A MITEL
PRODUCT
GUIDE

Unify OpenScape 4000 Assistant/Manager

System Management

Administrator Documentation
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Mitel

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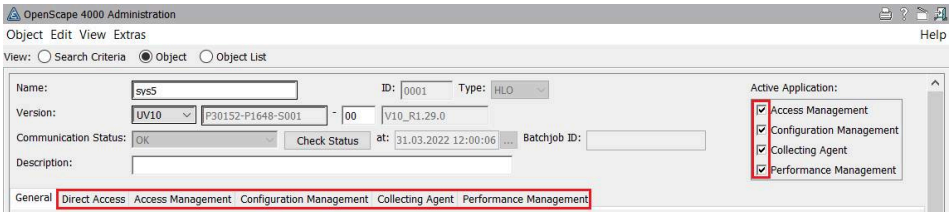
Contents

1 System Management - Overview

System Management (SysM) is responsible for the basic administration of OpenScape 4000 switches (also called "network objects" in this paper). A set of mandatory parameters must be configured to add a switch to the system, and System Management provides a user friendly GUI to configure, validate and store these to the database.

System Management keeps the basic data of switches and their status in the main database. It offers the possibility to enable/disable additional supporting applications and configure parameters belonging to these applications. In order to do this, it provides a framework for other applications like Access Management, CM, COL, PM. These applications have their own tabsheets (so called "hook-ins") in the SysM GUI which can be activated (if supported) via the checkbox in the top right corner.



The layout of the "hook-in" tab sheets in System Management is controlled by the corresponding applications as well as by the validation and storage of the respective data. System Management is the owner of the general system data and the mandatory tab sheets. The tab sheets General and Direct Access are always displayed.

NOTICE: System Management does not support a query functionality for application-specific configuration data, see Retrieving Switches.

1.1 Supported Systems

OpenScape Manager V11 System Management supports the administration of the following systems:

- OpenScape 4000 V8
- OpenScape 4000 V10
- OpenScape 4000 V11

The SysM GUI consists of different views. Depending on the selected system type and on the chosen view, different fields and contents may be displayed in the user interface.

ROLM Support

The ROLM switches are no longer supported since Manager V8.

NOTICE: For the administration of OpenScape 4000 networks via the OpenScape 4000 Manager, the Manager release must be equal to or higher than the Assistant release. The differences between Manager and Assistant database structures, may cause issues in data synchronization. Any required Manager

upgrade is therefore recommended prior to any installation/ upgrade of OpenScape 4000 systems.

1.1.1 Orphan Systems

System Management provides an interface for adding orphan systems. These are systems not completely configured (e.g. Fault Management gets an error from AFR of switch which is not yet configured). FM adds this switch via System Management as an orphan object, and the user is asked to perform further configuration steps. All orphan systems are collected and displayed separately.

After completing the configuration of the orphan object it is changed to a fully-qualified object.

1.2 Access Rights

System Management has three access levels for users:

- Read-Only: The user can only display the configuration data. All windows are displayed in read-only mode.
- Read-Write: The user has full access to all configurable data. All windows are displayed in the normal mode.
- Passwords: The user sees all passwords in clear text.

1.3 Help System

Several levels of assistance are provided in the Help system.

Help Topics

The first level contains the generic **Help Topics** which describe the functionality of the individual features. To start the **Help Topics**, you can:

- Press the **F1** key,

  or
- in the **Help** menu, select the **Help Topics** option.

Context Help

The second level, the so-called **Context Help**, provides specific information relating to the currently open dialog or to a selected field or element within that dialog. To start the **Context Help**, you can:

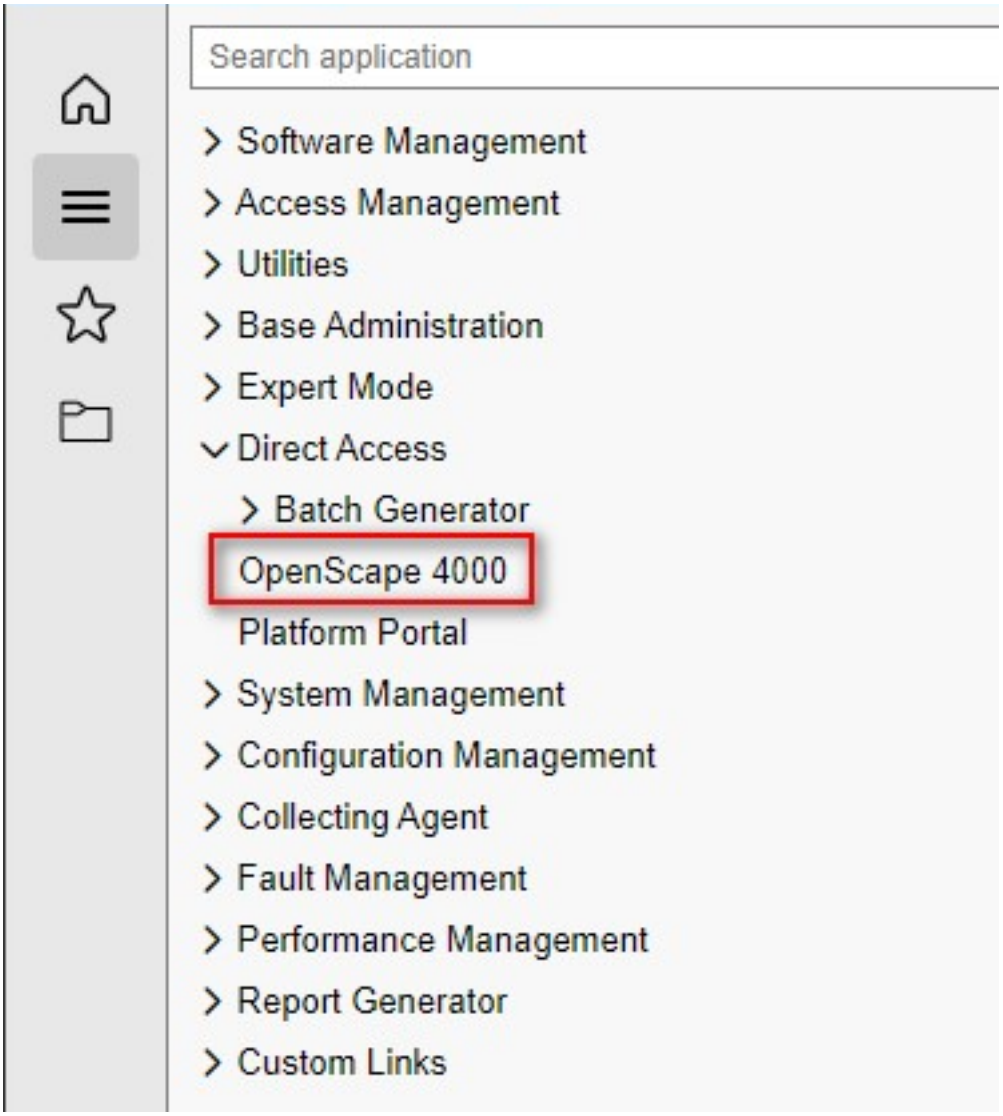
- position the cursor on a certain dialog, field or element of the System Management user interface and press **Ctrl+F1**,

  or
- click the "**?**" icon in the toolbar, then move the cursor to the desired dialog, field or element, and press the left mouse key,

  or

- in the Help menu, select Context Help, then move the cursor to the desired dialog, field or element, and press the left mouse key.

NOTICE: Please note that some dependent applications are not visible in the LAP until first switch is added to the SysM, see below.



Tooltips

Each field in the System Management dialogs has its associated tooltip, i.e. a short explanatory text describing the specific properties of the field. To display the tooltip of a field, move the mouse pointer to the field and keep it over the field until the tooltip is displayed.

2 Functionality

System Management may be started either from the application tree on the Start Page of **OpenScape 4000 Manager** or from an icon on the **OpenScape FM Desktop** network map.

System Management covers the following functional areas:

2.1 Host Systems (HS) vs. Access Point Emergency Systems (ES)

Switches can be configured either as

- **Host Systems (HS systems)**

  or as
- **Access Point Emergency Systems (AP ES systems)**

Every AP Emergency System (ES switch) must be assigned to one Host System (HS switch). Several AP Emergency Systems can be assigned to one Host System.

Modifying a Host System

The relationship between HS and ES switches is based on the **System Number** of the Host System. Changing the System Number of the Host System without changing HS System Number of the assigned ES switches would result in data inconsistency because ES switches would reference a nonexistent HS switch. To keep data consistent, modifying the System Number of the Host System also changes the HS System Number of the assigned ES switches to the new value of HS.

Because a Host System must be at least a **UV2.0** version object, saving it to a non-UV2.0 version will throw an exception if there are assigned ES switches for that host. Changing a UV2.0 or higher switch to a non-UV2.0 version can only be done after all assigned ES switches are deleted or reassigned to another HS switch.

Deleting a Host System

Because of the dependency between HS and ES switches, deleting an HS switch without updating the ES switch(es) could result in data inconsistency. For that reason, a UV2.0 or higher switch can only be deleted if there aren't any ES switches assigned to it. Deleting a UV2.0 switch which has at least one ES switch assigned to it throws an exception, and an appropriate message is

displayed. The server software checks whether a UV2.0 switch has assigned ES switches. In order to delete a UV2.0 switch, all assigned ES switches need to be deleted or reassigned to another HS switch prior to deletion.

Related Topics

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

Deleting a System

Direct Access Tab Sheet

Java Client Tracing in System Management

Report Generator

2.2 Retrieving Switches

The first dialog displayed when starting **System Management** is **View: Search Criteria**. This dialog enables you to enter search criteria for retrieving switches of a specific type. You can enter text, text with placeholders, or leave the fields blank. Search by date is not supported.

To get **all** configured systems displayed, simply click on **Search** without previously entering any search criteria. The result list then displayed in the **Object List** view will contain all configured systems.

Using Placeholders

***** Matches zero or more characters.

? Matches any single character.

[...] Matches any or all of the enclosed characters, including character ranges as in [a-z]. Characters inside the square brackets cannot be escaped.

^ As the first character within the square brackets, "^" matches any character that is not listed. Hence [^abc] matches any character that is not a, b, or c.

**** Removes the special significance of the next character (used to match * or ? by writing * or \?).

To search for Access Point Emergency systems (AP ES systems) only, check the **Access Point System** check box in the main dialog and leave the default asterisk **"*"** value in the **AP number** field before clicking the **Search** button. As a result, all AP Emergency systems configured on the server will be displayed in the **Object List** view.

To search for all other systems except AP Emergency systems, uncheck the **Access Point System** check box.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

Deleting a System

Direct Access Tab Sheet

Java Client Tracing in System Management

Report Generator

2.3 Retrieving Host Systems (HS Switches)

Host Systems (HS switches) can only be objects up from version **UV2.0**. Every AP emergency switch (ES switch) is assigned to a Host System (HS switch). Because every ES switch is assigned to an HS switch, System Management operations on an HS switch also affect all ES switches assigned to this HS switch.

To display all Host Systems configured on the selected server, press the **Browse** button located to the right of the **System Number** field in the **General/ System Data** tab sheet. The **Browse HS** dialog opens and displays the **HS System Number**, **Name** and **ID** of all HS systems configured on the selected server. server. If you select the item in the list and click OK, the System Number will be copied and thus the ES switch will be assigned to this HS.

When in the Object view of the ES switch, you can press the List ES button located to the right of the System Number field in the General/System Data tab sheet. The Assigned ES objects dialog opens and displays all Access Point Emergency switches assigned to the Host System previously selected. To navigate to one of the AP Emergency systems, select it from the Assigned ES objects dialog and click the OK button. The data of the selected AP Emergency system is then displayed in the Object view in the main dialog.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

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HiPath 4000 / OpenScape 4000 versions

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Report Generator

2.4 HiPath 4000 / OpenScape 4000 versions

For the OpenScape 4000 Manager Administration the major software version corresponds to the OpenScape 4000 Manager version.

For the OpenScape 4000 Administration the Product Release Version of the switch corresponds to the HiPath/OpenScape 4000 System Release. This is determined by the SWU APS (S-APS, ABFRAGENAPS). The 8th and 9th

position (after "B") of the Part Number indicates the HiPath/OpenScape 4000 System Release number, also called "variant".

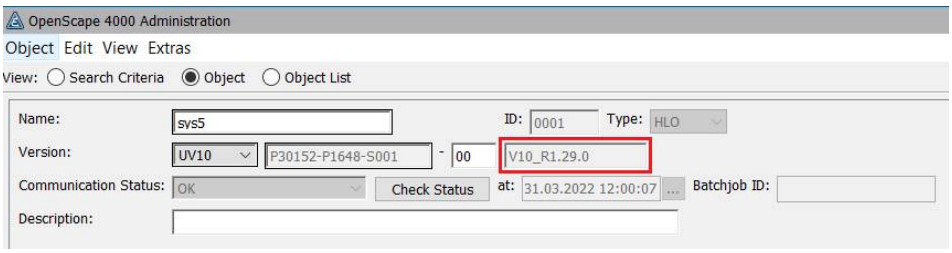
Each Part Number is based on the following rule:

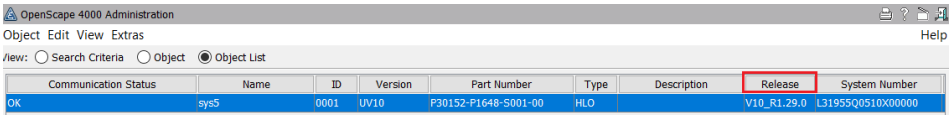
- Part Number: P30252-Bxx00-S001-pp
- xx ... System Release (also called Variant), uniquely corresponds to a version
- S001 ... Revision Level, 4 digits
- pp ... patch information, 2 digits "00", "01", ...

Mapping Version to System Release

Variant	System type	Short version
52	OpenScape 4000 V11	UV11
51	OpenScape 4000 V10	UV10
50	OpenScape 4000 V8	UV8
49	OpenScape 4000 V7	UV7
48	HiPath 4000 V6	UV6
47	HiPath 4000 V5	UV5
46	HiPath 4000 V4	UV4
45	HiPath 4000 V3.0	UV3.0
44	HiPath 4000 V2.0	UV2.0
43	HiPath 4000 V1.0	UV1.0
49	RG 8300 V7	RGV7
48	RG 8300 V6	RGV6
47	RG 8300 V5	RGV5

NOTICE: A new field "Release" showing the SWRM version of the Assistant was introduced (see screenshots below). This field is read-only and updated automatically in the Manager's database as soon as the Assistant is connected and properly configured (the functional daemon symRefection is required on both sides). Please remember that the SysM GUI is not updated instantly from the database, but only after the Object was searched again.





Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

Creating a New System

Deleting a System

Direct Access Tab Sheet

Java Client Tracing in System Management

Report Generator

2.5 Creating a New System

Clicking on the New button in the Object menu or in the lower right corner of the System Management dialog opens the New Object view. If the data of an existing network object has been displayed before opening the New Object view, the contents of certain fields are not deleted, but kept from the previously displayed object in order to ease the creation of the next/new one.

The following fields will not be cleared and will keep the existing data from a previously displayed object:

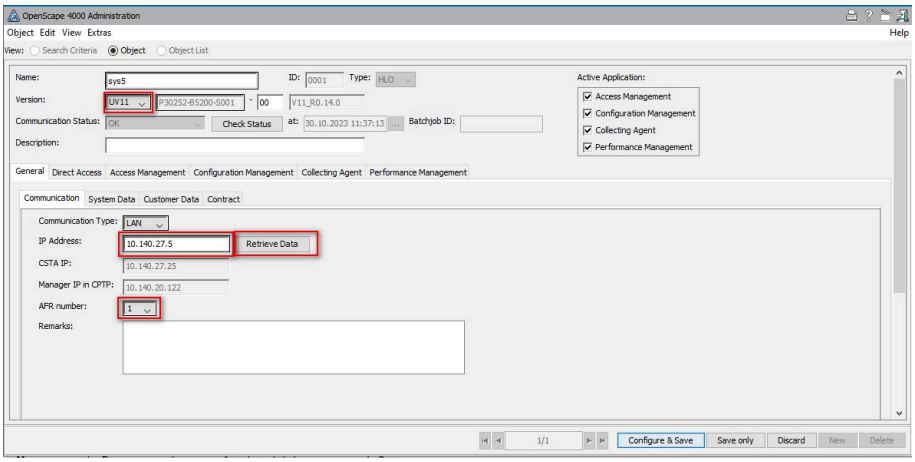
- Version
- Type HLO (set by default)
- Customer Name (displayed on the Customer Data tab sheet)
- Communication Type (Communication tab sheet)
- Domain (System Data tab sheet)
- Node Number (System Data tab sheet)

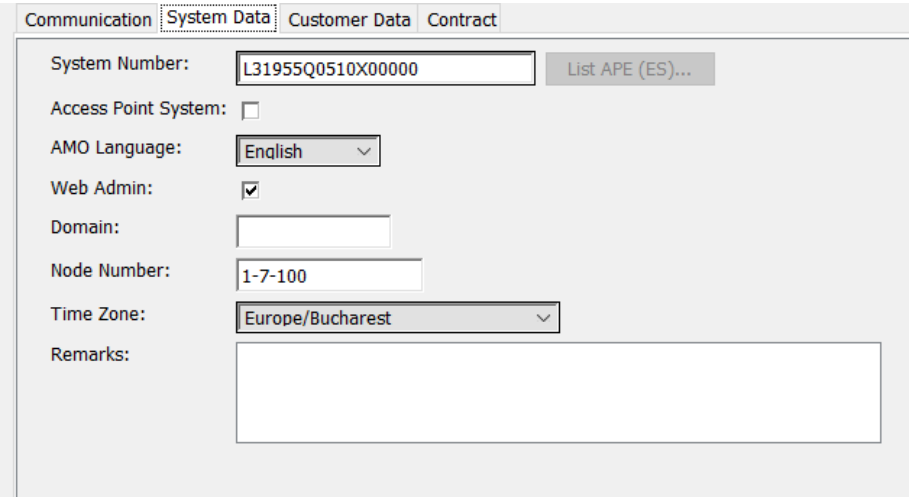
There is a feature Retrieve Data under the button of the same name, which retrieves all possible OpenScape 4000 information (Assistant, ADP, ...) from the given Assistant's address.

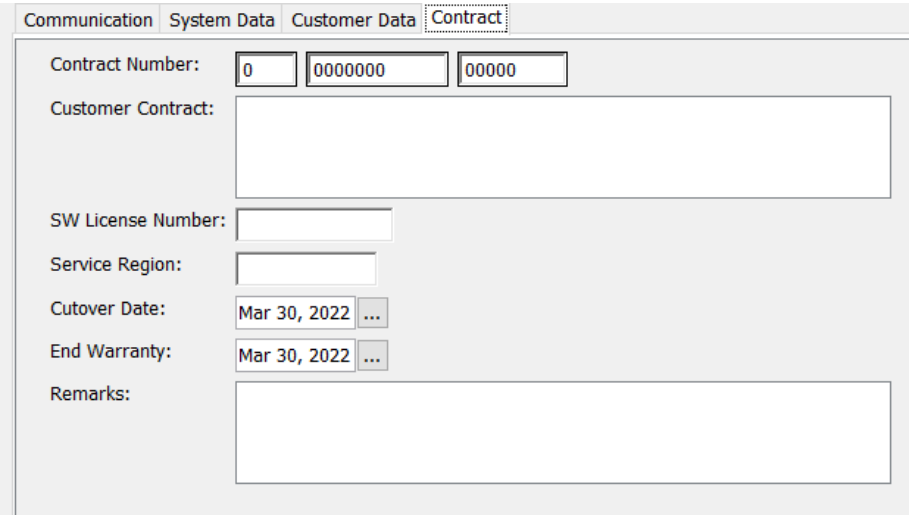
1) Please enter the IP Address and click the Retrieve Data button. The automatic data retrieval via the Assistant uses the default nsl-engr Assistant's account; therefore it should be kept in synch between the Manager and the Assistant. However, you still have the option to enter the Assistant credentials manually if the automatic connection fails.

2) The following fields are retrieved if available: Manager IP in CPTP, AFR number, Version, System Number, Access Point System (also with the APE Number), AMO Language, Domain, Node Number, Time Zone (works only

from the Assistant V8R0/ V7R1 and V6R2 / V7R0 latest Hotfix), Contract Number.

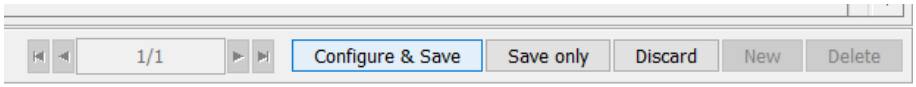






3) Fill in the missing mandatory fields - usually Customer Name and Name. Decide which Communication Type you want to use - HLO / HLB. The Manager IP in CPTP is read-only and the AFR number is mandatory only in case you want to Configure & Save the switch. It is not mandatory for Save only option.

4) Please decide whether you want to configure & test the communication to the switch. If yes, please use the button Configure & Save, otherwise use the Save only button.



5) If Configure & Save was clicked and the HLB type is selected, these steps are executed:

   a) the GUI data are saved to the DB (chdmain);
   b) the AFR number value is mandatory and must be selected;
   c) /opt/chd/chd_util.sh -m <mnemonic> is called to update the TNS entries database;
   d) /opt/chd/addcptp is called to configure the relevant CPTP, AFR and FTCSM entries on the switch;
   e) /opt/chd/hlbtest.sh is called to execute the testing batchjob and the connectivity status;
   f) the Communication Status field is changed according to the test result - new status value called "Batchjob failed" is introduced;
   g) the new Communication Status is updated in the DB table chdmain, field hicom_status.

6) If Configure & Save is clicked and the HLO type is selected, these steps are executed:

   a) the steps a) to d) above are executed;
   b) a telnet and dipas_batch connection is made to test the communication status;
   c) the Communication Status field is changed according to the test result - new state "IP connectivity failed" is set;
   d) the new Communication Status is updated in the chdmain, field hicom_status.

   See the Communication Status field description for a complete list of hicom_status val-id values.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Deleting a System

Direct Access Tab Sheet

Java Client Tracing in System Management

Report Generator

2.6 Deleting a System

Deleting a system is possible either from the Object view or from the Object List view. You can delete object by clicking on the button Delete in the lower right corner of the dialog or by choosing the menu option from the Object menu.

Within the Object List view the user can select a line and invoke the Delete button (or choose menu Object, item Delete) for removing the network element from the system. Multiple selections are not possible.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

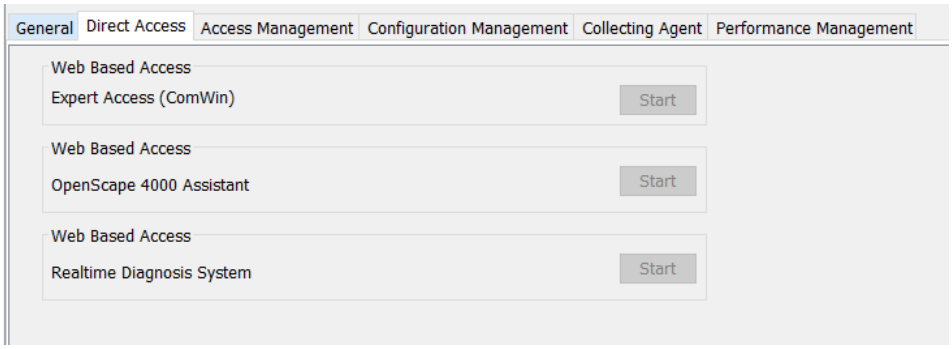
Direct Access Tab Sheet

Java Client Tracing in System Management

Report Generator

2.7 Direct Access Tab Sheet

The Direct Access tab sheet contains information about possible direct access to the corresponding HiPath/OpenScape switch.



Depending on the HiPath/OpenScape 4000 release different applications for Direct Access are supported.

NOTICE: The Direct Access tab sheet also contains the buttons for starting the individual Direct Access applications. The buttons are only enabled if the user has Direct Access access rights and if the parameters of the tab sheet have been saved.

Web based applications (e.g. Expert Access (ComWin), Realtime Diagnosis System) installed on the HiPath/OpenScape switch are displayed on the OpenScape 4000 Manager Start Page under the branch Direct Access.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

Deleting a System

Java Client Tracing in System Management

Report Generator

2.8 Report Generator

Select the desired network object in the Object List view or change to the Object view after selecting the network object, and click on the Start Report Generator icon on the toolbar. The Report Generator writes the data of the selected object to an HTML file and displays the report in a separate browser window. This separate browser window contains a Print icon of its own. Click on this icon to print the currently displayed content of the separate browser window on the configured printer.

NOTICE: Printing is only supported using the Print button from the separate browser window.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

Deleting a System

Direct Access Tab Sheet

Java Client Tracing in System Management

3 Tabsheets From Other Applications (Hook-Ins)

In addition to the mandatory tab sheets, System Management also provides hook-in tab sheets belonging to the applications listed below. These tab sheets can be activated by ticking the corresponding check box under Active Application in System Management.

- Access Management
- Configuration Management
- Collecting Agent (COL)
- Performance Management (PM)

See also

Access Management Tab Sheet in System Management

Configuration Management tab sheet for OpenScape/HiPath 4000 network objects

Collecting Agent (COL) Tab Sheet in System Management

Working with the PM Tab Sheet in System Management

Telephony Item tabs in Performance Management

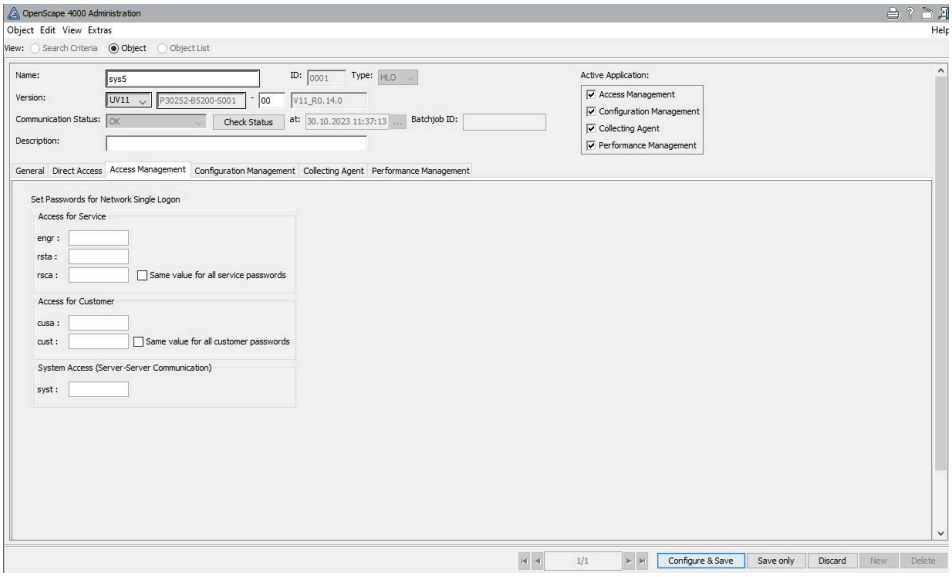
3.1 Access Management Tab Sheet in System Management

On OpenScape 4000 Manager and RSP (Remote Service Platform), an **Access Management** tab sheet is offered as a plug-in in the **System Management** application.

The **Access Management** tab sheet in **System Management** is used to set or change the security level passwords for network single logon (NSL) to subordinated OpenScape/HiPath 4000 servers. To make use of the NSL feature, the passwords entered here must match the passwords as set on the given target system. See **System Account Administration** on the selected system.

This additional **Access Management** tab sheet is only displayed in **System Management** if the user selects an OpenScape/HiPath 4000 server as system type and if the **Access Management** application check box is checked in the **Active Application** area in **System Management**.

NOTICE: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of OpenScape 4000 Manager where access via NSL is accepted from.



Changes made in the **Access Management** tab sheet in the **System Management** application are saved in **System Management**.

The right of a user to define and/or change NSL passwords depends on the user account level and on the access rights associated with this user level.

The syst NSL account is only used on the System level for internal server-server communication of OpenScape/HiPath 4000 components like System Management, Expert Access/MP-CID, Logging Management.

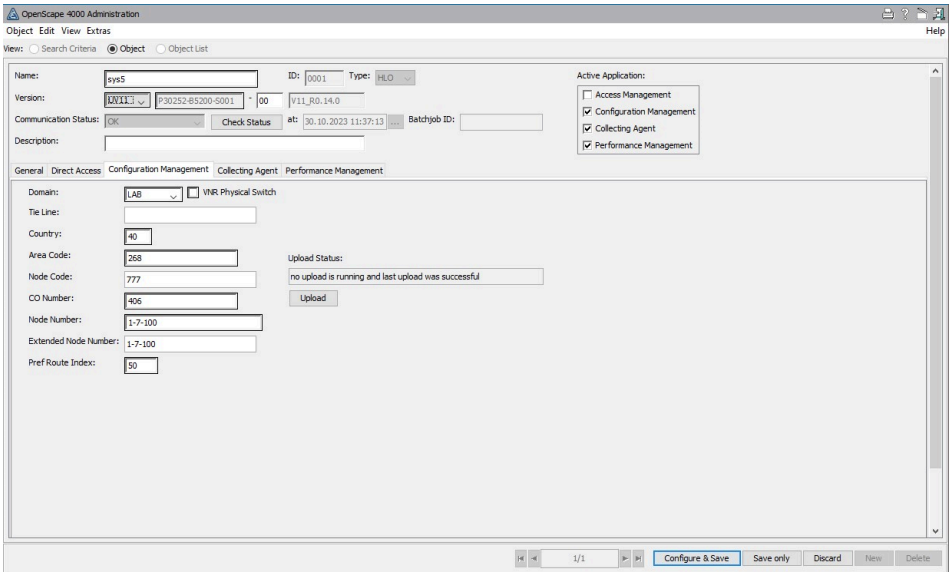
NOTICE: NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

For more information about NSL accounts and passwords please refer to the Access Management Online Help.

3.2 Configuration Management tab sheet for OpenScape/HiPath 4000 network objects

System Management provides its own **Configuration Management** tab sheet for setting up the most important configuration parameters of a network object.

The fields displayed on the **Configuration Management** tab sheet differ depending on the type of network object selected. Thus, if you select a **H300** (**OpenScape/HiPath 4000**) network object, the fields displayed on the tab sheet are not the same as the ones displayed when selecting a **PM** (**PhoneMail, only on RSP**) network object.



Field Descriptions

For **OpenScape/HiPath 4000 network** objects, the **Configuration Management** tab sheet in **System Management** contains the following fields:

Domain

VNR Physical Switch

Tie Line

Country

Area Code

Node Code

CO Number

Node Number

Extended Node Number

Pref Route Index

Upload Status

Upload (button)

NOTICE: You can call up the field help for a specific field directly by selecting the field and pressing **CTRL** + **F1**.

3.3 Collecting Agent (COL) Tab Sheet in System Management

COL provides a separate **Collecting Agent (COL)** tab sheet in **System Management** for administering COL specific data regarding a network object (e.g. OpenScape/HiPath).

Switch-specific COL parameters (e.g. Activate/Deactivate AM and PM call recording functions as well as scheduling data) are managed by the **System Management** application.

The **Collecting Agent** tab sheet in in **System Management** comprises the following sub-tab sheets:

Collecting Agent - COL Administration Tab Sheet in System Management

Collecting Agent - Trunk Group/CDR tab sheet in System Management

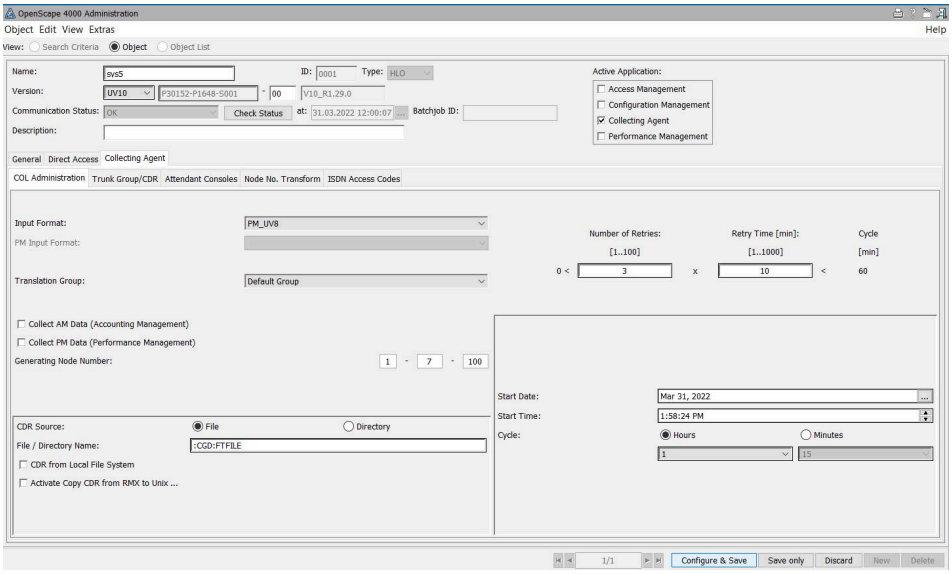
Collecting Agent - Attendant Consoles Tab Sheet in System Management

Collecting Agent - Node No. Transform tab sheet in System Management

Collecting Agent - ISDN Access Codes tab sheet in System Management

3.3.1 Collecting Agent - COL Administration Tab Sheet in System Management

The **Collecting Agent -> COL Administration** tab sheet is used for entering COL administration and scheduling parameters for call charge data collection.



When pressing the **Save** button, a check is carried out whether or not the input format is consistent with PM settings. Mandatory fields for PM are checked and in the case of an error an appropriate message is displayed. The retry time multiplied by the number of retries must be less than the cycle time, but not zero. If selected cycle time is 1 minute, the number of retries is set automatically to 0.

Data is only collected if the call charge data collection is activated, i.e. either **Collect AM Data** or **Collect PM Data** must be checked. The scheduling data for the selected switch is used for both AM and PM. A different scheduling for PM collecting is not supported.

The purpose of the PM Input Format field is to provide a new, short PM input format in order to reduce the length of the PM-N CDR records and thereby reduce the data volume when PM is active.

When the **Collect PM Data** check box is marked (active), the format displayed in the **Input Format** field will also be displayed in the **PM Input Format** field (default setting).

NOTICE: If a **UVxx** switch is selected from the **Version** drop-down list, the **PM Input Format** field will be made identical with the **Input Format** field and a corresponding warning message will be displayed

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The PM input formats will be available for the following switch versions:

- UV10,
- UV8,
- UV7,
- UV6,
- UV5,
- UV4,
- UV3.0,
- UV2.0 (Version 2.0 only),
- UV1.0,

All formats contain RECTYPE as leading element. The names of the PM input formats are:

- PM-N_UV4,
- PM-N_UV3.0,
- PM-N_UV2.0 (in V2.0 only),
- PM-N_UV1.0,

Field Descriptions

Input Format

PM Input Format

Translation Group

Number Of Retries

Retry Time

Collect AM Data

Collect PM Data

Generating Node Number

CDR Source: File/Directory

File/Directory Name

CDR from Local File System

Activate Copy CDR from RMX to Unix area

Start Date

Start Time

Cycle

Hours

Minutes

See Also

Collecting Agent (COL) Tab Sheet in System Management

Collecting Agent - Trunk Group/CDR tab sheet in System Management

Collecting Agent - Attendant Consoles Tab Sheet in System Management

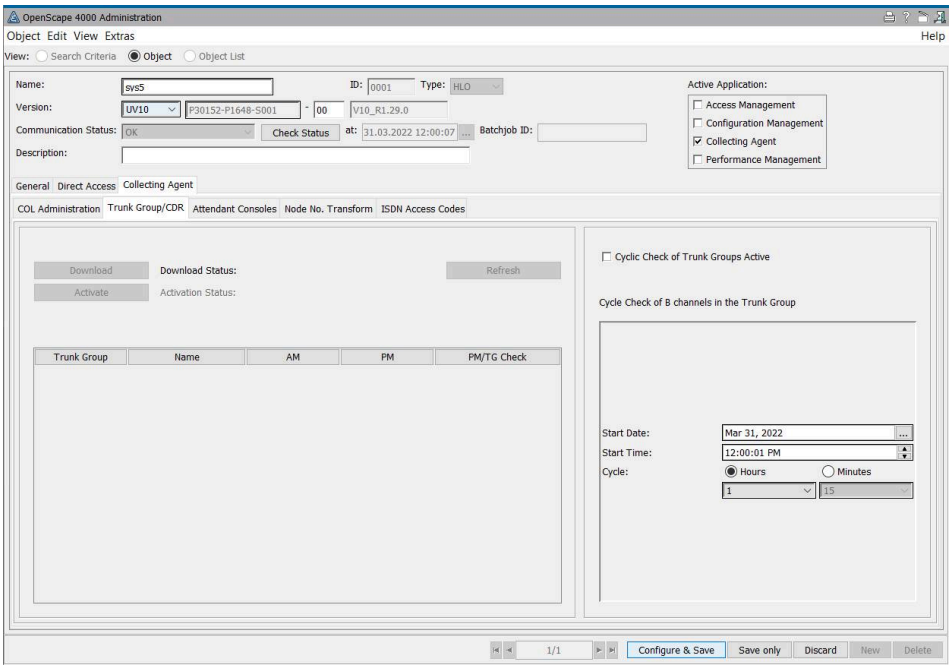
Collecting Agent - Node No. Transform tab sheet in System Management

Collecting Agent - ISDN Access Codes tab sheet in System Management

3.3.2 Collecting Agent - Trunk Group/CDR tab sheet in System Management

The **Collecting Agent -> Trunk Group/CDR** tab sheet in **System Management** displays the trunk groups and their attributes. By activating the **Cyclic Check of Trunk Groups** feature you can perform a cyclic check which queries the usage of all available resources (B channels) assigned to a trunk group. To activate the **Cyclic Check of Trunk Groups** feature, check the **Cyclic Check of Trunk Groups Active** check box and set the **Start Date**, **Start Time** and **Cycle** parameters for the switch.

To enable the Cyclic Check for selected trunk groups only, activate the check box of the trunk group in the **PM/TG Check** table column. This reduces communication with the switch and the amount of data.



The **Cyclic Check of Trunk Groups** feature cyclically queries the status of all available resources (B channels) assigned to a trunk group and stores the resulting trunk usage data in the COL database. The **Collecting Agent** queries the switches, collects the trunk usage data, and stores the data in the COL database. **Performance Management (PM)** then uses these data to provide an analysis report of the trunk group resource usage.

The metering is only performed for the selected switch if the following conditions are met:

- The **Cyclic Check of Trunk Groups Active** check box must be checked (enabled) for the particular switch. The check box is located on the right hand side in the **Collecting Agent -> Trunk Groups/CDR** tab sheet.
- The check box in the **PM/TG Check** table column must be checked for at least one of the trunk groups displayed in the table, because the metering is performed only for the trunk groups selected for metering.

Cyclically, in defined time intervals, COL queries the usage of all available resources (B channels) assigned to a trunk group (AMO DIS-BUEND), obtaining the list of trunk groups, the associated trunk cards, and the number of assigned channels. The status of each assigned channel is also determined (AMO DIS-SDSU). Finally, the Collecting Agent calculates the number of available channels for each trunk group. The data obtained through the cyclic check is then stored in the COL database and can be used by PM for further analysis and reporting.

The cyclic check is only performed for trunk groups with **enabled** check box in the **PM/TG Check** table column. After performing the cyclic check you can upload the data of the metered trunk groups back to the switch by clicking the **Activate** button. The PM data generated on the switch will then contain only the selected trunk groups. This reduces the communication with the switch and the amount of PM data.

NOTICE: Data should be collected only for relevant trunk groups in order to minimize communication with the switch and to reduce the amount of PM data.

You can edit the displayed data and save them in the COL database by clicking the **Save** button.

Click the **Download** button to download the trunk group data from the system. The download process is performed asynchronously, i. e. you need to click the **Refresh** button in order to get the current data displayed in the table.

Click the **Activate** button to send changed trunk group data back to the system. The **Activate** button is only activated after you have clicked the **Save** button to confirm and apply your changes. The download process is also performed asynchronously.

In addition, you can use the **Activate** feature to upload information about metered trunk groups back to the switch. After that, PM data generated on the switch will contain only the selected trunk groups. In this way, the communication with the switch and the amount of PM data is reduced.

Field Descriptions

Download (button)

Activate (button)

Download Status

Last download passed on (date/time)

Activation Status

Last activation passed on (date/time)

Trunk (table column)

Name (table column)

AM (table column)

PM (table column)

PM/TG Check (table column with check box)

Cyclic Check of Trunk Groups Active (check box)

Start Date

Start Time

Cycle (radio button)

Hours

Minutes

Refresh (button)

Save (button)

Cancel (button)

See Also

Collecting Agent (COL) Tab Sheet in System Management

Collecting Agent - COL Administration Tab Sheet in System Management

Collecting Agent - Attendant Consoles Tab Sheet in System Management

Collecting Agent - Node No. Transform tab sheet in System Management

Collecting Agent - ISDN Access Codes tab sheet in System Management

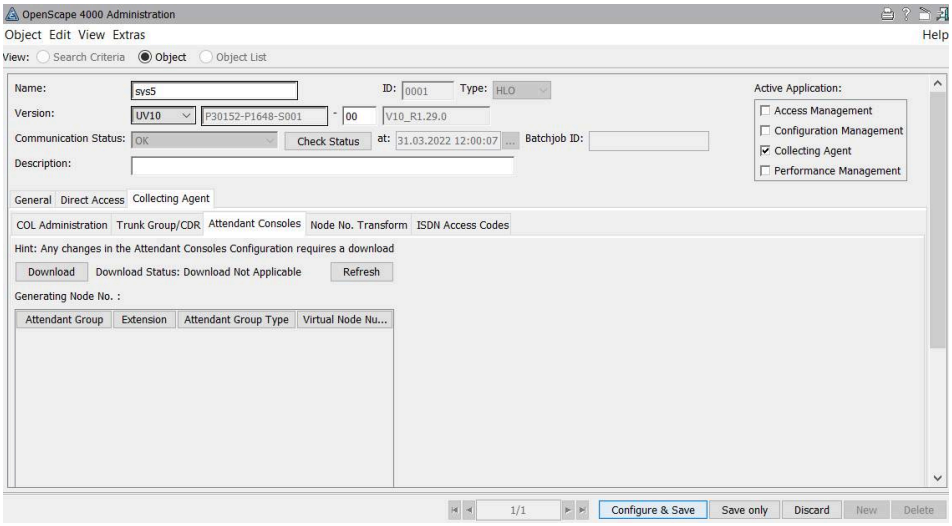
3.3.3 Collecting Agent - Attendant Consoles Tab Sheet in System Management

The **Collecting Agent/Attendant Consoles** tab sheet of the **System Management**application under OpenScape 4000 Manager supports downloading attendant consoles data from the system and and retrieving their virtual node numbers.

The transformation from virtual to physical node numbers is generally done based on the data in the `col_port` database table.

The data of all systems configured using the Configuration Management (CM) application are stored in `col_port` database tables.

Attendant consoles are not configured using CM, and therefore their data are not included in the `col_port` database tables, so for attendant consoles it is not possible to perform a transformation from virtual to physical node numbers.



Field Descriptions

Download

Refresh

Generating Node No. (table)

See Also

Collecting Agent (COL) Tab Sheet in System Management

Collecting Agent - COL Administration Tab Sheet in System Management

Collecting Agent - Trunk Group/CDR tab sheet in System Management

Collecting Agent - Node No. Transform tab sheet in System Management

Collecting Agent - ISDN Access Codes tab sheet in System Management

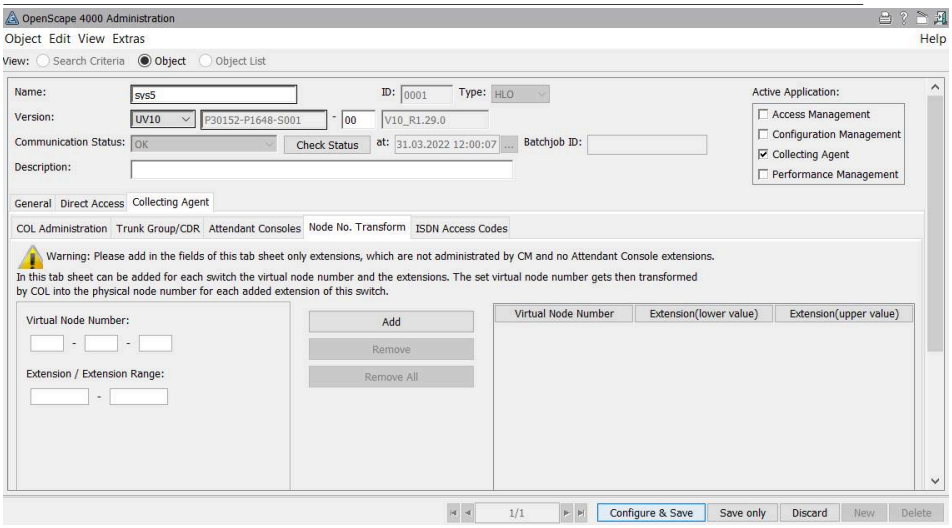
3.3.4 Collecting Agent - Node No. Transform tab sheet in System Management

In the **Node No. Transform** tab sheet you may assign virtual node numbers to physical node numbers for extensions, which are not managed by CM, in order to make them available for Account Management.

Collecting Agent is responsible for correct transformations of the CDR data in order to hand them over to Performance Management. The transformations are necessary in order for PM to make calculations with switch names and physical node numbers rather than virtual node numbers. This is achieved by mechanisms which query the Informix database, identify the switch name for the coordination of extension/virtual node number from `col_port` and then use the switch name for finding the physical node number from `col_switch`. The transformed node number will be delivered to PM.

WARNING: Do not add any Attendant Console extension in this tab sheet - their virtual node numbers must be downloaded in the Attendant

Console tab sheet! Also do not add any extension in this tab sheet which is handled by CM!



Field Descriptions

Virtual Node Number

Extension / Extension Range

Add (button)

Remove (button)

Remove All (button)

Virtual Node Number (table column)

Extension (lower value) (table column)

Extension (upper value) (table column)

See Also

Collecting Agent (COL) Tab Sheet in System Management

Collecting Agent - COL Administration Tab Sheet in System Management

Collecting Agent - Trunk Group/CDR tab sheet in System Management

Collecting Agent - Attendant Consoles Tab Sheet in System Management

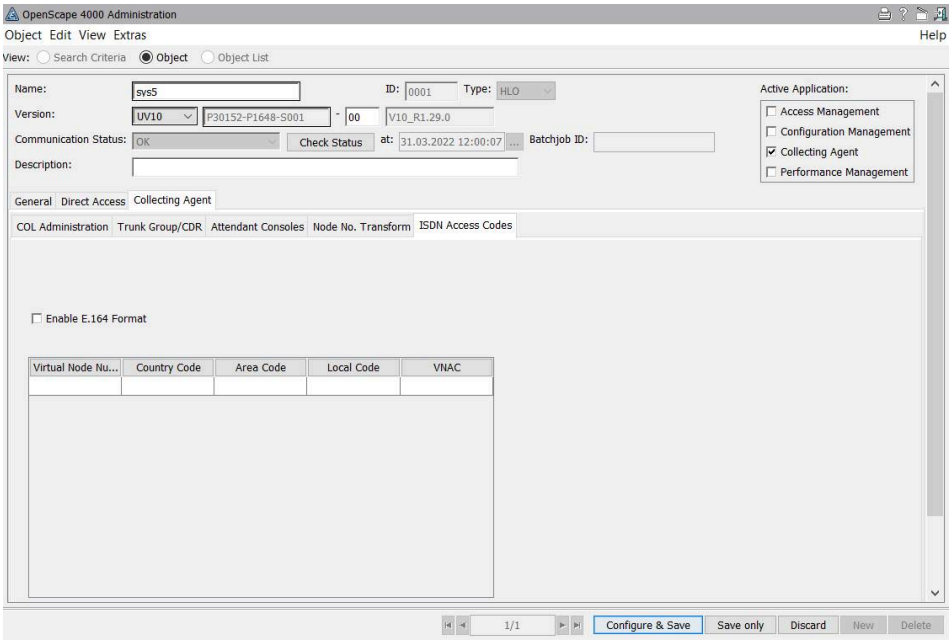
Collecting Agent - ISDN Access Codes tab sheet in System Management

3.3.5 Collecting Agent - ISDN Access Codes tab sheet in System Management

In order to support mixed networks with OpenScape/HiPath 4000 Voice in a consistent way, CDRs which are collected from OpenScape/HiPath 4000 switches, can be calculated to the E.164 number format. With the **ISDN Access Code** sub tab there is a possibility to recalculate country code, area code and local code (ISDN Access Codes) of a selected switch from the internal number format.

If the values from the database can be evaluated and calculated correctly, checking the **Enable E.164 Format** check box displays in the table read-only data from the selected switch:

- Virtual Node Number,
- Country Code,
- Area Code,
- Local Code.



If there is a calculation problem, a warning message is displayed, denoting to check the following criteria:

- Status of CM upload operation
- Configuration of AMO KNDEF
- Validity of Generating Node ID in input line definition screen.

In this error case recalculation will not be completed.

See also

Collecting Agent (COL) Tab Sheet in System Management

Collecting Agent - COL Administration Tab Sheet in System Management

Collecting Agent - Trunk Group/CDR tab sheet in System Management

Collecting Agent - Attendant Consoles Tab Sheet in System Management

Collecting Agent - Node No. Transform tab sheet in System Management

3.4 Working with the PM Tab Sheet in System Management

Accessing the Performance Management (PM) Tab Sheet

Operation

Attendant Consoles telephony item type tab

AC Groups telephony item type tab

3.4.1 Accessing the Performance Management (PM) Tab Sheet

The **Performance Management** tab sheet is only displayed in **System Management** after checking the **Performance Management** check box under **Active Applications** in the **Base Data** area in **System Management**.

Entry Conditions

- If **PM** is operating under a PM for Attendant Supervisor Package License:

  This level of license restricts the user to **Attandant Console** and **AC Group** statistics only.
- If PM is operating under a PM Basic Package or PM Networking Package License:

  This level of license restricts the user to **Trunk** and **Trunk Group** statistics only.
- If PM is operating under a PM Enhanced Package License or PM Enhanced and Traffic Flow Package License

3.4.2 Operation

Switch selection (via the Button bar)

If you select a different switch when there are unsaved changes to the metering definition for the currently-selected switch, you will be prompted to either save or discard the changes before the new switch's details are displayed.

System Management tab selection

If you select a different tab of the **System Management** page when there are unsaved changes to the metering definition for the currently selected switch in **Performance Management**, you will be prompted to either save or discard the changes before the new tab sheet's details are displayed.

Save button (on the Button bar)

This button allows the user to send the displayed metering settings to the selected switch.

New button (on the Button Bar)

This button is used to add a new switch to the system.

Delete button (on the Button Bar)

This button is used to remove a switch from the system.

Search button (on the Button Bar)

This button is used to perform a search operation.

Metered Items option buttons

These option buttons allow the user to either set metering on ALL items of the switch or to specify the metered items individually.

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

Deleting a System

Java Client Tracing in System Management

Report Generator

Telephony Item tabs in Performance Management

3.5 Telephony Item tabs in Performance Management

Attendant Consoles telephony item type tab

AC Groups telephony item type tab

Extensions telephony item type tab

Hunt Groups telephony item type tab

Trunks telephony item type tab

Trunk Groups telephony item type tab

Available Items list

Selected Items list

The >, >>, < and << buttons

Enter Number or Range, text field

Add button

Collect System Data (area)

3.5.1 Attendant Consoles telephony item type tab

This tab allows the user to specify which Attendant Console numbers are to be included in the metering definition.

For details regarding the functionality and field descriptions of Performance Management (PM) please consult the PM Online Help.

3.5.2 AC Groups telephony item type tab

This tab allows the user to specify which Attendant Console Group numbers are to be included in the metering definition.

3.5.3 Extensions telephony item type tab

This tab allows the user to specify which extension numbers are to be included in the metering definition.

3.5.4 Hunt Groups telephony item type tab

This tab allows the user to specify which Hunt Group numbers are to be included in the metering definition.

3.5.5 Trunks telephony item type tab

This tab allows the user to specify which trunk numbers are to be included in the metering definition.

3.5.6 Trunk Groups telephony item type tab

This tab allows the user to specify which Trunk Group numbers are to be included in the metering definition.

3.5.7 Available Items list

This list is present on each of the **Telephony Item Type** tabs and allows the user to select which items of the selected Item type will be metered.

1) The **Available Items** list is enabled whenever the **Telephony Items** tabs are enabled.
2) The exact contents of this list depend on the particular Telephony Item type that has been selected for display (See sections Attendant Consoles telephony item type tab through Trunk Groups telephony item type tab)

3) For an existing switch definition

- The **Available Items** list is populated with those items relevant to the selected **Telephony Item** type for the selected switch that are not already included in the metering definition for the switch.
- The items are displayed in alphabetical/numerical order
- The first item on the list is highlighted

4) For a new switch definition:

- The **Available Items** list is populated with all items of the selected **Telephony Item** type for the selected switch.
- The items are displayed in alphabetical/numerical order
- The first item on the list is highlighted.

3.5.8 Selected Items list

This list is present on each of the **Telephony Item Type** tabs and indicates which items of a selected item type will be metered.

1) The **Selected Items** list is enabled whenever the **Telephony Items** tabs are enabled.
2) The exact contents of this list depend on the particular Telephony Item type that has been selected for display (See sections Attendant Consoles telephony item type tab to Trunk Groups telephony item type tab).
3) For a new switch definition:

- The **Selected Items** list is empty

4) For an existing switch definition

- The **Selected Items** list is populated with those items relevant to the selected **Telephony Item** type for the selected switch that are not already included in the metering definition for the switch (if any)
- The items are displayed in numerical order
- The first item on the list is highlighted

3.5.9 The >, >>, < and << buttons

These buttons are present on each of the **Telephony Item Type** tabs and are used to select which items of the selected Item Type will be monitored.

1) These buttons are enabled whenever the Telephony Items tabs are enabled.

2) To add one or more items to the **Selected Items** list, the user should select the required item(s) in the **Available Items** list and click on the **>** button. The following actions will occur:
   - The selected item(s) will be removed from the **Available Items** list
   - The following item will be highlighted in the **Available Items** list:
     – The item that was immediately below the last selected item (if there is one),
     – Otherwise the item that was immediately above the first selected item (if there is one).
     – If there are no remaining items, nothing will be highlighted.
   - The selected item(s) will be added to the **Selected Items** list in their correct alphabetical/numerical position
   - The selected item(s) will be highlighted in the **Selected Items** list.
3) To add all the items to the **Selected Items** list, the user should click on the **>>** button (regardless of which item is highlighted in the **Available Items** list). The following actions will occur:
   - All items will be removed from the **Available Items** list
   - All items will be placed on the **Selected Items** list, in alphabetical/ numerical order.
   - The first entry will be highlighted in the **Selected Items** list.
   - Note: The user will not be prompted for confirmation.
4) To remove one or more items from the **Selected Items** list, the user should select the required item(s) in the **Selected Items** list and click on the **<** button. The following actions will occur:
   - The selected item(s) will be removed from the **Selected Items** list
   - The following item will be highlighted in the **Selected Items** list:
     – The item that was immediately below the last selected item (if there is one),
     – Otherwise the item that was immediately above the first selected item (if there is one).
     – If there are no remaining items, nothing will be highlighted.
   - The selected item(s) will be added to the **Available Items** list, in their correct alphabetical/numerical position.
   - The selected item(s) will be highlighted in the **Available Items** list.
   - Any 'Range' items that are included in the items that were selected from the **Selected Items** list, will be processed as follows:
     – The constituent items of the Range(s) will be returned to the **Available Items** list as a series of discrete items
     – All items in the Range(s) will be added to the **Available Items** list, even those that did not initially appear in the **Available Items** list

5) To remove all the items from the **Selected Items** list, the user should click on the **<<** button (regardless of which item is highlighted in the **Selected Items** list. The following actions will occur:
   - All items will be removed from the **Selected Items** list
   - All items will be placed on the **Available Items** list, in alphabetical/ numerical order
   - The first entry will be highlighted in the **Available Items** list.
   - Any 'Range' items that were contained in the **Selected Items** list, will be processed as follows:
     – The constituent items of the Range(s) will be returned to the **Available Items** list as a series of discrete items
     – All items in the Range(s) will be added to the **Available Items** list, even those that did not initially appear in the **Available Items** list
   - Note: The user will not be prompted for confirmation.
6) Note that:
   - Clicking on the **>** button with nothing selected in the **Available Items** list is ignored (and does not create an error/warning indication)
   - Clicking on the **<** button with nothing selected in the **Available Items** list is ignored (and does not create an error/warning indication)

3.5.10 Enter Number or Range, text field

This text field is present on each of the **Telephony Item Type** tabs and allows the user to specify a range of contiguous items by typing it in. Note that the items need not appear on the **Available Items** list for example (if they are not known by the PM database). It functions in conjunction with the **Add** button.

1) The **Enter Number or Range** text field is enabled whenever the Telephony Items tabs are enabled.
2) Only the following characters are valid in this text field:
   - Numerical characters (0 to 9)
   - A single hyphen (-)
   - Any number of spaces
3) All characters are echoed to the screen.
4) If an invalid character is detected, the following actions occur:
   - The warning message "Only the digits '0' to '9' and '-' are allowed" is displayed in red to the right of the **Add** button:
   - The **Add** button is disabled
   - The warning message persists until the user corrects the invalid character(s), whereupon it is removed and the **Add** button is enabled (subject to validation as described in Step 5 below))
5) As characters are entered in this text field, its contents are validated. If they represent a valid entry according to the following criteria, the **Add** button is enabled:
   - They form a single string of two or more digits with no intermediate spaces (but leading and trailing spaces are allowed).
   - They form two strings of two or more digits (as specified in (a) above) separated by one hyphen (that may have any number of leading and/or trailing spaces) and for which the second string is numerically equal to or greater than the first string.

6) No action other than that described in steps 2 to 5 above will be taken on the contents of this text field until the **Add** button is operated (See Add button).
7) The following tooltip is associated with this text field: "Enter a number, or range of numbers" (e.g. 2000-2100)
8) This text field can contain a maximum of 20 characters

For details regarding the functionality and field descriptions of Performance Management (PM) please consult the PM Online Help.

3.5.11 Add button

This button is present on each of the **Telephony Item Type** tabs and enables the user to add the range of items indicated in **Enter Number or Range** text field to the **Selected Items** list. See Enter Number or Range, text field for a full description.

1) The **Add** button is only enabled when a valid entry is contained in the **Enter Number or Range** text field (see step 3 in Enter Number or Range, text field)
2) When the **Add** button is clicked, the following actions occur:
   - The values represented by the Range displayed in the **Enter Number or Range** text field are added to the **Selected Items** list as a series of sequential entries.

   For example, the Range 2300-2305 would be added to the **Selected Items** list as:

   2300 2301 2302 2303 2304 2305

   - Any items within the entered Range that already appear in the **Selected Items** list are ignored, so that no item appears in the **Selected Items** list more than once.
   - The newly-added items are highlighted in the **Selected Items** list
   - Any items within the specified range that appear in the **Available Items** list are removed from it.
   - The first entry in the **Available Items** list is highlighted.
3) When the **Add** operation has been processed:
   - **Enter Number or Range** text field is cleared
   - The **Add** button is disabled

3.5.12 Collect System Data (area)

SWU/ADP Load check box

Use this check box to switch the SWU/ADP card data collection on or off.

1) This check box is only enabled under the following circumstances:
   - if the selected switch is a newer OpenScape/HiPath 4000

   AND

   - PM is operating under one of the following Package Licenses:
     – **PM Enhanced** Package
     – **PM Enhanced and Traffic Flow** Package

     (i.e. it is disabled if PM is operating under a **PM Basic**, **PM Networking** or **PM for Attendant Supervisor** Package License).
2) If it is checked:
   - **SWU/ADP Load** data collection will be turned on for the specified switch
3) If it is not checked:
   - **SWU/ADP Load** data collection will be turned off for the specified switch
4) The following tooltip is associated with this tick box: "Switches SWU/ADP card data collection on or off".

Feature Usage check box

This check box is used to enable/disable the collecting of feature usage data for PM.

3.5.13 Collect Cordless Data (area)

Cordless Statistic Counters check box

This check box is used to enable/disable the collecting of specific Cordless data for PM.

If this check box is checked, the additional check box With Refresh Of Cordless List when settings are saved (check box) is activated and can be enabled/disabled.

Cordless Overload Duration

If this check box is enabled, the metering of the Base Station Overload Duration is activated and performed by Fault Management (AFR - Alarm Fault Report).

WARNING: The state of this check box will be the same for all input lines on a manager installation. This means that once the user checks or unchecks it for one input line, it will be changed accordingly for all input lines. The user will be able to see this only after he closes and reopens the browser window.

Cordless Stay Statistics

Enables the collection of cordless stays data metering for all SLC cards in the selected switch(es).

By means of this data, a statistic on the usage of base stations per CMI subscriber can be generated (i.e. a statistic telling which base station is mostly used by a CMI user).

With this statistics you are able to detect the SLC on which the highest load is caused and to move the subscriber to this SLC, in order to reduce tie-line traffic (i.e. to reduce the connections that are necessary between the actual SLC and the home SLC).

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

Retrieving Switches

Retrieving Host Systems (HS Switches)

HiPath 4000 / OpenScape 4000 versions

Creating a New System

Deleting a System

Java Client Tracing in System Management

Report Generator

Working with the PM Tab Sheet in System Management

4 System Management Field Descriptions

This section contains the System Management Field Help, sorted by topics.

The following areas are covered:

4.1 Common Base Data Fields in System Management

The fields displayed in **Base Data** area, i.e. in the upper part of the content area in the **Object** view are called **Base Data Fields**. They contain the basic system information of the selected object. All values can be modified and saved.

The base data fields of the various tab sheets are shown below.

Name

Field in the **Base Data** area.

NOTICE: The name entered into the **Name** field will be displayed as the title in the title bar of the HTML browser.

System name of the selected object; Display name in OpenScape FM Desktop.

The name of the server is displayed on the OpenScape 4000 Manager Start Page and in the title bar of the HTML pages. The server name is displayed as configured in System Management, i.e. "server name - application name - application group name". For System Management, the title will look similar to the following example:

"Manager1 - OpenScape 4000 Administration - System Management".

Values: alphanumeric characters

Required, not unique.

NOTICE: Assistant ID SYS1 is unique and should not be changed.

ID

Local unique identifier(1) of this OpenScape/HiPath network object itself

Unique in chdmain (database table)

Generated automatically by the system if it is not supplied

For network objects of the type H300 and PhoneMail this ID can be modified.

Max. 4 characters.

Version

For OpenScape 4000 Manager Administration this field shows major software version of the OpenScape 4000 Manager.

For OpenScape 4000 Administration this field shows Product Release Version of the switch that corresponds to the System Release which is determined by the SWU APS (S-APS, ABFRAGEN-APS). The 8th and 9th position (after "B") of the Part Number indicates the System Release number, also called "variant".

Each Part Number is based on the following rule:

Part Number: P30252-Bxx00-S001-pp

xx ... System Release (also called Variant, uniquely corresponds to a version)

S001 ... Revision Level, 4 digits

pp ... Patch information, 2 digits "00", "01", ...

The version number of a system is made up the following 3 adjacent fields (described below): **Version**, **Part Number**, **Patch Number**.

Version (1st field)

The Product Release Version of the OpenScape/HiPath, e.g. UV 1.0 for HiPath 4000.

Values: See table below.

Part Number (German: "Sachnummer") (2nd field)

The part number ("Long Number") of the OpenScape/HiPath system can be retrieved with the AMO S-APS, ABFR-APS.

In the part number P30252-Bxx00-S001-00 the letters xx are standing for the System Release number, which is mapped to a certain Version number.

Values: The table below shows the mapping of the Version to the System Release number wich is part of the Part Number (German "Sachnummer").

Patch Number (3rd field)

A 2-digit number indicating the number of the software patch.

Mapping of **Version** to **System Release** and **Network Object Type**

Variant	System type	Short version
51	OpenScape 4000 V10	UV10
50	OpenScape 4000 V8	UV8
49	OpenScape 4000 V7	UV7
48	HiPath 4000 V6	UV6
47	HiPath 4000 V5	UV5
46	HiPath 4000 V4	UV4
45	HiPath 4000 V3.0	UV3.0
44	HiPath 4000 V2.0	UV2.0
43	HiPath 4000 V1.0	UV1.0
49	RG 8300 V7	RGV7
48	RG 8300 V6	RGV6
47	RG 8300 V5	RGV5

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

HiPath 4000 / OpenScape 4000 versions

Retrieving Switches

Orphan Systems

Type

IMPORTANT: From V10 onwards, HLB communications mode is no longer supported.

Values - The list box contains the hardware types listed below.

HLO(nline) - Is the default setting and is needed for Configuration Management (CM). HLO needs no configuration and uses the dipas_batch of MPCID, opening a synchronous connection to the switch which executes each

command from a file and receives the responses one after another. The connection remains open during whole process.

HLB(atch) - Although HLO can also be used for Manager, HLB is more efficient but needs to be configured. Advantage of HLB is that it's much faster for large batches (using job and cron task) which doesn't consume a connection for a long time (i.e. only 12 parallel connections are allowed to RMX). With HLB the input file is processed on RMX and then RMX sends back result file to the Manager. For that it needs to know IP address of that Manager. If the switch is configured as HLB in the SysM, the Manager IP must be configured on the RMX via AMO CPTP and FTCSM. This is done during the switch configuration - triggered via the Configure & Save button. As a fallback solution it can also be done manually or by utilizing the CHD utility /opt/chd/chd_util.sh by option 6 - Modify/Generate CPTP-entries in RMX on switch side. In HLB mode, the Check Status button in System Management verifies this configuration and executes a testing batch job.

VMSR - R 6.5: no file transfer, obsolete

VMSU - R 6.6 like HLB, obsolete

Related Topics

Host Systems (HS) vs. Access Point Emergency Systems (ES)

HiPath 4000 / OpenScape 4000 versions

Retrieving Switches

Orphan Systems

Communication Status

Shows the status of this OpenScape/HiPath 4000 system. This field is language dependent.

The value of this field corresponds to the column hicom_status in the DB table chdmain.

Possible values The status messages have the following meaning:

- -1 = Unknown
- 0 = OK - successfully saved and configured, no known problems
- 1 = Communication incomplete - chd_util warning during creation, object is saved but communication setup is incomplete
- 2 = Manual Setup Needed - upload without finished communication setup
- 3 = HTS differs from Manager - obsolete
- 4 = Batchjob failed - last batchjob failed
- 5 = IP connectivity failed - IP connectivity to this switch failed

Check Status

A click on the button Check Status starts status check. In HLO mode, the dipas_batch connection is tested. In HLB mode a testing batch job is executed. The Communication Status field is changed according to the test result. If the user saves the Object now, the new communication status is updated in the DB table chdmain, field hicom_status.

Description

Additional information for a better system identification

Values: alphanumeric characters, max. 40.

Active Application

Available applications for the selected network object type, appears at the right end of base data area.

For each available application a status field showing the application name and an adjacent check boxcheck box will be displayed.

If an application is checked, the corresponding tab sheet is added.

4.2 OpenScape 4000 Administration, General/System Data, Search Criteria view

System Number

Access Point System (check box)

AP Number (field displayed for AP ES switches only)

Browse (button displayed for AP ES switches only)

View HS (button displayed for AP ES switches only)

List ES (button displayed for HS switches only)

Equipment Number 1

Equipment Number 2

Famos Identification

AMO Language

Web Admin

Domain

Node Number

Time Zone

Time Synchronization

Remarks

System Number

AMO ANUM - SYSTEM NUMBER, Unique system number (L-Number)

Values: alphanumeric characters, max. 17

Required

See also

HiPath 4000 / OpenScape 4000 versions

Access Point System (check box)

Use this check box to turn the display of Access Point Emergency systems (AP ES) on or off.

During **Search** operations

- Checked

  If this check box is **checked**, clicking on **Search** performs a search for all AP systems within one Host system.
- Unchecked

  If this check box is **unchecked**, clicking on **Search** performs a search for all other (non-AP) systems.
- Greyed-out

  If this check box is **greyed-out**, then its status is not relevant for the search process.

  During **Create/Modify** operations
- Checked

  If this check box is **checked**, the user needs to enter the **AP Number** for the AP system, then click the **Browse** button to open the **Browse HS** dialog which displays all systems that can be configured as Host systems.
- Unchecked

  If this check box is **unchecked**, a normal system will be created/modified.

AP Number (field displayed for AP ES switches only)

Number of the AP system, unique for all AP systems within one Host System.

This field shows the Access Point (AP) number of the ES switch. It is displayed for AP Emergency Systems (ES switches).

Values: char (max. 2), must be between 1 and 83.

Required.

Unique within one Host System.

Browse (button displayed for AP ES switches only)

To display all Host Systems (UV2.0 systems or higher) configured on the server, press the **Browse** button located to the right of the **System Number** field in the **General/System Data** tab sheet. The **Browse HS** dialog opens and displays the **System Number**, **Name** and **ID** of all Host Systems (UV2.0 systems and higher) configured on the selected server. The data in the **Browse HS** dialog can be sorted by different columns in ascending or descending order by clicking on the appropriate column header.

The **System Number** and the **AP Number** fields with the adjacent **Browse** and **View HS** buttons are displayed for **Emergency Systems** only.

To display the Host System data of the host system associated with the selected ES switch, press the **View HS** button in the **General/System Data** tab sheet. The host system data will be displayed in the main dialog.

To navigate back to the ES systems, press the **List ES** button in the **General/System Data** tab sheet and select the appropriate ES switch from the **Assigned ES objects** dialog.

View HS (button displayed for AP ES switches only)

Pressing the **View HS** button displays the host system data for the selected ES switch in the main dialog.

Host systems are UV2.0 version systems by default, and have at least one ES system (AP Emergency System) assigned to them.

To navigate back to the ES systems, press the **List ES** button in the **General/ System Data** tab sheet and select the appropriate ES switch from the **Assigned ES objects** dialog.

The **System Number** and the **AP Number** fields with the adjacent **Browse** and **View HS** buttons are displayed for **Emergency Systems** only.

The **List ES** button is disabled while an active object is being changed.

List ES (button displayed for HS switches only)

To search for and display all configured AP Emergency Systems (ES switches) assigned to the current host system (HS switch), press the **List ES** button in the **General/System Data** tab sheet. The result is displayed in the **Assigned ES objects** dialog which shows the **System Number**, **Name**, and **ID** of all ES switches configured for the current host system. The data in the **Assigned ES objects** dialog can be sorted by different columns in ascending or descending order by clicking on the appropriate column header.

Selecting an ES switch in the table and pressing **OK** in the **Assigned ES objects** dialog displays the data of the selected ES switch in the main dialog.

The **List ES** button is displayed to the right of the **System Number** field for **Host Systems** (UV2.0 systems or higher) only.

Host systems are UV2.0 version systems by default, and have at least one ES system (AP Emergency System) assigned to them.

The **List ES** button is disabled while an active object is being changed.

Equipment Number 1

First part of OpenScape/HiPath equipment number, SP (System program), in German called "Sachnummer 1"

AMO ANSU - SP Reference No. of SWU AMO-CODE

Values: alphanumeric characters, max. 17

See also

HiPath 4000 / OpenScape 4000 versions

Equipment Number 2

Second part of OpenScape/HiPath equipment number, SP (System program), in German called "Sachnummer 2"

AMO ANSU - SP Reference No. of SWU RES-CODE

Values: alphanumeric characters, max. 17

See also

HiPath 4000 / OpenScape 4000 versions

Famos Identification

Famos session identification string, defaults to "IDENTIFIKATION"

Values: alphanumeric characters, max. 14, ONLY UPPERCASE

Required, ONLY UPPERCASE

See also

HiPath 4000 / OpenScape 4000 versions

AMO Language

AMO language

List Box: English or German

Required

Default language is English

See also

HiPath 4000 / OpenScape 4000 versions

Web Admin

Check box.

If the **Web Admin** check box is disabled, no Web based applications except Expert Access will be available for this OpenScape/HiPath system.

Web Admin access can be enabled/disabled by checking/unchecking the check box.

In the **Search Criteria** view this check box can have the following 3 states:

- **Undefined (Greyed out)**

  The status of this check box will be disregarded during the search process. If you click the **Search** button when this check box is set to **Undefined**, the search process will find all systems, irrespective of the status of the **Web Admin** check box.
- **Activated**

  Find only systems with WebAdmin = ON. If you click the **Search** button when this check box is activated, the system will use this setting as the search filter. The search process will find and display only systems with **Web Admin** activated.
- **Deactivated**

  Find only systems with WebAdmin = OFF. If you click the **Search** button when this check box is deactivated, the system will use this setting as the search filter. The search process will find and display only systems with **Web Admin** deactivated.

  In the **Object** and **New Object** views the check box can only assume the **Activated** or **Deactivated** state.

  The behavior of this check box is the same as the one of the **Time Synchronization** check box.

  Values: Enabled/disabled

Domain

Domain for flag trace monitoring.

This field contains the name of the domain to which the system belongs in the Flag Trace Watchdog application.

The domain name can be up to 8 characters long.

NOTICE: This field is not related to the field Domain in Configuration Management.

Values: alphanumeric characters, max. 8

Node Number

This field contains the globally unique number of your own PABX. This has a hierarchical structure containing different levels in Version V1.0 and later.

Up to three values of the format:

L2- L1- L0 can be used for numbering a system.

- L2: area number in level 2
- L1: area number in level 1
- L0: area number in level 0 or node number in the old sense.

If the value "0" is selected for a level, this means that the relevant hierarchical level is not being used for node numbering: "0" is equal to "nothing" or "level is not set".

With the help of this new node number format it is now possible to implement node numbers in networks in which - just as with dial numbers - the network hierarchy is reflected in the node numbers.

NOTICE: The same numbering level (= number of levels set in the node number) must be used for all nodes in a network.

In the Node Number field you will always see a three-level display with leading zeroes for levels not used for systems in Version V1.0 and later.

Example:	0-0-100 for 1-level numbering
	0-1-101 for 2-level numbering
	1-2-300 for 3-level numbering

Values: 0-9 and '-' with format 22-111-000

Level 0 (000) 0-999

Level 1 (111) 0-253

Level 2 (22) 0-29

Max. 10 digits

Time Zone

Use this field to select and set the time zone for your system, e. g. **Europe/Berlin** or **America/New_York**.

The available Universal Time Zones are displayed in a dropdown list in this combo box.

Select the time zone set on this system, e.g. **Europe/Berlin** or **America/New_York**, from the dropdown list.

The system calculates the offset value between the time zone set on the system and the time zone set on the Manager, and saves this value together with the ID string of the time zone.

This procedure makes sure that for instance jobs triggered by the server are executed at the correct local time on the system.

Time Synchronization

Activate this check box to have the system date/time automatically synchronized.

In later versions this check box is no longer displayed due to the fact that the time synchronization between server and system is performed using NTP (Network Time Protocol).

If displayed, this check box can have the following states:

- **Undefined (Greyed out)**

  The status of this check box will be disregarded during the search process. If you click the **Search** button when this check box is set to **Undefined**, the search process will find all systems, irrespective of the status of the **Time Synchronization** check box.
- **Activated**

  Find only systems with Sync = ON. If you click the **Search** button when this check box is activated, the system will use this setting as the search filter. The search process will find and display only systems with **Time Synchronization** activated.
- **Deactivated**

  Find only systems with Sync = OFF. If you click the **Search** button when this check box is deactivated, the system will use this setting as the search filter. The search process will find and display only systems with **Time Synchronization** deactivated.

  In the **Object** and **New Object** views the check box can only assume the **Activated** or **Deactivated** state.

  The behavior of this check box is the same as the one of the **Web Admin** check box.

  Status values: Activated (1); Deactivated (0);

Remarks

Additional information

Values: alphanumeric characters, max. 160

4.3 OpenScape 4000 Administration, General/System Data/Object view

System Number

Access Point System (check box)

AP Number (field displayed for AP ES switches only)

Browse (button displayed for AP ES switches only)

View HS (button displayed for AP ES switches only)

List ES (button displayed for HS switches only)

Equipment Number 1

Equipment Number 2

Famos Identification

AMO Language

Web Admin

Domain

Node Number

Time Zone

Time Synchronization

Remarks

4.4 OpenScape 4000 Administration, General/System Data/Object List view

List of Network Objects

The **Object List** view in the content area displays a list of network objects and their System Management related data. The columns of the table can be moved forward or backward - the user can determine the ordering of the columns. Double-clicking on a certain line of the table starts the Object View of the selected object. Within the object list view the user cannot modify the parameters but he/she can select a line and invoke the **Delete** button for removing the network element for the system. No multiple selections are possible.

4.5 OpenScape 4000 Administration, General/System Data/New Object view

This dialog contains the same fields as the **Object** view.

System Number

Access Point System (check box)

AP Number (field displayed for AP ES switches only)

Browse (button displayed for AP ES switches only)

View HS (button displayed for AP ES switches only)

List ES (button displayed for HS switches only)

Equipment Number 1

Equipment Number 2

Famos Identification

AMO Language

Web Admin

Domain

4.6 OpenScape 4000 Administration, General/Customer Data

Customer ID

Identification number, specific for a certain customer.

Values: alphanumeric characters, max. 15

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

Contact Person

Contact person at customer site.

Values: alphanumeric characters, max. 22

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

Customer Phone Number

Customer phone number

Values: alphanumeric characters, max. 22

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

Syst. Room Phone Number

Room phone number of system room.

Values: alphanumeric characters, max. 22

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data

which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

Street

Street name and number as part of the customer address.

Values: alphanumeric characters, max. 22

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

Location

Location, city and ZIP code; part of the customer address.

Values: alphanumeric characters, max. 22

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

Remarks

Additional remarks to customer data.

Values: alphanumeric characters, max. 160

Customer-related data is basically defined for the host system (UV2.0 or higher). For AP Emergency Systems assigned to a host system, only data which can be different for ES systems, like **Syst. Room Phone Number**, **Street**, **Location** and **Remarks**, can be configured.

4.7 OpenScape 4000 Administration, General/Contract

Contract Number

Customer Contract

SW License Number

Service Region

Cutover Date

End Warranty

Remarks

Contract Number

Contract number with parts 1, 2 and 3.

part 1: Integer

part 2: Values: alphanumeric characters, max. 7

part 3: Values: alphanumeric characters, max. 5

Required, unique (as combination of 3 parts)

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

Customer Contract

This field is used to enter detailed information about the customer contract.

Values: alphanumeric characters, max. 160

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

SW License Number

Entry field for software license number.

Values: alphanumeric characters, max. 8

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

Service Region

Entry field for the responsible Service region.

Values: alphanumeric characters, max. 7

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

Cutover Date

Use this field to specify the start date of operation for the features specified in your contract.

Click the "**...**" button next to the entry field to open a calendar view showing the current month. You can use the left and right arrow keys to select the desired month. Select the date by clicking on the corresponding figure in the calendar view. The date selected will be displayed in the entry field.

Values: Date (Month, Year)

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

End Warranty

Use this field to specify the date when the warranty for the features specified in your contract is supposed to end.

Click the "**...**" button next to the entry field to open a calendar view showing the current month. You can use the left and right arrow keys to select the desired month. Select the date by clicking on the corresponding figure in the calendar view. The date selected will be displayed in the entry field.

Values: Date (Month, Year)

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

Remarks

Entry field for additional information.

Values: alphanumeric characters, max. 160

All Contract data is defined within the Host System (UV2.0 or higher). For AP Emergency Systems only the **Remarks** field is displayed and available for data entry.

4.8 OpenScape 4000 Administration, General/Communication

Communication Type

Connection type between Manager and Network Object. Currently only LAN connections are supported. Obsolete connection types (MSV, PPP, etc.) have been replaced by access routers.

Required

Manager IP in CPTP

IP address of the Manager configured on the switch in AMO CPTP.

This IP is retrieved automatically via the Data retrieve function and should match one of the current Manager IP addresses. The CPTP on the switch is updated each time the Configure & Save button is used. For the Manager with multiple CLAN interfaces, the correct interface address is selected automatically.

Values: read-only

See also

Creating a New System

AFR Number

Number of the Automatic Fault Reporting daemon used on the ADP to report to this Manager.

This number is retrieved automatically via the Data retrieve function.

This number is (re)configured on the switch automatically via the Configure & Save function.

Values: 1, 2 - mandatory only if Configure & Save is used; value 3 is reserved for reporting from RMX to Assistant.

See also

Creating a New System

Remarks

Remarks and comments regarding this connection.

Values: alphanumeric characters, max. 160

4.9 OpenScape 4000 Administration, General/Communication/LAN

Communication Type

Remarks

4.10 OpenScape 4000 Administration, Direct Access

Expert Access

OpenScape 4000 Assistant

Hardware and Symptom Diagnosis

Realtime Diagnosis System

Dynamic Traffic Monitoring

Expert Access

Click on the **Start** button to launch the OpenScape **Expert Access** (formerly **ComWin**) application. Also direct access features of RG8300 V5/V6/V7/V8 systems.

OpenScape 4000 Assistant

Click on the **Start** button to launch a new Web browser window that accesses the OpenScape/HiPath 4000 system. Also direct access features of RG8300 V5/V6/V7/V8 systems.

Hardware and Symptom Diagnosis

Click the **Start** button to launch the web-based HSD application in a new browser window.

Realtime Diagnosis System

Click the **Start** button to launch the web-based RDS application in a new browser window.

Dynamic Traffic Monitoring

Click the **Start** button to launch the web-based DTM application in a new browser window.

4.11 Access Management tab sheet in System Management

engr (Access for Service area)

engr (Access for Service area)

Enter the password for the **engr** NSL account for service administrators into this field.

The **engr** NSL account is used for remote access of service technicians at expert level for emergency cases.

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of Manager for remote service access, where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

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rsta (Access for Service area)

Enter the password for the **rsta** NSL account for service administrators into this field.

The **rsta** NSL account is used for remote access of service technicians at upper service level.

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again

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rsca (Access for Service area)

Enter the password for the **rsca** NSL account for service administrators into this field.

The **rsca** NSL account is used for remote access of service technicians at lower service level..

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators

of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

Same value for all service passwords (Access for Service area)

This check box is only displayed if at least 2 fields in this area contain an entry.

Check this box to set one (identical) password for all NSL accounts in the **Access for Service** area.

If this box is checked and you enter a value into the top level editable field in this area, then the values in the other editable fields in this area will automatically be changed as well.

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

cusa (Access for Customer area)

Enter the password for the **cusa** NSL account for customer administrators into this field.

The **cusa** NSL account is used for remote access of customer security administrators.

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

cust (Access for Customer area)

Enter the password for the **cust** NSL account for customer administrators into this field.

The **cust** NSL account is used for remote access of standard (cust-level) users.

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators

of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

Same value for all customer passwords (Access for Customer area)

This check box is only displayed if at least 2 fields in this area contain an entry.

Check this box to set one (identical) password for all NSL accounts in the **Access for Customer** area.

If this box is checked and you enter a value into the top level editable field in this area, then the values in the other editable fields in this area will automatically be changed as well.

NOTICE: Important: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

syst (System Access (Server-Server Communication) area)

Enter the password for the **syst** NSL account for system administrators into this field.

The **syst** NSL account is used for internal server-server communication of OpenScape/HiPath 4000 components like System Management, Expert Access/MPCID, Logging Management.

NOTICE: mportant: Setting the password of these accounts avoids illegal access to this server via Network Single Logon (NSL). Communicate the passwords only to administrators of master systems (e.g. OpenScape 4000 Manager or RSP (Remote Service Platform) for remote service access), where access via NSL is accepted from. NSL password changes are only valid for the currently selected object! For other objects you need to perform the step of applying the changes in the same way again.

4.12 Collecting Agent/COL Administration tab sheet in System Management

Input Format

PM Input Format

Translation Group

Number Of Retries

Retry Time

Collect AM Data

Collect PM Data

Generating Node Number

CDR Source: File/Directory

File/Directory Name

CDR from Local File System

Activate Copy CDR from RMX to Unix area

Start Date

Start Time

Cycle

Hours

Minutes

Input Format

Combo box with the list of all input formats. The drop down list of all supported input formats is shown in this box.

List of all input formats

PM Input Format

Combo box with the list of all PM input formats. The drop down list of all supported PM input formats is shown in this box.

The purpose of the **PM Input Format** field is to provide a short PM input format in order to reduce the length of the PM-N CDR records and thus reduce the data volume when PM is active.

The **PM Input Format** field is active only if the **Collect PM Data** check box is marked (active).

Data is only collected if the call charge data collection is activated, i.e. either **Collect AM Data** or **Collect PM Data** must be checked. The scheduling data for the selected switch is used for both AM and PM. A different scheduling for PM collecting is not supported.

If the **Collect PM Data** check box is marked (active), the format displayed in the **Input Format** field will also be displayed in the **PM Input Format** field (default setting).

NOTICE: Important: If a **UVxx** switch is selected from the **Version** drop-down list, the **PM Input Format** field will be made identical with the **Input Format** field and a corresponding warning message will be displayed.

PM input formats will be available for the following switch versions:

- UV10,
- UV8,

- UV7,
- UV6,
- UV5,
- UV4,
- UV3.0,
- UV2.0 (Version 2.0 only),
- UV1.0,

All formats contain RECTYPE as leading element. The names of the new PM input formats are:

- PM-N_UV4,
- PM-N_UV3.0,
- PM-N_UV2.0 (nur in V2.0),
- PM-N_UV1.0,

The PM-N_xxx formats contain the following elements:

Table 1: PM-N_xxx formats

Nr.	Element	Typ	Length
1	FIXTEXT	$	1
1	RECTYPE	number	1
2	CALLILV0	number	3
3	CALLILV1	number	3
4	CALLILV2	number	2
5	CALLIPTY	string	22
6	CONNTYPE	string	1
7	CONTOT	number	6
8	DESTLV0	number	3
9	DESTLV1	number	3
10	DESTLV2	number	2
11	DESTPTY	string	22
12	END10	number	1
13	ENDDAY	number	2
14	ENDHOUR	number	2
15	ENDMIN	number	2
16	ENDMONTH	number	2
17	ENDSEC	number	2
18	ENDYEAR	number	4

Nr.	Element	Typ	Length
19	QUEUEDUR	number	5
20	RINGDUR	number	3
21	SUPLSERV	string	2
22	THRESEQ	number	8
23	TKNOREAL	number	5
24	TKNOTRGR	number	3
		SUM:	109

The output format to PM remains unchanged and is not affected.

The RECTYPE element can have 4 different values. The value of the RECTYPE element defines whether a CDR record is relevant for AM only, PM only, AM + PM or for none of the two (see following table).

To separate AM data from PM data it is therefore sufficient to check the value of the RECTYPE element for each CDR record.

Table 2: RECTYPE/COLTYPE - possible values

RECTYPE/COLTYPE value	0	1	2	3
Relevant for	None	AM	PM	AM and PM

Translation Group

This combo box displays a selection list of available translation groups. You can either select one of the defined translations groups, or - if NO translation group is required - you can use the **Default Translation Group**.

Changed data that has not been saved yet can not be printed.

In order to provide all CDRs for OpenScape/HiPath systems (H150, H5000, H300) in a consistent, "normalized" format, the different values of the CDR elements need to be transformed or "translated" in such a way that they all have the same value in the COL standard elements.

This goal has been reached up from Version 2.0 of the Collecting Agent (in OpenScape/HiPath 4000 Manager.

A translation group consists of several translation tables and can be assigned to several input or output lines. Likewise, a translation table can be used in several translation groups.

Translation tables consist of value pairs that define how the value of an element is being "translated" in the input or output process.

Every translation table is defined for a specific standard element.

Translation tables and translation groups can be created and edited by the user, and they can be saved in the database under a unique name.

This field is not editable (read-only).

For more information about translation groups and translation tables please refer to the Collecting Agent Online Help or electronic documentation.

Collect AM Data

Check box to activate AM collecting.

Checked/not checked.

Generating Node Number

3 numeric entry fields for the node number.

Values: 0 to 9

Field lengths: 2,3,3; Mask: 11-111-111

Collect PM Data

Check-box for activating PM collecting.

Checked/Not Checked.

Enabled only if PM installed.

CDR Source: File/Directory

Select the CDR data source in **CDR Source** field. **File** or **Directory** can be specified as source.

File: Click this radio button if a file is to be specified as CDR data source.

Directory: Click this radio button if a directory is to be specified as CDR data source.

Radio buttons to choose input from file or directory.

File/Directory Name

The name of the file or directory as CDR data source can be specified on this field.

String

Default: FTFILE

CDR from Local File System

If this check box is enabled, the input files containing the call data record sets (CDRs) will be saved to a backup directory under the path ..\var\COL\data.

When activating this feature, all collected input data is saved in the /var/col/data/backup/<System-ID>/<cdr_filename> directory. At present the Collecting Agent / OpenScape COL does not support a feature for deleting the data in the /var/col/data/backup directory. Therefore, the user who activated this feature is responsible for the administration/deletion of the backup data. This feature is used to read in and thus recover from the backup directory CDR data that has been lost in the recording and evaluation system.

In order to read in the CDR records, the required CDR files can be copied to the /var/col/data/error/<System-ID> directory. The data records are then read in via the **Incorrect Records** dialog by selecting the file and pressing the **Send Back to Input** button.

Therefore, you should regularly delete this data in order to avoid exceeding the storage capacity of the /var partition.

Activate Copy CDR from RMX to Unix area

If this check box is enabled, the input files containing the call data record sets (CDRs) will be copied from the RMX to the Unix area.

Number Of Retries

The number of retries for data transfer is entered in this field.

Integer.

Values: 1 to 100 or [0] in case of selected collection period defined by Cycle Time is 1minute.

Default: 3

Example description: in case of any error in the collection process at the configured time, COL will try to collect 3 further transfers in "Retry Time" intervals. This is done in order to collect the call data from the RMX.

If all 3 retries fail a corresponding error message is added to the "Receive Log" and the next transfer starts at the configured time.

Retry Time

The time interval (in minutes) until the next retry for data transfer is entered in this field.

Integer.

Values: 1 to 1000.

Default: 15 minutes.

Example description: This means that the waiting interval between 3 retries has duration of 15 minutes.

NOTICE: The result of Number Of Retries multiplied by number of Retry Time has to be smaller than the collection period defined by Cycle Time in minutes.

Start Date

The date to begin the collecting process is entered on this field.

Date.

Default: today.

Start Time

The time to begin the collecting process is entered on this field.

Time in format "hh:mm".

Default: current time.

Cycle

The time length of a collecting cycle is entered on this field.

The duration can be specified in hours or minutes.

Default: hours.

Hours

Combo box with hours. Select this field if the duration for one cycle is to be in hours. The desired numerical values can be chosen from the selection list below the field.

1, 2, 3, 4, 6, 8, 12, 24 Enabled only if Cycle = Hours, not mandatory.

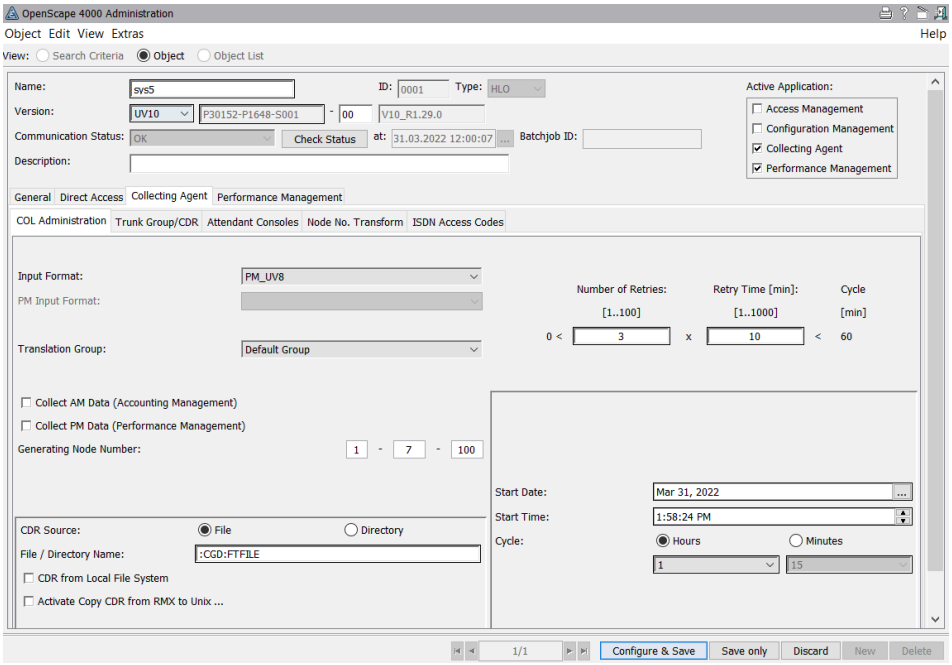
Default: 1

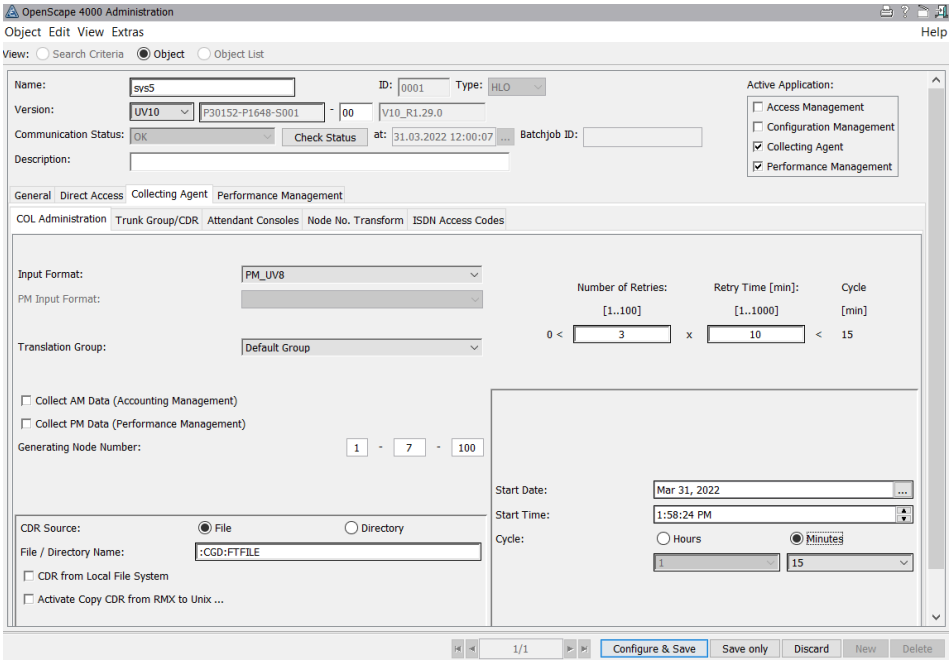
Minutes

Combo box with minutes. Select this field if the duration for one cycle is to be in minutes. The desired numerical values can be chosen from the selection list below the field.

1, 2, 3, 4, 5, 6, 10, 12, 15 ,30 Enabled only if Cycle = Minutes, not mandatory.

Default: 15.





4.13 Collecting Agent, Trunk Group/CDR tab sheet in System Management, Field Descriptions

Download (button)

Click the **Download** button to download the trunk group data from the system. The download process is performed asynchronously, i. e. you need to click the **Refresh** button in order to get the current download status displayed in the table. Click the **Save** button to same changed attributes and new data to a COL database.

When you start a data transfer by clicking the **Activate** or **Download** button, the status is set to "Running".

During a running upload or download process (Status: "Running" is displayed) you can click the **Refresh** button to get the current status displayed.

Activate (button)

Click the **Activate** button to send changed trunk group data back to the system. The **Activate** button is deactivated as long as you are editing and/or changing data; the **Activate** button is only activated after you have clicked the **Save** button to confirm and apply your changes. The upload process is also performed asynchronously, i.e. you need to click the **Refresh** button in order to get the current data displayed in the table.

When you start a data transfer by clicking the **Activate** or **Download** button, the status is set to "Running".

During a running upload or download process (Status: "Running" is displayed) you can click the **Refresh** button to get the current status displayed.

After having performed the Cyclic Check for selected trunk groups, the user can upload information about metered trunk groups back to the switch by pressing the **Activate** button. The PM data generated on the switch will then contain only the selected trunk groups. This reduces the communication with the switch and the amount of PM data.

Download Status

The status of the last download is displayed here. When you click the **Download** button, the displayed value changes, and a new download process starts. When the page is opened in the browser, the status of the last download is shown.

Possible values: OK; Error; Running; N/A if undefined.

Read-only

Start value: N/A

When you start a data transfer by clicking the **Activate** or **Download** button, the status is set to "Running".

During a running upload or download process (Status: "Running" is displayed) you can click the **Refresh** button to get the current status displayed.

Last download passed on (date/time)

The date/time of the last download is displayed. When you click the **Download** button, the displayed value changes, and a new download process starts. When the page is opened in browser, the date/time of the last download is shown.

Display format: "dd:MM:yyyy hh:mm"; N/A if undefined.

Read-only.

Start value: N/A.

Activation Status

The status of the last upload is displayed here. When you click the **Activate** button, the displayed value changes, and a new upload process starts. When the page is opened in the browser, the status of the last upload is shown.

Possible values: OK; Error; Running; N/A if undefined.

Read-only.

Not displayed on OpenScape/HiPath 4000 systems.

Start value: N/A

When you start a data transfer by clicking the **Activate** or **Download** button, the status is set to "Running".

Last activation passed on (date/time)

The date/time of the last upload is displayed here. When you click the **Activate** button, the displayed value changes, and a new upload process starts. When the page is opened in the browser, the date/time of the last upload is shown.

Display format: "dd:MM:yyyy hh:mm"; N/A if undefined.

Read-only.

Not displayed on OpenScape/HiPath 4000 systems.

Start value: N/A

Table of Trunk Group Data

This table serves the following purposes:

- Displays the trunk group data

  and
- Allows you to select individual trunk groups to be metered and to be sent back to the system.

The metering is only performed for the selected switch if the following conditions are met:

- The **Cyclic Check of Trunk Groups Active** check box must be checked (enabled) for the particular switch. The check box is located on the right hand side in the **Collecting Agent -> Trunk Groups/CDR** tab sheet.
- The check box in the **PM/TG Check** table column must be checked for at least one of the trunk groups displayed in the table, because the metering is performed only for the trunk groups selected for metering.

After having performed the Cyclic Check for selected trunk groups, the user can upload information about metered trunk groups back to the switch by pressing the **Activate** button. The PM data generated on the switch will then contain only the selected trunk groups. This reduces the communication with the switch and the amount of PM data.

The **Start Date**, **Start Time** and **Cycle Time** parameters for the cyclic check have to be defined individually for each switch.

The table contains the following columns:

- Trunk (table column)

- Name (table column)
- AM (table column)
- PM (table column)
- PM/TG Check (table column with check box)

Trunk (table column)

ID number of the trunk group.

Integer.

Read-only;

Unique for selected switch.

Name (table column)

Trunk group name.

String (max. length 30 characters).

Read-only;

Unique for selected switch.

AM (table column)

check box is checked if trunk group is relevant for AM.

Possible values: Checked, unchecked.

Not displayed on OpenScape/HiPath 4000 systems.

Default value: unchecked.

PM (table column)

check box is checked if trunk group is relevant for PM.

Possible values: Checked, unchecked.

Not displayed on OpenScape/HiPath 4000 systems.

Default value: unchecked.

PM/TG Check (table column with check box)

The check box in this table column allows you to enable or disable the **Cyclic Check of Trunk Groups** feature for selected trunk groups only. Activating the Cyclic Check only for selected trunk groups reduces communication with the switch and the amount of data.

By activating the **Cyclic Check of Trunk Groups** feature you can perform a cyclic check which queries the usage of all available resources (B channels) assigned to a trunk group in defined time intervals (cyclically). This feature makes sure that only the actually available resources (status READY) assigned to a trunk group are collected and counted in a report. The **Collecting Agent** stores the resulting trunk group usage data in the COL database, and **Performance Management (PM)** can then create correct trunk usage reports based on these data.

The metering is only performed for the selected switch if the following conditions are met:

1) The **Cyclic Check of Trunk Groups Active** check box must be checked (enabled) for the particular switch. The check box is located on the right hand side in the **Collecting Agent -> Trunk Groups/CDR** tab sheet.

   - The check box in the **PM/TG Check** table column must be checked for at least one of the trunk groups displayed in the table, because the metering is performed only for the trunk groups selected for metering.

   After having performed the Cyclic Check for selected trunk groups, the user can upload information about metered trunk groups back to the switch by pressing the **Activate** button. The PM data generated on the switch will then contain only the selected trunk groups. This reduces the communication with the switch and the amount of PM data.

   The **Start Date**, **Start Time** and **Cycle Time** parameters for the cyclic check have to be defined individually for each switch.

   Possible values: Checked, unchecked.

   Default value: unchecked.

Cyclic Check of Trunk Groups Active (check box)

Use this check box to activate or deactivate the **Cyclic Check of Trunk Groups** feature for the selected switch. By activating the **Cyclic Check of Trunk Groups** feature you can perform a cyclic check which queries the usage of all available resources (B channels) assigned to a trunk group. This feature makes sure that only the actually available resources (status READY) assigned to a trunk group are collected and counted in a report. The **Collecting Agent** stores the resulting trunk group usage data in the COL database, and **Performance Management (PM)** can then create correct trunk usage reports based on these data.

The metering is only performed for the selected switch if the following conditions are met:

- The **Cyclic Check of Trunk Groups Active** check box must be checked (enabled) for the particular switch. The check box is located on the right hand side in the **Collecting Agent -> Trunk Groups/CDR** tab sheet.
- The check box in the **PM/TG Check** table column must be checked for at least one of the trunk groups displayed in the table, because the metering is performed only for the trunk groups selected for metering.

In order to reduce communication with the switch and the amount of data, the user can enable or disable the cyclic check individually for selected trunk groups by checking or unchecking the check box in the **PM/TG Check** column. In this way, the user can select trunk groups for which the cyclic check is performed.

Cyclically, in defined time intervals, COL queries the usage of all available resources (B channels) assigned to a trunk group (AMO DIS-BUEND), obtaining the list of trunk groups, the associated trunk cards, and the number of assigned channels. The status of each assigned channel is also determined (AMO DIS-SDSU). Finally, the Collecting Agent calculates the number of available channels for each trunk group. The data obtained through the Cyclic Check is then stored in the COL database and can be used by PM for further analysis and reporting.

The **Start Date**, **Start Time** and **Cycle Time** parameters for the cyclic check have to be defined individually for each switch.

Additionally, the user can upload information about metered trunk groups back to the switch by pressing the **Activate** button. The PM data generated on the switch will then contain only the selected trunk groups. This reduces the communication with the switch and the amount of PM data.

Possible values: Checked, unchecked.

Default value: unchecked.

Start Date

The date to begin the cyclic check of trunk group resources is entered into this field.

The **Start Date**, **Start Time** and **Cycle Time** parameters for the cyclic check have to be defined individually for each switch. The user can activate or deactivate the **Cyclic Check of Trunk Groups** feature for the selected switch by checking/unchecking the **Cyclic Check of Trunk Groups Active** check box.

Format: Date.

Default: today.

Start Time

The time to begin the cyclic check of trunk group resources is entered into this field.

The **Start Date**, **Start Time** and **Cycle Time** parameters for the cyclic check have to be defined individually for each switch. The user can activate or deactivate the **Cyclic Check of Trunk Groups** feature for the selected switch by checking/unchecking the **Cyclic Check of Trunk Groups Active** check box.

Time format: "hh:mm".

Default: current time.

Cycle (radio button)

Enter the time interval for one metering cycle into this field.

The time interval can be specified either in hours or in minutes. Check the **Hours** or **Minutes** radio button to specify the time unit for the cycle time period. The cycle time can be specified either in hours or in minutes.

The **Start Date**, **Start Time** and **Cycle Time** parameters for the cyclic check have to be defined individually for each switch. The user can activate or deactivate the **Cyclic Check of Trunk Groups** feature for the selected switch by checking/unchecking the **Cyclic Check of Trunk Groups Active** check box.

Default: hours.

Hours

Combo box with hours. Select this field if the duration for one cycle is to be in hours. The desired numerical values can be chosen from the selection list below the field.

1, 2, 3, 4, 6, 8, 12, 24

Enabled only if Cycle = Hours

Default: 1

Not mandatory.

Minutes

Combo box with minutes. Select this field if the duration for one cycle is to be in minutes. The desired numericl values can be chosen from the selection list below the field.

Values:

5, 6, 10, 12, 15, 30 for OpenScape/HiPath 4000

and

15, 30 for H300

Enabled only if Cycle = Minutes

Default: 15

Not mandatory.

Refresh (button)

Click **Refresh** to load the data from the database again and to display the current data.

When you start a data transfer by clicking the **Activate** or **Download** button, the status is set to "Running".

During a running upload or download process (Status: "Running" is displayed) you can click the **Refresh** button to get the current status displayed.

Save (button)

Saves the changed data to the database.

The **Activate** button is deactivated as long as you are editing and/or changing trunk group data; the **Activate** button is only activated after you have clicked the **Save** button to confirm and save your changes to the database.

Cancel (button)

Changes that have not been saved yet are ignored and will be lost.

Possible values: checked; unchecked.

Not displayed on OpenScape/HiPath 4000 systems.

Default value: unchecked.

4.14 Collecting Agent/Attendant Consoles tab sheet in System Management

Download

Refresh

Generating Node No. (table)

Download

Click the **Download** button to download available Attendant Consoles data from the system.

When you start a data transfer by clicking **Download** button, the status is set to "Running" and displayed on the right side of the **Download** button and downloaded data are displayed in the table below.

The download process is performed asynchronously, i. e. you need to click the **Refresh** button in order to get the current download status displayed in the table.

Refresh

Since the download process is performed asynchronously, you need to click the **Refresh** button in order to get the current download status displayed.

Generating Node No. (table)

The currently downloaded and generated data of Attendant Consoles are displayed in the table:

- Attendant Group: Assigned Group of the Attendant Console
- Extension: Assigned Extension of the Attendant Console
- Attendant Group Type: Group Type of the Attendant Console
- Virtual Node Number : Assigned virtual node number of the Attendant Console

4.15 Collecting Agent, Node No. Transform, tab sheet in System Management, field descriptions

Virtual Node Number

Extension / Extension Range

Add (button)

Remove (button)

Remove All (button)

Virtual Node Number (table column)

Extension (lower value) (table column)

Extension (upper value) (table column)

Virtual Node Number

Enter the address of the extension into this field.

The Virtual Node Number is the three-level node number of the system to which the extension belongs to (or of the system on which the extension is to be installed, respectively).

Virtual node numbers are composed of the following parts:

aa = node number/area number in subnetwork level 2 (0 - 29)

bbb = node number/area number in subnetwork level 1 (0 - 253)

ccc = node number/area number in subnetwork level 0 (0 - 999)

The new **Collecting Agent/Attendant Consoles** tab sheet of the **System Management** application supports adding and setting up of extensions.

Extension / Extension Range

Consists of 2 entry fields.

If only one extension number has been allocated then this is to be entered in the first (left hand side) field which holds the "lower value". The second (right hand side) field remains empty in this case.

If an extension range comprises several extension numbers, then the lower value is to be entered in the first (left hand side) field, and the upper value in the second (right hand side) field.

Add (button)

Use this button to add the data listed from the left hand side of the dialog to the extension table on the right hand side of the dialog.

Remove (button)

Removes the selected entry (the selected line) from the extensions table.

Remove All (button)

Deletes all entries (all lines) from the extensions table.

Virtual Node Number (table column)

Displays the virtual three-level node number in the following format:

"aa-bbb-ccc".

Not editable.

Extension (lower value) (table column)

Displays the extension number, if only one extension number has been allocated.

If an extension range comprises several extension numbers, the lower value of the extension range is displayed in this field.

Not editable.

Extension (upper value) (table column)

If only one extension number has been assigned to the extension, this field remains empty.

If an extension range comprises several extension numbers , the upper value of the extension range is displayed in this field.

Not editable.

4.16 Configuration Management tab sheet fields for OpenScape/HiPath 4000 network objects

Domain

VNR Physical Switch

Tie Line

Country

Domain

This field contains the name of the domain to which the system defined in the **Name** field is belonging.

You can use the selection list to display the domains already configured and their corresponding descriptions (from the **Domain** window), and select the relevant domain.

Systems with common closed numbering schemes are combined in domains.

The domain name can be up to 8 characters long.

NOTICE: This field can not be edited in Configuration Management

---

VNR Physical Switch

If this checkbox is checked, it is possible to add subswitches to this physical system from the System screen in CM (Configuration Management -> Network - > System -> Subswitch Tab). This checkbox can only be selected for V4 and higher switches and cannot be changed after a subswitch has been defined for it .

NOTICE: This field can not be edited in the Configuration Management application. You can only edit this value in System Management, Configuration Management. And you can edit it here only, if the field itself is checked and no subswitches are yet been added to the switch

---

Tie Line

This field contains the tie line number.

This is the code which is to be dialed from PABXs of other domains to reach a target (e.g. a station) in the domain currently displayed.

Country

This field contains the abbreviated name for the country in which the system is operated.

Area Code

This field contains the national area code which is required to dial the system.

Node Code

This field contains the code for your own node.

CO Number

This field contains the number of the local network area in which your system is configured. This field is linked to the extension for a unique station number in a private network.

Possible values: up to 16 digits (defined in the private dialing plan).

Node Number

This field contains the globally unique number of your own PABX. This has a hierarchical structure containing different levels in Version V1.0 and later.

Up to three values of the format:

L2- L1- L0 can be used for numbering a system.

- L2: area number in level 2
- L1: area number in level 1
- L0: area number in level 0 or node number in the old sense.

If the value "0" is selected for a level, this means that the relevant hierarchical level is not being used for node numbering: "0" is equal to "nothing" or "level is not set".

With the help of this new node number format it is now possible to implement node numbers in networks in which - just as with dial numbers - the network hierarchy is reflected in the node numbers.

NOTICE: The same numbering level (= number of levels set in the node number) must be used for all nodes in a network.

In the Node Number field you will always see a three-level display with leading zeroes for levels not used for systems in Version V1.0 and later.

Example:	0-0-100 for 1-level numbering
	0-1-101 for 2-level numbering
	1-2-300 for 3-level numbering

Extended Node Number

This field contains the number of your own PABX in three-level format to uniquely identify it globally within a three-level numbered network.

There is no need to fill in this field if you are using single-level node numbering only.

Pref Route Index

This field contains the unique number of the system itself within the domain.

NOTICE: The role of the destination number in the PBX systems is to define on which system within the domain a station number can be reached.

This field is only editable in the **Search** mode and when using the **New** action. The field is only relevant if there is no node number.

Upload Status

This field displays a status message that indicates the current status of the synchronization process (upload status) of a system. In System Management the status message is displayed as plain text, indicating whether the last synchronization process (upload) was successful or whether a new upload is required.

The following status messages can be displayed in this field - depending on the current status:

Upload Status Messages
No upload active; Last upload completed successfully.
Upload DELTA initiated (by Start update).
Upload ALL initiated (by Start update).
Upload ALL running (initiated by OpenScape 4000 Manager).
Upload DELTA running (initiated by OpenScape 4000 Manager).
Upload ALL has been reset.
Upload DELTA has been reset.
An error occurred during a synchronization process (Upload ALL or Upload DELTA). An Upload ALL will be executed during the automatic synchronization process.
Upload ALL necessary (new system, has not been synchronized yet).
An initial Upload-ALL synchronization has been started by OpenScape 4000 Manager.
A synchronization process has been deferred (postponed).

Upload (button)

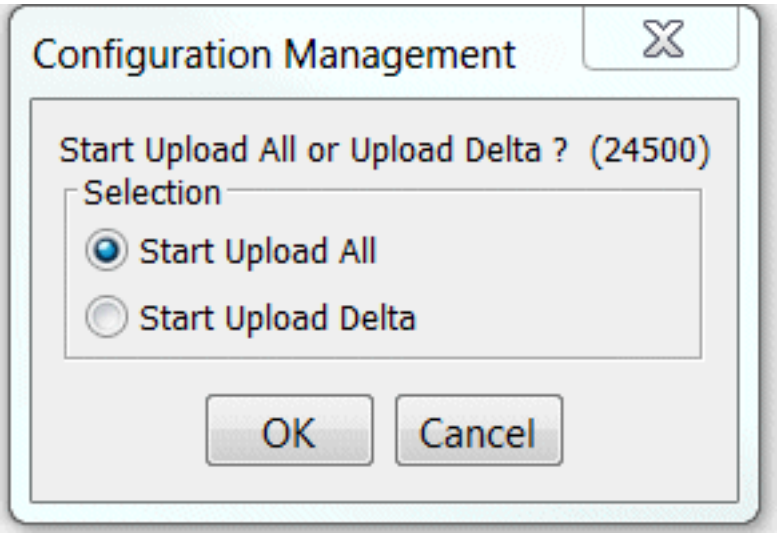
Use this button to start and control the upload process.

This button is used to synchronize the system data with the database.

Starting the Upload Process

Click the **Upload** button to start the upload process.

Depending on the upload status you need to select and confirm the Upload mode before starting the upload. In case of successful previous upload (upload status: 0) a window with the selectable upload options (Upload ALL and Upload DELTA) will be displayed.



- **Upload All**: All CM relevant data is uploaded.
- **Upload Delta**: Only data that has changed since the latest **Upload All** process is uploaded.

NOTICE: An upload process may take several minutes, depending on the amount of data and type of connection.

4.17 Performance Management tab sheet in System Management

All Items and **Selected Items**, option buttons in the **Metered Items** area

Telephony Items tab sheets in Performance Management

Attendant Consoles (tab sheet)

AC Groups (tab sheet)

Extensions (tab sheet)

Hunt Groups (tab sheet)

Trunks (tab sheet)

Trunk Groups (tab sheet)

Available Items (left-hand area)

Selected Items (right-hand area)

Collect System Data (area)

SWU/ADP Load (check box)

Feature Usage (check box)

Cordless Statistic Counters (check box)

With Refresh Of Cordless List when settings are saved (check box)

Cordless Overload Duration (check box)

Cordless Stay Statistics (check box)

Enter number or range (area)

Add (button)

>, >>, <, << (buttons)

Save button (on the Button bar)

New button (on the Button Bar)

Delete button (on the Button Bar)

Discard button (on the Button Bar)

All Items and Selected Items, option buttons in the Metered Items area

These option buttons allow the user to either set metering on ALL items of the switch or to specify the metered items individually.

1) **All Items** option button
   - This option button is enabled/disabled under the following circumstances:
     – On newer OpenScape/HiPath 4000 switches running under a **PM for Attendant Supervisor Package, PM Basic Package** License or **PM Networking Package** License, this option button is disabled (since such installations are not permitted to meter the full range of Telephony Item Types).
     – On newer OpenScape/HiPath 4000 switches running under a **PM Enhanced Package** License or a **PM Enhanced and Traffic Flow Package** License, this option button is enabled.
   - The following tooltip is associated with the **All Items** option button: "All items will be metered - warning this may degrade switch performance".
   - If the **All Items** option button is checked, the **Item Type** tabs are disabled (but the currently selected tab remains selected and its entries remain unchanged).
2) **Selected Items** option button
   - This option button is enabled for newer OpenScape/HiPath 4000 switches..
   - The following tooltip is associated with the **Selected Items** option button: "Use the tabs to select the items to be metered".
   - If the **Selected Items** option button is checked, the **Item Type** tabs are enabled (and the currently selected tab remains selected).

Telephony Items tab sheets in Performance Management

For detailed information about the features and field descriptions of Performance Management please refer to the Performance Management Online Help, and also to Working with the PM Tab Sheet in System Management and Telephony Item tabs in Performance Management in this present Online Help.

Attendant Consoles (tab sheet)

This tab allows the user to specify which Attendant Console numbers are to be included in the metering definition.

For more information please refer to Attendant Consoles telephony item type tab.

AC Groups (tab sheet)

This tab allows the user to specify which Attendant Console Group numbers are to be included in the metering definition.

For more information please refer to AC Groups telephony item type tab.

Extensions (tab sheet)

This tab allows the user to specify which extension numbers are to be included in the metering definition.

For more information please refer to Extensions telephony item type tab.

Hunt Groups (tab sheet)

This tab allows the user to specify which Hunt Group numbers are to be included in the metering definition.

For more information please refer to Hunt Groups telephony item type tab.

Trunks (tab sheet)

This tab allows the user to specify which trunk numbers are to be included in the metering definition.

For more information please refer to Trunks telephony item type tab.

Trunk Groups (tab sheet)

This tab allows the user to specify which Trunk Group numbers are to be included in the metering definition.

For more information please refer to Trunk Groups telephony item type tab.

Available Items (left-hand area)

This list is present on each of the **Telephony Item Type** tabs and allows the user to select which items of the selected Item type will be metered.

For more information please refer to Available Items list.

Selected Items (right-hand area)

This list is present on each of the **Telephony Item Type** tabs and indicates which items of a selected item type will be metered.

For more information please refer to Selected Items list.

Collect System Data (area)

The check boxes in this area are used to enable/disable the data collection of **SWU/ADP Load** and **Feature Usage** for PM metering.

SWU/ADP Load (check box)

This check box is used to enable/disable the SWU/ADP card data collection for PM.

For more information please refer to Collect System Data (area).

Feature Usage (check box)

This check box is used to enable/disable the collecting of feature usage data for PM.

Cordless Statistic Counters (check box)

This check box is used to enable/disable the collecting of specific Cordless data for PM.

If this check box is checked, the additional check box **With Refresh Of Cordless List when settings are saved** is activated and can be enabled/disabled.

With Refresh Of Cordless List when settings are saved (check box)

This check box is only activated and can be enabled/disabled if the **Cordless Statistic Counters** check box in the **Collect Cordless Data** area is enabled.

Cordless Overload Duration (check box)

If this check box is enabled, the metering of the Base Station Overload Duration is activated and performed by Fault Management (AFR - Alarm Fault Report).

Cordless Stay Statistics (check box)

Enables the collection of cordless stays data metering for all SLC cards in the selected switch(es).

By means of this data, a statistic on the usage of base stations per CMI subscriber can be generated (i.e. a statistic telling which base station is mostly used by a CMI user).

With this statistics you are able to detect the SLC on which the highest load is caused and to move the subscriber to this SLC, in order to reduce tie-line traffic (i.e. to reduce the connections that are necessary between the actual SLC and the home SLC).

Enter number or range (area)

This text field is present on each of the **Telephony Item Type** tabs and allows the user to specify a range of contiguous items by typing it in. Note that the items need not appear on the **Available Items** list, for example (if they are not known by the PM database). After having entered the values, click the **Add** button to apply them.

The label of this text field differs depending on the tab sheet selected. In the **Trunks** tab sheet, for instance, this text field is divided into 3 adjacent fields with the labels **Enter Trunk: LTU**, **Slot**, and **Circuit**.

Add (button)

This button is present on each of the **Telephony Item Type** tabs and enables the user to add the range of items indicated in **Enter Number or Range** text field to the **Selected Items** list. See for a full description.

>, >>, <, << (buttons)

These buttons are present on each of the **Telephony Item Type** tabs and are used to select which items of the selected Item Type will be monitored.

For more information please refer to Attendant Consoles telephony item type tab.

Save button (on the Button bar)

This button allows the user to send the displayed metering settings to the selected switch.

New button (on the Button Bar)

This button is used to add a new switch to the system.

Delete button (on the Button Bar)

This button is used to remove a switch from the system.

Discard button (on the Button Bar)

This button discards any entries and changes you might have made. The **Performance Management** tab sheet and any other additional tab sheets you might have opened (CM, Collecting Agent, Access Management) are closed as well, resetting the display to the initial **System Management** default view.

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