum charging cost.

TYPE = Type of signaling diagram. The function block EL that administers the equipment position.

7.8.4

EXAMPLE

Print directory number data for extensions 4491-4498.

EXDDP: DIR=4491&&4498;							
EXTENSION DIRECTORY DATA							
DIR	CUST	EQU	CAT	TYPE	ICAT	MCOST	AUX
4491	13	001A-0-70-03	5	EL6	0000000	0	
4492	15	001A-0-70-00	5	EL6	0002000	180	

4495	8	001A-0-70-01	-	EL6	0000000		A
4498	9	001A-0-70-02	-	EL6	0000000	9999	4500, 4495
END							

The category codes for extensions 4491 and 4492 agree with the value of CAT 5.

The category codes of extensions 4495 and 4498 do not agree with any of the existing common category codes, CAT 0-63, which is stated with a hyphen (-).

Extensions 4491 and 4492 are ordinary extensions that is, they have no secondary extensions. Extension 4495 is a secondary extension, which is stated with A under AUX.

Extension 4498 has two secondary extensions, 4500 and 4495. Directory numbers 4493, 4494, 4496, and 4497 are not initiated as extensions in the system.

Extension 4491 is affiliated to customer number 13, 4492 to customer number 15, 4495 to customer number 8, and 4498 to customer number 9. (If the system lacks customer numbers, the column CUST in the printout will be blank).

Extension 4492 has ICAT set to 0002000, all others are normal terminals.

The extensions are connected to extension boards through a signal diagram that is administered by function block EL6.

Extensions 4492 and 4498 are assigned with 180 and 9999 pulses respectively. Extension 4491 is assigned with zero pulses and there is no limitation on the duration of the call for extension 4495.

All shown extensions are handled by the same ELU board, which is located in Service Node 1, gateway A, magazine 0, and board position 70.

7.8.5 COMMAND CATEGORY

Dangerous = **No**

7.9 EXTEE

Extension End

7.9.1 FORMAT

EXTEE:DIR=;

DIR = Directory number.
 & and && are permitted for this parameter.

7.9.2 FUNCTION

The command is used to erase an extension. If the extension to be erased is a primary extension the underlying secondary extension will be pushed upwards and become primary or ordinary Extension and will take over metering data (if any) and individual abbreviated numbers.

7.9.3

EXAMPLE

Erase extensions 5235 - 5240.

```
EXTEE:DIR=5235&&5240;
EXTEE:DIR=5235&&5240;
SURE?(YES/NO)
YES;
EXECUTED
```

7.9.4

COMMAND CATEGORY

Dangerous = **Yes**

7.10

EXTEI

Extension Initiate

7.10.1

FORMAT

EXTEI: $\left[\begin{array}{l} \text{AUX=} \\ \text{DIR=,TYPE= [,TRM=] [,MCOST=]} \end{array} \right], \text{EQU} = \left[\begin{array}{l} \text{,CAT=} \\ \text{,TRAF=,SERV=,CDIV=[,OFTIME=],ROC=[,FDTIME=]} \end{array} \right]$
 $\left[\text{[,ADC=] [,CUST=] [,ICAT=] [,BSEC=]} \right];$

ADC =	Additional category. If ADC is omitted, the default value (0) is used.
AUX =	Auxiliary number. Secondary directory number.
BSEC =	Boss-secretary category. If BSEC is omitted, the default value (0) is used.
CAT =	Common category code. Common category code for parameters TRAF, SERV, CDIV, and ROC.
CDIV =	Call diversion category. Including the category for individual do not disturb (DND).
CUST =	Customer number. If CUST is omitted, the extension will not be given any customer affiliation.
DIR =	Directory number. Primary directory number. & and && are permitted for this parameter.
EQU =	Equipment position.
FDTIME =	Forced disconnection time
ICAT =	Instrument category. If ICAT is omitted, the default value is used. The default value is 0020000 for EL6 and 000000 for EL7.
MCOST =	Maximum charging cost. If MCOST is omitted, the default value (FFFF) is used.
OFTIME =	Offered Time category.
ROC =	Routing category.
SERV =	Service category.

TRAF =	Traffic category.
TRM =	Transmission category. Indicates the transmission characteristic (attenuation or amplification) which is valid for the extension. If TRM is omitted, short line is assumed to apply.
TYPE =	Type of signaling diagram. A description of the EL function block which handles the given equipment position.

7.10.2

FUNCTION

The command is used to initiate one or more primary or secondary extensions. When many extensions are to be initiated at the same time, then the EQU position is stated for the first extension. The remaining extensions receive the free and correctly equipped equipment positions which follow the given position.

When a secondary extension is initiated to an existing position, then this position must either belong to an ordinary extension, that is, one which has no secondary extension, or a primary extension which may have a further secondary extension attached to it. Up to three secondary extensions may be attached to each equipment position, that is, to each primary extension if no market-dependent limitation has been set.

The system is unable to distinguish between secondary and primary extensions during traffic **from** an extension. The secondary extension, therefore, uses categories of the primary extension.

The categories of the secondary extension are used during traffic **to** a secondary extension.

The equipment position of the primary extension is stated when a secondary extension is initiated. Parameters TYPE, ICAT, and TRM are omitted for the secondary extension as the extension takes the values of the primary extension.

A common category code CAT 0 - 63 is used as found suitable when many extensions are to be initiated with the same categories for TRAF, SERV, CDIV, OFTIME, and ROC.

If the customer number feature is to be used in the system, CUST states to which customer the extension shall belong.

An analog extension can be assigned a maximum charging cost (in terms of pulses) using parameter MCOST. An outgoing call made from this directory number will have this MCOST value decremented and then be disconnected once reaching a zero MCOST value. MCOST value specified will be applicable only on per call basis (that is, for the duration of a single call).

Extensions possessing the same customer affiliation should be distributed among several MX-ONE Service Nodes.

In a Hospitality environment, an ordinary analog extension can be given one of three Hospitality classes: Normal extension, Room vacant, or Room occupied.

An outgoing call (to PSTN) can be set to terminate after a predefined time by a forced disconnect.

7.10.3

EXAMPLE 1 (INITIATE A PRIMARY EXTENSION)

Initiate a primary extension with directory number 4498 in board position 70. Use server 1 and gateway A. The extension is to use board individual number 2. The extension must possess the following categories.

Signal diagram:

The extension is to be connected to an extension board which is handled by function block EL6.

Transmission category:

The extension is to be connected over a short line.

Instrument category:

The extension is to be a normal extension.

Traffic category:

The extension must use the common abbreviated number which has abbreviated number traffic class 00. The TCD category must be fully open for night and day service. The extension must have traffic group 01.

Service category:

The extension shall be blocked for outgoing traffic if the PBX is switched for emergency traffic. Open for intrusion and for reception of call waiting tone. Priority on intrusion shall be 0. Open for direct in-dialing traffic from public exchange. Call back function permitted to another extension or external line. Permitted to initiate call waiting tone. Reception of call waiting tone permitted from another extension, PBX operator, or external line. The extension belongs to the Hospitality class Normal extension. Permitted to accept collect calls (Brazil). Call distribution is controlled by an external application. The extension shall be able to park the existing call and make an inquiry call even when intruded by supervisor. Tone shall not be provided at answer from external application.

Call diversion category:

The extension has no rerouting limitations. The extension shall not be able to use the Individual do-not-disturb facility. External follow-me is not permitted. The extension is allowed to use the direct diversion facility to a common diverttee position. The extension shall also be allowed to use diversion on busy and diversion on no reply. Diversion on origin feature is allowed. Diversion options for calling party's origin are option 1 for internal extension, option 2 for public external line and option 1 for private external line.

Routing categories:

The extension's FRL category is assigned to 0. It is not required to use an account code. Least cost routing number 0 is used and authorization type for route selection is set to normal extension. Toll exchange category (AON) is not used. **Additional categories:**

It is a normal extension so it can only handle the bearer services speech and 3.1-kHz audio. The features request A-number from the PSTN and extension number presentation category are not used in the system. Malicious call tracing, no tracing is done. Manual message waiting is not allowed. The extension is not permitted to transfer or accept transferred outgoing calls. No CIL check is required for authorization code. The extension number is included in the public network number series, but nevertheless the **common** public directory number is to be sent to the public exchange. Call metering is set to per exchange. All these values add up to ADC = 0. Since this is set as default the parameter can be omitted.

Offered time category: The duration of the offered state is 5 seconds. Default settings for Remote programming of diversion should be used.

For diversion on origin, use only local type of origin.

```
EXTEI:DIR=4498,TYPE=EL6,TRM=0,EQU=1A-0-70-2,
TRAF=00151501,SERV=00021207010110,CDIV=000071121000,
OFTIME=5,ROC=020001;
```

EXECUTED

7.10.4

EXAMPLE 2 (INITIATE A SECONDARY EXTENSION)

Initiate a secondary extension with directory number 4500 to the same position and with the same category as in example 1. Since this is a secondary extension, the Hospitality class defined in the SERV parameter is set to the default value Normal extension (zero).

<pre>EXTEI:AUX=4500,EQU=1A-0-70-2,TRAF=00151501, SERV=00021207010100, CDIV=000071121000,ROC=020001; EXECUTED</pre>
--

7.10.5

EXAMPLE 3 (INITIATE A PRIMARY EXTENSION WITH CAT)

Initiate a primary extension with directory number 4525 to board position 70. The extension is to use individual number 3 on the board. The extension's categories for TRAF, SERV, CDIV, and ROC are to be those stated in the common category code CAT 4.

The extension is to be connected to an extension board which is handled by function block EL6.

The extension is to be connected over a short line, (default value).

The extension is not to have any special instrument categories.

It is a normal extension so it can only handle the bearer services speech and 3.1-kHz audio. Request for A-number from the PSTN is restricted. Presentation of extension number is not allowed over the PSTN. Calls are metered per extension. The extension can initiate malicious call tracing. Manual message waiting is allowed. The extension is permitted to transfer and accept transfers of outgoing calls. No CIL check is required for authorization code outgoing calls. As the extensions directory number is included in the public number series the number is permitted to be sent to the public network.

<pre>EXTEI:DIR=4525,CAT=4,TYPE=EL6,EQU=1A-0-70-3, ADC=001111301, ICAT=0000000; EXECUTED</pre>

7.10.6

EXAMPLE 4 (INITIATE AN EXTENSION WITH CUSTOMER AFFILIATION)

Initiate a primary extension with directory number 4491 in server 1, gateway C, board position 70, and individual 3.

The extension shall be connected to an extension board administered by function block EL6.

Extension categories for TRAF, SERV, CDIV, and ROC shall be those stated in common category code CAT 5.

The extension is affiliated to customer 13.

For ADC and ICAT, default values are used.

<pre>EXTEI:DIR=4491,TYPE=EL6,EQU=1C-0-70-3,CAT=5,CUST=13; EXECUTED</pre>
--

7.10.7

EXAMPLE 5 (INITIATE A SECONDARY EXTENSION WITH CAT)

Initiate a secondary extension with directory number 4550 to board position 70 on server 1 and gateway C. The extension has to use individual 3 on the board. The extension's categories for TRAF, SERV, CDIV, and ROC are to be those given in the common category code CAT 5.

It is a normal extension, so it can only handle the bearer services speech and 3.1-kHz audio. The features request A-number from the PSTN and extension number presentation category are not used in the system. Calls are metered on a route basis. The extension is not permitted to initiate malicious call tracing. The extension is not permitted to use manual message waiting. No CIL check is needed when authorization code is used. The extension number is permitted to be sent to the public exchange if it requests the identity of A-party.

As the extension is secondary the primary extension categories will be used. The categories for the secondary extension are first valid after the extension has been promoted to a primary extension.

The extension is not permitted to use manual message waiting. No CIL check is done when authorization code is used. As the system is unable to distinguish between secondary and primary extension, the category of the primary extension is used during traffic **from** the secondary extension.

The category of the secondary extension is used during traffic **to** the secondary extension.

```
EXTEI:AUX=4550,EQU=1C-0-70-3,CAT=5,ADC=000000001;
EXECUTED
```

7.10.8

EXAMPLE 6 (INITIATE AN EXTENSION WITH LIMITED CALL COST)

Initiate a primary extension with directory number 4491 in server 1, gateway A, magazine 0, board position 70, and individual 0.

The extension shall be connected to an extension board administered by function block EL6.

Extension categories for TRAF, SERV, CDIV, and ROC shall be those stated in common category code CAT 5.

The extension is allowed to use only 300 pulses.

For ADC and ICAT, default values are used.

```
EXTEI:DIR=4491,TYPE=EL6,EQU=1A-0-70-0,CAT=5,MCOST=300;
EXECUTED
```

7.10.9

EXAMPLE 7 (INITIATE AN EXTENSION WITH TRANSFER ON INTRUSION PERMISSION)

Initiate a primary extension with directory number 4525 to board position 70. The extension's categories for TRAF, SERV, CDIV, and ROC are to be those stated in the common category code CAT 4. The extension is permitted to accept transferred outgoing external public calls and permitted to transfer the call to an intruded extension

```
EXTEI:DIR=4525,CAT=4,TYPE=EL6,EQU=1A-0-70-3,
ADC=001111A01,ICAT=00000000;
EXECUTED
```

7.10.10 COMMAND CATEGORY

Dangerous = **No**

8

GD - GROUP DO NOT DISTURB

8.1

GDNDE

Group do not disturb end

8.1.1

FORMAT

GDNDE: $\left[\begin{array}{l} \text{DIR=} \\ \text{GRP= ,ANSPOS=} \end{array} \right];$

ANSPOS = Directory number.

DIR = Directory number.
& And && are permitted for this parameter.

GRP = Group do not disturb group number.

8.1.2

FUNCTION

The command is used to remove an extension from the group do not disturb group. It is also used to remove an answering position defined for the group.

8.1.3

EXAMPLE

Set directory numbers 4498, 4434 and 4845 as non-members of group do not disturb.

GDNDE: DIR=4498&4434&4845;
EXECUTED

8.1.4

COMMAND CATEGORY

Dangerous = **No**

8.2

GDNDI

Group do not disturb initiate

8.2.1

FORMAT

GDNDI:GRP= [,DIR=][,ANSPOS=];

ANSPOS = Directory number to which, calls to the GDND group member should be forwarded.

DIR = Directory number.
& And && are permitted for this parameter.

GRP = Group do not disturb group number.

8.2.2 FUNCTION

The command is used to initiate an extension in a group do not disturb group.

The command is also used to define an answering position for the GDND group. Calls' to a member of this group, shall be forwarded to the answering position, when do not disturb is active, for the group. When a new answering position is defined, the previous answering position for that group shall be replaced with the new one.

When a primary extension number is stated all secondary numbers are set as members of the group. Secondary numbers cannot be stated.

An answering position for a night-switched exchange shall not be affiliated to a group do not disturb group.

8.2.3 EXAMPLE

Initiate directory numbers 4498, 4434, 5196 and 4845 and answering position as 4456 in group do not disturb group number 10.

```
GDNDI:GRP=10, DIR=4498&4434&5196&4845,ANSPOS=4456;
EXECUTED
```

8.2.4 COMMAND CATEGORY

Dangerous = **No**

8.3 GDNDP

Group do not disturb print

8.3.1 FORMAT

GDNDP: $\left[\begin{array}{l} \text{GRP=} \\ \text{DIR=} \end{array} \right];$

DIR = Directory number.
& and && are permitted for this parameter.

GRP = Group do not disturb group number. F
& and && are permitted for this parameter.

8.3.2 FUNCTION

The command is used to print group do not disturb groups and the associated extensions directory numbers and if defined, the answering position for the associated group.

Note: The directory numbers are not sorted in numerical order. Secondary numbers will not be printed.

8.3.3

PRINTOUT 1 (GRP)

GROUP DO NOT DISTURB DATA		
GRP	DIR	ANSPOS
...	.	.
	.	.
	.	.
END		

8.3.4

PRINTOUT 2 (DIR)

GROUP DO NOT DISTURB DATA		
DIR	GRP	ANSPOS
...	.	.
	.	.
END		

8.3.5

EXAMPLE 1

Print out data for group 10

GDNDP:GRP=10;		
GROUP DO NOT DISTURB DATA		
GRP	DIR	ANSPOS
10	4434	4456
	4498	
	5196	
END		

Group do not disturb group number 10 consists of extensions with the following directory numbers 4434, 4498, 5196 and answering position as 4456.

8.3.6

EXAMPLE 2

Print out the group do not disturb groups of which the extensions 4434, 4498 and 4550 are members and their answering positions. Group 10 and group 11, has answering positions as 4499 and 4458 respectively.

GDNDP: DIR=4434&4498&4550;		
GROUP DO NOT DISTURB DATA		
DIR	GRP	ANSPOS
4434	10	4499
4498	10	4499
4550	11	4458
END		

8.3.7 COMMAND CATEGORY

Dangerous = **No**

9

GH - INTERNAL GROUP HUNTING

9.1

GHCAC

Group hunting category change

9.1.1

FORMAT

GHCAC:GRP=[,SERV=[,TRAF=[,SEL=[,QUE=[,RGTIME=[,CLT=];

CLT =	Clerical time.
GRP =	Group number. Directory number of internal group hunting group. & and && are permitted for this parameter.
QUE =	Queue length. Queue length states the maximum number of queuing calls towards the group.
RGTIME =	Ringing time.
SEL =	Selection category.
SERV =	Service category.
TRAF =	Traffic category. Traffic category of the group hunting group.

9.1.2

FUNCTION

The command is used to alter the category characteristics of an internal group hunting group. A group comprises a number of extensions that have been assigned a common call number. When the common number is called, a free member of the group is selected. The call is signaled on the telephone of the chosen member.

The categories to be altered for the entire group are stated for the group:

- whether direct in-dialing traffic to the group is permitted
- whether recall to the operator is permitted for calls extended to the group
- whether the selected member or the group is to be displayed for the calling party. The group option is only valid when the selected number is a generic extension.
- whether music-on-wait is provided
- whether the group is permitted to accept collect calls (Brazil)
- whether automatic extending to busy Group Hunt group is permitted or not
- whether generic extension is marked as available/unavailable
- to which traffic group the group shall belong
- hunting order for selection of free members, including cascade ringing
- whether internal calls towards the group shall be queued or not
- whether calls to a group hunt group are permitted/not permitted to divert
- maximum number of simultaneous calls to an external destination
- maximum number of queuing calls towards the group
- activation/deactivation of external follow me or Diversion of the group number shall not be allowed for the members

- the ringing time for the member in Hunt Group.
- the clerical time for Hunt Group.

In alteration of previously initiated categories those parameters of SERV, TRAF, SEL, QUE or RGTIME that are to be altered are to be stated. The previous values of non-stated parameters are retained.

At least one of the parameters SERV, TRAF, SEL, QUE or RGTIME must be stated.

Note: The parameters LIM and CUST cannot be changed with this command, they have to be set at initiation. Turning off clerical time, i.e. setting CLT=0, is not allowed for cascade ring group.

9.1.3

EXAMPLE

Alter the category characteristics for the group with directory number 8000 so that direct in-dialling traffic is forbidden. Recall to the operator is permitted for calls extended to the Hunt Group. Music-on-wait shall be provided only if recorded announcement is provided.

When a member is selected the group number and name shall be displayed for the calling party. The group is not permitted to accept collect calls (Brazil). The Group Hunt group allows automatic extending of queued calls to busy Group hunt group. The member when generic is made unavailable for 3 minutes if the incoming call is not answered within the ringing time. Hereafter the group shall have traffic group 8 and the selection order for free members shall use the sequential method, that is, in the order in which members have been initiated into the group.

Internal calls towards the group shall be queued.

Calls to a group hunt group are not permitted to divert when all group members are unavailable. Maximum number of simultaneous calls to an external destination is set to 15. Group members shall not be allowed to activate external follow-me or Diversion for the group number.

The number of calls in the queue for the group shall be maximum 5. Clerical time is not used, so the CLT parameter is set to 0.

```
GHCAC:GRP=8000,SERV=0012010,TRAF=8,SEL=011150,QUE=5,CLT=0;
EXECUTED
```

9.1.4

COMMAND CATEGORY

Dangerous = **No**

9.2

GHDAP

Group hunting data print

9.2.1

FORMAT

GHDAP:GRP=[,SORT=];

GRP = Group number. Directory number of internal group hunting group.
ALL, & and && are permitted for this parameter.

SORT = Sorting method. States whether printout of the group members shall be done in number order or initiated order.
If the parameter is omitted the printout will be in number order.

9.2.2

FUNCTION

The command is used to print out data for an internal group hunting group. A group comprises a number of members (extensions) that have been assigned a common call number, the directory number of the group. When this number is called, a free member of the group will be selected. The call is then signaled on the telephone of the selected member.

Note: Printing all groups is a CPU- and memory-consuming task, which can result in High CPU load alarm.
This is especially the case if the maximum number of groups is initiated.

9.2.3

PRINTOUT

GROUP HUNTING DATA										
GRP	LIM	SERV	TRAF	SEL	QUE	RGTIME	CLT	CUST	DIR	MEM STAT
...
...								
END										

CLT	Clerical time. If the parameter is omitted the group will get the default 5 second clerical time.
CUST	Customer number. If the parameter is omitted the group will not be assigned to a customer number.
DIR	Directory number of group member.
LIM	LIM number. The number of the LIM in which the group's data is to be placed.
MEM STAT	Member status in group. FREE, available in group and free to take calls. BUSY, available in group but currently busy, or clerical time is active. UNAVAILABLE, unavailable and can not take calls. UNAVAILABLE BY PROC., unavailable by user action and can not take calls.
QUE	Queue length. Queue length states the maximum number of queuing calls towards the group.
RGTIME	Ringing time.
SEL	Selection category.
SERV	Service category.
TRAF	Traffic category. Traffic category of the group hunting group.

9.2.4

EXAMPLE 1

Print out data for internal group hunting group number 8000.

MDSH:GHDAP:GRP=6006000; GROUP HUNTING DATA										
GRP	LIM	SERV	TRAF	SEL	QUE	RGTIME	CLT	CUST	DIR	MEM STAT
6006000	1	1001000	15	-	210050	0	30	5	5000	FREE
									4493	FREE
									4494	FREE
									5023	FREE
END										

The internal group hunting group with directory number 8000 has members 4492 to 4494 and 5023. The group is affiliated to customer number 1. The group data are placed in LIM 1. The group is permitted to accept direct in-dialing traffic and the A-party will be charged on answer. Recall to the operator is permitted for calls extended to the Hunt Group. Music-on-wait shall not be provided to the calling party. The group is not permitted to accept collect calls (Brazil). The Group hunt group allows automatic extending of queued calls to busy Group hunt group. The Generic extension is not marked unavailable even if the call is not answered within the ringing time. The traffic switching class is traffic group 9. Free members of the group are hunted in sequential order i.e. in accordance with the order in which they were initiated into the group. Internal calls towards the group shall not be queued. Calls to a group hunt group are permitted to divert. Members of the group are not allowed to activate/deactivate external follow me or Diversion of the group number. Maximum number of simultaneous calls to an external destination is set to 15. Maximum 10 calls are permitted to queue concurrently towards the group. The ringing time for the member is 120 seconds. The clerical time is the default 5 seconds.

9.2.5

EXAMPLE 2

Print out data for internal group hunting group number 8000. Members shall be printed out in the order in which they were initiated.

GHDAP:GRP8000, SORT=1; GROUP HUNTING DATA										
GRP	LIM	SERV	TRAF	SEL	QUE	RGTIME	CLT	CUST	DIR	MEM STAT
8000	1	1000010	9	100000	10	120	5	1	5023	FREE
									4494	FREE
									4492	FREE
									4493	FREE
END										

9.2.6 EXAMPLE 3, CASCADE RING GROUP

Print out data for the cascade ring group (hunt group with parallel ringing on all free members) with number 8000. Members shall be printed out in the order in which they were initiated.

GHDAP:GRP8000, SORT=1; GROUP HUNTING DATA										
GRP	LIM	SERV	TRAF	SEL	QUE	RGTIME	CLT	CUST	DIR	MEM STAT
8000	1	1000010	9	200002	10	120	120	1	5023	FREE
									4494	FREE
									4492	FREE
									4493	FREE
									4495	FREE
END										

9.2.7 COMMAND CATEGORY

Dangerous = **No**

9.3 GHGME

Group hunting group member end

9.3.1 FORMAT

GHGME:GRP=,DIR=;

DIR = Directory number of group member.
ALL, & and && are permitted for this parameter.

GRP = Group number. Directory number of internal group hunting group.
& and && are permitted for this parameter.
If & or && is used in parameter GRP only ALL will be permitted in parameter DIR.

9.3.2 FUNCTION

The command is used to erase members from an internal group hunting group. A group comprises members who have been assigned a common call number.

After erasure of the last member of the group the group itself will still exist. The group that has no members has to be removed with the GHGRE command.

9.3.3 EXAMPLE

Extensions 4492 to 4496 and 5023 are members of an extension group with directory number 8000. These members shall be erased from the group.

```
GHGME:GRP=8000,DIR=4492&&4496&5023;  
EXECUTED
```

9.3.4 COMMAND CATEGORY

Dangerous = **No**

9.4 GHGMI

Group hunting group member initiate

9.4.1 FORMAT

GHGMI:GRP=,DIR=;

DIR = Directory number of group member.
& and && are permitted for this parameter

GRP = Group number. Directory number of internal group hunting group.

9.4.2 FUNCTION

The command is used to initiate members into an internal group hunting group. A group comprises a number of extensions who have been assigned a common call number. When the common number is called, a free member is selected from the group's members. The call is signaled on the telephone of the selected member.

9.4.3 EXAMPLE

Initiate extensions 5023, 4496, 4494, 4492, 4493 and 4495 as members of internal group hunting group 8000. The order in which the extensions are initiated is important if sequential selection has been selected for the group.

GHGMI:GRP=8000,DIR=5023&4496&4494&4492&4493&4495;
EXECUTED

9.4.4 COMMAND CATEGORY

Dangerous = **No**

9.5 GHGRE

Group hunting group end

9.5.1 FORMAT

GHGRE:GRP=;

GRP = Group number. Directory number of internal group hunting group.
& is permitted for this parameter.

9.5.2 FUNCTION

The command is used to erase internal group hunting groups. A group comprises members who have been assigned a common call number.

9.5.3 EXAMPLE

The internal group hunting group 8000 shall be erased.

```
GHGRE:GRP=8000;
EXECUTED
```

9.5.4 COMMAND CATEGORY

Dangerous = **No**

9.6 GHGRI

Group hunting group initiate

9.6.1 FORMAT

**GHGRI:GRP=[,LIM=],SERV=,TRAF=,SEL=,QUE=[,CUST=]
[,RGTIME=][,CLT=];**

CLT =	Clerical time. If the parameter is omitted the group will get the default 5 second clerical time.
CUST =	Customer number. If the parameter is omitted the group will not be assigned to a customer number.
GRP =	Group number. Directory number of internal group hunting group.
LIM =	LIM number. The number of the LIM in which the group's data is to be placed. If the parameter is omitted the data of the group will be placed in the LIM with the minimum number of internal group hunting group numbers.
QUE =	Queue length. Queue length states the maximum number of queuing calls towards the group.
RGTIME =	Ringing time.
SEL =	Selection category.
SERV =	Service category.
TRAF =	Traffic category. Traffic category of the internal group hunting group.

9.6.2 FUNCTION

The command is used to initiate an internal group hunting group, the customer the group shall belong to and the group's category characteristics. A group comprises a number of extensions that have been assigned a common call number. When the common call number is called a free member of the group will be selected. The call is then signaled on the telephone of the selected member.

If the customer group function is used in the PBX, the group shall be affiliated to a customer with this command.

The categories that shall apply for the group are stated:

- whether direct in-dialing traffic is permitted to the group
- whether recall to the operator is permitted for calls extended to the group
- whether music-on-wait is provided to calling party
- whether the selected member or the group shall be displayed for the calling party. The group option is only valid when the selected number is a generic extension.
- whether the group is permitted to accept collect calls (Brazil)
- whether automatic extending to busy Group Hunt group is permitted or not
- which traffic group the group shall belong to
- search order for selection of free members
- whether internal calls towards the group shall be queued or not
- whether calls to a group hunt group are permitted/not permitted to divert
- maximum number of simultaneous calls to an external destination
- maximum number of queuing calls towards the group
- whether members of the group are allowed to activate/deactivate external follow me or diversion of the group number
- ringing time of the member in Hunt group
- clerical time settings for Hunt group

9.6.3

EXAMPLE 1

Initiate an internal group hunting group with directory number 8000. The group number shall be affiliated to customer number 1. The group's data will be placed in LIM number 1. Direct in-dialing traffic shall be permitted to the group number. Recall to the operator is not permitted for calls extended to the Hunt Group. Music-on-wait shall not be provided.

When a group member is selected its data shall be displayed for the calling party. The group is permitted to accept collect calls (Brazil). The Group Hunt group allows automatic extending of queued calls to busy Group hunt group. The member when Generic is made unavailable for 3 minutes if the incoming call is not answered within the ringing time. The group shall belong to traffic group 9. Searching for a free member shall be according to the even load principle, that is, the member who has been free longest according to the free list. Internal calls towards the group shall be queued.

Calls to a group hunt group are not permitted to divert when the queue is full. Maximum number of simultaneous calls to an external destination is set to 0. Members of the group are not allowed to activate/deactivate external follow me or diversion of the group number. The maximum number of queuing calls towards the group shall be 10. The ringing time for the extension is 120 seconds. The customer number shall be 1. The default clerical time of 5 seconds shall be valid, so the CLT parameter is excluded.

```
GHGRI:GRP=8000,LIM=1,SERV=1100110,TRAF=9,SEL=112000,
QUE=10,RGTIME=120,CUST=1;
EXECUTED
```

9.6.4

EXAMPLE 2

Initiate an internal group hunting group with directory number 8002. The group's data will be placed in LIM number 2. It is not necessary to affiliate the group number to any specific customer. Direct in-dialing to the group number shall be permitted. Recall to the operator is permitted for calls extended to the Hunt Group. Music-on-wait shall be provided if recorded announcement is provided.

When a group member is selected the group name and number shall be displayed for the calling party when the selected member extension is generic. The group is not permitted to accept collect calls (Brazil). The Group Hunt group doesn't allow automatic extending of queued calls to busy group hunt group. The Generic extension is not marked unavailable even if the call is not answered within ringing time.

The group shall belong to traffic group 9. Hunting for a free member shall be on a selection of extension who has been free longest basis, i.e. in accordance with a free list. Internal calls towards the group shall not be queued. Calls to a group hunt group are not permitted to divert. Members of the group are not allowed to activate/deactivate external follow me or diversion of the group number.

Maximum number of simultaneous calls to an external destination is set to 0. The maximum number of permitted queuing calls towards the group shall be 10. The default ringing time for the extension is 30 seconds. Customer numbers are not used. The clerical time shall be 60 seconds.

```
GHGRI:GRP=8002,LIM=2,SERV=1012001,TRAF=9,SEL=103000,  
QUE=10, CLT=60;  
EXECUTED
```

9.6.5

EXAMPLE 3

Initiate an internal group hunting group with directory number 09. The group's data will be placed in LIM number 1. It is not necessary to affiliate the group number to any specific customer. Direct in-dialing to the group number shall be permitted. Recall to the operator is not permitted for calls extended to the Hunt Group. Music-on-wait shall be provided.

The name and number of a called group member shall be displayed for the calling party. The group is not permitted to accept collect calls (Brazil). The Group Hunt group allows automatic extending to queued calls to busy Group hunt group. The group shall belong to traffic group 9. Hunting for a free member shall be on a selection of extension which has been free longest basis, that is, in accordance with a free list. Internal calls towards the group shall not be queued.

Calls to a group hunt group are permitted to divert. Members of the group are allowed to activate/deactivate external follow me or diversion of the group number. Maximum number of simultaneous calls to an external destination is set to 15. The maximum number of permitted queuing calls towards the group shall be 5. The default ringing time for the extension is 30 seconds. No clerical time shall be used.

```
GHGRI:GRP=09,LIM=1,SERV=1101011,TRAF=9,SEL=100152,  
QUE=5,CLT=0;  
EXECUTED
```

9.6.6

EXAMPLE 4, CASCADE RING GROUP

Initiate a cascade ring group (hunt group with parallel ringing on all free members) with directory number 12300. The group's data will be placed in LIM number 1. It is not necessary to affiliate the group number to any specific customer. Direct in-dialing to the group number shall be permitted. Recall to the operator is not permitted for calls extended to the group. Music-on-wait shall be provided. Automatic extending to queue is not permitted. Member not answering shall become unavailable for a while. The group is not permitted to accept collect calls (Brazil).

The group shall belong to traffic group 9. All free members shall ring simultaneously (in parallel). Internal calls towards the group shall be queued. Calls to a ring group are permitted to divert. Members of the group are allowed to activate/deactivate external follow me or diversion of the group number. Maximum number of simultaneous calls to an external destination is set to 15. The maximum number of permitted queuing calls towards the group shall be 5. The clerical time shall be 2 minutes, i.e. 120 seconds.

Note: A cascade ring group (hunt group with simultaneous/parallel ringing on all free members) must always have one or more queue positions. The cascade ring group must also have clerical time of minimum 5 seconds.

```
GHGRI:GRP=12300,LIM=1,SERV=1101000,TRAF=9,SEL=210152,  
QUE=5,CLT=120;  
EXECUTED
```

9.6.7

COMMAND CATEGORY

Dangerous = **No**

10 GP - GROUP CALL PICKUP

10.1 GPAGE

Group call pickup answer group end

10.1.1 FORMAT

GPAGE:GRP=[, CUST];

GRP = Group number. A sequence number.
& and && are permitted for this parameter.

CUST = Customer number.
If the parameter is omitted, a default value will be used.

10.1.2 FUNCTION

The command is used to erase all answer groups from a call pickup group. A call pickup group comprises a number of extensions (members) that have been assigned a common group number (sequence number). A member in a group can pick up a call to other members in the same group by dialing a code on the telephone. The member shall be able, if no call exists to own pickup group, to pick up calls from maximum four other groups, so called "alternative answer groups". Affiliation back to the main group in the answer groups is removed automatically. See also figure for command GPDAP.

10.1.3 EXAMPLE

Erase all answer groups from the call pickup group with sequence number 321.

GPAGE:GRP=321; EXECUTED

10.1.4 COMMAND CATEGORY

Dangerous = **No**

10.2 GPAGI

Group call pickup answer group initiate

10.2.1 FORMAT

GPAGI:GRP=,AGRP=[,CUST=];

AGRP = Alternative answer group number.
& and && are permitted for this parameter.

CUST = Customer number.
If the parameter is omitted, a default value will be used.

GRP = Group number. A sequence number.

10.2.2

FUNCTION

The command is used to affiliate maximum 4 answer groups to a call pickup group. A call pickup group consists of a number of extensions (members) that have been assigned a sequence number. A member in a group can answer calls to other members in the same group by dialling a predetermined code on the telephone.

The order of priority for answering calls to a call pickup group is:

1. Call to own group
2. Call to answer group in the sequence in which the answer groups have been affiliated to the call pickup group.

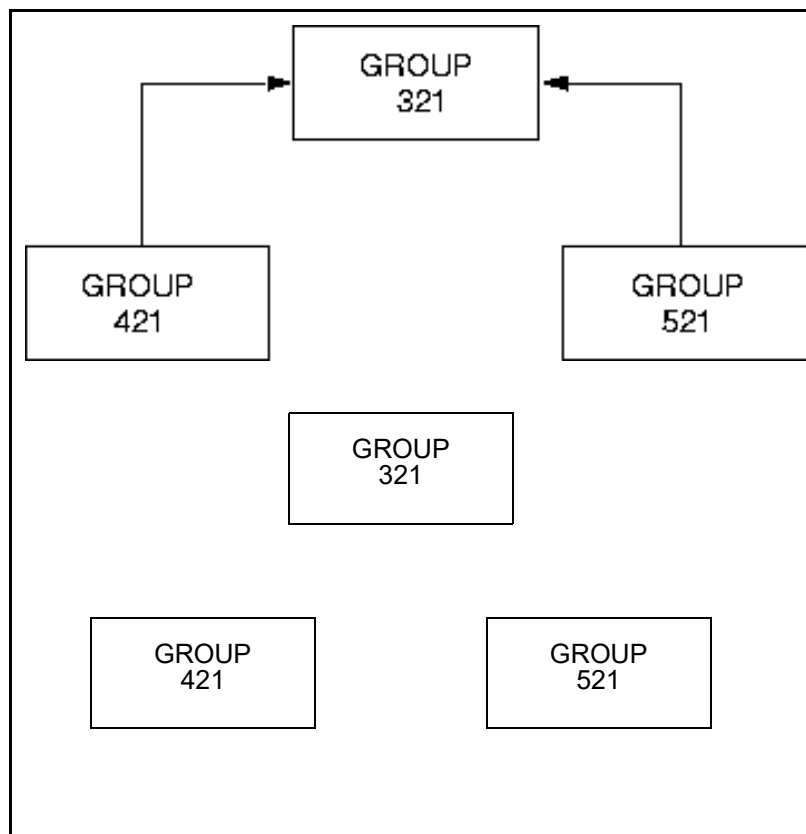
10.2.3

EXAMPLE

Affiliate the call pickup groups with sequence numbers 421 and 521 as alternative answer groups to the call pickup with sequence number 321.

GPAGI:GRP=321,AGRP=421&521; EXECUTED

See also figure below.



Members of group 321 can also answer calls to groups 421 and 521.

10.2.4 COMMAND CATEGORY

Dangerous = **No**

10.3 GPDAP

Group call pickup data print

10.3.1 FORMAT

GPDAP: $\left\{ \begin{array}{l} \text{GRP}=[, \text{CUST}=] \\ \text{DIR}= \end{array} \right\};$

DIR = Directory number of member.
& and && are permitted for this parameter.

CUST = Customer number.
If the parameter is omitted, a default value will be used.

GRP = Group number. A sequence number.
&, && and ALL are permitted for this parameter.

10.3.2

FUNCTION

The command is used to print out data of call pickup groups. A call pickup group consists of a number of extensions (members) that have been assigned a sequence number. A member of a group can answer calls to other members in the same group by dialing a code on the telephone. If no call exists to "members" own group members can answer calls to maximum four other groups, so called "alternative answer groups".

Printouts of data can be achieved in different ways:

- If parameter GRP is stated information will be obtained from the stated groups. A printout is obtained stating in which LIM the call pickup group data exists which extensions are members of the group. It is also stated whether the call pickup group has any answer groups (AGRP) affiliated to it or whether it is affiliated as answer group to any other group(s) (MGRP).
- If parameter DIR is stated a printout is obtained of the group of which the stated directory number is a member.

10.3.3 PRINTOUT 1 (GRP)

GROUP CALL PICKUP DATA					
GRP	LIM	CUST	DIR	AGRP	MGRP
.
.
.
END					

AGRP Alternative answer group number for call pickup group.

LIM LIM number (of group).

MGRP Main group for call pickup group.

10.3.4 PRINTOUT 2 (DIR)

GROUP CALL PICKUP DATA			
DIR	GRP	CUST	ANSPOS
.	.	.	.
.	.	.	.
.	.	.	.
END			

ANSPOS Alternative answer group number for call pickup group.

10.3.5 EXAMPLE 1

Print out data for call pickup group with sequence number 321.

GPDAP:GRP=321;					
GROUP CALL PICKUP DATA					
GRP	LIM	CUST	DIR	AGRP	MGRP
321	1	1	3456	421	221
		1	3457	521	
		1	3458		
END					

Extensions 3456-3458 are members of call pickup group 321 with customer number 1 that is placed in LIM 1. The group has two answer groups: 421 and 521. In its turn group 321 serves as answer group for group 221.

See also Figure 1.

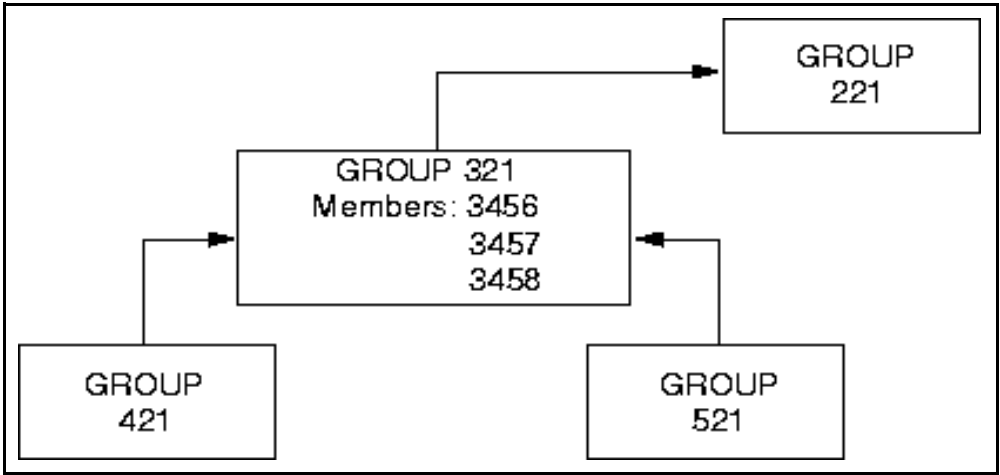
10.3.6 EXAMPLE 2

Print out the call pickup group of which extension 3456 is a member:

GPDAP:DIR=3456;

GROUP CALL PICKUP DATA			
DIR	GRP	CUST	ANSPOS
3456	321	1	3657
END			

Extension 3456 with customer number 1 is included in the call pickup group with sequence number 321 and customer group is 1.



Members in group 321 can also answer calls to groups 421 and 521.
Members in group 221 can answer calls to group 321.

10.3.7 COMMAND CATEGORY

Dangerous = **No**

10.4 GPGME

Group call pickup member end

10.4.1 FORMAT

GPGME:GRP=,DIR=[,CUST=];

- CUST =** Customer number.
If the parameter is omitted, a default value will be used.
- DIR =** Directory number of member.
&, && and ALL are permitted for this parameter. If & or && is stated in parameter GRP only ALL will be permitted for DIR.
- GRP =** Group number. A sequence number.
&, && are permitted for this parameter.

10.4.2 FUNCTION

The command is used for erasure of members from a call pickup group. A call pickup group consists of a number of extensions (members) that are assigned a common group number (sequence number). A member of a group can pick up calls to other members of the same group by dialing a code on the telephone.

10.4.3 EXAMPLE

Erase extensions 3456 and 3457 from the group possessing sequence number 321.

GPGME:GRP=321, DIR=3456&3457;
EXECUTED

10.4.4 COMMAND CATEGORY

Dangerous = **No**

10.5 GPGMI

Group call pickup member initiate

10.5.1 FORMAT

GPGMI:GRP=, DIR=[,CUST=];

CUST = Customer number.
If the parameter is omitted, a default value will be used.

DIR = Directory number of member.
& and && are permitted for this parameter.

GRP = Group number. A sequence number.

10.5.2 FUNCTION

The command is used to initiate extensions as members of a call pickup group. A call pickup group consists of a number of extensions (members) assigned a common group number (sequence number). A member of a group can pickup calls to other members of the same group by dialling a procedure on the telephone.

10.5.3 EXAMPLE

Initiate extensions 3456-3458 as members of a call pickup group with sequence number 321.

GPGMI:GRP=321, DIR=3456&&3458;
EXECUTED

10.5.4 COMMAND CATEGORY

Dangerous = **No**

10.6 GPGRE

Group call pickup group end

10.6.1 FORMAT

GPGRE:GRP=[,CUST=];

CUST = Customer number.
If the parameter is omitted, a default value will be used.

GRP = Group number. A sequence number.
& is permitted for this parameter.

10.6.2 FUNCTION

The command is used for erasure of call pickup groups. A call pickup group consists of a number of extensions (members) that are assigned a common group number (sequence number). A member of a group can pick up calls to other members of the same group by dialling a code on the telephone. If the group is affiliated to other groups as answer group or as answer group to other groups the affiliations between these groups will be erased.

10.6.3 EXAMPLE

Erase the call pickup group possessing sequence number 321.

GPGRE:GRP=321;
EXECUTED

10.6.4 COMMAND CATEGORY

Dangerous = **No**

10.7 GPGRI

Group call pickup group initiate

10.7.1 FORMAT

GPGRI:GRP=,LIM=[, CUST=];

CUST = Customer number.

GRP = Group number. A sequence number.

LIM = LIM number.

10.7.2

FUNCTION

The command is used to initiate a call pickup group. A call pickup group consists of a number of extensions (members) assigned a common group number (sequence number). A member of a group can pickup calls to other members of the same group by dialling a procedure on the telephone.

10.7.3

EXAMPLE

Initiate call pickup group with sequence number 321 in LIM 1.

GPGRI:GRP=321,LIM=1; EXECUTED

10.7.4

COMMAND CATEGORY

Dangerous = **No**

11

IC - INFORMATION SYSTEMS

11.1

ICFUC

Information computer function change.

11.1.1

FORMAT

ICFUC:[UPDTIM=][,MWF=],IFCIND=[,DFMT=][,ICEXG=][,UPDFCN=][,FILLER=];

DFMT =	Directory number format. Format (number of digits) of directory number in the signal interface.
FILLER =	Filler character value. States filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
ICEXG =	Information system own exchange ID.
IFCIND =	Information computer individual. Information system serial number.
MWF =	Message waiting function. Scope of initiated message waiting function.
UPDFCN =	Updating function. States whether the information system can supply update information to the exchange.
UPDTIM =	Updating start time. Time for start of the automatic 24-hour update of the exchange message information.

11.1.2

FUNCTION

The command is used to change data as follows:

- Time for start of the automatic 24-hour update of the exchange message information.
- The types of extensions that can receive notifications of message waiting, or if the notification function should be blocked, which means no extensions receive notifications.

The following data may be changed for a specific IFCIND. If the IFCIND has been initiated as generic the format of the directory number and the filler character value are not permitted:

- The format (number of digits) of the directory number in the signal at the interface between the information computer and exchange.
- The information system own exchange ID.
- Whether the information system can supply update information to the exchange.
- Filler character value used to pad directory numbers sent across the interface between the exchange and the information system.

11.1.3

EXAMPLE 1

The start time for the automatic 24-hour update is to be changed to 02:30. All types of extensions are to be capable of receiving message waiting notification.

For the information system with serial number 6, the format of directory number in the interface is to be altered to 10 digits.

The information system shall supply update information.

The filler character value shall be altered to 48 (decimal ASCII value for the zero character).

```
ICFUC:UPDTIM=02-30,MWF=ALL,IFCIND=6,DFMT=10,
UPDFCN=YES,FILLER=48;
EXECUTED
```

11.1.4

EXAMPLE 2

Alter the message waiting function for all connected information systems so that no extensions receive notification of message waiting.

```
ICFUC:MWF=NONE;
EXECUTED
```

11.1.5

EXAMPLE 3

For the information system with serial number 5, alter the exchange ID to 33000 in order to prefix for UNP number.

```
ICFUC:IFCIND=5,ICEXG=33000;
EXECUTED
```

11.1.6

COMMAND CATEGORY

Dangerous = **No**

11.2

ICFUE

Information computer function end

11.2.1

FORMAT

ICFUE:IFCIND=;

IFCIND = Information computer individual. Information systems serial number.

11.2.2

FUNCTION

This command is used to end the information system function.

11.2.3

EXAMPLE

Erase the information system function with serial number 6.

ICFUE:IFCIND=6; EXECUTED

11.2.4 COMMAND CATEGORY

Dangerous = **No**

11.3 ICFUI

Information computer function initiate

11.3.1 FORMAT

ICFUI:IFCIND= $\left[\begin{array}{l} \text{ISTYPE=, INTTYP=, LIM=, RATE=, PARITY=, TXC=, CCHECK=, UPDFCN= [, FILLER]} \\ \text{ISTYPE=, INTTYP=, IP=, LIM=, RPORT=, DFMT=, UPDFCN= [FILLER=]} \\ \text{ISTYPE=, INTTYP=, IP=, LIM=, LPORT=} \\ \text{USER=, LIM=} \end{array} \right]$

Only single values are permitted for all parameters.

CCHECK = Character check. States whether a character check shall be performed in the signal at the interface between the exchange and the information system, regarding parity, character overlay and transmission speed error.

DFMT = Directory number format. Format (number of digits) for the directory number in the signal at the interface between the information system and the exchange.

FILLER = Filler character value. States filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
If the parameter is omitted, the default value is set to character @.

IFCIND = Information computer individual. Sequence number for relevant information system.

INTTYP = Interface type. The parameter states the interface type used to connect the information system.

IP = IP address. Identifies the IP address of the network interface where it is desired to initiate the remote information computer connection point for the link.

ISTYPE = Information System type. The parameter states the type of information system.

LIM = LIM number. LIM where the information computer function is initiated.

LPORT = Local server port number. Identifies the local port number on which the server will bind.

PARITY = Parity check. States the form of parity check to be used in the signal interface between the exchange and the information system.

RATE = Bit rate in bps. Data transfer rate in bps in the signal at the interface between the exchange and the information system.

- RPORT =** Remote server port number. Identifies the remote server port where the information computer connection is to be initiated. Only single values are allowed for this parameter.
- UPDFCN =** Updating function. States whether the information system can supply updating information to the exchange.
- USER =** User name. The parameter states that the information system is generic. No signal interface channel characteristics is defined since they are embedded in call signaling protocols.

Note: Default values for databits (8) and stopbit (1) is used.

11.3.2

FUNCTION

This command achieves initiation of the information system function and defines:

- The information system serial number.
- The LIM number of the LIM that communicates with an information computer.
- The information system port number.
- The information system IP number.
- The information system format for the directory number, that is, the number of digits sent by the information system and expected as a directory number.
- Whether the information system can supply update information to the exchange.
- Filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
- Whether the information system is generic (IP extension voice mail system).
- The information system service type.
- The interface type used to connect to the information system.
- Data transfer rate in the signal interface between the exchange and information system.
- The type of parity check to be applied in the signal interface.
- Whether transmit control is to be applied in the signal interface.
- Whether a character check is to be applied in the signal interface.

11.3.3

EXAMPLE 1

Initiate the information system function with:

- 6 as serial number for the information system.
- Interception computer as interception service type.
- Ethernet as interface type.
- LIM 1 is used for communication with an information computer.
- Connection to remote server port number 9777.
- Connection to IP address 192.168.2.114.
- 5 digits as format for the directory number in the signal interface between the information system and the exchange.
- Updating function switched on.

- The filler character value shall be 64 (decimal ASCII value for character @).

```
ICFUI:IFCIND=6,ISTYPE=1,INTTYP=1,LIM=1,RPORT=9777,
IP=192.168.2.114,DFMT=5,UPDFCN=YES,FILLER=64;
EXECUTED
```

11.3.4

EXAMPLE 2

Initiate the information system with:

- 5 as serial number for the information system.
- The main Generic functionality is located in LIM 4.
- Generic user (no signal interface characteristics are set).

```
ICFUI:IFCIND=5,ISTYPE=2,INTTYP=1,USER=GENERIC; LIM=4;
EXECUTED
```

11.3.5

EXAMPLE 3

Initiate the information system (ANCD server) with:

- 4 as serial number for the information system.
- ANCD Server as interception service type.
- Ethernet as interface type.
- LIM 1 is where the server will be started.
- Server shall bind to the local port number 9565.
- Connection to IP address 192.168.25.114.

```
ICFUI:IFCIND=4,ISTYPE=3,INTTYP=1,LIM=1,LPORT=9565,
IP=192.168.25.114;
EXECUTED
```

11.3.6

EXAMPLE 4

Initiate the information system with:

- 7 as serial number for the information system.
- Voice Mail System as interception service type.
- V.24 interface as the interface type.
- LIM 1 is used for communication with an information computer.
- Data speed is 600 bit/s with even parity, transmission control, character check set.
- 5 digits as format for the directory number in the signal interface between the information system and the exchange.
- Updating function switched on.
- The filler character value shall be 64 (decimal ASCII value for character @).

ICFUI:IFCIND=7,ISTYPE=2,INTTYP=0,LIM=1,RATE=600,
PARITY=EVEN,TXC=YES,CCHECK=YES,DFMT=5,UPDFCN=YES,FILLER=64;
EXECUTED

11.4

ICFUP

Information computer function print

11.4.1

FORMAT

ICFUP[:IFCIND=];

IFCIND = Information computer individual. Individual number for the relevant information system.

11.4.2

FUNCTION

This command is used for printing data on initiated information systems. If the IFCIND parameter is omitted, data is printed for all information systems.

11.4.3

PRINTOUT

INFORMATION COMPUTER COMMON FUNCTIONS DATA											
UPDATING START TIME IS...											
MESSAGE WAITING FUNCTIONALITY IS <..., NOT VALID>											
INFORMATION COMPUTER EQUIPMENT DATA											
IFCIND	ISTYPE	INTTYP	LIM	IP:RPORT		IP:LPORT		DFMT	UPDFCN		FILLER
...
IFCIND	ISTYPE	INTTYP	LIM	RATE	DFMT	UPDFCN	PARITY	CCHECK	TXC	FILLER	ICEXG
...
END											

- CCHECK**
DFMT
FILLER
FUNCTIONALITY IS ...
ICEXG
- Character check. States whether a character check shall be performed in the signal at the interface between the exchange and the information system.
Directory number format. The format (number of digits) of the directory number in the signal interface between the information system and the exchange.
Filler character value. States filler character value used to pad directory numbers sent across the interface between the exchange and the information system.
For value, see the parameter MWF in the parameter description for MML parameters.
The information system ID of the own exchange.

INTTYP	Interface type. The parameter states the type of interface used for the information system.
IP	IP address Identifies the IP address of the network interface where it is desired to initiate the remote information computer connection point for the link.
ISTYPE	Information system type. The parameter states the type of information system.
LIM	LIM number. The LIM number of the LIM that resides on the exchange that shall communicate (GICI signalling) with the information computer defined by IP and RPORT.
LPORT	Local server port number identifies the local port where server will bind. Applicable to Information computer individual associated with ANCD only. Only single values are allowed for this parameter.
MESSAGE WAITING	The scope of the initiated message waiting function.
PARITY	Parity check. States the form of parity check to be used in the signal interface between the exchange and the information system.
RATE	Bit rate in bps. Data transfer rate in bps in the signal at the interface between the exchange and the information system.
RPORT	Remote server port number. Identifies the remote server port where the information computer connection is to be initiated. Only single values are allowed for this parameter.
TXC	Transmit control. States whether transmit control is to be applied in the signal interface between the exchange and the information system.
UPDATING START TIME IS...	The time for start of the automatic 24-hour update of the exchange message information. For value, see the parameter UPDTIM in the parameter description for MML parameters.
UPDATING START TIME IS NOT VALID	Printout obtained when a fault occurs in conjunction with a request for time signalling.
UPDFCN	Updating function. States whether the information system can provide update information to the exchange.
USER	User name. States the application name.

11.4.4

EXAMPLE 1

Print data for the information system with serial number 6.

```
ICFUP:IFCIND=6;
INFORMATION COMPUTER COMMON FUNCTIONS DATA
    UPDATING START TIME IS 01:30
    MESSAGE WAITING FUNCTIONALITY IS ALL
INFORMATION COMPUTER EQUIPMENT DATA
IFCIND  ISTYPE  INTTYP  LIM  IP:RPORT  IP:LPORT  DFMT  UPDFCN  FILLER  ICEXG  USER
06      1      1      1    153.88.40.85  :900      4      NO      64      700
END
```

The information system with serial number 6 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- Information system type as interception computer.
- Ethernet as type of interface.
- LIM number 1.
- Connection to IP address 153.88.40.85
- Connection to remote server port number 900.
- 4 digits as the format for the directory number in the signal interface between the information system and the exchange.
- Updating function not activated.
- Filler character value set to 64 (decimal ASCII value for character @).
- Information system ID set to 700.

11.4.5

EXAMPLE 2

Print data for the information system with serial number 9.

```
ICFUP:IFCIND=5;
INFORMATION COMPUTER COMMON FUNCTIONS DATA
    UPDATING START TIME IS 01:30
    MESSAGE WAITING FUNCTIONALITY IS ALL

INFORMATION COMPUTER EQUIPMENT DATA
IFCIND   ISTYPE   INTTYP   LIM   IP:RPORT   IP:LPORT   DFMT   UPDFCN   FILLER   ICEXG   USER
05       -       -       4    -         -         -     -       -       NONE   GENERIC

END
```

The information system with serial number 5 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- The main Generic functionality will be located in LIM 4.
- It has been initiated as a generic information system.
- No ID has been set in the command 11.1 ICFUC on page 110 ICFUC.

11.4.6

EXAMPLE 3

Print data for the information system with serial number 2.

```
ICFUP:IFCIND=2;
INFORMATION COMPUTER COMMON FUNCTIONS DATA
    UPDATING START TIME IS 01:30
    MESSAGE WAITING FUNCTIONALITY IS ALL

INFORMATION COMPUTER EQUIPMENT DATA
IFCIND   ISTYPE   INTTYP   LIM   RATE   DFMT   UPDFCN   PARITY   CCHECK   TXC   FILLER   ICEXG
02       2       0       1    600    5     YES     EVEN     YES     YES   64      NONE

END
```

The information system with serial number 2 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- It has been initiated as a generic information system in LIM 4.
- Voice Mail as type of information system.
- V.24 interface.
- LIM number 1.
- Data speed is 600 bits/s with even parity, transmission control, character check set.

- 4 digits as the format for the directory number in the signal interface between the information system and the exchange.
- No ID has been set.

11.4.7

EXAMPLE 4

Print data for all the information systems in an exchange.

ICFUP;											
INFORMATION COMPUTER COMMON FUNCTIONS DATA											
UPDATING START TIME IS 01:30											
MESSAGE WAITING FUNCTIONALITY IS ALL											
INFORMATION COMPUTER EQUIPMENT DATA											
IFCIND	ISTYP	INTTYP	LIM	IP:RPORT	IP:LPORT	DFMT	UPDFCN	FILLER	ICEXG	USER	
	E										
05	-	-	4	-	-	-	-	-	NONE	GENERIC	
IFCIND	ISTYP	INTTYP	LIM	RATE	DFMT	UPDFCN	PARITY	CCHECK	TXC	FILLER	ICEXG
	E										
02	2	0	1	1200	4	YES	EVEN	YES	YES	64	NONE
END											

There are two information systems, with serial number 5 and 2, initiated in the exchange:

The information system with serial number 5 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- Ethernet as type of interface.
- It has been initiated as a generic information system in LIM 4.
- No ID has been set in the command 11.1 ICFUC on page 110 ICFUC.

The information system with serial number 2 is initiated with:

- Updating start time set at 01:30 hours.
- Notification of message waiting on all extensions.
- Voice Mail as type of information system.
- V.24 interface.
- LIM number 1.
- Data speed is 1200 bits/s with even parity, transmission control, character check set.
- 4 digits as the format for the directory number in the signal interface between the information system and the exchange.
- No ID has been set.

11.4.8

COMMAND CATEGORY

Dangerous = **No**

11.5

ICMWC

Information computer message waiting data change

11.5.1

FORMAT

ICMWC:SID=[,DTXT=][,KFCN=][,DIG=];

DIG = Digit. Number information.

DTXT = Display text. Text shown on the IP extension display.

KFCN = Key function. Message waiting key function.

SID = Information system identity

11.5.2

FUNCTION

Alteration of data for message waiting. The parameters not required need not be stated.

At least one of the parameters DTXT, KFCN or DIG must be stated in the command. Parameter DIG shall be stated only when the key function is message waiting connection, otherwise it is to be omitted.

What is to be shown on the display of the IP extension and the function of the message waiting key are defined per information system.

A number (DIG) can be affiliated to the message waiting key so that when the key is depressed a call will be initiated to this number. Alternatively the key function can be defined so that on the key a signal will be transmitted from the exchange to the peripheral information system.

11.5.3 EXAMPLE

Display text E* 1* has been selected for information system identity 0. S is used to indicate a space. The function of the message waiting key shall be a call to the information system, with directory number 962.

```
ICMWC:SID=0,DTXT=E*S1*,KFCN=MWC,DIG=962;
EXECUTED
```

11.5.4 COMMAND CATEGORY

Dangerous = **No**

11.6 ICMWP

Information computer message waiting data print

11.6.1 FORMAT

ICMWP:SID=;

SID = Information system identity.
 &, && and ALL are permitted for this parameter.

11.6.2 FUNCTION

Print display text, message waiting key function, and (if any) the number information for the stated information system.

11.6.3 PRINTOUT

INFORMATION COMPUTER MESSAGE WAITING DATA			
SID	DTXT	KFCN	DIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

DIG Digit. Number information.

DTXT Display text. Text shown on display of the IP extension.

KFCN Key function. Message waiting key function.

11.6.4

EXAMPLE

Print information in respect of information identity 0.

ICMWP:SID=0;			
INFORMATION COMPUTER MESSAGE WAITING DATA			
SID	DTXT	KFCN	DIG
0	E*S1*	MWC	962
END			

The display text is E* 1*. A space is indicated with S. On depression of the message waiting key a call will be initiated to the information system, with directory number 962.

11.6.5

COMMAND CATEGORY

Dangerous = **No**

11.7

ICUPI

Information computer update initiate.

11.7.1

FORMAT

ICUPI[:IFCIND=];

ICUPI [:IFCIND=];

IFCIND = Information computer individual.

11.7.2

FUNCTION

This command achieves an update of the exchange message waiting information system. If the information system is an interception computer set up for message diversion, the message diversion connections will also be updated so that the exchange and the system agree.

Updating is executed from one information system at a time until all information systems have been dealt with.

Parameter IFCIND is used when it is desirable that only one information system shall provide update information.

If parameter IFCIND 16 (virtual information system) is specified, then existing virtual information system data will be erased.

If parameter IFCIND is omitted, then all the information systems, excluding virtual information system will be updated.

11.7.3

PRINTOUT 1

INFORMATION SYSTEM UPDATING SUCCESSFUL
END

This printout is obtained when the update of the information systems has been carried out satisfactorily.

11.7.4

PRINTOUT 2

```

INFORMATION SYSTEM UPDATING NOT SUCCESSFUL
IFCIND CHANNEL ERROR DETECTED
IFCIND
..
..
..
END

```

This printout is obtained when the communications channel for the information system with serial number is blocked for some reason. For example, if the line between the message system and the exchange is disconnected. This means that the update has not taken place.

If there are more information systems than shown in the printout, updating of these has been performed satisfactorily.

11.7.5

PRINTOUT 3

```

INFORMATION SYSTEM UPDATING NOT SUCCESSFUL
BLOCKED LIM(S) NOT CLEARED
END

```

This printout is obtained when at least one of the exchange LIMs was blocked during the time the update was executed.

This means that there are LIMs in which the message information is not updated.

11.7.6

PRINTOUT 4

```

INFORMATION SYSTEM UPDATING NOT SUCCESSFUL
BLOCKED LIM(S) NOT CLEARED AND CHANNEL ERROR DETECTED
IFCIND
..
..
END

```

Simultaneous errors according to printouts 2 and 3.

11.7.7

EXAMPLE 1

Update the exchange with information from information systems connected to the exchange.

```

ICUPI;
ORDERED
INFORMATION SYSTEM UPDATING SUCCESSFUL
END

```

Updating has been completed. When ORDERED has been printed there may be some delay before the update is completed, see FUNCTION.

11.7.8

EXAMPLE 2

Erasing virtual information in the exchange.

```
ICUPI:IFCIND=16;
ORDERED
INFORMATION SYSTEM UPDATING SUCCESSFUL
END
```

Updating has been completed. All the data with regard to all virtual information systems are erased, see FUNCTION.

11.7.9

EXAMPLE 3

```
ICUPI;
ORDERED
INFORMATION SYSTEM UPDATING NOT SUCCESSFUL
IFCIND CHANNEL ERROR DETECTED
IFCIND
06
END
```

Updating cannot be executed because the information system with individual number 06 is blocked for some reason.

If this information system is an interception computer, all message transfers are erased, but update is not completed.

If the system was blocked before the update was started, no update will be executed.

If, on the other hand, the system was blocked during the update, the update will be partially executed.

11.7.10

COMMAND CATEGORY

Dangerous = **No**

12

IR - ISDN TRUNK PROTOCOL DATA

12.1

IRPDP

ISDN trunk protocol data print

12.1.1

FORMAT

**IRPDP:TYPE=,PROT=,LIM=,ENTRY=[,MSG=][,IE=][,CALLST=]
[,OFFSET=] ;**

CALLST =	ISDN call state. Required for certain ENTRY values. ALL is permitted for this parameter.
ENTRY =	Entry. ISDN protocol related parameter.
IE =	ISDN information element identifier. Required for certain ENTRY values. ALL is permitted for this parameter
LIM =	LIM number.
MSG =	ISDN message type. Required for certain ENTRY values. ALL is permitted for this parameter.
OFFSET =	Offset. Required for certain ENTRY values. ALL is permitted for this parameter.
PROT =	Type of ISDN protocol. The type of ISDN protocol that protocol data print out is requested for.
TYPE =	Block type. The block type that handles the type of ISDN protocol that protocol data are requested for. SL60 is the only supported value. SL60 = ISDN protocol data within SL60

12.1.2

FUNCTION

The command is used to print out ISDN protocol related data. Since ISDN protocol related data control the behavior of ISDN protocols this command is especially handy for ISDN fault locating.

The requested ISDN protocol related data are pointed out by the ENTRY parameter. Some ENTRY parameter values also require that one or two of the indexing parameters MSG, IE, CALLST and OFFSET are stated.

When the ISDN protocol related data are dependent on the ISDN message that is received/sent, this ISDN message shall be stated in parameter MSG.

When the ISDN protocol related data are dependent on the ISDN Information Element that is received/sent, this ISDN Information Element shall be stated in parameter IE.

When the ISDN protocol related data are dependent on the current ISDN Call State, this ISDN Call State shall be stated in parameter CALLST.

When the ISDN protocol related data are dependent on some other additional variable, an offset shall be stated in parameter OFFSET.

12.1.3

PRINTOUT

ISDN TRUNK PROTOCOL DATA PRINT							
TYPE	PROT	ENTRY	MSG	IE	CALLST	OFFSET	DATA
.
.
.
END							

DATA The data that are printed out are the value of the requested ISDN protocol related parameter that is pointed out by the stated parameters. The interpretation of the data is different for different ISDN protocol related parameters, see table 1 below. Data are always given in decimal format. Time values are given in seconds, if not stated otherwise.
Data related to 2B+D is not relevant in MX-ONE.

Table 1 Interpretation of DATA for different ENTRY parameters

ENTRY	Description of ENTRY value	DATA
ALARMPRIORITY	Alarm handling on A/B level	0 = A-level 17 = B-level
CAUSEBCNOTAUT	Cause Value to send in Cause IE when Bearer capability is not authorized	0-127 (Cause number)
CAUSEBCNOTAVAIL	Cause Value to send in Cause IE when Bearer capability is not presently available	0-127 (Cause number)
CAUSEBCNOTIMP	Cause Value to send in Cause IE when Bearer capability is not implemented	0-127 (Cause number)
CAUSECALREJ	Cause Value to send in Cause IE when Call is rejected	0-127 (Cause number)
CAUSECHNLNOTACC	Cause Value to send in Cause IE when Channel is not acceptable	0-127 (Cause number)
CAUSECHNLNOTEXIST	Cause Value to send in Cause IE when Identified channel does not exist	0-127 (Cause number)
CAUSECHNLORPROTNOTAVAIL	Cause Value to send in Cause IE when Channel or protocol is not available	0-127 (Cause number)
CAUSECHNLTYPENOTIMP	Cause Value to send in Cause IE when Channel type is not implemented	0-127 (Cause number)

ENTRY	Description of ENTRY value	DATA
CAUSECTRL	Mapping of ITU Cause values to internal codes	0-15 (Internal code) 0 = User busy 1 = User busy 2 = Unassigned route 3 = Facility request rejected 4 = Incompatible destination 5 = Destination out of service 6 = Software equipment congestion 7 = Normal call clearing 8 = Requested B-channel not available 9 = Invalid number format 10 = No user responding 11 = Normal call clearing 12 = Call rejected
CAUSECTRLINT	Mapping of internal codes to ITU Cause values	0-127 (Cause number)
CAUSECUGMEMBER	Cause Value to send in Cause IE when Called user is member of CUG	0-127 (Cause number)
CAUSECUGNOTEXIST	Cause Value to send in Cause IE when Closed user group does not exist	0-127 (Cause number)
CAUSEDESTINCOMP	Cause Value to send in Cause IE when Incompatible destination	0-127 (Cause number)
CAUSEDESTOUTOFSERVICE	Cause Value to send in Cause IE when Destination is out of service	0-127 (Cause number)
CAUSEFACREQREJ	Cause Value to send in Cause IE when Facility is rejected	0-127 (Cause number)
CAUSEICONUM	Cause Value to send in Cause IE when Invalid number format	0-127 (Cause number)
CAUSEIENOTEXIST	Cause Value to send in Cause IE when Information element non-existent or is not implemented	0-127 (Cause number)
CAUSEINCCALLBARRED	National Cause Value to send in Cause IE Incoming calls barred	0-127 (National Cause number)
CAUSEINTERWORKING	Cause Value to send in Cause IE when Interworking, unspecified	0-127 (Cause number)
CAUSEINVALIDIE	Cause Value to send in Cause IE when Invalid information element content	0-127 (Cause number)

ENTRY	Description of ENTRY value	DATA
CAUSEINVCALLINGPTYNUM	National Cause Value to send in Cause IE Invalid calling party number	0-127 (National Cause number)
CAUSEINVCALLREF	Cause Value to send in Cause IE when Invalid call reference	0-127 (Cause number)
CAUSEINVTRANSNETSEL	Cause Value to send in Cause IE when Invalid transit network selection	0-127 (Cause number)
CAUSEISUPNOTAVAIL	National Cause Value to send in Cause IE ISUP not available	0-127 (National Cause number)
CAUSEMANDATIEMISSING	Cause Value to send in Cause IE when Mandatory information element is missing	0-127 (Cause number)
CAUSEMESSAGENOTEXIST	Cause Value to send in Cause IE when Message type non-existent or not implemented	0-127 (Cause number)
CAUSEMESSINV	Cause Value to send in Cause IE when Invalid message	0-127 (Cause number)
CAUSEMESSNOCOMPNOEXIST	Cause Value to send in Cause IE when Message not compatible with call state or message type non-existent or not implemented	0-127 (Cause number)
CAUSEMESSNOTCOMP	Cause Value to send in Cause IE when Message not compatible with call state	0-127 (Cause number)
CAUSENOANSWER	Cause Value to send in Cause IE when No answer from user	0-127 (Cause number)
CAUSENOBCHNL	Cause Value to send in Cause IE when No B-channel available	0-127 (Cause number)
CAUSENOCHA	Cause Value to send in Cause IE when Number changed	0-127 (Cause number)
CAUSENORESPONSE	Cause Value to send in Cause IE when No user responding	0-127 (Cause number)
CAUSENORMALCLEAR	Cause Value to send in Cause IE when Normal call clearing	0-127 (Cause number)
CAUSENORMALUNSPEC	Cause Value to send in Cause IE when Normal, unspecified	0-127 (Cause number)
CAUSENOROUTE	Cause Value to send in Cause IE when No route to specified transit network	0-127 (Cause number)
CAUSENOROUTETODEST	Cause Value to send in Cause IE when No route to destination	0-127 (Cause number)
CAUSENOTCUGMEMBER	National Cause Value to send in Cause IE Called user is not member of CUG	0-127 (National Cause number)
CAUSENTWOUTOFORDER	Cause Value to send in Cause IE when Network out of order	0-127 (Cause number)
CAUSEONLYRESTRBCAVAIL	Cause Value to send in Cause IE when Only restricted digital bearer capability is available	0-127 (Cause number)
CAUSEOTGCALLBARRED	National Cause Value to send in Cause IE Incoming calls barred	0-127 (National Cause number)
CAUSEPROTERR	Cause Value to send in Cause IE when Protocol error	0-127 (Cause number)

ENTRY	Description of ENTRY value	DATA
CAUSEQUALOFSERVNOTAVAIL	Cause Value to send in Cause IE when Quality of service not available	0-127 (Cause number)
CAUSERECOVERYTIMEXP	Cause Value to send in Cause IE when Recovery on timer expiry	0-127 (Cause number)
CAUSEREQBCHNLNOTFREE	Cause Value to send in Cause IE when Requested B-channel not available	0-127 (Cause number)
CAUSEREQFACNOTIMP	Cause Value to send in Cause IE when Requested facility not implemented	0-127 (Cause number)
CAUSEREQFACNOTSUB	Cause Value to send in Cause IE when Requested facility not subscribed	0-127 (Cause number)
CAUSERESUNAVAILABLE	Cause Value to send in Cause IE when Resources unavailable	0-127 (Cause number)
CAUSESERVNOTAVAIL	Cause Value to send in Cause IE when Service not available	0-127 (Cause number)
CAUSESERVNOTIMP	Cause Value to send in Cause IE when Service not implemented	0-127 (Cause number)
CAUSESTAENQRES	Cause Value to send in Cause IE when Response to Status enquiry message	0-127 (Cause number)
CAUSESWIEQUCONG	Cause Value to send in Cause IE when Switching equipment congestion	0-127 (Cause number)
CAUSETEMPFAIL	Cause Value to send in Cause IE when Temporary failure	0-127 (Cause number)
CAUSEUIDISC	Cause Value to send in Cause IE when Access information discarded	0-127 (Cause number)
CAUSEUNASSIGNEDNO	Cause Value to send in Cause IE when Unallocated (unassigned) number	0-127 (Cause number)
CAUSEUSERBUSY	Cause Value to send in Cause IE when User busy	0-127 (Cause number)
CHANNELNUMB7	Channel number octet in the Channel Identification IE is used	0 = No 1 = Yes
CHARGINFIE	Information Element which contains charging information	8 = Display IE 20 = Charge Advice IE 26 = Facility IE
CHARGINFRECINCURRENCY	Charging information received in currency.	0 = No 1 = Yes
CHARGINFREQCHARGADV	Charging information request can be sent in Charge Advice IE if charging is used	0 = No 1 = Yes
CHARGINFREQKEYPAD	Charging information request can be sent in Keypad Facility IE if charging is used	0 = No 1 = Yes
CLEARCALL	Disconnect call when receiving Status message with compatible call state and with one of the following Cause values: CAUSEIENOTEXIST, CAUSEINVALIDIE, CAUSEMANDATIEMISSING, CAUSEMESSAGENOTEXIST	0 = No 1 = Yes

ENTRY	Description of ENTRY value	DATA
COMPATCS	Message is compatible/not compatible with call state. If a received message is not compatible with call state the message will be ignored and normally a Status message will be returned. If a message to be sent is not compatible with the call state the message will not be sent.	0 = Not Compatible 1 = Compatible
COMPATCS-NET	Message is compatible/not compatible with call state on DSS1 network side. If a received message is not compatible with call state the message will be ignored and normally a Status message will be returned. If a message to be sent is not compatible with call state the message will not be sent.	0 = Not Compatible 1 = Compatible
COSTPERPULSE	Cost per pulse in units	Cost in units
CRC4MODE	Cyclic Redundancy Checks on TLU-ISDN	1 = Automatic CRC-4 mode 17 = No CRC-4 mode 49 = Always CRC-4 mode
FACIDCHARG1A	Facility identifier for charging information during call, character 1.	CCITT IA5 (ASCII) character
FACIDCHARG2A	Facility identifier for charging information during call, character 2.	CCITT IA5 (ASCII) character
FACIDCHARG3A	Facility identifier for charging information during call, character 3.	CCITT IA5 (ASCII) character
FACIDCHARG4A	Facility identifier for charging information during call, character 4.	CCITT IA5 (ASCII) character
FACIDCHARG5A	Facility identifier for charging information during call, character 5.	CCITT IA5 (ASCII) character
FACIDCHARG6A	Facility identifier for charging information during call, character 6.	CCITT IA5 (ASCII) character
FACIDCHARG7A	Facility identifier for charging information during call, character 7.	CCITT IA5 (ASCII) character
FACIDCHARG8A	Facility identifier for charging information during call, character 8.	CCITT IA5 (ASCII) character
FACIDCHARG1B	Facility identifier for charging information at the end of call, character 1.	CCITT IA5 (ASCII) character
FACIDCHARG2B	Facility identifier for charging information at the end of call, character 2.	CCITT IA5 (ASCII) character
FACIDCHARG3B	Facility identifier for charging information at the end of call, character 3.	CCITT IA5 (ASCII) character
FACIDCHARG4B	Facility identifier for charging information at the end of call, character 4.	CCITT IA5 (ASCII) character

ENTRY	Description of ENTRY value	DATA
FACIDCHARG5B	Facility identifier for charging information at the end of call, character 5.	CCITT IA5 (ASCII) character
FACIDCHARG6B	Facility identifier for charging information at the end of call, character 6.	CCITT IA5 (ASCII) character
FACIDCHARG7B	Facility identifier for charging information at the end of call, character 7.	CCITT IA5 (ASCII) character
FACIDCHARG8B	Facility identifier for charging information at the end of call, character 8.	CCITT IA5 (ASCII) character
FACIDCHARGCC1	Control code for charging information facility identifier, character 1	CCITT IA5 (ASCII) character
FACIDCHARGCC2	Control code for charging information facility identifier, character 2	CCITT IA5 (ASCII) character
FACIDCHARGNUMA	Number of characters in facility identifier for charging information during call	Number of characters
FACIDCHARGNUMB	Number of characters in facility identifier for charging information at the end of call	Number of characters
FACIDCHARGREQCC1	Control code for charging information request, character 1	CCITT IA5 (ASCII) character
FACIDCHARGREQCC2	Control code for charging information request, character 2	CCITT IA5 (ASCII) character
FACIDCLIR	Facility identifier for Calling Line Identification Restriction	CCITT IA5 (ASCII) character
FACIDCLIRCC	Control code for CLIR facility identifier	CCITT IA5 (ASCII) character
FACIDCLIRNUMCC	Number of characters in calling line identification restriction control code	Number of characters
FACIDCLIRNUMFI	Number of characters in calling line identification restriction string	Number of characters
FACIDCUG1	Facility identifier for Closed User Group, character 1	CCITT IA5 (ASCII) character
FACIDCUG2	Facility identifier for Closed User Group, character 2	CCITT IA5 (ASCII) character
FACIDCUG3	Facility identifier for Closed User Group, character 3	CCITT IA5 (ASCII) character
FACIDCUG4	Facility identifier for Closed User Group, character 4	CCITT IA5 (ASCII) character
FACIDCUGNUM	Number of characters in facility identifier for Closed User Group	Number of characters
FACIDMCT1	Facility identifier for Malicious Call Tracing, character 1	CCITT IA5 (ASCII) character
FACIDMCT2	Facility identifier for Malicious Call Tracing, character 2	CCITT IA5 (ASCII) character
FACIDMCT3	Facility identifier for Malicious Call Tracing, character 3	CCITT IA5 (ASCII) character

ENTRY	Description of ENTRY value	DATA
FACIDMCT4	Facility identifier for Malicious Call Tracing, character 4	CCITT IA5 (ASCII) character
FACIDMCTCC1	Control code for MCT: MCT request, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC2	Control code for MCT: MCT request, character 2	CCITT IA5 (ASCII) character
FACIDMCTCC3	Control code for MCT: MCT acknowledge, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC4	Control code for MCT: MCT acknowledge, character 2	CCITT IA5 (ASCII) character
FACIDMCTCC5	Control code for MCT: MCT rejected, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC6	Control code for MCT: MCT rejected, character 2	CCITT IA5 (ASCII) character
FACIDMCTCC7	Control code for MCT: MCT not available, character 1	CCITT IA5 (ASCII) character
FACIDMCTCC8	Control code for MCT: MCT not available, character 2	CCITT IA5 (ASCII) character
FACIDMCTNUM	Number of characters in facility identifier for Malicious Call Tracing	Number of characters
FACIDREQUI1	Facility identifier for Request of User-User signalling service 2 and 3, character 1	CCITT IA5 (ASCII) character
FACIDREQUI2	Facility identifier for Request of User-User signalling service 2 and 3, character 2	CCITT IA5 (ASCII) character
FACIDREQUI3	Facility identifier for Request of User-User signalling service 2 and 3, character 3	CCITT IA5 (ASCII) character
FACIDREQUI4	Facility identifier for Request of User-User signalling service 2 and 3, character 4	CCITT IA5 (ASCII) character
FACIDREQUINUM	Number of characters in facility identifier for Request User-User signalling	Number of characters
FCTIMSUP	Flow control is supervised using timer T397	0 = No 1 = Yes
IECODESETREC	Codeset to use for received Information Elements	0 = Codeset 0 5 = Codeset 5 6 = Codeset 6

ENTRY	Description of ENTRY value	DATA
IECODESETSEND	Codeset to use for Information Elements to be sent	0 = Locking shift to codeset 0 5 = Locking shift to codeset 5 6 = Locking shift to codeset 6 16 = Non-locking shift to codeset 0 21 = Non-locking shift to codeset 5 22 = Non-locking shift to codeset 6
IEIDENTIFIER	Mapping of internal codes to Information Element identifiers	0-255 (Information Element id)

ENTRY	Description of ENTRY value	DATA
IEINDEX	Mapping of Information Element identifiers to internal codes	0-34 (Internal code)
		0 = More Data IE
		1 = Congestion Level IE
		2 = Bearer Capability IE
		3 = Cause IE
		4 = Call State IE
		5 = Channel Identification IE
		6 = Progress IE
		7 = Notification Indicator IE
		8 = Display IE
		9 = Keypad Facility IE
		10 = Calling Party Number IE
		11 = Calling Party Subaddress IE
		12 = Called Party Number IE
		13 = Called Party Subaddress IE
		14 = Transit Network Selection IE
		15 = Restart Indicator IE
		16 = Low Layer Compatibility IE
		17 = High Layer Compatibility IE
		18 = User-User Information IE
		19 = Teleservice IE
		20 = Charge Advice IE
		21 = Connected Number IE
		22 = Connected Subaddress IE
		23 = Redirecting Number IE
		24 = Sending Complete IE
		25 = Segmented Message IE
		26 = Facility IE

ENTRY	Description of ENTRY value	DATA
		27 = Network Specific Facility IE 28 = Date/Time IE 30 = Originally Called Party Subaddress IE 31 = Redirection Subaddress IE 32 = Redirecting Subaddress IE 33 = Transit Counter IE 34 = Party Category IE 255 = No internal coding exists
IEMAXLENGTH	Maximum number of octets after the Information Element length indicator	0-255 (Number of octets)
IEMAXLENGTH30B	Maximum number of octets after the Information Element length indicator	0-255 (Number of octets)
IEORDER	Order of Information Elements when sending a message	0-34 (Order)
INDINTF	Type of B-channel restart. Class octet in Restart Indicator IE	6 = Single interface 7 = All channels belonging to one D-channel
ISDNRATEADAP	Mapping of internal code to standard coding for Rate Adaptation in Bearer Capability IE or Low Layer Compatibility IE octet 5	0-15 (Type of Rate adaption)
L1HANDLER	Type of Layer 1 handler	0 = Standard ITU 1 = AI + T0 (bit 4) for remote alarm 2 = Reserve
MAXDELAYACK-L2	Maximum delay for acknowledge pending	Value x 0.01 seconds
MAXNUMBYTE	Maximum number of data bytes in signals between layer 2 and layer 3 (DATA-LINK-REQUEST-DATA and DATA-LINK-DATA-INDICATION)	Number of bytes
MAXNUMK2B	Maximum number of unacknowledged I-frames on the 2B+D link (Window size)	Number of frames
MAXNUMK30B	Maximum number of unacknowledged I-frames on the 30B+D link (Window size)	Number of frames
MCIDMESSAGE	ISDN message which contains Malicious Call Identification request	16 = Information message 25 = Facility message

ENTRY	Description of ENTRY value	DATA
MCIDREQIE	Information Elements which contain Malicious Call Identification request	9 = Keypad IE 26 = Facility IE
MCTDETACH	Use Detach procedure for MCT	0 = No 1 = Yes
MESS-REC-CTRL-NET	Handling of Information Elements in received ISDN message when MX-ONE is acting as DSS1 network side	0 = Information Element not implemented in message 1 = Discarded if received, codeset 0 2 = Optional, codeset 0 5 = Discarded if received, codeset 5,6 6 = Optional, codeset 5,6 8 = Mandatory, codeset 0 11 = Conditionally mandatory, codeset 0 12 = Mandatory, codeset 5,6 15 = Conditionally mandatory, codeset 5,6
MESS-SEN-CTRL-NET	Handling of Information Elements to be sent in ISDN message when MX-ONE is acting as DSS1 network side	0 = Information Element not implemented in message 2 = Optional, codeset 0 6 = Optional, codeset 5,6 8 = Mandatory, codeset 0 11 = Conditionally mandatory, codeset 0 12 = Mandatory, codeset 5,6 15 = Conditionally mandatory, codeset 5,6

ENTRY	Description of ENTRY value	DATA
MESSAGEERRPROC	Error procedure when Information Element in received message is considered to be faulty.	0 = No action 1 = Send Release message 2 = Send Release Complete message 3 = Send Status message 4 = Continue and send Status message 5 = Continue 6 = Ignore the message 7 = If global call reference ignore the message, otherwise send Status message 8 = If global call reference ignore the message, otherwise continue and send Status message
MESSAGEERRPROC-NET	Error procedure when Information Element in received message is considered to be faulty when MX-ONE is acting as DSS1 network side	0 = No action 1 = Send Release message 2 = Send Release Complete message 3 = Send Status message 4 = Continue and send Status message 5 = Continue 6 = Ignore the message 7 = If global call reference ignore the message, otherwise send Status message 8 = If global call reference ignore the message, otherwise continue and send Status message
MESSAGEGROUP	Type of codeset for ISDN message	0 = ITU message type 1 = National message type

ENTRY	Description of ENTRY value	DATA
MESSAGERECCTRL	Handling of Information Elements in received ISDN message	0 = Information Element not implemented in message 1 = Discarded if received, codeset 0 2 = Optional, codeset 0 5 = Discarded if received, codeset 5,6 6 = Optional, codeset 5,6 8 = Mandatory, codeset 0 11 = Conditionally mandatory, codeset 0 12 = Mandatory, codeset 5,6 15 = Conditionally mandatory, codeset 5,6
MESSAGESENCTRL	Handling of Information Elements to be sent in ISDN message	0 = Information Element not implemented in message 2 = Optional, codeset 0 6 = Optional, codeset 5,6 8 = Mandatory, codeset 0 11 = Conditionally mandatory, codeset 0 12 = Mandatory, codeset 5,6 15 = Conditionally mandatory, codeset 5,6
MESSAGETYPE	Mapping of internal codes to ISDN messages	0-127 (Message type)
MESSAGEVALIDITY	Validity of received message	0 = Valid message 3 = Not valid message (not allowed for this market)
MINNUMBYTE2B	Minimum number of layer 3 bytes in a 2B+D message	Number of bytes
MINNUMBYTE30B	Minimum number of layer 3 bytes in a 30B+D message	Number of bytes

ENTRY	Description of ENTRY value	DATA
MODEMTYPEINC	Mapping of modem type in Bearer Capability IE or Low Layer Compatibility IE to internal code	0 = Unknown modem type 1 = V.21 2 = V.22 3 = V.23 bis 4 = V.23 5 = V.26 6 = V.26 bis 7 = V.26 ter 8 = V.27 9 = V.27 bis 10 = V.27 ter 11 = V.29 12 = V.32 13 = V.35 255 = No valid information
MODEMTYPEOTG	Mapping of internal code to ISDN modem types to send in Bearer Capability IE or Low Layer Compatibility IE	0 = Unknown modem type 1-15 = User defined modem type 255 = No valid information

ENTRY	Description of ENTRY value	DATA
MSGINDEX	Mapping of ISDN message to internal code	0-26 (Internal code) 0 = Alerting 1 = Call Proceeding 2 = Progress 3 = Setup 4 = Connect 5 = Setup Acknowledge 6 = Connect Acknowledge 7 = User Information 8 = Disconnect 9 = Restart 10 = Release 11 = Restart Acknowledge 12 = Release Complete 13 = Notify 14 = Status Enquiry 15 = Congestion Control 16 = Information 17 = Status 18 = Reactivate Reject 19 = Reactivate 20 = Deactivate 21 = Reactivate Acknowledge 22 = Deactivate Acknowledge 23 = Detach 24 = Detach Acknowledge 25 = Facility 26 = Facility Acknowledge 255 = No internal coding exist
N200	Maximum number of retransmissions of frames on the data link (Layer 2)	Number of retransmissions
N201	Maximum number of octets in an I-frame (Layer 2)	Number of octets
N202	Maximum number of transmissions of TEI-identity-request message (Layer 2)	Number of transmissions

ENTRY	Description of ENTRY value	DATA
NUMOFBRESTATT	Number of B-channel restart attempts before the data link is restarted (N316)	Number of restart attempts
NUMOFIDENTIFIERSA	Total number of identifiers in AOC string, A=Charge during call	Number of identifiers
NUMOFIDENTIFIERSB	Total number of identifiers in AOC string, B=Charge at the end of call	Number of identifiers
OCT3ETSI	Location to send in Cause/Progress IE (octet 3) for coding standard ETSI	128 = Location, User 129 = Location, Local private network
RECINFORMATION	Information message is received and processed in all call states except 0,1,6,19 and 30	0 = No 1 = Yes
RECRELCOMP	Release Complete message is received and processed in all call states	0 = No 1 = Yes
RECSETUP	Setup message is received and ignored in call states 6 -10	0 = No 1 = Yes
RECSTATUS	Status message is received and ignored in call state zero.	0 = No 1 = Yes
RELBCHNLDIRECT	All B-channels are released when receiving DATA-LINK-RELEASE-INDICATION	0 = No 1 = Yes
RELCOMATCLEARCOLL	Send Release Complete after clear collision	0 = No 1 = Yes
REPOLDCS	Call state to report in Status message	0 = New call state 1 = Old call state
RESETINVOKEIDCOUNTER	Reset the INVOKEID counter for every call (ASN1)	0 = No 1 = Yes
SENMULCHNLRESTACK	Send Restart Acknowledge message after T317 time out	0 = No 1 = Yes
SENSTATUS	Send Status message when received message is incompatible with call state in release sequence	0 = No 1 = Yes
STAERRCTRL	Action taken when Status message is received. The action is dependent on own call state and received call state in Status message.	0 = The state does not exist 1 = Send Release message 2 = Send Release Complete message 3 = No action 4 = State OK 5 = Clear the call internally 6 = Send Disconnect message

ENTRY	Description of ENTRY value	DATA
SUPCLEARBLEV	Support sending of internal MX-ONE-signal CLEARBLEV (which executes all jobs in the B-level queue before starting a new job on the A-level)	0 = No 1 = Yes
SUPPINBANDTONE	Support reception of inband tones/announcements indicated in Disconnect message	0 = No 1 = Yes
SUPSTAENQ	Support of Status Enquiry message	0 = No 1 = Status Enquiry + Status
	Support of Status Enquiry and Status in connection with data link restart	0 = No 1 = Status Enquiry 2 = Status
T200	Maximum waiting time for acknowledgement signal from the data link	Value x 0.1 seconds
T201	Time between retransmission of signal ID-check request on the data link	Value x 0.1 seconds
T202	Minimum time between retransmission of TEI-identity request on the data link.	Value x 0.1 seconds
T203	Maximum period of data link inactivity	Time in seconds
TIM-TONE-ANNOUNCE	T306 Time before Release message is sent, when sending tones/announcement	Time in seconds
TIMBEFANSACK	T313 Time before reception of Connect Acknowledge message	Time in seconds
TIMBEFDETACK	T311 Time before reception of Detach acknowledgement	Time in seconds
TIMBEFEOS	T310 Time in call state incoming/outgoing call proceeding	Time in seconds
TIMBEFFACACK	T3SS Time before reception of Facility acknowledgement	Time in seconds
TIMBEFOTGCALACK	T303 Time before acknowledgement to sent Setup message	Time in seconds
TIMBEFRELCOM	T308 Time before reception of Release Complete message	Time in seconds
TIMBEFRELMES	T305 Time before reception of Release message	Time in seconds
TIMBEFRESTRACK	T317 Time before sending of Restart Acknowledge message	Time in seconds
TIMBETRECDIG	T302 Time between received digits	Time in seconds
TIMBETSENDIG	T304 Time between sent digits	Time in seconds
TIMDATLNKEST2B	T309 Time to perform data link establishment 2B+D	Time in seconds
TIMDATLNKEST30B	T309 Time to perform data link establishment 30B+D	Time in seconds

ENTRY	Description of ENTRY value	DATA
TIMFLOWCTRL	T397 Time before User Information messages may be sent again in active state after having been shut off due to flow control of User Information messages	Time in seconds
TIMINTRESTRACK	T316 Time before reception of Restart Acknowledge message	Time in seconds
TIMSTATUSENQ	T322 Time before reception of response to Status Enquiry message	Time in seconds
TREFUUS2COUNT	Number of User Information messages permitted for UUS service 2	Number of messages

12.1.4

EXAMPLE 1

Print out the value of ISDN timer T302 (maximum time between received digits), when the type of ISDN protocol is ETSI ISDN. This timer is handled by the ISDN protocol related parameter TIMBETRECDIG. The ETSI ISDN protocol is handled by SL60.

IRPDP:TYPE=SL60,PROT=ETSI,LIM=1,ENTRY=TIMBETRECDIG;				
ISDN TRUNK PROTOCOL DATA PRINT				
TYPE	PROT	ENTRY		DATA
SL60	ETSI	TIMBETRECDIG		15
END				

The value of TIMBETRECDIG is **15** in the ETSI ISDN protocol handled by SL60. This means that the maximum time between received digits is *15 seconds*, according to Table 1.

12.1.5

EXAMPLE 2

Print out the type of codeset that is used for the ISDN message Setup, when the type of ISDN protocol is national ISDN. The type of codeset to use for different ISDN messages is handled by the ISDN protocol related parameter MESSAGEGROUP. The national ISDN protocol is handled by SL60.

IRPDP:TYPE=SL60,PROT=NAT,LIM=1,ENTRY=MESSAGEGROUP,MSG=SETUP;				
ISDN TRUNK PROTOCOL DATA PRINT				
TYPE	PROT	ENTRY	MSG	DATA
SL60	NAT	MESSAGEGROUP	SETUP	0
END				

The value of MESSAGEGROUP when the message is Setup is **0** in the national ISDN protocol handled by SL60. This means that the type of codeset to use for ISDN message Setup is *ITU message type*, according to Table 1.

12.1.6

EXAMPLE 3

Check whether the ISDN message Connect is compatible with call state 4 (Call delivered), when the type of ISDN protocol is national ISDN. Message compatibility is

handled by the ISDN protocol related parameter COMPATCS. The National ISDN protocol is handled by SL60.

IRPDP:TYPE=SL60,PROT=NAT,LIM=1,ENTRY=COMPATCS, MSG=CONNECT, CALLST=4;					
ISDN TRUNK PROTOCOL DATA PRINT					
TYPE	PROT	ENTRY	MSG	CALLST	DATA
SL60	NAT	COMPATCS	CONNECT	4	1
END					

The value of COMPATCS, when the message is Connect and the call state is 4 (Call delivered), is **1** in the National ISDN protocol handled by SL60. This means that the message Connect is *Compatible* with call state 4, according to Table 1.

12.1.7

EXAMPLE 4

Check how the different information elements are handled at reception of ISDN message Setup, when the type of ISDN protocol is national ISDN. Handling of information elements in received ISDN message is handled by the ISDN protocol related parameter MESSAGERECCTRL. The national ISDN protocol is handled by SL60.

IRPDP:TYPE=SL60,PROT=NAT,LIM=1,ENTRY=MESSAGERECCTRL, MSG=SETUP, IE=ALL;					
ISDN TRUNK PROTOCOL DATA PRINT					
TYPE	PROT	ENTRY	MSG	IE	DATA
SL60	NAT	MESSAGERECCTRL	SETUP	MOREDATA	0
SL60	NAT	MESSAGERECCTRL	SETUP	CONGESTIONLEVEL	0
SL60	NAT	MESSAGERECCTRL	SETUP	BEARERCAPABILITY	8
SL60	NAT	MESSAGERECCTRL	SETUP	CAUSE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CALLSTATE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CHANNELIDENTIFICATION	8
SL60	NAT	MESSAGERECCTRL	SETUP	PROGRESSINDICATOR	2
SL60	NAT	MESSAGERECCTRL	SETUP	NOTIFICATIONINDICATION	2
SL60	NAT	MESSAGERECCTRL	SETUP	DISPLAY	1
SL60	NAT	MESSAGERECCTRL	SETUP	KEYPAD	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLINGPARTYNUMBER	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLINGPARTYSUBADDRESS	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLEDPARTYNUMBER	2
SL60	NAT	MESSAGERECCTRL	SETUP	CALLEDPARTYSUBADDRESS	2
SL60	NAT	MESSAGERECCTRL	SETUP	TRANSITNETWORKSELECTION	0
SL60	NAT	MESSAGERECCTRL	SETUP	RESTARTINDICATOR	0
SL60	NAT	MESSAGERECCTRL	SETUP	LOWLAYERCOMPATIBILITY	2
SL60	NAT	MESSAGERECCTRL	SETUP	HIGHLAYERCOMPATIBILITY	2
SL60	NAT	MESSAGERECCTRL	SETUP	USERUSERINFORMATION	2
SL60	NAT	MESSAGERECCTRL	SETUP	TELESERVICETYPE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CHARGEADVICE	0
SL60	NAT	MESSAGERECCTRL	SETUP	CONNECTEDNUMBER	0

SL60	NAT	MESSAGERECCTRL	SETUP	CONNECTEDSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	REDIRECTINGNUMBER	0
SL60	NAT	MESSAGERECCTRL	SETUP	SENDINGCOMPLETE	2
SL60	NAT	MESSAGERECCTRL	SETUP	SEGMENTEDMESSAGE	0
SL60	NAT	MESSAGERECCTRL	SETUP	FACILITYIE	2
SL60	NAT	MESSAGERECCTRL	SETUP	NETWORKSPECIFICFACILITY	0
SL60	NAT	MESSAGERECCTRL	SETUP	DATETIME	0
SL60	NAT	MESSAGERECCTRL	SETUP	ORIGCALLEDPTYNUMBER	0
SL60	NAT	MESSAGERECCTRL	SETUP	ORIGCALLEDPTYSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	REDIRECTIONSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	REDIRECTINGSUBADDRESS	0
SL60	NAT	MESSAGERECCTRL	SETUP	TRANSITCOUNTER	6
SL60	NAT	MESSAGERECCTRL	SETUP	PARTYCATEGORY	6
END					

The value of MESSAGERECCTRL for ISDN message Setup in national ISDN protocol is **0, 1, 2, 6** or **8** for the different information elements.

According to Table 1:

- the value **0** means that the information element is *not implemented* in the message
- the value **1** means that the information element is *discarded* if received, codeset 0
- the value **2** means that the information element is *optional*, codeset 0
- the value **6** means that the information element is *optional*, codeset 5,6
- the value **8** means that the information element is *mandatory* , codeset 0

This means that the following information elements are **not implemented** in ISDN message Setup:

- More data
- Congestion level
- Cause
- Call state
- Transit network selection
- Restart indicator
- Teleservice type
- Charge advice
- Connected number
- Connected subaddress
- Redirecting number
- Segmented message
- Network specific facilities
- Date/time

- Originally called party number
- Originally called party subaddress
- Redirection subaddress
- Redirecting subaddress

And that the following information element belongs to codeset 0 and is **discarded** if received in ISDN message Setup:

- Display

And that the following information elements belong to codeset 0 and are **optional** in ISDN message Setup:

- Progress indicator
- Notification indicator
- Keypad facility
- Calling party number
- Calling party subaddress
- Called party number
- Called party subaddress
- Low layer compatibility
- High layer compatibility
- User-user
- Sending complete
- Facility

And that the following information elements belong to codeset 5 or 6 and are **optional** in ISDN message Setup:

- Transit counter
- Party category

And that the following information elements belong to codeset 0 and are **mandatory** in ISDN message Setup:

- Bearer capability
- Channel identification

12.1.8

COMMAND CATEGORY

Dangerous = **No**

13

IS - INTERCEPTION SERVICE

13.1

ISEPE

Interception service position end

13.1.1

FORMAT

```
ISEPE: { DIR = ... } ;
        GRP = ... }
```

DIR = Directory number.
& and && are permitted for this parameter.

GRP = Group number. Directory number for internal group hunting (PBX) group number.
& and && are permitted for this parameter.

13.1.2

FUNCTION

The command is used to remove answer position for message diversion or message printout positions.

On removal of an internal group hunting group number as answer position, the group number is to be stated.

13.1.3

EXAMPLE 1

Remove the answer position for message diversion with directory number 962.

```
ISEPE:DIR=962;
EXECUTED
```

13.1.4 EXAMPLE 2

Remove the group with directory number 900 as answer position for message diversion.

```
ISEPE:GRP=900;
EXECUTED
```

13.1.5 COMMAND CATEGORY

Dangerous = **No**

13.2 ISEPI

Interception service position initiate

13.2.1 FORMAT

```
ISEPI: { DIR = ..., TERM=, ICSPOS=
        GRP= ... } ;
```

DIR = Directory number.
& and && are permitted for this parameter.

GRP = Group number. Directory number for internal group hunting group (PBX).

ICSPOS = Type of interception service position.

TERM = Terminal number. Terminal number of answer position for message diversion or message printout position. When & or && is stated in DIR parameter value TERM is used as start value.

13.2.2 FUNCTION

The command is used for initiating an answer position as message diversion position or message printout position. An answer position for message diversion is an extension or PBX operator who is equipped with a terminal, switched to the interception service and message waiting.

A message printout position is an extension that has a terminal with printer that is connected to the interception service and message waiting.

Internal group hunting group (PBX) can be defined as answer position for message diversion, in which case the parameter GRP is used. The individual members of the internal group hunting group (PBX) must then be defined as answer position for message diversion and each assigned a terminal.

13.2.3

EXAMPLE 1

Initiation of an answering position for message diversion with directory number 962 and terminal number 06.

```
ISEPI:DIR=962,TERM=06,ICSPOS=A;
EXECUTED
```

13.2.4

EXAMPLE 2

Initiation of an Internal group hunting group (PBX) with directory number 900 as answer position for message diversion.

```
ISEPI:GRP=900;
EXECUTED
```

13.2.5

EXAMPLE 3

Initiation of an extension with directory number 963 and terminal number 7 as message printout position.

```
ISEPI:DIR=963,TERM=07,ICSPOS=M;
EXECUTED
```

13.2.6

COMMAND CATEGORY

Dangerous = **No**

13.3

ISEPP

Interception service position print

13.3.1

FORMAT

$$\text{ISEPP} \left[\left\{ \begin{array}{l} \text{DIR} = \dots \\ \text{TERM} = \dots \\ \text{GRP} = \dots \end{array} \right\} \right];$$

DIR = Directory number.
ALL, && and & are permitted for this parameter.

GRP = Group number. Directory number for internal group hunting group (PBX).
ALL, && and & are permitted for this parameter.

TERM = Terminal number. Terminal number of answer position for message diversion or message printout position.
ALL, && and & are permitted for this parameter.

13.3.2

FUNCTION

The command is used to print out the terminal numbers and directory numbers of answer positions for message diversion and message printout positions.

If the parameters are omitted, all initiated answer positions and message diversion positions will be printed out. Internal group hunting group (PBX) group numbers are shown last in the printout.

13.3.3 PRINTOUT 1 (DIR/TERM)

INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
.	.	.
.	.	.
.	.	.
END		

ICSPOS Type of interception service position.

13.3.4 PRINTOUT 2 (GRP)

INTERCEPTION SERVICE GROUP DATA		
GRP		
.		
.		
.		
END		

13.3.5 PRINTOUT 3 (NO PARAMETER)

INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
.	.	.
.	.	.
.	.	.
INTERCEPTION SERVICE GROUP DATA		
GRP		
.		
.		
.		
END		

13.3.6 EXAMPLE 1

Print out information on all interception service and message waiting terminals.

ISEPP:TERM=ALL;		
INTERCEPTION SERVICE POSITION DATA		
DIR	TERM	ICSPOS
962	06	A
963	07	M
END		

The answer position for message diversion (ICSPOS=A) with directory number 962 is affiliated to terminal 06.

The message printout position (ICSPOS=M) with directory number 963 is affiliated to terminal 07.

13.3.7

EXAMPLE 2

Print out information on all groups that have been initiated as answer positions for message diversion.

```
ISEPP:GRP=ALL;  
INTERCEPTION SERVICE GROUP DATA  
GRP  
900  
901  
910  
END
```

Groups 900, 901 and 910 are initiated as answer positions for message diversion.

13.3.8

EXAMPLE 3

Print out all information on answer positions for message diversion/message printout positions.

```

ISEPP;
INTERCEPTION SERVICE POSITION DATA
DIR          TERM          ICSPPOS
962          06           A
963          07           M

INTERCEPTION SERVICE GROUP DATA
GRP
900
901
910
END

```

13.3.9

COMMAND CATEGORY

Dangerous = **No**

13.4

ISFUE

Interception service function end

13.4.1

FORMAT

ISFUE;

13.4.2

FUNCTION

The command results in removal of the interception service function.

13.4.3

EXAMPLE

Remove the interception service function.

```

ISFUE;
EXECUTED

```

13.4.4

COMMAND CATEGORY

Dangerous = **No**

13.5

ISFUI

Interception service function initiate

13.5.1

FORMAT

ISFUI:IFCIND=,TEFMT=,TIFMT=,DTERM=;

- DTERM =** Default terminal number.
The terminal number of the message printout position to be used when nothing else has been stipulated in an extension procedure.
- IFCIND =** Information computer individual.
Sequence number for relevant information system.
- TEFMT =** External terminal number format.
Format of the terminal number in the signal interface between the interception service and message waiting and the PBX.
- TIFMT =** Internal terminal number format.
Format of the terminal number in extension procedures for ordering message diversion facilities.

13.5.2

FUNCTION

The command initiates the interception service and message waiting function and defines:

- the directory number for the interception service and message waiting function whose equipment position is stated
- the interception service and message waiting's format for the terminal number, i.e. the quantity of digits sent by the interception service and that it expects as terminal number
- The PBX's format for the terminal number. This number is used in extension procedures for ordering/cancelling message diversion facilities
- number to the terminal that shall serve as message waiting position to be used when nothing else is stipulated in an extension procedure.

13.5.3

EXAMPLE

Initiate the interception service function with:

- Information computer individual number 6
- 2 digits as the interception service and message waiting's format for the terminal number
- 2 digits as the PBX's format for the terminal number
- Terminal number 03 as the message printout position to be used when nothing else has been stipulated in certain extension procedures

```
ISFUI:IFCIND=6,TEFMT=2,TIFMT=2,DTERM=03;
EXECUTED
```

13.5.4

COMMAND CATEGORY

Dangerous = **No**

13.6

ISFUP

Interception service function data print

13.6.1

FORMAT

ISFUP;

13.6.2

FUNCTION

The command results in printout of data for the interception computer function.

13.6.3

PRINTOUT

INTERCEPTION SERVICE FUNCTION DATA			
IFCIND	TEFMT	TIFMT	DTERM
...
END			

IFCIND	Information computer individual. Sequence number for relevant information system.
TEFMT	External terminal number format. Format of the terminal number in the signal interface between the interception service and message waiting and the PBX. See interworking description for <i>interception service</i> .
TIFMT	Internal terminal number format. Format of the terminal number in extension procedures for ordering message diversion facilities.
DTERM	Default terminal number. The terminal number of the message printout position to be used unless otherwise stated in an extension procedure.

13.6.4

EXAMPLE

Print out data for the interception service and message waiting function

ISFUP;			
INTERCEPTION SERVICE FUNCTION DATA			
IFCIND	TEFMT	TIFMT	DTERM
06	2	2	03
END			

The interception service and message waiting is initiated as follows:

- Information computer number 6
- 2 digits representing the interception service and message waiting's format for the terminal number
- 2 digits representing the PBX's format for the terminal number
- Terminal number 03 representing the message printout position to be used unless otherwise stated in some of the extension procedures

13.6.5

COMMAND CATEGORY

Dangerous = **No**

14

IT - ISDN TERMINAL

14.1

ITCAC

ISDN Terminal Category Change

14.1.1

FORMAT

ITCAC:DIR=... $\left[\left[\left[\text{,CAT=}$ $\left[\left[\text{,TRAF=}$ $\left[\text{,SERV=}$ $\left[\text{,CDIV=}$ $\left[\text{,ROC=}$ $\right] \right] \right] \right] \right] \left[\text{,ADC=}$ $\right] ;$

ADC =	Additional category
CAT =	Common category code. Common category code for the parameters TRAF, SERV, CDIV and ROC.
CDIV =	Call diversion category. Including the category for Individual Do Not Disturb (DND).
DIR =	Directory number. Directory number for ISDN terminal interfaces. & and && are permitted for this parameter.
ROC =	Routing category
SERV =	Service category
TRAF =	Traffic category

14.1.2

FUNCTION

The command is used to change the categories of one or more ISDN directory numbers. The command may be used in two different ways.

- To change from an existing category to a common category code for an ISDN directory number.
- To change any of the individual categories for an ISDN directory number.

Categories that are not stated will remain unchanged.

At least one of the category parameters CAT, TRAF, SERV, CDIV, ROC or ADC must be stated.

14.1.3

EXAMPLE 1

Change the traffic category for the ISDN directory number 4496 so that TRAF gets the following values:

- Abbreviated number traffic class = 02.
- TCD-category NIGHT = 14.
- TCD-category DAY = 11.
- Traffic connection class = 13.

```
ITCAC:DIR=4496,TRAF=02141113;
EXECUTED
```

14.1.4

EXAMPLE 2

ISDN directory numbers 4430 and 4498 are to change category code for the parameters TRAF, SERV, CDIV and ROC, so that they obtain the values given in the common category code 3.

```
ITCAC:DIR=4430&4498,CAT=3;
EXECUTED
```

14.1.5

EXAMPLE 3

Alter the categories for ISDN directory number 4498 so that SERV, TRAF, CDIV and ROC correspond to CAT number 3.

The additional categories shall be changed to:

- The directory number is allowed to use the feature, Request A-number from PSTN.
- The feature, extension number presentation category, is restricted for the directory number.
- The directory number is permitted to initiate malicious call tracing.
- Manual Message Waiting is not allowed.
- The directory number shall be permitted to accept transferred outgoing external calls.
- It is allowed to use Authorization Code without any Call Information Logging check.
- As the directory number is included in the public network number series it shall be permitted to send its own directory number to the public network.
- CLIP restriction override active.

```
ITCAC:DIR=4498,CAT=3,ADC=111102011;
EXECUTED
```

14.1.6

EXAMPLE 4

Change the hospitality class for extension 3310 from Room occupied to Room vacant.

```
ITCAC:DIR=3310,SERV=02111205110000;
EXECUTED
```

14.1.7

COMMAND CATEGORY

Dangerous = **No**

14.2

ITCUC

ISDN Terminal Customer Number Change

14.2.1 FORMAT

ITCUC:DIR=[,CUST=];

CUST = Customer number. The parameter is not optional in the customary sense. If the parameter is omitted, the customer number for the directory number will be removed.

DIR = Directory number. Directory number for ISDN terminal interfaces.
& and && are permitted for this parameter.

14.2.2 FUNCTION

The command is used to initiate, alter, or remove a directory number's customer affiliation.

All ISDN directory numbers for which customer numbers are to be changed, must be stated.

14.2.3 EXAMPLE

ISDN directory number 3320 shall alter customer number to 5.

```
ITCUC:DIR=3320,CUST=5;
EXECUTED
```

14.2.4 COMMAND CATEGORY

Dangerous = **No**

14.3 ITDAP

ISDN Terminal Data Print

14.3.1 FORMAT

ITDAP: $\left[\begin{array}{l} \text{DIR=...} \\ \text{EQU=} \end{array} \right] ;$

DIR = Directory number. Directory number for ISDN terminal interfaces.
ALL, & and && are permitted for this parameter.

EQU = Equipment position.

14.3.2 FUNCTION

The command is used to print data either for the stated directory numbers or for all directory numbers initiated at the stated equipment position.

When parameter EQU is stated, the default directory number is printed first.

14.3.3

PRINTOUT 1 (DIR)

ISDN EXTENSION DIRECTORY DATA								
DIR	EQU	CUST	SERV	TRAF	ADC	CDIV	ROC	CAT
.
.
.
END								

14.3.4

PRINTOUT 2 (EQU)

ISDN EXTENSION LINE DATA								
EQU	DIR	CUST	SERV	TRAF	ADC	CDIV	ROC	CAT
.
.
.
END								

ACCTYP	Access type. States standard protocol and mode of operation at the access.
ADC	Additional category.
CAT	Common category code. Common category code for the parameters TRAF, SERV CDIV and ROC.
CDIV	Call diversion category. Including the category for Individual Do Not Disturb (DND).
CUST	Customer number.
ROC	Routing category.
SERV	Service category.
TRAF	Traffic category.

14.3.5

EXAMPLE 1 (DIR)

Print data for directory numbers 4496 and 4519.

ITDAP:DIR=4496&4519;									
ISDN EXTENSION DIRECTORY DATA									
DIR	EQU	CUST	SERV	TRAF	ADC	CDIV	ROC	CAT	ACCTYP
4496	001A-0-42-02	-	0001100001	00151501	101113100	011011233000	237001	-	2
4519	002B-0-42-00	11	0203000001	00010103	100002100	111000000000	110001	3	0
END									

The categories for directory number 4519 agree with the value of CAT 3. When the categories for a directory number, as for 4496, do not agree with any of the existing common category codes, CAT 0-63, that is stated with a hyphen (-).

Directory number 4519 is affiliated to customer number 11. Directory number 4496 is not affiliated to any customer number, which is stated with a hyphen (-).

The access type for equipment position 002B-0-42-0 is defined for ETSI protocol and configuration point-to-multipoint (ACCTYP = 0) and for 001A-0-42-2 is defined for Bell-core protocol (ACCTYP = 2).

For an interpretation of the values for TRAF, CDIV, ROC, SERV and ADC consult the parameter description for ISDN TERMINAL.

14.3.6

EXAMPLE 2 (EQU)

Print data for all directory numbers at equipment position 1B-1-62-3.

```
ITDAP:EQU=1B-1-62-3;
ISDN EXTENSION DIRECTORY DATA
```

EQU	DIR	CUST	SERV	TRAF	ADC	CDIV	ROC	CAT	ACCTYP
1B-1-62-3	1150	-	0003011001	15010103	100002101	111000000000	110001	5	1
	1152	-	0203011001	00010101	111002100	111000023000	100101	39	
END									

The access type for equipment position 1B-1-62-3 is defined for ETSI protocol and point-to-point configuration (ACCTYP = 1).

The categories for directory number 1150 agree with the value of CAT 5 and for directory number 1152 with CAT 39.

14.3.7 COMMAND CATEGORY

Dangerous = **No**

14.4 ITNUE

ISDN Terminal Number End

14.4.1 FORMAT

ITNUE:DIR=;

DIR = Directory number. Directory number for ISDN terminal interfaces.
& and && are permitted for this parameter.

14.4.2 FUNCTION

The command removes one or several ISDN directory numbers.

14.4.3 EXAMPLE

Remove directory number 4496.

```
ITNUE:DIR=4496;
ITNUE:DIR=4496;
SURE?(YES/NO)
YES;
EXECUTED
```

14.4.4 COMMAND CATEGORY

Dangerous = **Yes**

14.5 ITNUI

ISDN Terminal Number Initiate

14.5.1

FORMAT

ITNUI:DIR=,EQU=, $\left[\begin{array}{l} ,CAT= \\ ,TRAF=,SERV=,CDIV=,ROC= \end{array} \right] - \left[,ADC= \right] \left[,ACCTYP= \right] \left[,CUST= \right] ;$

ACCTYP =	Access type. States the standard protocol used as well as the mode of operation at the access. If the parameter is omitted the default value (0) is used.
ADC =	Additional category. If the parameter is omitted the default value (0) is used.
CAT =	Common category code. Common category code for the parameters TRAF, SERV CDIV and ROC.
CDIV =	Call diversion category. Including the category for Individual Do Not Disturb (DND).
CUST =	Customer number. If the parameter is omitted the directory number will not be given any customer affiliation.
DIR =	Directory number. Directory number for ISDN terminal interfaces.
EQU =	Equipment position.
ROC =	Routing category.
SERV =	Service category.
TRAF =	Traffic category.

14.5.2

FUNCTION

The command is used to initiate one ISDN Terminal directory number with characteristics as stated in the parameters. It is possible to initiate up to 32 directory numbers at the same equipment position.

The directory number first initiated at every equipment position decides which access type, ACCTYP, that shall be valid for the interface. When affiliating additional directory numbers to an already defined interface, ACCTYP must be of the same type as for the existing interface. If not, the initiation will not be successful.

14.5.3

EXAMPLE 1

Initiate directory number 4496 on equipment position LIM 1, gateway B, magazine 0, board position 42 and individual 2.

The following category values shall apply:

Traffic category

- The directory number may use the common abbreviated numbers with class 00.
- The TCD is fully open for night and day service.
- The directory number must have traffic group 01.

Service category

- The directory number shall be blocked for outgoing traffic if the PBX is switched for emergency traffic.
- Open for direct indialling traffic from public exchange.
- The terminal belongs to the hospitality class, Normal extension.

- Permitted to accept collect calls (Brazil).

Call diversion

- The directory number is not permitted to use Do Not Disturb, Internal Follow Me or External Follow Me.
- The directory number is permitted to use direct diversion to an individual or common diverttee position.
- The directory number is not permitted to use the Diversion on Origin feature.

Routing categories

- The directory number FRL category is assigned to 0.
- The directory number is not required to use Account Code.
- Least Cost Routing number 0 is used.
- Authorization Type for route selection is set to normal extension.
- Toll exchange category (AON) is not used.

Additional categories

- The features, request A-number from network and directory number presentation category are not used in the system.
- Call metering is set per exchange.
- Malicious Call Tracing is not possible.
- Manual Message Waiting is not allowed.
- The directory number is not permitted to accept transferred or to transfer outgoing external calls.
- No Call Information Logging check has to be done when Authorization Code is given.
- The directory number may be sent to the public exchange.
- CLIP restriction override not active.

```
ITNUI:DIR=4496,EQU=1B-0-42-2,TRAF=00151501,
SERV=00001000010000,CDIV=000100000000,ROC=000001,
ADC=000000010;
EXECUTED
```

14.5.4

EXAMPLE 2 (INITIATE A TERMINAL WITH CAT)

Initiate an ISDN terminal with directory number 4525 to LIM 3, gateway A, magazine 1 and board position 21. The extension is to use individual number 4 on the board. The terminal categories for TRAF, SERV, CDIV and ROC are to be those stated in the common category code CAT 4.

Additional categories

- Request for A-number from the PSTN is restricted.
- Presentation of extension number is not allowed over the PSTN.
- Calls are metered per extension.
- The directory number can initiate malicious call tracing.
- Manual message waiting is allowed.

- The directory number is permitted to transfer and accept transfers of outgoing calls.
- No CIL check is required for Authorization Code outgoing calls.
- As the directory number is contained in the public number series the number is permitted to be sent to the public network.
- CLIP restriction override is active.

ITNUI:DIR=4525,CAT=4,EQU=3A-1-21-4,ADC=011113011; EXECUTED

14.5.5

COMMAND CATEGORY

Dangerous = **No**

15 KS - DIGITAL KEY SYSTEM TELEPHONE

15.1 KSADC

Key System Additional Data Change

15.1.1 FORMAT

KSADC:ADDNUM=,DIR=;

ADDNUM = Additional number. The directory number that is used for presentation on the display of the other party.

DIR = Directory number. Own Directory Number or Additional Directory Number. & is allowed for this parameter.

15.1.2 FUNCTION

The command is used to set an additional number for an extension that is to be presented on the display of the other party. The additional number should be an already assigned directory number, which represents a physical extension that can be called.

More than one directory number can have the same additional number. If no additional number is assigned, the directory number will be the default additional number.

15.1.3 EXAMPLE 1

Change the additional number for extension 1147 to 2158.

```
KSADC:DIR=1147,ADDNUM=2158;  
EXECUTED
```

15.1.4 EXAMPLE 2

Change the additional number for extensions 1111 and 1112 to 1100.

```
KSADC:DIR=1111&1112,ADDNUM=1100;  
EXECUTED
```

15.1.5 COMMAND CATEGORY

Dangerous = **No**

15.2 KSADP

Key System Additional Data Print

15.2.1

FORMAT

KSADP:DIR=;

DIR = Directory number. Own Directory Number or Additional Directory Number.
&, &&, and ALL are permitted for this parameter

15.2.2

FUNCTION

The command is used to print additional data for the given extension.

Note: The additional data of an extension will be printed only if it is different from the DIR data of that extension.

15.2.3

PRINTOUT

EXTENSION ADDITIONAL DATA	
DIR	ADDNUM
.	.
.	.
END	

ADDNUM Additional number.
For the value, see the parameter description for digital key system telephone.

15.2.4

EXAMPLE

Print the additional data for extensions 1147 and 1148.

```
KSADP:DIR=1147&1148;
EXTENSION ADDITIONAL DATA
DIR          ADDNUM
1147         2148
1148         2150
END
```

The additional number for extension 1147 is 2148 and the additional number for extension 1148 is 2150.

15.2.5

COMMAND CATEGORY

Dangerous = **No**

15.3

KSANC

Key System Additional Number Change

15.3.1

FORMAT

KSANC:ADN=[,DIR=][,DIRK=][,KEY=][,HKID=];

ADN = Additional directory number.

DIR = Directory number. Own Directory Number.

DIRK = Directory number and key placing. Own Directory Number.
& is allowed for this parameter.

HKID = Hide Key Information on Display.

KEY = Key placements. Key at which Additional Directory
Number shall exist.

The parameter is optional only if ADN is multiple represented on the telephone stated in parameter DIR. If the parameter is omitted, the key that possessed multiple representation of the number stated in parameter ADN will be used. See also under function.

15.3.2

FUNCTION

The command achieves the move of an Additional Directory Number to a new party with main responsibility. In addition to this Hide key information on display can be changed by using KSANC.

If the new party with main responsibility has the relevant Additional Directory Number as a Multiple Directory Number, then parameter KEY can be processed in two ways:

- KEY is omitted, which means that the key which had Multiple Directory Number will receive the Additional Directory Number.

- KEY is stated, which means that the stated key is assigned the Additional Directory Number. The key that had function Multiple Directory Number switches automatically to Telephone Name Selection.

If the new party with main responsibility does not have the relevant Additional Directory Number as Multiple Directory Number, then parameter KEY must always be stated.

The party previously having main responsibility for the relevant Additional Directory Number will not have the number represented on the telephone at all and the key switches to Telephone Name Selection.

15.3.3

EXAMPLE 1

Assign Additional Directory Number 1149 to a new party with main responsibility with Own Directory Number 1237. The function shall be affiliated to key 30.

```
KSANC:DIR=1237,KEY=30,ADN=1149;
EXECUTED
```

15.3.4

EXAMPLE 2

Initiate Number Presentation restriction for the Additional directory Number 1150.

```
KSANC:ADN=1150,HKID=1;
EXECUTED
```

15.3.5

COMMAND CATEGORY

Dangerous = **No**

15.4

KSANE

Key System Additional Number End

15.4.1

FORMAT

KSANE:ADN=;

ADN = Additional directory number.
& and && are permitted for this parameter.

15.4.2

FUNCTION

The command results in the erasure of additional directory number for the digital key system telephones. If this number is multiple represented, then the latter must be erased before the number itself can be erased.

If the additional directory number is part of a parallel ringing list, then the additional directory number cannot be erased.

15.4.3

EXAMPLE 1

Erase Additional Directory Number 1149.

```
KSANE:ADN=1149;  
KSANE:ADN=1149;  
SURE?(YES/NO)  
YES;  
EXECUTED
```

15.4.4

EXAMPLE 2

Erase Additional Directory Number 1149, which is part of a parallel ringing list.

```
KSANE:ADN=1149;
KSANE:ADN=1149;
SURE? (YES/NO)
YES;
NOT ACCEPTED
DIR=1149
INITIATED IN A PARALLEL RINGING LIST
```

15.4.5

COMMAND CATEGORY

Dangerous = **Yes**

15.5

KSANI

Key System Additional Number Initiate

15.5.1

FORMAT

KSANI: DIR=,KEY=,ADN= $\left[\begin{array}{l} ,CAT= \\ ,TRAF= ,SERV= ,CDIV= [,OFTIME=] ,ROC= [,FDTIME=] \end{array} \right]$
 [,ADC=] [,CUST=] [,CALALT=][,HKID=];

ADC =	Additional category. If the parameter is omitted, a default value will be used.
ADN =	Additional directory number.
CALALT =	Call alternative. And if the ODN call alternative can be programmed from the extension. If the parameter is omitted, a default value will be used.
CAT =	Common category code. Common for parameters TRAF, SERV, CDIV, and ROC.
CDIV =	Call diversion category.
CUST =	Customer number. If the parameter is omitted, a default value will be used.
DIR =	Directory number. Own Directory Number.
FDTIME=	Forced disconnection time
HKID =	Hide Key Information on Display.
KEY =	Key placement. Key on which Additional Directory Number shall exist.
OFTIME =	Offered time category.
ROC =	Routing category.
SERV =	Service category.
TRAF =	Traffic category.

15.5.2

FUNCTION

The command signifies an initiation and an assignment of an Additional Directory Number to an extension which possesses an Own Directory Number, and an affiliate Additional Directory Number to a customer number.

A digital key system telephone may have one or many additional directory numbers. Corresponding to directory numbers from the normal extension number series, these may be used for both incoming and outgoing traffic.

When an extension is given categories consisting of an existing combination of category characteristics, then parameter CAT is used. In other cases, parameters TRAF, SERV, CDIV, OFTIME and ROC must be stated.

The Hospitality class assigned to an ADDITIONAL DIRECTORY NUMBER by parameter SERV must be Normal extension.

The parameter KEY states the key on the digital key system telephone which is to have the Additional Directory Number.

An outgoing PSTN call can be set to terminate after a predefined time by a forced disconnect.

15.5.3

EXAMPLE 1

Initiate Additional Directory Number 1149 for a digital key system telephone with Own Directory Number 1147. The function must be initiated for key 24 and have category characteristics corresponding to the common category code 2. ADN shall belong to customer number 3. The call alternative shall be ringing after delay. The call alternative cannot be programmed for an ADN.

Additional category shall be:

- ACD agent position is not used.
- Reserved.
- The feature request A-number from PSTN is not used in the system.
- The feature extension number presentation category is not used in the system.
- Calls are metered per extension.
- The extension is not allowed to initiate malicious call tracing.
- Manual message waiting is not allowed.
- Permitted to transfer outgoing external calls and to accept the transfer of such calls.
- No CIL-check is done when authorization code is given.
- The extension is not allowed to send its Additional Directory Number to the public network.
- Reserved.
- CLIP restriction override not active.
- Multimember busy MMB. If MMB is set on ODN; and if ADN is busy, then ODN is treated as busy for incoming calls. If ADN has MMB set and if the ODN is busy, then ADN is treated as busy for incoming calls.
- Number log is always active.

KSANI:DIR=1147,KEY=24,ADN=1149,CAT=2,ADC=00001003000010,
CUST=3,CALALT=20;
EXECUTED

15.5.4

EXAMPLE 2

Initiate Additional Directory Number 1162 for a digital key system telephone with Own Directory Number 1158. The function must be on key 16.

The traffic category shall be as follows:

- Abbreviated number traffic class = 03
- TCD category, night = 07
- TCD category, day 15
- Traffic connection class = 14

The service category shall be as follows:

- ACD not used.
- Open for all traffic for emergency connected exchange.
- Permitted to initiate intrusion.
- Open for intrusion and reception of a call waiting tone from another telephone.
- Priority at intrusion = 2.
- Open for direct indialing traffic.
- Permitted to execute automatic recall to another extension or external line.
- Permitted to initiate call waiting tone to another party
- Hospitality class must be set to Normal extension (zero), as it is an ADN.
- Permitted to accept collect calls (Brazil).
- Call distribution is controlled by an external application.
- The extension shall be able to park the existing call and make an inquiry call even when intruded by supervisor.
- Tone shall be provided at answer from external application (e.g. CSTA).

The call diversion category shall be as follows:

- No rerouting limitations
- Individual do not disturb is not allowed.
- External follow me is not allowed.
- Call diversion on busy is allowed.
- Internal follow me is allowed.
- Diversion on origin feature is allowed. Diversion ways for calling party's types are Option 1 for internal party, Option 2 for public external line and Option 3 for private external line.
- Diversion on origin, use only local type of origin.

The routing category shall be as follows:

- FRL/TCM category has value 4.

- Forced account code is not required.
- LCR characteristics has value 2.
- Extension is affiliated to class D.

The Offered time category shall be as follows:

- Offered time duration is 10 seconds.
- Default values for ADC are used.
- Forced disconnection time is 300 seconds.

KSANI:DIR=1158,KEY=16,ADN=1162,TRAF=03071514,
SERV=02111201010111,CDIV=000101120000,ROC=422401,
OFTIME=10,FDTIME=300;
EXECUTED

15.5.5 COMMAND CATEGORY

Dangerous = **No**

15.6 KSCAC

Key System Category Change

15.6.1 FORMAT

KSCAC: DIR=, $\left[\left[\begin{array}{l} \text{,CAT=} \\ \left[\text{,TRAF=} \right] \text{,SERV=} \left[\text{,CDIV=} \right] \text{,OFTIME=} \left[\text{,ROC=} \right] \text{,FDTIME=} \end{array} \right] \right]$
[,ITYPE=][,ADC=][,TRM=][,LANG=][,BSEC=];

- ADC =** Additional category.
If the parameter is omitted, a default value will be used.
- BSEC =** Boss-secretary category.
If the parameter is omitted, a default value will be used.
- CAT =** Common category code. Common for parameters TRAF, SERV, CDIV, and ROC.
- CDIV =** Call diversion category.
- DIR =** Directory number. Own Directory Number or Additional Directory Number.
& and && are allowed for this parameter.
- FDTIME=** Forced disconnection time.
- ITYPE =** Instrument telephone type. (Must not be stated if the directory number is an Additional Directory Number).
- LANG =** Language code. This parameter is **only** available when the choice of language optional feature is loaded in the exchange.
If the parameter is omitted, the extension will be assigned the exchange language.
- OFTIME =** Offered time category
- ROC =** Routing category.

SERV =	Service category.
TRAF =	Traffic category.
TRM =	Transmission category. Indicates the transmission characteristics (attenuation or amplification) that are to be valid for the extension. If TRM is omitted, the default value 0 is given.

15.6.2

FUNCTION

The command results in a change of the category for the directory number stated. For Own Directory Number, a new type of telephone and a new language can also be stated. If ITYPE or LANG are stated for Additional Directory Number, a fault printout will be given.

The extension is given a new category, either by means of the CAT parameter (which consists of an existing combination of category characteristics) or by means of the TRAF, SERV, CDIV, OFTIME, and ROC parameters, specified separately.

If the value of parameter SERV is modified, the only allowed changes of the Hospitality class are the ones from Room vacant to Room occupied and the other way round.

If parameter ITYPE is used, the type of DTS is changed. If the new extension type has a different number of keys than the previous one, it may occur that some keys are lost. If these keys were programmed with information, this will be printed before the key is removed, to avoid the loss of important information. The printout is the following:

KEY DATA NOT INITIATED ON NEW EXTENSION			
DIR	KEY	FCN	DIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

The data corresponding to parameters that are not stated will remain unchanged.

If an Additional Directory Number is part of a parallel ringing list, it cannot be a part of an ACD group.

Note: At least one of the optional parameters must be stated.

15.6.3

EXAMPLE 1

An extension with 1147 as directory number will have a 10-key system telephone (a DBC223) and categories according to common category code 3.

The additional category shall be as follows:

- ACD agent position not used.
- Reserved.
- The feature request A-number from the PSTN is not used in the system.
- Extension number presentation over network is restricted.
- Calls are metered per extension.
- Malicious call tracing is not permitted.
- Permitted to use manual message waiting towards an extension.

- Permitted to receive transferred outgoing external calls.
- No CIL check is done when authorization code is given.
- Permitted to send Own Directory Number to the public network.
- Reserved.
- CLIP restriction override not active.
- Multimember busy MMB. If MMB is set on ODN and if ADN is busy, then ODN is treated as busy for incoming calls. If ADN has MMB set and if the ODN is busy, then ADN is treated as busy for incoming calls.
- Number log is always active.

KSCAC:DIR=1147, CAT=3, ITYPE=28, ADC=00011012010010; EXECUTED
--

15.6.4

EXAMPLE 2

Change the transmission category for extension 4498 to transmission category 1.

```
KSCAC:DIR=4498, TRM=1;
EXECUTED
```

15.6.5

EXAMPLE 3

An extension with directory number 1149 will change the additional category. The Additional category shall be:

- Agent Position is a Normal Extension.
- Reserved.
- The feature request A-number from the PSTN is not used in the system.
- Extension number presentation over network is not used in the system.
- Calls are metered per extension.
- Malicious call tracing is not permitted.
- Manual message waiting is not allowed.
- Permitted to transfer outgoing external calls.
- CIL check is done when authorization code is given.
- The extension is not permitted to send Own Directory Number to the public network.
- Reserved.
- CLIP restriction override active.
- Multimember busy is not set.
- No number log information if PN extension is not the same as the alerted extension for a personal number call to the PN extension.

```
KSCAC:DIR=1149,ADC=00001001100101;
EXECUTED
```

15.6.6

EXAMPLE 4

For extension 1148, the traffic category is to be changed to:

- Abbreviated number traffic class = 01
- TCD category, night = 05
- TCD category, day = 07
- Traffic connection class = 04

```
KSCAC:DIR=1148,TRAF=01050704;  
EXECUTED
```

15.6.7

EXAMPLE 5

Extension 1149 is a DBC 213 with two extra key panels (ITYPE 22). It is changed to type DBC 213 without extra key panels (ITYPE 20). In the transfer the key numbers 24-57 are lost.

The keys are programmed like this:

```
key 26    INTRUSION.  
key 28    CALL PICK-UP.  
key 33    TNS 12345.  
key 39    DO NOT DISTURB.
```

```
KSCAC:DIR=1149, ITYPE=20;  
KEY DATA NOT INITIATED ON NEW EXTENSION  
DIR          KEY          FCN          DIG  
1149         26          INT  
              28          CUP  
              33          TNS          12345  
              39          DND  
END
```

15.6.8

EXAMPLE 6

The text string messages for extension 1148 are to be displayed in the Spanish language.

```
KSCAC:DIR=1148,LANG=3;  
EXECUTED
```

15.6.9

EXAMPLE 7

Change the Boss-secretary category for extension 3312 to boss. If the Boss-secretary feature is active, then it is not possible to change the BSEC category for it.

```
KSCAC:DIR=3312,BSEC=2;  
EXECUTED
```

15.6.10

EXAMPLE 8

Change the additional directory number 3312 which is part of a parallel ringing list from normal extension to an ACD agent.

```
KSCAC:DIR=3312,ADC=10001113010000;  
NOT ACCEPTED  
DIR=3312  
INITIATED IN A PARALLEL RINGING LIST
```

The command is not executed because the additional directory number is part of a parallel ringing list.

15.6.11

EXAMPLE 9

Change Hospitality class for extension 3310 to Room vacant. Call distribution is controlled by an external application. The offered time is set to 15 seconds.

```
KSCAC:DIR=3310,SERV=02111205110100,OFTIME=15;  
EXECUTED
```

15.6.12 EXAMPLE 10

Change the authorization category for transfer of outgoing external call / collect call for extension 4498 so it is permitted to transfer outgoing external public call / collect call over the public trunk to external party and permitted to transfer the call to an intruded extension.

```
KSCAC:DIR=1147,CAT=3,ITYPE=33,ADC=0001101D010010;
EXECUTED
```

15.6.13 COMMAND CATEGORY

Dangerous = **No**

15.7 KSCAP

Key System Category Print

15.7.1 FORMAT

KSCAP:DIR=;

DIR = Directory number. Own Directory Number or Additional Directory Number. &, &&, and ALL are permitted for this parameter.

15.7.2 FUNCTION

The command initiates a printout of the category for the stated directory number. The instrument type is also stated for the Own Directory Number.

15.7.3 PRINTOUT

KEY SYSTEM CATEGORY PRINT										
DIR	TRAF	SERV	CDIV	ROC	ITYPE	TRM	ADC	LANG	BSEC	OFTIME
.
.
.
END										

ADC Additional category.

BSEC Boss-secretary category.

CDIV Call diversion category. For the value, see the parameter description for digital key system telephone.

ITYPE Instrument telephone type.
If instrument type is not set (ADNs), then a hyphen (-) will be printed out.

LANG Language code.

OFTIME Offered time category

ROC Routing category.
SERV Service category.
TRAF Traffic category.
TRM Transmission category.

15.7.4

EXAMPLE 1

Initiate a printout of the categories for extensions 1147, 1148 and 1149.

KSCAP:DIR=1147&&1149;											
KEY SYSTEM CATEGORY PRINT											
DIR	TRAF	SERV	CDIV	ROC	ITY PE	TR M	ADC	LA N G	BSEC	OFTIME	
1147	0311061 3	0011010201 000	0110711 20000	121401	28	0	0000000000 0010	F	1	0	
1148	0102030 4	021502050 1011	0001000 00000	224001	33	1	0000100301 0001	1	2	20	
1149	0208120 1	020712120 1000	0001412 11000	013401	-	2	0000010100 0001	-	-	0	
END											

Extensions 1147-1149 have the above categories. 1147 and 1148 are Own Directory Numbers, and consequently ITYPE, LANG and BSEC are stated for these.

For interpretation of the values of TRAF, SERV, CDIV, OFTIME, ROC, ITYPE, TRM, ADC, LANG and BSEC see the parameter description for *DIGITAL KEY SYSTEM TELEPHONE*.

15.7.5 EXAMPLE 2

Initiates a printout of the category for 1147. The instrument type is also stated for the Own Directory Number.

KSCAP:DIR=1147&&1149;										
KEY SYSTEM CATEGORY PRINT										
DIR	TRAF	SERV	CDIV	ROC	ITY PE	TR M	ADC	LA N G	BSEC	OFTIME
1147	0311061 3	0011010201 00	0110711 20000	121401	28	0	00000000B0 000010	F	1	0
END										

15.7.6 COMMAND CATEGORY

Dangerous = **No**

15.8 KSCHC

Key System Character Data Change

15.8.1 FORMAT

$$\text{KSCHC:} \left\{ \begin{array}{l} \text{CHRVAL=,FONT=... [,LANG=]} \\ \text{DISPOS=,DISVAL= [,LANG=]} \end{array} \right\} ;$$

- CHRVAL =** Character number for special characters.
- DISPOS =** Display conversion table position.
- DISVAL =** Display conversion table value.
- FONT =** Character font for special characters.
& is required for this parameter.
- LANG =** Language code.
.If the parameter is omitted, the exchange language will be used (see below).

15.8.2 FUNCTION

Note: This command only affects D3 terminals or older, if D4 terminals or newer are used they are unaffected by this command.

The command is used for changing the character font of a special character, for changing the value of an entry in the alphanumerical telephone display conversion table to include new characters, depending on the parameters introduced.

When the parameters used are CHRVAL and FONT, the command causes a change of the character font (bit matrix) of a special character in one of the special character

sets. There is a separate special character set for each of the ten available languages in the exchange.

The character is stated by parameter CHRVAL. Parameter LANG is used to state in which language (= special character set) the special character is to be changed. If no particular language is stated, the value of the application system parameter (PARNUM = 193) for the exchange language will be used. Only one character in one of the languages can be changed at a time.

The bit matrix (8 rows X 8 bits, the 5 least significant bits are used) is stated by parameter FONT. The form of input has to be XX, that is, exactly eight values XX as multiple input must be given where XX states, in hexadecimal form, the bits for one row in the matrix (the three most significant bits are not used).

When parameters DISPOS and DISVAL are used, the command causes a change of the value of a position in the alphanumerical telephone display conversion table. The alphanumerical digital key system telephone display is not able to display all the ISO 8859-1 characters, there is a conversion table to set the most similar character to be displayed on the digital key system telephone.

There is an alphanumerical telephone display conversion table per language, parameter LANG is used to state the language. If no particular language is stated, the value of the application system parameter (PARNUM = 193) for the exchange language will be used. Only one position in one of the languages can be changed at a time.

15.8.3

EXAMPLE 1

Assign the Ericsson-logo to the special character 2. As no particular language is stated, the affected language will be the one selected as exchange language at the moment of issuing command KSCHC.

```
KSCHC:CHRVAL=2, FONT=02&04&0A&14&0A&14&08&10;
EXECUTED
```

15.8.4

EXAMPLE 2

Assign the Ericsson-logo to the special character 2 of the special character set for the French language.

```
KSCHC:CHRVAL=2, FONT=02&04&0A&14&0A&14&08&10, LANG=1;
EXECUTED
```


15.8.5 EXAMPLE 3

Assign the Ñ character to the special character 0 of the special character set for the Spanish language.

```
KSCHC:CHRVAL=0, FONT=06&11&19&15&13&11&11&00, LANG=3;
EXECUTED
```

15.8.6 EXAMPLE 4

Assign the value of the special character 0 (Ñ, considering example 3) to the position D1 (character Ñ for the ISO 8859-1) of the alphanumerical telephone display conversion table for the Spanish language.

```
KSCHC:DISPOS=D1, DISVAL=00, LANG=3;
EXECUTED
```

15.8.7 EXAMPLE 5

Assign the value of the character 0 to the position D8 (character Ø for the ISO 8859-1) of the alphanumerical telephone display conversion table for the fifth language.

```
KSCHC:DISPOS=D8, DISVAL=30, LANG=5;
EXECUTED
```

15.8.8 COMMAND CATEGORY

Dangerous = **No**

15.9 KSCHP

Key System Character Data Print

15.9.1 FORMAT

$$\text{KSCHP} \left[: \left\{ \begin{array}{l} \text{CHRVAL} = \dots [\text{LANG} = \dots] \\ \text{DISPOS} = \dots [\text{LANG} = \dots] \end{array} \right\} \right];$$

CHRVAL = Character number for special characters.
&, &&, and ALL are permitted for this parameter.

DISPOS = Display conversion table position.
&, &&, and ALL are permitted for this parameter.

LANG = Language code.
ALL is permitted for this command. If the parameter is omitted, data of exchange language will be printed

15.9.2

FUNCTION

Note: This command only affects D3 terminals or older, if D4 terminals or newer are used they are unaffected by this command.

The command is used for the printout of the character font (bit matrix) of a special character, for the printout of the alphanumerical telephone display conversion table values, depending on the parameters introduced.

When parameter CHRVAL is used, the command causes a printout of the character font (bit matrix) of a special character. The printout shows the current bit setting for a special character in form of eight bytes in consecutive order, where the first byte states the upper most row of the matrix. Parameter LANG is used to state which of the language-associated sets of special characters is to be used when reading the character. If no particular language is stated, the value of the application system parameter for the exchange language will be used.

When parameter DISPOS is used, the command causes a printout of the required alphanumerical digital key system telephone display conversion table values. The printout shows the current value in hexadecimal format. Parameter LANG is used to state which of the language-associated alphanumerical digital key system telephone display conversion tables are used when reading the values. If no particular language is stated, the value of the application system parameter for the exchange language will be used.

If all the parameters are omitted, data of all special characters will be printed.

15.9.3

PRINTOUT 1

CHRVAL parameter is used, or no parameter is used.

KEY SYSTEM CHARACTER DATA	
LANG:...	
CHRVAL	FONT
.	.
.	.
.	.
END	

FONT Character font for special characters.
For the value, see the parameter description for digital key system telephone text.

15.9.4

PRINTOUT 2

DISPOS Parameter is Used with & and &&.

KEY SYSTEM CHARACTER DATA	
LANG:...	
DISPOS	DISVAL
.	.
.	.
.	.
END	

DISVAL Display conversion table value.
For the value, see the parameter description for digital key system telephone text.

15.9.5

PRINTOUT 3

DISPOS parameter is used with ALL.

KEY SYSTEM CHARACTER DATA																
LANG:...																
	00	10	20	30	40	50	60	70	80	90	A0	B0	C0	D0	E0	F0
00		
01		
02		
03		
04		
05		
06		
07		
08		
09		
0A		
0B		
0C		
0D		
0E		
0F		
END																

Note: When DISPOS=ALL is used, the whole alphanumerical telephone display conversion table will be shown. The most suitable output is by means of a table instead of a list.

The table contains the required alphanumerical telephone display conversion table values (DISVAL) of the different alphanumerical telephone display conversion table positions (DISPOS). The sum of the column and the row is DISPOS. For example, to know the conversion value (DISVAL) of DISPOS=37, column 30 and row 07 must be taken ($30+07=37$); the required value (DISVAL) is placed in the intersection of them.

15.9.6

EXAMPLE 1

Print the bit settings of the special characters 2 and 5. As no particular language is stated, the one selected as exchange language at the moment of issuing command KSCHP will be used, English in this case.

```
KSCHP:CHRVAL=2&5;
KEY SYSTEM CHARACTER DATA
LANG: ENGLISH
CHRVAL    FONT
2          02    04    0A    14    0A    14    08    10
5          00    00    00    00    00    00    00    00
END
```

15.9.7

EXAMPLE 2

Print the bit settings of the special character 6. Use the special character set associated with the Spanish language.

```
KSCHP:CHRVAL=6,LANG=3;
KEY SYSTEM CHARACTER DATA
LANG: SPANISH
CHRVAL    FONT
6          00    00    00    00    00    00    00    00
END
```

15.9.8

EXAMPLE 3

Print the value of the position D1 in the alphanumerical telephone display conversion table for the Spanish language.

```
KSCHP:DISPOS=D1,LANG=3;
KEY SYSTEM CHARACTER DATA
LANG: SPANISH
DISPOS      DISVAL
D1          EE
END
```

15.9.9

EXAMPLE 4

Print the alphanumerical telephone display conversion table for the exchange language, English in this case.

```
KSCHP:DISPOS=ALL;
KEY SYSTEM CHARACTER DATA
LANG: ENGLISH
      00    10    20    30    40    50    60    70    80    90    A0    B0    C0    D0    E0    F0
00      20    30    40    50    60    70      20    DF    41    44    61    FF
```

01	21	31	41	51	61	71	FF	FF	41	EE	61	EE
02	22	32	42	52	62	72	EC	FF	41	4F	61	6F
03	23	33	43	53	63	73	FF	FF	41	4F	61	6F
04	24	34	44	54	64	74	FF	27	41	4F	E1	6F
05	25	35	45	55	65	75	5C	E4	06	4F	06	6F
06	26	36	46	56	66	76	7C	F7	07	EF	07	EF
07	27	37	47	57	67	77	FF	A5	EC	78	EC	FD
08	28	38	48	58	68	78	22	2C	45	30	65	F2
09	29	39	49	59	69	79	FF	FF	45	55	65	75
0A	2A	3A	4A	5A	6A	7A	FF	FF	45	55	65	75
0B	2B	3B	4B	5B	6B	7B	FF	FF	45	55	65	75
0C	2C	3C	4C	A4	6C	7C	FF	FF	49	F5	69	F5
0D	2D	3D	4D	5D	6D	7D	FF	FF	49	59	69	79
0E	2E	3E	4E	5E	6E	7E	FF	FF	49	F0	69	F0
0F	2F	3F	4F	5F	6F		B0	FF	49	E2	69	79
END												

15.9.10 COMMAND CATEGORY

Dangerous = **No**

15.10 KSCUC

Key System Extension Customer Number Change

15.10.1 FORMAT

KSCUC:DIR=[,CUST=];

CUST = Customer number.
If the parameter is omitted, the customer number will be removed.

DIR = Directory number. Own Directory Number or Additional Directory Number.
& and && are permitted for this parameter.

15.10.2 FUNCTION

The command results in initiation, alteration or erasure of the extension's customer number.

Parameter CUST is not optional in an ordinary meaning. When the CUST is omitted it causes a removal of the extensions.

15.10.3 EXAMPLE 1

The extension with Own Directory Number 1147 shall belong to customer number 4.

KSCUC:DIR=1147,CUST=4;
EXECUTED

15.10.4 EXAMPLE 2

The extension with Own Directory Number 1148 shall not belong to any customer.

KSCUC:DIR=1148;
EXECUTED

15.10.5 COMMAND CATEGORY

Dangerous = **No**

15.11 **KSDDP**

Key System Directory Data Print

15.11.1 FORMAT

KSDDP:DIR=;

DIR = Directory number. Own Directory Number or Additional Directory Number.
 &, &&, and ALL are permitted for this parameter.

15.11.2 FUNCTION

The command initiates a printout of directory number data for the digital key system telephone.

15.11.3 PRINTOUT

KEY SYSTEM DIRECTORY DATA								
DIR	CUST	EQU	CAT	ADN	ODN	CALALT	TIMER	FDTIME
.
.
.
END								

ADN Additional directory number.

CALALT Call alternative.

CAT Common category code. Common for parameters TRAF, SERV, CDIV and ROC.
 If the category of the extension does not correspond to the common category code,
 then a hyphen (-) will be printed out.

CUST Customer number.

EQU	Equipment position.
FDTIME	Forced disconnection time. For the value, see the parameter description for digital key system telephone
ODN	Own directory number.
TIMER	Type of Timer. The Timer Parameter is not valid for ADN and is therefore marked with a dash (-).

15.11.4

EXAMPLE

Print the directory number data for the extensions 1147, 1148, 1149 and 1150.

KSDDP:DIR=1147&&1150;								
KEY SYSTEM DIRECTORY DATA								
DIR	CUST	EQU	CAT	ADN	ODN	CALALT	TIMER	FDTIME
1147	3	001A-1-62-01	5			10	1	0
	9		2	1149		21	-	0
1148		001A-1-62-02	-			10	0	1
1149	9		2		1147	41	-	0
1150		001A-1-62-03	-			10	0	0
END								

- Directory number 1147 is an Own Directory Number with categories according to common category code 5.

Own Directory Number belongs to customer number 3 and has periodic ringing as call alternative (1). Programming of call alternative can be done from the extension.

The extension has Additional Directory Number 1149, which belongs to customer number 9, has common category code 2, and has ringing after delay as call alternative (2). Terminal programming is not allowed for ADNs.

It is connected to LIM 1, gateway A, magazine 1, board position 62 and individual 1. The timer is automatic.
- Directory number 1148 has an Own Directory Number with categories that do not correspond to any common category code.

The extension is connected to LIM 1, gateway A, magazine 1, board position 62, individual 2.

The call alternative is periodic ringing (1).

Programming of call alternative is allowed from the extension.

The outgoing PSTN calls have a maximum duration.

Timer is default/manual.
- Directory number 1149 is an Additional Directory Number with categories according to common category code 2, and with ringing period after delay as call alternative (4).

The telephone serving as primary instance for directory number 1149 is directory number 1147. Timer parameter is not valid for ADNs, 1149 is an ADN. Programming of call alternative cannot be done from the extension.

- Directory number 1150 is an Own Directory Number with categories that do not correspond to any common category code.
The extension is connected to LIM 1, gateway A, magazine 1, board position 62, individual 3.
The call alternative is periodic ringing (1). Programming of call alternative is allowed. Timer is default/manual.

15.11.5 COMMAND CATEGORY

Dangerous = **No**

15.12 KSEX

Key System Extension End

15.12.1 FORMAT

KSEX:DIR=;

DIR = Directory number. Own Directory Number.
 & and && are allowed for this parameter.

15.12.2 FUNCTION

The command results in erasure of a digital key system telephone with Own Directory Number stated. If this number is represented in multiple form, such multiple representation must be erased before the digital key system telephone is erased. The same rule applies to Additional Directory Number.

15.12.3 EXAMPLE

Erase digital key system telephone with Own Directory Number 1147.

```
KSEX:DIR=1147;
KSEX:DIR=1147;
SURE? (YES/NO)
YES;
EXECUTED
```

15.12.4 COMMAND CATEGORY

Dangerous = **Yes**

15.13 KSEXI

Key System Extension Initiate

15.13.1

FORMAT

KSEX1:DIR=,EQU=[,CAT=
 ,TRAF= ,SERV=,CDIV=[,OFTIME=],ROC=[,FDTIME=]
 ,ITYPE= [,ADC=][,TRM=][,CUST=][,CALALT=][,LANG=
 [,BSEC=][,TIMER=];

ADC =	Additional category. If the parameter is omitted, the default values 0 are given.
BSEC =	Boss-secretary category. If the parameter is omitted, none (neither Boss or secretary) will be used.
CALALT =	Call alternative. If the parameter is omitted, the default value for call alternative will be 00 or 10. Programming is allowed by default.
CAT =	Common category code. Common for parameters TRAF, SERV, CDIV and ROC.
CDIV =	Call diversion category.
CUST =	Customer number. If the parameter is omitted, no customer number will be assigned to the extension.
DIR =	Directory number. Own Directory Number. & and && are allowed for this parameter.
EQU=	Equipment position.
FDTIME=	Forced disconnection time.
ITYPE =	Instrument telephone type.
LANG =	Language code. This parameter is only available when the choice of language optional feature is loaded in the exchange. If the parameter is omitted, the extension will be assigned the exchange language.
OFTIME=	Offered time category
ROC =	Routing category.
SERV =	Service category.
TIMER =	Timer information. If the parameter is omitted, manual timer will be used.
TRAF =	Traffic category.
TRM =	Transmission category. Indicates the transmission characteristic (attenuation or amplification) which is valid for the extension. If the parameter is omitted, the default value 0 is given.

15.13.2

FUNCTION

The command results in initiation and assignment of Own Directory Number for a new extension equipped with a digital key system telephone and affiliate the Own Directory Number to a customer number.

Each extension can have one - and only one - Own Directory Number. This means that Own Directory Number can represent the telephone as far as the free and busy states are concerned. OWN DIRECTORY number is represented on up to three keys, which

can be used for three separate traffic functions (call options) having more or less independent user states:

Own Directory Number	1
-"-	2
-"-	3

On initiation of certain types of digital key system telephones the Own Directory Number is represented on **only two keys**. For further information, please see parameters ITYPE and KEY in the parameter description for MML parameter.

When several extensions are to be initiated simultaneously, that is, when DIR is a multiple, the stated equipment position is used for the first extension. The other extensions are assigned to the next free equipment positions which are correctly equipped. The used gateway is set by a letter after the LIM number.

When an extension is to be given a category consisting of an existing combination of category characteristics, the CAT parameter is used. Otherwise TRAF, SERV, CDIV, OFTIME, and ROC must be stated.

On completion of the initiation phase, Own Directory Number, Programming mode, Diversion and Automatic call back exist on predetermined button (key) positions. The other buttons are defined as TELEPHONE NAME SELECTION. see the parameter description for MML parameters.

Parameter ADC can be omitted and default value 0 is then used.

Parameter TRM states the transmission characteristics.

Parameter CUST is used to state to which customer Own Directory Number shall be affiliated. If the customer group function is used in the system, all extensions must then belong to a customer.

Parameter LANG is used to select a particular language for the initiated extension. If this parameter is not stated, the **exchange language** will be used instead. This means that the text string messages in whichever language is chosen as exchange language will be displayed at the moment of requesting them. If a new language is selected as exchange language, the text string messages in that particular language will be displayed. The exchange language is stated in the application system parameter (*PARNUM=193*).

Parameter SERV can only assign the Hospitality class Service quarter to an extension if parameter ITYPE states the telephone type DBC 203/213/223/225.

Parameter BSEC states the Boss-secretary category code.

Parameter TIMER states the type of timer information.

Parameter FDTIME states the maximum time duration for outgoing calls.

15.13.3

EXAMPLE 1

Initiate a 36-button key system telephone, a DBC 223 with extra key panels, with Own Directory Number 1147 and customer number 3 to the equipment position corresponding to LIM 1, gateway A, magazine 1, board position 62 and individual 1 and assign category characteristics according to category code 5. The extension is not included in the public number series. ADC will have default value 0. TRM will have default value 0. No particular language is desired, so the exchange language will be used. No BSEC category is desired, which means the default value is used.

```
KSEX:DIR=1147,EQU=1A-1-62-1,CAT=5,ITYPE=30,CUST=3;
EXECUTED
```

15.13.4

EXAMPLE 2

Initiate a DBC 225 key system telephone with Own Directory Number 1148 to the equipment position corresponding to board individual 2 in LIM 1, gateway B, magazine 1, board position 62 and individual 2.

The traffic category shall be:

- Abbreviated number traffic class = 01
- TCD category, night = 02
- TCD category, day = 03
- Traffic connection class = 04

The service category shall be:

- ACD not used.
- Open for all traffic when the PBX is in emergency state
- Permission to initiate intrusion.
- Open for intrusion tone and call-waiting tone from other telephones.
- Priority for intrusion = 3.
- Barred for direct indialing traffic.
- Permitted to use the automatic call back facility to other extension and to external line.
- Permitted to initiate call-waiting tone to other parties, and to receive call-waiting tone from other extension and from the PBX operator.
- The extension belongs to Hospitality class Normal extension.
- Permitted to accept collect calls (Brazil).
- Call distribution is controlled by an external application.
- The extension shall be able to park the existing call and make an inquiry call even when intruded by supervisor.
- The Extended service at Supervisor Intrusion shall not be set.
- Tone shall not be provided at answer from external application.

The call diversion category shall be:

- No rerouting limitation.
- Individual do not disturb is not allowed.
- External follow me is allowed.
- Diversion on busy is allowed.
- Internal follow me is allowed.
- Diversion on origin feature is allowed. Diversion ways for calling party's types are Option 1 for internal party, Option 2 for public external line and Option 3 for private external line.
- Diversion on origin, use only local type of origin.

The offered time category shall be:

- Offered time duration is 5 seconds.

The routing category shall be:

- FRL/TCM category shall have the value of 4.
- Account code category shall have the value of 1.
- Least cost routing shall have the value of 2.
- Extension is affiliated to class D.

The additional category, ADC, shall be:

- ACD not used.
- Reserved.
- The feature request A-number from the PSTN is not used in the system.
- The feature extension number presentation category is not used in the system.
- Calls are metered per extension.
- The extension is not allowed to initiate malicious call tracing.
- Manual message waiting is allowed.
- Permitted to transfer and accept transfers of outgoing external calls.
- CIL check is done when authorization code is given.
- The extension is included in the public network number series and is permitted to send Own Directory Number to the public exchange.
- Reserved.
- CLIP restriction override not active.
- Multimember busy is not set.
- Number log is always active.
- The selected language for the extension is German.
- The selected BSEC category is Secretary.
- The selected TIMER is Automatic timer.

```
KSEXI:DIR=1148,EQU=1B-1-62-2,TRAF=01020304,
SERV=02150205010100,CDIV=001101023000,OFTIME=5,ROC=412401,ITYPE=33,ADC=0
0001013110000, LANG=2,BSEC=1,TIMER=1;
EXECUTED
```

15.13.5

EXAMPLE 3

Initiate a 23-button key system telephone (DBC 203) with Own Directory Number 1150 as an extension in the equipment position corresponding to LIM 1, gateway C, magazine 1, board position 62 and individual 3 and assign category characteristics according to category code 5. The exchange language will be used. The selected BSEC category is boss. The selected TIMER is manual or default timer.

```
KSEXI:DIR=1150,EQU=1C-1-62-3,CAT=5,ITYPE=20,BSEC=2,
TIMER=0;
EXECUTED
```

15.13.6

EXAMPLE 4

Initiate a telephone with Own Directory Number 1147 with the equipment position corresponding to LIM 1, gateway A, magazine 1, board position 62, and individual 1. Assign category characteristics according to category code 5. Programming of call alternative is not allowed from this extension. Set a maximum duration of outgoing calls to 300 seconds.

```
KSEXI:DIR=1147,EQU=1A-1-62-1,CAT=5,ITYPE=20,CALALT=11, FDTIME=300;  
EXECUTED
```

15.13.7

EXAMPLE 5

Initiate a telephone with Own Directory Number 1147 with the equipment position corresponding to LIM 1, gateway K, magazine 1, board position 62, and individual 1. Assign category characteristics according to category code 5. Programming of call alternative is allowed from this extension.

```
KSEXI:DIR=1147,EQU=1K-1-62-1,CAT=5,ITYPE=20,CALALT=10;
EXECUTED
```

15.13.8

EXAMPLE 6

Initiate a DBC 223 key system telephone with Own Directory Number 1148 to the equipment position corresponding to LIM 1, gateway B, magazine 1, board position 62 and individual 2. Permitted to accept transferred outgoing external public call / collect call and permitted to transfer the call to intruded extension.

```
KSEXI:DIR=1148,EQU=1B-1-62-2,TRAF=01020304,
SERV=02150205010100,CDIV=001101023000,OFTIME=5,ROC=412401,
ITYPE=28,ADC=0000101A110000,LANG=2,BSEC=1,TIMER=1;
EXECUTED
```

15.13.9

COMMAND CATEGORY

Dangerous = **No**

15.14

KSFKC

Key System Function Key Change

15.14.1

FORMAT

$$\text{KSFKC:} \left\{ \begin{array}{l} \text{DIRK=...} \\ \text{DIR=...,KEY=} \end{array} \right\}, \text{FCN= [,DIG=];}$$

DIG = Digit or personal number list or boss directory number for secretary.
If the parameter is omitted, see under function for information.

DIR = Directory number. Own Directory Number.
&, &&, and ALL are allowed for this parameter.

DIRK = Directory number and key placing. Own Directory Number.

FCN = Key function.

KEY = Key placement. The key that is to represent the function.

15.14.2

FUNCTION

The command changes the function of a key on the digital key system telephone.

Only keys that have previously been defined as function keys, such as keys of KTYPE=FCN, can be given a new function with this command.

For further information, see parameters ITYPE and KEY in the parameter description for *DIGITAL KEY SYSTEM TELEPHONE*.

Parameter DIRK is used when several telephones are to be given a new function simultaneously, and when different key numbers are to be used on the different telephones. In all other cases, DIR and KEY should be used.

If parameter FCN has been allocated the value TNS (one-way-single-button calling), then the Name selection number can be initiated with the DIG parameter. If parameter DIG is omitted, then the number may be programmed in the usual way from the digital key system telephone

If parameter FCN has been allocated, the value PEN, then the list number associated with the key can be initiated with the DIG parameter. If parameter DIG is omitted, then list 1 will be associated with the key.

If parameter FCN has been allocated the value NLOG and the extension belongs to the Hospitality class, Service quarter, the command will be rejected.

Note: DBC 223 allows the user to program keys 0x0C and 0x0D using the KSFKC command. They function as TRANSFER key and MENU key, respectively. DBC 225 allows the user to program key 0x0C using the KSFKC command. It functions as a TRANSFER key.

15.14.3

EXAMPLE 1

The system telephones with Own Directory Number 1127 and 1147 are to have the conference function on key 43.

```
KSFKC:DIR=1127&1147,KEY=43,FCN=CNF;
EXECUTED
```

15.14.4

EXAMPLE 2

The system telephones with Own Directory Number 1148 and 1192 are to have the Last number redial function on keys 35 and 37, respectively.

```
KSFKC:DIRK=1148-35&1192-37,FCN=ENR;
EXECUTED
```

15.14.5

EXAMPLE 3

A digital key system telephone with 1147 as Own Directory Number is to have the function TELEPHONE NAME SELECTION on key 4. An external number (7364551) will be programmed as single-button calling number. The route access number is 00.

```
KSFKC:DIR=1147,KEY=4,FCN=TNS,DIG=007364551;
EXECUTED
```

15.14.6

EXAMPLE 4

A digital key system telephone with 1150 as Own Directory Number is to have the function Personal Number on key 23, with the list 3 associated.


```
KSFKC:DIR=1150,KEY=23,FCN=PEN,DIG=3;
EXECUTED
```

15.14.7

EXAMPLE 5

A digital key system telephone with 1151 as Own Directory Number and having BSEC category as secretary is to have the function Personal Number on key 18, with the boss directory number 2312 associated.

```
KSFKC:DIR=1151,KEY=18,FCN=PEN,DIG=2312;
EXECUTED
```

15.14.8

COMMAND CATEGORY

Dangerous = **No**

15.15

KSFKP

Key System Function Key Print

15.15.1

FORMAT

KSFKP:DIR=[,KTYPE=];

DIR = Directory number. Own Directory Number.
&, &&, and ALL are allowed for this parameter.

KTYPE = Key type. The function for which the key is used.
& and ALL are allowed for this parameter. If the parameter is omitted, keys of all key types will be included in the printout.

15.15.2

FUNCTION

The command results in printout of the function key data for one or more digital key system telephones. KTYPE is used for selecting the key type to be presented.

Note: DBC 223 allows the user to program keys 0x0C and 0x0D using the KSFKC command. They function as TRANSFER key and MENU key, respectively, even though the KSFKP command prints the new function. DBC 225 allows the user to program keys 0x0C using the KSFKC command. The key functions as a TRANSFER key, even though the KSFKP command prints the new function.

15.15.3

PRINTOUT

KEY SYSTEM Function KEY DATA PRINT				
DIR=...				
KEY	KTYPE	VALUE	DIG	HKID
.
.
.
DIR=...				
KEY	KTYPE	VALUE	DIG	HKID
.
.
.
END				

- DIG** Digit or personal number list or boss directory number.
For the value, see the parameter description for digital key system telephone.
- HKID** Hide Key Information on Display.
For the value, see the parameter description for digital key system telephone.
- KEY** Key placing. The key that contains the function.
For the value, see the parameter description for digital key system telephone.
- VALUE** Value for function. The data in the VALUE column will depend on the key type

15.15.4

COMMAND CATEGORY

Dangerous = **No**

15.16

KSMDE

Key System Multiple Directory Number End

15.16.1

FORMAT

KSMDE:DIR=,MDN=;

- DIR =** Directory number. Own Directory Number.
&, &&, and ALL are permitted for this parameter.
- MDN =** Multiple directory number. Directory number with multiple representation.

15.16.2

FUNCTION

The command achieves erasure of a multiple represented directory number and of a multiple representation with name selection for a digital key system telephone.

15.16.3

EXAMPLE

Erase multiple represented directory number 1150 from the extensions with Own Directory Number 1147 and 1148.

```
KSMDE:DIR=1147&1148,MDN=1150;
EXECUTED
```

15.16.4

COMMAND CATEGORY

Dangerous = **No**

15.17

KSMDI

Key System Multiple Directory Number Initiate

15.17.1

FORMAT

$$\text{KSMDI: } \left\{ \begin{array}{l} \text{DIRK=...} \\ \text{DIR=...,KEY=} \end{array} \right\} , \text{MDN= [,DIG=] [,CALALT=];}$$

CALALT =	Call alternative. If the parameter is omitted, a default value will be used for the call alternative.
DIG =	Digit. If the parameter is omitted see under function for information.
DIR =	Directory number. Own Directory Number. & and && are permitted for this parameter.
DIRK =	Directory number and key placing. & is permitted for this parameter.
KEY =	Key placement. Key on which function shall exist.
MDN =	Multiple directory number, that is, directory number with multiple representation.

15.17.2

FUNCTION

The command achieves initiation and assignment of a multiple representation of a directory number or a multiple representation with telephone name selection (executive/secretary function) for an extension equipped with a digital key system telephone, an analog telephone set or a generic extension.

Multiple representation means that a directory number belonging to a digital key system telephone (ODN or ADN), an Analog telephone set (primary or ordinary) or a generic extension can, in addition to own telephone, also be represented on one or more (maximum 40) other digital key system telephones. For multiple representation directory numbers (MDN) the key can be used for incoming as well as outgoing traffic. For multiple representation with telephone name selection (MNS) the key can be used for incoming traffic or as a single-button calling number (TNS key) in idle state. The button on a digital key system telephone where a directory number is represented has the MULTIPLE DIRECTORY NUMBER function. The button on a digital key system

telephone where a directory number is multiple represented with telephone name selection has the MULTIPLE NAME SELECTION function.

The command without parameter DIG initiates a multiple representation of a directory number. Parameter DIG together with parameter MDN is used to initiate a multiple representation with telephone name selection. Parameter DIG is used to initiate the Name selection number on the multiple represented directory number stated in parameter MDN.

A generic extension can only be multiple represented as multiple representation with telephone name selection. Therefore parameter DIG is mandatory for generic extensions.

This MNS function can be initiated for any kind of generic extension but will only work on the generic extension types which allow the function, for example, cordless extensions or IP extensions.

Parameter KEY is used to state on which button on the digital key system telephone the multiple represented number shall exist.

Parameter DIRK is used when several digital key system telephones are to be initiated simultaneously and different key numbers are to be used on the various telephones. In other respects DIR and KEY should be used.

When the main DTS and the MDN DTS belong to Hospitality class Room vacant or Room occupied, both DTS extensions must be initiated in the same LIM, otherwise the command will be rejected and therefore the MDN will not be initiated.

It is not possible to initiate more than one MDN on an extension with Hospitality class Room vacant or Room occupied.

It is not possible to initiate an MNS when the main DTS or the MNS DTS belongs to Hospitality class Room vacant or Room occupied.

15.17.3

EXAMPLE 1

Arrange multiple representation of directory number 1150 on the digital key system telephones with Own Directory Number 1147 and 1148. Buttons 37 and 46 respectively are to be used. The call alternative is to be ringing after delay.

```
KSMDI:DIRK=1147-37&1148-46,MDN=1150,CALALT=20;
EXECUTED
```

15.17.4

EXAMPLE 2

Arrange multiple representation of directory number 1147 on the digital key system telephone possessing Own Directory Number 2214. Key 14 is used. The call alternative is to be only the first ringing period (muted).

```
KSMDI:DIR=2214,KEY=14,MDN=1147,CALALT=30;
EXECUTED
```

15.17.5

EXAMPLE 3

A digital key system telephone with 1147 as Own Directory Number is to have the executive/secretary function (MULTIPLE REPRESENTATION WITH NAME SELECTION) on key 4. An internal number (4551) will be programmed as single-button calling number.

```
KSMDI:DIR=1147,KEY=4,MDN=4551,DIG=4551,CALALT=30;
EXECUTED
```

15.17.6

COMMAND CATEGORY

Dangerous = **No**

15.18

KSMDP

Key System Multiple Directory Number Print

15.18.1

FORMAT

KSMDP:MDN=[,EXTYPE=];

EXTYPE = Type of extension. Type of extension for the MDN.
 If the parameter is omitted, multiple represented directory numbers of all extension types will be included in the printout.

MDN = Multiple directory number. Directory number with multiple representation.
 &, &&, and ALL are permitted for this parameter.

15.18.2

FUNCTION

The command initiates a printout of multiple represented directory numbers in respect of the digital system telephone.

Multiple representation means that a directory number belonging to a digital key system telephone (ODN or ADN), an analog telephone set (primary or ordinary), or a generic extension can, in addition to its own telephone, also be represented on one or more (maximum 40) other digital key system telephones. For multiple representation directory numbers (MDN), the key can be used for incoming as well as outgoing traffic. For multiple representation with telephone name selection (MNS) the key can be used for incoming traffic or as a single-button calling number (TNS key) in idle state. The key on a digital key system telephone where a directory number is represented has the Multiple Directory Number function. The key on a digital key system telephone where a directory number is multiple represented with telephone name selection has the Multiple Name Selection function.

By using parameter EXTYPE, it is possible to get a printout of multiple represented directory numbers of a certain extension type.

15.18.3

PRINTOUT

KEY SYSTEM MULTIPLE DIRECTORY NUMBER DATA			
MDN	DIR	KEY	CALALT
.
.
.
END			

- CALALT**

Call alternative plus if programming of call alternative is allowed from the extension. A hyphen (-) is stated in the row of the MDN primary instance if that is not a digital key system telephone, since call alternative is not applicable to other extension types.
For the value, see the parameter description for digital key system telephone.
- DIR**

Directory number. Own Directory Number. An asterisk (*) is printed before the directory number representing the telephone that is the primary instance for the MDN, that is, where the MDN is own directory number, additional directory number, primary number, ordinary number, or generic extension number.
For the value, see the parameter description for digital key system telephone.
- KEY**

Key placement. Key on which number is represented. A hyphen (-) is stated in the row of the MDN's primary instance if that is not a digital key system telephone, since key placement are not applicable to other extension types.
For the value, see the parameter description for digital key system telephone.

15.18.4

EXAMPLE 1

Print multiple represented directory numbers between 1147 and 1151.

KSMDP:MDN=1147&&1151;			
KEY SYSTEM MULTIPLE DIRECTORY NUMBER DATA			
MDN	DIR	KEY	CALALT
1147	*1147	25	10
	1252	35	30
	2114	50	30
1150	*1118	51	10
	1147	37	20
	1148	46	20
1151	*1151	-	-
	1147	36	20
END			

The telephone that is primary instance for the number (where the number is Own Directory Number, Additional Directory Number, primary number, ordinary number, or generic extension number) is to be indicated by an asterisk (*).

Directory number 1147 is represented on the digital key system telephones by Own Directory Numbers 1147, 1252, and 2114.

Directory number 1150 is represented on the digital key system telephones by Own Directory Numbers 1118, 1147, and 1148.

Directory number 1151—the primary or ordinary number for an analog, or an extension number for a generic extension—is multiple represented on the digital key system telephone by Own Directory Number 1147.

Under the heading KEY is stated on which keys, for each extension, the number exists.

Under the heading CALALT is stated the call alternatives programmed for the keys in question plus if the call alternative can be programmed from the extension or not.

If the MDN's primary instance is not a digital key system telephone, a hyphen (-) is stated in the KEY and CALALT columns, since there are no keys or call alternatives for other extension types.

15.18.5 EXAMPLE 2

Print multiple represented directory numbers between 1147 and 1151, which are analog extensions.

KSMDP:MDN=1147&&1151,EXTYPE=ATS;			
KEY SYSTEM MULTIPLE DIRECTORY NUMBER DATA			
MDN	DIR	KEY	CALALT
1151	*1151	-	-
	1147	36	20
END			

The telephone that is the primary instance for the number (where the number is Own Directory Number, Additional Directory Number, primary number, ordinary number, or generic extension number) is to be indicated by an asterisk (*).

Directory number 1151—the primary, ordinary number for an analog, CAS, or POTS extension, or an extension number for a generic extension—is multiple represented on the digital key system telephone with Own Directory Number 1147.

Under heading KEY, it is stated on which keys, for each extension, the number exists.

Under heading CALALT, the call alternatives programmed for the keys in question are stated. The 0 indicates that the call alternative can be programmed from the extension.

If the MDN is represented on an analog extension, a hyphen (-) is stated in the KEY and CALALT columns, since there are no keys or call alternatives for other extension types.

15.18.6 COMMAND CATEGORY

Dangerous = **No**

16

LC - LEAST COST ROUTING

16.1

LCDDE

Least cost destination data end

16.1.1

FORMAT

LCDDE: TAB=[,ENTRY=][,FRCT=][,TZONE=];

- ENTRY =** Number to be analyzed.
 & is allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).
- FRCT =** Fictitious Route Choice Table.
 & is allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).
- TAB =** Table name.
- TZONE =** Time Zone.
 & and && are allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).

16.1.2

FUNCTION

The command is used for deleting data from the analysis tables for Least Cost Routing, that is, the External Number Table (ENT), the Number Length Table (NLT), the Exceptions Table (DNT1), the Number Table (DNT2) and the Fictitious Destination Table (FDT).

The command may also be used for deleting data from the Private Network Routing destination tables. These tables are accessed when parameter TAB is used with the value PNR or RCT (see the matrix for PNR, RCT).

Depending on what table that is referred to, different parameters must be given in the command. This is shown in the following matrix:

Value TAB	Parameter			
	ENTRY	FRCT	TZONE	
ENT	o	-	-	(both or none must be given)
NLT	o	-	-	
DNT1	o	-	-	
DNT2	o	-	-	
FDT	-	o	o	

Value for TAB	Parameter	
	ENTRY	FRCT
PNR	o	-
RCT	-	o

o = optional - = not allowed

If only TAB is given the whole table will be deleted.

16.1.3

EXAMPLE 1

Delete the number 91535 from the External Number Table.

```
LCDDE:TAB=ENT,ENTRY=91535;
LCDDE:TAB=ENT,ENTRY=91535;
SURE? (YES/NO)
YES;
EXECUTED
```

16.1.4

EXAMPLE 2

Delete the numbers 901 and 91 in the Number Length Table.

```
LCDDE:TAB=NLT,ENTRY=901&91;
LCDDE:TAB=NLT,ENTRY=901&91;
SURE? (YES/NO)
YES;
EXECUTED
```

16.1.5

EXAMPLE 3

Delete the number 901146455 from the Exceptions Table.

```
LCDDE:TAB=DNT1,ENTRY=901146455;
LCDDE:TAB=DNT1,ENTRY=901146455;
SURE? (YES/NO)
YES;
```

EXECUTED

16.1.6

EXAMPLE 4

Delete the number 9714491 from the Number Table.

LCDDE:TAB=DNT2,ENTRY=9714491; LCDDE:TAB=DNT2,ENTRY=9714491; SURE? (YES/NO) YES; EXECUTED
--

16.1.7

EXAMPLE 5

Delete the data in position 63 in subtable number 5 in the Fictitious Destination Table.

LCDDE:TAB=FDT,FRCT=63,TZONE=5; LCDDE:TAB=FDT,FRCT=63,TZONE=5; SURE? (YES/NO) YES; EXECUTED
--

16.1.8 EXAMPLE 6 (PRIVATE NETWORK ROUTING DATA)

Delete the data for Private Network Routing access code 7400 in the PNR Destination Table.

```
LCDDE:TAB=PNR,ENTRY=7400;
LCDDE:TAB=PNR,ENTRY=7400;
SURE? (YES/NO)
YES;
EXECUTED
```

16.1.9 EXAMPLE 7 (PRIVATE NETWORK ROUTING DATA)

Delete the data in position 22 in the fictitious Route Choice Table for PNR.

```
LCDDE:TAB=RCT,FRCT=22;
LCDDE:TAB=RCT,FRCT=22;
SURE? (YES/NO)
YES;
EXECUTED
```

16.1.10 COMMAND CATEGORY

Dangerous = **Yes**

16.2 LCDDI

Least cost destination data initiate

16.2.1 FORMAT

```
LCDDI:TAB=[,ENTRY=][,TRC=][,TRC1=][,PRE=][,PRE1=]
[,CONF=][,ACCT=] [,MIN=][,MAX=][,ACF=][,FRCT=][,TOLL=] [,TZONE=][,CBCS=]
[,BTON=][,TNS=][,OSA=][,OPT=][,IP1=] [,IP2=][,RROUID="text"] [,RDEST=];
```

ACCT = Account Code information
If the parameter is optional or not depends on the value for parameter TAB (see Function).
If the parameter is omitted when optional, Never require account code is assumed.

ACF = Area Code flag
If the parameter is optional or not depends on the value for parameter TAB (see Function).
If the parameter is omitted when optional, Do not prefix with own AC is assumed.

BTON = Type of external B-number
If the parameter is optional or not depends on the value for parameter TAB (see Function).
If the parameter is omitted when optional, Type of number unknown, is assumed.

CBCS =	<p>Call By Call Service number</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, Destination has no Call By Call Service, is assumed.</p>
CONF =	<p>Conflict number flag</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, No conflict number is assumed.</p>
ENTRY =	<p>Number to be analyses.</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function). & is allowed for this parameter.</p>
FRCT =	<p>Fictitious Route Choice Table</p> <p>& is allowed for this parameter if TAB=FDT.</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p>
IP1 =	<p>First IP Address for PNR destination</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, No IP information is stored in PNR.</p>
IP2 =	<p>Second IP address for PNR destination</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, No IP information is stored in PNR.</p>
MAX =	<p>Maximum number of digits in analyzed number</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p>
MIN =	<p>Minimum number of digits in analyzed number</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p>
OPT =	<p>Option. Type of IP Configuration for PNR</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, value 0 is assumed, that is, No IP information is stored in PNR.</p>
OSA =	<p>Operator System Access. Call operator in chosen network</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, No Operator System Access, is assumed.</p>
PRE =	<p>Digits to insert at beginning of number</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, No prefix digits is assumed.</p>
PRE1 =	<p>Digits to insert at beginning of number for PNR</p> <p>If the parameter is optional or not depends on the value for parameter TAB (see Function).</p> <p>If the parameter is omitted when optional, No prefix digits is assumed.</p> <p>This parameter is only to be used with the Private Network Routing feature.</p>
RDEST =	<p>Remote Destination. Remote Destination to Routing Server(OPT=2) or Exchange Number in Cooperating Exchange(OPT=3) for PNR.</p> <p>If the parameter is optional or not depends on the value for parameter TAB and OPT (see Function).</p> <p>If the parameter is omitted when optional, No Remote Destination information is assumed.</p>

RROUID =	Remote Route Identity for PNR destination If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No Remote Route Identity Information is assumed.
TAB=	Table name.
TNS =	Transit Network Selection If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No Transit Network Selection, is assumed.
TOLL =	Toll restriction indicator If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, Call allowed for all TCD categories is assumed.
TRC =	Number of leading digits to delete. If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No digits to delete is assumed.
TRC1 =	Number of leading digits to delete for PNR. If the parameter is optional or not depends on the value for parameter TAB (see Function). If the parameter is omitted when optional, No digits to delete is assumed. This parameter is only to be used with the Private Network Routing feature.
TZONE =	Time Zone & and && are allowed for this parameter if TAB=FDT. If the parameter is optional or not depends on the value for parameter TAB (see Function).

16.2.2

FUNCTION

The command is used for initiating data in the analysis tables for Least Cost Routing, that is, the External Number Table (ENT), the Number Length Table (NLT), the Exceptions Table (DNT1), the Number Table (DNT2) and the Fictitious Destination Table (FDT).

The command may also be used for initiating data for the Private Network Routing destination tables. These tables are accessed when parameter TAB is used with the value PNR or RCT (see the matrix for PNR, RCT).

Depending on what table that is referred to, different parameters must be given in the command. This is shown in the following matrix where xxx represents the parameters: CBCS, BTON, TNS and OSA.

Value	Parameter													
TAB	ENTRY	TRC	PRE	CONF	ACCT	MIN	MAX	ACF	FRCT	TOLL	CBCS	BTON	TNS	OSA
ENT	m	o	o	o	-	-	-	-	-	-	-	-	-	-
NLT	m	o	o	o	-	m	m	o	-	-	-	-	-	-
DNT1	m	o	o	-	o	-	-	-	m	o	o	o	o	o
DNT2	m	o	o	-	o	-	-	-	m	o	o	o	o	o
FDT	-	-	m	-	-	-	-	-	m	-	-	-	-	-

Value	Parameter
-------	-----------

TAB	ENTRY	TRC	PRE	TRC1	PRE1	OPT	IP1	IP2	RROUID	RDEST	FRCT
PNR	m	o	o	o	o	o	o	o	o	o	m
RCT	-	-	m	-	-	-	-	-	-	-	m

o = optional m = mandatory - = not allowed

16.2.3

EXAMPLE 1

Insert the number 91535 in the External Number Table.

9 is the LAC (Least Cost Routing Access Code).

The digit 1 is to be replaced by the area code number which is 214. This is accomplished by deleting the first two digits (91) and inserting the digits 9214 instead.

The number 91535 is not a conflict number.

```
LCDDI:TAB=ENT,ENTRY=91535,TRC=2,PRE=9214;
EXECUTED
```


16.2.4

EXAMPLE 2

Insert the numbers 901 and 91 in the Number Length Table.

The number length will be 9 to 12 digits.

No digits shall be deleted or prefixed.

The numbers are no conflict numbers and shall not be prefixed by own area code.

```
LCDDI:TAB=NLT,ENTRY=901&91,MIN=9,MAX=12;
EXECUTED
```

16.2.5

EXAMPLE 3

Insert the number 901146455 in the Exceptions Table.

The digit 9 (LAC) shall be replaced by the prefix digits completed with the external destination that is stored in position 27 in the Fictitious Destination Table. This destination code will be used for finding the first hand choice and up to five alternative choices in the Route Choice Table.

Users with TCD categories 8-10 and 12-14 shall be allowed to complete the call (TCD category 15 is by default allowed to complete the call.)

No account code is required.

Call by call service number shall be 2.

Type of external B-number shall be international.

The transit network selection is 123.

No operator system access.

```
LCDDI:TAB=DNT1,ENTRY=901146455,TRC=1,PRE=005,
FRCT=27,TOLL=111011100000000,CBCS=2,BTON=1,TNS=123;
EXECUTED
```

16.2.6

EXAMPLE 4

Insert the number 9714491 in the Number Table.

The digit 9 (LAC) shall be replaced by the prefix digits completed with the external destination that is stored in position 63 in the Fictitious Destination Table. This destination code will be used for finding the first hand choice and up to five alternative choices in the Route Choice Table.

Users with TCD categories 7-14 shall be allowed to complete the call (TCD category 15 is by default allowed to complete the call.)

No account code is required.

No call by call service number.

Type of external B-number is to be national.

No transit network selection.

The network operator (OSA) to access shall be 16.

```
LCDDI:TAB=DNT2,ENTRY=9714491,TRC=1,PRE=005,FRCT=63,
TOLL=111111110000000,BTON=2,OSA=16;
EXECUTED
```

16.2.7

EXAMPLE 5

Insert data in position 63 in subtable number 5 in the Fictitious Destination Table. The digits 13 shall be used as prefix (=external destination).

```
LCDDI:TAB=FDT,FRCT=63,TZONE=5,PRE=13;
EXECUTED
```

16.2.8

EXAMPLE 6 (PRIVATE NETWORK ROUTING DATA, WITHOUT IP INFORMATION)

Insert data in the Private Network Routing destination table. The Private Network access code 7400 shall have data for two sets of individual number translation information, the External Destination code is stored in the fictitious route choice table 22.

The digits 74 are replaced by the digits 72 when using the first set of translation information.

The digits 74 are replaced by the digits 70 when using the second set of translation information.

```
LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,PRE=72,TRC=2,
PRE1=70,TRC1=2;
EXECUTED
```

16.2.9

EXAMPLE 7 (PRIVATE NETWORK ROUTING DATA, WITH LOCAL IP INFORMATION)

Insert data in the Private Network Routing destination table. Private Network access code 7400 shall have data for two sets IP addresses with Remote Route Identity information to the cooperating Exchange, the External Destination code is stored in fictitious route choice table position 22.

IP address 1 in the Cooperating Exchange is:130.100.69.32

IP address 2 in the Cooperating Exchange is:130.100.69.30

The Remote Route Identity (Local Route identity in the Cooperating Exchange) is: "Stockholm"

At calls to 7400 the PNR function will receive IP information, which is used to Setup calls to the Cooperating Exchange

```
LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,OPT=1,
IP1=130.100.69.32, IP2=130.100.69.30,RROUID="Stockholm";
EXECUTED
```

16.2.10

EXAMPLE 8 (PRIVATE NETWORK ROUTING DATA, FETCH IP INFO FROM ROUTING SERVER)

Insert data in the Private Network Routing destination table. The Private Network access code 7400 is first to fetch IP information from the Routing Server and store the information temporarily in PNR for further usage. The External Destination code to the Routing Server is stored in the fictitious route choice table position 22.

The destination to the Routing Server shall be 6500

```
LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,OPT=2,RDEST=6500;  
EXECUTED
```

16.2.11

EXAMPLE 9 (PRIVATE NETWORK ROUTING DATA, IP INFORMATION IN ROUTING SERVER)

Insert data in the Private Network Routing destination table. Private Network access code 7400 shall be marked as "possible" to fetch from cooperating exchanges. The data storage have data for two sets of IP addresses with Remote Route Identity information to the cooperating exchange. The exchange number for the cooperating exchange is 7131. The External Destination code is stored in the fictitious route choice table position 22.

IP address 1 in the cooperating exchange is: 130.100.69.32

IP address 2 in the cooperating exchange is: 130.100.69.30

The IP information is returned at request from cooperating exchanges.

The Remote Route Identity (Local Route identity in the Cooperating Exchange) is : "Stockholm"

The exchange number 7131 in the cooperating exchange is used in the check routine.

```
LCDDI:TAB=PNR,ENTRY=7400,FRCT=22,OPT=3,RDEST=7131,
IP1=130.100.69.32, IP2=130.100.69.30,RROUID="Stockholm";
EXECUTED
```

16.2.12

EXAMPLE 10 (PRIVATE NETWORK ROUTING DATA)

Insert data in position 22 in the fictitious route choice table for PNR. The digits 08 shall be used as prefix (=external destination).

```
LCDDI:TAB=RCT,FRCT=22,PRE=08;
EXECUTED
```

16.2.13

COMMAND CATEGORY

Dangerous = **No**

16.3

LCDDP

Least cost destination data print

16.3.1

FORMAT

LCDDP:TAB=[,ENTRY=[,FRCT=[,ACCT=[,TOLL=[,TZONE=[,IPOPT];

ACCT = Account Code information
If the parameter is optional or not depends on the value for parameter TAB (see Function).

ENTRY = Number to be analyzed
& and && are allowed for this parameter.
If the parameter is optional or not depends on the value for parameter TAB (see Function).

FRCT =	Fictitious Route Choice Table & and && are allowed for this parameter if TAB = FDT. If the parameter is optional or not depends on the value for parameter TAB (see Function).
IPOPT=	IP Print Flag Indicator
TAB=	Table name
TOLL =	Toll restriction indicator If the parameter is optional or not depends on the value for parameter TAB (see Function).
TZONE=	Time Zone & and && are allowed for this parameter. If the parameter is optional or not depends on the value for parameter TAB (see Function).

16.3.2

FUNCTION

The command is used for printing data from the analysis tables for Least Cost Routing, that is, the External Number Table (ENT), the Number Length Table (NLT), the Exceptions Table (DNT1), the Number Table (DNT2) and the Fictitious Destination Table (FDT).

The command may also be used for printing data for the Private Network Routing destination tables. These tables are accessed when parameter TAB is used with the value PNR or RCT (see matrix for PNR, RCT).

Depending on what table that is referred to, different parameters must be given in the command. This is shown in the following matrix:

Value TAB	Parameter					
	ENTRY	FRCT	ACCT	TOLL	TZONE	
ENT	o	-	-	-	-	(both or none must be given)
NLT	o	-	-	-	-	
DNT1	o	o	o	o	-	
DNT2	o	o	o	o	-	
FDT	-	o	-	-	o	

Value TAB	Parameter	
	ENTRY	FRCT
PNR	o	-
RCT	-	o

o = optional - = not allowed

If only TAB is given the whole table will be printed.

16.3.3

PRINTOUT 1 (TAB = ENT)

LEAST COST DESTINATION DATA			
EXTERNAL NUMBER TABLE			
ENTRY	TRC	PRE	CONF
.	.	.	.
.	.	.	.
.	.	.	.
END			

16.3.4 PRINTOUT 2 (TAB = NLT)

LEAST COST DESTINATION DATA						
NUMBER LENGTH TABLE						
ENTRY	TRC	PRE	CONF	MIN	MAX	ACF
.
.
.
END						

16.3.5 PRINTOUT 3 (TAB = DNT1)

LEAST COST DESTINATION DATA									
EXCEPTIONS TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
.
.
.
END									

16.3.6 PRINTOUT 4 (TAB = DNT2)

LEAST COST DESTINATION DATA									
NUMBER TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
.
.
.
END									

16.3.7 PRINTOUT 5 (TAB = FDT)

```

LEAST COST DESTINATION DATA
FICTITIOUS DESTINATION TABLE
FRCT      TZONE      PRE
.          .          .
.          .          .
.          .          .
END

```

16.3.8 PRINTOUT 6 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR)

```

PRIVATE NETWORK ROUTING DATA
PRIVATE NETWORK ROUTING DESTINATION TABLE
ENTRY      TRC      PRE      TRC1      PRE1      FRCT
.          .          .          .          .          .
.          .          .          .          .          .
.          .          .          .          .          .
END

```

16.3.9 PRINTOUT 7 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR , IPOPT = Y/YES)

```

PRIVATE NETWORK ROUTING DATA
PRIVATE NETWORK ROUTING DESTINATION TABLE
ENTRY      OPT      RDEST      IP1      IP2      RROUID
.          .          .          .          .          .
.          .          .          .          .          .
.          .          .          .          .          .
END

```


16.3.10

PRINTOUT 8 (PRIVATE NETWORK ROUTING DATA WITH TAB = RCT)

PRIVATE NETWORK ROUTING DATA

FICTITIOUS ROUTE CHOICE TABLE

FRCT PRE

.

.

END

ACF	Area Code flag
BTON	Type of external B-number
CBCS	Call By Call Service number
CONF	Conflict number flag
IP1	First IP Address for PNR destination This subheading in the printout is only used with the Private Network Routing feature.
IP2	Second IP address for PNR destination This subheading in the printout is only used with the Private Network Routing feature.
MAX	Maximum number of digits in analyzed number
MIN	Minimum number of digits in analyzed number
OPT	Option. Type of IP information for PNR This subheading in the printout is only used with the Private Network Routing feature.
OSA	Operator System Access. Call operator in chosen network
PRE	Digits to insert at beginning of number.
PRE1	Digits to insert at beginning of number for PNR This parameter is only to be used with the Private Network Routing feature.
RDEST	Remote Destination. Remote Destination to Routing Server or Exchange Number in cooperating exchange. This subheading in the printout is only used with the Private Network Routing feature.
RROUID	Remote Route Identity for PNR destination This subheading in the printout is only used with the Private Network Routing feature.
TNS	Transit Network Selection.
TRC	Number of leading digits to delete.
TRC1	Number of leading digits to delete for PNR. This parameter is only to be used with the Private Network Routing feature.

16.3.11

EXAMPLE 1 (TAB = ENT)

Print the data for the number 91535 from the External Number Table.

```
LCDDP:TAB=ENT,ENTRY=91535;
LEAST COST DESTINATION DATA
EXTERNAL NUMBER TABLE
ENTRY          TRC      PRE      CONF
91535          2       9214     N
END
```

For the number 91535 the first two digits shall be replaced by 9214.

The number is not a conflict number.

16.3.12

EXAMPLE 2 (TAB = NLT)

Print the data for all the numbers between 900 and 91 from the Number Length Table.

```
LCDDP:TAB=NLT,ENTRY=900&&91;
LEAST COST DESTINATION DATA
NUMBER LENGTH TABLE
ENTRY      TRC      PRE      CONF      MIN      MAX      ACF
900        0              N          3        3        N
901        0              N          9       12        N
902        0              N         10       20        N
903        0              N         10       20        N
904        0              N         10       20        N
905        0              N         10       20        N
906        0              N         10       20        N
907        0              N         10       20        N
908        0              N         10       20        N
909        0              N         10       20        N
91         0              N          9       12        N
END
```

For the numbers 900-91 no digits shall be deleted or prefixed.

The numbers are no conflict numbers.

The number length is 3 digits for 900, 9 to 12 digits for 901 and 91 and minimum 10 digits for 902 to 909.

No prefixing with own area code shall be performed.

16.3.13

EXAMPLE 3 (TAB = DNT1)

Print the data for the number 901146455 from the Exceptions Table.

```
LCDDP:TAB=DNT1,ENTRY=901146455;
LEAST COST DESTINATION DATA
```

EXCEPTIONS TABLE									
ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
901146455	1	005	0	27	111011100000000	2	1	123	
END									

For the number 901146455 the first digit shall be deleted.

No account code is required.

The digits that shall be used as prefix are found at position 27 in the Fictitious Destination Table added with the prefix digits initiated.

Users with TCD categories 8-10 and 12-14 are allowed to complete the call (TCD category 15 is by default allowed to complete the call and is therefore not included in the printout.)

The call by call service number for this destination is 2.

The type of external B-number for this destination is international number.

The transit network selection for this destination is 123.

This destination is not routed to a network operator (OSA).

16.3.14

EXAMPLE 4 (TAB = DNT2)

Print the data for the number 9714491 from the Number Table.

```
LCDDP:TAB=DNT2,ENTRY=9714491;
```

```
LEAST COST DESTINATION DATA
```

```
NUMBER TABLE
```

ENTRY	TRC	PRE	ACCT	FRCT	TOLL	CBCS	BTON	TNS	OSA
9714491	1	005	0	63	111111100000000		2		16
END									

For the number 9714491 the first digit shall be deleted.

No account code is required.

The digits that shall be used as prefix are found at position 63 in the Fictitious Destination Table added with the prefix digits initiated.

Users with TCD categories 7-14 are allowed to complete the call. (TCD category 15 is by default allowed to complete the call and is therefore not included in the printout.)

No call by call service number for this destination.

The type of external B-number for this destination is national number.

No transit network selection for this destination.

This destination can be routed to network operator (OSA) 16.

16.3.15

EXAMPLE 5 (TAB = FDT)

Print the data for position 63 in subtable number 5 in the Fictitious Destination Table.

```
LCDDP:TAB=FDT,FRCT=63,TZONE=5;
```

```
LEAST COST DESTINATION DATA
```

```
FICTITIOUS DESTINATION TABLE
```

FRCT	TZONE	PRE
63	5	13
END		

For individual 63 in subtable 5, the prefix digits (=destination code) are 13.

16.3.16

EXAMPLE 6 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT = N/NO OR OMITTED)

Print the data for Private Network access code 7400 from the PNR Destination Table.

LCDDP:TAB=PNR,ENTRY=7400;					
PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	TRC	PRE	TRC1	PRE1	FRCT
7400	2	72	2	70	22
END					

For PNR access 7400 the number may be truncated with two digits and prefixed with 72 as a first choice editing and truncated with two digits and prefixed with 70 as a second choice. Index to the External Destination code is stored in the fictitious Route Choice Table at position 22.

16.3.17

EXAMPLE 7 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT= Y/YES, BEFORE DATA IS FETCHED FROM ROUTING SERVER)

Print the data for Private Network access code 7400 from the PNR Destination Table.

LCDDP:TAB=PNR,ENTRY=7400;					
PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	OPT	RDEST	IP1	IP2	RROUID
7400	2	6500			
END					

When the IP and Remote Route Identity fields are empty, no IP information is fetched from the Routing Server.

16.3.18

EXAMPLE 8 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT = YES, AFTER DATA IS FETCHED FROM ROUTING SERVER)

Print the IP data for Private Network access code 7400 from the PNR Destination Table when IP data are fetched from the Routing Server.

LCDDP:TAB=PNR,ENTRY=7400;					
PRIVATE NETWORK ROUTING DATA					
PRIVATE NETWORK ROUTING DESTINATION TABLE					
ENTRY	OPT	RDEST	IP1	IP2	RROUID

7400	2	6500	130.100.69.30*	130.100.69.32*	Stockholm*
END					

For PNR access 7400, use fetched IP information. The star (*) after the IP address shows that the data are fetched from the Routing Server.

16.3.19

EXAMPLE 9 (PRIVATE NETWORK ROUTING DATA WITH TAB = PNR, IPOPT = Y/YES IN ROUTING SERVER)

Print the IP data for Private Network access code 7400 from the PNR Destination Table in the Routing Server.

```
LCDDP:TAB=PNR,ENTRY=7400;
PRIVATE NETWORK ROUTING DATA
PRIVATE NETWORK ROUTING DESTINATION TABLE
ENTRY      OPT      RDEST      IP1              IP2              RROUID
7400        3          7131       130.100.69.32    130.100.69.30F   Stockholm
END
```

For PNR access code 7400, IP information is stored in PNR in the Routing Server. Routine checks will be performed towards this node.

16.3.20

EXAMPLE 10 (PRIVATE NETWORK ROUTING DATA WITH TAB = RCT)

Print the data for position 22 in the Fictitious Route Choice Table.

```
LCDDP:TAB=RCT,FRCT=22;
PRIVATE NETWORK ROUTING DATA
FICTITIOUS ROUTE CHOICE TABLE
FRCT      PRE
22         08
END
```

The External Destination code at position 22 in the fictitious Route Choice table is 08.

16.3.21

COMMAND CATEGORY

Dangerous = **No**

16.4

LCIPE

Least cost IP Configuration end

16.4.1

FORMAT

LCIPE;

16.4.2

FUNCTION

This command is used to erase temporary IP-configuration in the satellite. The IP-configuration data is stored in PNR for respective DEST. The command generates also a restart of the time supervision in PNR. The time supervision is set to start in 10 seconds.

16.4.3

EXAMPLE

Erase temporary stored IP-configuration data in PNR.

```
LCIPE;  
EXECUTED
```

16.4.4

COMMAND CATEGORY

Dangerous = **No**

16.5

LCLDE

Least cost LIM data end

16.5.1

FORMAT

LCLDE:LIM=;

LIM = LIM-number.

16.5.2

FUNCTION

The command is used for erasing the area code for that area in which a specific LIM is situated and for erasing the default external destination for the same LIM.

16.5.3

EXAMPLE

Erase the area code and the default external destination for LIM 1.

```
LCLDE:LIM=1;  
LCLDE:LIM=1;  
SURE? (YES/NO)  
YES;  
EXECUTED
```

16.5.4

COMMAND CATEGORY

Dangerous = **Yes**

16.6

LCLDI

Least cost LIM data initiate

16.6.1 FORMAT

LCLDI:{LIM= | MGW=}, AC=, DEST=;

AC = Area Code.
DEST = External destination.
LIM = LIM-number.
MGW = Media Gateway.

16.6.2 FUNCTION

The command is used for defining the area code for that area in which a specific LIM is situated. It is also used for defining a default external destination for the same LIM for routing of calls if no match is found in the LCR analysis tables.

16.6.3 EXAMPLE

The LIM 2 is situated in an area with the area code 714 and the default destination to be used for these LIMs if no match is found in the analysis tables is 15.

```
LCLDI:LIM=2,AC=714,DEST=15;
EXECUTED
```

16.6.4 COMMAND CATEGORY

Dangerous = **No**

16.7 LCLDP

Least cost LIM data print

16.7.1 FORMAT

LCLDP:LIM=;

LIM = LIM-number.

16.7.2 FUNCTION

The command is used for printing own area code and the default external destination. The default external destination is used for routing of calls if no match is found in the LCR analysis tables.

16.7.3 PRINTOUT

LEAST COST LIM DATA			
LIM	GATEWAY	AC	DEST

.	.	.	.
.	.	.	.
.	.	.	.
END			

- AC** Area Code.
- DEST** External destination.
- GATEWAY** Gateway.

16.7.4

EXAMPLE

Print the own area code and the default external destination for LIM 1.

```
LCLDP:LIM=1;
LEAST COST LIM DATA
LIM      GATEWAY      AC      DEST
  1       A          714       15
END
```

LIM 1 is situated in the area with area code 714.

16.7.5

COMMAND CATEGORY

Dangerous = **No**

16.8

LCOPE

Least cost office prefix data end

Note: This command is valid only when numbering plans of North American type are used.

16.8.1

FORMAT

LCOPE: { **ROU=...**
OCPT=,OC=... } ;

OC = Office Code.
&, && and ALL are allowed for this parameter.

OCPT = Office Code Prefix Table Number.

ROU = Route number.
&, && and ALL are allowed for this parameter.

16.8.2

FUNCTION

The command is used as follows.

- Deletion of data in the Office Code Prefix Tables, that is, to remove office code numbers that no longer are to be prefixed by 1.
- Removal of the assignment of a route to a specific Office Code Prefix Table.

16.8.3

EXAMPLE 1

The office codes 207 and 211 in Office Code Prefix Table number 9 are no longer to be marked for adding of the prefix 1.

```
LCOPE:OCPT=9,OC=207&211;
```

```
LCOPE:OCPT=9,OC=207&211;  
SURE? (YES/NO)  
YES;  
EXECUTED
```

16.8.4

EXAMPLE 2

The routes with numbers 7 and 28 are no longer to be assigned to any Office Code Prefix Table.

```

LCOPE:ROU=7&28;
LCOPE:ROU=7&28;
SURE? (YES/NO)
YES;
EXECUTED

```

16.8.5

COMMAND CATEGORY

Dangerous = **Yes**

16.9

LCOPI

Least cost office prefix data initiate

Note: This command is valid only when numbering plans of North American type are used.

16.9.1

FORMAT

$$\text{LCOPI:OCPT} = \left\{ \begin{array}{l} \text{,ROU=...} \\ \text{,OC=...} \end{array} \right\} ;$$

OC = Office Code.
&, && and ALL are allowed for this parameter.

OCPT = Office Code Prefix Table Number.

ROU = Route number.
&, && and ALL are allowed for this parameter.

16.9.2

FUNCTION

The command is used as follows.

- Insertion of data in the Office Code Prefix Tables, that is, to insert office code numbers that are to be prefixed by 1.
- Assignment of a route to a specific Office Code Prefix Table.

16.9.3

EXAMPLE 1

The office codes 207 and 211 in Office Code Prefix Table number 9 are to be marked for adding of the prefix 1.

```

LCOPI:OCPT=9,OC=207&211;

```

EXECUTED

16.9.4 EXAMPLE 2

The routes with numbers 7 and 28 are to be assigned to Office Code Prefix Table number 14.

```
LCOPI:OCPT=14,ROU=7&28;  
EXECUTED
```

16.9.5 COMMAND CATEGORY

Dangerous = **No**

16.10 LCOPP

Least cost office prefix data print

Note: This command is valid only when numbering plans of North American type are used.

16.10.1 FORMAT

```
LCOPP: { OCPT=...  
        ROU=... } ;
```

OCPT = Office Code Prefix Table Number.
ROU = Route number.
 &, && and ALL are allowed for this parameter.

16.10.2 FUNCTION

The command is used as follows.

- Printing of data from the Office Code Prefix Tables, that is, to print office code numbers that are to be prefixed by 1.
- Printing of which Office Code Prefix Table that a specific route belongs to.

16.10.3 PRINTOUT 1 (OCPT)

LEAST COST OFFICE PREFIX DATA							
OCPT	-----						OC -----
.
.
.
END							

16.10.4 PRINTOUT 2 (ROU)

LEAST COST OFFICE PREFIX DATA	
ROU	OCPT
.	.
.	.
.	.
END	

16.10.5 EXAMPLE 1 (OCPT)

Print the office codes that according to Office Code Prefix Table number 9 are to be prefixed by 1.

LCOPP:OCPT=9;										
LEAST COST OFFICE PREFIX DATA										
OCPT	-----				OC	-----				
9	207	211	218	219	220	221	222	223	224	225
9	230	231								
END										

In Office Code Prefix Table number 9 the office codes 207, 211, 218-225, 230 and 231 are to be prefixed by 1.

16.10.6 EXAMPLE 2 (ROU)

Print which Office Code Prefix Tables that the routes number 7 and 28 are assigned to.

LCOPP:ROU=7&28;	
LEAST COST OFFICE PREFIX DATA	
ROU	OCPT
7	14
28	14
END	

The routes 7 and 28 are both assigned to Office Code Prefix Table number 14.

16.10.7 COMMAND CATEGORY

Dangerous = **No**

16.11 LCTDI

Least cost time zone data initiate

16.11.1

FORMAT

LCTDI:DAY=[,TIM1=[,FDT1=[,TIM2=[,FDT2=[,TIM3=[,FDT3=];

DAY = Day group.
FDT1 = Fictitious Destination Table entry for TIM1.
FDT2 = Fictitious Destination Table entry for TIM2.
FDT3 = Fictitious Destination Table entry for TIM3.
TIM1 = Start time for first time interval.
TIM2 = Start time for second time interval.
TIM3 = Start time for third time interval.

16.11.2

FUNCTION

The command is used for assigning the different time intervals within the week to different subtables in the Fictitious Destination Table and thereby making it possible to make the routing of a call dependent on the time of day and of the day within the week.

As a default the whole 24 hour period for all the different day groups is assigned to subtable number 1 in the Fictitious Destination Table.

If a day group shall consist of just one 24 hour interval, only the parameters DAY and FDT1 must be used.

If a day group shall be divided into two time intervals, the parameters DAY, TIM1, FDT1, TIM2 and FDT2 must be used.

If a day group shall be divided into three time intervals, the parameters DAY, TIM1, FDT1, TIM2, FDT2, TIM3 and FDT3 must be used.

A given command must thus always cover a complete 24-hour period.

16.11.3

EXAMPLE 1

Set the FDT-entry to 5 for the day group SUNDAY which shall consist of just one time interval.

```
LCTDI:DAY=SUN,FDT1=5;
EXECUTED
```

16.11.4

EXAMPLE 2

The day group MONDAY to FRIDAY shall be divided into three time intervals, namely 08:00-16:59, 17:00-19:59, and 20:00-07:59. The FDT-entries for the different intervals shall be 2, 6, and 9 respectively.

```
LCTDI:DAY=M-F,TIM1=08-00,FDT1=2,TIM2=17-00,FDT2=6,
TIM3=20-00,FDT3=9;
EXECUTED
```

16.11.5

COMMAND CATEGORY

Dangerous = **No**

16.12 LCTDP

Least cost time zone data print

16.12.1 FORMAT

LCTDP;

16.12.2 FUNCTION

The command is used for printing the data in the Time/Day Table, that is, which FDT-entries (subtables) that are assigned to the different time intervals within the week.

16.12.3 PRINTOUT

LEAST COST TIME ZONE DATA						
DAY	TIM1	FDT1	TIM2	FDT2	TIM3	FDT3
M-F
SAT
SUN
END						

- DAY** Day group
- FDT1** Fictitious Destination Table entry for TIM1
- FDT2** Fictitious Destination Table entry for TIM2
- FDT3** Fictitious Destination Table entry for TIM3
- TIM1** Start time for first time interval
- TIM2** Start time for second time interval
- TIM3** Start time for third time interval

16.12.4

EXAMPLE

Print the Time/Day Table.

```
LCTDP;
LEAST COST TIME ZONE DATA
DAY      TIM1      FDT1      TIM2      FDT2      TIM3      FDT3
M-F      08:00      2        17:00      6        20:00      9
SAT      08:00      4        23:00      7
SUN
END
```

Monday to Friday is divided into three time intervals, namely 08:00-16:59, 17:00-19:59 and 20:00-07:59. The FDT-entries assigned to these intervals are 2, 6, and 9 respectively.

Saturday is divided into two time intervals, namely 08:00-22:59 and 23:00-07:59. The corresponding FDT-entries are 4 and 7.

Sunday consists of just one time interval covering the whole 24 hour period. The FDT-entry is 5.

16.12.5

COMMAND CATEGORY

Dangerous = **No**

16.13

LCTMP

Least cost traffic measurement data print

16.13.1

FORMAT

**LCTMP: { DEST=...
QINF= } [,RES=];**

DEST = External destination.
ALL is allowed for this parameter.

QINF = Queue information indicator.

RES = Reset indicator.
If the parameter is omitted, the value N is assumed.

16.13.2

FUNCTION

The command is used for printing traffic measurement data for LCR-calls. Data are printed for the whole system and can, depending on given parameters, include different information.

- Only DEST, or DEST plus RES=N is given. The first hand choice and all the alternative choices including the customer specific choices for requested external destinations are printed.
- Only QINF=Y, or QINF=Y plus RES=N is given. Information about calls that have been requested for On-hook queuing at threshold 1 and 2, when searching for a free trunk, is printed.
- DEST plus RES=Y is given. All counters for requested external destinations are reset.
- QINF=Y plus RES=Y is given. All counters for On-hook queuing are reset.

16.13.3

PRINTOUT

LEAST COST TRAFFIC MEASUREMENT DATA					
TIME= ...					
[DEST	CUST	CHO	CALL ATTEMPTS	TRUNK SEIZURES]
[.]
[.]
[		.	THRESHOLD1	THRESHOLD2]
[QUEUED CALLS				.	]
[TIME-OUT QUEUE MISSION			.	.	]
[ACCUMULATED QUEUE TIME			.	.	]
[COUNTERS HAVE BEEN RESET FOR DEST =...]
[COUNTERS FOR ON-HOOK QUEUING HAVE BEEN RESET]
END					

ACCUMULATED QUEUE TIME	Accumulated queuing time for the queued calls in tenths of minutes.
CALL ATTEMPTS	Number of call attempts towards a given combination of DEST, CHO and CUST.
CHO	Route choice.
COUNTERS FOR ON-HOOK QUEUING HAVE BEEN RESET	On-hook queuing counters have been reset.
COUNTERS HAVE BEEN RESET FOR DEST =	External destination for which counters have been reset.
CUST	Customer number.
QUEUED CALLS	Number of calls that have been requested for On-hook queuing.
THRESHOLD1	First threshold in a route choice table where a specific call may be ordered to on-hook queuing.
THRESHOLD2	Second threshold in a route choice table where a specific call may be ordered to on-hook queuing.
TIME	Time and date for printout.
TIMED-OUT QUEUE MISSIONS	Number of the queued calls that have reached time-out.
TRUNK SEIZURES	Number of call attempts resulting in seizure of a trunk.

16.13.4

EXAMPLE 1

Print the traffic measurement data for the external destination 13.

```
LCTMP:DEST=13;
LEAST COST TRAFFIC MEASUREMENT DATA
TIME = 14:21:35 06DEC98
DEST    CUST    CHO    CALL ATTEMPTS    TRUNK SEIZURES
13
          1        22        20
          2        53        50
          2        3         3
END
```

There have been 136 call attempts to external destination 13 (not counting the ones for customer 2). 114 of these have got the first hand choice route and 22 have got the first alternative route. Out of these 22, 20 have been successful and 2 have been rejected.

For external destination 13 and customer 2 there have been 53 call attempts and 50 have been successful with the first hand choice and the rest with the first alternative choice.

16.13.5

EXAMPLE 2

Print information about queued calls.

```
LCTMP:QINF=Y;
LEAST COST TRAFFIC MEASUREMENT DATA
TIME = 14:33:38 06DEC98
                                THRESHOLD1    THRESHOLD2
QUEUED CALLS                    12             3
TIMED-OUT QUEUE MISSIONS        3             0
ACCUMULATED QUEUE TIME          2.6            0.6
END
```

For threshold 1 there have been 12 On-hook queue missions and 3 out of these have resulted in time-out. The accumulated queuing time is 2.6 min.

For threshold 2 there have been 3 On-hook queue missions and none of these have resulted in time-out. The accumulated queuing time is 0.6 min.

16.13.6

EXAMPLE 3

Reset the counters for external destination 13.

```
LCTMP:DEST=13,RES=Y;
LEAST COST TRAFFIC MEASUREMENT DATA
TIME = 15:25:12 06DEC98
COUNTERS HAVE BEEN RESET FOR DEST = 13
END
```

16.13.7 EXAMPLE 4

Reset the counters for queued calls.

```
LCTMP:QINF=Y,RES=Y;
LEAST COST TRAFFIC MEASUREMENT DATA
TIME = 15:33:18 06DEC98
COUNTERS FOR ON-HOOK QUEUING HAVE BEEN RESET
END
```

16.13.8 COMMAND CATEGORY

Dangerous = **No**

16.14 LCUDE

Least cost Update Time Supervision End

16.14.1 FORMAT

LCUDE;

16.14.2 FUNCTION

This command is used to stop the time-based update routine in PNR.

16.14.3 EXAMPLE

Stop the time-based update routine in PNR.

```
LCUDE;
EXECUTED
```

16.14.4 COMMAND CATEGORY

Dangerous = **No**

16.15 LCUDI

Least cost Update Time Supervision initiate

16.15.1 FORMAT

LCUDI;

16.15.2

FUNCTION

This command is used to restart the time-based update routine in PNR. The time supervision is set to start in 10 seconds.

16.15.3

EXAMPLE

Restart the time-based update routine in PNR.

LCUDI; EXECUTED

16.15.4

COMMAND CATEGORY

Dangerous = **No**

17 MT - MESSAGE TRANSFER PART DATA

17.1 MTLIE

Message Transfer Part Link Inhibition End

17.1.1 FORMAT

MTLIE:LINK=;

LINK = Signaling link number.
For the value, see the parameter description for Message Transfer Part Data, Mt.

17.1.2 FUNCTION

The command is used to remove the local inhibition of a signaling link.

Note: Execution of this command takes place only if the signaling link is initiated, locally inhibited and accessibility data for remote signaling points can be obtained.

17.1.3 EXAMPLE

Remove the local inhibition of signaling link number 2.

```
MTLIE:LINK=2;  
EXECUTED
```

17.1.4 COMMAND CATEGORY

Dangerous = **No**

17.2 MTLII

Message Transfer Part Link Inhibition Initiate

17.2.1 FORMAT

MTLII:LINK=;

MTLII:LINK=;

LINK = Signaling link number.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.2.2 FUNCTION

The command is used to initiate local inhibition of an existing signaling link, which means that the signaling link will be unavailable for user part-generated signaling traffic.

Note: Execution of this command takes place only if the signaling link is initiated, not locally inhibited, and there is an alternative signaling link for user part-generated signaling traffic in the system.

17.2.3 EXAMPLE

Initiate local inhibition of signaling link number 2.

```
MTLII:LINK=2;
EXECUTED
```

17.2.4 COMMAND CATEGORY

Dangerous = **No**

17.3 MTLIP

Message Transfer Part Link Inhibition Data Print

17.3.1 FORMAT

MTLIP[:LINK=];

LINK = Signaling link number.
 For the value, see the parameter description for Message Transfer Part Data, MT.

17.3.2 FUNCTION

The command is used to obtain a printout of signaling link inhibition state.

17.3.3 PRINTOUT

SIGNALLING LINK INHIBITATION STATE		
LINK	LOCALLY INHIBITED	REMOTELY INHIBITED
.	.	.
.	.	.
END		

LINK Signaling link number.
 For the value, see the parameter description for Message Transfer Part Data, Mt.

**LOCALLY
INHIBITED**

Signaling link inhibited by own exchange.
The printout can assume the values YES or NO.
YES = Inhibited signaling link
NO = Not inhibited signaling link.

**REMOTELY
INHIBITED**

Signaling link inhibited by remote exchange.
The printout can assume the values YES or NO.
YES = Inhibited signaling link.
NO = Not inhibited signaling link.

17.3.4

EXAMPLE 1

Print the inhibition state of signaling link 2.

```
MTLIP:LINK=2;
SIGNALING LINK INHIBITATION STATE
LINK          LOCALLY INHIBITED      REMOTELY INHIBITED
2             YES                    NO
END
```

Link 2 is locally inhibited.

17.3.5

EXAMPLE 2

Print the inhibition state of signaling links 2, 3 and 4.

```
MTLIP:LINK=2&&4;
SIGNALING LINK INHIBITATION STATE
LINK          LOCALLY INHIBITED      REMOTELY INHIBITED
2             YES                    NO
3             YES                    YES
4             NO                     YES
END
```

Link 2 is locally inhibited, link 3 is both locally and remotely inhibited, and link 4 is remotely inhibited.

17.3.6

COMMAND CATEGORY

Dangerous = **No**

17.4

MTSDC

Message Transfer Part Signaling Data Link State Change

17.4.1

FORMAT

$$\text{MTSDC:} \left\{ \begin{array}{l} \text{LINK=} \\ \text{LNKSET=} \end{array} \right\} [, \text{DEACT=}] ;$$

DEACT = Deactivate or activate signaling links.
 The parameter can assume the values YES or NO.
YES = Perform deactivation of signaling links.
NO = Perform activation of signaling links. If the parameter is omitted, the value NO is assumed.

LINK = Signaling link number.
For the value, see the parameter description for Message Transfer Part Data, Mt.

LNKSET = Signaling link set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.4.2

FUNCTION

The command is used to activate or deactivate signaling links. If parameter LINK is entered, that particular link is handled. Alternatively, if parameter LNKSET is entered, **all** signaling links of that signaling link set are worked out.

The type of operation is selected by parameter DEACT. If the parameter is entered with value YES, the command results in deactivation of the signaling links. Otherwise, the signaling links are activated, that is, an alignment is started on the concerned links.

Note: Deactivation of the last active signaling link in a link set, is only allowed if the affected trunk lines are manually blocked.

17.4.3

EXAMPLE 1

Activate the signaling link number 2.

```
MTSDC:LINK=2;
EXECUTED
```

17.4.4

EXAMPLE 2

Deactivate all signaling links in signaling link set number 1.

```
MTSDC:LNKSET=1,DEACT=YES;
EXECUTED
```

17.4.5

COMMAND CATEGORY

Dangerous = **No**

17.5

MTSLC

Message Transfer Part Signaling Link Data Change

17.5.1

FORMAT

MTSLC:LINK=[,PCMID=][,SLC=][,ALIGN=][,SLIPBL=];

ALIGN = Type of alignment.
States which type of alignment procedure that is used for startup of the signaling link.
The parameter can assume the following values:
N = Normal alignment procedure is used.
E = Emergency alignment procedure is used.

LINK = Signaling link number.
For the value, see the parameter description for Message Transfer Part Data, MT.

PCMID = PCM link identity.
For the value, see the parameter description for Message Transfer Part Data, MT.

SLC = Signaling link code.
For the value, see the parameter description for Message Transfer Part Data, MT.

SLIPBL = Slip fault blocking.
States whether the board has to be blocked in case of a slip fault.
The parameter can assume the following values:
YES = The board is to be blocked.
NO = The board is to be disturbance marked (not blocked).

17.5.2

FUNCTION

The command is used to change signaling link data.

At least one of the optional parameters must be stated in the command. The remaining parameters will retain their previous values.

17.5.3

EXAMPLE

Change the PCM link identity to 32 for signaling link number 2.

```
MTSLC:LINK=2,PCMID=32;
EXECUTED
```

17.5.4

COMMAND CATEGORY

Dangerous = **No**

17.6

MTSLE

Message Transfer Part Signaling Link End

17.6.1

FORMAT

MTSLE:LINK=;

LINK = Signaling link number.
 & is allowed for this parameter.
 For the value, see the parameter description for Message Transfer Part Data, MT.

17.6.2

FUNCTION

The command is used to remove the stated signaling links.

The signaling links can be removed only if no trunk lines are assigned to the corresponding boards.

17.6.3

EXAMPLE

Remove the signaling link number 2.

```
MTSLE:LINK=2;
MTSLE:LINK=2;
SURE? (YES/NO)
YES;
EXECUTED
```

17.6.4

COMMAND CATEGORY

Dangerous = **Yes**

17.7

MTSLI

Message Transfer Part Signaling Link Initiate

17.7.1

FORMAT

MTSLI:LINK=,LNKSET=,BPOS=,PCMID=,SLC=,ALIGN=,SLIPBL=;

ALIGN =	Type of alignment. States which type of alignment procedure that is used for startup of the signaling link. The parameter can assume the following values: N = Normal alignment procedure is used. E = Emergency alignment procedure is used.
BPOS =	Board position. For the value, see the parameter description for Message Transfer Part Data, MT.
LINK =	Signaling link number. For the value, see the parameter description for Message Transfer Part Data, MT.
LNKSET =	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
PCMID =	PCM link identity. For the value, see the parameter description for Message Transfer Part Data, MT.
SLC =	Signaling link code. For the value, see the parameter description for Message Transfer Part Data, MT.
SLIPBL =	Slip fault blocking. States whether the board has to be blocked in case of a slip fault. The parameter can assume the following values: YES = The board is to be blocked. NO = The board is to be disturbance marked (not blocked).

17.7.2

FUNCTION

The command is used to initiate a signaling link within a signaling link set.

Note: It is not possible to initiate more than one signaling link with a certain signaling link number in the system, even though they might be assigned to different signaling link sets.

17.7.3

EXAMPLE

Initiate the signaling link number 2 located in LIM 5, gateway B, magazine 0, board position 70 with PCM link identity 12 and SLC code 1. The signaling link will be assigned to the signaling link set number 1. Normal alignment is to be used. The board is to be blocked in case of slip fault.

```
MTSLI:LINK=2,LNKSET=1,BPOS=5B-0-70,PCMID=12,SLC=1,
ALIGN=N,SLIPBL=YES;
EXECUTED
```

17.7.4

COMMAND CATEGORY

Dangerous = **No**

17.8 MTSLP

Message Transfer Part Signaling Link Data Print

17.8.1 FORMAT

MTSLP[:LINK=];

LINK = Signaling link number.
&, &&, and ALL are permitted for this parameter. If the parameter is omitted, the value ALL is assumed.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.8.2 FUNCTION

The command is used to obtain a printout of signaling link data.

17.8.3 PRINTOUT

SIGNALING LINK DATA							
LINK	LNKSET	BPOS	PCMID	SLC	ALIGN	SLIPBL	STATE
.
.
END							

ALIGN = Type of alignment.
States which type of alignment procedure that is used for startup of the signaling link.
The parameter can assume the following values:
N = Normal alignment procedure is used.
E = Emergency alignment procedure is used.

BPOS = Board position.
For the value, see the parameter description for Message Transfer Part Data, MT.

LNKSET = Signaling link set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

PCMID = PCM link identity.
For the value, see the parameter description for Message Transfer Part Data, MT.

SLC = Signaling link code.
For the value, see the parameter description for Message Transfer Part Data, MT.

SLIPBL = Slip fault blocking.
States whether the board has to be blocked in case of a slip fault.
The parameter can assume the following values:
YES = The board is to be blocked.
NO = The board is to be disturbance marked (not blocked).

STATE= State of the given signaling link.
The signaling link can have the following states:
PASSIVE The link is out of service and ready for activation.
STARTING The link has been activated and is currently in the startup routine.
If activation is completed successfully, the state will become ACTIVE.
ACTIVE The link is in service and ready for transfer of signaling messages.

17.8.4

EXAMPLE

Print the data for the signaling link 2.

MTSLP:LINK=2;							
SIGNALING LINK DATA							
LINK	LNKSET	BPOS	PCMID	SLC	ALIGN	SLIPBL	STATE
2	1	005A-0-70	12	1	N	YES	ACTIVE
END							

Signaling link 2 is assigned to signaling link set 1. It is initiated in LIM 5, gateway A, magazine 0, board position 70, has PCM link identity 12, and has SLC code 1. For startup, normal alignment is used. The board is blocked in case of slip fault. The signaling link is active.

17.8.5

COMMAND CATEGORY

Dangerous = **No**

17.9

MTSRE

Message Transfer Part Signaling Route End

17.9.1

FORMAT

MTSRE: { **ROUSET=** } ;
 { **SIGROU =** }

ROUSET = Signaling route set number.
If the parameter is entered, all signaling routes within the specified route set will be removed.
For the value, see the parameter description for Message Transfer Part Data, MT.

SIGROU = Signaling route number.
If the parameter is entered, the signaling route specified will be removed.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.9.2 FUNCTION

The command is used to remove signaling routes.

17.9.3 EXAMPLE 1

Remove signaling route number 2.

```
MTSRE:SIGROU=2;
EXECUTED
```

17.9.4 EXAMPLE 2

Remove all signaling routes in signaling route set number 1.

```
MTSRE:ROUSET=1;
EXECUTED
```

17.9.5 COMMAND CATEGORY

Dangerous = **No**

17.10 MTSRI

Message Transfer Part Signaling Route Initiate

17.10.1 FORMAT

MTSRI:SIGROU=,ROUSET=,PRIO=,LNKSET=;

LNKSET = Signaling link set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

PRIO = Signaling route priority.
For the value, see the parameter description for Message Transfer Part Data, MT.

ROUSET = Signaling route set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

SIGROU = Signaling route number.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.10.2 FUNCTION

The command is used to initiate a signaling route. The command defines which link set the signaling route will use and the signaling route set to which it will belong.

Note: A maximum of eight signaling routes can belong to the same signaling route set.

17.10.3 EXAMPLE

Initiate signaling route number 1 with priority 1 in signaling route set number 2. The signaling route shall use signaling link set number 2.

MTSRI:SIGROU=1,ROUSET=2,PRIO=1,LNKSET=2;

EXECUTED

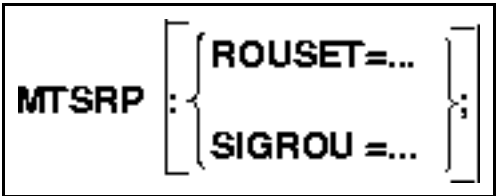
17.10.4 COMMAND CATEGORY

Dangerous = **No**

17.11 MTSRP

Message Transfer Part Signaling Route Data Print

17.11.1 FORMAT



- ROUSET =

Signaling route set number.
&, &&, and ALL are permitted for this parameter.
For the value, see the parameter description for Message Transfer Part Data, MT.
- SIGROU =

Signaling route number.
&, &&, and ALL are permitted for this parameter.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.11.2 FUNCTION

The command is used to print out data for signaling routes. Two different printout formats are available. If ROUSET is stated, the printout is sorted by signaling route set and priority. If SIGROU is stated, the printout is sorted by signaling route number only. If the command is given without any parameter, the format ROUSET = ALL is assumed.

17.11.3 PRINTOUT 1 (ROUSET)

SIGNALING ROUTE DATA				
ROUSET	PRIO	SIGROU	LNKSET	AVAILABLE
.
.
END				

17.11.4

PRINTOUT 2 (SIGROU)

SIGNALLING ROUTE DATA				
SIGROU	ROUSET	PRIO	LNKSET	AVAILABLE
.
.
END				

AVAILABLE=

Available or unavailable signaling route.
 The printout can assume the values YES or NO.
YES = Available signaling route.
NO = Unavailable signaling route.

LNKSET =

Signaling link set number.
 For the value, see the parameter description for Message Transfer Part Data, MT.

PRIO =

Signaling route priority.
 For the value, see the parameter description for Message Transfer Part Data, MT.

17.11.5

EXAMPLE 1 (ROUSET)

Print the signaling route data for the signaling routes in signaling route set 1 and 2.

SIGNALLING ROUTE DATA				
ROUSET	PRIO	SIGROU	LNKSET	AVAILABLE
1	1	1	1	NO
1	2	2	2	YES
2	1	3	2	YES
END				

Signaling route 1 uses link set 1 and is initiated as first priority route in signaling route set 1. Signaling route 1 is not available. Signaling route 2 uses link set 2, is initiated as second priority route in signaling route set 1, and is available. Signaling route 3 uses link set 2 and is initiated as first priority route in signaling route set 2. Signaling route 3 is available.

17.11.6

EXAMPLE 2 (SIGROU)

Print the signaling route data for the signaling routes 1 to 3.

MTSRP:SIGROU=1&&3;				
SIGNALING ROUTE DATA				
SIGROU	ROUSET	PRIO	LNKSET	AVAILABLE
1	3	1	1	NO
2	1	2	2	YES
3	2	1	2	YES
END				

Signaling route 1 uses link set 1 and is initiated as first priority route in signaling route set 3. Signaling route 1 is not available. Signaling route 2 uses link set 2 and is initiated as second priority route in signaling route set 1 and is available. Signaling route 3 uses link set 2 and is initiated as first priority route in signaling route set 2. Signaling route 3 is available.

17.11.7

COMMAND CATEGORY

Dangerous = **No**

17.12

MTSSC

Message Transfer Part Signaling Link Set Data Change

17.12.1

FORMAT

MTSSC:LNKSET=[,OPC=[,DPC][,MTPRST=[,PCSIZE=[,NET=];

DPC =	Destination point code. If the parameter is omitted, the value of destination point code remains unchanged. For the value, see the parameter description for Message Transfer Part Data, MT.
LNKSET =	Signaling link set number. For the value, see the parameter description for Message Transfer Part Data, MT.
MTPRST =	MTP restart. The parameter can assume the values YES or NO. YES = MTP restart procedure supported by adjacent node. NO = MTP restart is not supported. If the parameter is omitted, the MTP restart value remains unchanged.
NET =	Network type. If the parameter is omitted, the network type remains unchanged. For the value, see the parameter description for Message Transfer Part Data, MT.

- OPC =** Originating point code.
 If the parameter is omitted, the value of originating point code remains unchanged.
 For the value, see the parameter description for Message Transfer Part Data, MT.
- PCSIZE =** Point code size.
 If the parameter is omitted, the point code size remains unchanged.
 For the value, see the parameter description for Message Transfer Part Data, MT.

17.12.2 FUNCTION

The command is used to change signaling link set data.
 At least one of the optional parameter choices has always to be entered.

17.12.3 EXAMPLE

Change the originating point code for signaling link set 1 to H"001A21. The point code size remains unchanged.

```
MTSSC:LNKSET=1, OPC=001A21;
EXECUTED
```

17.12.4 COMMAND CATEGORY

Dangerous = **No**

17.13 MTSSE

Message Transfer Part Signaling Link Set End

17.13.1 FORMAT

MTSSE:LNKSET=;

- LNKSET =** Signaling link set number.
 & is allowed for this parameter.
 For the value, see the parameter description for Message Transfer Part Data, MT.

17.13.2 FUNCTION

The command is used to remove the stated signaling link set.
Note: The signaling link set can be removed only if no signaling links are assigned to it.

17.13.3 EXAMPLE

Remove the signaling link set number 1.

```
MTSSE:LNKSET=1;
EXECUTED
```

17.13.4

COMMAND CATEGORY

Dangerous = **No**

17.14

MTSSI

Message Transfer Part Signaling Link Set Initiate

17.14.1

FORMAT

MTSSI:LNKSET=,OPC=,DPC=,PCSIZE=,NET=,MTPRST=;

DPC = Destination point code.
For the value, see the parameter description for Message Transfer Part Data, MT.

LNKSET = Signaling link set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

MTPRST = MTP restart.
The parameter can assume the values YES or NO.
YES = MTP restart procedure supported by adjacent node.
NO = MTP restart is not supported.
If the parameter is omitted, the value NO is assumed

NET = Network type.
For the value, see the parameter description for Message Transfer Part Data, MT.

OPC = Originating point code.
For the value, see the parameter description for Message Transfer Part Data, MT.

PCSIZE = Point code size.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.14.2

FUNCTION

The command is used to initiate a signaling link set with related data.

17.14.3

EXAMPLE

Initiate the signaling link set number 1 for international network with originating point code H"001A21 and destination point code H"000023. The point code size is 14 bits, and the adjacent node supports MTP restart.

```
MTSSI:LNKSET=1,OPC=001A21,DPC=000023,PCSIZE=14,NET=0, MTPRST=YES;
EXECUTED
```

17.14.4

COMMAND CATEGORY

Dangerous = **No**

17.15

MTSSP

Message Transfer Part Signaling Link Set Data Print

17.15.1

FORMAT

$$\text{MTSSP} \left[: \text{LNKSET} = \dots \left\{ \begin{array}{l} \text{TRU} = \text{ALL} \\ \text{LINK} = \text{ALL} \end{array} \right\} \right];$$

- LINK =** Signaling link number.
Only the value ALL is allowed.
- LNKSET =** Signaling link set number.
&, &&, and ALL are permitted for this parameter.
If the parameter is omitted, the value ALL is assumed.
- TRU =** Trunk line number. LIM and serial number for the external line.
Only the value ALL is allowed.

17.15.2

FUNCTION

The command is used to obtain a printout of signaling link set data.

The command gives the choice to print either all external lines (parameter TRU entered) or all signaling links (parameter LINK entered) connected to the given signaling link set.

If the command is given without any parameter, the format LNKSET=ALL combined with LINK=ALL is assumed.

17.15.3

PRINTOUT 1 (ALL EXTERNAL LINES)

SIGNALING LINK SET DATA								
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	ROU	TRU	USER
.
.
END								

17.15.4

PRINTOUT 2 (ALL SIGNALING LINKS)

SIGNALING LINK SET DATA							
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	LINK	STATE
.
.
END							

DPC	Destination point code. For the value, see the parameter description for Message Transfer Part Data, MT.
MTPRST	MTP restart. The parameter can assume the values YES or NO. YES = MTP restart procedure supported by adjacent node. NO = MTP restart is not supported.
NET	Network type. For the value, see the parameter description for Message Transfer Part Data, MT.
NET	Network type. For the value, see the parameter description for Message Transfer Part Data, MT.
OPC	Originating point code. For the value, see the parameter description for Message Transfer Part Data, MT.
PCSIZE	Point code size. For the value, see the parameter description for Message Transfer Part Data, MT.
ROU	Route number. For the value, see the parameter description for Message Transfer Part Data, MT.
STATE	State of the given signaling link. The signaling link can have the following states: PASSIVE The link is out of service and ready for activation. STARTING The link has been activated and is currently in the startup routine. If activation is completed successfully, the state will become ACTIVE. ACTIVE The link is in service and ready for transfer of signaling messages.
USER	Type of user part for the trunk lines belonging to the corresponding board. The following value may appear: TUP Telephone user part

17.15.5

EXAMPLE 1 (ALL EXTERNAL LINES)

Print all external lines in the signaling link set 1.

MTSSP:LNKSET=1,TRU=ALL								
SIGNALING LINK SET DATA								
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	ROU	TRU	USER

1	H'001A21	H'000023	14	0	YES	18	003-1	TUP
						18	003-2	TUP
						18	003-3	TUP
						18	003-21	TUP
						18	003-22	TUP
						18	003-23	TUP
						18	003-24	TUP
END								

There are external lines of route 18 assigned to signaling link set 1 and used in international network. Originating point code is H"001A21, destination point code is H"000023, and point code size is 14 bits. The adjacent node supports MTP restart.

All external lines assigned to the signaling link set 1 are controlled by the Telephone User Part (TUP).

17.15.6

EXAMPLE 2 (ALL SIGNALING LINKS)

Print all signaling links in the signaling link sets 1, 2, 3, and 4.

MTSSP:LNKSET=1&&4,LINK=ALL;							
SIGNALING LINK SET DATA							
LNKSET	OPC	DPC	PCSIZE	NET	MTPRST	LINK	STATE
1	H'001A21	H'000023	14	0	YES	2	ACTIVE
2	H'000121	H'000112	14	0	NO	1	PASSIVE
3	H'000053	H'000032	14	0	NO		
4	H'820133	H'790122	24	2	NO	3	PASSIVE
END							

Assigned to link set 1 is link 2, used in international network. Originating point code is H'001A21 and destination point code is H'000023 (point code size is 14 bits). The link is active and MTP restart is supported by the link set.

Link 1 is assigned to signaling link set 2 used in the national network with originating point code H'000121 and destination point code H'000112 (point code size 14 bits). The link is passive.

Link set 3 is intended to be used in the international network with originating point code H'000053 and destination point code H'000032 (point code size 14 bits). There is no link assigned yet.

Link set 4 is used in the national network with originating point code H'820133 and destination point code H'790122 (point code size is 24 bits). There is one link, link 3, assigned to the link set. The link is passive.

Link sets 2, 3, and 4 do not support MTP restart.

17.15.7

COMMAND CATEGORY

Dangerous = **No**

17.16

MTSTE

Message Transfer Part Signaling Route Set End

17.16.1

FORMAT

MTSTE:ROUSET=;

ROUSET = Signaling route set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

17.16.2

FUNCTION

The command is used to remove a signaling route set. All signaling routes within the signaling route set must be removed before removing the signaling route set.

17.16.3

EXAMPLE

Remove the signaling route set number 1.

```
MTSTE:ROUSET=1;
EXECUTED
```

17.16.4

COMMAND CATEGORY

Dangerous = **No**

17.17

MTSTI

Message Transfer Part Signaling Route Set Initiate

17.17.1

FORMAT

MTSTI:ROUSET=,DPC=[,TEST=];

DPC = Destination point code.
For the value, see the parameter description for Message Transfer Part Data, MT.

ROUSET = Signaling route set number.
For the value, see the parameter description for Message Transfer Part Data, MT.

TEST = Signaling route set test.
The parameter can assume the values YES or NO.
YES = Perform signaling route set test.
NO = No signaling route set test will be done.
If the parameter is omitted, the value NO is assumed.

17.17.2

FUNCTION

The command is used to initiate a signaling route set for a destination.

17.17.3

EXAMPLE

Initiate the signaling route set 1 for destination point code H"000023. No signaling route set test will be done.

```
MTSTI:ROUSET=1, DPC=000023;
EXECUTED
```

17.17.4

COMMAND CATEGORY

Dangerous = **No**

17.18 MTSTP

Message Transfer Part Signaling Route Set Data Print

17.18.1 FORMAT

MTSTP[:ROUSET=];

ROUSET = Signaling route set number.
For the value, see the parameter description for Message Transfer Part Data, MT.
&, &&, and ALL are permitted for this parameter.
If the parameter is omitted, the value ALL is assumed.

17.18.2 FUNCTION

The command is used to obtain a printout of signaling route set data.

17.18.3 PRINTOUT

SIGNALING ROUTE SET DATA			
ROUSET	DPC	TEST	ACCESSIBLE
.	.	.	.
.	.	.	.
.	.	.	.
END			

ACCESSIBLE	The signaling route set is accessible/inaccessible. The printout can assume the values YES or NO. YES = The signaling route set is accessible. NO = The signaling route set is inaccessible.
DPC	Destination point code. For the value, see the parameter description for Message Transfer Part Data, MT.
TEST	Signaling route set test. The parameter can assume the values YES or NO. YES = Perform signaling route set test. NO = No signaling route set test will be done.

17.18.4

EXAMPLE 1

Print the data for signaling route set 1.

```
MTSTP:ROUSET=1;
SIGNALING ROUTE SET DATA
ROUSET      DPC      TEST      ACCESSIBLE
1           000023    YES      YES
END
```

Signaling route set 1 is initiated for the destination 000023 and is accessible. Signaling route set test is performed for all prohibited and restricted signaling routes the route set.

17.18.5

EXAMPLE 2

Print out the data for all initiated signaling route sets.

```
MTSTP;
SIGNALING ROUTE SET DATA
ROUSET      DPC      TEST      ACCESSIBLE
1           000023    YES      YES
2           000112    YES      YES
8           000032    NO       NO
END
```

Signaling route set 1 is initiated for the destination 000023 and is accessible. Signaling route set 2 is initiated for the destination 000112 and is accessible. Signaling route set 8 is initiated for destination 000032 and is inaccessible. Signaling route set test is performed to all prohibited and restricted signaling routes with in route set within route set 1 and 2.

17.18.6

COMMAND CATEGORY

Dangerous = **No**

18

NC - AUTOMATIC NETWORK CALL DISTRIBUTION

18.1

NCCOE

Network Call Distribution Communication End

18.1.1

FORMAT

NCCOE:NODE=,CHO=;

CHO = Choice.
 ALL is permitted for this parameter.

NODE = ANCD node number.

18.1.2

FUNCTION

The command is used to erase an ANCD communication channel for an ANCD node. ANCD node identity for own system cannot be stated.

18.1.3

EXAMPLE

Erase choice 2 for ANCD node 1 as an alternative communication channel.

```
NCCOE:NODE=1,CHO=2;
NCCOE:NODE=1,CHO=2;
SURE? (YES/NO)
YES;
EXECUTED
```

18.1.4

COMMAND CATEGORY

Dangerous = **Yes**

18.2

NCCOI

Network Call Distribution Communication Initiate

18.2.1

FORMAT

NCCOI:NODE=,CHO=,IFCIND=;

CHO = Choice.
 ALL is permitted for this parameter.

IFCIND = Information computer individual.

NODE = ANCD node number.

18.2.2 FUNCTION

The command is used to initiate an ANCD communication channel for an ANCD node. ANCD is based on GICI-channel communication between ANCD nodes within the ANCD network.

If an ANCD group and a satellite group is located in different ANCD nodes in the ANCD network, the communication is done through GICI-channels setup between the ANCD nodes.

To ensure that the GICI communication channel is not broken, it is possible to define several choices to establish an information channel from one ANCD node to another within the ANCD network.

ANCD node identity for own system cannot be stated.

18.2.3 EXAMPLE

For ANCD node 1, define information computer individual number 10 as the second communication choice.

```
NCCOI:NODE=1,CHO=2,IFCIND=10;
EXECUTED
```

18.2.4 COMMAND CATEGORY

Dangerous = **No**

18.3 NCCOP

Network Call Distribution Communication Print

18.3.1 FORMAT

NCCOP:NODE=;

NODE = ANCD node number.
&, && and ALL are permitted for this parameter.

18.3.2 FUNCTION

The command is used to print out ANCD communication channel data.

18.3.3 PRINTOUT

ANCD COMMUNICATION DATA				
NODE	CHO	IFCIND	LIM	STATUS
.

.
.
END				

CHO Choice.

IFCIND Information computer individual.

LIM LIM number. LIM where information computer individual is located.

STATUS GICI communication channel status for a choice.
Possible values are IN TRAFFIC, OUT OF TRAFFIC and OUT OF TRAFFIC IN
OTHER NODE.

18.3.4

EXAMPLE

Print out communication data for ANCD node 1 and 2.

NCCOP:NODE=1&2;				
ANCD COMMUNICATION DATA				
NODE	CHO	IFCIND	LIM	STATUS
1	1	9	1	IN TRAFFIC
.	2	10	1	IN TRAFFIC
2	1	6	2	IN TRAFFIC
.	2	7	2	IN TRAFFIC
.	3	8	2	IN TRAFFIC
END				

For ANCD node number 1, first choice has information computer individual 9 as communication channel, second choice has information computer individual 10 as communication channel.

For ANCD node number 2, first choice has information computer individual 6 as communication channel, second choice has information computer individual 7 as communication channel, third choice has information computer individual 8 as communication channel.

Communication channel status for all choices is IN TRAFFIC.

18.3.5

COMMAND CATEGORY

Dangerous = **No**

18.4

NCCTI

Network Call Distribution Communication Test Initiate

18.4.1

FORMAT

NCCTI:NODE=,CHO=;

CHO = Choice.

NODE = ANCD node number.

18.4.2

FUNCTION

The command is used to test ANCD communication on a GICI communication channel. This command performs a check on specified GICI communication channel (i.e. the GICI communication channel the choice belongs to) to obtain information if the connection between the ANCD nodes is not interrupted, the ANCD node number in the other ANCD node is assigned and equal with expected ANCD node number, and that data can be sent and received correctly.

18.4.3

PRINTOUT

```

ANCD COMMUNICATION TEST RESULT

{
TEST OK
NO NODE NUMBER IN OTHER NODE
NO CHANNEL DATA IN OTHER NODE
INCORRECT RECEIVING NODE
CHANNEL NOT IN TRAFFIC
CORRUPTED DATA
SIGNAL TIME OUT
}

[
PASSED ANCD NODE(S)
]

END

```

ANCD COMMUNICATION TEST RESULT

TEST OK

NO NODE NUMBER IN OTHER NODE

NO CHANNEL DATA IN OTHER NODE

INCORRECT RECEIVING NODE

CHANNEL NOT IN TRAFFIC

CORRUPTED DATA

SIGNAL TIME OUT

PASSED ANCD NODE(S)

END

TEST OK

The communication on the GICI communication channel is OK.

NO NODE NUMBER IN OTHER NODE

The ANCD node number in the other node is not set.

NO CHANNEL DATA IN OTHER NODE

Channel data in the other ANCD node are not initiated.

INCORRECT RECEIVING NODE

Error depending on incorrect received ANCD node number.

CHANNEL NOT IN TRAFFIC

The GICI channel is out of traffic due to no physical connection with the other node.

CORRUPTED DATA

Transmission error depending on corrupted data.

SIGNAL TIME OUT	Signal time out depending on communication error.
PASSED ANCD NODES	List of passed ANCD nodes where the test was OK.

18.4.4 **EXAMPLE**

Initiate a communication test on choice 2 for ANCD node 2.

```
NCCTI:NODE=2,CHO=2;
ANCD COMMUNICATION TEST RESULT
TEST OK
PASSED ANCD NODE(S)
                                     3
                                     4
                                     2
END
```

The communication for ANCD node 2 and choice 2 is OK, i.e. the ANCD node number in the other ANCD node is assigned and equal with expected ANCD node number and the result of the checked channel is OK.

To reach ANCD node 2, ANCD nodes 3 and 4 are passed. The terminated node 2 is also printed.

18.4.5 **COMMAND CATEGORY**

Dangerous = **No**

18.5 **NCGMC**

Network Call Distribution Group Member Change

18.5.1 **FORMAT**

NCGMC:ANCD=,SAT=[,NODE=],STRING=;

- ANCD =** ANCD group number. Directory number of ANCD group.
- NODE =** ANCD node number. ANCD node where satellite group is located.
If the parameter is omitted, ANCD node number of own system will be used.
- SAT =** Satellite group number. Directory number of satellite group.
& is permitted for this parameter.
- STRING =** Information string.
Removal of information string, set STRING="".

18.5.2 **FUNCTION**

The command is used to change the information string for an ANCD group member.

18.5.3 EXAMPLE

Change information string for member 8010 to domestic. Satellite group 8010 is a member of the ANCD group 8000.

```
NCGMC:ANCD=8000,SAT=8010,STRING="DOMESTIC";
EXECUTED
```

18.5.4 COMMAND CATEGORY

Dangerous = **No**

18.6 NCGME

Network Call Distribution Group Member End

18.6.1 FORMAT

NCGME:ANCD=,SAT=[,NODE=];

ANCD = ANCD group number. Directory number of ANCD group.

NODE = ANCD node number. ANCD node where satellite group is located.
If the parameter is omitted, ANCD node number of own system will be used.

SAT = Satellite group number. Directory number of satellite group.
& is permitted for this parameter.

18.6.2 FUNCTION

This command is used to remove a member of the ANCD group. The member could either be an ACD group or an ANCD group. The command is executed in the ANCD node.

18.6.3 EXAMPLE

Satellite group 8020 in ANCD node 2 shall be erased as member of ANCD group 8000.

```
NCGME:ANCD=8000,SAT=8020,NODE=2;
NCGME:ANCD=8000,SAT=8020,NODE=2;
SURE? (YES/NO)
YES;
EXECUTED
```

18.6.4 COMMAND CATEGORY

Dangerous = **Yes**

18.7

NCGMI

Network Call Distribution Group Member Initiate

18.7.1

FORMAT

NCGMI :ANCD=,SAT=[,NODE=,DISTNO=][,STRING=];

ANCD =	ANCD group number. Directory number of ANCD group.
DISTNO =	Distribution number. Complete number to satellite group for call distribution. If the parameter is omitted, directory number of satellite group will be used.
NODE =	ANCD node number. ANCD node where satellite group is located. If the parameter is omitted, ANCD node number of own system will be used.
SAT =	Satellite group number. Directory number of satellite group.
STRING =	Information string. If the parameter is omitted, no string will be used.

18.7.2

FUNCTION

The command is used to initiate a satellite group of an ANCD group. Members of the ANCD group can be a satellite ANCD group or a satellite ACD group.

The members can be located in the same ANCD node as the ANCD group or in another ANCD node within the ANCD network.

The ANCD group will distribute a call to the satellite group which provides the best answer capability for the moment.

18.7.3

EXAMPLE 1

Initiate satellite group 8010 as member of ANCD group 8000. Satellite group 8010 is located in ANCD node 3, and has distribution number 038010. The information string shall contain the name domestic.

```
NCGMI:ANCD=8000,SAT=8010,NODE=3,DISTNO=038010,
STRING="DOMESTIC";
EXECUTED
```

18.7.4

EXAMPLE 2

Initiate satellite group 8020 as member of ANCD group 8000. Satellite group 8020 is located in the same ANCD node as ANCD group 8000, so the parameter NODE can be omitted.

```
NCGMI:ANCD=8000,SAT=8020;
EXECUTED
```

18.7.5

COMMAND CATEGORY

Dangerous = **No**

18.8

NCGMP

Network Call Distribution Group Member Print

18.8.1

FORMAT

NCGMP:ANCD=[,SORT=];

ANCD = ANCD group number. Directory number of ANCD group.
& and ALL are permitted for this parameter.

SORT = Sorting method.
If the parameter is omitted, the sorting method used will be numerical order.

18.8.2

FUNCTION

The command is used to print out member data for an ANCD group.

18.8.3

PRINTOUT

ANCD GROUP MEMBER DATA				
ANCD	SAT	NODE	DISTNO	STRING
.
.
.
END				

DISTNO Distribution number. Complete number to satellite group for call distribution.

NODE ANCD node number. ANCD node where satellite group is located.

SAT Satellite group number. Directory number of satellite group.

STRING Information string.

18.8.4

EXAMPLE 1

Print out member data for ANCD group number 8000.

```

NCGMP:ANCD=8000;
ANCD GROUP MEMBER DATA
ANCD      SAT      NODE      DISTNO      STRING
8000      8020
           8030      2        028030      INTERNATIONAL
           8010      3        038010      DOMESTIC
END

```

ANCD group 8000 has three satellite groups initiated as members with directory numbers 8010, 8020 and 8030. Satellite group 8020 is located in the same ANCD node as ANCD group 8000. Satellite group 8030 is located in ANCD node 2 and has distribution number 028030. The information string contains the name international. Satellite group 8010 is located in ANCD node 3 and has distribution number 038010. The information string contains the name domestic.

18.8.5

EXAMPLE 2

Print out member data for ANCD group number 7100 sorted by initiation order of the members.

```

NCGMP:ANCD=7100,SORT=1;
ANCD GROUP MEMBER DATA
ANCD      SAT      NODE      DISTNO      STRING
7100      7110
           7140      2        027140      PURCHASE
           7120      3        037120      SALES
END

```

ANCD group 7100 consists of three members initiated in the order 7110, 7140, 7120. Satellite group 7110 is located in the same ANCD node as ANCD group 7100. Satellite group 7140 is located in ANCD node 2 and has distribution number 027140. The information string contains the name purchase. Satellite group 7120 is located in ANCD node 3 and has distribution number 037120. The information string contains the name sales.

18.8.6

COMMAND CATEGORY

Dangerous = **No**

18.9

NCGRC

Network Call Distribution Group Change

18.9.1

FORMAT

NCGRC:ANCD=[,SERV=][,TRAF=][,SEL=][,CUST=][,MAXTIM=];

ANCD = ANCD group number. Directory number of ANCD group.
& is permitted for this parameter.

CUST = Customer number.

MAXTIM = Maximum waiting time.

SEL = Selection category.

SERV = Service category.

TRAF = Traffic category.

18.9.2

FUNCTION

The command is used to alter the category characteristics of an ANCD group. If the ANCD group is a satellite group, maximum waiting time cannot be assigned. At least one of the parameters SERV, TRAF, SEL, CUST, MAXTIM must be stated.

18.9.3

EXAMPLE 1

Alter the category characteristics for the group with directory number 8000 so that direct dialing and collect call blocking (Brazil) traffic is forbidden. The group shall have traffic group 8. Value for the maximum waiting time is 300 seconds.

```
NCGRC:ANCD=8000,SERV=0,TRAF=8,MAXTIM=300;
EXECUTED
```

18.9.4

EXAMPLE 2

Alter the category characteristics for the group with directory number 8100 so the selection of satellite groups with free members shall use the load sharing method.

```
NCGRC:ANCD=8100,SEL=3;
EXECUTED
```

18.9.5

COMMAND CATEGORY

Dangerous = **No**

18.10

NCGRE

Network Call Distribution Group End

18.10.1

FORMAT

NCGRE:ANCD=;

ANCD = ANCD group number. Directory number of ANCD group.
& is permitted for this parameter.

18.10.2

FUNCTION

The command is used to erase an ANCD group.

18.10.3

EXAMPLE

ANCD group 8000 shall be erased.

```
NCGRE:ANCD=8000;
NCGRE:ANCD=8000;
SURE? (YES/NO)
YES;
EXECUTED
```

18.10.4

COMMAND CATEGORY

Dangerous = **Yes**

18.11

NCGRI

Network Call Distribution Group Initiate

18.11.1

FORMAT

NCGRI :ANCD=,LIM=,SERV=,TRAF=,SEL=[,CUST=][,MAXTIM=];

ANCD =	ANCD group number. Directory number of ANCD group.
CUST =	Customer number. If the parameter is omitted, no customer number will be assigned.
LIM =	LIM number. LIM in which the group is to be located.
MAXTIM =	Maximum waiting time. If the parameter is omitted, no maximum waiting time will be assigned.
SEL =	Selection category.
SERV =	Service category.
TRAF =	Traffic category.

18.11.2

FUNCTION

The command is used to initiate an ANCD group. The command states if incoming calls shall be received directly in the ANCD group or not, which traffic group the group shall belong to, search order for selection of free members, if a customer group number shall be defined for the group and if a maximum waiting time shall be defined for the ANCD group.

If a maximum waiting time is defined for the group, the ANCD group will check if all satellite groups have a longer estimated waiting time than the specified maximum waiting time, in that case the call will be overflowed to the diversion position for the ANCD group.

18.11.3 **EXAMPLE**

Initiate an ANCD group with directory number 8000. The group is to be located in LIM number 1. Direct indialing traffic shall be permitted to the group number. Collect Call (Brazil) traffic will not be permitted.

The group shall belong to traffic group 9. Satellite group with free members in the ANCD group are selected in initiation order, i.e. in accordance with the order in which they were initiated in the ANCD group.

The group number shall be affiliated to customer number 1. Value for the maximum waiting time is 240 seconds.

```
NCGRI:ANCD=8000,LIM=1,SERV=1,TRAF=9,SEL=0,CUST=1,
MAXTIM=240;
EXECUTED
```

18.11.4 **COMMAND CATEGORY**

Dangerous = **No**

18.12 **NCGRP**

Network Call Distribution Group Print

18.12.1 **FORMAT**

NCGRP:ANCD=;

ANCD = ANCD group number. Directory number of ANCD group.
 & and ALL are permitted for this parameter.

18.12.2 **FUNCTION**

The command is used to print out the category for an ANCD group.

18.12.3 **PRINTOUT**

ANCD GROUP DATA							
ANCD	LIM	SERV	TRAF	SEL	CUST	MAXTIM	SAT
.
.
.
END							

CUST = Customer number.

LIM = LIM number. LIM in which the group is to be located.

MAXTIM = Maximum waiting time.

SAT = Satellite group.
States if ANCD group is a satellite group or not. Possible values are YES or NO.

SEL = Selection category.

SERV = Service category.

TRAF = Traffic category.

18.12.4

EXAMPLE

Print out the categories for ANCD group number 8000.

```
NCGRP:ANCD=8000;
ANCD GROUP DATA
ANCD      LIM      SERV      TRAF      SEL      CUST      MAXTIM      SAT
8000      1        1        15        0        1        240        YES
END
```

The ANCD group's directory number is 8000. The group is located in LIM 1. The group is permitted to accept direct indialling traffic. The traffic group is 15.

Satellite group with free members in the ANCD group are selected in initiation order, i.e. in accordance with the order in which they were initiated in the ANCD group.

The group is affiliated to customer number 1. Value for the maximum waiting time is 240 seconds. The ANCD group is a satellite group.

18.12.5

COMMAND CATEGORY

Dangerous = **No**

18.13

NCGSP

Network Call Distribution Group Status Print

18.13.1

FORMAT

$$\text{NCGSP:ANCD} = \left[\begin{array}{l} \text{,SAT=} \\ \text{,SAT=,NODE=} \end{array} \right];$$

ANCD = ANCD group number. Directory number of ANCD group.

NODE = ANCD node number. ANCD node where satellite group is located.
If the parameter is omitted, ANCD node number of own system will be used.

SAT = Satellite group number. Directory number of satellite group.

18.13.2

FUNCTION

The command gives the current status for an ANCD group and the satellite groups that are initiated as its members. If the parameter SAT is omitted, all satellite groups will be printed. Parameter NODE must be stated if a specific satellite group in another node will be printed.

18.13.3

PRINTOUT

ANCD GROUP STATUS									
ANCD	NODE	MAXTIM	OFLTIM	STATUS					
...					
AGENT INFO				QUEUE INFO					
SAT	NODE	TOTAL	AVAIL	BUSY	TOTAL	BUSY	AVCT	EWT	STATUS
.
.
.
END									

AVAIL (AI)	Number of available agents in a satellite group.
AVCT	Average conversation time for the satellite group.
BUSY (AI)	Number of busy agents in a satellite group.
BUSY (QI)	Number of busy queue records in a satellite group.
EWT	Estimated waiting time in queue for the satellite group.
MAXTIM	Maximum waiting time.
NODE	ANCD node number. ANCD node where the ANCD group is located.
OFLTIM	Overflow time.
STATUS	ANCD group status. Possible result values, see below.
STATUS	Satellite group status. Possible result values, see below.
TOTAL (AI)	Number of initiated agents in a satellite group.
TOTAL (QI)	Number of total available queue positions in a satellite group.

18.13.4

STATUS PRINTOUTS FOR ANCD GROUP

CLOSED	ANCD group is not initiated for traffic distribution.
OPEN	ANCD group is initiated for traffic distribution.
RELINK	Updating the list of ANCD members under progress.

18.13.5

STATUS PRINTOUTS FOR SATELLITE GROUPS

ALREADY SATELLITE	The assigned satellite group, already belongs to another ANCD group.
CLOSEDBYAGENT	No agents are available.
CLOSEDBYERROR	Error depending on incorrect data.
CLOSEDBYHIGHTRAF	The satellite group is busy and/or the queue is full with calls, or the AVQT is to high.
CLOSEDBYORDER	Member, which is an ANCD satellite group, is closed by command.
CLOSEDBYRESTART	The satellite group is closed by restart.
CLOSEDBYSUPERVISOR	The satellite group is closed by the supervisor.

CLOSEDBYTIMEOUT	The ANCD has lost the connection with the satellite group.
CLOSEDTEMPORARY	Ordering from an ANCD group to a satellite group under progress.
COMMUNICATIONERROR	Communication error caused by ANCD information channel fault.
INITLINKSENT	Linking to the member under progress.
NOGROUP	The assigned number is not an ANCD/ACD group.
NOSATELLITE	The assigned number is not a satellite group.
NOTASSIGNED	The assigned number is not defined.
OK	The satellite group is open for distributed calls.

18.13.6

EXAMPLE

Print out current status for ANCD group number 8000.

NCGSP:ANCD=8000;									
ANCD GROUP STATUS									
ANCD	NODE	MAXTIM	OFLTIM	STATUS					
8000	1	240		OPEN					
AGENT INFO					QUEUE INFO				
SAT	NODE	TOTAL	AVAIL	BUSY	TOTAL	BUSY	AVCT	EWT	STATUS
8010	1	20	14	14	10	4	90	26	OK
8020	2	25	17	9	10	0	80	0	OK
8030	2	15	0	0	8	0			CLOSEDBY ORDER
END									

The ANCD group is initiated for traffic distribution, initiated in ANCD node 1 and the maximum waiting time is 240 seconds. The satellite groups setup as members are 8010, 8020 and 8030.

Satellite group 8010 is located in ANCD node 1, and satellite groups 8020 and 8030 are located in ANCD node 2. Satellite group 8010 and 8020 are open for distributed calls. Satellite group 8030 is closed by order.

There are 20 agents initiated in the satellite group 8010. All 14 available agents are busy. Total number of queue records for the satellite group is 10 and 4 of these are busy. The AVCT for the moment is 90 seconds and EWT is 26 seconds.

There are 25 agents initiated in the satellite group 8020. 17 of the agents are available and 9 of the agents are busy. Total queue records for the satellite group are 10 and none of these are busy. The AVCT for the moment is 80 seconds and there is no queuing time. For satellite group 8030, which is closed, 15 agents are initiated. The total number of queue records for the group is 8.

18.13.7

COMMAND CATEGORY

Dangerous = **No**

18.14

NCGTE

Network Call Distribution Traffic End

18.14.1

FORMAT

$$\text{NCGTE:ANCD} = \left[\begin{array}{l} ,\text{SAT} = \\ ,\text{SAT} = ,\text{NODE} = \end{array} \right];$$

ANCD = ANCD group number. Directory number of ANCD group.

NODE = ANCD node number. ANCD node where satellite group is located.

SAT = Satellite group number. Directory number of satellite group.

18.14.2

FUNCTION

The command is used to stop traffic distribution from an ANCD group to the satellite group(s) setup as its member(s). If parameter SAT and NODE are omitted, the stated ANCD group will be closed for traffic. If the parameter SAT is stated only the specified satellite will be closed for traffic. If the parameter NODE is omitted, own node number will be used.

18.14.3

EXAMPLE 1

Close the traffic distribution for the ANCD group with directory number 8000.

```
NCGTE:ANCD=8000;
NCGTE:ANCD=8000;
SURE? (YES/NO)
YES;
EXECUTED
```

18.14.4 EXAMPLE 2

Close the traffic distribution for the ANCD group with directory number 8000 to the satellite group 8020 in node 2.

```

NCGTE:ANCD=8000,SAT=8020,NODE=2;
NCGTE:ANCD=8000,SAT=8020,NODE=2;
SURE? (YES/NO)
YES;
EXECUTED
    
```

18.14.5 COMMAND CATEGORY

Dangerous = **Yes**

18.15 NCGTI

Network Call Distribution Group Traffic Initiate

18.15.1 FORMAT

$$\text{NCGTI:ANCD= } \left[\begin{array}{l} \text{,SAT=} \\ \text{,SAT=,NODE=} \end{array} \right];$$

ANCD = ANCD group number. Directory number of ANCD group.

NODE = ANCD node number. ANCD node where satellite group is located.

SAT = Satellite group number. Directory number of satellite group.

18.15.2 FUNCTION

The command is used to initiate traffic distribution from an ANCD group to the satellite groups setup as its members. The command is used when the ANCD network has been built up and is ready for traffic distribution.

If parameter SAT and NODE are omitted, the stated ANCD group will be open for traffic. If the parameter SAT is stated, only the specified satellite will be open for traffic. If the parameter NODE is omitted, own node number will be used.

18.15.3 EXAMPLE 1

Initiate traffic distribution for the ANCD group with directory number 8000.

```

NCGTI:ANCD=8000;
NCGTI:ANCD=8000;
SURE? (YES/NO)
YES;
EXECUTED
    
```

18.15.4

EXAMPLE 2

Initiate traffic distribution for the ANCD group with directory number 8000 to the satellite group 8010.

```

NCGTI:ANCD=8000,SAT=8010;
NCGTI:ANCD=8000,SAT=8010;
SURE? (YES/NO)
YES;
EXECUTED

```

18.15.5

COMMAND CATEGORY

Dangerous = **Yes**

18.16

NCICE

Network Call Distribution Information Channel End

18.16.1

FORMAT

NCICE :IFCIND=;

IFCIND = Information computer individual.
& is permitted for this parameter.

18.16.2

FUNCTION

The command removes an ANCD information channel.

18.16.3

EXAMPLE

Remove information computer individual 9 as ANCD information channel.

```

NCICE:ICUIND=9;
NCICE:ICUIND=9;
SURE? (YES/NO)
YES;
EXECUTED

```

18.16.4

COMMAND CATEGORY

Dangerous = **Yes**

18.17**NCICI**

Network Call Distribution Information Channel Initiate

18.17.1**FORMAT****NCICI:IFCIND=;**

IFCIND = Information computer individual.
& is permitted for this parameter.

18.17.2**FUNCTION**

The command initiates an ANCD information channel. The distribution of calls from an ANCD group to a satellite group is based on current status of the satellite group. The satellite group will update the superior ANCD group with necessary status information. This information is distributed through the GICI communication channel, if the satellite group and the ANCD group is located in different ANCD nodes.

18.17.3**EXAMPLE**

Initiate information computer individual 10 as an ANCD information channel.

```
NCICI:IFCIND=10;
EXECUTED
```

18.17.4**COMMAND CATEGORY**

Dangerous = **No**

18.18**NCICP**

Network Call Distribution Information Channel Print

18.18.1**FORMAT****NCICP;****18.18.2****FUNCTION**

The command is used to print out the ANCD information channel(s).

18.18.3**PRINTOUT**

```
ANCD INFORMATION CHANNEL DATA
IFCIND
.
```

END

IFCIND = Information computer individual.

18.18.4

EXAMPLE

Print out the information computer individual(s) initiated as ANCD information channels.

NCICP; ANCD INFORMATION CHANNEL DATA IFCIND 8 END

Information computer individuals 8 is initiated as ANCD communication channel.

18.18.5

COMMAND CATEGORY

Dangerous = **No**

18.19

NCNOE

Network Call Distribution Node End

18.19.1

FORMAT

NCNOE;

18.19.2

FUNCTION

The command is used to erase the ANCD node identity used for the system.

18.19.3

EXAMPLE

Erase ANCD node identity for the system.

NCNOE; NCNOE; SURE? (YES/NO) YES; EXECUTED
--

18.19.4

COMMAND CATEGORY

Dangerous = **Yes**

18.20

NCNOI

Network Call Distribution Node Initiate

18.20.1

FORMAT

NCNOI:NODE=;

NODE = ANCD node number.

18.20.2

FUNCTION

The command is used to initiate an ANCD node identity for the system.

18.20.3

EXAMPLE

Initiate ANCD node identity 1 for the system.

```
NCNOI:NODE=1;
EXECUTED
```

18.20.4

COMMAND CATEGORY

Dangerous = **No**

18.21

NCNOP

Network Call Distribution Node Print

18.21.1

FORMAT

NCNOP;

18.21.2

FUNCTION

The command is used to print out the ANCD node identity for the system.

18.21.3

PRINTOUT

```
ANCD NODE DATA
NODE
.
.
END
```

NODE = ANCD node number.

18.21.4

EXAMPLE

Print out the ANCD node identity for the system.

```
NCNOP;
ANCD NODE DATA
NODE
    1
END
```

ANCD node identity 1 is initiated for the system.

18.21.5

COMMAND CATEGORY

Dangerous = **No**

18.22

NCSGC

Network Call Distribution Satellite Group Change

18.22.1

FORMAT

NCSGC :SAT=[,INFTYP=[,OFLTIM=[,OVFLOW=];

INFTYP = Information flow type. The parameter is only used for satellite ACD groups.
OFLTIM = Overflow time.
OVFLOW = Overflow category.
SAT = Satellite group number. Directory number of satellite group.
 & is permitted for this parameter.

18.22.2

FUNCTION

The command is used to alter the characteristics for a satellite group. If the overflow time shall be initiated, the parameter OVFLOW must be initiated for overflow calls.

At least one of the parameters INFTYP, OFLTIM and OVFLOW must be stated.

18.22.3

EXAMPLE

Change the information flow type to periodically for satellite group 8010.

```
NCSGC:SAT=8010,INFTYP=P;
EXECUTED
```

18.22.4

COMMAND CATEGORY

Dangerous = **No**

18.23

NCSGE

Network Call Distribution Satellite Group End

18.23.1

FORMAT

NCSGE:SAT=;

SAT = Satellite group number. Directory number of satellite group.
& is permitted for this parameter.

18.23.2

FUNCTION

The command is used to erase an ANCD/ACD group as satellite group.

18.23.3

EXAMPLE

ACD group 8010 shall be erased as satellite group.

```
NCSGE:SAT=8010;
NCSGE:SAT=8010;
SURE? (YES/NO)
YES;
EXECUTED
```

18.23.4

COMMAND CATEGORY

Dangerous = **Yes**

18.24

NCSGI

Network Call Distribution Satellite Group Initiate

18.24.1

FORMAT

**NCSGI:SAT=,ANCD=[,NODE=,OFLNO=][,INFTYP=][,OFLTIM=]
[,OVFLOW=];**

ANCD = ANCD group number. Directory number of ANCD group.

INFTYP = Information flow type. Can only be stated for satellite ACD group.
If the parameter is omitted, periodically flow type will be initiated for satellite group.

NODE = ANCD node number. ANCD node where ANCD group is located.

OFLNO = Overflow number. Complete number to ANCD group for call overflow.

OFLTIM = Overflow time.
If the parameter is omitted, no overflow time will be used.

OVFLOW = Overflow category.
If the parameter is omitted, the satellite group will be initiated for call overflow.

SAT = Satellite group number. Directory number of satellite group.

18.24.2

FUNCTION

The command is used to define an ANCD/ACD group as satellite group. The satellite group shall be defined to which ANCD group it belongs to.

If the satellite group that shall be defined is an ANCD group, maximum waiting time must be removed for the ANCD group.

If the satellite group shall be initiated for no overflow calls, the parameter OFLTIM is then not allowed to specify.

If parameter NODE and OFLNO are omitted, own node number will be used.

18.24.3

EXAMPLE 1

Define an ACD group with directory number 8010 as a satellite group. The satellite group shall belong to ANCD group 8000, which is located in ANCD node 1.

The overflow number to the ANCD group is 018000. The status information from the satellite group to the ANCD group shall be sent periodically.

Overflow time shall be set to 60 seconds.

```
NCSGI:SAT=8010,ANCD=8000,NODE=1,OFLNO=018000,
INFTYP=P,OFLTIM=60;
EXECUTED
```

18.24.4

EXAMPLE 2

Define an ACD group with directory number 8020 as a satellite group. The satellite group shall belong to ANCD group 8000, which is located in the same ANCD node.

The status information from the satellite group to the ANCD group shall be sent every time a status change occurs for the group. The satellite group shall not be initiated for call overflow.

```
NCSGI:SAT=8020,ANCD=8000,INFTYP=E,OVFLOW=NO;
EXECUTED
```

18.24.5

EXAMPLE 3

Define an ANCD group with directory number 8030 as a satellite group. The satellite group shall belong to ANCD group 8000, which is located in ANCD node 1. The overflow number to the ANCD group is 018000.

```
NCSGI:SAT=8030,ANCD=8000,NODE=1,OFLNO=018000;
EXECUTED
```

18.24.6

COMMAND CATEGORY

Dangerous = **No**

18.25

NCSGP

Network Call Distribution Satellite Group Print

18.25.1

FORMAT

NCSGP:SAT=;

SAT = Satellite group number. Directory number of satellite group.
 & and ALL are permitted for this parameter.

18.25.2

FUNCTION

The command is used to print out data for a satellite group.

18.25.3

PRINTOUT

SATELLITE GROUP DATA							
SAT	ANCD	NODE	OFLNO	INFTYP	OFLTIM	OVFLOW	GRPTYPE
.
.
.
END							

ANCD	ANCD group number.
GRPTYPE	Group type. The satellite group can be of type ANCD or ACD.
INFTYP	Information flow type.
NODE	ANCD node number.
OFLNO	Overflow number.
OFLTIM	Overflow time.
OVFLOW	Overflow category.

18.25.4

EXAMPLE

Print out data for the satellite group number 8010.

NCSGP:SAT=8010;							
SATELLITE GROUP DATA							
SAT	ANCD	NODE	OFLNO	INFTYP	OFLTIM	OVFLOW	GRPTYPE
8010	8000	1	018000	P	60	YES	ACD
END							

Satellite group 8010, which is of type ACD, belongs to ANCD group 8000 which is located in ANCD node 1. The distribution number to the ANCD group is 018000.

The status information from the satellite group to the ANCD group shall be sent periodically. Overflow time shall be set to 60 seconds and the satellite group shall be initiated for overflow calls.

18.25.5

COMMAND CATEGORY

Dangerous = **No**

19

NS - NIGHT SERVICE

19.1

NSCOE

Night switch common end

19.1.1

FORMAT

NSCOE;

19.1.2

FUNCTION

The command removes the universal night switching positions. The function for universal night switching is as follows:

On a call to a night switching position the call is put in a queue and all the signalling devices are activated and continues signalling as long as there are calls in the queue. All extensions in the exchange can answer the call by entering a procedure on the telephone instrument.

19.1.3

EXAMPLE

Remove the universal night switching position.

NSCOE; EXECUTED

19.1.4

COMMAND CATEGORY

Dangerous = **No**

19.2

NSCOI

Night switch common initiate

19.2.1

FORMAT

NSCOI:EQU=;

EQU = Equipment number.
Hardware position for the signaling equipment.

19.2.2

FUNCTION

The command initiates a universal night switching position. There can be a maximum of 30 night switching positions initiated in an exchange. The function for universal night switching is as follows:

On a call to a night switching position the call is put in a queue and all the signaling devices are activated and continues signaling as long as there are calls in the queue. All extensions in the exchange can answer the call by entering a procedure on the telephone instrument. The specified hardware position indicates where the signaling equipment can be connected.

19.2.3 EXAMPLE

Initiate the hardware position in LIM 1, gateway B, magazine 1, board position 10, and individual 2 as a universal night switching position.

```
NSCOI:EQU=1B-1-10-2;
EXECUTED
```

19.2.4 COMMAND CATEGORY

Dangerous = **No**

19.3 NSDAP

Night switch data print

19.3.1 FORMAT

NSDAP;

19.3.2 FUNCTION

The command prints the data for the universal night switching positions.

19.3.3 PRINTOUT

```
NIGHT SWITCH DATA
EQU=...
END
```

EQU = Equipment number.
 Hardware position for the signalling equipment.

19.3.4 EXAMPLE

Print the data for the universal night switching position.

```
NSDAP;
NIGHT SWITCH DATA
EQU=001B-1-10-02
END
```

The signalling equipment of the universal night switching position is placed in LIM 1, gateway B, magazine 1, board position 10, and individual 2.

19.3.5

COMMAND CATEGORY

Dangerous = **No**

20

OP - PBX OPERATOR TRAFFIC

20.1

OPADC

Operator absent trunk traffic distribution change

20.1.1

FORMAT

OPADC:CORG=[,NDIR=[,RERNUM=],TIME= ,OFLNUM=];

CORG =	Call origin group ALL, & and && are permitted for this parameter.
NDIR =	Night service. Specifies whether night switching position is to be used or not.
OFLNUM =	Overflow number. States the number of the overflow position when the timer for the call towards a specific call origin group expires. The parameter can only be entered if the parameter TIME is also entered.
RERNUM =	Diversion number. States the number of the night switching position if all local and central PBX operators are absent-marked or not defined.
TIME =	Queue time threshold. The maximum time a call is allowed to queue towards a specific call origin group. The parameter can only be entered if the parameter OFLNUM is also entered.

20.1.2

FUNCTION

The command is used to specify handling of incoming calls when the PBX operator is absent or not able to answer them within a certain period of time. The command specifies, in respect of origin groups, whether external public calls are to be connected to the night switching position of the route, the call origin group, or to the customer night switching position. The command also specifies whether all incoming calls to a certain origin group, which is absent, are to be distributed as second hand traffic among the PBX operators present.

The RERNUM parameter can be used only when NDIR has been stated as Y or D. If RERNUM is omitted when NDIR has been stated as Y, external public calls will be diverted to the night switching position of the route, to the customer night switching position, or to the night bell. All other call types will get a no progress message indicating that the operators are absent.

If RERNUM is specified when NDIR has been stated as D, external public calls will be connected to the day answering position (set by RERNUM) of the call origin group when the exchange is day switched.

If the parameter TIME has been entered together with parameter OFLNUM, then calls towards this call origin group will only be allowed to queue for the specified time before they are sent to the OFLNUM position.

20.1.3

EXAMPLE 1

Change the call handling so that calls to origin group 1 are directed to extension 4246 if all PBX operators serving this origin group are absent.

```
OPADC:CORG=1,NDIR=Y,RERNUM=4246;
```

EXECUTED

20.1.4

EXAMPLE 2

Change the call handling so that when all PBX operators serving origin 8 are absent, calls to this origin group are distributed among other PBX operators who are present.

OPADC:CORG=8,NDIR=N; EXECUTED

20.1.5

EXAMPLE 3

Change the call handling so that when all PBX operators serving origin group 9 are absent, external public calls are directed to the night switching position of the route while other call types get an appropriate no progress message indicating that the operators are absent.

OPADC:CORG=9,NDIR=Y; EXECUTED

20.1.6

EXAMPLE 4

Change the call handling so that if the call has been queuing longer than 10 seconds, it is 'overflowed' to the extension 1321.

OPADC:CORG=9,TIME=20,OFLNUM=1321; EXECUTED

20.1.7

EXAMPLE 5

Change the call handling so that calls to origin group 1 are directed to extension 4247 if all PBX operators serving this origin group are absent, and the exchange is day switched.

OPADC:CORG=1,NDIR=D,RERNUM=4247; EXECUTED
--

20.1.8

EXAMPLE 6

Change the call handling so that calls to origin group 1 are directed to extension 4246 if all PBX operators serving this origin group are absent. Also if the call towards the call origin group 1 has been queuing longer than 10 seconds, it is 'overflowed' to the extension 1321.

OPADC:CORG=1,NDIR=Y,RERNUM=4246,TIME=20, OFLNUM=1321; EXECUTED
--

20.1.9 EXAMPLE 7

Change the call handling so that if the call towards the call origin group 1 has been queuing longer than 10 seconds, it is 'overflowed' to the extension 1321. The calls are not directed towards any extension if all the PBX operators serving the call origin group are absent.

```
OPADC:CORG=1,TIME=20,OFLNUM=1321;
EXECUTED
```

20.1.10 EXAMPLE 8

Change the call handling so that calls to origin group 1 are directed to extension 4247 if all PBX operators serving this origin group are absent. Also calls remain in the queue until they are picked up by any of the PBX operators serving the call origin group.

```
OPADC:CORG=1,NDIR=Y,RERNUM=4247;
EXECUTED
```

20.1.11 COMMAND CATEGORY

Dangerous = **No**

20.2 OPCAC

Operator category change

20.2.1 FORMAT

OPCAC:DIR=[,TRAF=][,OPC=][,TRM=];

DIR = Directory number.
& and && are permitted for this parameter.

OPC = PBX operator category.

TRAF = Traffic category.

TRM = Transmission category.

20.2.2 FUNCTION

The command is used to change the category properties of the PBX operator. One of the parameters TRAF, OPC, or TRM must always be specified.

Not affected parameters will remain unchanged.

20.2.3 EXAMPLE

The traffic category is to be changed in respect of the PBX operator with directory number 4020 to TCD category 14 and the traffic connection class to traffic group 7.

```
OPCAC:DIR=4020,TRAF=1407;
```

EXECUTED

20.2.4 COMMAND CATEGORY

Dangerous = **No**

20.3 OPCAP

Operator category print

20.3.1 FORMAT

OPCAP:DIR=;

DIR = Directory number.
ALL, & and && are permitted for this parameter.

20.3.2 FUNCTION

The command is used to print PBX operator categories.

20.3.3 PRINTOUT

OPERATOR CATEGORY DATA			
DIR . . .	OPC . . .	TRAF . . .	TRM . . .
END			

OPC PBX operator category.

TRAF Traffic category.

TRM Transmission category.

20.3.4

EXAMPLE

Print the categories of the PBX operators with directory numbers 4020 to 4023.

OPCAP:DIR=4020&&4023;			
OPERATOR CATEGORY DATA			
DIR	OPC	TRAF	TRM
4020	00000	1515	0
4021	01010	1515	0
4022	10101	1515	0
4023	11111	1515	0
END			

The PBX operator with directory number 4020 has a common queue counter display, individual operator calls are not presented to the PBX operator console when it is absent marked, individual operator recalls are not presented to the PBX operator console when it is manually absent marked, the queue counter is not displayed on the PBX operator console when it is absent marked and the type of charging is per route (OPC=00000).

The PBX operator with directory number 4023 has an individual queue counter display, individual operator calls are presented to the PBX operator console when it is absent marked, individual operator recalls are presented to the PBX operator console when it is manually absent marked, the queue counter is displayed on the PBX operator console when it is absent marked and the type of charging is per line (OPC=11111).

All PBX operators are fully open (TRAF=1515) for outgoing traffic and are permitted to be connected with all A and B parties.

All PBX operators have the transmission category set to the default value zero.

20.3.5

COMMAND CATEGORY

Dangerous = **No**

20.4

OPCEE

Operator central number end

20.4.1

FORMAT

OPCEE:CORG=[,NCA=],PRIO=;

CORG = Call origin group.

NCA = Network central answer position. This parameter is used to indicate if a customer centralized operator number is to be removed.
If this parameter is omitted, the command is used to remove a central answer position for a call origin group.

PRIO = Priority for central answer position or customer centralized operator defines the priority of the central answer position or customer centralized operator in the network to be removed.

20.4.2

FUNCTION

This command is used to remove a central answer position, that is, rerouting the number to a central answer position, or to a customer centralized operator in another exchange.

20.4.3

EXAMPLE 1

Remove the central answer position number which is defined as a priority 2 central answer position for call origin group 1.

```
OPCEE:CORG=1,PRIO=2;  
EXECUTED0
```

20.4.4

EXAMPLE 2

Remove the customer centralized operator number which is defined as priority 1 for call origin group 1.

```
OPCEE:CORG=1,NCA=CCOP,PRIO=1;
EXECUTED
```

20.4.5

COMMAND CATEGORY

Dangerous = **No**

20.5

OPCEI

Operator central number initiate

20.5.1

FORMAT

OPCEI:CORG=,NCA=,CENUM=,PRIO=;

- CENUM =** Common abbreviated number for central answer position or customer centralized operator.
A common abbreviated number whose translation number is the central answer position or customer centralized operator number.
- CORG =** Call origin group
- NCA =** Network central answer position.
Defines the exchange number for the central answer position or indicates if a customer centralized operator is to be initiated.
- PRIO =** Priority for central answer position or customer centralized operator

Note: PRIO can only be 1 or 2 if a customer centralized operator is to be initiated.

20.5.2

FUNCTION

The command is used to initiate a central PBX answer position number for common PBX operator calls in an exchange where there is no present PBX operator, no operator serving that call origin group or customer, or in a night switched exchange. The number is set to a common abbreviated number. The complete translation number is set with command *ADCOI*.

The command is also used to initiate a customer centralized operator number for common PBX operator calls in an exchange where there is no present operator serving that call origin group. The call origin group has to be affiliated to the same customer as the calling party. The number is set to a common abbreviated number. The complete translation number is set with command *ADCOI*.

20.5.3

EXAMPLE 1

Initiate a central answer position number in a network for PBX operator call origin group 1. The calls should as first priority be rerouted to exchange 684 which can be reached with the translation for the common abbreviated number 0121.

```
OPCEI:CORG=1,NCA=684,CENUM=0121,PRIO=1;
EXECUTED
```

20.5.4

EXAMPLE 2

Initiate a customer centralized operator number in a network for the PBX operator call origin group 1. The calls should as first priority be rerouted to the customer centralized operator which can be reached with the translation for the common abbreviated number 180.

```
OPCEI:CORG=1,NCA=CCOP,CENUM=180,PRIO=1;
EXECUTED
```

20.5.5

COMMAND CATEGORY

Dangerous = **No**

20.6

OPCEP

Operator central number print

20.6.1

FORMAT

OPCEP:CORG=;

CORG = Call origin group.
ALL, & and && are permitted for this parameter.

20.6.2

FUNCTION

The command is used to print the central answer positions and customer centralized operator numbers which are associated with call origin groups or customers.

20.6.3

PRINTOUT

OPERATOR CENTRAL NUMBER DATA			
CORG	PRIO.	NCA.	CENUM
.	.	.	.
.	.	.	.
END			

CENUM	Common abbreviated number for central answer position or customer centralized operator. A common abbreviated number which translation number is the central answer position or customer centralized operator number.
NCA	Network central answer position Defines the exchange number for the central answer position or indicates if it is a customer centralized operator.
PRIOR	Priority for central answer position or customer centralized operator.

20.6.4

EXAMPLE 1

Print the data for origin groups 1, 8, and 9.

OPCEP:CORG=1&8&9;			
OPERATOR CENTRAL NUMBER DATA			
CORG	PRIO	NCA	CENUM
1	1	CCOP	0131
	2	CCOP	0132
	1	4	0121
	2	5	0122
	3	6	0123
8	1	5	0122
	2	6	0123
9	1	CCOP	0118
	2	CCOP	0119
END			

Origin group 1 has been initiated with:

- a priority 1 customer centralized operator number that can be reached with the common abbreviated number 0131
- a priority 2 customer centralized operator number that can be reached with the common abbreviated number 0132
- a priority 1 central answer position number to exchange 4 that can be reached with the common abbreviated number 0121
- a priority 2 central answer position number to exchange 5 that can be reached with the common abbreviated number 0122
- a priority 3 central answer position number to exchange 6 that can be reached with the common abbreviated number 0123

Origin group 8 has been initiated with:

- a priority 1 central answer position in exchange 5 that can be reached with the common abbreviated number 0122
- a priority 2 central answer position in exchange 6 that can be reached with the common abbreviated number 0123

Origin group 9 has been initiated with:

- a priority 1 customer centralized operator number that can be reached with the common abbreviated number 0118
- a priority 2 customer centralized operator number that can be reached with the common abbreviated number 0119

20.6.5

EXAMPLE 2

Print the data for origin groups 1 to 9.

OPCEP:CORG=1&&9;			
OPERATOR CENTRAL NUMBER DATA			

CORG	PRIO	NCA	CENUM
7	2	CCOP	0132
8	3	6	0144
9	1	CCOP	0121
	1	4	0132
END			

Origin group 7 has been initiated with:

- a priority 2 customer centralized operator number that can be reached with the common abbreviated number 0132

Origin group 8 has been initiated with:

- a priority 3 central answer position in exchange 6 that can be reached with the common abbreviated number 0144

Origin group 9 has been initiated with:

- a priority 1 customer centralized operator number that can be reached with the common abbreviated number 0121
- a priority 1 central answer position in exchange 4 that can be reached with the common abbreviated number 0132

20.6.6

COMMAND CATEGORY

Dangerous = **No**

20.7

OPCGP

Operator call origin group print

20.7.1

FORMAT

OPCGP: { **DIR=...** } ;
 { **CORG=...** }

CORG = Call origin group.
ALL, & and && are permitted for this parameter.

DIR = Directory number.
ALL, & and && are permitted for this parameter. If more values are stated for DIR these must be listed in ascending order.

20.7.2

FUNCTION

The command is used to print the origin groups and PBX operators linked to each other. A unique combination of call type, route number, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types. Note that the DIR and CORG information is presented in columns!

The printout shows the link between PBX operators and origin groups. The printout can be requested in two different ways:

- If the parameter DIR is specified a printout of the origin groups handled by the PBX operators with the specified directory numbers will be obtained. The printout also shows for each origin group whether the respective PBX operator handles the group as first or second choice.
- If the parameter CORG is specified a printout of the PBX operators handling the specified origin groups and whether they have the respective group as a first or second choice will be obtained.

If there are more than 50 operators assigned, the data will be printed in two or more sections.

20.7.3 PRINTOUT

OPERATOR CALL ORIGIN GROUP DATA	
DIR	
...	
...	
...	
CORG	---
.	...
.	...
END	

The affiliation between origin group and PBX operator is stated with digits 0, 1, and 2.

- 0 = No PBX operator handles the call
- 1 = First choice
- 2 = Second choice

20.7.4 EXAMPLE 1 (CORG)

Print the directory numbers of the PBX operators serving origin groups 1 and 9.

OPCGP:CORG=1&9;	
OPERATOR CALL ORIGIN GROUP DATA	
DIR	
34444	
30004	
42225	
60127	
CORG	-----
1	01102
9	12220
END	

Calls from origin group 1 are served by PBX operator with directory numbers 4020, 4021 and 4457. PBX operators with directory numbers 4020 and 4021 serve origin group 1 as first choice. The PBX operator with directory number 4457 serves the group as second choice. The number 4457 is seen in the fifth column.

Calls from origin group 9 are served by PBX operators with directory numbers 3346, 4020, 4021 and 4022. PBX operator 3346 serves the group as first choice while PBX operators 4020, 4021 and 4022 serve the group as second choice.

20.7.5 EXAMPLE 2 (DIR)

Print the origin groups served by PBX operators having directory numbers 4020 to 4024.

OPCGP:DIR=4020&&4024;	
-----------------------	--

OPERATOR CALL ORIGIN GROUP DATA	
DIR	
44444	
00000	
22222	
01234	
CORG	-----
1	11000
3	00002
9	22220
13	00001
END	

PBX operators with directory numbers 4020 and 4021 serve origin group 1 as first choice and group 9 as second choice.

Origin group 9 is also served by PBX operators 4022 and 4023 as second choice.

PBX operator 4024 serves group 13 as first choice and group 3 as second choice.

20.7.6

COMMAND CATEGORY

Dangerous = **No**

20.8

OPCGR

Operator call origin group remove

20.8.1

FORMAT

OPCGR:DIR=,CORG=;

CORG = Call origin group.
ALL, & and && are permitted for this parameter if the parameter DIR is a single value.

DIR = Directory number.
Directory number for individual PBX operator.
ALL, & and && are permitted for this parameter if the parameter CORG is a single value.

20.8.2

FUNCTION

The command is used to erase PBX operators from origin groups. A unique combination of call type, route numbers, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types.

Removal of PBX operators from origin groups is carried out regardless of whether the PBX operators have the group as a first choice or second choice.

20.8.3 EXAMPLE

Remove the PBX operators having directory numbers 4020, 4021 from origin group 9.

```
OPCGR:DIR=4020&4021,CORG=9;
EXECUTED
```

20.8.4 COMMAND CATEGORY

Dangerous = **No**

20.9 OPCGS

Operator call origin group set

20.9.1 FORMAT

OPCGS:DIR=,CORG=,CHO=;

CHO = Choice. First or second choice.

CORG = Call origin group.
ALL, & and && are permitted for this parameter, if DIR is a single value.

DIR = Directory number.
ALL, & and && are permitted for this parameter, if CORG is a single value.

20.9.2 FUNCTION

The command specifies the linking between the origin groups and the PBX operators, that is, it specifies which PBX operators that handle the different origin groups. The command also specifies whether handling is carried out as first choice or second choice.

A unique combination of call type, route number, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types. The composition of the origin groups is carried out with another command (20.14 OPCTS on page 326 OPCTS).

One or more PBX operators can be linked to the same origin group (DIR can have one or more values but CORG only one value).

One or more origin groups can be linked to the same PBX operator (CORG can have one or more values but DIR only one value).

The parameter CHO specifies whether PBX operator serves an origin group as first or second choice.

20.9.3 EXAMPLE 1 (DIR HAS ONE OR MORE VALUES)

Calls from origin group 9 are to be served as second choice by PBX operators with directory numbers 4020 and 4022.

```
OPCGS:DIR=4020&4022,CORG=9,CHO=2;
EXECUTED
```

20.9.4 EXAMPLE 2 (CORG HAS ONE OR MORE VALUES)

Calls from origin groups 1 and 8 are to be served as first choice by the PBX operator having directory number 4021.

```
OPCGS:DIR=4021,CORG=1&8,CHO=1;
EXECUTED
```

20.9.5 COMMAND CATEGORY

Dangerous = **No**

20.10 OPCOE

Operator common access code end

20.10.1 FORMAT

OPCOE:COACC=;

COACC = Common PBX operator access code Common PBX operator call number for customer group.

20.10.2 FUNCTION

The command is used to erase the common PBX operator call number for the customer group.

20.10.3 EXAMPLE

The common PBX operator call number 9, for the customer group is erased.

```
OPCOE:COACC=9;
EXECUTED
```

20.10.4 COMMAND CATEGORY

Dangerous = **No**

20.11 OPCOI

Operator common access code initiate

20.11.1 FORMAT

OPCOI:COACC=;

COACC = Common PBX operator access code Common PBX operator call number for customer group.

20.11.2 FUNCTION

The command is used to initiate the common PBX operator call number for the customer group. This number is used to allow all customers to have the same common PBX operator call number and nevertheless access their own PBX operator for their customer number.

20.11.3 EXAMPLE

The PBX operator call number 9 is initiated as a common PBX operator call number for the group.

```
OPCOI:COACC=9;
EXECUTED
```

20.11.4 COMMAND CATEGORY

Dangerous = **No**

20.12 OPCTP

Operator call type data print

20.12.1 FORMAT

OPCTP:CORG=;

CORG = Call origin group.
ALL, & and && are permitted for this parameter.

20.12.2 FUNCTION

The command is used to print data about origin groups. An origin type is formed from a unique combination of call type, route number, if any, PBX operator call number, and customer number. An origin group may consist of several different origin types. Also the command prints if there are any central answer position numbers or customer centralized operator numbers which have been initiated with this operator origin group.

It also prints the threshold time after which a queued call to the CORG gets 'overflowed'. The overflow position to which the re-direction occurs, is printed as well.

Another command (20.9 OPCGS on page 319 OPCGS) is used to specify whether a PBX operator is to answer calls from the origin group and whether the answering should be performed as primary or secondary choice.

20.12.3

PRINTOUT

```

OPERATOR CALL TYPE DATA
      [ COMMON OACC NUMBER = ... ]
CORG.. CALT.. ROU.. OACC.. CUST.. NDIR.. RERNUM... CEN.. CCOP.. TIME.. OFLNUM.. SDAY  SNIG .
.      .      .      .      .      .      .      .      .      .      .      .      .
END

```

COMMON OACC NUMBER	Call number to the common PBX operator in the customer group. This header is obtained only when the call number is initiated
CALT	Route number.
CCOP	Customer centralized operators assigned. Defines whether customer centralized operators are initiated (YES=Y, NO=N). Only call types 1,2, 3, 6 and 7 are applicable.
CEN	Network central answer positions assigned. Defines whether central answer positions are initiated (YES=Y, NO=N). Only call types 2, 3, 6 and 7 are applicable.
CUST	Customer number.
NDIR	Night or Day service. Indicates whether night switching is used for the specified origin group or not (YES=Y, NO=N). Also indicates whether day answering position is used (NDIR=D).
OACC	PBX operator access code. The PBX operator call number, that is, the common PBX operator call number or the direct in-dialling number for the PBX operator.
OFLNUM	Overflow number. States the number of the overflow position when the timer for the call towards a specific call origin group expires. The parameter can only be entered if the parameter TIME is also entered.
RERNUM	Diversion number. Indicates the number of the night service position or day answering position for the indicated call origin group.
ROU	Call type
SDAY	Day time diversion number for DID calls. This parameter is valid only for DID routes.
SNIG	Night time diversion number for DID calls. This parameter is valid only for DID routes.
TIME	Queue time threshold. Maximum time a call is allowed to queue towards a specific call origin group. The parameter can only be entered if the parameter OFLNUM is also entered.

20.12.4

EXAMPLE 1

Print the data for origin groups 1,4, 8, and 9.

OPCTP:CORG=1&4&8&9;

OPERATOR CALL TYPE DATA												
CORG	CALT	ROU	OACC	CUST	NDIR	RERNUM	CEN	CCOP	TIME	OFLNUM	SDAY	SNIG
1	2	-	09	-	Y	4246	Y	Y	20	1321	-	-
	4	32	-	-	Y	4246	N	N	20	1321	-	-
	5	7	-	-	Y	4246	N	N	20	1321	-	-
	6	13	09	-	Y	4246	Y	N	20	1321	-	-
4	0	-	9001	-	N	-	N	N	-	-	-	-
8	3	-	8	-	N	-	Y	Y	-	-	-	-
	5	9	-	-	N	-	N	N	-	-	-	-
9	7	6	9000	-	N	-	N	Y	100	1322	1234	5432
END												

Origin group 1 consists of four combinations of call types:

- all intercepted calls with PBX operator call number 09
- calls on manual direct line in route number 32
- calls on manual exchange line in route number 7
- calls on automatic direct line in route number 13 and with PBX operator call number 09.

External calls for origin group 1 are connected to the origin group night switching point (extension 4246) if no PBX operators for the origin group are present. There are central answer position numbers and customer centralized operator numbers initiated to this call origin group.

Calls for origin group 1 are re-directed to the overflow position (extension 1321) if they are not answered by any PBX operator of the origin group within 10 seconds.

Origin group 4 consists of emergency calls. The emergency number is 9001. There is no central answer position number or customer centralized operator number initiated for this call origin group.

Origin group 8 consists of internal calls. The common PBX operator call number is 8. There are central answer position numbers and customer centralized operator numbers initiated to this call origin group. External calls for origin group 8 are distributed as secondary traffic among other PBX operators if no PBX operator for the origin group is present.

Origin group 9 consists of direct in-dialling calls in route number 6. The common call number is 9000. There is no central answer position number initiated for this call origin group. There is a customer centralized operator number initiated for this call origin group. All the calls coming with operator common DID number in this route will be rerouted to the SDAY, SNIG positions depending on the status of the exchange if they are defined through 20.14 OPCTS on page 326 OPCTS command.

Calls for origin group 9 are re-directed to the overflow position (extension 1322) if they are not answered by any PBX operator of the origin group within 50 seconds.

20.12.5

EXAMPLE 2

Print the data for origin groups 2 and 3.

OPCTP:CORG=2&3;

OPERATOR CALL TYPE DATA												
COMMON OACC NUMBER = 9												
CORG	CALT	ROU	OACC	CUST	NDIR	RERNUM	CEN	CCOP	TIME	OFLNUM	SDAY	SNIG
2	4	2	-	10	N	-	N	N	-	-		
3	7	5	4000	15	N	-	N	Y	-	-	1234	4321
END												

The common PBX operator call number for the group is 9.

Origin group 2 consists of calls on a manual tie line in route 2, that is affiliated to customer number 10. There is no central answer position number or customer centralized operator number initiated for this call origin group.

Origin group 3 consists of calls on a direct in dialing line in route 5 that is affiliated to customer number 15. There is no central answer position number initiated for this call origin group. There is a customer centralized operator number initiated for this call origin group. All the DID trunk calls with operator common DID number will be re-directed to the SDAY and SNIG positions depending on the status of the exchange.

The common PBX operator call number is 4000.

20.12.6

COMMAND CATEGORY

Dangerous = **No**

20.13

OPCTR

Operator call type data remove

20.13.1

FORMAT

OPCTR:CALT=[,OACC=],[,ROU=];

CALT = Call type.

OACC = PBX operator access code.
(The common PBX operator number or direct indialling number to the PBX operator). The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.

ROU = Route number.
The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.

20.13.2

FUNCTION

The command is used to remove origin types from origin groups. A unique combination of call type, emergency number, route number, if any, PBX operator call number, and

customer number forms an origin type. An origin group may consist of many different origin types.

The CALT parameter is intimately connected to the OACC and the ROU parameters. The value of the CALT parameter indicates when the OACC or the ROU parameter is to be omitted. One of the parameters OACC or ROU must always be specified.

20.13.3

EXAMPLE 1

Remove the origin type calls from the exchange line in route 7. The PBX operator access code is not present for the exchange lines.

```
OPCTR:CALT=5,ROU=7;  
EXECUTED
```

20.13.4

EXAMPLE 2

Remove the origin type internal calls with PBX operator access code 8. Route number is not present for the internal calls.

```
OPCTR:CALT=3,OACC=8;
EXECUTED
```

20.13.5

EXAMPLE 3

Remove the origin type direct indialing call on route 6. On this route PBX operator access code 9000 has been used.

```
OPCTR:CALT=7,ROU=6,OACC=9000;
EXECUTED
```

20.13.6

COMMAND CATEGORY

Dangerous = **No**

20.14

OPCTS

Operator call type data set

20.14.1

FORMAT

**OPCTS:CORG=,CALT=[,OACC=],[,ROU=],[,CUST=],[,SDAY=]
[,SNIG=];**

CALT = Call type

CORG = Call origin group

CUST= Customer number The parameter is only optional when customer function is not existing in the system.

OACC = PBX operator access code.

Call number for PBX operator. (Common PBX operator number or direct in-dialling number for PBX operator). The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.

ROU = Route number The parameter is only optional as far as it is permitted by the CALT parameter. Consult parameter CALT.
& and && are permitted for this parameter only for call type of automatic tie line (CALT = 6).

SDAY = Day time diversion number for DID calls The parameter is optional. This parameter is valid only for DID routes.

SNIG = Night time diversion number for DID calls The parameter is optional. This parameter is valid only for DID routes.

20.14.2

FUNCTION

The command is used to define an origin group. A unique combination of call type, emergency number, route number, if any, PBX operator call number, and customer number forms an origin type. An origin group may consist of several different origin types.

Another command (20.9 OPCGS on page 319 OPCGS) is used to specify whether a PBX operator is to handle the respective origin group or not.

The CALT parameter is intimately affiliated to the OACC and the ROU parameters. The value of the CALT parameter indicates when the OACC or the ROU parameter is to be omitted. One of the parameters OACC or ROU must always be specified.

20.14.3

EXAMPLE 1 (OACC NOT USED)

Calls of exchange line type in route 7 are included in origin group 1.

```
OPCTS:CORG=1,CALT=5,ROU=7;
EXECUTED
```

20.14.4

EXAMPLE 2 (ROU NOT USED)

Calls of diverted type with PBX operator call number 09 are also included in origin group 1. The route number is not to be specified for diverted calls.

```
OPCTS:CORG=1,CALT=2,OACC=09;
EXECUTED
```

20.14.5

EXAMPLE 3 (ROU NOT USED)

Form origin group 8 from calls of internal call type made with PBX operator call number 8. Route numbers are not used where internal calls are concerned.

```
OPCTS:CORG=8,CALT=3,OACC=8;
EXECUTED
```

20.14.6

EXAMPLE 4

Form origin group 9 from calls of direct in-dialing type on route 6. PBX operator call number 9000 is obtained on this route.

```
OPCTS:CORG=9,CALT=7,ROU=6,OACC=9000;
EXECUTED
```

20.14.7

EXAMPLE 5

Form origin group 3 with direct in-dialing type calls on route 5. PBX operator call number 4000 for customer 15 is obtained on this route.

```
OPCTS:CORG=3,CALT=7,ROU=5,OACC=4000,CUST=15;
EXECUTED
```

20.14.8

EXAMPLE 6

Form origin group 4 from calls of automatic tie line type on route number 3 and 7 with PBX operator call number 5000 for customer 9.

```
OPCTS:CORG=4,CALT=6,ROU=3&7,CUST=9,OACC=5000;
EXECUTED
```

20.14.9

EXAMPLE 7

Form origin group 5 from calls of automatic tie line type on route number 4,5,6,7 and 8 with PBX operator call number 5000 for customer 12, where route 7 is not assigned yet.

```
OPCTS:CORG=5,CALT=6,ROU=4&&8,CUST=12,OACC=5000;
PARTLY EXECUTED
ROU
NOT ASSIGNED
```

20.14.10

EXAMPLE 8

Form origin group 5 from calls of direct in-dialing type on route number 5, with PBX operator call number 4000, with day time diversion to position 1234, and night time diversion to 4321.

```
OPCTS:CORG=5,CALT=7,ROU=5,OACC=4000,SDAY=1234,
SNIG=4321;
EXECUTED
```

20.14.11

EXAMPLE 9

Form origin group 5 from calls of direct in-dialing line type on route number 5 with PBX operator call number 4000, with night time diversion to 1234.

```
OPCTS:CORG=5,CALT=7,ROU=5,OACC=4000,SNIG=1234;
EXECUTED
```

20.14.12

COMMAND CATEGORY

Dangerous = **No**

20.15

OPCUC

Operator customer number change

20.15.1

FORMAT

```
OPCUC:DIR=[,OCUST=];
```


- DIR =** Directory number. Directory number for individual PBX operator in customer group.
&& and & are permitted for this parameter.
- OCUST =** Outgoing customer number Customer number for outgoing traffic.

20.15.2 FUNCTION

The command is used to initiate, alter, and remove an outgoing customer number for a PBX operator. Parameter OCUST should be omitted on removal.

20.15.3 EXAMPLE 1

The PBX operator with directory number 4022 is using customer number 10 for outgoing calls.

```
OPCUC:DIR=4022,OCUST=10;  
EXECUTED
```

20.15.4 EXAMPLE 2

The customer number is erased for the PBX operator with directory number 4022 and customer number 10.

```
OPCUC:DIR=4022;  
EXECUTED
```

20.15.5 COMMAND CATEGORY

Dangerous = **No**

20.16 OPDDP

Operator directory data print

20.16.1 FORMAT

OPDDP:DIR=[,SORT=];

- DIR =** Directory number. Directory number of individual PBX operator.
ALL, & and && are permitted for this parameter.
- SORT =** Sorting method. Indicates whether the PBX operator numbers are to be printed in numerical order or in order of initiation.
If the parameter is omitted, the printout will be in numerical order.

20.16.2 FUNCTION

The command is used to print the customer numbers. Data for the parameters EQU, PCM, and REV are not relevant to the MX-ONE.

20.16.3

PRINTOUT

OPERATOR DIRECTORY DATA						
DIR	EQU	OCUST	TYPE	PCM	REV	
.
.
.
.
END						

EQU Not relevant
OCUST Outgoing customer number
PCM Not relevant
REV Not relevant
TYPE Operator console type

20.16.4

EXAMPLE

Print the equipment positions for PBX operators having directory numbers 4020 to 4023.

OPDDP:DIR=4020&&4023;						
OPERATOR DIRECTORY DATA						
DIR	EQU	OCUST	TYPE	PCM	REV	
4020	-	-	7	-	-	
4021	-	-	7	-	-	
4022	-	-	7	-	-	
4023	-	5	7	-	-	
END						

The PBX operators use the Operator Assistant or the IP-based Operator Workstation operator console. The PBX operator with directory number 4023 is using customer number 5 for outgoing calls.

20.16.5

COMMAND CATEGORY

Dangerous = **No**

20.17

OPDNC

Operator day and night time threshold change

20.17.1

FORMAT

OPDNC:WDAY= [,DTIME=][,NTIME=];

DTIME = Day time threshold.
NTIME = Night time threshold.
WDAY = Day of the week.

20.17.2

FUNCTION

This command is used to set up the day time threshold and night time threshold for a specific day of the week. The given threshold controls the day or night trunk call discrimination.

The following table shows the valid and invalid combination of the DTIME and NTIME parameters:

		DTIME			
		=ALL	=NONE	=hhmm	not entered
N	=ALL	not valid	not valid	not valid	valid
T	=NONE	not valid	valid	not valid	valid
I	=hhmm	not valid	not valid	valid	not valid
M	not entered	valid	valid	not valid	not valid
E					

The above table will be interpreted as follows:

- hhmm: hh is hour and the range is from 00 to 23. mm is minute and the range is from 00 to 59.
- If the NTIME parameter is entered as ALL then any value of DTIME entered will be invalid, the NTIME value will be zero hour of the day.
- If the NTIME parameter is entered as NONE then the DTIME parameter can only have the value NONE or not entered. If NONE is entered, it means that the value for this parameter and the DTIME parameter will be removed, and the system day or night exchange status depends on the PBX operator presence or absence status.
- If the NTIME parameter is entered in the format of hhmm then DTIME can only be entered in the same format.
- If the NTIME parameter is not entered then DTIME can only have the value of ALL or NONE.
- NTIME cannot be equal to DTIME.

20.17.3

EXAMPLE 1

Change Sunday's day status to start from 10:30 AM and the night time status to start from 7:30 PM.

```
OPDNC:WDAY=SUN,DTIME=1030,NTIME=1930;
EXECUTED
```

20.17.4

EXAMPLE 2

Change Monday's day status for all day and without night status.

```
OPDNC:WDAY=MON,DTIME=ALL;
EXECUTED
```

20.17.5

EXAMPLE 3

Change Tuesday's night status for all night and without day status.

```
OPDNC:WDAY=TUE,NTIME=ALL;
EXECUTED
```

20.17.6

EXAMPLE 4

Remove Wednesday's day time threshold in the table.

```
OPDNC:WDAY=WED,DTIME=NONE;
EXECUTED
```

20.17.7

COMMAND CATEGORY

Dangerous = **No**

20.18**OPDNP**

Operator day of week table information print

20.18.1

FORMAT

OPDNP;

20.18.2

FUNCTION

The command is used to print the entire information in a day of the week table which includes current day of week, current day or night exchange status, day time threshold, and night time threshold for each day of the week.

The printout also lists any days without the day time or night time threshold set. If no data is set in either the day or the night time threshold, this means that the day or night status for trunk call discrimination depends on the PBX operator presence or absence status. If the day time threshold is ALL, this means that the trunk call discrimination has day status for that whole day. If the night time threshold is ALL, this means that the trunk call discrimination has night status for that whole day and night.

20.18.3

PRINTOUT

```
DAY OF WEEK: . . .
CURRENT STATUS: . . .
                DAY      NIGHT
MON             . . .    . . .
```

TUE	...	...
WED	...	...
THU	...	...
FRI	...	...
SAT	...	...
SUN	...	...
END		

CURRENT STATUS The current day or night exchange status, for example, day.

DAY The time value preset by command OPDNC.
For value, consult parameter DTIME in the parameter description for MML parameters.

DAY OF WEEK Current day of the week, for example, Monday or Tuesday.

NIGHT The time value preset by command OPDNC.
For value, consult parameter NTIME in the parameter description for MML parameters.

20.18.4

EXAMPLE

Print the entire information for the day of week table:

OPDNP;		
DAY OF WEEK: MON		
CURRENT STATUS: DAY		
	DAY	NIGHT
MON	08:00	17:00
TUE		
WED	09:00	18:00
THU	08:30	17:30
FRI	ALL	
SAT		ALL
SUN		ALL
END		

In the above example:

MON night status from 00:00 AM to 7:59 AM day status from 8:00 AM to 4:59 PM night status from 5:00 PM to 11:59 PM

TUE day or night status depends on the PBX operator presence or absence status

WED night status from 00:00 AM to 8:59 AM day status from 9:00 AM to 5:59 PM night status from 6:00 PM to 11:59 PM

THU night status from 00:00 AM to 8:29 AM day status from 8:30 AM to 5:29 PM night status from 5:30 PM to 11:59 PM

FRI day status from 00:00 AM to 11:59 PM

SAT night status from 00:00 AM to 11:59 P

SUN night status from 00:00 AM to 11:59 PM

20.18.5 COMMAND CATEGORY

Dangerous = **No**

20.19 OPERE

Operator end

20.19.1 FORMAT

OPERE:DIR=;

DIR = Directory number
& and && are permitted for this parameter.

20.19.2 FUNCTION

The command is used to erase one or more PBX operators from the system.

20.19.3 EXAMPLE

The PBX operator having directory number 4020 is to be erased from the system.

```
OPERE:DIR=4020; OPERE:DIR=4020;
SURE? (YES/NO)
YES;
EXECUTED
```

20.19.4 COMMAND CATEGORY

Dangerous = **Yes**

20.20 OPERI

Operator initiate

20.20.1 FORMAT

OPERI: DIR= {,EQU= [,PASSW=][,PCM=]} [,MODE=][,OCUST=]
[,OPC=],TRAF= [,TRM=],TYPE=;

DIR = Directory number. Directory number for individual PBX operator.
& and && are permitted for this parameter.

EQU =	Equipment position. If TYPE=7, the parameter is not allowed.
MGW =	Media gateway where the operator has been initiated.
MODE =	Signalling mode Standard visual indications only or an addition of special audible tone indications.
OCUST =	Outgoing customer number.
OPC =	PBX operator category.
PASSW =	Password for individual PBX operator.
PCM =	Transmission coding principle.
TRAF =	Traffic category.
TRM =	Transmission category. If TRM is omitted default value 0 is given.
TYPE =	Operator console type.

20.20.2

FUNCTION

The command is used to initiate one or more PBX operators in the system.

If several PBX operators, using the equipment position (EQU) parameter, are initiated simultaneously by giving more than one value on the directory number DIR, the first PBX operator is given the specified EQU value. The subsequent PBX operators are given the subsequent free equipment positions of the correct type.

The command also sets some default values for PBX-operator consoles. The default values include:

- manual answer on calls to PBX operator
- calls signalled by tone ringer (OPI-II, OPI 3203/3213 and OPI 3214 only)
- automatic call selection (OPI-II, symbolic and OPI 3214 consoles only)
- manual call selection (Operator Assistant, OPI 3203/3213, and alphanumeric consoles)
- standard visual indication mode

Manual answer and manual call selection values can be altered from the Operator Assistant operator console. All values, with the exception of tone level and signalling mode, can be altered from the other types of PBX operator console. For OPI-II, the tone level can be altered from the console.

The command is also used to affiliate an outgoing customer number for a PBX operator if the customer group function is used in the system.

With parameter OPC in the command it is possible to:

- select the type of queue counter to be displayed on a specific PBX operator console. The common queue counter can either show all common calls to the PBX or only show calls to the PBX operator's own call origin groups.
- specify if individual operators' calls can be admitted when the PBX operator console is absent marked. If individual operator calls are admitted to the PBX operator console when it is absent marked, the operator can answer and process the call in the same way as when the PBX operator console is present marked.
- specify if recalls to an individual operator can be admitted when the PBX operator console is manually absent marked. If recalls to an individual operator are presented to the PBX operator console when it is manually absent marked, the

operator can answer and process the call in the same way as when the PBX operator console is present marked.

- specify if the queue counter is displayed on the PBX operator console when the operator console is absent marked.
- specify if the type of charging for the calls from the operator is per route or per line.

Leaving out the parameter is equivalent to entering **OPC=00000**.

MODE selects whether a console should be initiated to receive special audible tone indications, in addition to standard visual indications, to inform of call progress states, call origin and function-key states. The feature is intended to facilitate the use of the consoles for visually impaired PBX operators. Leaving out the parameter is equivalent to entering **MODE=0**, which disables the feature.

The PCM parameter specifies the transmission coding principle. This parameter is only applicable to the OPI-II type operator console where it is required.

The TYPE parameter specifies the type of PBX operator console. The OPI-II, OPI 3203/3213 and OPI 3214 must be assigned on an ELU33 board.

The OCUST parameter affiliates a PBX operator to a customer for outgoing calls.

The TRM parameter is the PBX operator attenuation or amplification.

20.20.3

EXAMPLE 1

The PBX operators should have directory numbers 4020 to 4022 and the console type is Operator Assistant.

Parameter OPC has default value 00000, that is, the common queue counter shows all calls to the PBX, individual operator calls are not admitted to the PBX operator console when it is absent marked, recalls to an individual operator are not presented to the PBX operator console when it is manually absent marked, the queue counter is not displayed when the PBX operator console is absent marked, and the type of charging is per route.

The PBX operators are completely open for outgoing traffic and have the traffic switching class fully open.

The operators have been initiated in first gateway in LIM 1.

The operators are to receive standard visual indications, but no special blind mode audible status indications.

The password for all the operators is to be "polind".

```
OPERI:DIR=4020&&4022,TRAF=1515,MGW=1A,TYPE=7,
PASSW="polind";
EXECUTED
```

20.20.4

EXAMPLE 2

The PBX operator has directory number 4023 and is placed in LIM 1, gateway A, magazine 0, board position 21, individual 3. The console type is OPI-II.

The PBX operator's common queue counter is used to show calls to the PBX operator's own call origin groups, individual operator calls are admitted to the PBX operator console when it is absent marked, recalls to an individual operator are presented to the PBX operator console when it is manually absent marked, and the queue counter

is displayed when the PBX operator console is absent marked, and the type of charging is per line, OPC=11111.

The PBX operator is fully open for outgoing traffic and has the traffic switching class fully open.

The PBX operator shall use customer number 5 for outgoing calls.

The PBX operator shall receive special blind mode audible status indications in addition to standard visual indications.

The PBX operator transmission coding principle is A law.

The PBX operator shall use the attenuation or amplification levels set by the transmission matrix in row and column 1.

```
OPERI:DIR=4023,EQU=1A-0-21-3,OPC=1111,TRAF=1515,
OCUST=5,MODE=1, TYPE=5,PCM=1,TRM=1;
EXECUTED
```

20.20.5

COMMAND CATEGORY

Dangerous = **No**

20.21

OPIDP

Operator IP data print

20.21.1

FORMAT

OPIDP:DIR=;

DIR = Directory number. Directory number of individual PBX operator.
ALL, & and && are permitted for this parameter.

20.21.2

FUNCTION

The command is used to print the IP address used by the Operator Assistant (NOW workstation) application, the IP address used by the OMD, the LIM where the operators have been initiated, and the individual passwords.

20.21.3

PRINTOUT

IP OPERATOR DATA				
DIR	MGW	OVS IP ADDRESS	OMD IP ADDRESS	PASSWORD
.
.
.
END				

MGW Media gateway where the operator has been initiated.

OMD IP ADDRESS	IP address used by the Operator Media Device (OMD).
OWS IP ADDRESS	IP address used by the Operator workstation application.
PASSW	Operator password

20.21.4

EXAMPLE

Print the IP data related to operators having directory numbers 4020 to 4022.

```
OPIDP:DIR=4020&&4023;
IP OPERATOR DATA
DIR    MGW    OWS IP ADDRESS    OMD IP ADDRESS    PASSWORD
4020   1A     159.107.27.222     159.107.27.232     diingly
4021   1A     159.107.27.223     NOT REGISTERED     qasdi21
4022   1A     NOT REGISTERED     NOT REGISTERED     1hantop
END
```

All the PBX operators have been initiated in LIM 1 and gateway A.

The PBX operator with directory number 4020 has the OWS registered at IP 159.107.27.222, the OMD at IP 159.107.27.232, and its password is "diingly".

The PBX operator with directory number 4021 has the OWS registered at IP 159.107.27.223, the OMD is not registered, and its password is "qasdi21".

The PBX operator with directory number 4022 has the OWS and the OMD not registered, and its password is "1hantop".

20.21.5

COMMAND CATEGORY

Dangerous = **No**

20.22

OPISP

Operator instrument data print

20.22.1

FORMAT

OPISP:DIR=;

DIR = Directory number. Directory number for the individual PBX operator. ALL, & and && are permitted for this parameter.

20.22.2

FUNCTION

The command is used to print the status of the PBX operator instrument for the specified PBX operator directory number. The printout shows:

- the answer type and whether it can be changed from the PBX operator instrument or not

- call connection type and whether it can be changed from the PBX operator instrument or not
- signalling method and whether it can be changed from the PBX operator instrument or not
- level of the tone burst signalling.
- whether the special audible tone indication feature for the visually impaired is enabled or not.
- which language the operator is using for display purpose.

20.22.3

PRINTOUT

OPERATOR INSTRUMENT STATUS DATA						
DIR	ANSW	EXTEND	AUD	LEV	MODE	LANG
.
.
.
END						

ANSW Answer type

AUD Audible indication type. Specifies the signalling method and Queuing Tone indication for calls to the PBX operator.

EXTEND Extending type

LANG Language code Specifies the language the operator console is currently using for display purpose.

LEV Tone burst level. Level of the tone burst signalling.

MODE Signalling mode Standard visual indications only or an addition of special audible tone indications.

20.22.4

EXAMPLE

Print the status of the PBX operators with directory numbers 4020 to 4022.

OPISP:DIR=4020&&4022;						
OPERATOR INSTRUMENT STATUS DATA						
DIR	ANSW	EXTEND	AUD	LEV	MODE	LANG
4020	N	A	N0	L	1	F
4021	A	M	N0	L	0	0
4022	N	N	N0	L	0	2
END						

The PBX operator with directory number 4020 can change the answer type from the PBX operator instrument. Extending is performed automatically and cannot be changed by the PBX operator. The PBX operator receives special blind mode audible tone indications in addition to standard visual indications. Queuing tone indication is set to periodic tone burst. The PBX operator uses the exchange default language for display purpose.

20.22.5 COMMAND CATEGORY

Dangerous = **No**

20.23 OPISS

Operator instrument status set

20.23.1 FORMAT

OPISS:DIR=[,ANSW=][,EXTEND=][,AUD=][,LEV=][,MODE=] [,LANG=];

ANSW = Answer type

AUD = Audible indication type and the Call queuing tone indication for IP operators (type = 7).

DIR = Directory number
ALL, & and && are permitted for this parameter.

EXTEND = Extending type

LANG = Language code.

LEV = Tone burst level.

MODE = Signalling mode Standard visual indications only or an addition of special audible tone indications.

20.23.2 FUNCTION

The command is used to set the status of the PBX operator console. One of the parameters ANSW, EXTEND, AUD, LEV, MODE, or LANG must be specified. The statuses are:

ANSWER TYPE

Automatic answering means that the PBX operator is put in direct connection with the calling party.

Manual answer means that the PBX operator has to press the answer button in order to gain connection with the calls.

EXTENDING TYPE

Automatic extending means that the PBX operator extends a call simply by dialling the directory number of the desired B party.

Manual extending means that the PBX operator, after dialling the directory number of B party, has to press the extending button in order for the call to be forwarded.

AUDIBLE INDICATION TYPE

Specifies the signalling method on calling the PBX operator and the Call queuing tone indication for IP operators (type = 7). For types other than 7, the queuing tone indication is set to the default value (0, periodic tone burst).

tone BURST LEVEL

There exist three tone levels:

H = High: normal sound level L = Low: muted sound level S = Silent: no call tone

Note: On alphanumeric PBX operator consoles and Operator Assistant consoles, tone burst is set to default value and cannot be changed. On OMD and NOW, the tone burst level can be changed by the end user if the default value is set to H=High.

SIGNALLING MODE

Specifies whether or not a PBX operator should receive special audible tone indications, in addition to standard visual indications, to inform of call progress, call origin and function-key states. The feature is primarily intended for the visually impaired PBX operator. If the parameter MODE is not entered, the feature is disabled as default.

LANGUAGE CODE

Specifies in which language the text strings on the operator console should be displayed in. The parameter is only available when the console is of type OPI 3214.

20.23.3

EXAMPLE 1

Assign PBX operators of type alphanumeric with directory numbers 4020 to 4022 the following PBX operator instrument (console) status:

- automatic answering and extending
- tone burst calling
- muted signal level for tone burst calling
- standard visual indications only
- display messages in German.

OPISS:DIR=4020&&4022,ANSW=A,EXTEND=A,AUD=T,LEV=L, MODE=0,LANG=2;
EXECUTED

20.23.4

EXAMPLE 2

Assign PBX operators with directory numbers 4020 to 4022 with the following status:

- manual answering
- special audible tone indications for the visually impaired, in addition to standard visual indications

```
OPISS:DIR=4020&&4022,ANSW=M,MODE=1;
EXECUTED
```

20.23.5

COMMAND CATEGORY

Dangerous = **No**

20.24

OPNEE

Operator notified exchange end

20.24.1

FORMAT

OPNEE:NEXGNO=[,OWNID=];

NEXGNO = Notified exchange number.
An exchange number for exchanges, which are to be notified of day or night-status changes in the centralized PBX operator's exchange. & is permitted for this parameter.

OWNID = Own exchange number.
An exchange number which should be the own exchange number of the centralized PBX operator's exchange, and is used as A-number in day or night status notification calls. Only one number can be set. The parameter may not be omitted if the own exchange number for the exchange was previously set.

20.24.2

FUNCTION

The command is used to remove one or several exchange numbers from the table, which gives the information about the exchanges that are to be notified of day or night-status changes in the centralized PBX operator's exchange. It is also used to remove the own exchange number used as A-party number in day or night status notification calls.

20.24.3

EXAMPLE

Remove the exchanges with exchange numbers 742 and 764 from the table of exchanges, that are to be notified of day or night-status changes in a centralized PBX operator's exchange. Keep the own exchange number.

```
OPNEE:NEXGNO=742&764;
EXECUTED
```

20.24.4 COMMAND CATEGORY

Dangerous = **No**

20.25 OPNEI

Operator notified exchange initiate

20.25.1 FORMAT

OPNEI:NEXGNO=[,OWNID=];

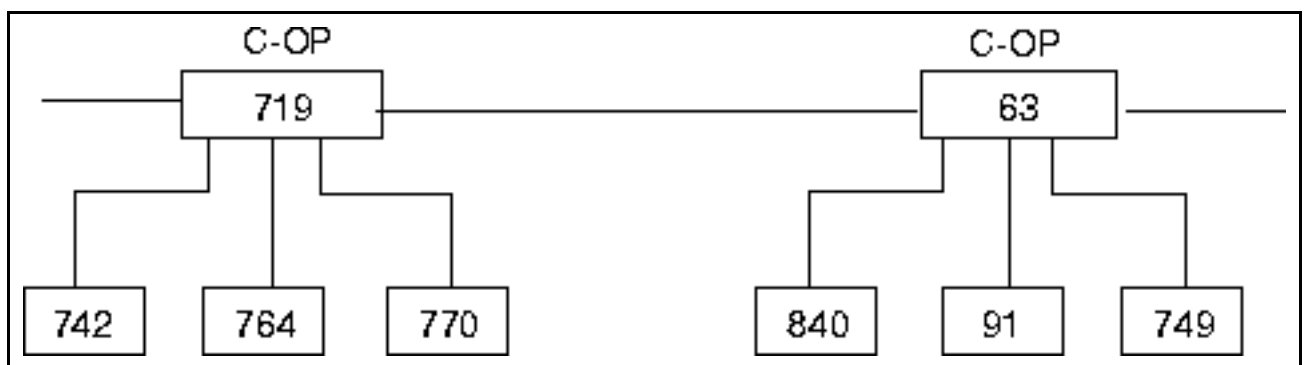
NEXGNO = Notified exchange number The exchanges which are to be notified of the day or night-status changes in the centralized PBX operator's exchange. & is permitted for this parameter.

OWNID = Own exchange number The own exchange number of the centralized PBX operator's exchange to be used as A-number in day or night status notification calls. Only one number can be set. If the parameter is omitted, no own exchange number will be set.

20.25.2 FUNCTION

The command is used to initiate one or several exchange numbers that are to be notified of day or night-status changes in the centralized PBX operator's exchange. The exchanges included in the command will be regularly notified of the time and the status change. The own exchange number used for day or night status notification is also set with this command.

20.25.3 EXAMPLE



Assign the centralized PBX operator's exchange (719) to the exchanges with numbers 742, 764, and 770 for notification of day or night-status changes. The own exchange number should be 719.

```
OPNEI:NEXGNO=742&764&770,OWNID=719;
EXECUTED
```

20.25.4 COMMAND CATEGORY

Dangerous = **No**

20.26 OPNEP

Operator notified exchange print

20.26.1 FORMAT

OPNEP;

20.26.2 FUNCTION

The command is used to print the table which contains the exchanges that are to be notified of day or night-status changes in the centralized PBX operator's exchange. The command also prints the own exchange number of that exchange.

20.26.3 PRINTOUT

NOTIFIED EXCHANGE DATA	OWN EXCHANGE NUMBER
.	...
.	
END	

20.26.4 EXAMPLE

Print the exchanges which the centralized PBX operator's exchange is to update and the own exchange number.

```
OPNEP;
      NOTIFIED EXCHANGE DATA      OWN EXCHANGE NUMBER
      742                          719
      764
      770
END
```

The exchanges 742, 764 and 770 are to be notified of day or night-status changes in the centralized PBX operator's exchange. The own exchange number is 719.

20.26.5 COMMAND CATEGORY

Dangerous = **No**

20.27

OPRSC

Operator route string change

20.27.1

FORMAT

$$\text{OPRSC: } \left\{ \begin{array}{l} \text{ROU=...}, \\ \text{SDM=...}, [\text{LANG=},] \end{array} \right\} \text{ STRING="text";}$$
LANG = Language code.**ROU =** Route number.
& and && are permitted for this parameter. The parameter has no effect for the Operator Assistant.**SDM =** Simplified diversion message number.
& and && are permitted for this parameter.**STRING =** Text string The name of the route or a simplified diversion message.

20.27.2

FUNCTION

The command is used to change the name for each route. The default text string is TRK. The text string will be displayed on certain PBX operator consoles whenever route information is displayed on the console. It does not apply for the Operator Assistant, but a string must still be entered.

The command is also used to change the contents of a given simplified diversion message on the same consoles. If the LANG parameter is left out the diversion message will be changed for the exchange default language.

20.27.3

EXAMPLE 1

Display TIE on the console, when a call arrives to the PBX operator on route 1.

```
OPRSC:ROU=1,STRING="TIE";
EXECUTED
```

20.27.4

EXAMPLE 2

Display OUT-VAC on the console for simplified diversion message number 1 for the exchange default language.

```
OPRSC:SDM=1,STRING="OUT-VAC";
EXECUTED
```

20.27.5

EXAMPLE 3

Display KRANK on the console for simplified diversion message number 9 for the German language.

```
OPRSC:SDM=9,STRING="KRANK",LANG=2;
EXECUTED
```

20.27.6

COMMAND CATEGORY

Dangerous = **No**

20.28

OPRSP

Operator route string print

20.28.1

FORMAT

$$\text{OPRSP: } \left\{ \begin{array}{l} \text{ROU=...} \\ \text{SDM=... [,LANG=...]} \end{array} \right\} ;$$

LANG = Language code
ALL is permitted for this parameter.

ROU = Route number.
&, && and ALL are permitted for this parameter. The parameter has no effect for the Operator Assistant.

SDM = Simplified diversion message number.
&, && and ALL are permitted for this parameter.

20.28.2 FUNCTION

The command is used to print the text string for route numbers or simplified diversion message data.
If parameter LANG is left out the exchange default language will be printed.

20.28.3 PRINTOUT 1 (ROU)

OPERATOR ROUTE NAME	
ROU	NAME
.	.
.	.
.	.
END	

ROU Route number.
NAME The text string for the route.

20.28.4 PRINTOUT 2 (SDM)

OPERATOR SIMPLIFIED DIVERSION MESSAGE	
LANG: ...	
SDM	TEXT
.	.
END	

LANG Printed language.
SDM Simplified diversion message number.
TEXT The associated text string.

20.28.5 EXAMPLE 1 (ROU)

Print the text strings for route 1, 2 and 3.

OPRSP:ROU=1&&3;	
OPERATOR ROUTE NAME	
ROU	NAME
1	TIE
2	TRK
3	TRK
END	

The text string for route 1 is TIE. The remaining routes have the default text string TRK.

20.28.6

EXAMPLE 2 (SDM)

Print the simplified diversion message number 1 for the default exchange language.

```
OPRSP:SDM=1;
      OPERATOR SIMPLIFIED DIVERSION MESSAGE
      LANG: ENGLISH
      SDM      TEXT
      1        OUT-VAC
END
```

The text string for simplified diversion message number 1 for the exchange default language is OUT-VAC.

20.28.7

EXAMPLE 3 (SDM)

Print the simplified diversion message number 9 for the German language.

```
OPRSP:SDM=9,LANG=2;
      OPERATOR SIMPLIFIED DIVERSION MESSAGE
      LANG: GERMAN
      SDM      TEXT
      9        KRANK
END
```

The text string for simplified diversion message number 9 for the German language is KRANK.

20.28.8

COMMAND CATEGORY

Dangerous = **No**

20.29

OPSAE

Operator server address end

20.29.1

FORMAT

OPSAE:LIM=;

LIM = LIM number.
& and && are permitted for this parameter.

20.29.2

FUNCTION

The command is used for closing the operator server port used for registration in a LIM.

20.29.3

EXAMPLE

The operator server port in LIM 1 will be closed.

```
OPSAE:LIM=1; OPSAE:LIM=1;
SURE? (YES/NO)
YES;
EXECUTED
```

20.29.4

COMMAND CATEGORY

Dangerous = **Yes**

20.30

OPSAI

Operator server address initiate

20.30.1

FORMAT

OPSAI:LIM=,PORT=;

LIM= LIM number.

PORT = Port number.

20.30.2

FUNCTION

The command is used to initiate a TCP server port for registration in a LIM with a specific port. The IP address is fetched from the system configuration files.

20.30.3

EXAMPLE

An operator server will be initiated in LIM 1 at port 7777.

```
OPSAI:LIM=1,PORT=7777;
EXECUTED
```

20.30.4

COMMAND CATEGORY

Dangerous = **No**

20.31

OPSAP

Operator server address print

20.31.1

FORMAT

OPSAP:LIM=;

LIM = LIM number.
ALL and & are permitted for this parameter.

20.31.2

FUNCTION

The command is used to print the operator server data (IP address and port).

20.31.3

PRINTOUT

OPERATOR SERVER DATA		
LIM . . .	IP ADDRESS . . .	PORT . . .
END		

IP ADDRESS IP address where the operator server is initiated.

PORT Port number.

20.31.4

EXAMPLE 1

Print the operator server data in LIM 1.

OPSAP:LIM=1;		
OPERATOR SERVER DATA		
LIM	IP ADDRESS	PORT
1	159.107.27.111	7777
END		

The operator server in LIM 1 is initiated at the IP address 159.107.27.111 and port 7777.

20.31.5

EXAMPLE 2

Print the operator server data in all LIMs.

```
OPSAP:LIM=ALL;
      OPERATOR SERVER DATA
      LIM          IP ADDRESS          PORT
      1            159.107.27.111      7777
      2            159.107.27.112      7777
END
```

The operator server in LIM 1 is initiated at the IP address 159.107.27.111 and port 7777. The operator server in LIM 2 is initiated at the IP address 159.107.27.112 and port 7777.

20.31.6

COMMAND CATEGORY

Dangerous = **No**

20.32

OPTSP

Operator traffic status print

20.32.1

FORMAT

OPTSP;

20.32.2

FUNCTION

The command is used to print the traffic status of all PBX operators.

The printout contains:

- directory numbers of all initiated PBX operators,
- whether the respective PBX operator is marked present or absent,
- whether the respective PBX operator is free or busy,
- how long the oldest call has waited in the queue,
- which origin groups have been initiated,
- number of waiting calls per origin group,
- number of PBX operators present per origin group.

A unique combination of call type, route number, if any, and PBX operator call number forms an origin type. An origin group may consist of several different origin types.

20.32.3

PRINTOUT

OPERATOR TRAFFIC STATUS DATA		
DIR	BUSY/FREE	ABSENT/PRESENT

```

.      .      .
.      .      .
WAITING TIME FOR OLDEST CALL IN QUEUE: . . S
CORG      WAITING CALLS      OPERATORS PRESENT
.      .      .
.      .      .
END

```

ABSENT/ PRESENT	PBX operator marked present or absent. A = absent, P = present.
BUSY/FREE	PBX operator busy or free. B = busy, F = free
CORG	Origin group
DIR	Directory number of individual PBX operator
OPERATORS PRESENT	Indicates how many PBX operators are marked present for a specified origin group
WAITING CALLS	Number of calls in queue per origin group.
WAITING TIME ...	Indicates in seconds how long the oldest call in the queue has been waiting.

20.32.4

EXAMPLE

Print the traffic status of all PBX operators.

```

OPTSP;
      OPERATOR TRAFFIC STATUS DATA
      DIR      BUSY/FREE      ABSENT/PRESENT
      4020      B      P
      4021      B      P
      4022      F      P
      4025      F      A
      WAITING TIME FOR OLDEST CALL IN QUEUE: 12S
      CORG      WAITING CALLS      OPERATORS PRESENT
      1      0      0
      8      3      2
      10      1      1
END

```

The PBX operator with directory number 4020 is marked present and is busy. The oldest call in the queue has been waiting for 12 seconds. Three calls from origin group 8 are in the queue and there are two PBX operators present.

20.32.5

COMMAND CATEGORY

Dangerous = **No**

21 PA - PAGING

21.1 PAALE

Paging alarm group code end

21.1.1 FORMAT

PAALE:DIR=;

DIR = Extension directory number.
& and && are permitted for this parameter.

21.1.2 FUNCTION

The command is used to erase automatic transmission of the alarm group code for an extension.

21.1.3 EXAMPLE

Erase the alarm group code for extension 1234.

PAALE: DIR=1234;
EXECUTED

21.1.4 COMMAND CATEGORY

Dangerous = **No**

21.2 PAALI

Paging alarm group code initiate

21.2.1 FORMAT

PAALI:CODE=,DIR=;

CODE = Alarm group code.
Alarm group code for paging.

DIR = Extension directory number.
& and && are permitted for this parameter.

21.2.2 FUNCTION

The command is used to initiate an alarm group code for paging. The alarm group code is common for a group of extensions, for example, one floor of an office, and states the

origin of the alarm. On alarm generation the alarm group code will be issued to paging receivers, stating from where the alarm was started.

21.2.3 EXAMPLE

Associate alarm group code 123 to extensions 1234 and 1250.

```
PAALI: CODE=123, DIR=1234&1250;  
EXECUTED
```

21.2.4 COMMAND CATEGORY

Dangerous = **No**

21.3 PAALP

Paging alarm group code print

21.3.1 FORMAT

PAALP:DIR=;

DIR = Extension directory number.
 ALL, &, and && are permitted for this parameter.

21.3.2 FUNCTION

The command is used to print the alarm group code in respect of stated extensions.

21.3.3 PRINTOUT

```
[WAIT]  
PAGING ALARM GROUP CODE  
DIR                               CODE  
.  
.  
.  
END
```

CODE Alarm group code.
 Alarm group code for paging.

WAIT Printout in the event of long execution times.

21.3.4

EXAMPLE

Print the alarm group codes for extension numbers 1234-1250.

```
PAALP: DIR=1234&&1250;
PAGING ALARM GROUP CODE
DIR          CODE
1234         123
1250         123
END
```

In the extension number series 1234-1250, 1234 and 1250 are affiliated to alarm group code 123. When these extensions start the alarm towards paging the alarm group code will be sent to the paging receiver's display automatically.

21.3.5

COMMAND CATEGORY

Dangerous = **No**

21.4

PACAC

Paging category change

21.4.1

FORMAT

PACAC: $\left[\begin{array}{l} \text{DIR=...} \\ \text{EPN=...} \\ \text{CPN=...} \end{array} \right], \text{PCAT=};$

- CPN =** Common paging number.
Common paging number for paging group.
& and && are permitted for this parameter.
- DIR =** Extension directory number.
& and && are permitted for this parameter.
- EPN =** Extra paging number.
Extra paging number when own extension is lacking.
& and && are permitted for this parameter.
- PCAT =** Paging category.
Paging category with respect to priority for access to paged number, transmission of display message and type of paging receiver.

21.4.2

FUNCTION

The command is used to alter the paging category in respect of extension numbers, extra paging number, or common paging number.

21.4.3 EXAMPLE

The category for extra paging number 1150 is to be altered. The new receiver is type 4, that is, with display and "meet me". The display transmission category is 1, that is, the A-number is sent automatically. The priority level shall be 1.

```
PACAC:EPN=1150,PCAT=411;
EXECUTED
```

21.4.4 COMMAND CATEGORY

Dangerous = **No**

21.5 PACHE

Paging channel end

21.5.1 FORMAT

PACHE:CHL=;

CHL = Channel number.
 Channel number for paging equipment.
 & and && are permitted for this parameter.

21.5.2 FUNCTION

The command is used to remove a paging channel. The equipment position assigned to the initiated channel becomes free on execution of the command.

21.5.3 EXAMPLE

Paging channels with numbers 5 and 10 are removed from the system.

```
PACHE:CHL=5&10;
EXECUTED
```

21.5.4 COMMAND CATEGORY

Dangerous = **No**

21.6 PACHI

Paging channel initiate

21.6.1 FORMAT

PACHI:SAR=,CHL=,EQU=;

CHL = Channel number.
Channel number for paging equipment.
& and && are permitted for this parameter.

EQU = Equipment number.
Equipment position for paging channel.

SAR = Search area.
Search area for paging.

21.6.2 FUNCTION

The command is used to state which paging channel is to be initiated in respect of a specific hardware position in the system. At the same time the channel is affiliated to a stated search area. If several channels are to be initiated in one command the system will automatically search for free and correctly equipped equipment positions from and including the position stated in parameter EQU.

21.6.3 EXAMPLE

Paging channel number 5 shall be initiated to equipment position in LIM 7, gateway C, magazine 1, board position 11, individual 1 on the board. The channel shall be affiliated to search area 7.

PACHI: SAR=7, CHL=5, EQU=7C-1-11-1;
EXECUTED

21.6.4 COMMAND CATEGORY

Dangerous = **No**

21.7 PADAP

Paging data print

21.7.1 FORMAT

PADAP: $\left[\begin{array}{l} \text{DIR=...} \\ \text{EPN=...} \\ \text{CPN=...} \end{array} \right];$

CPN = Common paging number.
Common directory number for paging group.
ALL, & and && are permitted for this parameter.

- DIR =** Extension directory number.
ALL, & and && are permitted for this parameter.
- EPN =** Extra paging number.
Extra directory number for paging when own extension is lacking.
ALL, & and && are permitted for this parameter.

21.7.2 FUNCTION

The command is used to print paging data in respect of stated directory numbers.

21.7.3 PRINTOUT

[WAIT]				
PAGING DATA				
[DIR - EPN - CPN]	SCD	MSAR	SSAR	PCAT

END				

- MSAR** Meet me search area.
Search area for meet me paging.
- PCAT** Paging category.
Paging category with respect to priority for access to paged number, transmission of display message and type of paging receiver.
- SCD** Search code.
Search code for paging receivers.
- SSAR** Speech search area.
Search area for voice paging.
- WAIT** Printout in the event of long execution times.

21.7.4

EXAMPLE 1

Print the paging data for the extension number series 2600-2630.

PADAP: DIR=2600&&2630;				
PAGING DATA				
DIR	SCD	MSAR	SSAR	PCAT
2600	151	1, 2	2	510
2621	153	1		412
END				

In the extension number series 2600-2630 extensions 2600 and 2621 have paging. Extension 2600 has a receiver with search code 151 and meet me paging takes place simultaneously in search areas 1 and 2. Voice paging takes place in search area 2. The receiver has one-way speech and display. The priority level is 0 and A-number is transmitted automatically. Extension 2621 has a receiver with search code 153 and it is paged with meet me in search 1. The receiver has a display and A-number is transmitted automatically. The priority level is 2.

21.7.5

EXAMPLE 2

Print the paging data for extra paging number 1150.

PADAP: EPN=1150;				
PAGING DATA				
EPN	SCD	MSAR	SSAR	PCAT
1150	132	11		000
END				

An extra directory number for paging, 1150, is initiated and the receiver has paging code 132. Meet me paging is undertaken in search area 11, the receiver is a meet me type with tone bursts. Neither A nor B number is sent to the receiver. The priority level is 0.

21.7.6

EXAMPLE 3

Print the data for common paging numbers 2970 and 2980.

PADAP: CPN=2970&2980;				
PAGING DATA				
CPN	SCD	MSAR	SSAR	PCAT
2970	612	1		002
2980	613	7	1	602
END				

The common paging number 2970 reaches all receivers with group paging code 612 in the meet me search area 1, the receivers are for meet me only. Neither A nor B number is transmitted. The priority level is 2.

Number 2980 reaches all receivers with group paging code 613 in meet me search area 7 or voice search area 1. Bothway voice with meet me receivers are used. The display transmit category is 0, so neither A nor B number is transmitted. The priority level is 2.

21.7.7

COMMAND CATEGORY

Dangerous = **No**

21.8

PAEDP

Paging equipment data print

21.8.1

FORMAT

PAEDP:SAR=;

SAR = Search area.
Search area for paging.
ALL, & and && are permitted for this parameter

21.8.2

FUNCTION

The command is used to print data for search area and paging channel.

21.8.3

PRINTOUT

PAGING EQUIPMENT DATA							
SAR	CHL	EQU	TYPE	VAR	THO	TBL	REP
.
.
.
END							

CHL	Channel number. Channel number for paging equipment.
EQU	Equipment number. Equipment position at which paging channel is initiated.
REP	Number of repetitions for a paging job. The parameter states the number of times a paging job shall be repeated. The normal value is REP = 0, that is, no repetition shall take place.
TBL	Total blocking time for paging channel. Blocking time for the paging channel before new seizure is permitted. Normal value is TBL = 0, that is, no blocking shall take place.
THO	Total holding time for paging channel. Maximum seizure time for paging channel.
TYPE	Type of signalling diagram for paging equipment, that is, which PG function block administers the equipment position. For value, see the parameter description for BRDID, TYPE, UNIT.
VAR	Signalling diagram variation.

21.8.4

EXAMPLE

Information about search areas 7 through 10 is to be printed.

PAEDP:SAR=7&&10;							
PAGING EQUIPMENT DATA							
SAR	CHL	EQU	TYPE	VAR	THO	TBL	REP
7	5	7C-1-11-01	PG1	H'0000123000	111089	0	0
	7	7C-1-11-02					
9	9	9A-1-11-00	PG1	H'00645B9D00	005089	0	4
	10	9A-1-11-01					
END							

Of search areas 7 through 10, areas 7 and 9 have been initiated. Search area 7 has channels 5 and 7 initiated at the equipment positions in LIM 7, gateway C, magazine 1, board position 10 and individual numbers 1 and 2 on the board. Signaling diagram is PG1, that is, signaling via a serial E interface. The signaling diagram variation is 0000123000.

The maximum seizure time for the channel for meet me paging is 111 seconds and for voice paging 89 seconds. The channels in search area 7 shall not be blocked. No repetition of the paging jobs.

Search area 9 has channels 9 and 10 initiated to LIM 9, gateway A, magazine 1, board position 10, individuals 0 and 1 respectively. The signaling diagram is PG1 with the signaling diagram variation 00645B9D00. Maximum seizure time for the channels is 5 and 89 seconds for meet me and voice paging respectively. The paging jobs are repeated four times towards the paging equipment.

21.8.5

COMMAND CATEGORY

Dangerous = **No**

21.9

PAGIE

Paging end

21.9.1

FORMAT

PAGIE: $\left[\begin{array}{l} \text{DIR=...} \\ \text{EPN=...} \\ \text{CPN=...} \end{array} \right];$

- CPN** = Common paging number.
Common directory number for paging group.
& and && are permitted for this parameter.
- DIR** = Extension directory number.
& and && are permitted for this parameter.
- EPN** = Extra paging number.
Extra paging number when own extension is lacking.
& and && are permitted for this parameter.

21.9.2

FUNCTION

The command is used to erase:

- Paging from an existing extension.
- Paging with an extra paging number.
- Paging with a common paging number.

21.9.3

EXAMPLE

Paging shall be erased from extensions with directory number 2600 through 2630.

PAGIE:2600&&2630; EXECUTED

21.9.4

COMMAND CATEGORY

Dangerous = **No**

21.10

PAGII

Paging initiate

21.10.1

FORMAT

PAGII: $\left[\begin{array}{l} \text{DIR=} \\ \text{EPN=} \\ \text{CPN=} \end{array} \right], \text{SCD=}, \text{MSAR=...} [, \text{SSAR=} [, \text{PCAT=};$

- CPN =** Common paging number.
Common directory number for paging group.
- DIR =** Extension directory number.
- EPN =** Extra paging number.
Extra paging number when own extension is lacking.
- MSAR =** Meet-me search area.
& and && are permitted for this parameter.
- PCAT =** Paging category.
Paging category with respect to order of priority for access to paged number, transmission of display message and type of paging receiver.
- SCD =** Search code.
Search code for paging receiver.
- SSAR =** Speech search area.

21.10.2

FUNCTION

The command is used to assign:

- paging to an existing extension
- paging with extra paging number, that is, a visitor to a company, is to be equipped with a paging receiver. The visitor lacks an own extension in the PBX and it shall be possible to page the visitor with an extra paging number.
- paging to a common paging number, that is, a group of paging receivers whose members are paged simultaneously when the common paging number is called.

Each extension can be initiated to several search areas for meet me. In conjunction with this, the paging job will be transmitted to all these areas.

21.10.3

EXAMPLE 1

Extension 2621, existing in the PABX, shall have paging. The paging receiver shall have paging code 153 and belong to search area 1 for meet me. The receiver is type 4, that is, display with meet me. The display transmission category is 1, that is, A number is to be sent. The priority level is 2.

```
PAGII: DIR=2621, SCD=153, MSAR=1, PCAT=412;
EXECUTED
```

21.10.4

EXAMPLE 2

A visitor, lacking own extension in the PBX, shall be assigned paging. The visitor is assigned extra directory number 1150 for paging. The receiver shall have search code 132 and the visitor shall be paged with meet me via search area 11. The receiver

provides tone bursts only, that is, display and speech are lacking. The priority level is 0. Neither A nor B number is sent to the receiver.

PAGII: EPN=1150, SCD=132, MSAR=11, PCAT=000; EXECUTED
--

21.10.5

EXAMPLE 3

A group of persons shall have a common paging number, 2970. All paging receivers in the group have a common paging code, 612, and shall belong to search area 1 for meet me. The receivers are type 0. Neither A nor B number is transmitted. The priority level is 2.

PAGII: CPN=2970, SCD=612, MSAR=1, PCAT=002; EXECUTED

21.10.6

COMMAND CATEGORY

Dangerous = **No**

21.11

PASAE

Paging search area end

21.11.1

FORMAT

PASAE:SAR=;

SAR = Search area.
 Search area for paging.

21.11.2

FUNCTION

The command is used to erase a search area. All channels in the search area must be removed before the area itself can be removed.

21.11.3

EXAMPLE

Erase search area number 7 from the system.

PASAE:SAR=7; EXECUTED

21.11.4

COMMAND CATEGORY

Dangerous = **No**

21.12

PASAI

Paging search area initiate

21.12.1

FORMAT

PASAI:SAR=,TYPE=,VAR=,THO=,TBL=[,REP=];

- REP =** Number of repetitions for a paging job.
The parameter states the number of times a paging job is to be repeated. If the parameter is omitted it receives a default value, that is, no repetition shall take place.
- SAR =** Search area.
Search area for paging.
- TBL =** Total blocking time before new paging.
Total blocking time for paging channel before new seizure.
- THO =** Total holding time for paging channel.
Maximum seizure time for paging channel.
- TYPE =** Type of signalling diagram for paging equipment, that is, which PG function block administers the equipment position.
For value, see the parameter description for BRDID, TYPE, UNIT.
- VAR =** Signalling diagram variation.

21.12.2

FUNCTION

The command is used to initiate a search area for paging and to assign the characteristics that shall apply for the search area.

21.12.3

EXAMPLE

Initiate search area number 7 and assign characteristics.

- The signalling diagram is type PG1, that is, serial interface with E&M signalling. TLU80 configuration and short line presentation.
- The signalling diagram is 0000123001.
- The maximum seizure time for the channel is 111 seconds for meet me paging and 89 seconds for voice paging. The channel need not be blocked after terminated seizure. No repetition of the paging assignment towards the search area shall take place.

PASAI: SAR=7, TYPE=PG1, VAR=0000123001, THO=111089, TBL=0;
EXECUTED

21.12.4

COMMAND CATEGORY

Dangerous = **No**

22

RA - RECORDED VOICE ANNOUNCEMENT

22.1

RACEC

Recorded Voice Announcement Connection Change

22.1.1

FORMAT

$$\text{RACEC:} \left\{ \begin{array}{l} \text{DIR}=[, \text{WELCOM}=[, \text{CONT}=[\\ \text{VOCT}=[, \text{VOCGU}=[, \text{CUST}=[\\ \text{OPE}=[, \text{CONT}=[\end{array} \right\} ;$$

CONT =	Continuous announcement number.
CUST =	Customer group number. & is permitted for this parameter.
DIR =	Directory number. Directory number of extension. & is permitted for this parameter.
OPE =	Individual PBX operator directory number. & is permitted for this parameter.
VOCGU =	Vocal Guidance announcement number.
VOCT =	Vocal Guidance Traffic case. & is permitted for this parameter.
WELCOM =	Welcome announcement number.

22.1.2

FUNCTION

The command is used to change or reset (set no announcement):

- welcome and continuous announcements for ATS and IP extension directory number(s).
- vocal guidance announcement assigned to vocal guidance traffic case.
- continuous announcement for individual PBX operator directory number(s).

Note: At least one of the optional parameters must be stated.

The parameter CONT is used to state the type of announcement to be connected when a call is parked by an ATS, IP extension or an individual PBX operator.

22.1.3

EXAMPLE 1

For the ATS or IP extension directory number 12345, change the welcome announcement to number 28 and remove the continuous announcement.

```
RACEC:DIR=12345,WELCOM=28,CONT=0;
EXECUTED
```

22.1.4

EXAMPLE 2

For the ATS or IP extension directory number 12346, change the continuous announcement number to number 30.

```
RACEC:DIR=12346,CONT=30;
EXECUTED
```

22.1.5

EXAMPLE 3

For vocal guidance traffic case 3, change the announcement number to 20.

```
RACEC:VOCT=3, VOCGU=20;
EXECUTED
```

22.1.6

EXAMPLE 4

For the individual PBX operator directory number 10001, change the continuous announcement to number 21.

```
RACEC:OPE=10001,CONT=21;
EXECUTED
```

22.1.7

COMMAND CATEGORY

Dangerous = **No**

22.2

RACEE

Recorded Voice Announcement Connection End

22.2.1

FORMAT

$$\text{RACEE:} \left\{ \begin{array}{l} \text{DIR=} \\ \text{VOCT=[,CUST=]} \\ \text{OPE=} \end{array} \right\};$$

- CUST =** Customer group number.
& is permitted for this parameter.
- DIR =** Directory number. Directory number of extension.
&, &&, and ALL are permitted for this parameter.
- OPE =** Individual PBX operator directory number.
&, &&, and ALL are permitted for this parameter.
- VOCT =** Vocal Guidance Traffic case.
& and && are permitted for this parameter.

22.2.2

FUNCTION

This command can be used to remove

- all announcements assigned to ATS and IP extension directory number(s).
- vocal guidance announcements assigned to a vocal guidance traffic. This removal can also be optionally made to a customer using the parameter CUST.
- the continuous announcement assigned to an individual PBX operator directory number(s).

22.2.3

EXAMPLE 1

Remove all announcements for the ATS or IP extension directory number 12347.

```
RACEE:DIR=12347;  
EXECUTED
```

22.2.4

EXAMPLE 2

Remove announcement assigned to vocal guidance traffic case 5.

```
RACEE:VOCT=5;  
EXECUTED
```

22.2.5

EXAMPLE 3

For customer number 100, remove announcement associated with vocal guidance traffic case 5.

```
RACEE:VOCT=5,CUST=100;  
EXECUTED
```

22.2.6

EXAMPLE 4

For customer number 100, remove announcement associated with vocal guidance traffic case 5.

```
RACEE:VOCT=5,CUST=100;  
EXECUTED
```

22.2.7

EXAMPLE 5

Remove the continuous announcement for the individual PBX operator directory number 10001.

```
RACEE:OPE=10001;  
EXECUTED
```


22.2.8 COMMAND CATEGORY

Dangerous = **No**

22.3 RACEI

Recorded Voice Announcement Connection Initiate

22.3.1 FORMAT

$$\text{RACEI:} \left\{ \begin{array}{l} \text{DIR}=[, \text{WELCOM}=[, \text{CONT}] \\ \text{VOCT}[, \text{VOCGU}=[, \text{CUST}=[\\ \text{OPE}[, \text{CONT}=[\end{array} \right\} ;$$

CONT = Continuous announcement number.
CUST = Customer group number.
 & is permitted for this parameter.
DIR = Directory number. Directory number of extension.
 & is permitted for this parameter.
OPE = Individual PBX operator directory number.
 & is permitted for this parameter.
VOCGU = Vocal Guidance announcement number.
VOCT = Vocal Guidance Traffic case.
 & is permitted for this parameter.
WELCOM = Welcome announcement number.

22.3.2 FUNCTION

The command can be used to

- set the values of welcome and continuous announcement numbers for extension directory number(s).
- initiate a vocal guidance announcement for a vocal guidance traffic case. The parameter CUST can be optionally used to assign these announcements to a particular customer.
- to initiate continuous announcement for individual PBX operator directory number(s)

The parameter CONT is used to state the type of announcement to be connected when a call is parked by either an ATS, IP extension or an individual PBX operator.

22.3.3 EXAMPLE 1

For the directory number of extension 12345 and 12346, set the welcome announcement to number 25 and the continuous announcement to number 10.

```
RACEI:DIR=12345&12346,WELCOM=25,CONT=10;
EXECUTED
```

22.3.4

EXAMPLE 2

Initiate announcement number 20 to vocal guidance traffic case 3.

```
RACEI:VOCT=3, VOCGU=20;  
EXECUTED
```

22.3.5

EXAMPLE 3

For customer number 100, initiate the announcement number 30 for the traffic case 5.

```
RACEI:VOCT=5,VOCGU=30,CUST=100;  
EXECUTED
```

22.3.6

EXAMPLE 4

For the directory number of individual PBX operators10001 and 10002, set the continuous announcement number to 22.

```
RACEI:OPE=10001&10002,CONT=22;  
EXECUTED
```

22.3.7

COMMAND CATEGORY

Dangerous = **No**

22.4

RACEP

Recorded Voice Announcement Connection Print

22.4.1

FORMAT

RACEP: $\left\{ \begin{array}{l} \text{DIR= [,CUST=]} \\ \text{VOCT= [,CUST=]} \\ \text{OPE=} \end{array} \right\} ;$

- CUST =** **When used with DIR:**
Customer group number. A single value is permitted. If the parameter is omitted, data for all customers are printed.

When used with VOCT:
Customer group number.
& is permitted for this parameter.

DIR = Directory number. Directory number of extension.
&, &&, and ALL are permitted for this parameter.

OPE = Individual PBX operator directory number.
&, &&, and ALL are permitted for this parameter.

VOCT = Vocal Guidance Traffic case.
&, && and ALL are permitted for this parameter.

22.4.2

FUNCTION

The command can be used to print

- Welcome and continuous announcement assigned to ATS or IP extension directory number(s)
- Vocal guidance announcement assigned to different vocal guidance traffic cases. Announcements can also be printed optionally for a customer using the CUST parameter
- Continuous announcement assigned to individual PBX operator directory number(s)

22.4.3

PRINTOUT (DIR)

DIRECTORY ANNOUNCEMENT DATA			
DIR	CUST	WELCOM	CONT
.	.	.	.
.	.	.	.
.	.	.	.
END			

CONT Continuous announcement number or tone message number. It can also be a tone message number.

WELCOM Welcome announcement number.

22.4.4

PRINTOUT 2 (VOCT)

VOCAL GUIDANCE ANNOUNCEMENT DATA	
VOCT	VOCGU
.	.
.	.
.	.
END	

VOCGU Vocal Guidance announcement number.

22.4.5

PRINTOUT 3 (OPE)

Print announcements for Individual Operator directory number(s).

ANNOUNCEMENT DATA FOR INDIVIDUAL OPERATOR	
OPE	CONT
.	.

```

.
.
END

```

CONT Continuous announcement number or tone message number.

22.4.6

EXAMPLE 1 (DIR)

Print all announcements for all extensions.

```

RACEP:DIR=ALL;
DIRECTORY ANNOUNCEMENT DATA
DIR          CUST      WELCOM          CONT
12345         0         25             100
12346         0         25             100
12347         0         21
12348         0         21
END

```

ATS or IP extension directory number 12346 has the welcome announcement number 25 and continuous announcement number 100.

ATS or IP extension directory number 12347 has the welcome announcement number 21.

22.4.7

EXAMPLE 2 (VOCT)

Print announcement numbers assigned to all vocal guidance traffic cases.

```

RACEP:VOCT=ALL;
VOCAL GUIDANCE ANNOUNCEMENT DATA
VOCT          VOCTGU
1              20
8              30
15             20
17             40
END

```

Announcement 20 is assigned for traffic case 1 and 15, 30 for traffic case 8 and 40 for traffic case 17.

22.4.8 EXAMPLE 3 (VOCT & CUST)

Print all vocal announcements for customer number 50.

```
RACEP:VOCT=ALL,CUST=50;
VOCAL GUIDANCE ANNOUNCEMENT DATA
VOCT          VOCGU
1             20
3             10
5             25
13            10
END
```

For customer number 50, announcement 20 is assigned for traffic case 1, announcement 10 is assigned to traffic case 3 and 13, and announcement 25 for traffic case 5.

22.4.9 COMMAND CATEGORY

Dangerous = **No**

22.5 RADNE

Recorded Voice Announcement Directory Number End

22.5.1 FORMAT

RADNE:DIR=;

DIR = Directory number.

22.5.2 FUNCTION

The command is used for ending the assignment on recording directory number assigned to the Voice Server Unit (VSU).

22.5.3 EXAMPLE

Remove assignment on directory number 40049.

```
RADNE:DIR=40049;
EXECUTED
```

22.5.4 COMMAND CATEGORY

Dangerous = **No**

22.6

RADNI

Recorded Voice Announcement Directory Number Initiate

22.6.1

FORMAT

RADNI:DIR=,CAT=,VSID=;

CAT = Common category code.

DIR = Directory number.

VSID = Voice server board identity number.

22.6.2

FUNCTION

The command is used for assigning a directory number to a VSID to support message programming from an extension and a PBX operator console. The category code is the same as for all other extensions, with the limitation of some category controlled functions.

22.6.3

EXAMPLE

Assign directory number 40049 with common category 1 to VSID 4.

```
RADNI:DIR=40049,CAT=1,VSID=4;
EXECUTED
```

22.6.4

COMMAND CATEGORY

Dangerous = **No**

22.7

RADNP

Recorded Voice Announcement Directory Number Print

22.7.1

FORMAT

RADNP:VSID=;

VSID = Voice server board identity number.
&, && and ALL are permitted for this parameter.

22.7.2

FUNCTION

The command is used for printing out the VSID, the assigned directory number, and the common category code.

22.7.3

PRINTOUT

RECORDED ANNOUNCEMENT DIRECTORY NUMBER INFORMATION		
VSID	DIR	CAT
.	.	.
.	.	.
.	.	.
END		

CAT = Common category code.
DIR = Directory number.

22.7.4

EXAMPLE

Print out the directory number assigned to VSID from 3 to 7.

RADNP:VSID=3&&7;		
RECORDED ANNOUNCEMENT DIRECTORY NUMBER INFORMATION		
VSID	DIR	CAT
3	40147	1
4	40049	1
5	40306	21
7	40050	-
END		

Directory number 40147 is assigned to VSID 3 with common category 1.

The category code of directory number 40050 is not in any of the existing common category codes, CAT 0-63.

22.7.5

COMMAND CATEGORY

Dangerous = **No**

22.8

RADSE

Recorded Voice Announcement Device Selection End

22.8.1

FORMAT

RADSE:VSID=,ANN=;

ANN = Announcement number.

VSID = Voice server board identity number.
 & and && are permitted for this parameter.

22.8.2

FUNCTION

The command is used for removing an announcement number associated with a voice server board identity number.

22.8.3

EXAMPLE

Announcement number 10 associated with VSID 4 is to be removed.

RADSE:VSID=4,ANN=10;		
EXECUTED		

22.8.4 COMMAND CATEGORY

Dangerous = **No**

22.9 RADSI

Recorded Voice Announcement Device Selection Initiate

22.9.1 FORMAT

RADSI:VSID=,ANN=;

ANN = Announcement number

VSID = Voice server board identity number
& and && are permitted for this parameter.

22.9.2 FUNCTION

The command is used for assigning announcement numbers to a voice server board identity number. An announcement number can be assigned to more than one VSID.

22.9.3 EXAMPLE

Assign announcement number 10 to VSID 4.

```
RADSI:VSID=4,ANN=10;
EXECUTED
```

22.9.4 COMMAND CATEGORY

Dangerous = **No**

22.10 RADSP

Recorded Voice Announcement Device Selection Print

22.10.1 FORMAT

RADSP:ANN=;

ANN = Announcement number

&, &&, and ALL are permitted for this parameter

22.10.2 FUNCTION

The command is used for printing the VSIDs associated with announcement numbers.

22.10.3

PRINTOUT

RECORDED VOICE ANNOUNCEMENT DEVICE SELECTION DATA		
ANN	VSID	EMDEV
.	.	.
.	.	.
.	.	.
END		

- EMDEV** The parameter is not used.
- VSID** Voice server board identity number.

22.10.4

EXAMPLE

Print the devices assigned to announcement numbers 1 to 12.

RADSP:ANN=1&&12;		
RECORDED VOICE ANNOUNCEMENT DEVICE SELECTION DATA		
ANN	VSID	EMDEV
1	1	
	2	
	3	
4	10	
	17	
5	1	
	10	
10	1	
	4	
END		

Announcement number 10 is assigned to VSID 1 and 4.

22.10.5

COMMAND CATEGORY

Dangerous = **No**

22.11

RAEQE

Recorded Voice Announcement Equipment End

22.11.1

FORMAT

RAEQE:VSID=;

VSID = Voice server board identity number.
 & and && are permitted for this parameter.

22.11.2

FUNCTION

The command is used for removing one or more recorded voice announcement equipment from the exchange. The equipment position to which the VSID is associated becomes free.

22.11.3

EXAMPLE

Voice server board identity number 4 should be removed from the exchange.

```
RAEQE:VSID=4;  
EXECUTED
```

22.11.4 COMMAND CATEGORY

Dangerous = **No**

22.12 RAEQI

Recorded Voice Announcement Equipment Initiate

22.12.1 FORMAT

RAEQI:VSID=,BPOS;

- BPOS =** Board position.
- VSID =** Voice server board identity number.

22.12.2 FUNCTION

The command is used for initiating an equipment position for a LIM-mounted VSU board or an E&M board when installing a peripheral recorded voice announcement equipment.

22.12.3 EXAMPLE

A VSU board is to be used in the exchange associated with voice server identity number 4, LIM 6, gateway E, magazine 1, and position 40.

```
RAEQI:VSID=4,BPOS=6E-1-40;  
EXECUTED
```

22.12.4 COMMAND CATEGORY

Dangerous = **No**

22.13 RAEQP

Recorded Voice Announcement Equipment Print

22.13.1 FORMAT

RAEQP:VSID=;

- VSID =** Voice server board identity number.
 &, && and ALL are permitted for this parameter.

22.13.2 FUNCTION

The command is used for printing the device identity number, equipment position, type of signaling diagram, signaling diagram variation, and message time for recorded voice announcement equipment.

22.13.3 PRINTOUT

RECORDED ANNOUNCEMENT EQUIPMENT		
VSID	BPOS	COMPR
.	.	.
.	.	.
.	.	.
END		

BPOS Board position.

COMPR Voice compression (obsolete function, always No)

22.13.4 EXAMPLE

Print out equipment information for VSID 1 to 5.

RAEQP:VSID= 1&&5;		
RECORDED ANNOUNCEMENT EQUIPMENT		
VSID	BPOS	COMPR
1	1A-0-60	NO
3	4A-2-40	NO
4	6B-1-40	NO
END		

VSID 1 is assigned to LIM 1, gateway A, magazine 0, board position 60. VSID 3 is assigned to LIM 4, gateway A, magazine 2, board position 40. VSID 4 is assigned to LIM 6, gateway B, magazine 1, board position 40. The COMPR is obsolete, i.e. voice compression is always disabled.

22.13.5 COMMAND CATEGORY

Dangerous = **No**

22.14 RAGAC

Recorded Voice Announcement Group Announcement Change

22.14.1

FORMAT

RAGAC: { **CORG = ...** } [**,WELCOM =**] [**,QUEUE =**] [**,REPQUE =**] [**,CONT =**]
 { **GRP =...** [**,CIDREQ =**] [**,EWTA=**] }
 [**,QTIME =**] [**,RTIME =**] ;

CIDREQ = Customer identity request announcement number.

CONT= Continuous announcement number.

CORG = Call origin group.
& is permitted for this parameter.

EWTA = Estimated waiting time announcement request. Specifies if an estimated waiting time announcement is requested. The parameter can assume the following values:

YES An estimated waiting time announcement is requested

NO An estimated waiting time announcement is not requested.

GRP = Group number. ACD or internal group hunting group.
& is permitted for this parameter.

QTIME = Queue announcement time.

QUEUE = Queue announcement number.

REPQUE = Repeat queue announcement number.

RTIME = Repeated queue announcement time.

WELCOM = Welcome announcement number.

22.14.2

FUNCTION

The command is used to change and/or remove the values of various announcement numbers and respective timer values for ACD groups and Internal Group hunting groups, and operator call origin groups.

If the parameter EWTA is changed to a YES value, the queue announcement must be assigned.

At least one of the optional parameters must be stated.

The parameters CIDREQ and EWTA are only valid for ACD groups.

The parameter CONT is used to state the type of announcement to be connected when a call becomes queued in an ACD/PBX group or a PBX operator group. CONT can also be used to change the continuous announcement that is provided when the call to a PBX operator is parked.

If the parameter is entered together with the REPQUE parameter, the CONT will be used to select which type of announcement will be provided between the repeated queue announcement message.

The parameters QTIME and RTIME are used to assign timer values for the respective queue and repeat queue announcements.

22.14.3

EXAMPLE 1

For the ACD group 12345, change the welcome announcement to number 28, the customer identity request announcement to number 50, the estimated waiting time announcement request to NO, and remove the repeat queue announcement.

```
RAGAC:GRP=12345,CIDREQ=50,EWTA=NO,WELCOM=28,
REPQUE=0;
EXECUTED
```

22.14.4

EXAMPLE 2

For the ACD group 12346, change the queue announcement number to number 30 and the queue announcement timer to 15.

```
RAGAC:GRP=12346,QUEUE=30,QTIME=15;
EXECUTED
```

22.14.5

EXAMPLE 3

For the call origin group 3, change the welcome announcement to number 40, the queue announcement to number 02, continuous announcement to number 241, the repeat queue announcement to number 28, the queue announcement timer to number 30 and the repeat queue announcement timer to number 45.

```
RAGAC:CORG=3,WELCOM=40,QUEUE=02,CONT=241,
REPQUE=28, QTIME=30,RTIME=45;
EXECUTED
```

22.14.6

COMMAND CATEGORY

Dangerous = **No**

22.15

RAGAE

Recorded Voice Announcement Group Announcement End

22.15.1

FORMAT

$$\mathbf{RAGAE: \left\{ \begin{array}{l} \mathbf{GRP=} \\ \mathbf{CORG=} \end{array} \right\};}$$

CORG = Call origin group.
& is permitted for this parameter.

GRP = Group number. ACD or Internal group hunting group.
&, and && are permitted for this parameter.

22.15.2 FUNCTION

The command is used to remove all announcements assigned to ACD groups and Internal group hunting groups and Operator call origin groups.

22.15.3 EXAMPLE 1 (GRP)

Remove all announcements for the Internal group hunting group 12347.

```
RAGAE:GRP=12347;  
EXECUTED
```

22.15.4 EXAMPLE 2 (CORG)

Remove all announcements for the call origin group 2.

```
RAGAE:CORG=2;  
EXECUTED
```

22.15.5 COMMAND CATEGORY

Dangerous = **No**

22.16 RAGAI

Recorded Voice Announcement Group Announcement Initiate

22.16.1 FORMAT

RAGAI: {
 CORG = ...
 GRP = ... [,CIDREQ =] [,EWTA =]
} [,WELCOM =] [,QUEUE =] [,REPQUE =] [,CONT =]
[,QTIME =] [,RTIME =] ;

- CIDREQ = Customer identity request announcement number.
- CONT= Continuous announcement number.
- CORG = Call origin group.
& is permitted for this parameter.
- EWTA = Estimated waiting time announcement request. Specifies if an estimated waiting time announcement is requested. The parameter can assume the following values:
YES = An estimated waiting time announcement is requested.
NO = An estimated waiting time announcement is not requested.

GRP =	Group number. ACD or internal group hunting group. & is permitted for this parameter.
QTIME =	Queue announcement time.
QUEUE =	Queue announcement number.
REPQUE =	Repeat queue announcement number.
RTIME =	Repeat queue announcement time.
WELCOM =	Welcome announcement number.

22.16.2

FUNCTION

The command is used to set the values of various announcement numbers for ACD groups, Internal Group hunting groups and operator call origin groups.

At least one of the optional parameters must be stated.

The parameters CIDREQ and EWTA are only valid for ACD groups.

The parameter CONT is used to state the type of announcement to be connected when a call becomes queued in either an ACD/PBX group or a PBX operator. CONT is also used to provide continuous announcement when the call to a PBX operator is parked.

If the parameter is entered together with the REPQUE parameter, the CONT will be used to select which type of announcement will be provided between the repeated queue announcement message.

The parameters QTIME and RTIME are used to assign timer values for the respective queue and repeat queue announcements.

22.16.3

EXAMPLE 1

For the ACD groups 12345 and 12346, set the welcome announcement to number 25, the queue announcement to number 10, the repeat queue announcement to number 13, the customer identity request announcement to number 65, the estimated waiting time announcement is requested, the queue announcement timer to number 10 and the repeat queue announcement timer to number 60.

```
RAGAI:GRP=12345&12346,WELCOM=25,QUEUE=10,REPQUE=13,
CIDREQ=65,EWTA=YES, QTIME=10, RTIME=60;
EXECUTED
```

22.16.4

EXAMPLE 2

For the internal group hunting group 12347 and 12348, set the welcome announcement to number 21, the queue announcement to number 99, the repeat queue announcement to number 11, the queue announcement timer to number 40 and the repeat queue announcement timer to number 100.

```
RAGAI:GRP=12347&12348,WELCOM=21,QUEUE=99,REPQUE=11,QTIME=40,
RTIME=100;
EXECUTED
```

22.16.5

EXAMPLE 3

For the ACD groups 12350, set the welcome announcement to number 21, the queue announcement to number 99, the repeat queue announcement to number 11, the continuous announcement to number 241, the queue announcement timer to number 15 and the repeat queue announcement timer to number 100.

```
RAGAI:GRP=12350,WELCOM=21,QUEUE=99,REPQUE=11,
CONT=241, QTIME=15, RTIME=100;
EXECUTED
```

22.16.6

EXAMPLE 4

For the call origin groups 2 and 3, set the welcome announcement to number 1, the queue announcement to number 99, the repeat queue announcement to number 11 and the continuous announcement to number 30, the queue announcement timer to number 60 and the repeat queue announcement timer to number 150.

```
RAGAI:CORG=2&3,WELCOM=01,QUEUE=99,CONT=30,
REPQUE=11, QTIME=60,RTIME=150;
EXECUTED
```

22.16.7

COMMAND CATEGORY

Dangerous = **No**

22.17

RAGAP

Recorded Voice Announcement Group Announcement Print

22.17.1

FORMAT

RAGAP: { **GRP=**
CORG= } ;

CORG = Operator Call origin group.
&, &&, and ALL are permitted for this parameter.

GRP = Group number.
ACD or Internal Group hunting group.
&, &&, and ALL are permitted for this parameter.

22.17.2

FUNCTION

The command is used to print all announcements assigned to ACD groups and internal group hunting groups and operator call origin groups.

22.17.3 PRINTOUT1 (GRP)

GROUP ANNOUNCEMENT DATA								
GRP	WELCOM	QUEUE	CONT	REPQUE	CIDREQ	EWTA	QTIME	RTIME
.
.
.
END								

22.17.4 PRINTOUT 2 (CORG)

CORG ANNOUNCEMENT DATA						
CORG	WELCOM	QUEUE	CONT	REPQUE	QTIME	RTIME
.
.
.
END						

CIDREQ	Customer identity request announcement number. Only valid for ACD groups.
CONT	Continuous announcement number.
EWTA	Estimated waiting time announcement request. Specifies if an estimated waiting time announcement is requested. Only valid for ACD groups. The parameter can assume the following values: YES= An estimated waiting time announcement is requested. NO= An estimated waiting time announcement is not requested.
QUEUE	Queue announcement number.
QTIME	Queue announcement time.
REPQUE	Repeat queue announcement number.
RTIME	Repeat queue announcement time.
WELCOM	Welcome announcement number.

22.17.5 EXAMPLE 1 (GRP)

Print all announcements for all ACD and internal group hunting groups.

RAGAP:GRP=ALL;								
GRP	WELCOM	QUEUE	CONT	REPQUE	CIDREQ	EWTA	QTIME	RTIME
12345	25	10	100	13	65	YES	10	60
12346	25	10	100	13	65	YES	10	60
12347	21	99		11			40	100
12348	21	99		11			40	100
12350	21	99	240	11			15	150
END								

ACD group 12346 has the welcome announcement number 25, queue announcement number 10, continuous announcement number 100, repeat queue announcement number 13, queue announcement time 10, repeat queue announcement timer 60 and CID request announcement number 65 assigned to it. The estimated waiting time announcement request is set to YES so this ACD group will provide a queue message associated with the estimated waiting time.

Internal group hunting group 12347 has the welcome announcement number 21, queue announcement number 99, repeat queue announcement number 11, queue announcement timer 40 and repeat queue announcement timer 100 assigned to it.

22.17.6

EXAMPLE 2 (CORG)

Print all announcements for all call origin groups.

RAGAP:CORG=ALL;						
CORG	WELCOM	QUEUE	CONT	REPQUE	QTIME	RTIME
2	01	99	30	11	60	150
3	02	40	241	11	10	30
END						

Call origin group 2 has welcome announcement number 01, queue announcement number 99, continuous announcement number 30, repeat queue announcement number 11, queue announcement time 60 and repeat queue announcement time 150 assigned to it.

22.17.7

COMMAND CATEGORY

Dangerous = **No**

22.18

RAGME

Recorded Voice Announcement Group Members End

22.18.1

FORMAT

RAGME:DIR=;

DIR = Directory number. Directory number of individual PBX operator.
 & and && are permitted for this parameter.

22.18.2

FUNCTION

The command is used for removing association of PBX operator with recorded announcement group. The PBX operator answer announcement is no longer given when the PBX operator answers an incoming call.

22.18.3

EXAMPLE

PBX operators with directory number 4000 and 4025 are no longer to have the recorded voice announcement service and are therefore to be removed from the announcement group which had previously been assigned to them.

```
RAGME:DIR=4000&4025;
EXECUTED
```

22.18.4

COMMAND CATEGORY

Dangerous = **No**

22.19

RAGMI

Recorded Voice Announcement Group Member Initiate

22.19.1

FORMAT

RAGMI:DIR=,AGP=;

AGP = Announcement group number.

DIR = Directory number.
Directory number of individual PBX operator.
& and && are permitted for this parameter.

22.19.2

FUNCTION

The command is used for allocating one or more PBX operators to an announcement group. Only one announcement group can be associated with a PBX operator's directory number. The same announcement group can be associated with several PBX operators (directory numbers).

When the PBX operator answers an incoming call, a recorded voice announcement is selected from the announcement group that has been assigned to the PBX operator with this command. Choice of right announcement from the announcement group takes place on the basis of the call origin group (CORG).

22.19.3

EXAMPLE

PBX operators with directory numbers 4000 and 4025 are to have the recorded voice announcement service and are to be associated with the same announcement group 12.

```
RAGMI:DIR=4000&4025,AGP=12;
EXECUTED
```

22.19.4

COMMAND CATEGORY

Dangerous = **No**

22.20

RAGMP

Recorded Voice Announcement Group Member Print

22.20.1

FORMAT

RAGMP: { **DIR=** } ;
 { **AGP=** }

- AGP =** Announcement group number.
 &, && and ALL are permitted for this parameter.
- DIR =** Directory number.
 Directory number of individual PBX operator.
 &, && and ALL are permitted for this parameter.

22.20.2

FUNCTION

The command is used for printing out an announcement group, call origin groups, announcement numbers and directory numbers for PBX operators.

22.20.3

PRINTOUT

RECORDED ANNOUNCEMENT GROUP MEMBERS			
AGP	DIR	CORG	ANN
.	.	.	.
.	.	.	.
.	.	.	.
END			

- ANN** Announcement number.
- CORG** Call origin group.

22.20.4

EXAMPLE 1 (DIR)

Print out announcement group data for the PBX operators with directory numbers 4000 and 4030.

```
RAGMP:DIR=4000&4030;
RECORDED ANNOUNCEMENT GROUP MEMBERS
AGP          DIR          CORG          ANN
12           4000         5           21
              9           22
              12          22
13           4030         5           21
              8           17
END
```

The PBX operator with directory number 4000 is associated with announcement group 12.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 22 to calls with call origin groups (CORG) 9 and 12.

The PBX operator with the directory number 4030 is associated with announcement group 13.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 17 to calls with call origin group (CORG) 8. Calls from call origin groups not included on the list are not given a recorded voice announcement.

22.20.5

EXAMPLE 2 (AGP)

Print out group data for announcement groups 12 and 13.

RAGMP:AGP=12&13;			
RECORDED ANNOUNCEMENT GROUP MEMBERS			
AGP	DIR	CORG	ANN
12	4000	5	21
	4025	9	22
		12	22
13	4030	5	21
	4032	8	17
	5000		
END			

The PBX operators with directory numbers 4000 and 4025 are associated with announcement group 12.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 22 to calls with call origin groups (CORG) 9 and 12.

The PBX operators with directory numbers 4030, 4032 and 5000 are associated with announcement group 13.

In this group, recorded voice announcement number 21 is given to calls with call origin group (CORG) 5 and announcement number 17 to calls with call origin group (CORG) 8.

22.20.6

COMMAND CATEGORY

Dangerous = **No**

22.21

RAGPE

Recorded Voice Announcement Group End

22.21.1

FORMAT

RAGPE:AGP=,CORG=;

AGP = Announcement group number.

CORG = Call origin group.
&, && and ALL are permitted for this parameter.

22.21.2

FUNCTION

This command is used for removing recorded voice announcements from specified call origin groups in the announcement group.

22.21.3 EXAMPLE

In announcement group 12, calls from call origin groups 5 and 9 are no longer to be given recorded voice announcements.

`RAGPE:AGP=12,CORG=5&9;
EXECUTED`

22.21.4 COMMAND CATEGORY

Dangerous = **No**

22.22 RAGPI

Recorded Voice Announcement Group Initiate

22.22.1 FORMAT

RAGPI:AGP=,CORG=,ANN=;

- AGP =** Announcement group number.
- ANN =** Announcement number.
- CORG =** Call origin group.
 &, && and ALL are permitted for this parameter.

22.22.2 FUNCTION

The command is used for initiating an announcement group. On initiation, the announcement group is allocated a table which makes it possible to determine separately for every call origin group which recorded voice announcement an incoming call is to be given before it is connected to the PBX operator.

ANNOUNCEMENT GROUP	
call origin group	announcement number
CORG 1	announcement 21
CORG 2	announcement 22
.	.
.	.

Only the call origin groups which are given a recorded voice announcement are to be associated with an announcement number. Calls to omitted call origin groups are connected directly to the PBX operator.

A call origin group may consist of one or more origin types. An origin type is a unique combination of call type, PBX operator access number and route access code, if any. Composition of the call origin groups is performed with another command (OPCTS).

The same announcement number can be associated with several call origin groups simultaneously. In cases where it must be possible to give the same origin group different announcements, depending on the PBX operator answering (e.g. all PBX operators are to have recorded voice announcements in their own voice), several announcement groups are to be initiated in the exchange. Association of PBX operator with announcement group takes place with another command (RAGMI).

22.22.3

EXAMPLE

Announcement group 12 is to be initiated. Calls with call origin group (CORG) 5 are to have recorded voice announcement number 21 and calls with call origin groups 9 and 12 are both to have recorded voice announcement number 22. Calls from other call origin groups are not to be given recorded voice announcements.

```
RAGPI:AGP=12,CORG=5,ANN=21;
EXECUTED
RAGPI:AGP=12,CORG=9&12,ANN=22;
EXECUTED
```

22.22.4

COMMAND CATEGORY

Dangerous = **No**

22.23

RAMDE

Recorded Voice Announcement Message Data End

22.23.1

FORMAT

$$\text{RAMDE: } \left\{ \begin{array}{l} \text{ANN=} \\ \text{ANN=} \text{ ,MSG=} \\ \text{ANN=} \text{ ,EWT=} \end{array} \right\} ;$$

ANN = Announcement number.

EWT = Estimated waiting time.
Only && is permitted for this parameter.

MSG = Message number.

22.23.2

FUNCTION

The command is used to remove messages or the EWT and its message from an announcement.

22.23.3

EXAMPLE 1

Remove message number 100 assigned to announcement number 96.

```
RAMDE:ANN=96,MSG=100;
EXECUTED
```

22.23.4

EXAMPLE 2

Remove the message for the estimated waiting time range of 30 to 45 seconds, assigned to announcement number 96.

```
RAMDE:ANN=96,EWT=30&&45;
EXECUTED
```

22.23.5

COMMAND CATEGORY

Dangerous = **No**

22.24

RAMDI

Recorded Voice Announcement Message Data Initiate

22.24.1

FORMAT

RAMDI:ANN=,MSG=[,EWT=];

ANN = Announcement number.
EWT = Estimated waiting time.
 Only && is permitted for this parameter.
MSG = Message number.

22.24.2

FUNCTION

The command is used to have one of the following messages assigned to an announcement:

- The default message.
- A message based on the estimated waiting time.

If the parameter EWT is omitted, the message will be assigned to be the announcement's default message.

22.24.3

EXAMPLE 1

Assign the default message to the announcement. Assign announcement number 96 with message number 100.

```
RAMDI:ANN=96,MSG=100;
EXECUTED
```

22.24.4 EXAMPLE 2

Assign announcement number 96 with message number 26 for the estimated waiting time range of 30 to 45 seconds.

`RAMDI:ANN=96,MSG=26,EWT=30&&45;
EXECUTED`

22.24.5 COMMAND CATEGORY

Dangerous = **No**

22.25 RAMDP

Recorded Voice Announcement Message Data Print

22.25.1 FORMAT

RAMDP:ANN=;

ANN = Announcement number.
 &, &&, and ALL are permitted for this parameter.

22.25.2 FUNCTION

The command will print all of the message data and the estimated waiting times assigned to an announcement.

22.25.3 PRINTOUT

RECORDED VOICE ANNOUNCEMENT MESSAGE DATA		
ANN	MSG	EWT
.	.	.
.	.	.
.	.	.
END		

EWT Estimated waiting time.
MSG Message number.

22.25.4

EXAMPLE

Print out the message data for all announcement numbers.

RAMDP:ANN=ALL;			
RECORDED VOICE ANNOUNCEMENT MESSAGE DATA			
ANN	MSG	EWT	
1	1		
1	2	1	- 60
1	3	61	- 120
1	4	121	- 180
2	17		
2	18	1	- 120
2	19	121	- 240
10	161	1	- 60
10	162	61	- 300
20	171		
END			

Announcement number two has the default message number 17, message number 18 with estimated waiting time of 1 to 120 seconds, and message number 19 with estimated waiting time of 121 to 240 seconds assigned to it.

Announcement number 20 has only message number 171 assigned to it.

22.25.5

COMMAND CATEGORY

Dangerous = **No**

23

RI - IP NETWORKING

23.1

RIANC

Route IP additional network information change

23.1.1

FORMAT

RIANC:ROU=[,IP=][,LROUID="text"][, RROUID="text"][,CODECS=] [,TLS=];

CODECS = Coder/Decoder priority list.
IP = IP address. IP address of the route terminating node.
LROUID = Local route identifier.
ROU = Route number.
RROUID = Remote route identifier.
TLS = Type of session for a call over an IP route.

23.1.2

FUNCTION

This command is used to change the IP additional network information of an H.323 route.

Note: All the parameters (but the ROU one) are optional. However, at least one of the options must be entered.

Note: All defined local route identifiers must be unique. It is the system administrator's responsibility to preserve this uniqueness.

The command can also be used to reset the value of a parameter or to restore it to its default value.

To reset the IP address of a route (no IP address would be associated to the route), the command RIANC with parameter IP=0 must be used.

Note: The IP address cannot be reset if destinations are attached to the route.

To reset the route identifiers (no route identifier would be associated to the route), the command RIANC with parameters LROUID="", RROUID="", or both of them must be used.

To restore the coder/decoder priority list to its default value (as defined in the parameter description for IP networking), the command RIANC with parameter CODECS=0 must be used.

23.1.3

EXAMPLE 1

Change IP address to 10.43.58.7 and reset the remote route identifier for route number 3.

```
RIANC:ROU=3,IP=10.43.58.7,RROUID="";
EXECUTED
```

23.1.4 EXAMPLE 2

Enable TLS security for the route number 6, with fall back option.

```
RIANC:ROU=6,TLS=1;
EXECUTED
```

23.1.5 COMMAND CATEGORY

Dangerous = **No**

23.2 RIANI

Route IP additional network information initiate

23.2.1 FORMAT

RIANI:ROU=[,IP=][,LROUID="text"][,RROUID="text"][,CODECS=] [,TLS=];

CODECS = Coder/Decoder priority list.
IP = IP address. IP address of the route terminating node.
LROUID = Local route identifier.
ROU = Route number.
RROUID = Remote route identifier.
TLS = Type of session for a call over an IP route.

23.2.2 FUNCTION

This command is used to initiate IP additional network information of an H.323 route. The information initiated in this command is removed when the route is terminated using the *ROUTE* command.

Note: All defined local route identifiers must be unique. It is the system administrator's responsibility to preserve this uniqueness. To know when it is admissible not to state a local route identifier, see the extra facility description for *IP NETWORKING*.

23.2.3 EXAMPLE 1

Initiate the IP additional network information for route number 3 with the following data: the route IP address should be 10.43.58.96 at the terminating node, the local route identifier should be "LOCK", its remote route identifier should be "SEA", and the preferred CODECs for the route should be the G723.1 CODEC and the G.711 μ -law, 64 kbit/s CODEC.

```
RIANI:ROU=3,IP=10.43.58.96,LROUID="LOCK",RROUID="SEA",
CODECS=4-C;
EXECUTED
```

23.2.4

EXAMPLE 2

Initiate the IP additional network information for route number 7 with the following data: the route IP address should be 10.43.58.85 at the terminating node, the local route identifier should be "Local7", its remote route identifier should be "Rem7", and the preferred CODECS for the route should be the G729 Annex A CODEC and the TLS value should allow both TCP and TLS sessions.

```
RIANI:ROU=7,IP=10.43.58.85,LROUID="Local7",RROUID="Rem7",
CODECS=2,TLS=1;
EXECUTED
```

23.2.5

COMMAND CATEGORY

Dangerous = **No**

23.3

RIANP

Route IP additional network information print

23.3.1

FORMAT

RIANP:ROU=;

ROU = Route number.
ALL, & and && are allowed for this parameter.

23.3.2

FUNCTION

The command is used to print out the IP additional network information data of one or more H.323 routes.

23.3.3

PRINTOUT

H.323 ROUTE DATA					
ROU	IP ADDRESS	LROUID	RROUID	CODECS	TLS
.
.
END					

CODECS	Coder/Decoder priority list.
IP ADDRESS	IP address. IP address of the route terminating node.
LROUID	Local route identifier.
ROU	Route number.
RROUID	Remote route identifier.
TLS	Type of session for a call over an IP route.

23.3.4

EXAMPLE

Print out the IP additional network information for all the routes in the system.

H.323 ROUTE DATA					
ROU	IP ADDRESS	LROUID	RROUID	CODECS	TLS
6	10.43.58.84	Local6	Rem6	2013456789ABC	0
7	10.43.58.85	Local7	Rem7	2013456789ABC	2
END					

There are two H.323 routes initiated in the system, routes 6 and 7.

For route 6, the IP address at the remote node is 10.43.58.84, the local route identifier is "Local6", the remote identifier is "Rem6", and the preferred CODEC is the one corresponding to number 2 (G.729 Annex A). The rest of the CODECs follow the default list of priorities. Route 6 does not support TLS for signaling.

For route 7, the IP address at the remote node is 10.43.58.85, the local route identifier is "Local7", the remote identifier is "Rem7", and the preferred CODEC is the one corresponding to number 2 (G.729 Annex A). The rest of the CODECs follow the default list of priorities. Route 7 allows only TLS (encryption) for calls over the trunk.

23.3.5

COMMAND CATEGORY

Dangerous = **No**

24 RO - ROUTE DATA

24.1 ROAPE

Route A-number prefix end

24.1.1 FORMAT

ROAPE:ROU=;

ROU = Route number.
 & and && are permitted for this parameter.

24.1.2 FUNCTION

The command is used for removal of the prefix for calling number and the type of number for the calling number, for incoming calls on the stated routes.

24.1.3 EXAMPLE

Remove the prefix and the type of number data for calls incoming on route 4.

```
ROAPE:ROU=4;
EXECUTED
```

24.1.4 COMMAND CATEGORY

Dangerous = **No**

24.2 ROAPI

Route A-number prefix initiate

24.2.1 FORMAT

```
ROAPI:ROU= { ,PREPRI= [,PRITON=]
             ,PREPUB= [,PUBTON=]
             ,PREPRI= ,PREPUB= [,PRITON= ] [,PUBTON= ] }
```

PREPRI =	Prefix digits for private calling number. States the digits (exchange numbers) to prefix an incoming private calling number with, in order to form a complete private calling number. If the parameter is omitted, the calling number will not be prefixed.
PREPUB =	Prefix digits for public calling number. States the digits (exchange numbers) to prefix an incoming public calling number with, in order to form a complete public calling number. If the parameter is omitted, the calling number will not be prefixed.
PRITON =	Private type of number. States the private type of number to affiliate to an incoming private calling number. If the parameter is omitted, no type of number shall be affiliated.
PUBTON =	Public type of number. States the public type of number to affiliate to an incoming public calling number. If the parameter is omitted, no type of number shall be affiliated.
ROU =	Route number.

24.2.2

FUNCTION

The command is used for initiation of a prefix for calling number and type of number for calling number, for incoming calls on the stated routes.

The command is only applicable in transit or gateway exchanges where it is necessary to prefix the incoming private number in order to be able to distinguish one private number, on a specific incoming route, from another identical private number on another route.

Both public and private calling numbers can be prefixed using this command. Prefixing of private calling numbers make it possible to distinguish one private number from another, when the private numbers have been further transited to some kind of a back-bone network.

On signaling systems where no private number is received, the prefix itself (either public or private) can be used to create a complete private calling number to use on all incoming calls on the route.

Note: The total length of a private number can be maximum 10 digits. The total length of a public number can be maximum 20 digits. This must be considered when initiating the prefix digits, so that the complete calling number length does not exceed the allowed length.

A type of number that is initiated with this command will replace any received type of number. If no type of number is initiated with this command, any received type of number will be used in the further conveyance of the number type.

For signaling systems where no type of number is received and no type of number to use is initiated with this command, the system will per default affiliate the type of number *unknown* for the missing type of number. That is, unknown private as the private type of number, and/or unknown public as the public type of number.

The above is applicable for both private type of number and public type of number respectively.

Note: The prefixes initiated with the ROAPI command cannot be used in conjunction with the route directory number, ROUDIR, in the ROND1 command, see 24.31 ROND1 on page 455. It is not possible to add PREPRI and/or PREPUB with ROUDIR. If prefixes are assigned with command ROAPI, and ROUDIR is assigned with command ROND1, the parameter ROUDIR will be ignored.

24.2.3

EXAMPLE 1

Initiate the following data for route 4:

All incoming private calling numbers on route 4 are to be prefixed with 864, and have the private type of number as Local private affiliated (for the further conveyance of the call).

ROAPI:ROU=4,PRITON=6,PREPRI=864; EXECUTED
--

24.2.4 EXAMPLE 2

Initiate the following data for route 6:

All incoming private calling numbers on route 6 are to be prefixed with 10, and have the private type of number Local private affiliated (for the further conveyance of the call).

All incoming public calling numbers are to be prefixed with 0455. No public type of number is to be initiated for use, that is, the received public type of number is to be used.

```
ROAPI:ROU=6,PRITON=6,PREPRI=10,PREPUB=0455;  
EXECUTED
```

24.2.5 COMMAND CATEGORY

Dangerous = **No**

24.3 ROAPP

Route A-number prefix print

24.3.1 FORMAT

ROAPP:ROU=;

ROU = Route number.
 ALL, & and && are permitted for this parameter.

24.3.2 FUNCTION

The command is used to print any initiated prefix for calling number and type of number for calling number, for incoming calls on the stated routes.

24.3.3 PRINTOUT

ROUTE A-NUMBER PREFIX DATA				
ROU	PRITON	PREPRI	PUBTON	PREPUB
.
.
.
END				

PREPRI Prefix digits for private calling number.

PREPUB Prefix digits for public calling number.

PRITON Private type of number.

PUBTON Public type of number.

24.3.4

EXAMPLE

Print the route A-number prefix data for all routes.

ROAPP:ROU=ALL;				
ROUTE A-NUMBER PREFIX DATA				
ROU	PRITON	PREPRI	PUBTON	PREPUB
4	6	864		
6	6	10		0455
END				

All private calling numbers incoming on route 4 will be prefixed with 864, and Local private (TON=6) will be affiliated as type of number. No modifications are done regarding public calling number and public type of number.

All private calling numbers incoming on route 6 will be prefixed with 10, and Local private (TON=6) will be affiliated as type of number. Any received public calling number will be prefixed with 0455. The received public type of number will be used.

24.3.5

COMMAND CATEGORY

Dangerous = **No**

24.4

ROCAC

Route category change

24.4.1

FORMAT

**ROCAC:ROU=[,CUST][,SEL=][,SIG=][,TRAF=][,TRM=]
[,SERV=][,DIST=] [,DISL=][,NODG=][,BCAP=];**

- BCAP =** Bearer capability.
States the bearer capability of the route. The value is not valid for incoming calls on CAS external lines. If the parameter is omitted, the bearer capabilities SPEECH and 3.1 kHz are assumed to apply for outgoing calls.
- CUST =** Customer number.
For programming customer number this parameter is preferred over SEL and must be used if the customer number > 250.
- DISL =** Disturbance level.
States the number of consecutive, faulty seizures on one and the same external line that is tolerated before the external line is given a disturbance marking.
- DIST =** Disturbance time.
States the minimum duration required for a call to be regarded as not faulty.
- NODG =** Market-dependent parameter:
- 1** Number of 500-groups.
In some cases, the number received in DID traffic from an AGF exchange must be modified. The modification consists of adding or subtracting one or more 500-numbers to/from the number sent by the AGF exchange to the system.
Note: Not applicable in MX-ONE.

- 2** Automatic through-connection route.
An incoming call (transit call) from an interworking exchange in some cases must be automatically through-connected to an outgoing route. The parameter states the route access code for external traffic.

ROU =	Route number. ALL, & and && are permitted for this parameter.
SEL =	Route selection category. States the selection categories for the route. The traffic direction, outgoing or incoming, may not be altered.
SERV =	Route service category. States the service categories for the route.
SIG =	Route signalling category. States the signalling relationship between the route and public exchange/interworking PBX.
TRAF =	Traffic category.
TRM =	Transmission category. States the transmission characteristics (attenuation or amplification) that shall apply for the route's lines.

24.4.2

FUNCTION

The command is used to alter one or more categories of one or more routes. Only those category parameters to be altered shall be stated. At least one category parameter shall be stated.

The traffic direction in parameter SEL, and call metering characteristics in parameter SERV must not be altered. In case of H.323 routes, net service facilities of the SIG parameter cannot be changed if there are trunk lines initiated in such route.

The default call service information category shall be set to 0 if the IDNX service selection feature is to be used in the system.

24.4.3

EXAMPLE 1

The following is to be altered for route 1:

- During night service the route shall be open in accordance with TCD data 09. During day service it shall be fully open.
- The traffic connection class shall be altered to traffic group 12.
- The route service categories shall be altered to *Reception of call waiting tone permitted and intrusion permitted* and *Automatic call back permitted*. Least Cost Routing Class of Service shall be changed to value 2. The features *Presentation of calling number* and *Request calling number (A-number) from PSTN* are not supported by the signaling system. Number conversion shall be made.

```
ROCAC:ROU=1,TRAF=00091512,SERV=2100020001;
EXECUTED
```

24.4.4

EXAMPLE 2

The following is to be altered for route 1:

- The route service categories set in example 1 shall be altered to *Bearer Capability substitution shall be made.*

```
ROCAC:ROU=1,SERV=2100020002;
EXECUTED
```

24.4.5

EXAMPLE 3

The following is to be altered for route 1:

- The route service categories set in example 1 shall be altered to *Bearer Capability and High Level substitution and number conversion shall be made.*

```
ROCAC:ROU=1,SERV=2100020007;
EXECUTED
```

24.4.6

COMMAND CATEGORY

Dangerous = **No**

24.5

ROCAI

Route category initiate

24.5.1

FORMAT

**ROCAI:ROU=,SEL=,SIG=,TRAF=,TRM=,SERV=[,CUST=][,DIST=]
[,DISL=] [,NODG=][,BCAP=];**

- BCAP =** Bearer capability. States the bearer capability of the route. The value is not valid for incoming calls on CAS external lines. If the parameter is omitted, the bearer capabilities SPEECH and 3.1 kHz audio are assumed to apply for outgoing calls.
- CUST =** Customer number.
For programming customer number this parameter is preferred over SEL and must be used if the customer number > 250.
- DISL =** Disturbance level. States the number of consecutive, faulty seizures on one and the same external line that is tolerated before the external line is given a disturbance marking. If the parameter is omitted, the value 128 is assumed to apply.
- DIST =** Disturbance time. States the minimum duration required for a call to be regarded not faulty. If the parameter is omitted, the value 30 is assumed to apply.
- NODG =** Market-dependent parameter:
- 1** Number of 500-groups. In some cases, the number received in DID traffic from an AGF exchange must be modified. The modification consists of adding or subtracting one or more 500-numbers to/from the number sent by the AGF exchange to the system.
Note: Not applicable in MX-ONE.

- 2** Automatic through-connection route An incoming call (transit call) from an interworking exchange in some cases must be automatically through-connected to an outgoing route. The parameter states the route access code for external traffic.

ROU =	Route number.
SEL =	Route selection category. States the selection categories for the route.
SERV =	Route service category. States the service categories for the route.
SIG =	Route signaling category. States the signaling relationship between the route and public exchange/interworking PBX.
TRAF =	Traffic category.
TRM =	Transmission category States the transmission characteristics (attenuation or amplification) that shall apply for the route's lines.

24.5.2

FUNCTION

The command is used to initiate a route and a subset of its categories. Complete categorization of the route also requires entering of the RODAI command.

A maximum of 250 routes per system can be stated by using route numbers 1-250.

The default call service information category shall be set to 0 if the IDNX service selection feature is to be used in the system.

24.5.3

EXAMPLE

Initiate route 1 with the following characteristics:

Parameter SEL:

- The route allows bothway traffic.
- At outgoing traffic, line selection is to take place by sequential hunting within the route.
- Alternative routing is allowed.
- No virtual calls. No malicious call tracing.
- The incoming route has Facilities Restriction Level value set to 3.
- The incoming route has Call Service Information category set to *normal extension* (=0).
- No TCM is received on the incoming external line.
- Toll exchange category (AON) is not used.

Parameter SIG:

- The monitor path is to be established on reception of dial tone.
- An answer signal is received at outgoing traffic.
- Extended calls require supervision by operator.
- Ringing tone is to be sent to the A-party on end of selection of an outgoing call.
- ISDN signalling.
- No net service facilities.

Parameter TRAF:

- Traffic connection class: Traffic group 03.

Parameter TRM:

- Transmission category: Row/column 4.

Parameter SERV:

- Reception of call waiting tone and intrusion on the external lines of the route are allowed.
- Automatic call back is not allowed.
- The external lines of the route are of the *public trunk line* type.
- The route is a non-metered route. Paging over speech channels is not allowed.
- Least Cost Routing Class of Service is set to 1.
- Presentation of calling number is set to be controlled by the extension.
- The signaling system does not support calling number (A-number) request from the PSTN.
- Number conversion is not supported.

Parameter CUST:

- The route belongs to customer 2.

Parameter DIST:

- A call attempt of a duration of more than 20 time units is regarded as not faulty.

Parameter DISL:

- 10 consecutive, faulty seizures on one and the same external line are required before the line is given a disturbance marking.

Parameter NODG:

- No addition or subtraction of 500-groups is required. Note: not applicable in MX-ONE.
No automatic through-connection is requested.
This is a market-dependent application.

Parameter BCAP:

- The route support the bearer capabilities SPEECH, 3.1 kHz audio and 64 Kbit/s unrestricted digital.

ROCAI:ROU=1,SEL=0130000021030001,SIG=400111100030,
 TRAF=00000003,TRM=4,SERV=2000010000,CUST=2,DIST=20, DISL=10, BCAP=101100;
 EXECUTED

24.5.4

COMMAND CATEGORY

Dangerous = **No**

24.6

ROCAP

Route category data print

24.6.1

FORMAT

ROCAP:ROU=;

ROU = Route number.
ALL, & and && are permitted for this parameter.

24.6.2 FUNCTION

The command is used to produce a printout of the route categories initiated by command ROCAI, see 24.5 ROCAI on page 408. To produce a printout of all route categories, the command RODAP must be entered as well. See 24.11 RODAP on page 418.

24.6.3 PRINTOUT

ROUTE CATEGORY DATA										
ROU	CUST	SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
.
.
.
END										

BCAP	Bearer capability. States the bearer capability of the route.
CUST	Customer number.
DISL	Disturbance level. States the number of consecutive, faulty seizures on one and the same external line that is tolerated before the external line is given a disturbance marking.
DIST	Disturbance time. States the minimum duration required for a call to be regarded as not faulty.
NODG	Market-dependent parameter: <ol style="list-style-type: none"> Number of 500-groups. States the number of 500-numbers that are to be added to/subtracted from a number sent by the AGF exchange to the system. Note: Not applicable in MX-ONE. Automatic through connection route. States the route access code to use for incoming calls (transit calls) from an interworking exchange that are to be automatically through connected to an outgoing route.
SEL	Route selection category. States the selection categories for the route.
SERV	Route service category. States the service categories for the route.
SIG	Route signaling category. Indicates the signaling relationship between the route and the public exchange/ interworking PBX.
TRAF	Traffic category.
TRM	Transmission category. Indicates the transmission characteristics (attenuation or amplification) that apply to the route's lines.

24.6.4 EXAMPLE 1

Print the route categories for route 1.

```
ROCAP:ROU=1;
ROUTE CATEGORY DATA
```

ROU	CUST	SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
1	1	01300002 1030001	4	2000010000	0	20	10	00000003	400111100030	101100
END										

For interpretation of the parameter values, consult the parameter description for MML parameters.

24.6.5

EXAMPLE 2

Print the route categories for routes 1, 2, 4 and 12.

ROCAP:ROU=1&2&4&12;										
ROUTE CATEGORY DATA										
ROU	CUST	SEL	TRM	SERV	NODG	DIST	DISL	TRAF	SIG	BCAP
1	1	013000021030001	4	2000010000	0	20	10	00000003	400111100030	101100
2	1	010000001001001	7	0000001000	0	0	0	01061505	010000000030	001100
4	1	610000001051001	7	1000000101	6	30	10	01061505	010000000030	001100
12		610000001051001	7	1000000106	6	30	10	01061505	010000000030	001100
END										

For interpretation of the parameter values, consult the parameter description for MML parameters.

24.6.6

COMMAND CATEGORY

Dangerous = **No**

24.7

ROCDE

Route customer diversion number end

24.7.1

FORMAT

$$\text{ROCDE:CUST} = \left\{ \begin{array}{l} \text{,NIG=,DAY=} \\ \text{,NIG=} \\ \text{,DAY=} \end{array} \right\};$$

CUST = Customer number.

DAY = Day number. Day service position.

NIG = Night number. Night service position.

24.7.2

FUNCTION

The command is used to erase the divertee position for a customer. The divertee position can be a day or night service position.

The night service position can be an extension or a common bell group. The day service position can be an extension, a common or individual PBX operator number or some form of group number.

At least one of the parameters DAY or NIG must be stated.

24.7.3

EXAMPLE 1

Erase the divertee position for customer No. 2. The night service position is directory number 1121. The day service position is common PBX operator number 9.

```
ROCDE:CUST=2,NIG=1121,DAY=9;
EXECUTED
```

24.7.4

EXAMPLE 2

Erase the day service position for customer No. 4. The day service position is common PBX operator number 9. The night service position (if any) is not affected.

```
ROCDE:CUST=4,DAY=9;
EXECUTED
```

24.7.5

EXAMPLE 3

Erase the night service position for customer No. 3. The night service position is directory number 1332. The day service position (if any) is not affected.

```
ROCDE:CUST=3,NIG=1332;
EXECUTED
```

24.7.6

COMMAND CATEGORY

Dangerous = **No**

24.8

ROCDI

Route customer diversion number initiate

24.8.1

FORMAT

$$\text{ROCDI:CUST=...} \left\{ \begin{array}{l} \text{,NIG=,DAY=} \\ \text{,NIG=} \\ \text{,DAY=} \end{array} \right\} ;$$

CUST = Customer number.
& and && are allowed for this parameter.

DAY = Day number. Day service position.

NIG = Night number. Night service position.

24.8.2 FUNCTION

The command is used to initiate and/or change the divert position for a customer. This rerouting position is neither route nor line dependent. One divert position for a day switched PBX and one for a night switched PBX is possible.

The night service position can be an extension or some type of group number. The group number can be an internal group hunting group or a common bell group. The day service position can be an extension, a common or an individual PBX operator number or some form of group number.

When the exchange uses customer group facility and the route is defined as DID route, only customer dependent day service position shall be stated.

At least one of the parameters DAY or NIG must be stated.

24.8.3 EXAMPLE 1

Customer No. 3 shall have directory number 1332 as night service position. The day service position (if any) is not affected.

```
ROCDI:CUST=3,NIG=1332;
EXECUTED
```

24.8.4 EXAMPLE 2

Change the divert position for customer No. 2. The night service positions shall be directory number 1121. The day service position shall be common PBX operator number 9.

```
ROCDI:CUST=2,NIG=1121,DAY=9;
EXECUTED
```

24.8.5 EXAMPLE 3

Customer No. 4 shall have common PBX operator number 9 as day service position. The night service position (if any) is not affected.

```
ROCDI:CUST=4,DAY=9;
EXECUTED
```

24.8.6 COMMAND CATEGORY

Dangerous = **No**

24.9 ROCDP

Route customer diversion number print

24.9.1 FORMAT

ROCDP:CUST=;

CUST = Customer number.
& and && are allowed for this parameter.

24.9.2 FUNCTION

The command is used to obtain a printout of the diverttee positions for a customer. One diverttee position for a day switched PBX and one for a night switched PBX exist.

The night service position can be an extension or some type of group number. The group number can be an internal group hunting group or a common bell group. The day service position can be an extension, a common or an individual PBX operator number or some form of group number.

24.9.3 PRINTOUT

CUSTOMER DIVERSION NUMBER DATA		
CUST	DAY	NIG
.	.	.
.	.	.
.	.	.
END		

CUST Customer number.

DAY Day number. Day service position.

NIG Night number. Night service position.

24.9.4

EXAMPLE

Print the divertee positions for customers 2 up to and including 4.

```
ROCDP:CUST=2&&4;
CUSTOMER DIVERSION NUMBER DATA
CUST          DAY          NIG
2             9            1121
3             9            1332
4             9
END
```

The divertee position for a customer No. 2 when the PBX is night switched is directory number 1121, and when day switched the common PBX operator number 9.

Customer No. 3 has night service position 1332 but lacks a day service position.

Customer No. 4 lacks a night service position but has common PBX operator number 9 as day service position.

24.9.5

COMMAND CATEGORY

Dangerous = **No**

24.10

RODAI

Route data initiate

24.10.1

FORMAT

$$\text{RODAI:ROU=,TYPE=} \left\{ \begin{array}{l} \text{,VARI=} \\ \text{,VARO=} \\ \text{,VARI=,VARO=} \end{array} \right\} [\text{,VARC=}];$$

ROU = Route number.

TYPE = Type of signalling diagram, that is, the TL function block that handles the TL unit in the equipment position to use.
For value, see parameter description for BRDID, TYPE, UNIT.

VARC = Signal diagram variations common for incoming and outgoing traffic.
Can be omitted only if the relevant TL function block permits this.

VARI = Signal diagram variations for incoming traffic.
Must be stated if the route is defined for incoming traffic.

VARO = Signal diagram variations for outgoing traffic.
Must be stated if the route is defined for outgoing traffic.

24.10.2

FUNCTION

The command is used to initiate more categories for an existing route. The route must have been initiated previously with command ROCAI, see 24.5 ROCAI on page 408. It

is **necessary** to key the command RODAI before the route is completely initiated. See 24.10 RODAI on page 416. It is not possible to initiate lines before this command has been keyed also.

If no lines are initiated it is possible to type the command once again in order to change some categories.

Note: Parameters that do not have to be changed must also be stated in the command (with the existing values).

24.10.3

EXAMPLE 1

Initiate the following categories for route 1:

Parameter TYPE:

- The route shall consist of ISDN/SL60. lines.

Parameter VARI:

- Signal diagram for incoming traffic:
 - ETSI protocol.
 - Support UUS service 1, 2 and 3.

Parameter VARO:

- Signal diagram for outgoing traffic:
 - ETSI protocol.
 - Network master
 - Tie line.

Parameter VARC:

- Signal diagram for incoming and outgoing traffic:
 - Automatic line test, TIMELINETEST3.
 - Board programmed for long line.
 - Guarded clear type of release at loop start.
 - CLI Support as FSK, ETSI.

```
RODAI:ROU=1,TYPE=TL1,VARI=00000002,VARO=0000000E,
VARC=00033210;
EXECUTED
```

24.10.4

EXAMPLE 2

Initiate the following categories for route 2:

Parameter TYPE:

- The route shall consist of ISDN/SL60 lines.

Parameter VARI:

- Signal diagram for incoming traffic:
 - Type of channel numbering is 1-15 and 17-31.
 - Code UUI in GFP not supported

- Support GFP
- Support UUS service 1,2 and 3.
- ISO-QSIG protocol selected.
- DSS1 network side not supported
- Incoming divleg2 information ON

Parameter VARO:

- Signal diagram for outgoing traffic:
 - ETSI/ISO protocol
 - Connected number IE in CONNECT message
 - UII IE in ALERTING message
 - Non-fix connection between B-channel and external line
 - Priority for layer 1. Slave
 - Priority for layer 2. Terminal
 - Priority for layer 1. User Tie line

Parameter VARC:

- Signal diagram for incoming and outgoing traffic:
 - Permit forward switching
 - Send ringing tone to co-operating exchange
 - Overlap receiving
 - Full ISDN functionality
 - Type of signaling system, ISDN
 - Type of interface, 30B+D

RODAI:ROU=2,TYPE=SL60,VARI=15440000,VARO=06400000,
VARC=01000310;
EXECUTED

24.10.5

COMMAND CATEGORY

Dangerous = **No**

24.11

RODAP

Route data print

24.11.1

FORMAT

RODAP:ROU=;

ROU = Route number.
ALL, & and && are permitted for this parameter.

24.11.2 FUNCTION

The command is used to produce a printout of the route categories initiated by the RODAI command. To get a printout of all route categories, the ROCAP command must be keyed as well.

24.11.3 PRINTOUT

ROUTE DATA					
ROU	TYPE	VARC	VARI	VARO	FILTER
.
.
.
END					

FILTER Filter category. **Note:** not valid in MX-ONE. Indicates whether filter equipment is connected between tone sender and PBX. Possible values are:

YES Filter equipment connected

NO Filter equipment not connected

TYPE Type of signalling diagram, that is, the TL function block that handles the TL unit in the equipment position used or to be used.
For value, see parameter description for BRDID, TYPE, UNIT.

VARC Signal diagram variations common for incoming and outgoing traffic.

VARI Signal diagram variations for incoming traffic.

VARO Signal diagram variations for outgoing traffic.

24.11.4 EXAMPLE 1

Print the route categories for route 1.

RODAP:ROU=1;					
ROUTE DATA					
ROU	TYPE	VARC	VARI	VARO	FILTER
1	SL60	H"00000210	H"15400000	H"06300000	NO
END					

For interpretation of the TYPE value, consult the parameter description for relevant route data, which will be found in the O&M documentation for route data.

For interpretation of the VARC, VARI and VARO values, consult the parameter description for the relevant TL function block, which will be found in the O&M documentation for Route Data.

24.11.5

EXAMPLE 2

Print the route categories for all routes initiated in the system.

```

RODAP:ROU=ALL;
ROUTE DATA
ROU      TYPE      VARC          VARI          VARO          FILTER
1        TL1       H"00000002    H"00000002    H"0000000E    NO
4        TL19      H"00000182    H"0000109C    H"00000086    NO
END

```

For interpretation of the TYPE value, consult parameter description for relevant application system, which will be found under Route Data, RO.

For interpretation of the VARC, VARI and VARO, consult parameter description for relevant function block TL, which will be found under Route Data, RO.

24.11.6

COMMAND CATEGORY

Dangerous = **No**

24.12

RODDE

Route external destination data end

24.12.1

FORMAT

$$\text{RODDE:DEST} = \left[\begin{array}{l} ,\text{CHO}=\dots \\ ,\text{CUST}=\dots \\ ,\text{CUST}=\dots,\text{CHO}=\dots \end{array} \right] ;$$

CHO = Choice. Sequence number for alternative route.
& is allowed for this parameter.

CUST = Customer number.

DEST = External destination. Route access code for external traffic.

24.12.2

FUNCTION

This command is used to erase one or more route choices of an external destination. The CHO parameter is stated if alternative route choices are to be erased.

Parameter CUST is stated if customer route choices are to be erased.

If only DEST is stated all route choices, that is, the ordinary route choice, all alternative routes choices, and all customer routes choices, of an external destination are erased.

24.12.3

EXAMPLE 1

The public exchange is accessed by dialing the digits 00. Erase this route choice from the PBX.

```
RODDE:DEST=00;
EXECUTED
```

24.12.4

EXAMPLE 2

Delete the first alternative route choice to an external destination accessed by dialing the digit 7.

```
RODDE:DEST=7,CHO=1;
EXECUTED
```

24.12.5

EXAMPLE 3

The public exchange is accessed by dialing digits 00. Customer No. 2 shall no longer have this route access code.

```
RODDE:DEST=00,CUST=2;
EXECUTED
```

24.12.6

EXAMPLE 4

Erase customer No. 3's first alternative route choice to the public exchange. The public exchange is accessed by dialing digits 00.

```
RODDE:DEST=00,CUST=3,CHO=1;
EXECUTED
```

24.12.7

COMMAND CATEGORY

Dangerous = **No**

24.13

RODDI

Route external destination data initiate

24.13.1

FORMAT

$$\text{RODDI:DEST=} \left[\left\{ \begin{array}{l} ,\text{CHO=} \\ ,\text{CUST=} \\ ,\text{CUST=},\text{CHO=} \end{array} \right\} \right] \left\{ \begin{array}{l} ,\text{DRN=} \\ ,\text{ROU=} \end{array} \right\} [,\text{PRE=}] [,\text{TRC=}] [,\text{SRT=}] \\ [,\text{NUMACK=}] [,\text{ADC=}] [,\text{IP=}] [,\text{RROUID=}] ;$$

ADC =	Additional category for external traffic. If the parameter is omitted value 0005000000000250000000000000 will be assumed, that is, all zeros except for type of number for calling number in private network where value 5 is assumed and loop avoidance / transit counter where value 25 is assumed. Values in this parameter define the type of number for private and public calling number. These values control what exchange numbers to use when composing the complete calling number. (See the command RNDI on page 455).
CHO =	Choice. Sequence number for alternative route. If the parameter is omitted, the ordinary route is assumed to apply.
CUST =	Customer number.
DEST =	External destination. Route access code for external traffic.
DRN =	Direction.
IP =	IP address, IP networking. IP address of a network interface at the external destination (remote end). This parameter will be used only for external destinations that can be reached via H.323 routes.
NUMACK =	Number of digits to be acknowledged. States the number of digits to be acknowledged during digit sending. If the parameter is omitted, no digit acknowledgement is done.
PRE =	Predigits. Digits required to form a correct external number, possibly together with dialled digits. If the parameter is omitted, no predigits are added.
ROU =	Route number.
RROUID =	Remote route identifier, IP networking. Identifier to be sent to the remote end so that the right incoming route is chosen. It is also used as a password. This parameter will be used only for external destinations that can be reached via H.323 routes.
SRT =	Start position for digit transmission. States the start position for the formed external number, that is, the position in which the digit sending to the interworking PBX/public exchange shall start. If the parameter is omitted, the digit sending will start with the first digit.
TRC =	Truncated digits in dialled number. The number of dialled digits to be deleted, starting with the most significant digit. The remaining part of the dialled number is inserted after the predigits. If the parameter is omitted, no digits are deleted.

24.13.2

FUNCTION

The command RODDI is used to initiate the ordinary route (or direction) choice, or an alternative route choice to an external destination. The external destination may be a public exchange. Up to seven alternative route choices can be initiated in order to reach an external destination.

Before a customer route choice can be initiated the route access code must be initiated, for example, the ordinary route choice for the destination must be initiated.

The command RODDI is used to determine the TON for sent private calling number, public calling number and called number.

There is a connection between RODDI and RNDI, see 24.31 RNDI on page 455, regarding the ADC parameter values for calling number's TON (public and private).

When associating an H.323 route to an external destination, the IP address of the network interface at the remote end may be stated on a per-route basis or on a per-destination basis.

When using IP addressing per destination, the IP parameter must be stated when entering the RODDI command. If no IP address for the network interface at the remote end was provided when the H.323 route was initiated, the IP parameter is mandatory in RODDI, too.

IP addressing per destination also allows several IP addresses at the remote end to be associated to every destination (*alternative addressing*). To define them, a different IP address must be provided for every choice (parameter CHO).

When associating a direction to an external destination neither IP nor RROUID can be set since a direction can be formed by routes with different types of signalling.

24.13.3

EXAMPLE 1

The PSTN is reached via route 1. Destinations in the PSTN is to be reached by dialling (route access code) 00. The route access code shall not be sent to the public exchange. Other route data have previously been set in the ROCAI and RODAI commands. See 24.5 ROCAI on page 408 and 24.10 RODAI on page 416.

```
RODDI:DEST=00,ROU=1,SRT=3;
EXECUTED
```

24.13.4

EXAMPLE 2

An external destination is reached by dialling the route access code 7. The ordinary route choice of the destination is route 14.

```
RODDI:DEST=7,ROU=14,SRT=1;
EXECUTED
```

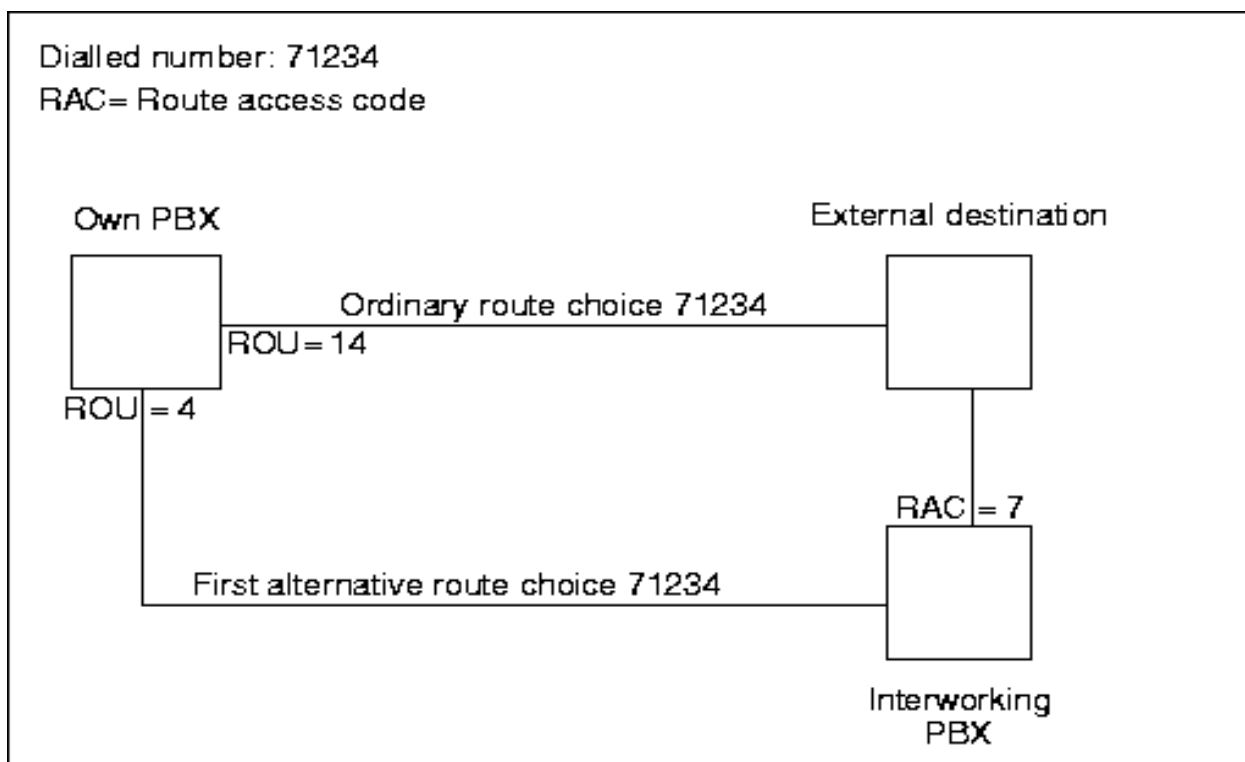
24.13.5

EXAMPLE 3

The ordinary route choice of the external destination initiated in Example 2 is to have an alternative route choice. An extension has dialed the digits 71234. The first alternative route choice to the destination is route 4.

The complete dialed number shall be sent to the interworking exchange.

The route access code 7 will be used for routing in the interworking exchange.



```

RODDI:DEST=7,CHO=1,ROU=4,SRT=1;
EXECUTED
  
```

24.13.6

EXAMPLE 4

The PSTN is reached via route 2 by dialing (route access code) 01. But for customer No. 2 the PSTN shall be reached by dialing 00. The route access code shall not be sent to the PSTN.

```

RODDI:DEST=01,ROU=2,SRT=3;
EXECUTED
RODDI:DEST=00,CUST=2,ROU=2,PRE=01,TRC=2,SRT=3;
EXECUTED
  
```

24.13.7

EXAMPLE 5

Direction 1 shall be used to reach the destination.

```

RODDI:DEST=02,DRN=01,SRT=3;
EXECUTED
  
```

24.13.8

EXAMPLE 6

The PSTN is reached via route 3.

The route access code shall be 03. The route access code shall be sent to the public exchange.

Seizure of external line should take place immediately.

TON for called number shall be Unknown public.

TON for calling number public Unknown public and TON for private calling number shall be unknown private.

It is possible to send UUI and special charging shall be used if connected through public network (VPN), the route is not a fiber or TNS route.

Clearing shall take place directly when one of the parties terminates.

No backward signal will be sent before direct through-connection.

Transit seizure signal will be sent.

No threshold level for OFF HOOK Queuing is set.

Expensive Route Warning Tone will not be sent for this route choice.

Access to external destination will be permitted only via Least Cost Routing facility or for originators with TCD category 15.

Traveling Class Mark will be sent to co-operating exchange. In order to reach the final destination the call is allowed to pass maximum 3 transit exchanges.

For PNR no individual number translation information is available.

Type of protocol to use for Supplementary Service callback/Call Completion will be Proprietary UUI protocol.

B-answer is available.

VPN-connection in a switched network without IN-node (MX-ONE VPN). Unknown public TON shall be sent to the PSTN.

Start selection point, SSP, is not used for this destination.

Original A-number and TON are not used for this destination.

Enhanced A-number conversion shall be disabled.

The type of ISDN protocol for supplementary services shall be Proprietary UUI.

ETSI diversion supplementary service is not supported towards PSTN.

No forward switching for any redirection services requested from trunks.

```
RODDI:DEST=03,ROU=3,ADC=0005100510011030000000000000;
EXECUTED
```

24.13.9

EXAMPLE 7

Customer 2 shall have route 3 as first alternative route for route access code 00. The route access code shall not be sent to the public exchange.

```
RODDI:DEST=00,CUST=2,CHO=1,SRT=3,ROU=3;
EXECUTED
```

24.13.10

EXAMPLE 8

Route 5 (calling exchange) shall be initiated as terminating transit seizure (German = Weichenverkehr). This is achieved by using two route access codes for external traffic using the route.

1) Route access code 32: Terminating seizure signal is sent.

2) Route access code 38: Transit seizure signal is sent.

In case 2 above the outgoing call shall be automatically connected through the inter-working exchange to another exchange.

The route access code shall not be sent to the transit exchange.

Seizure of the line shall take place immediately.

TON for called number shall be (Public) International.

TON for calling number public shall be International.

TON for calling number private shall be Level 1 Regional.

UUI is possible to send. Special charging shall be used if connected through public network (VPN). The route is not a fibre or TNS route.

Clearing shall take place directly when one of the parties terminates.

MFC backward signal states that digit transmission should start from the first digit.

Route choice will be marked as threshold level 0 for OFF HOOK Queuing.

Individual number translation information according to PRE/TRC is available, see parameter description for *LEAST COST ROUTING, LC*. Other route data has been initiated previously with commands RODAI and ROCAI.

Type of protocol to use for Supplementary Service callback/Call Completion will be Proprietary UUI protocol.

B-answer is available.

VPN-connection in a switched network without IN-node (MX-ONE VPN). International TON shall be sent to the PSTN.

Start selection point, SSP, is not used for this destination.

Original A-number and TON are not used for this destination.

Enhanced A-number conversion shall be disabled.

The type of ISDN protocol for supplementary services shall be Proprietary UUI.

ETSI diversion supplementary service is not supported towards PSTN.

No forward switching for any redirection services requested from trunks.

```
RODDI:DEST=32,ROU=5,ADC=0117100002000031001000000000,
SRT=3;
EXECUTED
RODDI:DEST=38,ROU=5,ADC=0117100002000031001000000000,
SRT=3;
EXECUTED
```

24.13.11

EXAMPLE 9

An external destination is reached by dialing the route access code 35. The ordinary route choice of the destination is H.323 route 13. The route access code shall not be sent. The destination IP address is 192.4.6.87 and the remote route identifier is the string "SECRET".

```
RODDI:DEST=35,ROU=13,SRT=3,IP=192.4.6.87,
RROUID="SECRET";
EXECUTED
```

24.13.12

EXAMPLE 10

A different network interface shall be defined as first alternative path for H.323 route 13 and route access code 35. The route access code shall not be sent. The IP address of this interface is 192.4.6.10 and the remote route identifier is the string "SECRET".

```
RODDI:DEST=35,ROU=13,CHO=1,SRT=3,IP=192.4.6.10,  
RROUID="SECRET";  
EXECUTED
```

24.13.13

EXAMPLE 11

The PSTN is reached via route 3.

The route access code shall be 03. The route access code shall be sent to the public exchange.

Seizure of external line should take place immediately.

The TON for the called number shall be Local public.

The TON for the calling public number shall be Local public and the TON for the private calling number shall be Unknown private.

Informative signaling to the MX-ONE gateway for calls to a public destination is allowed.

The route is not a fiber or TNS route.

Clearing shall take place directly when one of the parties terminates.

No backwards signal will be sent before direct through connection.

Terminating seizure signal will be sent.

No threshold level for Off Hook Queuing is set.

Expensive Route Warning Tone will not be sent for this route choice.

Access to external destination will be permitted to all calls.

Traveling Class Mark will not be sent.

In order to reach the final destination the call is allowed to pass maximum 25 transit exchanges.

For PNR no individual number translation information is available.

VPN-connection in a switched network without IN-node (MX-ONE VPN).

Local public TON shall be sent to the PSTN.

Start selection point, SSP, is not used for this destination.

The Original A-number shall be sent as A-number and the Original A-number's TON shall be sent as A-number's TON at external follow me or personal number deflection to public party.

Enhanced A-number conversion shall be disabled.

ETSI diversion supplementary service is supported towards PSTN.

RODDI:DEST=03,ROU=3,ADC=044520050000025000000110001; EXECUTED
--

24.13.14

COMMAND CATEGORY

Dangerous = **No**

24.14

RODDP

Route external destination data print

24.14.1

FORMAT

RODDP:DEST=, CUST=[,IPOPT=];

CUST = Customer number.

DEST = External destination.
Route access code for external traffic.
ALL, & and && are permitted for this parameter.

IPOPT = IP data option.
Print the IP-specific data attached to destinations that can be reached via H.323 routes.
If this parameter is omitted, the default value (NO) is chosen and the standard printout is displayed.

24.14.2

FUNCTION

The command is used to produce a printout of the current data associated with an external destination.

24.14.3

PRINTOUT 1

Printout with either IPOPT set to NO or omitted:

EXTERNAL DESTINATION DATA									
DEST	DRN	ROU	CHO	CUST	ADC	TRC	SRT	NUMACK	PRE
.
.
.
END									

ADC Additional category for external traffic.

CHO Choice. Sequence number for alternative route.

CUST Customer number.

DRN Direction.

NUMACK Number of digits to be acknowledged. Indicates the number of digits to be acknowledged during digit sending.

PRE Predigits. Digits required to form correct external number, possibly together with dialled digits.

ROU Route number.

SRT Start position for digit transmission. Indicates the start position in the formed external number, that is, the position from which the digit sending to the interworking PBX or public exchange shall start.

TRC Truncated digits in dialed number. The number of dialed digits to be deleted, starting with the most significant digit. The remaining part of the dialed number is inserted after the predigits.

24.14.4

PRINTOUT 2

Printout with IPOPT set to YES:

EXTERNAL DESTINATION DATA						
DEST	DRN	ROU	CHO	CUST	IP ADDRESS	RROUID
.
.
.
END						

CHO	Choice. Sequence number for alternative route.
CUST	Customer number.
DRN	Direction.
IP ADDRESS	IP address of an interface at the remote end.
ROU	Route number.
RROUID	Remote route identifier. Identifier used at the remote exchange to discriminate and authenticate incoming traffic.

24.14.5

EXAMPLE 1

Print the data associated to all external destinations.

RODDP:DEST=ALL;										
EXTERNAL DESTINATION DATA										
DEST	DRN	ROU	CHO	CUST	ADC	TRC	SRT	NUMACK	PRE	
00		1			000500000000025000000000000000		3		01	
		2		2	000500000000025000000000000000	2	3			
		3	1	2	000500000000025000000000000000		3			
01		2			0005200000000250000001000010		3			
02	1				0005200000000250000001000010		3			
03		3			000510051001103200000000000000		1			
32		5			000510000200003200000000000000		3			
38		5			000510001200003200000000000000		3			
7		14			000500000000025100000000000000		1			
		4	1		000500000000025100000000000000		1			
35		13			000500000000025000000000000000		3			
		13	1		000500000000025000000000000000		3			
END										

The public exchange is reached via route 1 by dialing the digits (= route access code) 00. If the extension belongs to customer 2 route 2 is used. Customer 2 has route 3 as alternative route choice.

An external destination is reached via route 2 by dialing route access code 01.

An external destination is reached via direction 1 by dialing route access code 02.

An external destination is reached via route 3 by dialing route access code 03.

An external destination is reached via route 5 by dialing route access code 32. Another external destination is reached via the same route by dialing route access code 38. The route access code is not sent to the interworking exchange in either of these two cases.

An external destination is reached via route 14 by dialing route access code 7. The first alternative route choice is route 4.

An external destination is reached via route 13 by dialing route access code 35. The same route has been defined as the first alternative route choice (see next example).

For interpretation of the values for parameter ADC consult the parameter description for *ROUTE DATA*.

24.14.6

EXAMPLE 2

Print the IP data associated to all external destinations.

RODDP:DEST=ALL,IPOPT=YES;						
EXTERNAL DESTINATION DATA						
DEST	DRN	ROU	CHO	CUST	IP ADDRESS	RROUID
00		1				
		2		2		
		3	1	2		
01		2				
02	1					
03		3				
32		5				
38		5				
7		14				
		4	1			
35		13			192.4.6.87	SECRET
		13	1		192.4.6.10	SECRET
END						

The public exchange is reached via route 1 by dialling the digits (= route access code) 00. If the extension belongs to customer 2 route 2 is used. Customer 2 has route 3 as alternative route choice.

An external destination is reached via route 2 by dialling route access code 01.

An external destination is reached via direction 1 by dialling route access code 02.

An external destination is reached via route 3 by dialling route access code 03.

An external destination is reached via route 5 by dialling route access code 32. Another external destination is reached via the same route by dialling route access code 38.

An external destination is reached via route 14 by dialling route access code 7. The first alternative route choice is route 4.

An external destination can be reached via the H.323 route 13 by dialling the route access code 35. It is possible to reach that external destination through two different network interfaces defined at the remote end (boards with IP addresses 192.4.6.87 for the ordinary route choice with remote route identifier string as "SECRET", and 192.4.6.10 for the first alternative route choice with remote route identifier string as "SECRET").

24.14.7

COMMAND CATEGORY

Dangerous = **No**

24.15

RODIE

Route direction end

24.15.1 FORMAT

RODIE:DRN=[,ROU=];

DRN= Direction.

ROU = Route number.

24.15.2 FUNCTION

This command is used to remove an entire direction, or a route within a direction.

24.15.3 EXAMPLE 1

Erase direction 01.

```
RODIE:DRN=01;
EXECUTED
```

24.15.4 EXAMPLE 2

Erase route number 4 from direction 02.

```
RODIE:DRN=02,ROU=4;
EXECUTED
```

24.15.5 COMMAND CATEGORY

Dangerous = **No**

24.16 RODII

Route direction initiate

24.16.1 FORMAT

RODII:DRN=,ROU= { ,CSIU=,FRL= } ;

CSIU= Call service information users.
Authorization category for route calls.

DRN= Direction.

FRL= Facilities Restriction Level.
Restriction category for route calls.

ROU = Route number.

24.16.2

FUNCTION

The command is used to initiate a direction, and compile an authorization table for route calls within the direction. A route shall be selected with consideration given to the A-party authorization category.

If the route that is going to be associated to the direction is an H.323 route, the parameter IP in command *RIANI* must have been initiated previously.

Alternative routes can exist within the direction. A direction can have alternative directions. The customer group function can have a direction initiated.

A direction consists of maximum 4 routes.

The CSIU parameter shall not be set if the IDNX service selection feature is to be used in the system. For an explanation of IDNX, see the operational directions for *ADMINISTRATION OF ROUTES*.

24.16.3

EXAMPLE 1

Route 1 in direction 01 shall be open for all types of CSI users.

```
RODII:DRN=01,ROU=1,CSIU=00000000;
EXECUTED
```

24.16.4

EXAMPLE 2

Only PBX operator traffic shall be permitted on route 4 in direction 02.

```
RODII:DRN=02,ROU=4,CSIU=10111111;
EXECUTED
```

24.16.5

EXAMPLE 3

Originating parties with FRL equal or higher than 4 are allowed to access route 5 in direction 05.

```
RODII:DRN=05,ROU=5,FRL=4;
EXECUTED
```

24.16.6

COMMAND CATEGORY

Dangerous = **No**

24.17

RODIP

Route direction print

24.17.1

FORMAT

RODIP:DRN=;

DRN= Direction.
ALL, & and && are permitted for this parameter.

24.17.2 FUNCTION

The command is used to print the routes and the authorization table for the routes within a direction.

24.17.3 PRINTOUT

DIRECTION DATA			
DRN	ROU	CSIU	FRL
.	.	.	.
.	.	.	.
.	.	.	.
END			

CSIU Call service information users.
Authorization category for route calls.

FRL Facilities Restriction Level.
Restriction category for route calls.

ROU Route number.

24.17.4

EXAMPLE

Print all authorization tables for all directions.

RODIP:DRN=ALL;			
DIRECTION DATA			
DRN	ROU	CSIU	FRL
1	1	00000000	
2	4	10011111	
5	5		4
END			

Route 1 in direction 1 is open for all traffic. Route 4 in direction 2 is open for PBX operator. Route 5 in direction 5 is open for originators with FRL equal to 4 or higher.

24.17.5

COMMAND CATEGORY

Dangerous = **No**

24.18

RODNE

Route day and night number end

24.18.1

FORMAT

$$\text{RODNE:ROU=... [TRU=...]} \left\{ \begin{array}{l} \text{,NIG=,DAY=} \\ \text{,NIG=} \\ \text{,DAY=} \end{array} \right\} ;$$

DAY = Day number. Day service position.

NIG = Night number. Night service position.

ROU = Route number.
& and && are allowed for this parameter, provided that the TRU parameter is omitted.

TRU = Trunk line number.
LIM and sequence number for the external line. If the TRU parameter is omitted, the service position for the whole route will be removed.
& and && are allowed for this parameter within one and the same route, provided that the ROU parameter is a single value.

Note: This parameter cannot be stated when the route number in ROU belongs to an H.323 route.

24.18.2 FUNCTION

The command is used to remove day and/or night service positions within the own exchange for one or more routes or external lines within a route.

At least one of the DAY and NIG parameters must always be stated.

24.18.3 EXAMPLE 1

Remove the day service position and the night service position for external lines 7 and 8 of route 1, in LIM 1. The day service position is the PBX operator with number 09, and the night service position is directory number 4845.

```
RODNE:ROU=1,TRU=1-7&1-8,DAY=09,NIG=4845;
EXECUTED
```

24.18.4 EXAMPLE 2 (SERVICE POSITION FOR SEVERAL ROUTES)

Remove the night service position with directory number 4498 for all lines in routes 1 and 2.

```
RODNE:ROU=1&2,NIG=4498;
EXECUTED
```

24.18.5 COMMAND CATEGORY

Dangerous = **No**

24.19 RODNI

Route day and night number initiate

24.19.1 FORMAT

$$\text{RODNI:ROU=... [,TRU=...]} \left\{ \begin{array}{l} \text{,NIG=,DAY=} \\ \text{,NIG=} \\ \text{,DAY=} \end{array} \right\} ;$$

DAY = Day number. Day service position.

NIG = Night number. Night service position.

ROU = Route number.

& and && are allowed for this parameter, provided that the TRU parameter is omitted.

TRU = Trunk line number.
 LIM and sequence number for the external line. If the TRU parameter is omitted, the service position for the whole route will be removed.
 & and && are allowed for this parameter within one and the same route, provided that the ROU parameter is a single value.
Note: This parameter cannot be stated when the route number in ROU belongs to an H.323 route.

24.19.2

FUNCTION

The command is used to initiate day or night, or day and night, service positions within the own exchange for one or more routes or external lines within a route. Any previously initiated day or night service position for the line or route in question will be cancelled by this command.

On a DID route DAY or NIG will be the answering position at rerouting.

If no DAY or NIG is initiated the primary answering position is determined by answering positions initiated with OP commands. In this case the common operator number should be set as primary answering position with the OP commands. See the operational directions for *PBX OPERATOR TRAFFIC* for further information.

A night service position may be an extension, an internal group hunting group number, or a common bell group number.

A day service position may be an extension, an individual or common PBX operator number, an internal group hunting group number, or a common bell group number.

When the exchange uses a customer group facility and the route is defined as a DID route, only customer group dependent day or night, or day and night, service positions should be stated.

At least one of the DAY and NIG parameters must be stated.

24.19.3

EXAMPLE 1

Initiate day service position and night service position for external lines 7 and 8 of route 1 in LIM 1. The day service position shall be the PBX operator with number 09, and the night service position shall be directory number 4845.

```
RODNI:ROU=1,TRU=1-7&1-8,DAY=09,NIG=4845;
EXECUTED
```

24.19.4

EXAMPLE 2 (SERVICE POSITION FOR SEVERAL ROUTES)

Initiate, for all lines in routes 1 and 2, night service position with directory number 4498. (The day service position (if any) is not affected).

```
RODNI:ROU=1&2,NIG=4498;
EXECUTED
```

24.19.5

COMMAND CATEGORY

Dangerous = **No**

24.20

RODNP

Route day and night number print

24.20.1

FORMAT

RODNP:ROU=[,TRU=];

ROU = Route number.
& and && are allowed for this parameter, provided that the TRU parameter is omitted.

TRU = Trunk line number.
LIM number and sequence number for the external line.
ALL, & and && are permitted for this parameter.

Note: This parameter cannot be stated when the route number in ROU belongs to an H.323 route.

24.20.2

FUNCTION

The command is used to print day and night service positions within the own exchange for one or more routes or external lines within a route.

Two types of printout contents can be obtained:

- If the TRU parameter is omitted, the service position for the stated route (the whole route) is printed out.
- By stating both the TRU and ROU parameters, the service position for a specific external line within a route is printed out.

24.20.3

PRINTOUT

ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

DAY Day number. Day service position.

NIG Night number. Night service position.

24.20.4

EXAMPLE 1 (SERVICE POSITION FOR ROUTE)

Printout the day service and night service positions for routes 1 and 2.

RODNP:ROU=1&2;			
ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
1			4498

2	4497	4498
END		

The night service position for routes 1 & 2 is directory number 4498. No day service position has been initiated for route 1.

24.20.5

EXAMPLE 2 (SERVICE POSITION FOR EXTERNAL LINE)

Print the day service and night service positions for the external lines in route 7 in LIM 1 (external lines 13-17).

RODNP:ROU=7, TRU=1-13&&1-17;			
ROUTE DAY AND NIGHT NUMBER DATA			
ROU	TRU	DAY	NIG
7	001-13	09	4845
7	001-14	09	4845
7	001-15	09	4845
7	001-16	09	4845
7	001-17	09	4845
END			

The day service position for external lines 13-17 of route 7 in LIM 1 is the PBX operator with number 09, and the night service position is directory number 4845. No day service or night service positions for the complete route have been initiated.

24.20.6

EXAMPLE 3 (SERVICE POSITION FOR ROUTE AND EXTERNAL LINE)

Print the day service and night service positions for all external lines in route 3 and 4 for which such positions have been initiated.

```

RODNP:ROU=3&4,TRU=ALL;
ROUTE DAY AND NIGHT NUMBER DATA
ROU          TRU          DAY          NIG
3
3            001-2        4740
3            001-3        4740
3            001-6        4740
3            001-7        4740
4
4            001-4                4845
4            001-5                4845
4            001-6                4845
END

```

The day service position for route 3 is the PBX operator with number 09. For the external lines with sequence numbers 2, 3, 6 and 7 in LIM 1, directory number 4740 serves as day service position. No night service positions have been initiated, neither for the route nor for any of the external lines.

The day service position for the entire route 4 is the PBX operator with number 09. For the external lines with the sequence numbers 4, 5 and 6 in LIM 1 the number 4845 is the night service position.

24.20.7

COMMAND CATEGORY

Dangerous = **No**

24.21

RODRP

Route external destination route data print

24.21.1

FORMAT

RODRP:ROU=;

ROU = Route number.
ALL, & and && are permitted for this parameter.

24.21.2

FUNCTION

The command initiates a printout of the external destinations which are reached by the stated route or routes (the route access codes for external traffic).

24.21.3

PRINTOUT

EXTERNAL DESTINATION ROUTE DATA	
ROU	DEST
.	.
.	.
.	.
END	

24.21.4

EXAMPLE

Print information about which destinations are reached by routes 1-20.

RODRP:ROU=1&&20;	
EXTERNAL DESTINATION ROUTE DATA	
ROU	DEST
1	00
14	7
END	

The public exchange is reached via route 1. The route is accessed using route access code 00. External destinations with route access code 7 is reached via route 14.

24.21.5

COMMAND CATEGORY

Dangerous = **No**

24.22

ROECE

Route equipment connection end

24.22.1

FORMAT

ROECE:EQU=,CDU=;

CDU = Equipment position for the call metering/charging equipment.

EQU = Equipment position for the external line.

24.22.2

FUNCTION

The command removes the affiliation between an external line and its call metering equipment.

The external line and call metering equipment have previously been affiliated to each other using command ROECI, see 24.23 ROECI on page 443, and a cable between the external line and the call metering equipment.

The external line and the call metering equipment must be situated in the same LIM.

24.22.3

EXAMPLE

Remove the affiliation between the external line located in LIM 2, gateway A, magazine 0, board position 13, individual 0, and the call metering individual in magazine 0, board position 12 and individual 7.

```
ROECE:EQU=2A-0-13-0,CDU=0-12-7;
EXECUTED
```

24.22.4

COMMAND CATEGORY

Dangerous = **No**

24.23

ROECI

Route equipment connection initiate

24.23.1

FORMAT

ROECI:EQU=,CDU=;

CDU = Equipment position for the call metering/charging equipment.

EQU = Equipment position for the external line.

24.23.2

FUNCTION

The command affiliates call metering equipment to an external line. The external line must also be connected to the call metering equipment with a connection cable.

The external line and the call metering equipment must be situated in the same LIM.

24.23.3

EXAMPLE

Affiliate the call metering individual located in LIM 2, gateway A, magazine 0, board position 12, individual 7, to the external line located in LIM 2, magazine 0, board position 13 and individual 0.

```
ROECI:EQU=2A-0-13-0,CDU=0-12-7;
EXECUTED
```

24.23.4

COMMAND CATEGORY

Dangerous = **No**

24.24

ROECP

Route equipment connection print

24.24.1

FORMAT**ROECP:EQU=;**

EQU = Equipment position for the external line.
 ALL, & and && are permitted for this parameter.

24.24.2

FUNCTION

The command is used to print the equipment positions for the specified external lines which are linked to call metering equipment and the equipment positions of these.

24.24.3

PRINTOUT

ROUTE EQUIPMENT CONNECTION DATA	
EQU	CDU
.	.
.	.
.	.
END	

CDU Equipment position for call metering/charging equipment.

24.24.4

EXAMPLE

Print the equipment positions for the call metering equipment that are affiliated to the external line in LIM 2, default gateway, magazine 0, board position 13 and individual 0 on the board.

```
ROECP:EQU=2-0-13-0;
ROUTE EQUIPMENT CONNECTION DATA
EQU              CDU
002A-0-13-00     002-0-12-07
END
```

Call metering equipment is affiliated to the external line. The call metering equipment is in the same magazine, board position 12 and individual 7. Between the call metering equipment and external line is a connecting cable.

24.24.5

COMMAND CATEGORY

Dangerous = **No**

24.25

ROEDP

Route equipment data print

24.25.1

FORMAT

ROEDP:ROU=,TRU=;

ROU = Route number.
ALL, & and && are permitted for this parameter.

TRU = Trunk line number. LIM number and sequence number for the external line.
ALL, & and && are permitted for this parameter.

24.25.2

FUNCTION

This command is used to produce a printout of external line data of a route, including the equipment position of the respective external line. Any individually set data for the external lines are also printed.

For H.323 routes, route number, the number of the trunk lines associated to the route, and the IP address associated to these trunk lines are printed. In case no IP address has been initiated for specific trunk lines (ROEQI command), the IP address tied to the route, if it has been initiated, is printed.

24.25.3

PRINTOUT

ROUTE EQUIPMENT DATA					
ROU	TRU	EQU	IP ADDRESS	INDDAT	CNTRL
.

```

.      .      .      .      .      .
.      .      .      .      .      .
END

```

CNTRL Controlling side indicator.
The controlling side indicator states whether the exchange has control over the trunk line in the case of double seizure. CNTRL is only valid for CCSS7 trunks.

EQU Equipment position. Equipment position for the external line.

INDDAT Individual trunk data for the external line.

IP ADDRESS IP address of an interface at the remote end.
If there is IP address tied to the trunk it is printed, if not, the IP address tied to the route is printed with star (*) at the end, otherwise no IP address is printed.

24.25.4

EXAMPLE 1

Print the equipment positions for the external lines in route 1 (Lines 7 and 8 in LIM 1).

```

ROEDP:ROU=1,TRU=1-7&1-8;
ROUTE EQUIPMENT DATA
ROU    TRU    EQU                IP ADDRESS    INDDAT    CNTRL
1      001-7  001A-1-10-07
1      001-8  001A-1-10-08
END

```

The two lines within route 1 in LIM 1 for the default gateway, A, are affiliated to magazine 1, board position 10, and the individuals numbered 07 and 08.

24.25.5

EXAMPLE 2

Print all external lines of route 3 with their respective equipment positions.

```

ROEDP:ROU=3,TRU=ALL;
ROUTE EQUIPMENT DATA
ROU    TRU    EQU                IP ADDRESS    INDDAT    CNTRL
3      001-4  001A-1-10-04
3      001-5  001A-1-10-05
3      001-6  001A-1-10-06
3      001-7  001B-1-10-07
END

```

Route 3 has external lines in LIM 1. Four external lines with sequence numbers 4-7. Three are located in gateway A and one in gateway B.

24.25.6

EXAMPLE 3

Print the equipment position and individual data for external line 3 within route 5 in LIM 1.

```

ROEDP:ROU=5,TRU=1-3;
ROUTE EQUIPMENT DATA
ROU      TRU      EQU      IP ADDRESS      INDDAT      CNTRL
5        001-3    001A-1-10-03      H'000000000003
END
    
```

The external line within route 5 in LIM 1, gateway A, is affiliated to magazine 1, board position 10 and individual number 3. This individual has individually set data: 000000000003. For interpretation of this data consult the parameter description for the relevant TL function block, which will be found in the O&M documentation for Route Data.

24.25.7

EXAMPLE 4

Print all external lines of route 7 with their respective equipment positions.

```

ROEDP:ROU=7,TRU=ALL;
ROUTE EQUIPMENT DATA
ROU      TRU      EQU      IP ADDRESS      INDDAT      CNTRL
7        001-1    001A-0-40-01      YES
7        001-2    001A-0-40-02      NO
7        001-3    001A-0-40-03      YES
7        001-4    001A-0-40-04      NO
7        001-5    001A-0-40-05      YES
7        001-6    001A-0-40-06      NO
END
    
```

The external line is affiliated to gateway A, magazine 0, board position 40 and individual number 1 to 6. It is a CCSS7 trunk and the odd individual numbers are controlled by the own exchange and the even numbers are controlled by the cooperating exchange.

24.25.8

EXAMPLE 5

Print all external lines of route 3.

```
ROEDP:ROU=3,TRU=ALL;
ROUTE EQUIPMENT DATA
ROU      TRU      EQU      IP ADDRESS      INDDAT      CNTRL
3         001-1           192.4.6.87
3         001-2           192.4.6.87
3         001-3           192.4.6.70*
3         001-4           192.4.6.70*
END
```

Route 3 has got four external lines in LIM 1 with sequence number 1 to 4. The first two trunk lines have been associated to the same destination IP address through ROEQI command and the other two use the IP address tied to the route. For these last, a star(*) is printed out at the end of the IP address in order to inform the use of the IP address tied to the route.

At any case, no equipment position (nor any other information) is printed out because the route was initiated as an H.323 route.

24.25.9

COMMAND CATEGORY

Dangerous = **No**

24.26

ROEQE

Route equipment end

24.26.1

FORMAT

ROEQE:ROU=,TRU=;

ROU = Route number.

TRU = Trunk line number. LIM and sequence number for external lines.
& and && are permitted for this parameter.

24.26.2

FUNCTION

The command is used in order to remove external lines of a given route. All data affiliated to the lines are removed.

24.26.3

EXAMPLE

Remove the external lines with sequence numbers 7 and 8 in LIM 1 for route 1.

```
ROEQE:ROU=1,TRU=1-7&1-8;
ROEQE:ROU=1,TRU=1-7&1-8;
```


<p>SURE?(YES/NO)</p> <p>YES;</p> <p>EXECUTED</p>
--

24.26.4 COMMAND CATEGORY

Dangerous = **Yes**

24.27 ROEQI

Route equipment initiate

24.27.1 FORMAT

ROEQI:ROU=,TRU=[,EQU=][,IP=][,INDDAT=][,CNTR=];

CNTRL = Controlling side indicator.
The parameter can be used only in combination with ITU-T method 2 line selection and it can only be used with a CCSS7 trunk. If the parameter is omitted when initiating a CCSS7 trunk, it will be set to NO. The parameter has no significance when initiating any other trunk and will be left out.

EQU = Equipment position.
Equipment position for external line. This parameter is normally mandatory, but when initiating external lines for H.323 routes, the parameter must be omitted.

INDDAT = Individual trunk data for external line. If the parameter is omitted the value H"0000000000FF is assumed to apply.

IP = IP address.
IP address of a network interface at the remote end. This parameter is used only for external destinations that can be reached via H.323 routes.

ROU = Route number.

TRU = Trunk line number. LIM and sequence number for the external line.
& and && are allowed for this parameter.

24.27.2 FUNCTION

The command is used to initiate one or more equipment positions as external lines of a previously initiated route.

The external lines for H.323 routes shall be initiated without equipment position. These external lines will dynamically allocate an equipment position when required.

One or more lines can be initiated at the same time in a LIM, the line that comes first is associated with the equipment position stated. The rest of the external lines are associated with the subsequent free equipment positions of the right type in the same LIM.

Note: Only one external line at a time can be initiated when signaling equipment is to be affiliated to the line.

If an external line that requires individual data shall be initiated, these individual data shall be stated at the initiation. If several external lines are initiated at the same time, all these will receive the same individual data.

The order of selecting an external line (of a route) within a LIM is controlled by the sequence number of the line. The lines within the LIM are scanned, starting with the line with the lowest sequence number.

The order of selecting an external line when the lines of the route are divided over several LIMs is controlled by the programming order, that is, the order in which the external lines were initiated in the different LIMs.

24.27.3

EXAMPLE 1

Initiate external lines for route 1. The lines are to be placed in LIM 1, where they will have sequence numbers 7 and 8. The lines are to be connected to gateway A, magazine 1, board position 10, where the line with serial number 7 is to be connected to board individual number 0. The first free equipment position of the right type in LIM 1 is to be associated with the line with sequence number 8.

```
ROEQI:ROU=1,TRU=1-7&1-8,EQU=1A-1-10-7;
EXECUTED
```

24.27.4

EXAMPLE 2

Initiate an external line for route 5. The line is to be placed in LIM 1, where it will have sequence number 3. The line is to be connected to gateway B, magazine 1, board position 10, where the line with sequence number 3 is to be connected to board individual 0. The external line shall have the individual data 000000000003.

```
ROEQI:ROU=5,TRU=1-3,EQU=1B-1-10-3,INDDAT=000000000003;
EXECUTED
```

24.27.5

EXAMPLE 3

Initiate an external CCSS7 line for route 7. The line is to be placed in LIM 1, where it will have sequence number 1. The line is to be connected to gateway C, magazine 0, board position 40, where the line with sequence number 1 is to be connected to board individual number 1. The line should be controlled by the own exchange.

```
ROEQI:ROU=7,TRU=1-1,EQU=1C-0-40-1,CNTRL=YES;
EXECUTED
```

24.27.6

EXAMPLE 4

Initiate external lines for route 2, which is an H.323 route. These lines are to be placed in LIM 3, where they will have sequence numbers 5 and 6.

```
ROEQI:ROU=2,TRU=3-5&3-6;
EXECUTED
```

24.27.7

EXAMPLE 5

Initiate external lines for route 2, which is an H.323 route. These lines are to be placed in LIM 3, where they will have sequence numbers 7 and 8, and they will be associated a destination IP address different from the IP address tied to the route.

ROEQI:ROU=2,TRU=3-7&3-8, IP=192.4.6.87;
EXECUTED

24.27.8

COMMAND CATEGORY

Dangerous = **No**

24.28

ROFCC

Route fault counter change

24.28.1

FORMAT

ROFCC:BPOS=;

BPOS = Board position.
& and && are permitted for this parameter.

24.28.2

FUNCTION

This command resets the board fault counters, which include the network information and the fault statistics.

The network information counters are:

- Current Signal Condition (NOK or OK)
- Current Interval Timer (seconds in current 15 minutes)
- Errored Seconds
- Failed Seconds
- Valid Interval Total
- Extended Super Frame Error Events (Out-Of-Frame and Cyclic Redundancy Check 6).

The Errored seconds, Failed Seconds and Valid Intervals are counted in 15 minute intervals and are incremented and stored in a past 24 hour total. This involves a sliding window to always contain the past 24 hour total.

The fault statistics counters are:

- Bipolar Violations (Two consecutive 1 with the same polarity)
- Out of Frame conditions
- CRC6 or Framing Errors
- Slip Errors

The new time and date will be stored in the system when the fault counters are reset.

See operational directions for *ROUTE DATA* to see which boards that support the command.

24.28.3

EXAMPLE

Reset all the fault counters of TLU45 boards located at 1A-0-40 and 1B-0-60.

```
ROFCC:BPOS=1A-0-40&1B-0-60;
EXECUTED
```

24.28.4

COMMAND CATEGORY

Dangerous = **No**

24.29

ROFCP

Route fault counter print

24.29.1

FORMAT

ROFCP:BPOS=;

BPOS = Board position.
 & and && are permitted for this parameter.

24.29.2

FUNCTION

This command is used to print the board fault counters, which include the network information and the fault statistics.

The network information counters are:

- Current Signal Condition (NOK or OK)
- Current Interval Timer (seconds in current 15 minutes)
- Errored Seconds
- Failed Seconds
- Valid Interval Total
- Extended Super Frame Error Events (Out-Of-Frame and Cyclic Redundancy Check 6).

The Errored seconds, Failed Seconds and Valid Intervals are counted in 15 minute intervals and are incremented and stored in a past 24 hour total. This involves a sliding window to always contain the past 24 hour total.

The fault statistics counters are:

- Bipolar Violations (Two consecutive 1 with the same polarity)
- Out of Frame conditions
- CRC6 or Framing Errors
- Slip Errors

The started measurement period of the fault counters of each board is included in the printout.

Both Network Information and Failure Statistics are printed.

See operational directions for *ROUTE DATA* to see which boards that support the command.

24.29.3

PRINTOUT

ROUTE FAULT COUNTER DATA													
MEASUREMENT STARTED AT: hh:mm ddmmyy													
BPOS		TYPE											
...		...											
CSC	TIM	ES1	ES2	ES3	ES4	FS1	FS2	FS3	FS4	VI	EST	FST	ESFEE
...
BPV		OOF		COF		SLIP							
...								
END													

hh:mm	Hour and minute.
ddmmyy	Day, month and year.
BPV	Bi-Polar Violations. Value range is 0-65535.
COF	CRC6 or Framing errors. Value range is 0-65535.
CSC	Current signal condition. Value = OK or NOK.
ES1	Errored second interval 1. Errored seconds in the first 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-90.
ES2	Errored second interval 2. Errored seconds in the second 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-900.
ES3	Errored second interval 3. Errored seconds in the third 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-900.
ES4	Errored second interval 4. Errored seconds in the fourth 15 minute interval, that is, seconds with one or more Extended Super Frame error events. Value range is 0-900.
ESFEE	Extended Super Frame error events. Value range is 0-65535.
EST	Errored second total. The total number of errored seconds in the past 24 hours. Value range is 0-65535.
FS1	Failed second interval 1. The total number of failed states in the first 15 minute interval. Value range is 0-900.
FS2	Failed second interval 2. The total number of failed states in the second 15 minute interval. Value range is 0-900.
FS3	Failed second interval 3. The total number of failed states in the third 15 minute interval. Value range is 0-900.
FS4	Failed second interval 4. The total number of failed states in the fourth 15 minute interval. Value range is 0-900.
FST	Failed second total. The total number of failed seconds in the past 24 hours. Value range is 0-65535.

OOF	Out Of Frame errors. Value range is 0-65535.
SLIP	Slip errors. Value range is 0-65535.
TIM	Current interval timer. The current second within the 15 minute interval. Value range is 0-900.
TYPE	Type of signalling diagram. The TL function block that administers the TL unit in the stated board position.
VI	Valid interval total. The number of 15 minute intervals in the past 24 hours. Value range is 0-96.

24.29.4

EXAMPLE

Print the fault counters of the TLU45 board at position 0-40 in LIM 1, gateway B.

ROFCP:BPOS=1B-0-40;													
ROUTE FAULT COUNTER DATA													
MEASUREMENT STARTED AT: 16:20 18OCT98													
BPOS		TYPE											
1B-0-40		TL45											
CSC	TIM	ES1	ES2	ES3	ES4	FS1	FS2	FS3	FS4	VI	EST	FST	ESFEE
NOK	56	0	66	34	0	0	5	2	0	96	1184	105	2
BPV		OOF		COF		SLIP							
86		0		0		1							
END													

The last time all fault counters of the TLU45 boards were reset was at 4:20 PM on the 18th of October 1998.

The current status of the fault counters is:

- At the moment of typing the command, the signalling condition is not OK.
- The current time is the 56th second in the 900-second (15-minute) interval.
- During the past hour, there have been 0, 66, 34, and 0 errored seconds for the 1st, 2nd, 3rd, and 4th quarter respectively. The total number of errored seconds in the last 24 hours is 1184.
- During the last hour, there are 0, 5, 2, and 0 failed states for the 1st, 2nd, 3rd, and 4th quarter, respectively. The total number of failed states in the last 24 hours is 105.
- 96 or more 15-minute intervals have elapsed since last reset.
- There are 2 Extended Super Frame error events.
- There are 86 bi-polar violations and 1 slip error. No out-of-frame, CRC6, or framing error.

24.29.5

COMMAND CATEGORY

Dangerous = **No**

24.30

RONDE

Route number data end

24.30.1

FORMAT

RONDE:ROU;

ROU = Route number.

24.30.2

FUNCTION

The command is used for removal of all number data for the stated routes.

24.30.3

EXAMPLE

Remove all number data for route number 4.

RONDE:ROU=4;
EXECUTED

24.30.4

COMMAND CATEGORY

Dangerous = **No**

24.31

RONDI

Route number data initiate

24.31.1

FORMAT

RONDI:ROU= [,PRE=][,ROUDIR=][,EXNOPU=][,EXNOPR=] [,TERAC=];

EXNOPR = Exchange number for private network. This parameter is used to build up the exchange number table with the private exchange numbers to prefix the directory number with, when composing a complete number (private calling/connected number) for the private network. If the parameter is omitted no default value is set.

EXNOPU = Exchange number for public network.
This parameter is used to build up an exchange number table with the public exchange numbers to prefix the directory number with, when composing a complete number (public calling/connected number) for the public network. If the parameter is omitted no default value is set.

PRE = Predigits.
States the digits to be placed in front of the received digits (called number/ B-number) from the public exchange when this can only send a limited number of digits. If the parameter is omitted no default value is set.

ROU = Route number.

- ROUDIR =** Route directory number.
States a directory number to use for all incoming calls on an incoming route. Used when the route cannot convey (public and/or private) calling number and the calling party identity is requested, for example, at transit traffic when the subsequent exchange requests calling party number transfer. The exchange numbers (EXNOPR and EXNOPU) are used together with ROUDIR at outgoing transit traffic to compose a complete calling number. If the parameter is omitted no default value is set.
- TERAC =** Terminating area code for route. States the area code (trunk code) for the exchange where the route terminates. It is used for deleting own area code number at outgoing traffic. If the parameter is omitted no default value is set.

24.31.2

FUNCTION

The command is used to set number data for an existing route.

PRE is used to prefix incoming called numbers. Used at direct in-dialling traffic, when the public exchange or interworking exchange can only send a limited number of digits to the receiving exchange.

ROUDIR is a directory number to use for all incoming calls on an incoming route. May only be stated if the route permits incoming traffic.

EXNOPU and EXNOPR are used to build up a public and a private exchange number table, with exchange numbers to prefix a directory number with, to use when composing a complete (public/private) number (calling/connected number) to send to an interworking exchange.

Table 2 Private exchange numbers

Exchange number	Parameter	Example
Country code	EXNOPU=1-CC	EXNOPU=1-46
Trunk code	EXNOPU=2-NDC	EXNOPU=2-8
Local code	EXNOPU=4-LOCPU	EXNOPU=4-68
Network specific	EXNOPU=3-NSP	EXNOPU=3-999
Unknown public	EXNOPU=0-UNPU	EXNOPU=0-46868

Table 3 Private exchange numbers

Exchange number	Parameter	Example
Location code (local private)	EXNOPR=6-LOCPR	EXNOPR=6-4
Location code (level 1 regional)	EXNOPR=7-LEV1RC	EXNOPR=7-850
Unknown private	EXNOPR=5-UNPR	EXNOPR=5-8504

Note: If the combined length of LEV1RC and LOCPR together is more than 5 digits, the most significant digits of LEV1RC are truncated.

What exchange numbers to use, when composing a private/public **calling** number to send, is controlled by the TON that is initiated (command RODDI, see 24.13 RODDI on page 421) for the destination used at the outgoing call.

What exchange numbers to use when composing a private/public **connected** number is controlled by the TON received from the calling party.

24.31.3

EXAMPLE 1

Initiate the following number data for route 8:

Parameter EXNOPU:

Initiate the following public exchange numbers to use when composing Calling/Connected numbers for the public network:

- Local code=682 (TON=4)
- Trunk code=8 (TON=2)
- Country code=46 (TON=1)

Parameter EXNOPR:

Initiate the following private exchange number to use when composing Calling/Connected numbers for the private network:

- (local private) Location code=2 (TON=6)

```
RONDI:ROU=8,EXNOPU=4-682,EXNOPR=6-2;
EXECUTED
RONDI:ROU=8,EXNOPU=2-8;
EXECUTED
RONDI:ROU=8,EXNOPU=1-46;
EXECUTED
```

24.31.4

EXAMPLE 2

Initiate the following number data for route 4:

Parameter PRE:

Predigit 4 shall be placed before the received digits (called number/B-number).

```
RONDI:ROU=4,PRE=4;
EXECUTED
```

24.31.5

EXAMPLE 3

This example shows initiation of the exchange numbers to use for route 1, a route to the public network.

Initiate the following number data for route 1:

Parameter EXNOPU:

Initiate the following public exchange numbers to use when composing complete calling/connected numbers for the public network:

- Country code=46 (TON=1)
- Trunk code=8 (TON=2)
- Local code=68 (TON=4)
- Network specific=111 (TON=3)

```

RONDI:ROU=1,EXNOPU=1-46;
EXECUTED
RONDI:ROU=1,EXNOPU=2-8;
EXECUTED
RONDI:ROU=1,EXNOPU=4-68;
EXECUTED
RONDI:ROU=1,EXNOPU=3-111;
EXECUTED

```

24.31.6

COMMAND CATEGORY

Dangerous = **No**

24.32

RONDP

Route number data print

24.32.1

FORMAT

RONDP:ROU=;

ROU = Route number.
ALL, & and && are permitted for this parameter.

24.32.2

FUNCTION

The command is used to print the number data initiated for the stated routes.

24.32.3

PRINTOUT

ROUTE NUMBER DATA					
ROU	PRE	ROUDIR	EXNOPU	EXNOPR	TERAC

.
.
.
END					

- EXNOPR** Exchange number for private network.
This parameter indicates the private exchange numbers to prefix the directory number with, when composing complete numbers for private network.
- EXNOPU** Exchange number for public network.
This parameter indicates the public exchange numbers to prefix the directory number with, when composing a complete number for public network.
- PRE** Predigits.
Indicates the digits to be placed in front of the received digits (called number/B-number) from a public exchange that can only send a limited number of digits.
- ROUDIR** Route directory number.
Indicates a route directory number to use for all incoming calls on an incoming route. Used when the route cannot convey (public and/or private) calling number and the calling party identity is requested, for example, at transit traffic when the subsequent exchange requests calling party number transfer. Used together with the exchange numbers (EXNOPR and EXNOPU) at outgoing transit traffic to compose a complete calling number.
- TERAC** Terminating area code for route.

24.32.4

EXAMPLE

Print the categories for route 1, 4 and 8.

RONDP:ROU=1&4&8;					
ROUTE NUMBER DATA					
ROU	PRE	ROUDIR	EXNOPU	EXNOPR	TERAC
1			0-682		8
4	4				
8			1-46	6-2	
			2-8		
			4-682		
END					

For route 1 the following is valid: Exchange number 682 is used for public calls with TON unknown public (incoming calls), that is, TON = Unknown public is received, or the destination is unknown (outgoing calls). The route terminates in an exchange with trunk code 8.

For incoming calls on route 4 the digit 4 is placed in front of the received digits.

For route 8 the following is valid: Exchange number 682 is used for local public calls. Exchange numbers 8+682 is used for national public calls. Exchange numbers 46+8+682 is used for international public calls. Exchange number 2 is used for local private calls.

24.32.5

COMMAND CATEGORY

Dangerous = **No**

24.33

RORIE

Route rerouting isolated LIM end

RORIE:LIM=;

LIM = LIM number.

24.33.1

FUNCTION

This command is used for removal of isolated LIM rerouting numbers.

24.33.2

EXAMPLE

Remove the rerouting isolated LIM number for LIM number 6.

```
RORIE:LIM=6;
EXECUTED
```

24.33.3

COMMAND CATEGORY

Dangerous = **No**

24.34

RORII

Route rerouting isolated LIM initiate

RORII:LIM=,ISORER=;

ISORER = Isolated LIM rerouting number. Defines the rerouting number for isolated LIM.

LIM = LIM number.

24.34.1

FUNCTION

The command is used to initiate a rerouting number in case of calls receiving congestion due to isolated LIM, or when a common function is located in an isolated LIM. The number is placed in front of the dialed number. The number may be a route access code for external traffic.

24.34.2

EXAMPLE

Initiate rerouting number 010 for LIM 6.

```
RORII:LIM=6,ISORER=010;
EXECUTED
```

24.34.3

COMMAND CATEGORY

Dangerous = **No**

24.35**RORIP**

Route rerouting isolated LIM print

24.35.1**FORMAT****RORIP:LIM=;**

LIM = LIM number.
ALL is allowed for this parameter.

24.35.2**FUNCTION**

This command is used for printing of isolated LIM rerouting number.

24.35.3**PRINTOUT**

REROUTING ISOLATED LIM DATA	
LIM	ISORER
.	.
.	.
END	

ISORER Isolated LIM rerouting number.**24.35.4****EXAMPLE**

Print the isolated LIM rerouting number for LIM 6.

RORIP:LIM=6;	
REROUTING ISOLATED LIM DATA	
LIM	ISORER
6	010
END	

Calls originating in LIM 6 will be rerouted to external destination 010, if LIM 6 is isolated.

24.35.5**COMMAND CATEGORY**Dangerous = **No****24.36****RORNE**

Route rerouting number in network end

24.36.1

FORMAT

RORNE: { <div style="display: inline-block; vertical-align: middle; text-align: center;"> ROU=... ,NCA=... CUST=,PRIO= </div> } ;

CUST = Customer number.

NCA = Network central answering position. Defines the exchange number for the central answering position.
& is allowed for this parameter.

PRIO = Priority for central answering position or customer centralized operator.

ROU = Route number.
& and && are allowed for this parameter.

24.36.2

FUNCTION

When parameter ROU is entered this command is used for removal of one or more central answering positions for one or more routes, that is, removal of rerouting numbers to destinations in other exchanges within the private network.

When parameter CUST is entered this command is used for removal of a customer centralized operator for customer.

24.36.3

EXAMPLE 1

Remove the central answering position to exchange 74 for route 1.

RORNE:ROU=1,NCA=74; EXECUTED

24.36.4

EXAMPLE 2

Remove the customer centralized operator with the first priority for customer 15.

```
RORNE:CUST=15,PRIO=1;
EXECUTED
```

24.36.5

COMMAND CATEGORY

Dangerous = **No**

24.37

RORNI

Route rerouting number in network initiate

24.37.1

FORMAT

RORNI: { **ROU=...** } , **NCA=,NUM=,PRIO=;**
 { **CUST=** }

CUST = Customer number.

NCA = Network central answering position.
 Defines the exchange number for the central answering position for routes or indicates if it is a customer centralized operator.

NUM = Common abbreviated number for rerouting to external party.
 A common abbreviated number which translation number is the central answering position or customer centralized operator number.

PRIO = Priority for central answering position or customer centralized operator.

ROU = Route number.
 & and && are allowed for this parameter.

24.37.2

FUNCTION

When parameter ROU is entered this command is used to initiate a *central answering position* within the private network for one or more routes.

When parameter CUST is entered this command is used to initiate a *customer centralized operator* for the customer.

The central answering position or customer centralized operator must be external (and within the own private network). The central answering position or customer centralized operator is set to a common abbreviated number. The complete translation number is set with the command *ADCOI*.

The external answering position for a route can be an extension, an individual or common PBX operator number or an internal group hunting group number. It is possible to initiate three external answering positions per route.

The customer centralized operator is a common PBX operator number. It is possible to initiate two customer centralized operators per customer.

24.37.3

EXAMPLE 1

Initiate a central answering position in a network for route 1. The calls shall in first hand be rerouted to exchange 74 which can be reached with the translation for the common abbreviated number 080.

```
RORNI:ROU=1,NCA=74,NUM=080,PRIO=1;
EXECUTED
```

24.37.4

EXAMPLE 2

Initiate a customer centralized operator in a network for customer 15. The calls shall in first hand be rerouted to the customer centralized operator that can be reached with the translation for the common abbreviated number 180.

```
RORNI:CUST=15,NCA=CCOP,NUM=180,PRIO=1;
EXECUTED
```

24.37.5

COMMAND CATEGORY

Dangerous = **No**

24.38

RORNP

Route rerouting number in network print

24.38.1

FORMAT

$$\text{RORNP:} \left\{ \begin{array}{l} \text{ROU=...} \\ \text{CUST=...} \end{array} \right\} ;$$

CUST = Customer number.
ALL, & and && are allowed for this parameter.

ROU = Route number.
ALL, & and && are allowed for this parameter.

24.38.2

FUNCTION

When the parameter CUST is entered the command is used for printing the customer centralized operator numbers for customers.

When parameter ROU is entered the command is used for printing the central answering positions for one or more routes.

That is, print of rerouting numbers to destinations in other exchanges within the private network.

If the route is affiliated to a customer which has a customer centralized operator initiated, both the route's central answering positions and customer centralized operator numbers are included in the printout.

24.38.3

PRINTOUT 1 (ROU)

ROUTE REROUTING NUMBER DATA				
ROU	PRIO	NCA	NUM	CUST
.
.
END				

24.38.4

PRINTOUT 2 (CUST)

CUSTOMER REROUTING NUMBER DATA			
CUST	PRIO	NCA	NUM
.	.	.	.
.	.	.	.
END			

- NCA** Network central answering position.
Defines the exchange number for the central answering position for routes or indicates if it is a customer centralized operator.
- NUM** Common abbreviated number for rerouting to external party.
A common abbreviated number which translation number is the central answering position or customer centralized operator.
- PRIO** Priority for central answering position or customer centralized operator.

24.38.5

EXAMPLE 1 (ROU)

Print the customer centralized operator data and central answering position for route 1.

RORN:P:ROU=1;				
ROUTE REROUTING NUMBER DATA				
ROU	PRIO	NCA	NUM	CUST
1	1	74	080	
	2	75	081	
END				

Two external answering positions exist for route 1 which has no customer affiliation. The first hand choice is located in exchange 74, and reached with the common abbreviated number 080. The second hand choice is located in exchange 75, and reached with the common abbreviated number 081.

24.38.6

EXAMPLE 2 (ROU)

Print the customer centralized operator data and central answering position for route 1.

```
RORNP:ROU=1;
ROUTE REROUTING NUMBER DATA
ROU      PRIO      NCA      NUM      CUST
1         1         74      080      15
          2         75      081      15
END
```

Two external answering positions exist for route 1 which is affiliated to customer 15. The first hand choice is located in exchange 74, and reached with the common abbreviated number 080. The second hand choice is located in exchange 75, and reached with the common abbreviated number 081. No customer centralized operator exists for customer 15.

24.38.7

EXAMPLE 3 (ROU)

Print the customer centralized operator data and central answering position for route 1.

```
RORNP:ROU=1;
ROUTE REROUTING NUMBER DATA
ROU      PRIO      NCA      NUM      CUST
1         1         CCOP     181      15
          2         CCOP     182      15
          1         74      080      15
          2         75      081      15
END
```

Route 1 is affiliated to customer 15. Two customer centralized operators exist for customer 15.

- The customer centralized operator with the first priority can be reached with the common abbreviated number 181.
- The customer centralized operator with the second priority can be reached with the common abbreviated number 182.

Two external answering positions exist for route 1.

- The first hand choice is located in exchange 74, and reached with the common abbreviated number 080.
- The second hand choice is located in exchange 75, and reached with the common abbreviated number 081.

24.38.8

EXAMPLE 4 (CUST)

Print the customer centralized operator data for customer 15.

```
RORNP:CUST=15;
CUSTOMER REROUTING NUMBER DATA
CUST      PRIO      NCA      NUM
```

15	1	CCOP	181
	2	CCOP	182
END			

Two customer centralized operators exist for customer 15. The customer centralized operator with the first priority can be reached with the common abbreviated number 181. The customer centralized operator with the second priority can be reached with the common abbreviated number 182.

24.38.9 COMMAND CATEGORY

Dangerous = **No**

24.39 ROUTE

Route end

24.39.1 FORMAT

ROUTE:ROU=;

ROU = Route number.
 & and && are permitted for this parameter.

24.39.2 FUNCTION

The command is used to terminate a route.

Note: All lines within the route must be removed before terminating the route.

24.39.3 EXAMPLE

Remove route 1.

ROUTE:ROU=1; EXECUTED

24.39.4 COMMAND CATEGORY

Dangerous = **No**

24.40 ROVNE

Route vacant number end

24.40.1 FORMAT

ROVNE:ROU=;

ROU = Route number.
& and && are permitted for this parameter.

24.40.2 FUNCTION

The command is used to erase one or more routes answering positions for vacant number.

The answering position for vacant numbers can be an extension, an internal group hunting group number, or a common bell group number.

24.40.3 EXAMPLE

Erase the answering position for vacant number for route number 1.

ROVNE:ROU=1;
EXECUTED

24.40.4 COMMAND CATEGORY

Dangerous = **No**

24.41 ROVNI

Route vacant number initiate

24.41.1 FORMAT

ROVNI: ROU=..., { VAC= [SDAY=][,SNIG=] } ;

ROU = Route number.
& and && are allowed for this parameter.

SDAY = Day number.
Day rerouting number for incomplete number dialled on a DID route and when no digits are dialled on a DID trunk.

SNIG = Night number.
Night rerouting number for incomplete number dialled on a DID route and when no digits are dialled on a DID trunk.

VAC = Vacant number.

24.41.2

FUNCTION

The command is used to initiate an answering position for vacant number, for incomplete number and when no digits are dialled for one or more routes. Any answering position for vacant number, incomplete number, or no digits initiated earlier for the route in question, will be over-written by this command.

VAC and SDAY, SNIG are mutually exclusive. For a route either VAC or SDAY and SNIG can be initiated. It is possible to initiate SDAY for a route after initiating VAC for the same route without ending it using ROVNE command. In this case, the initial VAC initiation for the route is overridden by the SDAY initiation. When SDAY and/or SNIG are initiated vacant number calls are directed to SDAY and SNIG depending on the status of the exchange.

The answering position for vacant number can be an extension, an internal group hunting group number, or a common bell group number.

The answering position incomplete number and no number can be an extension number, a voice mail, IVR, any directory number, an internal group hunting group, or a common bell group number.

24.41.3

EXAMPLE 1

Initiate an answering position for vacant number for route number 1. The answering position for vacant number shall be directory number 4488.

```
ROVNI:ROU=1,VAC=4488;
EXECUTED
```

24.41.4

EXAMPLE 2

Initiate an answering position for incomplete number for route number 1. The answering position for the incomplete and no number scenario shall be directory number 1234 during day time and 4321 during night time.

```
ROVNI:ROU=1,SDAY=1234,SNIG=4321;
EXECUTED
```

24.41.5

COMMAND CATEGORY

Dangerous = **No**

24.42

ROVNP

Route vacant number print

24.42.1

FORMAT

ROVNP:ROU=;

ROU = Route number.
ALL, & and && are permitted for this parameter.

24.42.2 FUNCTION

The command is used to print one or more routes answering positions for vacant number or incomplete number and no number for day and night positions.

The answering position for vacant number can be an extension, an internal group hunting group, or a common bell group.

The answering position for incomplete number and no number can be an extension, a voice mail or IVR mail, any directory number, any group hunt number, or any common bell group number.

24.42.3 PRINTOUT

ROUTE VACANT NUMBER DATA			
ROU	VAC	SDAY	SNIG
.	.	.	.
.	.	.	.
.	.	.	.
END			

- SDAY** Day time rerouting number.
- SNIG** Night time rerouting number.
- VAC** Vacant number.

24.42.4

EXAMPLE

Print the answering position for route number 1.

ROVNP:ROU=1;			
ROUTE VACANT NUMBER DATA			
ROU	VAC	SDAY	SNIG
1	4488		
END			

The answering position for vacant number for route number 1 is directory number 4488.

24.42.5

EXAMPLE 2

Print the answering position for route number 2.

ROVNP:ROU=2;			
ROUTE VACANT NUMBER DATA			
ROU	VAC	SDAY	SNIG
2		1234	4321
END			

The answering position for incomplete number and no numbers for route number 2 are directory numbers 1234 and 4321.

24.42.6

COMMAND CATEGORY

Dangerous = **No**

25 SE - STATIC SEMIPERMANENT CONNECTION

25.1 SEMIE

Static semipermanent connection end

25.1.1 FORMAT

SEMIE:EQU=;

EQU = Equipment position.

25.1.2 FUNCTION

The command is used to end a static semipermanent connection. The Parameter EQU can be either port A or B of the static semipermanent connection.

25.1.3 EXAMPLE

End a static semipermanent connection between port A (at LIM 1, gateway C, magazine number 0, board position 43 and individual number 0) and port B (at LIM 2, magazine number 0, gateway A, board position 41 with individual number 2). Either one of the following two commands after execution will end the same static semipermanent connections.

```
SEMIE:EQU=1C-0-43-0;
EXECUTED
```

```
SEMIE:EQU=2A-0-41-2;
EXECUTED
```

25.1.4 COMMAND CATEGORY

Dangerous = **No**

25.2 SEMII

Static semipermanent connection initiate

25.2.1 FORMAT

SEMII:EQUA=,EQUB=;

EQUA = Equipment position for port A.

EQUB = Equipment position for port B.

25.2.2

FUNCTION

The command is used to set up a static semipermanent connection between equipment position A and equipment position B. Only supported equipment types pending on the application will be accepted by the system, such as between a CAS Extension position and an ISDN B channel position will be accepted for static semipermanent connection. Please refer to Operational Directions for equipment types which support this application.

25.2.3

EXAMPLE 1

Set up a static semipermanent connection between equipment position A (at LIM 1, gateway D, magazine number 0, board position 43 with individual number 0) and equipment position B (at LIM 2, gateway C, magazine number 0, board position 41 with individual number 2).

```
SEMII:EQUA=1D-0-43-0,EQUB=2C-0-41-2;  
EXECUTED
```

25.2.4

EXAMPLE 2

The command is rejected due to that the user is not in idle state.

```
SEMII:EQUA=1A-0-43-0,EQUB=1A-3-20-2;  
NOT EXECUTED  
USER BUSY
```

25.2.5

EXAMPLE 3

The command is rejected due to that one or both LIMs are blocked.

```
SEMII:EQUA=3C-0-10-4,EQUB=1A-3-20-2;
NOT EXECUTED
LIM(S) BLOCKED
```

25.2.6

EXAMPLE 4

The command is rejected due to that one or both EQUs are not assigned.

```
SEMII:EQUA=1A-0-43-0,EQUB=2C-0-41-2;
NOT EXECUTED
EQU NOT ASSIGNED
```

25.2.7

EXAMPLE 5

The command is rejected due to that one or both board positions are not equipped.

```
SEMII:EQUA=1B-0-43-0,EQUB=2D-0-41-2;
NOT EXECUTED
POS
EQUIPMENT POSITION NOT EQUIPPED
```

25.2.8

COMMAND CATEGORY

Dangerous = **No**

25.3

SEMIP

Static semipermanent connection print

25.3.1

FORMAT

SEMIP:LIM=;

LIM = LIM number.
& and && are permitted for this parameter.

25.3.2

FUNCTION

The command is used to print all static semipermanent connections involved in the stated LIMs.

25.3.3

PRINTOUT

STATIC SEMI-PERMANENT CONNECTIONS					
	LIM	EQUA	BOARDID	EQUB	BOARDID

END					

- BOARDID** Board identification, board identity number.
For value, see the parameter description for BRDID, TYPE, UNIT.
- EQUA** Equipment position for port A.
- EQUB** Equipment position for port B.

25.3.4

EXAMPLE

Print the static semipermanent connections involved in LIM 1 to LIM 3.

```
SEMIP:LIM=1&&3;
STATIC SEMI-PERMANENT CONNECTIONS
      LIM      EQUA      BOARDID      EQUB      BOARDID
      001      001A-0-43-00      52      002A-0-41-02      59
      001      001A-0-43-01      52      003B-0-20-03      71
      002      001A-0-43-00      52      002A-0-41-02      59
      002      002B-0-10-00      71      003C-0-20-00      71
      003      001A-0-43-01      52      003B-0-20-03      71
      003      002B-0-10-00      71      003C-0-20-00      71
END
```

The system has 3 static semipermanent connections set up.

25.3.5

COMMAND CATEGORY

Dangerous = **No**

26

SP - SPECIAL PURPOSE EXTENSION

26.1

SPEXE

Special Purpose Extension End

26.1.1

FORMAT

SPEXE:DIR=,OPT=;

DIR = Directory number.
& and && are allowed for this parameter.

OPT = Option. Function code for function that is to be removed.
& is allowed for this parameter.

26.1.2

FUNCTION

The command entails removal of the function specified by the parameter value for parameter OPT. If all extra functions with which the extension has been initiated are specified the extension will be of regular type. In other cases the extension will retain the function not specified in the command.

26.1.3

EXAMPLE

Remove the direct connection (direct hot-line) function from extensions 6719 and 6793.

SPEXE: DIR=6719&6793, OPT=N;
EXECUTED

26.1.4

COMMAND CATEGORY

Dangerous = **No**

26.2

SPEXI

Special Purpose Extension Initiate

26.2.1

FORMAT

SPEXI:DIR=,OPT=[,NDC=];

DIR = Directory number.
& is permitted for this parameter.

NDC = Non-dialled connection number. Hot-line number.
The parameter is not optional in the common sense. It must be stated when parameter OPT has the values N or D.

OPT = Option. Function code for the function which is to be initiated.
& is permitted for this parameter.

26.2.2

FUNCTION

The command allows one or more extensions, one, two or all of the following functions:

- alarm extension
- direct hot-line
- delayed hot-line
- automatic answering
- master extension

An alarm extension is an extension which may be called even when it is busy, i.e. a call to the alarm extension is connected in the conference mode.

If a direct hot-line or a delayed hot-line shall be initiated, then the non-dialled connection number must also be stated, number to be called when the calling party goes off hook, e.g. an external number or a procedure. Direct hot-line and delayed hot-line cannot be initiated at the same time.

An automatic answering extension is an extension which is connected directly when called. The extension does not have the clear signal. An extension with automatic answering may be used for, for example, telephones with loudspeakers, speech message equipment and dictation machines.

The automatic answering function can only be initiated for analog extensions.

A master extension is an extension which is permitted to order group do not disturb, bypass of an extension with group do not disturb activated or follow me for an internal group hunting group by dialling predefined procedures.

26.2.3

EXAMPLE 1

Initiate extension 3800 as a hot-line extension with non-dialled connection number 0000947C401164 (route access code 00, international prefix 009, country code 47, second dial tone (normal PTS signal) and subscriber number 401164). Let the extension, at same time be an alarm extension.

SPEXI: DIR=3800, OPT=N&E, NDC=0000947C401164;
EXECUTED

26.2.4

EXAMPLE 2

Initiate extension 3801 as a hot-line extension with non-dialed connection number 0005C11E13D11675. The translated number consists of the route access code 00 and destination code 05 and after destination code a PTS is expected. When a PTS is received or time out expires next digits shall be 11. After digits 11 a PTS signal is expected followed by DTMF digit sending, if time out expires the external line is disconnected. If the PTS is received next digits shall be 13. After digits 13 a PTS signal is expected and if time out expires DTMF digit sending is performed. After that next digits shall be 11675.

SPEXI: DIR=3801, OPT=N, NDC=0005C11E13D11675;
EXECUTED

26.2.5 COMMAND CATEGORY

Dangerous = **No**

26.3 SPEXP

Special Purpose Extension Data Print

26.3.1 FORMAT

SPEXP:DIR=;

DIR = Directory number.
 ALL, & and && are permitted for this parameter.

26.3.2 FUNCTION

The command states which of the following extra functions exist for the extension

- Alarm extension, i.e. an extension where all its calls are connected via conference equipment, which means that it is always possible to make a call to this extension even when it is busy.
- Direct hot-line, i.e. an extension which is automatically connected to a preset number (non-dialled connection number).
- Delayed hot-line, i.e. an extension which is, after a short delay, automatically set up to a preset number (non-dialled connection number). If dialling within the delay time, the telephone works as an ordinary telephone.
- Master extension, i.e. an extension which is permitted to order group do not disturb, bypass of an extension with group do not disturb activated or follow me of an internal group hunting group by dialling predefined procedures.
- Automatic answering extension, i.e. an extension which is connected momentarily to an incoming call. The extension does not have the clear signal. An extension with automatic answering may be used for, for example, telephones with loudspeakers, speech message equipment and dictation machines.

If the extension is a hot-line extension, the non-dialled connection number is also printed out.

26.3.3

PRINTOUT

SPECIAL PURPOSE EXTENSION DATA		
DIR	OPT	NDC
.	.	.
.	.	.
.	.	.
END		

NDC Non-dialled connection number.

OPT Option. (Function).

26.3.4

EXAMPLE

Make a printout of all the extensions with initiated extra function.

SPEXP: DIR=ALL;		
SPECIAL PURPOSE EXTENSION DATA		
DIR	OPT	NDC
3800	N, E	0000947C401164
3801	N	0005C11E13D11675
3810	D	3850
3822	A	
3840	M	
END		

Extensions 3800 and 3801 are direct hot-line extensions.

Extension 3800 has non-dialled connection number 0000947C401164 (route access code 00, international prefix 009, country code 47, second dial tone, subscriber number 401164).

Extension 3801 has non-dialled connection number 0005C11E13D11675. The translated number consists of the route access code 00 and destination code 05 and after destination code a PTS is expected. After digits 11 a PTS signal is expected followed by DTMF digit sending. In case of time out the external line is disconnected. After digits 13 a PTS signal is expected and in case of time out DTMF digit sending is performed. The last digits are 11675.

Extension 3810 has the function delayed hot-line with non-dialled connection number 3850.

Extension 3800 is also an alarm extension.

Extension 3822 has automatic answering.

Extension 3840 is a master extension.

26.3.5

COMMAND CATEGORY

Dangerous = **No**

27

TR - TRAFFIC RECORDING

27.1

TRCBI

Traffic recording common bell initiate

27.1.1

FORMAT

TRCBI:GRP=,TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is to be performed.
& and && are permitted for this parameter, but only one & will be accepted.

GRP = Group number. The directory number for a common bell group.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.1.2

FUNCTION

This command initiates traffic recording for a common bell group. The INITIATE and END times refer to one and the same 24-hour period (day). The system responds by sending the assigned measurement number.

27.1.3

EXAMPLE

Initiate traffic recording for a common bell group with directory number 8000 between 10:00 a.m. and 1:00 p.m. on October 15, 2006.

```
TRCBI:GRP=8000,TIMEI=10-00,TIMEE=13-00,DATE=2006-10-15;
YOUR MEASUREMENT NUMBER = 1
EXECUTED
```

27.1.4

COMMAND CATEGORY

Dangerous = **No**

27.2

TRCFI

Traffic recording cordless extension traffic initiate

27.2.1

FORMAT

TRCFI: $\left[\left[\begin{array}{l} \text{BPOS=...} \\ \text{LIM=...,} \end{array} \right] \left[\text{,RPN=...} \right] \right] \left[\text{,OBJNO=,} \right] \text{TIMEI=,TIMEE=,DATE=...;}$

BPOS =	Board position. Board position for common fixed part. & is allowed for this parameter if parameter RPN is omitted.
DATE =	Date. Date or dates at which a recording shall be performed. & and && are allowed for this parameter, but only one & will be accepted.
LIM =	LIM number. & and && are allowed for this parameter.
OBJNO =	Object number. The parameter is used to allow parallel measurements in the same LIM. If the parameter is omitted, the default value is set to 0.
RPN =	Radio fixed part number. & is allowed for this parameter. If the parameter is omitted, the default value is set to ALL.
TIMEE =	Time end. Stop time.
TIMEI =	Time initiate. Start time.

27.2.2

FUNCTION

This command initiates traffic recording on one or more common fixed part/radio fixed part, on all common fixed parts/radio fixed parts in a LIM or group of LIMs, or - if the LIM and BPOS parameters are omitted - on all common fixed parts/radio fixed parts in the PBX. Start time and stop time are to be stated for one and the same 24-hour period. The system responds by sending the assigned measurement number.

27.2.3

EXAMPLE 1

Initiate traffic recording on cordless extension common fixed parts in LIM number 4, gateway B, magazine 0, board positions 10 and 20 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

```
TRCFI:BPOS=4B-0-10&4-0-20,TIMEI=10-00,TIMEE=13-00,  
DATE=1998-07-15&&1998-08-20;  
YOUR MEASUREMENT NUMBER = 2  
EXECUTED
```

27.2.4

EXAMPLE 2

Initiate traffic recording on all cordless extension common fixed parts in LIM number 2 between 13:30 and 15:30 hours from July 2 to July 8, 1998, **excluding** July 5.

```
TRCFI:LIM=2,TIMEI=13-30,TIMEE=15-30,  
DATE=1998-07-02&&1998-07-04&1998-07-06&&1998-07-08;  
YOUR MEASUREMENT NUMBER = 12  
EXECUTED
```

27.2.5

EXAMPLE 3

Initiate traffic recording on all cordless extension common fixed parts in the PBX between 06:00 hours and 20:00 hours from May 1 to May 15, 1998.

```
TRCFI:TIMEI=06-00,TIMEE=20-00,DATE=1998-05-01&&1998-05-15;
YOUR MEASUREMENT NUMBER = 13
EXECUTED
```

27.2.6

EXAMPLE 4

Initiate traffic recording on common fixed parts in LIM number 4, gateway A, magazine 0, board position 10, Radio Fixed Parts Number 2 and 3 in this LIM and object number 3 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

```
TRCFI:BPOS=4A-0-10,RPN=2&3,OBJNO=3,TIMEI=10-00,
TIMEE=13-00,DATE=1998-07-15&&1998-08-20;
YOUR MEASUREMENT NUMBER = 5
EXECUTED
```

27.2.7

COMMAND CATEGORY

Dangerous = **No**

27.3

TRCOI

Traffic recording conference initiate

27.3.1

FORMAT

TRCOI:[LIM=,]TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is to be performed.
& and && are permitted for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are permitted for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.3.2

FUNCTION

This command initiates traffic recording of conference calls in the indicated node/LIM, group of node/LIMs, or - if the parameter LIM is omitted - in the entire MX-ONE. The initiate and end times refer to one and the same 24-hour period (day). The system answers by sending the assigned measurement number.

27.3.3

EXAMPLE 1

Initiate traffic recording on established conference calls in LIM number 4 between 08:00 hours and 17:30 hours from June 2 up to and including June 6, 2005.

```
TRCOI:LIM=4,TIMEI=08-00,TIMEE=17-30,DATE=2005-06-02&& 2005-06-06;
```

```
YOUR MEASUREMENT NUMBER = 2
```

```
EXECUTED
```

27.3.4

EXAMPLE 2

Initiate traffic recording on established conference calls between 08:00 hours and 17:30 hours from June 2 up to and including June 6, 2005.

```
TRCOI:TIMEI=08-00,TIMEE=17-30,DATE=2005-06-02&& 2005-06-06;
YOUR MEASUREMENT NUMBER = 2
EXECUTED
```

27.3.5

COMMAND CATEGORY

Dangerous = **No**

27.4

TRCRI

Traffic recording MFC code receiver initiate

27.4.1

FORMAT

TRCRI:TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is to be performed.
& and && are permitted for this parameter, but only one & will be accepted.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.4.2

FUNCTION

This command initiates traffic recording on all code receivers (for MFC) of the PBX. The initiate and end times refer to one and the same 24-hour (day). The system responds by sending the assigned measurement number.

27.4.3

EXAMPLE

Initiate traffic recording on code receivers between 10:00 and 18:00 hours from May 27 to May 30, 1987.

```
TRCRI:TIMEI=10-00,TIMEE=18-00,DATE=1987-05-27&&1987-05-30;
YOUR MEASUREMENT NUMBER = 4
EXECUTED
```

27.4.4

COMMAND CATEGORY

Dangerous = **No**

27.5

TRCSI

Traffic recording MFC code sender initiate

27.5.1

FORMAT

TRCSI:TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording shall be done.
& and && are allowed for this parameter, but only one & will be accepted.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.5.2

FUNCTION

This command initiates traffic recording on all MFC code senders in the entire PBX. Start and stop times are stated within the same 24 hour period. The system responds by sending the assigned measurement number.

27.5.3

EXAMPLE

Initiate traffic recording on code senders between 09:15 and 11:45 hours from August 2 to August 5, and from August 9 to August 12, 1987.

```
TRCSI:TIMEI=09-15,TIMEE=11-45,DATE=1987-08-02&&1987-08-05
&1987-08-09&&1987-08-12;
YOUR MEASUREMENT NUMBER = 5
EXECUTED
```

27.5.4

COMMAND CATEGORY

Dangerous = **No**

27.6

TRDDI

Traffic recording dial tone delay initiate

27.6.1

FORMAT

TRDDI: [[LIM=..., ROU=,]] TIMEI=,TIMEE=,DATE=...;

DATE = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are allowed for this parameter.

ROU =	Route number.
TIMEE =	Time end. Stop time.
TIMEI =	Time initiate. Start time.

27.6.2

FUNCTION

This command has two modes. In the first one, it initiates traffic recording of the dial tone delay function in the indicated node/LIM, or if LIM is omitted in the entire MX-ONE for the indicated period of time.

It is also possible to initiate recording of external dial tone delay (internal register state per incoming route). Start time and stop time shall be stated within one 24 hour period. The system responds by sending the assigned measurement number.

27.6.3

EXAMPLE 1

Initiate traffic recording on external dial tone delay in LIM1 and 2, between 08:00 and 16:00 hours, and from May 1 to May 30, 2006.

TRDDI:LIM=1&2,TIMEI=08-00,TIMEE=16-00,DATE=2006-05-01&& 2006-05-30; YOUR MEASUREMENT NUMBER = 6 EXECUTED
--

27.6.4

EXAMPLE 2

Initiate traffic recording on external dial tone delay for route 4 between 08:00 and 16:00 hours from May 1 to May 30, 2005.

TRDDI:ROU=4,TIMEI=08-00,TIMEE=16-00,DATE=2005-05-01&& 2005-05-30; YOUR MEASUREMENT NUMBER = 7 EXECUTED
--

27.6.5

EXAMPLE 3

Initiate traffic recording on dial tone delay in the whole MX-ONE between 06:00 and 20:00 hours from May 1 to May 15, 2005.

TRDDI:TIMEI=06-00,TIMEE=20-00,DATE=2005-05-01&&2006-05-15; YOUR MEASUREMENT NUMBER = 8 EXECUTED

27.6.6

COMMAND CATEGORY

Dangerous = **No**

27.7

TRDIP

Traffic recording directory print

27.7.1 FORMAT

TRDIP[:MENO=]

MENO = Measurement number.

27.7.2 FUNCTION

This command obtains a printout of the traffic recording directory. The printout provides information about the data initiated for the indicated traffic measurement, or - if the MENO parameter is omitted for all traffic measurements.

27.7.3 PRINTOUT

TRAFFIC RECORDING DIRECTORY									
[DIRECTORY EMPTY]									
MENO	OBJECT	START1	STOP1	START2	STOP2	TIME	LIM	INFO	
.
.
.
[END]									

DIRECTORY	No traffic recording object has been initiated.
EMPTY	
INFO	Supplementary information Depending on which recording object is printed out one or more of the following printouts will be obtained
BPOS	Board position for IP device board.
CORG	Directory number of origin group.
DIR	Directory number of recording object for which printout has been obtained.
GRP	Directory number of internal group hunting group number.
ROU	Route number.
TRU	External line numbe5
LIM	LIM number States LIM number included in the recording. ALL is stated if the recording covers the entire MX-ONE. The parameter applies for the following measurement object: CONFER, KEYC-R, KEYC-S, and TONE-R. The parameter applies for the following measurement objects unless otherwise stated under INFO: EXTENS, TRUNKS, PCMLIN, DIALDY, and IP-DEV.
OBJECT	Measurement object. The following measurement objects are indicated: CONFER CONFERENCE

DIALDY	DIAL TONE DELAY
EXTENS	VOICE EXTENSION
IP-DEV	IP DEVICE BOARD
KEYC-R	KEY CODE RECEIVER
KEYC-S	KEY CODE SENDER
OPCORG	CALL ORIGIN GROUP - FOR PBX OPERATOR
OPINDI	PBX OPERATOR INDIVIDUAL
OPMANN	PBX OPERATOR MANNED TIME
PBXGRP	INTERNAL GROUP HUNTING GROUP NUMBER
PCMLIN	PCM LINE
ROUBWY	BOTHWAY ROUTE
ROUDDI	DIRECT INDIALLING ROUTE
ROUDIO	DIRECT INDIALLING & OUTGOING TRUNK ROUTE
ROUINC	INCOMING ROUTE
ROUOUT	OUTGOING ROUTE
tone-R	tone RECEIVER
TRUNKS	TRUNK INDIVIDUAL

START1	Start date 1 Indicates the first date for start of traffic recording
START2	Start date 2 Indicates the date when traffic recording is to start the second time
STOP1	Stop date 1 Indicates the date when traffic recording is to stop the first time
STOP2	Stop date 2 Indicates the date when traffic recording is to stop the second time
TIME	Time States start time and stop time within one 24 hour period.

27.7.4

EXAMPLE 1

Print out the directory information for traffic recording with measurement No. 17.

TRDIP:MENO=17;								
TRAFFIC RECORDING DIRECTORY								
MENO	OBJECT	START1	STOP1	START2	STOP2	TIME	LIM	INFO
17	EXTENS	24JUL05	29JUL05			07:30-11:00	1	
END								

The directory contents for traffic measurement No. 17 indicate that the measurement object is the set of voice extensions initiated in the system for LIM number 1. Recording takes place between 07:30 and 11:00 hours every day from July 24th to July 29th, 2005.

27.7.5

EXAMPLE 2

Print out all the contents of the traffic recording directory.

TRDIP;								
TRAFFIC RECORDING DIRECTORY								
MENO	OBJECT	START1	STOP1	START2	STOP2	TIME	LIM	INFO
6	DIALDY	10AUG05	25AUG05			07:00-16:00		
10	OPCORG	01MAY05	30MAY05			09:00-17:15		CORG=7
12	TRUNKS	02JUL05	04JUL05	06JUL05	08JUL05	13:30-15:30		
END								

The traffic recording directory provides information about the following initiated traffic measurements.

Measurement No. 6 refers to recording on dial-tone delay between 07:00 and 16:00 hours from August 10 to August 25, 2005.

Measurement No. 10 refers to recording on group-of-origin 7 between 09:00 and 17:15 hours from May 1 to May 30, 2005.

Measurement No. 12 refers to recording on all trunks between 13:30 and 15:30 hours from July 2 to July 8, 2005 excluding July 5.

27.7.6

COMMAND CATEGORY

Dangerous = **No**

27.8

TRDPE

Traffic recording data processing end

27.8.1

FORMAT

TRDPE;

27.8.2

FUNCTION

This command disables the data processing and all other traffic recording activities, including the congestion supervision. It also disables all other TR-commands, except TRDPI. All ongoing measurements have to be removed before TRDPE can be executed.

27.8.3

EXAMPLE

Stop all traffic recording activities.

TRDPE; EXECUTED

27.8.4 COMMAND CATEGORY

Dangerous = **No**

27.9 TRDPI

Traffic recording data processing initiate

27.9.1 FORMAT

TRDPI:[PATH=];

TRDPI: [PATH =];

PATH = Path Description.

27.9.2 FUNCTION

This command enables the data processing and all other traffic recording activities, including the congestion supervision. The PATH parameter is mandatory if no valid path for the traffic files is already initiated in the system. Otherwise, it is optional, but if introduced will overwrite the existing path value.

It is mandatory to initiate a valid path via TRDPI before the traffic recording function is activated and any traffic measurement can be initiated.

TRDPI can be introduced only when the traffic recording function is not active, that is, initially or after a TRDPE command has been entered.

27.9.3 EXAMPLE 1

Start the traffic recording again.

```
TRDPI;
EXECUTED
```

27.9.4 EXAMPLE 2

Start the traffic recording and dump all traffic data to this location.

```
TRDPI:PATH= "/var/opt/eri_sn/traffic_recording/";
EXECUTED
```

27.9.5 COMMAND CATEGORY

Dangerous = **No**

27.10 TRDPP

Traffic recording data processing print

27.10.1 FORMAT

TRDPP;

27.10.2 FUNCTION

This command shows both the currently stored path and the present status of the traffic recording function (active/passive).

27.10.3 EXAMPLE

Show the traffic path and status of the function.

```
TRDPP;
TRAFFIC MEASUREMENT DATA
STATE  PATH
ACT    /opt/eri_sn/tr/
END
```

27.10.4 COMMAND CATEGORY

Dangerous = **No**

27.11 TREXI

Traffic recording voice extension initiate

27.11.1 FORMAT

TREXI: $\left[\left[\begin{array}{l} \text{LIM=...,} \\ \text{DIR=...,} \end{array} \right] \right] \text{TIMEI=,TIMEE=,DATE=...;}$

DATE = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.

DIR = Directory number. Voice extension number.
& and && are allowed for this parameter.

LIM = LIM number.
& and && are allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.11.2 FUNCTION

This command initiates traffic recording at a voice extension or a group of extensions in a node/LIM or a group of nodes/LIMs. If both DIR and LIM are omitted, traffic recording will be initiated on all extensions in the MX-ONE. The start and stop times are

to be stated within a 24-hour period. The system responds by sending the assigned measurement number.

In this command, voice extension means analog extension or digital extension.

27.11.3

EXAMPLE 1

Initiate traffic recording on extensions 1532 and 1535 between 08:00 and 16:00 hours on August 15 and August 16, 2005.

```
TREXI:DIR=1532&1535,TIMEI=08-00,TIMEE=16-00, DATE=2005-08-15&&2005-08-16;
YOUR MEASUREMENT NUMBER = 16
EXECUTED
```

27.11.4

EXAMPLE 2

Initiate traffic recording on LIM number 8 between 06:00 and 20:00 hours from May 1 to May 15, 2005.

```
TREXI:LIM=8,TIMEI=06-00,TIMEE=20-00, DATE=2005-05-01&&2005-05-15;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

27.11.5

EXAMPLE 3

Initiate traffic recording on all extensions in the PBX between 06:00 and 20:00 hours from May 1 to May 15, 2005.

```
TREXI:TIMEI=06-00,TIMEE=20-00,DATE=2005-05-01&& 2005-05-15;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

27.11.6

COMMAND CATEGORY

Dangerous = **No**

27.12

TRIP

Traffic recording IP device initiate

27.12.1

FORMAT

TRIP: [LIM=,]TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which a recording is to be performed.
& and && are allowed for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.12.2

FUNCTION

This command initiates traffic recording on IP/H.323 devices in a node/LIM or in a group of nodes/LIMs. If the parameter LIM is omitted, the function will be initiated on all IP devices in the MX-ONE. The start and stop times should be stated for the same 24-hour period. The system responds by sending the assigned measurement number.

27.12.3

EXAMPLE 1

Initiate traffic recording on IP devices in LIM number 1, and between 12:00 and 15:00 hours from July 14 to August 15, 2005.

```
TRIP:TIMEI=12-00,TIMEE=15-00,DATE=2005-07-14&&2005-08-15;
YOUR MEASUREMENT NUMBER = 1
EXECUTED
```

27.12.4

EXAMPLE 2

Initiate traffic recording on all IP devices in LIM number 5 between 10:30 and 13:30 hours from August 2 to August 9, 2005, excluding August 5.

```
TRIP:LIM=5,TIMEI=10-30,TIMEE=13-30,
DATE=2005-08-02&&2005-08-04&2005-08-06&&2005-08-09;
YOUR MEASUREMENT NUMBER = 10
EXECUTED
```

27.12.5

EXAMPLE 3

Initiate traffic recording on all IP devices in the MX-ONE between 05:00 hours and 22:00 hours from September 15 to September 30, 2005.

```
TRIP:TIMEI=05-00,TIMEE=22-00,DATE=2005-09-15&&2005-09-30;
YOUR MEASUREMENT NUMBER = 15
EXECUTED
```

27.12.6

COMMAND CATEGORY

Dangerous = **No**

27.13

TRKRI

Traffic recording key code receiver initiate

27.13.1

FORMAT

TRKRI: [LIM=,]TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is required.
& and && are allowed for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.13.2

FUNCTION

This command initiates traffic recording on key code receivers in the indicated LIM, group of LIMs, or if the LIM parameter is omitted, in the entire MX-ONE. Start and stop times are stated with one 24 hour period.

The system responds by sending the assigned measurement number.

The command is only available for MX-ONE Classic LIMs.

27.13.3

EXAMPLE 1

Initiate traffic recording on the key (tone) code receivers in LIM 4 between 08:00 and 17:30 hours from June 2 to June 6, 2005.

```
TRKRI:LIM=4,TIMEI=08-00,TIMEE=17-30,
DATE=2005-06-02&& 2005-06-06;
YOUR MEASUREMENT NUMBER = 13
EXECUTED
```

27.13.4

EXAMPLE 2

Initiate traffic recording on all key (tone) code receivers in the MX-ONE between 09:00 and 15:00 hours from September 11 to September 18, 2005.

```
TRKRI:TIMEI=09-00,TIMEE=15-00,DATE=2005-09-11&&2005-09-18;
YOUR MEASUREMENT NUMBER = 14
EXECUTED
```

27.13.5

COMMAND CATEGORY

Dangerous = **No**

27.14

TRKSI

Traffic recording key code sender initiate

27.14.1

FORMAT

TRKSI: [LIM=,]TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is required.
& and && are allowed for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.14.2

FUNCTION

This command initiates traffic recording on the key (tone) code senders in the indicated LIM, group of LIMs, or if the LIM parameter is omitted, in the entire MX-ONE.

Start and stop times are to be stated within a 24 hour period. The system responds by sending the assigned measurement number.

The command is only available for MX-ONE Classic LIMs.

27.14.3

EXAMPLE 1

Initiate traffic recording on the key (tone) code senders in LIM 4 between 08:00 and 17:30 hours from June 2 to June 6, 2005.

```
TRKSI:LIM=4,TIMEI=08-00,TIMEE=17-30,
DATE=2005-06-02&& 2005-06-06;
YOUR MEASUREMENT NUMBER = 15
EXECUTED
```

27.14.4

EXAMPLE 2

Initiate traffic recording on all key (tone) code senders in the MX-ONE between 09:00 and 15:00 hours from September 11 to September 18, 2005.

```
TRKSI:TIMEI=09-00,TIMEE=15-00,DATE=2005-09-11&&2005-09-18;
YOUR MEASUREMENT NUMBER = 16
EXECUTED
```

27.14.5

COMMAND CATEGORY

Dangerous = **No**

27.15

TRMBI

Traffic recording cordless extension mobility initiate

27.15.1

FORMAT

TRMBI: $\left[\left\{ \begin{array}{l} \text{BPOS=...} \\ \text{LIM=...,} \end{array} \right. \left[\text{,RPN=...} \right] \right] \left[\text{,OBJNO=,} \right] \text{TIMEI=,TIMEE=,DATE=...;}$

- BPOS** = Board position. Board position for common fixed part.
& is allowed for this parameter if parameter RPN is omitted.
- DATE**= Date. Date or dates at which a recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.
- LIM** = LIM number.
& and && are allowed for this parameter.
- OBJNO** = Object number. The parameter is used to allow parallel measurements in the same LIM.
If the parameter is omitted, the default value is set to 0.
- RPN** = Radio fixed part number.
& is allowed for this parameter. If the parameter is omitted, the default value is set to ALL.
- TIMEE** = Time end. Stop time.
- TIMEI** = Time initiate. Start time.

27.15.2

FUNCTION

This command initiates traffic recording for mobility on one or more common fixed part/radio fixed part, on all common fixed parts/radio fixed parts in a LIM or group of LIMs, or - if the LIM and BPOS parameters are omitted - on all common fixed parts/radio fixed parts in the PBX. Start time and stop time are to be stated for one and the same 24-hour period. The system responds by sending the assigned measurement number.

27.15.3

EXAMPLE 1

Initiate traffic recording for mobility for cordless extension common fixed parts in LIM number 4, gateway B, magazine 0, board positions 10 and 20 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

```
TRMBI:BPOS=4B-0-10&4-0-20,TIMEI=10-00,TIMEE=13-00,
DATE=1998-07-15&&1998-08-20;
YOUR MEASUREMENT NUMBER = 2
EXECUTED
```

27.15.4

EXAMPLE 2

Initiate traffic recording for mobility for cordless extension common fixed parts in LIM number 2 between 13:30 and 15:30 hours from July 2 to July 8, 1998, **excluding** July 5.

```
DATE=1998-07-02&&1998-07-04&1998-07-06&&1998-07-08;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

27.15.5

EXAMPLE 3

Initiate traffic recording for mobility for all cordless extension common fixed parts in the PBX between 06:00 hours and 20:00 hours from May 1 to May 15, 1998.

```
TRMBI:TIMEI=06-00,TIMEE=20-00,
DATE=1998-05-01&& 1998-05-15;
YOUR MEASUREMENT NUMBER = 13
EXECUTED
```

27.15.6

EXAMPLE 4

Initiate traffic recording for mobility on cordless extension common fixed parts in LIM number 4, gateway A, magazine 0, board position 10, Radio Fixed Parts Number 2 and 3 in this LIM and object number 3 between 10:00 and 13:00 hours from July 15 to August 20, 1998.

```
TRMBI:BPOS=4A-0-10,RPN=2&3,OBJNO=3,TIMEI=10-00,
TIMEE=13-00,DATE=1998-07-15&&1998-08-20;
YOUR MEASUREMENT NUMBER = 5
EXECUTED
```

27.15.7

COMMAND CATEGORY

Dangerous = **No**

27.16

TRMEE

Traffic recording measurement end

27.16.1 FORMAT

TRMEE:MENO=;

MENO = Measurement number.

27.16.2 FUNCTION

This command deletes a traffic recording on the indicated measurement number and erases the associated measurement data.

27.16.3 EXAMPLE

Delete traffic recording with measurement number 18.

TRMEE:MENO=18;
EXECUTED

27.16.4 COMMAND CATEGORY

Dangerous = **No**

27.17 TRMHI

Traffic recording measurement halt initiate

27.17.1 FORMAT

TRMHI:MENO=;

MENO = Measurement number.

27.17.2 FUNCTION

This command initiates an interrupt of a traffic recording operation. The associated measurement data is not erased. If the same traffic recording operation is to continue, it must first be deleted and then re-initiated.

27.17.3 EXAMPLE

Terminate traffic recording operation with measurement number 1.

TRMHI:MENO=1;
EXECUTED

27.17.4 COMMAND CATEGORY

Dangerous = **No**

27.18

TROMI

Traffic recording operator manned time initiate

27.18.1

FORMAT

TROMI: $\left[\begin{array}{l} \text{CORG=} \\ \text{DIR=...} \end{array} \right] , \text{TIMEI=,TIMEE=,DATE=...;}$

CORG = Call origin group.

DATE = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.

DIR = Directory number. Directory number of individual PBX operator.
ALL is allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.18.2

FUNCTION

This command initiates traffic recording on the degree of attendance (state of the PBX operator console) for an individual PBX operator, all PBX operators in the PBX or all PBX operators in one origin group. Start time and stop time are to be stated in one 24 hour period. The system responds by sending the assigned measurement number.

27.18.3

EXAMPLE 1

Initiate traffic recording during the time of attendance of the PBX operator with extension number 7100 between 10:00 and 13:00 hours on July 15 and 20, 2005.

```
TROMI:DIR=7100,TIMEI=10-00,TIMEE=13-00,
DATE=2005-07-15& 2005-07-20;
YOUR MEASUREMENT NUMBER = 18
EXECUTED
```

27.18.4

EXAMPLE 2

Initiate traffic recording during the time of attendance of all PBX operators included in call origin group number 12 between 08:00 and 16:00 hours from May 2 through May 30, 2005.

```
TROMI:CORG=12,TIMEI=08-00,TIMEE=16-00,DATE=2005-05-02&&2005-05-30;
YOUR MEASUREMENT NUMBER = 19
EXECUTED
```

27.18.5

COMMAND CATEGORY

Dangerous = **No**

27.19

TROPI

Traffic recording operator initiate

27.19.1

FORMAT

TROPI: $\left[\begin{array}{l} \text{CORG=...} \\ \text{DIR=...} \end{array} \right] ,\text{TIMEI=},\text{TIMEE=},\text{DATE=...};$

CORG = Call origin group.
ALL is allowed for this parameter.

DATE = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.

DIR = Directory number. Directory number of individual PBX operator.
ALL is allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.19.2

FUNCTION

This command initiates traffic recording on an individual PBX operator or all PBX operators in the MX-ONE Service Node. For individual PBX operators, recording can be initiated on all PBX operators in an individual origin group or for all operators in all groups of origin. Start time and stop time are to be stated in a 24-hour period. The system responds by sending the assigned measurement number.

27.19.3

EXAMPLE 1

Initiate traffic recording on the PBX operator with individual PBX operator number 500 between 10:00 and 13:00 hours on July 15, 2005.

```
TROPI:DIR=500,TIMEI=10-00,TIMEE=13-00,DATE=2005-07-15;
YOUR MEASUREMENT NUMBER = 1
EXECUTED
```

27.19.4

EXAMPLE 2

Initiate traffic recording on all PBX operators included in group of origin 7 between 09:00 and 17:15 from May 1 through May 30, 2005.

TROPI:CORG=7,TIMEI=09-00,TIMEE=17-15,DATE=2005-05-01&& 2005-05-30;
YOUR MEASUREMENT NUMBER = 10
EXECUTED

27.19.5

COMMAND CATEGORY

Dangerous = **No**

27.20

TRPBI

Traffic recording PBX-group initiate

27.20.1

FORMAT

TRPBI:GRP=,TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is to be performed.
& and && are permitted for this parameter, but only one & will be accepted.

GRP = Group number. Directory number for internal group hunting (PBX) group number.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.20.2

FUNCTION

This command initiates traffic recording on an internal group hunting number. The initiate and end times refer to one and the same 24-hour period (day). The system responds by sending the assigned measurement number.

27.20.3

EXAMPLE

Initiate traffic recording on internal group hunting (PBX) group number 8170 between 10:00 and 13:00 hours on July 15, 2005.

TRPBI:GRP=8170,TIMEI=10-00,TIMEE=13-00,DATE=2005-07-15;
YOUR MEASUREMENT NUMBER = 2
EXECUTED

27.20.4

COMMAND CATEGORY

Dangerous = **No**

27.21 TRPEE

Traffic recording print and erase end

TRPEE;

27.21.1 FORMAT

TRPEE;

27.21.2 FUNCTION

This command will inform the traffic recording function that an external device has completed reading the traffic recording data from the data collection buffer and now the buffer can be erased.

This command is only used after the last command TRREP following the TRPEI command. See the command 27.22 TRPEI on page 505 TRPEI.

Note: This command should never be entered manually. It should only be used when TR data are collected automatically by an external device, for example, a PC.

27.21.3 EXAMPLE

Erase traffic recording data collection buffer.

<pre>TRPEE; EXECUTED</pre>

27.21.4 COMMAND CATEGORY

Dangerous = **No**

27.22 TRPEI

Traffic recording print and erase initiate

27.22.1 FORMAT

TRPEI;

TRPEI;

27.22.2 FUNCTION

The command will inform the traffic recording function that an external device is about to read traffic recording data from the data collection buffer.

This command is only used when an external device, such as a PC, is used for data collection, storage, post processing and presentation of traffic recording data.

Note: This command should never be entered manually. It should only be used when TR data are collected automatically by an external device, for example, a PC.

27.22.3

EXAMPLE

Start reading the traffic recording data by using command TRREP and erase the data collection buffer by command TRPEE.

```
TRPEI;
EXECUTED
```

27.22.4

COMMAND CATEGORY

Dangerous = **No**

27.23

TRPGI

Traffic recording paging initiate

27.23.1

FORMAT

TRPGI: $\left[\begin{array}{l} \text{SAR=} \\ \text{PN=} \\ \text{DIR=} \end{array} \right] , \text{TIMEI=}, \text{TIMEE=}, \text{DATE=...};$

DATE = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.

DIR = Directory number. Directory number with paging function.

PN = Paging number. This number can be a common or an extra paging number.

SAR = Search area number.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.23.2

FUNCTION

This command initiates traffic recording on an extension connected to the paging function, on an individual paging number (common or extra), or on search (paging) area. The start time and stop time are to be stated within one 24-hour period.

The system responds with the assigned measurement number.

27.23.3

EXAMPLE 1

Initiate traffic recording on extension 5230, which is connected to the paging function between 10:00 and 13:00 hours on July 15, 2007.

```
TRPGI:DIR=5230,TIMEI=10-00,TIMEE=13-00,DATE=2007-07-15;
```

```
YOUR MEASUREMENT NUMBER = 4
EXECUTED
```

27.23.4

EXAMPLE 2

Initiate traffic recording on extra paging number 7700 between 08:00 and 16:00 from May 1 to May 30, 2008.

```
TRPGI:PN=7700,TIMEI=08-00,TIMEE=16-00,DATE=2008-05-01&& 2008-05-30;
YOUR MEASUREMENT NUMBER = 5
EXECUTED
```

27.23.5

EXAMPLE 3

Initiate traffic recording on search (paging) area 12 between 06:00 and 20:00 hours from May 1 to May 15, 2007.

```
TRPGI:SAR=12,TIMEI=06-00,TIMEE=20-00,DATE=2007-05-01&& 2007-05-15;
YOUR MEASUREMENT NUMBER = 6
EXECUTED
```

27.23.6

COMMAND CATEGORY

Dangerous = **No**

27.24

TRPLI

Traffic recording PCM line initiate

27.24.1

FORMAT

$$\text{TRPLI:} \left[\left[\begin{array}{l} \text{BPOS} = \dots \\ \text{LIM} = \dots, \end{array} \right] , \text{TIMEI} = , \text{TIMEE} = , \text{DATE} = \dots ; \right]$$

- BPOS** = Board position.
& is allowed for this parameter.
- DATE** = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.
- LIM** = LIM number.
& and && are allowed for this parameter.
- TIMEE** = Time end. Stop time.
- TIMEI** = Time initiate. Start time.

27.24.2

FUNCTION

This command initiates traffic recording on one or more PCM lines, on all PCM lines in a LIM or group of LIMs, or- if the LIM and BPOS parameters are omitted - on all PCM lines in the PBX.

The Start time and stop time are to be stated for one and the same 24-hour period.

The system responds by sending the assigned measurement number.

27.24.3

EXAMPLE 1

Initiate traffic recording on a PCM line in LIM number 4, gateway A, magazine 0, board positions 00 and 10 between 10:00 and 13:00 hours from July 15 to August 20, 2007.

```
TRPLI:BPOS=4A-0-00&4-0-10,TIMEI=10-00,TIMEE=13-00,
DATE=2007-07-15&&2007-08-20;
YOUR MEASUREMENT NUMBER = 2
EXECUTED
```

27.24.4

EXAMPLE 2

Initiate traffic recording on all PCM lines in LIM number 2 between 13:30 and 15:30 hours from July 2 to July 8, 2007, **excluding** July 5.

```
TRPLI:LIM=2,TIMEI=13-30,TIMEE=15-30,
DATE=2007-07-02&&2007-07-04&2007-07-06&&2007-07-08;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

27.24.5

EXAMPLE 3

Initiate traffic recording on all PCM lines in the PBX between 06:00 hours and 20:00 hours from May 1 to May 15, 2007.

```
TRPLI:TIMEI=06-00,TIMEE=20-00,DATE=2007-05-01&&2007-05-15;
YOUR MEASUREMENT NUMBER = 13
EXECUTED
```

27.24.6

COMMAND CATEGORY

Dangerous = **No**

Sequence number for authorization code: 7751

27.25

TRREP

Traffic recording result print

27.25.1

FORMAT

TRREP:MENO=[,PERIOD=][,TIMEI=][,TIMEE=][,DATE=];

- DATE =**

Date. The date at which a printout is to be performed. If the parameter is omitted, the date of the recording operation applies.
One && is allowed for this parameter.
- MENO =**

Measurement number.
- PERIOD =**

Periodicity in printout.
The time interval at which the recording result is to be presented. Periodicity would be given to make printout of the collected recording results every full quarter of an hour. If the parameter is omitted and measuring has been going on at least 4 quarters, the printout will contain only the time and recording result for the busy hour of each day.
- TIMEE =**

Time end.
Gives the subset of the collected recording data which is to be printed out. If the parameter is omitted, the time of stop will be the same as that of the recording operation.
- TIMEI =**

Time initiate.
Gives the subset of the collected recording data which is to be printed out. If the parameter is omitted, the time of start will be the same as that of the recording operation.

27.25.2

FUNCTION

This command results in a printout of the recording data for the indicated measurement number. Various types of printouts are available, depending on which recording object has been initiated for the indicated measurement number; see under PRINTOUTS below. The various parameters of the printouts are described under PARAMETERS below. The command defines how much of the data collected during the measurement period should be printed out. The indications refer to the time of start (TIMEI) and the time of stop (TIMEE) of the period (within the recording operation) for which collected recording data is to be printed out. DATE indicates the days for which recording data (that is, a subset of the total amount of recording data collected) is to be printed out. Times of start and stop are given within one and the same day.

The following table shows how the DATE, TIMEI and TIMEE parameters are used in the command.

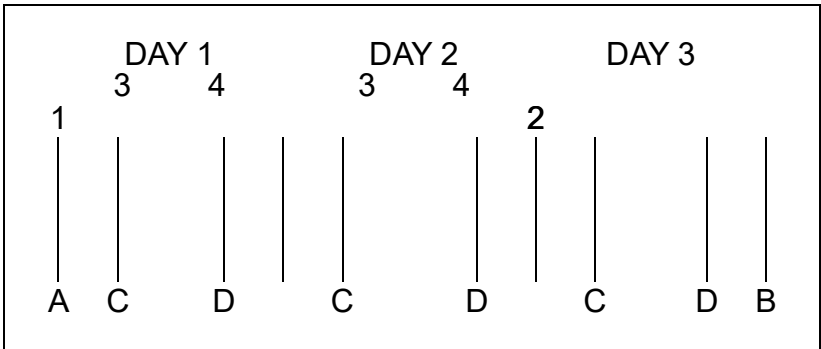


Figure 1:
Table 4 Times defined when initiating a recording operation:

A	=	Date of start
B	=	Date of stop

A - B	=	Length of recording operation
C	=	Hour of start
D	=	Hour of stop
C - D	=	Time of recording per day

Table 5 Times defined by command.

1	=	Date of start
2	=	Date of stop
1 - 2	=	Period for printout of recording data (DATE)
3	=	Hour of start (TIMEI)
4	=	Hour of stop (TIMEE)
3 - 4	=	Time per day (TIMEI, TIMEE)

In the case illustrated by the above figure the recording result is printed out if the present time is after 4. For the dashed sections the result is printed out at the time interval given in the PERIOD parameter.

If only busy hour is to be printed out, no times of start and/or stop are to be stated. Busy hour is calculated for the whole of the initiated time of recording per day.

27.25.3

PRINTOUTS

- Recording on individual PBX operator.
- Recording on group of origin.
- Recording of degree of attendance for all PBX operators.
- Recording of degree of attendance for individual PBX operators.
- Recording of degree of attendance for the PBX operators in a group of origin.
- Recording of dial tone delay.
- Recording on key code receivers, key code senders, and tone receivers.
- Recording on internal group hunting (PBX) group number.
- Recording on conference traffic.
- Recording on voice extension and external line.
- Recording on incoming route.
- Recording on outgoing route.
- Recording on bothway route.
- Recording on IP device board.

27.25.4

PRINTOUT 1

TRAFFIC RECORDING RESULT DATA									
DATE	MENO	OPERATOR							
...	...	DIR ...							
TIME	CORGC	HCORGC	OPC	HOPC	DLYOPC	REC	HREC	DLYREC	
	OPIC	HOPIC	IABND	WABND	ABNDREC	WABNDREC	RESPT	ABND	

...
...
[BUSY HOUR START TIME ]					.	.	.	.	.	.
END					.	.	.	.	.	.

27.25.5 PRINTOUT 2

TRAFFIC RECORDING RESULT DATA									
DATE	MENO	CALL ORIGIN		GROUP					
...	...	CORG		...					
TIME		ANS	ANSSEC	DLTOT	HNLTOT	ABND	WAITTOT	WAITXCEED	
.	
.	
.	
[BUSY HOUR START TIME...]									
END									

Figure 2: Recording on group of origin.

27.25.6 PRINTOUT 3

TRAFFIC RECORDING RESULT DATA			
DATE	MENO	OPERATORS	PRESENT
...	...	DIR ...	
TIME	PRES	IDLE	
.	.	.	
.	.	.	
.	.	.	
END			

Figure 3: Recording of degree of attendance for all PBX operators.

27.25.7

PRINTOUT 4

TRAFFIC RECORDING RESULT DATA			
DATE	MENO	OPERATORS PRESENT	
...	...	DIR ...	
TIME	PRESI	IDLEI	
.	.	.	
.	.	.	
.	.	.	
END			

Figure 4: Recording of degree of attendance for an individual PBX operator.

27.25.8

PRINTOUT 5

TRAFFIC RECORDING RESULT DATA				
DATE	MENO	OPERATORS PRESENT		
...	...	CORG ...		
TIME	PRESPRI	PRESSEC	IDLEPRI	IDLESEC
.
.
.
END				

Figure 5: Recording of degree of attendance for the PBX operators in a group of origin.

27.25.9

PRINTOUT 6

```

TRAFFIC RECORDING RESULT DATA

DATE      MEMO  OBJECT
...       ...   DIALDY

TIME      CALLS  CALL1  CALL3  CALL10  TERM  ACCU
.         .     .     .     .         .   .
.         .     .     .     .         .   .
.         .     .     .     .         .   .

[BUSY HOUR START TIME ...]

END

```

Figure 6: Recording of dial tone delay.

27.25.10

PRINTOUT 7

```

TRAFFIC RECORDING RESULT DATA

DATE      MEMO  OBJECT
...       ...   ...

TIME      TRAFF  CALLS  NDV   NBLO   CONGO  CONGP  OFLO
.         .     .     .     .     .     .   .
.         .     .     .     .     .     .   .
.         .     .     .     .     .     .   .

[BUSY HOUR START TIME ...]

END

```

Figure 7: Recording on key code receivers, key code senders, and tone receivers.

27.25.11

PRINTOUT 8

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OBJECT
...       ...  PBXGRP

TIME TRAFF CALLS CONG QCAL QTIME QLEN QABN QMAXT PREMB ABSMB
.      .      .      .      .      .      .      .      .      .
.      .      .      .      .      .      .      .      .      .
.      .      .      .      .      .      .      .      .      .

[BUSY HOUR START TIME ...]

END

```

Figure 8: Recording on internal group hunting number.

27.25.12

PRINTOUT 9

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OBJECT
...       ...  ...

TIME      TRAFF  CALLS  NDV  NBLO  CONG
.          .      .      .      .      .
.          .      .      .      .      .
.          .      .      .      .      .

[BUSY HOUR START TIME...]

END

```

Figure 9: Recording on conference traffic.

27.25.13

PRINTOUT 10

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OBJECT
...      ...   ...

TIME      TRAFF  CALLS  NDV  NBLO
.         .     .     .     .
.         .     .     .     .
.         .     .     .     .

[ BUSY HOUR START TIME ]

END
    
```

Figure 10: Recording on voice extensions and external lines.

27.25.14

PRINTOUT 11

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  ROUTE
...      ...   ROU   ...

TIME      TRAFF  CALLS  NDV  NBLO
.         .     .     .     .
.         .     .     .     .
.         .     .     .     .

[ BUSY HOUR START TIME ]

END
    
```

Figure 11: Recording incoming route.

27.25.15

PRINTOUT 12

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  ROUTE
...      ...   ROU   ...

TIME      TRAFF  CALLS  NDV  NBLO  OFLO  CONG
.          .      .      .      .      .      .
.          .      .      .      .      .      .
.          .      .      .      .      .      .

[BUSY HOUR START TIME ...]

END

```

Figure 12: Recording on outgoing route.

27.25.16

PRINTOUT 13

```

TRAFFIC RECORDING RESULT DATA

DATE      MENO  ROUTE
...      ...   ROU   ...

TIME      TRAFF  OUTG.CALLS  INC.CALLS  NDV  NBLO  OFLO  CONG
.          .      .      .      .      .      .      .
.          .      .      .      .      .      .      .
.          .      .      .      .      .      .      .

[BUSY HOUR START TIME ...]

END

```

Figure 13: Recording on bothway route.

27.25.17

PRINTOUT 14

TRAFFIC RECORDING RESULT DATA					
DATE	MENO	OBJECT			
...			
TIME	TRAFF	CALLS	NDV	NBLO	CONG
.
.
.
[BUSY HOUR START TIME]					
END					

Figure 14: Recording on IP device.

27.25.18

PARAMETERS

ABND

The number of abandoned calls to a PBX operator.

ABNDREC

The number of abandoned recalls for an individual PBX operator.

ABSMB

The number of absent marked and blocked group members.

ACCU

The accumulated time of delay (in seconds) for all calls with a dial tone delay of more than 1 second.

ANS

The number of answered calls to a group of origin.

ANSSEC

The number of calls answered by a secondary PBX operator.

BUSY HOUR START TIME

The point in time when busy hour starts for the day concerned. No printout is produced if the time of recording is less than one hour, or if the hours of start and/or stop have been stated differently from those valid for the recording operation.

CALL1

The number of calls with a dial tone delay of more than 1 second.

CALL3

The number of calls with a dial tone delay of more than 3 seconds.

CALL10

The number of calls with a dial tone delay of more than 10 seconds.

CALLS

The total number of call attempts, successful as well as unsuccessful. EXAMPLES of the latter category are unanswered calls and calls that encounter congestion. For recording objects that may have both incoming and outgoing calls, these are recorded regardless of direction. For the recording objects data extension and IP extension board, calls that encounter busy state are also recorded (this does not apply to the other recording objects).

CONG

The number of calls that encounter congestion. Depending on the recording object, congestion is defined as follows:

- No free device individual available
- No free group member available
- No free queue position available
- No free time slot available

CONGO

Congestion overflowing. The number of calls that encounter congestion when making attempts in some other LIM.

CONGP

The number of calls that encounter congestion on a PCM link when making seizure attempts in some other LIM.

CORG

Group of origin (call origin group).

CORGC

The number of answered calls to a group of origin.

DATE

Date of traffic recording.

DIR

Directory number for the object of the recording.

DLYOPC

The time of delay (stated in seconds), which means the time from the moment a call to a PBX operator is detected, (queued) to the moment it is answered by the PBX operator. Delay time = queue time plus response time, see also RESPT. The value of DLYOPC is rounded down to the nearest ten.

DLYREC

The time of delay (in seconds) for recall. See also DLYOPC. The value of DLYREC is rounded down to the nearest 10.

DLYTOT

The total time of delay (in seconds) for a group of origin. See also DLYOPC.

HCORGC

The handling time (in seconds), which means the time from the moment a call to a group of origin is answered to the moment the handling procedure is completed.

HNDLTOT

The total handling time (in seconds) for a group of origin. See also HCORGC.

HREC

The handling time (in seconds) for recalls. See also HCORGC.

HOPC

The handling time (in seconds) for calls to an individual PBX operator. See also HCORGC.

HOPIC

The handling time (in seconds) of operator- initiated calls, from the moment the call is initiated to the moment the handling procedure is completed. The value of HOPIC is rounded down to the nearest ten.

IABND

The number of abandoned calls to an individual PBX operator.

IDLE

The mean value of the number of free (idle) PBX operators. Here free means that the PBX operator is marked as present but not as busy.

IDLEI

The mean value of the free state for a PBX operator. Value range = 0.00 - 1.00.

IDLEPRI

The mean value of the number of free primary PBX operators in a group of origin.

IDLESEC

The mean value of the number of free secondary PBX operators in a group of origin.

INC.CALLS

The number of incoming calls.

NBLO

The number of manually blocked individuals (devices) included in the measurement. For PCM lines, the number of blocked time slots. For IP extension boards, the number of boards with any kind of blocking or that do not answer when data collection is in progress.

NBRD

The number of IP extension boards included in the measurement.

NDV

The number of individuals (devices), included in the measurement. For PCM lines: the number of time slots.

OBJECT

Type of recording object: (for example)

CONFER

Conference equipment

DIALDY

Dial tone delay

EXTENS

Voice extension

IP-DEV

IP device board

KEYC-R

Key-code receiver

KEYC-S

Key-code sender

PBXGRP

Internal group hunting group (PBX) number

PCMLIN

PCM line

TONE-R

Tone receiver

TRUNKS

External lines

OFLO

Overflow. Depending on the recorded object, overflow is defined as:

- The number of calls that result in seizure attempts in some other LIM.

- The number of calls that result in switch over to an alternative route.

OPC

The number of answered calls sent to an individual PBX operator.

OPIC

The number of calls initiated by a PBX operator.

OUTG.CALLS

The number of outgoing calls.

PACKETS

Parts per thousand of dropped and lost packets in the traffic flow.

PREMB

The number of present-marked group members.

PRES

The mean value of the number of present marked PBX operators.

PRESI

The mean value of the present state for a PBX operator. Value range: 0.00-1.00

PRESPRI

The mean value of the number of present marked primary PBX operators in a group of origin.

PRESSEC

The mean value of the number of present marked secondary PBX operators in a group of origin.

QABN

The number of abandoned calls in queue.

QCAL

The number of queue calls.

QLEN

The mean queue length.

QMAXT

The maximum individual queuing time (in seconds).

QTIME

The mean queuing time in seconds.

REC

The number of answered recalls.

REJINC

The number of rejected incoming data calls

RESPT

The total response time for all calls. The response time (in seconds) for each call is recorded from the moment the call is displayed on the PBX operator console to the moment it is answered. Queue time is not included in response time. See also DLYOPC.

ROU

Route number.

STIME

The mean value of the paging time (in seconds), that is, the time from the moment the call is detected to the moment it is answered, for all calls.

TERM

The number of terminated call attempts without dial tone after 1 second.

TIME

Hours of start and stop during one and the same day.

TRAFF

Traffic intensity in Erlang. Value range: 0.00 - 9999.99.

Note: Traffic is indicated for the recording object internal group (PBX) number even when a group member records traffic as a non-group member.

WABND

Waiting Time for Abandoned Calls. The waiting time (in seconds) for abandoned calls, that is, the time from the moment the call is detected (placed in queue) until the moment it disappears without being attended to. The value of WABND is rounded down to the nearest ten.

WABNDREC

The waiting time (in seconds) for abandoned recalls. The value of WABNDREC is rounded down to the nearest ten.

WAITEXCEED

The number of calls whose waiting time (queuing time) exceeds a value set by the *global_traffic_data* command.

WAITTOT

The total waiting (queuing) time (in seconds) for calls that are not attended to.

27.25.19

EXAMPLE 1

Request a printout for measurement number 18 of the recording result obtained every full quarter of an hour between 10:30 and 11:30 on July 20, 2005.

```
TRREP:MENO=18,PERIOD=2,TIMEI=10-30,TIMEE=11-30,DATE=2005-07-20;

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OPERATORS PRESENT
20JUL05   18    DIR = 7100

TIME      PRESI  IDLEI
10:30-10:45  0.87  0.55
10:45-11:00  1.00  0.43
11:00-11:15  1.00  0.51
11:15-11:30  1.00  0.46

END
```

Measurement number 18 applies to recording of the degree of attendance of a PBX operator with individual PBX operator number 7100. The printout is interpreted as follows:

Between 10:30 and 10:45 the PBX operator is present-marked for 87% of 15 minutes and free-marked (that is, not busy) for 55% of the time the operator is marked as present.

During the other 15-minute periods the PBX operator is present-marked all the time, and free-marked for 43%, 51% and 46%, respectively, of the time the PBX operator is marked as present.

27.25.20

EXAMPLE 2

Print out the recording result for measurement number 1 at 1-hour intervals.

```

TRREP:MENO=1, PERIOD=1;

TRAFFIC RECORDING RESULT DATA

DATE      MENO  OPERATOR
15JUL05   1     DIR = 500

TIME      CORGC HCORGC  OPC  HOPC  DLYOPC      REC  HREC  DLYREC
          OPIC  HOPIC  ABND  WABND  ABNDREC  WABNDREC  RESPT
10:00-11:00  11   120   0    0      0      2    17    10
              8    110   0    0      0      0    18
10:15-11:15  30   184   3    40     10      0      0      0
              25   300   0    0      0      0    66
10:30-11:30  12   126   1    28     20      0      0      0
              10    15   0    0      0      0    41
BUSY HOUR START TIME = 10:15
END

```

For measurement number 1 a recording result is obtained for a PBX operator with directory number 500. The measurement has been initiated for 10:00 to 11:30 on July 15, 2005. The following data are presented for the period 10:00 to 11:00 hours:

- 11 calls are sent to the PBX operator group of origin and answered by the PBX operator. The handling time for these calls is 120 seconds.
- 2 recalls are sent to the PBX operator. The handling time for these recalls is 17 seconds and the time of delay is 10 seconds.
- 8 calls are initiated by the PBX operator. The handling time for these calls is 110 seconds.
- The total response time for all calls is 18 seconds.

The following data are presented for the period 10:15 to 11:15:

- 30 calls are sent to the PBX operator group of origin and answered by the PBX operator. The handling time for these calls is 184 seconds.
- 3 calls sent to the PBX operator individual directory number are answered.
- The handling time for these is 40 seconds and the delay time 10 seconds.
- 25 calls are initiated by the PBX operator. The total handling time for these calls is 300 seconds.
- The total response time for all calls is 66 seconds.
- This one-hour period coincides with the busy hour of the day concerned.

27.25.21

EXAMPLE 3

Printout the recording data for busy hour for measurement number 16.

```

TRREP:MENO=16;

TRAFFIC RECORDING RESULT DATA

DATE          MEMO  OBJECT
15AUG05       16   EXTENS

TIME          TRAFF  CALLS  NDV   NBLO
13:45-14:45   0.24    13    7     0

DATE          MEMO  OBJECT
16AUG05       16   EXTENS

TIME          TRAFF  CALLS  NDV   NBLO
10:15-11:15   0.18    11    7     0

END

```

The recording data for busy hour refers to the recording object voice extension.

On 15 August 2005 the busy hour began at 13:45. The traffic intensity is 0.24 Erlang. The number of calls is 13. The number of board individuals (devices) is 7, none of which are blocked.

On 16 August 2005 the busy hour began at 10:15. The traffic intensity is 0.18 Erlang. The number of calls is 11. The rest of the data items are the same as for 15 August.

27.25.22

EXAMPLE 4

Request a printout for measurement number 1 of the recording result obtained every full quarter of an hour.

```

TRREP:MENO=1,PERIOD=2;

TRAFFIC RECORDING RESULT DATA

DATE          MEMO  OBJECT
17NOV05       1    IP-DEV

TIME          TRAFF  CALLS  NBRD  NBLO  CONG
13:00-13:15   0.15     4     2     1     0

END

```

The recording data refer to the recording object (virtual) IP device.

On 17 November 2005 between 13:00 and 13:15 the traffic intensity is 0.15 Erlang. The number of calls is 4. The number of boards (devices) is 2, one of them is blocked. The mean value of jitter is 20. There are neither lost packets nor dropped packets.

27.25.23

COMMAND CATEGORY

Dangerous = **No**

27.26

TRROI

Traffic recording route initiate

27.26.1

FORMAT

TRROI:ROU=,TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is to be performed.
& and && are permitted for this parameter, but only one & will be accepted.

ROU = Route number.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.26.2

FUNCTION

This command initiates traffic recording on a route for the indicated period of time. The initiate and end times refer to one and the same 24-hour period (day). The system responds by sending the assigned measurement number.

27.26.3

EXAMPLE

Initiate traffic recording on route 23 between 06:45 and 17:15 hours on May 22, 2005.

TRROI:ROU=23,TIMEI=06-45,TIMEE=17-15,DATE=2005-05-22;
YOUR MEASUREMENT NUMBER = 7
EXECUTED

27.26.4

COMMAND CATEGORY

Dangerous = **No**

27.27

TRRSI

Traffic recording route supervision value initiate

27.27.1 FORMAT

TRRSI:ROU=,SVAL=;

ROU = Route number.
SVAL = Supervision value.

27.27.2 FUNCTION

This command initiates or alters a congestion supervision value for the indicated route. An alarm is generated and sent to the alarm log if the proportion of calls that encounter congestion reaches the preset congestion value.

27.27.3 EXAMPLE

The congestion supervision value is to be set at 600 per thousand for route 86.

```
TRRSI:ROU=86,SVAL=600;  
EXECUTED
```

27.27.4 COMMAND CATEGORY

Dangerous = **No**

27.28 TRRSP

Traffic recording route supervision value print

27.28.1 FORMAT

TRRSP[:ROU=];
TRRSP[:ROU=];

ROU = Route number.

27.28.2 FUNCTION

This command achieves a printout of the congestion supervision value for an individual route, or if the ROU parameter is omitted, for all routes in the MX-ONE.

27.28.3 PRINTOUT

CONGESTION SUPERVISION DATA	
ROU	SVAL(0/00)
.	.
.	.

```
END
```

SVAL(0/00)

Supervision value in per thousand.

27.28.4

EXAMPLE 1

Request a printout of the congestion supervision value for route 86.

```

TRRSP:ROU=86;
CONGESTION SUPERVISION DATA
ROU          SVAL(0/00)
   86          600
END

```

The congestion supervision value is 600 per thousand for route 86.

27.28.5

EXAMPLE 2

Request a printout of the congestion supervision value for all routes in the MX-ONE.

```

TRRSP;
CONGESTION SUPERVISION DATA
ROU          SVAL (0/00)
   23          50
   25         430
   37          50
   58         800
   86         600
END

```

The congestion supervision value is 50 per thousand for routes 23 and 37, 430 per thousand for route 25, 800 per thousand for route 58 and 600 per thousand for route 86.

27.28.6

COMMAND CATEGORYDangerous = **No**

27.29

TRTLI

Traffic recording trunk line initiate

27.29.1

FORMAT

TRTLI: $\left[\left[\begin{array}{l} \text{ROU=,TRU=...,} \\ \text{LIM=...,} \end{array} \right] \right] \text{ TIMEI=,TIMEE=,DATE=...;}$

DATE = Date. Date or dates at which recording shall be performed.
& and && are allowed for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are allowed for this parameter.

ROU = Route number.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

TRU = Trunk line number. External line number (LIM and line number for trunk line).
& is allowed for this parameter.

27.29.2

FUNCTION

This command initiates traffic recording on one or more external lines in the indicated route, on all external lines in a LIM, and if parameters LIM, ROU and TRU are omitted for all external lines, in the entire MX-ONE. Start time and stop time are stated in a 24-hour period. The system responds by sending the assigned measurement number. All trunk types are covered by this command.

27.29.3

EXAMPLE 1

Initiate traffic recording on an external line in route 4, LIM 1 and lines 40 and 41 between 10:00 and 13:00 hours from July 15 through August 20, 2005.

```
TRTLI:ROU=4,TRU=1-40&1-41,TIMEI=10-00,TIMEE=13-00,
DATE=2005-07-15&&2005-08-20;
YOUR MEASUREMENT NUMBER = 11
EXECUTED
```

27.29.4

EXAMPLE 2

Initiate traffic recording on all lines in LIM 2 between 13:30 and 15:30 hours from July 2 through July 8, 2005, **excluding** July 5.

```
TRTLI:LIM=2,TIMEI=13-30,TIMEE=15-30,
DATE=2005-07-02&&2005-07-04&2005-07-06&&2005-07-08;
YOUR MEASUREMENT NUMBER = 12
EXECUTED
```

27.29.5

EXAMPLE 3

Initiate traffic recording on all external lines in the MX-ONE Service Node between 06:00 and 20:00 from May 1 through May 15, 2005.

```
TRTLI:TIMEI=06-00,TIMEE=20-00,DATE=2005-05-01&&2005-05-15;
YOUR MEASUREMENT NUMBER = 3
EXECUTED
```

27.29.6

COMMAND CATEGORY

Dangerous = **No**

27.30

TRTRI

Traffic recording tone receiver initiate

27.30.1

FORMAT

TRTRI:[LIM=,]TIMEI=,TIMEE=,DATE=;

DATE = Date. Date or dates at which recording is to be performed.
& and && are permitted for this parameter, but only one & will be accepted.

LIM = LIM number.
& and && are allowed for this parameter.

TIMEE = Time end. Stop time.

TIMEI = Time initiate. Start time.

27.30.2

FUNCTION

This command initiates traffic recording on the tone receivers in the indicated LIM or group of LIMs, or if the LIM parameter is omitted, on all tone receivers in the MX-ONE for the indicated period of time. The initiate and end times refer to one and the same 24-hour period (day).

The system responds by sending the assigned measurement number.

The command is only available for MX-ONE Classic LIMs.

27.30.3

EXAMPLE 1

Initiate traffic recording on the tone receivers in LIM 4 between 08:00 and 17:30 hours from June 2 through June 6, 2005.

```
TRTRI:LIM=4,TIMEI=08-00,TIMEE=17-30,DATE=2005-06-02&& 2005-06-06;
YOUR MEASUREMENT NUMBER = 16
EXECUTED
```


27.30.4

EXAMPLE 2

Initiate traffic recording on all tone receivers in the MX-ONE between 09:00 and 15:00 hours from September 11 through September 18, 2005.

TRTRI:TIMEI=09-00,TIMEE=15-00,DATE=2005-09-11&&2005-09-18; YOUR MEASUREMENT NUMBER = 17 EXECUTED
--

27.30.5

COMMAND CATEGORY

Dangerous = **No**

28 VM - VOICE MAIL

28.1 VMFUE

Voice Mail Function End

28.1.1 FORMAT

VMFUE:IFCIND=;

IFCIND = Information computer individual.
The sequence number for the relevant information system.
& and && are allowed for this parameter.

28.1.2 FUNCTION

The command removes one or more voice mail systems.

28.1.3 EXAMPLE

Remove the voice mail systems connected to information computer individuals 1 and 2.

VMFUE:IFCIND=1&2;
EXECUTED

28.1.4 COMMAND CATEGORY

Dangerous = **No**

28.2 VMFUI

Voice Mail Function Initiate

28.2.1 FORMAT

VMFUI:IFCIND=,VMF=,POFMT=;

IFCIND = Information computer individual.
The sequence number for the relevant information system.
& and && are allowed for this parameter.

POFMT = Port number format.

VMF = Voice mail functionality.

28.2.2 FUNCTION

The command results in initiation of a voice mail system (which means that the information computer individual is affiliated with the voice mail system) and defines the functionality of the voice mail system to be used in the signal interface between the MX-ONE Service Node and that voice mail system.

28.2.3 EXAMPLE

Initiate the voice mail system connected to information computer individual 1 and set extended functionality, the port number format to 2 digits.

```
VMFUI:IFCIND=1,VMF=EXTND,POFMT=2;
EXECUTED
```

28.2.4 COMMAND CATEGORY

Dangerous = **No**

28.3 VMFUP

Voice Mail Function Data Print

28.3.1 FORMAT

VMFUP [:IFCIND=];

VMFUP [:IFCIND=];

IFCIND = Information computer individual.
The sequence number for the relevant information system.
& and && are allowed for this parameter.

28.3.2 FUNCTION

The command results in printout of the data for one or more or all the voice mail systems connected to the exchange.

28.3.3 PRINTOUT

VOICE MAIL FUNCTION DATA		
IFCIND	VMF	POFMT
...
END		

POFMT Port number format.
VMF Voice mail functionality.

28.3.4

EXAMPLE

Print out data for the voice mail systems connected to IFC individuals 1, 2, and 3.

VMFUP:IFCIND=1&2&3;		
VOICE MAIL FUNCTION DATA		
IFCIND	VMF	POFMT
01	EXTND	02
02	STD	02
03	EXTN2	02
END		

The voice mail system on information computer individual 1 has been initiated as follows:

- Extended functionality
- 2 digits for the port number format

While the voice mail system on information computer individual 2 has been initiated with:

- Standard functionality
- 2 digits for the port number format

And the voice mail system on information computer individual 3 has been initiated with:

- Extended level 2 functionality
- 2 digits for the port number format

28.3.5

COMMAND CATEGORY

Dangerous = **No**

28.4

VMGEE

Voice Mail Generic Extension End

28.4.1

FORMAT

VMGEE:DIR=;

DIR = Directory number.
 Directory number for generic extension.
 && and & are allowed for this parameter.

28.4.2

FUNCTION

The command results in removal of one or more generic voice mail ports, i.e. ports affiliated to directory numbers for generic extensions

28.4.3 EXAMPLE

Remove the generic port affiliated to directory number 964.

```
VMGEE:DIR=964;
EXECUTED
```

28.4.4 COMMAND CATEGORY

Dangerous = **No**

28.5 VMGEI

Voice Mail Generic Extension Initiate

28.5.1 FORMAT

$$\text{VMGEI : IFCIND} = \left[, \left\{ \begin{array}{l} \text{DIR} = \dots \\ \text{GRP} = \dots \end{array} \right\} \right];$$

DIR = Directory number.
Directory number for generic extension.
&& and & are allowed for this parameter.

GRP = Group number.
Directory number for internal group hunting group (PBX group).
&& and & are allowed for this parameter.

IFCIND = Information computer individual.
The sequence number for the relevant information system.

28.5.2 FUNCTION

The command results in the initiation of one or more voice mail ports for the voice mail system connected to the specified information computer individual. This means one or more affiliations between a voice mail port in the specified voice mail system and a generic extension in the PBX.

Only for generic extensions initiated as IP extensions the voice mail functionality will be fully available.

An internal group hunting group (PBX group) can be defined as message diversion position. In this case each extension included in the group shall also be affiliated to a separate generic port by entering the VMGEI command.

28.5.3 EXAMPLE 1

Affiliate generic extension 964 to the generic voice mail system connected to information computer individual number 1.

```
VMGEI:IFCIND=1,DIR=964;
EXECUTED
```

28.5.4

EXAMPLE 2

Affiliate internal group hunting group 2560 to the IP voice mail system connected to information computer individual number 1.

```
VMGEI :IFCIND=1,GRP=2560;
EXECUTED
```

28.5.5

COMMAND CATEGORY

Dangerous = **No**

28.6

VMGEP

Voice Mail Generic Extension Print

28.6.1

FORMAT

VMGEP [: { **IFCIND= ...** } { **DIR= ...** }] ;

DIR = Directory number. Directory number for generic extension.
&&, & and ALL are allowed for this parameter.

IFCIND = Information computer individual.
The sequence number for the relevant information system.
&, && and ALL are allowed for this parameter.

28.6.2

FUNCTION

This command results in printout of the generic extensions defined as voice mail ports.

If the parameters are omitted all the generic extensions defined as voice mail ports for all voice mail systems will be printed out.

28.6.3

PRINTOUT

```
GENERIC VOICE MAIL DATA
DIR                                IFCIND
...                                ...
END
```

28.6.4

EXAMPLE

Print out data for the generic voice mail systems connected to IFC individuals 1 and 2.

```

VMGEP:IFCIND=1&2;
GENERIC VOICE MAIL DATA
DIR                                IFCIND
964                                01
965                                01
966                                02
END

```

Generic extensions 964 and 965 belong to the generic voice mail system connected to the information computer individual 1. Generic extension 966 belongs to the generic voice mail system connected to the information computer individual 2.

28.6.5

COMMAND CATEGORY

Dangerous = **No**

28.7

VMPOE

Voice Mail Port End

28.7.1

FORMAT

VMPOE: { **DIR= ...** } ;
 { **GRP= ...** }

DIR = Directory number. Directory number for analog extension.
 && and & are allowed for this parameter.

GRP = Group number. Directory number for internal group hunting group (PBX group).
 && and & are allowed for this parameter.

28.7.2

FUNCTION

The command results in removal of one or more voice mail ports, i.e. ports affiliated to directory numbers for analog extensions.

The group number is to be stated when removing an internal group hunting group (PBX group) which has been defined as a message diversion position.

28.7.3

EXAMPLE 1

Remove the port affiliated to directory number 964.

```

VMPOE:DIR=964;
EXECUTED

```

28.7.4

EXAMPLE 2

Remove the group with directory number 911, which has been defined as message diversion position.

```
VMPOE:GRP=911;
EXECUTED
```

28.7.5

COMMAND CATEGORY

Dangerous = **No**

28.8

VMPOI

Voice Mail Port Initiate

28.8.1

FORMAT

$$\text{VMPOI:IFCIND} = \left\{ \begin{array}{l} \text{DIR} = \dots, \text{PORT} = \\ \text{GRP} = \dots \end{array} \right\} ;$$

- DIR =** Directory number. Directory number for analog extension.
&& and & are allowed for this parameter.
- GRP =** Group number.
Directory number for internal group hunting group (PBX group).
&& and & are allowed for this parameter.
- IFCIND =** Information computer individual. The sequence number for the relevant information system.
- PORT =** Voice mail port. Port number in the voice mail system.
When & or && are stated in DIR, the parameter value port is used as start value.

28.8.2

FUNCTION

The command results in the initiation of one or more voice mail ports for the voice mail system connected to the specified information computer individual. This means one or more affiliations between a voice mail port in the specified voice mail system and an analog extension in the MX-ONE Service Node. At the same time, the analog extension individual concerned is defined as a message diversion position.

Each voice mail port is physically connected over a voice channel to the analog extension concerned.

An internal group hunting group (PBX group) can be defined as message diversion position, in which case the GRP parameter is used. Each extension individual included in the group shall also be initiated to a separate port by entering the VMPOI command.

28.8.3

EXAMPLE 1

Connect extension 964 to port 63 in the voice mail system connected to information computer individual number 1.

```
VMPOI:IFCIND=1,DIR=964,PORT=63;
EXECUTED
```

28.8.4

EXAMPLE 2

Define the group with directory number 911 as message diversion position for the voice mail system connected to information computer individual 2.

```
VMPOI:IFCIND=2,GRP=911;
EXECUTED
```

28.8.5

COMMAND CATEGORY

Dangerous = **No**

28.9

VMPOP

Voice Mail Port Print

28.9.1

FORMAT

$$\text{VMPOP} \left[: \left\{ \begin{array}{l} \text{DIR} = \dots \\ \text{PORT} = \dots \\ \text{GRP} = \dots \\ \text{IFCIND} = \dots \end{array} \right\} \right];$$

- DIR =** Directory number. Directory number for analog extension. &&, & and ALL are allowed for this parameter.
- GRP =** Group number. Directory number for internal group hunting group (PBX group). &&, & and ALL are allowed for this parameter.
- IFCIND =** Information computer individual. The sequence number for the relevant information system. &&, & and ALL are allowed for this parameter.
- PORT =** Voice mail port. Port number in the voice mail system. &, && and ALL are allowed for this parameter.

28.9.2

FUNCTION

The command results in printout of initiated voice mail ports and/or internal group hunting groups (PBX groups) defined as message diversion positions.

If the parameters are omitted, the voice mail ports and internal group hunting groups for all voice mail systems will be printed out. The internal group hunting groups numbers (PBX groups) is shown last in the printout.

28.9.3 PRINTOUT 1 (DIR/PORT)

VOICE MAIL PORT DATA		
DIR	PORT	IFCIND
.	.	.
.	.	.
.	.	.
END		

The printout is in increasing order of directory numbers if parameter DIR is specified or in increasing order of port numbers if parameter PORT is specified.

28.9.4 PRINTOUT 2 (GRP)

VOICE MAIL GROUP DATA	
GRP	IFCIND
.	.
.	.
.	.
END	

The printout is in increasing order of group numbers.

28.9.5 PRINTOUT 3 (IFCIND/NO PARAMETER)

VOICE MAIL PORT DATA		
DIR	PORT	IFCIND
.	.	.
.	.	.
VOICE MAIL GROUP DATA		
GRP	IFCIND	
.	.	
.	.	
VOICE MAIL PORT DATA		
DIR	PORT	IFCIND
.	.	.
.	.	.
VOICE MAIL GROUP DATA		
GRP	IFCIND	
.	.	
.	.	
END		

Both printouts are produced one after the other for each IFCIND parameter value that was entered (all information computer individual assigned for voice mail application if parameter value was ALL).

The DIR/PORT part of the printout (if any) is in increasing order of the directory numbers. The GRP part of the printout, if any, is in increasing order of the internal group hunting group (PBX group) numbers.

28.9.6

EXAMPLE 1

Print out of data for voice mail ports 63 - 66.

```

VMPOP:PORT=63&&66;
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
964          63           01
965          64           01
966          65           02
967          66           01
END

```

Voice mail ports 63,64, 65 and 66 are affiliated to the analog extension individuals 964 - 967. Voice mail ports 63, 64 and 66 belong to the voice mail system connected to the information computer individual 1. Voice mail port 65 belongs to the voice mail system connected to information computer individual 2.

28.9.7

EXAMPLE 2

Print out data for all groups which have been defined as message diversion position for the voice mail function.

```

VMPOP:GRP=ALL;
VOICE MAIL GROUP DATA
GRP          IFCIND
910          01
911          02
END

```

The groups with directory numbers 910 and 911 are defined as message diversion positions. Group 910 is initiated for voice mail system connected to information computer individual 1, while group 911 is defined for the voice mail system connected to information computer individual 2.

28.9.8

EXAMPLE 3

Print out all information on the voice mail system connected to information computer individual number 1 and 2.

```
VMPOP:IFCIND=1&2;
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
964          63           01
965          64           01
967          66           01
VOICE MAIL GROUP DATA
GRP          IFCIND
910          01
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
966          65           02
VOICE MAIL GROUP DATA
GRP          IFCIND
911          02
END
```

Printout is according to Examples 1 and 2.

28.9.9 EXAMPLE 4

Print out all information on all the voice mail systems connected to the exchange.

```
VMPOP:IFCIND=ALL;
or
VMPOP;
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
964          63           01
965          64           01
967          66           01
VOICE MAIL GROUP DATA
GRP          IFCIND
910          01
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
966          65           02
968          67           02
VOICE MAIL GROUP DATA
GRP          IFCIND
911          02
VOICE MAIL PORT DATA
DIR          PORT          IFCIND
970          1001         04
END
```

28.9.10 COMMAND CATEGORY

Dangerous = **No**

29

ZO - SURVEILLANCE, OBSERVATION AND MONITORING

29.1

ZODLE

SOM data link end

29.1.1

FORMAT

ZODLE:PSW=;

PSW = Password.

The parameter is used for protection against unauthorized administration of the SOM application.

29.1.2

FUNCTION

The command disconnects the SOM data link.

29.1.3

EXAMPLE

Disconnect the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

```
ZODLE:PSW=ABCDEF;  
ZODLE:PSW=ABCDEF;  
SURE? (YES/NO)  
YES;  
EXECUTED
```

29.1.4

COMMAND CATEGORY

Dangerous = **Yes**

29.2

ZODLI

SOM data link initiate

29.2.1

FORMAT

ZODLI:PSW=, CCLDEV=, ECLDEV=, [PTIMER=,] { COM=, PORT1=,[PORT2=,] } {MONROU=,CNTRY=,[NUMFMT=, ROU=,][NODTYP=,] [ACCDIG=,[ICTDIG=,][PREDIG=,][PRVDIG=,][CTYCDS=]]};

ACCDIG =	Access Digits. The parameter specifies the access code for PSTN calls.
CCLDEV =	Control Channel Device. The parameter specifies the identity of the control channel.
CNTRY =	Country Code. The parameter specifies whether the Country is Russia or not.
COM =	Communication Port. The parameter specifies which type of port is used for connecting the channel.
CTYCDS =	City Codes. This parameter specifies the access codes to the cities to which MX-ONE node is connected.
ECLDEV =	Event Channel Device. The parameter specifies the identity of the event channel.
ICTDIG =	Intercity Digits. This parameter specifies the access code for intercity calls.
MONROU =	Monitored route number. This parameter specifies the route numbers that shall be monitored by the SOM feature.
NUMFMT =	Number Format. The parameter specifies the object number format used in the control orders and events.
NODTYP =	Node Type. The parameter specifies if the MX-ONE service node acts as a Terminal communication node, Transit node or Transit-terminal node.
PORT1 =	Local Port Number. The parameter states local port number on which the server will bind.
PORT2 =	Local Port Number. The parameter states local port number on which the server will bind.
PSW =	Password. The parameter is used for protection against unauthorized administration of the SOM application.
PREDIG =	Prefix Digit. This parameter specifies the A-number prefix digit.
PRVDIG =	Service Provider Digits. This parameter specifies the service provider code.
PTIMER =	Passive State Timer. The parameter specifies the timer value in minutes within which if no control order is received through SCC, events are not sent to SCC.
ROU =	Route number for a SOM route (TL99 route).

29.2.2

FUNCTION

The command initiates the data link and its channels, the CCL and ECL. The channels are connected either to the corresponding V.24 or USB port or TCP/IP interface.

29.2.3

EXAMPLE 1

Initiate the data link between the SCC and the MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, and COM=YES (V.24 port).

```
ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, COM=YES;
EXECUTED
```

29.2.4

EXAMPLE 2

Initiate the data link between the SCC and the MX-ONE MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, and Local Port Number= 30001.

```
ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001;
EXECUTED
```

29.2.5

EXAMPLE 3

Initiate the data link between the SCC and the MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, and Local Port Number2= 30002.

```
ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1,
PORT1=30001,PORT2=30002;
EXECUTED
```

29.2.6

EXAMPLE 4

Initiate the data link between the SCC and the MX-ONE Service Node with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, Local Port Number2= 30002, and Passive State Timer =10. Country is not Russia. Monitored route numbers shall be 12 and 13.

```
ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001,
PORT2=30002,PTIMER=10,CNTRY=0,MONROU=12&13;
EXECUTED
```

29.2.7

EXAMPLE 5

Initiate the data link between the SCC and the MX-ONE Service Node for Russia, with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, Local Port Number2= 30002, Passive State Timer =10, MX-ONE Service Node type as "Transit-terminal node", and accepting International number format, route number is 99, access code 9 and Intercity code 6. Monitored route numbers shall be 33 and 59.

```
ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001,
PORT2=30002,PTIMER=10,CNTRY=1,NODTYP=3,NUMFMT=1,ROU=99,
ACCDIG=9,ICTDIG=6,MONROU=33&59;
EXECUTED
```


29.2.8 EXAMPLE 6

Initiate the data link between the SCC and the MX-ONE Service Node for Russia, with Control Channel Device = CONCHAN1, Event Channel Device = EVCHAN1, Local Port Number1= 30001, Local Port Number2= 30002, Passive State Timer =10, MX-ONE Service Node type as Terminal communication node, accepting OWN numbering format, access code 9, Intercity code 6, A-number prefix digit 3, Service Provider digits 51, and City codes 812 and 813.

```
ZODLI:PSW=ABCDEF,CCLDEV=CONCHAN1,ECLDEV=EVCHAN1, PORT1=30001,
PORT2=30002,PTIMER=10,CNTRY=1,NODTYP=1,NUMFMT=0,ACCDIG=9,ICTDIG=6,
PREDIG=3,PRVDIG=51,CTYCDS=812&813;
EXECUTED
```

29.2.9 COMMAND CATEGORY

Dangerous = **No**

29.3 ZODLP

SOM data link print

29.3.1 FORMAT

ZODLP:PSW=;

PSW = Password. The parameter is used for protection against unauthorized administration of the SOM application.

29.3.2 FUNCTION

The command is used to print data for the SOM data link.

29.3.3 PRINTOUT

SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	PTIMER	PORT1	PORT2	IP		
...	
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMFMT	MONROU	ROU	NODTYP	CTYCDS
...
END								

CCLDEV Control Channel Device.
ACCDIG Access Code for PSTN calls.

PREDIG	A-Number Prefix Digit.
CTYCDS	City Codes.
COM	Communication Port.
ECLDEV	Event Channel Device.
ICTDIG	Access Code for Intercity calls.
IP	IP address.
MONROU =	Monitored route number.
NODTYP	MX-ONE Service node Type.
NUMFMT	Number format.
PORT1	Local Port Number.
PORT2	Local Port Number.
PRVDIG	Service Provider Digits.
PTIMER	Passive State Timer.
ROU	Route number (of the TL99 route).

29.3.4

EXAMPLE 1

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

```

ZODLP:PSW=ABCDEF;
SOM DATA LINK DATA

CCLDEV      ECLDEV      COM      CNTRY      PTIMER      PORT1      PORT2      IP
CONCHAN1    EVCHAN1    YES      0          ...         ...         ...         ...
ACCDIG      ICTDIG      PREDIG   PRVDIG     NUMFMT      MONROU     ROU        NODTYP     CTYCDS
...         ...         255     ...        0          12, 15     99         1         ...
END

```

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the V.24 port.

29.3.5

EXAMPLE 2

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

```

ZODLP:PSW=ABCDEF;
SOM DATA LINK DATA

CCLDEV      ECLDEV      COM      CNTRY      PTIMER      PORT1      PORT2      IP
CONCHAN1    EVCHAN1    YES      0          ...         ...         ...      192.168.27.210
ACCDIG      ICTDIG      PREDIG   PRVDIG     NUMFMT      MONROU     ROU        NODTYP     CTYCDS
...         ...         255     ...        0          ...        0         ...         ...
END

```

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the TCP/IP.

29.3.6

EXAMPLE 3

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

ZODLP:PSW=ABCDEF; SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	CNTRY	PTIMER	PORT1	PORT2	IP	
CONCHAN1	EVCHAN1	YES	1	10	...	...	...	...
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMFMT	MONROU	ROU	NODTYP	CTYCDS
9	7	255	51	1	33, 59	99	1	812, 814
END								

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the V.24 port and Passive Time configured to 10 minutest.

29.3.7

EXAMPLE 4

Print data of the data link between the SCC and the MX-ONE Service Node using the password ABCDEF.

ZODLP:PSW=ABCDEF; SOM DATA LINK DATA								
CCLDEV	ECLDEV	COM	CNTRY	PTIMER	PORT1	PORT2	IP	
CONCHAN1	EVCHAN1	...	1	10	30001	30002	192.168.27.210	
ACCDIG	ICTDIG	PREDIG	PRVDIG	NUMFMT	MONROU	ROU	NODTYP	CTYCDS
9	7	255	51	1	...	99	1	812, 814
END								

The printed channels have the names CONCHAN1 and EVCHAN1, and the channels are connected through the TCP/IP Dual ports connection and Passive Time configured to 10 minutes.

29.3.8

COMMAND CATEGORY

Dangerous = **No**

29.4

ZOPWC

SOM password change

29.4.1

FORMAT

ZOPWC:PSW=,NEWPSW=;

NEWPSW = New password. The parameter is used for protection against unauthorized administration of the SOM application.
For value, consult the parameter description for Surveillance, Observation and Monitoring.

PSW = Password. The parameter is used for protection against unauthorized administration of the SOM application.
For value, consult the parameter description for Surveillance, Observation and Monitoring.

29.4.2 FUNCTION

The command is used to change the O&M password for SOM.

29.4.3 EXAMPLE

Change the O&M password to the new password SECRET using the old password ABCDEF.

```
ZOPWC:PSW=ABCDEF,NEWPSW=SECRET;
ZOPWC:PSW=ABCDEF,NEWPSW=SECRET;
SURE? (YES/NO)
YES;
EXECUTED
```

29.4.4 COMMAND CATEGORY

Dangerous = **Yes**

29.5 ZOTGE

SOM trunk group end

29.5.1 FORMAT

ZOTGE:PSW=,TLG=;

PSW= Password.
The parameter is used for protection against unauthorized administration of the SOM application.

TLG= Trunk line group number.
The parameter specifies the trunk line group that is to be removed.

29.5.2 FUNCTION

The command removes a TLG, that is, the relation between a TLG and a PCM interface is removed.

29.5.3 EXAMPLE

Remove the TLG with serial number 2 from the system using the password ABCDEF.

```
ZOTGE:PSW=ABCDEF,TLG=2;
```

```
ZOTGE:PSW=ABCDEF,TLG=2;
SURE? (YES/NO)
YES;
EXECUTED
```

29.5.4 COMMAND CATEGORY

Dangerous = **Yes**

29.6 ZOTGI

SOM trunk group initiate

29.6.1 FORMAT

ZOTGI:PSW=,BPOS=,TLG=;

BPOS = Board position.

PSW = Password. The parameter is used for protection against unauthorized administration of the SOM application.

TLG = Trunk line group number. The parameter specifies the trunk line group that is to be removed.

29.6.2 FUNCTION

The command initiates a TLG, that is, a PCM interface is set up to be used for the SOM function.

29.6.3 EXAMPLE 1

Initiate a trunk line group in LIM 2, gateway A, magazine 1 at position 10, where it will be serial number 2. Use the password ABCDEF.

```
ZOTGI:PSW=ABCDEF, BPOS=2A-1-10, TLG=2;
EXECUTED
```

29.6.4 EXAMPLE 2

Initiate a trunk line group in LIM 2, gateway B, magazine 1 at position 10, where it will be serial number 3. Use the password ABCDEF

```
ZOTGI:PSW=ABCDEF, BPOS=2B-1-10, TLG=3;
EXECUTED
```

29.6.5 COMMAND CATEGORY

Dangerous = **No**

29.7

ZOTGP

SOM trunk group print

29.7.1

FORMAT

ZOTGP:PSW=[,TLG=];

PSW = Password. The parameter is used for protection against unauthorized administration of the SOM application.

TLG = Trunk line group number. The parameter specifies the trunk line group that is to be removed.

29.7.2

FUNCTION

The command prints data for initiated SOM trunk line groups (TLGs).

29.7.3

PRINTOUT

SOM TRUNK LINE GROUP DATA	
TLG	BPOS
...	...
...	...
END	

BPOS Board position.

29.7.4

EXAMPLE 1

Print the data of all TLGs in the system.

ZOTGP:PSW=ABCDEF;	
SOM TRUNK LINE GROUP DATA	
TLG	BPOS
1	1A-1-20
2	2A-1-10
3	2A-1-40
END	

TLG number 1 was assigned to board position 1A-1-20. TLGs 2 and 3 were also initiated.

29.7.5

EXAMPLE 2

Print the data for TLG 3.

ZOTGP:PSW=ABCDEF,TLG=3;	
SOM TRUNK LINE GROUP DATA	

TLG	BPOS
3	2B-1-10
END	

TLG number 3 was assigned to board position 2B-1-10.

29.7.6

EXAMPLE 3

Print the data for TLG 2.

ZOTGP:PSW=ABCDEF,TLG=2;	
SOM TRUNK LINE GROUP DATA	
TLG	BPOS
2	2A-1-10
END	

TLG number 2 was assigned to board position 2A-1-10.

29.7.7

COMMAND CATEGORY

Dangerous = **No**