



A MITEL
PRODUCT
GUIDE

Unify OpenScape 4000

Conversion Guide for Networks V11

Installation Guide

06/2024

Notices

The information contained in this document is believed to be accurate in all respects but is not warranted by Mitel Europe Limited. The information is subject to change without notice and should not be construed in any way as a commitment by Mitel or any of its affiliates or subsidiaries. Mitel and its affiliates and subsidiaries assume no responsibility for any errors or omissions in this document. Revisions of this document or new editions of it may be issued to incorporate such changes. No part of this document can be reproduced or transmitted in any form or by any means - electronic or mechanical - for any purpose without written permission from Mitel Networks Corporation.

Trademarks

The trademarks, service marks, logos, and graphics (collectively "Trademarks") appearing on Mitel's Internet sites or in its publications are registered and unregistered trademarks of Mitel Networks Corporation (MNC) or its subsidiaries (collectively "Mitel"), Unify Software and Solutions GmbH & Co. KG or its affiliates (collectively "Unify") or others. Use of the Trademarks is prohibited without the express consent from Mitel and/or Unify. Please contact our legal department at iplegal@mitel.com for additional information. For a list of the worldwide Mitel and Unify registered trademarks, please refer to the website: <http://www.mitel.com/trademarks>.

© Copyright 2024, Mitel Networks Corporation

All rights reserved

Contents

1 Notes to the Conversion Guide.....	6
2 Sales Tasks - Sales Basic Conditions.....	7
2.1 SIM Card.....	7
2.2 Customer progression plan.....	7
2.3 Arrange a customer workshop.....	7
2.4 Proposing the service effort for the upgrade.....	8
2.5 Inclusion of service effort for network conversion and expansion.....	8
2.6 Consolidation.....	8
2.7 Offer to the Customer.....	9
2.8 Workshop for the acceptance criteria.....	9
2.9 Order including the acceptance criteria (functional specifications).....	9
3 Project Planning Tasks.....	10
3.1 Network analysis / create P.A.R.K. data.....	10
3.1.1 Gather current switch data (Hardware).....	10
3.1.2 Gather current switch data (Software).....	10
3.2 Network analysis when using VoIP.....	10
3.3 License Administration.....	11
4 Service Tasks.....	12
4.1 Important Changes in OpenScape 4000 V10.....	12
4.2 Review and Preparation for Conversion.....	12
4.2.1 Gather Information on the Current Configuration.....	12
4.2.2 Identify LAN Configuration.....	14
4.2.3 Use VoIP.....	14
4.2.4 Create a Network Plan.....	15
4.2.5 Create a new Node Numbering Concept.....	15
4.2.6 Consider Customer-specific Patches / Features.....	15
4.2.7 Incorporate Network-wide Features.....	15
4.2.8 Record used Applications.....	16
4.2.9 Certification.....	16
4.2.10 Record the Terminals / Desktops.....	16
4.2.11 Carrier Networks - Customer Requirements.....	18
4.2.12 Ensure SIRA is connected.....	18
4.2.13 Record Licenses.....	18
4.2.14 Login Concept.....	19
4.2.15 Security Checklist.....	19
4.2.16 Checklist for System Treatment / Create Network Components.....	19
4.2.17 Hardware IST.....	19
4.2.18 System Cable and Adapter Layout.....	20
4.2.18.1 Cable Connector and Grounding.....	20
4.2.18.2 Layout of NTPMKU and NTPMGF for DIUS2.....	20
4.2.19 Connection between OpenScape 4000 V8 and Applications and External Products.....	21
4.2.20 Supported Versions and Protocols.....	21
4.2.21 Necessary Patches for networking with Previous Versions.....	22
4.2.22 Create a Rough Schedule / Activity and Manpower Plan.....	23
4.2.23 Create a Result List for System Analysis / Network Components.....	23
4.3 Conversion and Important Information.....	23
4.3.1 OpenScape 4000 General.....	23
4.3.2 OpenScape 4000 Networking.....	24
4.3.3 OpenScape 4000 V8 CDR.....	25

4.3.4 OpenScape 4000 IPDA.....	25
4.3.5 OpenScape 4000 Trunking V2.0 (LEGK).....	27
4.3.6 OpenScape 4000 HFA V2.0.....	28
4.3.7 OpenScape 4000 Assistant.....	29
5 Distribution of Information and Realization.....	30
5.1 Arrange a Realization Workshop (Invitation, Participants and program).....	30
5.2 Create Security Concept (Redundancy / Risk Analysis).....	30
5.3 Execution of the Realization Workshop.....	30
5.4 Check for Support of BLS and / or Product Support.....	30
5.5 Define Contact Person in BLS and / or Product Support.....	30
5.6 Information to BLS and / or Product Support concerning the conversion process.....	31
5.7 Information to BLS and / or Product Support concerning the Start Time of the Conversion.....	31
5.8 Create Customer Specific Function Checklist.....	31
5.9 Set a Time Frame for the Network Conversion.....	32
5.10 Determination of Signalling Protocols during Conversion.....	32
5.11 Start Conversion of the Network.....	32
5.12 Work out Function Check List.....	32
5.13 Conversion finished.....	32
6 Implementation of Conversion.....	33
6.1 Preparation on site.....	33
6.2 Conversion of Hardware.....	33
6.2.1 Conversion activities on peripheral boards.....	33
6.2.2 Conversion activities on central boards.....	34
6.2.3 Conversion Activities on the following Hardware.....	34
6.3 Conversion of Software.....	34
6.3.1 Requirements.....	34
6.3.2 Carry out Software Conversion.....	34
6.4 Conversion Steps for AP Emergency.....	35
6.5 Total system function test.....	36
6.6 Host System Data Backup.....	36
6.7 Documentation.....	37
6.8 Customer Briefing.....	37
7 Check Lists.....	38
7.1 Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V10 (Simplex Switch, using EcoServer, Branch and VM infrastructure in target version).....	38
7.2 Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 (Duplex Switch, using cPCI infrastructure in target version).....	40
7.3 Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 (APE).....	42
8 Technical approval and final tasks.....	44
8.1 Update of Customer Documentation.....	44
8.2 Set a date for technical approval.....	44
8.3 Technical approval of Conversion / Migration together with the customer.....	44
8.4 Security Checklist.....	44
9 Appendix Equipment Tables.....	45
9.1 Appendix 1: Survey Sheet for Applications.....	45
9.2 Appendix 2: Result List of Network Analysis.....	46
9.3 Appendix 3: Survey List Terminals / Desktops.....	46
9.4 Appendix 4: Table of Applications.....	46
9.5 Update with Current Products.....	46
9.5.1 Form 1: Boards.....	46
9.5.2 Form 2: Frame / Power Supply.....	47
9.5.3 Form 3: Server / Applications.....	47

Index..... 49

1 Notes to the Conversion Guide

The guide line is written for Distribution, Engineering and Service.

Detailed technical information was omitted in this document. For more detailed technical information, please refer to E-Doku (<http://apps.g-dms.com:8081/techdoc/>).

Requests for modifications should be conveyed through ICTS.

2 Sales Tasks - Sales Basic Conditions

2.1 SIM Card

As of HiPath 4000 V6 the SIM card is no longer needed.

Please send the SIM card together with the delivery note to the following address:

Unify Software and Solutions GmbH & Co KG PH HQ O4k 1 c/o Alfons
Fartmann Mies-van-der-Rohe-Strasse 6 80807 Muenchen Germany

2.2 Customer progression plan

(Responsible party: Sales)

The customer progression plan is the basis for conversion/ migration of an existing network. The sales representative obtains the customer requests for the future.

Here are the possibilities (taking the customer budget into consideration):

- Expansion of the existing network with a new switch (e.g. OpenScape 4000):
 - Should the complete network be converted to OpenScape 4000?
 - Only minimum conversion/ migration so that all used/ bought features are fully functional (mixed versions in the Network)?
 - Only minimum conversion/ migration enabling limited functionality of particular features (e.g. version V3.4 in the network)?
- 1) Conversion/ Migration of the complete network for utilisation of new performance and features.

Preconditions for a meeting with the customer concerning the network planning are:

- Existence of a mid- or long-term intention to adapt the network to the customer needs and target date.
- Rough network plan detailing essential network components and information
- First action plan under usage of the application index (see [Section 9.4](#), "[Appendix 4: Table of Applications](#)").

This information might not be available in some cases. It may be provided from a customer workshop or can be offered as a service.

2.3 Arrange a customer workshop

(Responsibility: Sales)

When large networks are involved, it is essential for Sales to arrange a "customer workshop" with the project team to produce an action plan for the upgrade procedure based on the customer progress plan and budget. All actions that have to be taken must be considered.

This customer workshop may impact marketing aspects as well as technical solutions.

During creation of the action plan, the following items must be considered (case by case) in order to prepare a customer offer:

Estimate of effort required from Service.

- Determine the current status of the existing customer switches (via stock data in P.A.R.K.)
- Migration of current to new marketing structure via CONFIGURATOR.
- Migration of current to new HW platform via CONFIGURATOR.
- Conversion of affected switches within the network via CONFIGURATOR taking into account possible consequences to existing applications (compensation / conversion).
- Information concerning the products involved (Hardware / Software)

2.4 Proposing the service effort for the upgrade

(Responsible parties: Sales / Project planning team)

Expenditure and prices must be added to the result of the Workshop (upgrade procedure) and it must be sold to the customer as a service. This should also include the cost for a project manager.

This should be presented to the customer as follows: the more thoroughly and accurately the upgrade procedure is worked out, the smoother and more efficient the conversion/Migration will be.

The marketing service modules (DL) of the product category A should be used for this.

- Advisory service using the optional DL building modules during the phases Definition, Analysis, Planning, Project planning and Implementation (e.g. SBC649/per hour).
- Current Status evaluation of the Network infrastructure using building module AYA831

IMPORTANT: Use the security checklist to adopt / to check the required security settings for each product.

2.5 Inclusion of service effort for network conversion and expansion

Use the following building modules to cover the service cost per switch (Will be performed automatically when converting AYA826 / AYA827).

- Migration to the current version OpenScope 4000 V8
If new nodes are added into an existing network, the net data (Routing information) in the existing switches must be updated.
- For this, the building module AYA820 has to be sold per existing switch.

2.6 Consolidation

After the results of the previous steps are available Service must inform Sales and the Project team about the expected costs and sequence of actions to be taken.

This contains:

- Quantity and construction of the switches to be upgraded incl. running AP-E / Survivable OpenScape 4000 SoftGates / OpenScape Access 500 / OpenScape 4000 SoftGates/ OpenScape 4000 Branch
- Quantity and construction of the switches to be upgraded
- Quantity and construction of the switches to be installed
- Required hardware
- Required SW / FW
- Estimated service effort for realization

2.7 Offer to the Customer

(Responsible party: Sales)

Based on all accumulated data, Sales and the Project team will put together and present a detailed offer for the Conversion / Migration to the customer.

2.8 Workshop for the acceptance criteria

(Responsible party: Sales)

Sales will arrange a workshop with the project and the service team to establish the acceptance criteria for completion of the Conversion / Migration.

2.9 Order including the acceptance criteria (functional specifications)

(Responsible party: Sales)

Sales will issue a written order for the Conversion / Migration to Service including the acceptance criteria.

3 Project Planning Tasks

3.1 Network analysis / create P.A.R.K. data

3.1.1 Gather current switch data (Hardware)

What 48V loads are connected to OpenScape 4000 Power supply?

E.g.:

- PCM frame from Telecom
- NT for S0 and S2 connections
- Attendant console
- Announcement / recording devices
- Batteries as an emergency power backup
- Inverter
- Wireless or other special equipment

Is the capacity of the new power supply sufficient?

Battery charging voltage and current must be considered.

Since OpenScape 4000 V7/OpenScape Access SLC only OpenScape Cordless Enterprise V7 (with SLC24 board) is supported.

3.1.2 Gather current switch data (Software)

See Upgrade and conversion manual for the particular SW-Version, the compliance charts should be used.

If a new OpenScape 4000 is added to an existing network, only the latest software version must be used for all switches in this network (see also [Section 4.2.19, "Connection between OpenScape 4000 V8 and Applications and External Products"](#)).

3.2 Network analysis when using VoIP

IMPORTANT: A network analysis is mandatory if Voice over IP (VoIP) is in use!

For detailed informationen see:

[https://www.g-dms.com/livelink/livelink.exe?](https://www.g-dms.com/livelink/livelink.exe?func=ll&objId=26629076&objAction=Browse&viewType=1)

[func=ll&objId=26629076&objAction=Browse&viewType=1](https://www.g-dms.com/livelink/livelink.exe?func=ll&objId=26629076&objAction=Browse&viewType=1)

3.3 License Administration

In a network using LMT the total amount of licenses must be divided over all switches which will be converted.

4 Service Tasks

If more information concerning specific items is needed, please refer to E-Doku respectively to the corresponding product home page OpenScape 4000.

Refer to the release note of the respective software versions. The release documentation can be accessed through the product database in KMOSS.

4.1 Important Changes in OpenScape 4000 V10

Frames

The following frames are supported:

- 600ECX after converting the control to EcoServer, Branch, EcoBranch or VM
- OpenScape Access

For detailed information of supported deployments please refer to the actual release note and installation instruction OpenScape 4000 V8, Installation, Configuration and Migration.

APE frame

HiPath 4000 V6 only CSAPE with part number S30807-U66300-X100 is supported.

Improvement in the software concept of OpenScape 4000 V8

Starting with HiPath 4000 V5 new possibilities have been developed which simplify the update/upgrade of HiPath 4000/OpenScape 4000 systems. This implements RAR (Remote Appliance Reinstall). The new update concept for minor releases and the major release upgrade from V7R1/V7R2 to V8.

For detailed information please refer to the installation instruction **OpenScape 4000, Installation, Configuration and Migration**.

Trunking Protocol

IMPORTANT: As of OpenScape 4000 V7 H323 trunking is only supported for connections to OpenScape XPressions. For all other IP trunking connections SIP-Q must be used.

4.2 Review and Preparation for Conversion

4.2.1 Gather Information on the Current Configuration

- Find out the nature and type of network connections and query possible protocol changes.
- General queries:
AMO-REFTA;
AMO-LWPAR;

- For further HiPath 4000 switches / OpenScape 4000 / other switches
 AMO-BUEND;
 AMO-RICHT;
 AMO-TDCSU;
 AMO-COP/COT; (for the corresponding trunks),
 AMO-COSSU;
 AMO-LWPAR;
 AMO-KNTOP;
 AMO-LEGK;
 AMO-SIPCO,
 AMO-STMIB;
 AMO-CGWB;
- AMO-GKREG; Which providers and/or Direct Access D1 and D2 are used.
 AMO-TDCSU;
 AMO-TACSU;
 AMO-COP/COT;
 AMO-COSSU;
 AMO-LWPAR;
- For special add-ons / applications like router, fax server, PSE, analog tie line etc.
 AMO-TDCSU;
 AMO-TACSU;
 AMO-TSCSU;
 AMO-COP/COT;
 AMO-PTIME;
 AMO-COSSU;
 AMO-LWPAR;
- Router and fax server may also be a S2 and/or an S0 extension.
 AMO-SBCSU;
 AMO-LWPAR;
 AMO-ZAND:OPTTBL;
 AMO-COSSU;
- Query protocol changes / adjustments
 AMO-PRODE;
 AMO-ZAND:OPTTBL;
- Are the S2 lines connected via MUXs leading to restrictions in the quantity of B channels?
 AMO-TDCSU; Query the quantity and number of B channels used.

- Establish the numbering plan of extensions per switch

AMO-SCSU;

AMO-SBCSU;

AMO-SSCSU;

AMO-SSC;

AMO-WABE:TYP=GEN,DAR=STN;

AMO-SA; (WABE-DAR HUNT)

AMO-ACSU; (WABE-DAR ATND, ATNDDID, ATNDIND)

Check all Wabe / Richt / TDCSU extension entries for the correct destination number. Destination numbers may not be used more than once. Incorrect destination number entries can lead to a network loop.

4.2.2 Identify LAN Configuration

Implement Systems / Applications in the Customer LAN

Gather the information needed from the customer

IP addresses IPV4 or IP V6

Default router

Network masks / Network addresses

Firewall configuration (application ports used)

The Atlantic LAN is only available in the framework of migration. The following IP addresses may not be used 192.0.2.1 to 192.0.2.100.

Note the modified UDP port range.

4.2.3 Use VoIP

- Carry out a network analysis
- Discuss network components
- QoS mechanisms / bandwidth
- Firewall configuration
- Question the use of resource management and define network bottlenecks with the customer
- For SIP trunking boards, the upgrade/check of SIP trunking configuration should be performed in accordance with the software release information.

Links and documents:

- Network analysis:

[https://www.g-dms.com/livelink/livelink.exe?](https://www.g-dms.com/livelink/livelink.exe?func=ll&objId=26629076&objAction=Browse&viewType=1)

[func=ll&objId=26629076&objAction=Browse&viewType=1](https://www.g-dms.com/livelink/livelink.exe?func=ll&objId=26629076&objAction=Browse&viewType=1)

4.2.4 Create a Network Plan

The creation of a network plan is mandatory (including IP gateways and resource management) and must also be carried out for "Standalone" switches!

Create the layout using Visio or PowerPoint running under Windows.

4.2.5 Create a new Node Numbering Concept

The KNNR (node numbers) used up to now will be converted to a virtual KNNR by the PCDAICON. The new AMO KNDEF will be used to administer them and they are used for telephone number modification. The switch needs a new physical KNNR. It must be entered using the AMO ZAND. This is queried by PCDAICON.

Define explicit node numbers in the network. Check if node numbers have to be assigned in the network in 1-, 2- or 3-level format. Program node numbers to external switches in AMO TDCSU and AMO RICHT. The level format in the whole net must be the same. Switches, which deliver a KNNR, will additionally need the opposite switch KNNR entered in AMO TDCSU.

4.2.6 Consider Customer-specific Patches / Features

Take into consideration that features realized with optional patches in OpenScape 4000 might already be integrated as standard. For all other patches the appropriate "brother patch" (in the current version) should be searched for via the PRB list or in the KMOSS releases.

- Query activated optional patches:

```
DIS-PATCH:SYS;
DIS-PATCH:OPT;
REG-PATCH:OPT;
CHA-ZANDE:OPTFEA;
```

4.2.7 Incorporate Network-wide Features

Upgrades with Signaling and Payload Encryption (SPE/SRTP)

Scenario 1: HiPath 4000 V3.0 with security is upgraded to OpenScape 4000 V8 with security:

- 1) Deactivate security in HiPath 4000 V3.0 systems
- 2) Upgrade
- 3) Activate the "Signaling and Payload Encryption" feature in OpenScape 4000 V8 again if necessary

Scenario 2: HiPath 4000 V3.0 with security is partly upgraded to OpenScape 4000 V8 with security and partly left at HiPath 4000 V3.0 with security

- 1) Move the systems you want to upgrade to the "non-Secure Domain" in the network (on all HiPath 4000 V3.0 security systems); future OpenScape 4000 V8 security systems are therefore non-secure from the perspective of HiPath 4000 V3.0.

- 2) Deactivate security in HiPath 4000 V3.0 systems (on all systems you want to upgrade).
- 3) Upgrade.
- 4) If necessary activate the "Signaling and Payload Encryption" feature in OpenScape 4000 V8.
- 5) Clarifications and preparations for conversion.

IMPORTANT: Use the security checklist to adopt / to check the required security settings for each product.

4.2.8 Record used Applications

IMPORTANT: Interface 10/11 are reserved for UW7 in HiPath 4000 V1.0 and later.

For the connection of the radio controlled clock receiver, DCF77 applies:

For HiPath 4000 V1.0 / V2.0 (just old hardware) and later UW7 must be done on the V.24 port of line 9 on the DP. The interface can no longer be used for other applications.

4.2.9 Certification

Are the partner products certified for the new OpenScape 4000?

4.2.10 Record the Terminals / Desktops

- The identification of the terminals and desktops must be carried out together with the customer and should be noted in the table in [Section 9.3, "Appendix 3: Survey List Terminals / Desktops"](#).
- The firmware and loadware especially of the IP terminals must be considered.

Terminals / protocols / features of former HiPath 4000 V1.0 no longer supported

Device / Protocol / Feature	Action
HiPath 4000 V1.0	
1TR6 Protocol (S0&S2)	No action required
AC1-3 (Attendant Console)	Replaced by AC-Win IP
ACL-H	Only CAP inside is supported.
ACL-C	
ATM InterWorking with MM Terminals	No action required, not used due to missing MM terminals

Device / Protocol / Feature	Action
Clear Channel	Fixed (CLC) No action required
CorNet-T to PhoneMail	Protocol is replaced by CorNet-NQ
DCI 43x	Replaced by optiPoint 500 USB
DCI 7xx	Replaced by optiPoint 500 USB
DCI Associated Dialing	Open
DKZE/DKZN Protocol (S0)	No action required
H-channel	No action required
Key300 (based on KLMU)	Replaced by internal feature
Modem pool	Supported through the Client PC
MSV 1 Protocol (PSIO)	None, not used anymore
Netwide CHESE	Replaced by net wide Key- features
Night attendant	Replaced by central switchboard (internal)
Nx64 (S2 / S1)	None
PhoneMail with CorNet-N connection	Replaced by PhoneMail using CorNet-NQ
PNT	Replaced by PNT E
RFSL (Call-back via same line)	Was only used with PhoneMail / Xpressions 450 / 470 using CorNet-N and analogue tie lines. New feature SSCT within CorNet-NQ
Service Btx / Ttx	No action required
set 211	Replaced by OpenStage
set 260	Replaced by OpenStage
set 421	Replaced by OpenStage
set 431	Replaced by OpenStage
set 451 incl. WHI	Replaced by OpenStage
set 551, PNT 520, DCI 521, WHI	Replaced by OpenStage
FÄV	Not available with HiPath 4000 V2.0. In countries where call charge (FÄV/ SORM) is needed, a Hicom 300 H V1.0 will be delivered.
U*/TFM (Text Fax Server)	Replaced by Xpressions 450

Device / Protocol / Feature	Action
U*/VMS (Voice Mail Server)	The VMS can be integrated in the HiPath 4000 via a network connection (CorNet-N / NQ) to a Hicom 300 E V3.0.
U200 Set 2XX, 4XX	Must be replaced
AC 1 and AC	Must be replaced
Unix PSIO Ports	None
UP0	Replaced by Up0e
WTK (analog), HAS-loop, TMIPI, TMIPO	If possible, should be replaced by digital tie lines (e.g. DIUS2)
X.21/Ttx-/DEE devices	No action required
X.21/Ttx-/DEE lines	No action required
Xpressions450 with CorNet-N	OpenScape Xpressions using CorNet-NQ
HiPath 4000 V2.0	
ATM	Only NW2.0 is supported. NW10 must be implemented accordingly.
DCF77	Replaced by the feature "NTP"
HG3550 V1	Note: HG3550 V1 and HG3550 V2 are not compatible with each other, therefore all sites must use the same version.

4.2.11 Carrier Networks - Customer Requirements

- When examining carrier networks (various S2 connections), pay attention to the dynamics.
- Take the traffic flow and the information in the PN TI (planning tables for transit switch and carrier functionality) into consideration.
- The LCR routing and call charging must be harmonized.

4.2.12 Ensure SIRA is connected

See SIRA homepage (<https://sira.global-intra.net/>). Consider configuration!

4.2.13 Record Licenses

As of HiPath 4000 V6/OpenScape 4000 V8 a new license file is necessary. See also Central License Server (<https://www.central-license-server.com/license-management/session/login.htm>).

Starting with OpenScape 4000 V8 the license file concept has been enhanced. The well common usage of the Advanced Locking ID is mandatory for creating license files. In OpenScape 4000 V8 you donât need a CSTA licenses anymore.

Record used / sold licenses:

OpenScape 4000 Assistant > Access Management > License Management.

4.2.14 Login Concept

Save OpenScape 4000 USER. For further information see [Section 6.1, "Preparation on site"](#).

REG-USER;

This action transfers the user IDs to a protection file which can be loaded again with the action COPY-USER. The action generates this inverse command. Privileged user IDs (with execution rights bigger than 10) are not stored in the protection file.

REG-PASSW;

Regeneration of the passwords and locking data. The passwords are not output in the form of installation commands, rather are transferred in coded form (shape) to a protection file. The command INSTALL-PASSW: TAB; can be used to load this file again. An installation command is regenerated for the number of password input attempts and the blocking time of the terminal if the locking function is activated (TIME incomparably 0).

4.2.15 Security Checklist

Use the security checklist to adopt / to check the required security settings for each product.

4.2.16 Checklist for System Treatment / Create Network Components

When evaluating the customer networks, pay attention to special transmission facilities (e.g. ATM, TIS, MUXER, Laser link etc.), other switches (e.g. Nortel Meridian etc.) or special carriers (e.g. ARCOR with Qsig etc.).

Check if certificates for all these components are available for the new version. Pay attention to the hints noted in these certificates

The clock to all switches in the network must be checked. All switches connected in a digital network must run synchronously. The detailed description can be found in the Service Manual "OpenScape 4000 V8, Section 3 - Feature Usage Examples, Networking - Chapter RefTA Synchronization".

4.2.17 Hardware IST

- If a switch with LCS0 is replaced LCS0 must be changed to LAN.
- VMS Instruction, consider "Voice Mail and new Hardware"
- PNE; VINET; SLMT, KLMU, CMI,
- Load AC4 Firmware according to Service Information INF-01-000540

(<https://www.g-dms.com/livelink/livelink.exe?func=ll&objId=1106854&objAction=View&nexturl=%2Flivelink%2Flivelink%2Eexe%3Ffunc%3Dsrch%2ESearchCache%26cacheId%3D655477808>).

4.2.18 System Cable and Adapter Layout

4.2.18.1 Cable Connector and Grounding

The following models are available when migrating:

Model	System cable	Ground	Reorganization HVT
1	16 DA (alt)	Cable connector	Nein
2	16 DA (neu)	Cable connector	Nein
3	16 DA (neu)	Cable connector	Ja
4	24 DA (neu)	Ground adapter	Ja

"Old" board: Ground is located on the jack of the 16 DA system cable

"New" board: Ground is located on the 24-port board, the system cable has no grounding.

Model 1:

Should be the exception and is only possible with small expansion stages; if these are to be migrated directly, parallel installation of the new switch will not be possible.

Models 2 and 3:

Parallel installation possible, reorganization of HVT (main frame) when model 3 is used.

Model 4:

Reorganization of HVT necessary, additional grounding necessary, parallel installation possible.

4.2.18.2 Layout of NTPMKU and NTPMGF for DIUS2

Pin-Cannon	Color	Star Quad	Pin - NTPMKU / NTPMGF	Symbol
1	1	Black - Red	Red	5
6	9	Red - Red	Red	6

Pin-Cannon	Color	Star Quad	Pin - NTPMKU / NTPMGF	Symbol
5	8	Black - Red	Red	8
9	15	Green - Red	Red	9
		Shielding		7 and 10

The APPCU (universal connector with protective circuit S30807-K5415-X) is used for connecting 2 Mbit lines using 75 Ohm or 120 Ohm. Depending on the board (DIU., CDG) two lines will be run via the APPCU, which can be used with different impedance if necessary.

To set the impedance, the following jumpers should be inserted into the Cannon connector:

Impedance 120		Impedance 75	
Pin 3 - 10	Pin 7 - 14	Pin 2 - 10	Pin 6 - 14

There are no jumpers in the standard cable.

4.2.19 Connection between OpenScape 4000 V8 and Applications and External Products

The version of the connected applications / external products must be checked when converting into an OpenScape 4000. See [Chapter 9, "Appendix 4: Table of Applications"](#) for the Common Compatibility Matrix.

4.2.20 Supported Versions and Protocols

Only the following software versions including the system maintenance releases mentioned below will be supported in HiPath 4000/OpenScape 4000 networks.

- V3.5-11
- V3.6-12
- EV1.0-11
- EV2.0-12
- EV3.0-08 and later
- HiPath4000 V1.0-10 and later
- Version 3.4-11 can be used on a project-specific and limited basis.

The supported software versions can be found in the current release note and / or requested in RCC/BLS.

The **networking of HiPath 4000 V2.0** must be carried out using the following protocol versions:

HiPath 4000 V2.0 to	Protocol
HiPath 4000 V1.0	ECMAV2

HiPath 4000 V2.0 to	Protocol
Hicom 300 EV3.1	ECMAV2
Hicom 300 EV3.0	ECMAV2
Hicom 300 EV2.0	ECMAV2
Hicom 300 EV1.0	ECMA1

The following **connections of OpenScape 4000 V8** are tested. The networking must be carried out using the following protocol versions:

OpenScape 4000 V8 to	Protocol
HiPath 4000 V6	ECMAV2
HiPath 4000 V5	ECMAV2
HiPath 4000 V4	ECMAV2
HiPath 4000 V3.0	ECMAV2
HiPath 4000 V2.0	ECMAV2
HiPath 4000 V1.0	ECMAV2
Hicom 300 EV3.1	ECMAV2
Hicom 300 EV3.0	ECMAV2
Hicom 300 EV2.0	ECMAV2
OpenScape 4000 V7	ECMAV2

4.2.21 Necessary Patches for networking with Previous Versions

Network with HiPath 4000/OpenScape 4000 and Hicom 3000 E V3.0, Hicom 300 E V2.0 and Hicom 300 E V1.0

In a network with HiPath 4000/OpenScape 4000 and the former versions Hicom 3000 E V3.0, Hicom 3000 E V2.0 and Hicom 3000 E V1.0 the following PRBs must be applied:

Hicom 300 E V1.0:

- MSC00238
- MSC01692
- MSC01718

Hicom 300 E V2.0:

- MSC00239
- MSC01689
- MSC01694
- MSC01719

Old switches using new marketing structure

For old existing switches using the new marketing structure, the following PRBs are needed for networking of HiPath 4000 V1.0 / V2.0 / V3.0 and V4:

Hicom 300 E V1.0:

- MSC04140

Hicom 300 E V2.0:

- MSC04141
- MSC04149

Hicom 300 E V3.0:

- MSC04144
- MSC04142

Hicom 300 E V3.1:

- MSC04150
- MSC04143

4.2.22 Create a Rough Schedule / Activity and Manpower Plan

Following network analysis (current-status) and once systems / network components are finalized, the responsible PL (project manager) must create a rough time plan for conversion/migration. In addition, the sequence must be coordinated with sales and the customer taking the provided manpower and the given timeframe (weekends, times of low traffic) into consideration.

4.2.23 Create a Result List for System Analysis / Network Components

Editing the result list, see [Section 9.2, "Appendix 2: Result List of Network Analysis"](#)

4.3 Conversion and Important Information

4.3.1 OpenScape 4000 General

Generate standards for unification of the databases in the network before converting.

- Use COS standard AMO COSSU
- Use key standard from AMO TAPRO

Already in the database.

- Use COT standards

The COT standards are stored on the HD and can be copied to the database using KOP-COT.

- Use COP standards

The COP standards are stored on the HD and can be copied to the database using KOP-COP.

- Perform a concise generation

LRTE / LODR same number

DNNO always same number of digits

Virtual node e.g. 1-1-100, respective physical node 10-1-100

IPDA LTU-Number, source group same e.g. LTU17, SRC=17

Virtual node ID for IPDA e.g. LTU 17 node ID 1-17-100

Set up LCR for all "WABE" groups

Use source group-independent LCR (LPROF)

4.3.2 OpenScape 4000 Networking

Numbering Plans in OpenScape 4000

Numbering plan	Advantage	Disadvantage
ISDN	+ unique worldwide	Long numbers
Explicit numbering plan	+ hierarchic organization + no adoption for users to internal numbers + generation simple	Cannot always be used for extensions without DDI
PNP (private numbering plan)	+ unique worldwide	Long numbers
Explicit numbering plan	+ generation simple	not guarantied to be unique
OpenScape 4000 (UNKNOWN)	+ short number	No hierarchical organization
Implicit numbering plan		High generation effort Not unique

IMPORTANT: E.164 ISDN numbering plan must be used in the HiPath 4000/OpenScape 4000 network!

- Problems with the display messages occur when numbering plans with UNKNOWN formats are used (open and closed). The larger the network and the more applications are involved, the more problems occur.
- Normally ALUN / RWSN (COT) must be set in networked HiPath 4000 / OpenScape 4000 systems.
- The node numbers (AMO ZAND KNOTENKZ) must be configured in the network.

- The own node number must be programmed in "WABE" as "EIGENKZ", the external node numbers must lead to the corresponding system via an LCR route. This can happen by QUER / NETZRTG.

Closed numbering plan

- Use of NW-LCR is mandatory!!!
- Dial rule AMO LODR NPI=UNKNOWN, TON=UNKNOWN

Open numbering plan

- We advise against using an open numbering plan when the numbering plan is UNKNOWN.
- If it is impossible to avoid an UNKNOWN numbering plan, dial rule AMO LODR NPI=UNKNOWN, TON=UNKNOWN must also be used here.
- The basis of open numbering must be E.164.
- Use of a WABE group dependent LCR should be avoided.
- Use routing dependant on source groups.

Trunk traffic within the network (breakout)

- The trunk traffic in the network should lead to the E.164 numbering plan. Use dial rule AMO LODR **NPI=ISDN, TON=SUBSCR / NATIONAL / INTERNAT.**
- Use of a WABE group dependent LCR should be avoided. Use routing (LPROF) dependant on source groups.
- When various breakout codes are used with trunk traffic in E164 problems might occur. In this case use the dial rule AMO LODR **NPI=ISDN, TON=UNKNOWN.**

IMPORTANT: E.164 ISDN numbering plan must be used in the HiPath 4000/OpenScape 4000 network!

4.3.3 OpenScape 4000 V8 CDR

No change from OpenScape 4000 V7 to OpenScape 4000 V8.

4.3.4 OpenScape 4000 IPDA

HiPath 4000 V2.0

STMI boards (STMI2) were introduced with HiPath 4000 V2.0. New features (like DMC, new codecs etc.) can only be used in conjunction with these boards.

HiPath 4000 V3.0

The new feature "different time zones" was introduced with HiPath 4000 V3.0. It is now possible to display different local time zones for HFA or IPDA extensions. Further information can be found in the Service Manual, "IP Solutions", "Different Time [Zones](#)".

HiPath 4000 V4

STMI boards (NCUI4 with 60/120 b-channels) were introduced with HiPath 4000 V4.

Part of the configuration information is shifted into the new web based management WBM.

The following gateways are supported by HiPath 4000 V4:

- HG3575 V4
with the boards
 - NCUI 2+ (Q2305-X35 and Q2305-X40)
 - NCUI4 (Q2324-X and Q2324-X10)

HiPath 4000 V5

- 1) The new virtualized IPDA called OpenScape 4000 SoftGate has been introduced. The software application offers full HiPath Feature Access (HFA) for IP Endpoints, SIP Service Provider connectivity and native SIP connectivity for trunking and subscriber with basic feature set based upon a standard x86 server with Linux.

OpenScape 4000 V6

- 1) OpenScape Access is based on hardware and software of OpenScape 4000. It offers a cost-saving alternative for branch office solutions with integrated PSTN connection. For documentation on OpenScape Access/ Branch please refer to OpenScape Access, Service Documentation manual.

OpenScape 4000 V7

As of OpenScape 4000 V7 it is possible to configure 5 different languages per IPDA.

OpenScape 4000 V8

- STMIX/STMIY
STMIX/STMIY are the successors of the STMI4. The STMIX (Subscriber Trunk Module IP eXtended) /STMIY (Subscribe Trunk Module IP Model Y) boards are used as Common Gateway HG 3500.
- OpenScape 4000 Branch
The OpenScape 4000 Branch is successor for the OpenScape Access 500a/i office box. It is based on the new hardware architecture already used for OpenScape 4000 EcoServer.

- OpenScape 4000 Enterprise Gateway

The OpenScape 4000 Enterprise Gateway deployment is the successor of the IPDA shelf and requires:

AP3700-13 shelf

LTUCR

EcoServer

IMPORTANT: Starting with V10R0 the support for STMI2 will not be offered anymore. The replacement for STMI2 is STMIX/STMIY.

Starting with v10, new systems called "OpenScape EcoServer" and "OpenScape EcoBranch" have been introduced. The new systems are the successors of OpenScape 4000 EcoServer and OpenScape 400 Branch and have the same interface as the existing hardwares.

4.3.5 OpenScape 4000 Trunking V2.0 (LEGK)

HiPath 4000 V2.0

STMI boards (STMI2) were introduced with HiPath 4000 V2.0. New features (like DMC, new codecs etc.) can only be used in conjunction with these boards.

The Trunking V2.0 functionality was completely integrated into the HiPath 4000 V2.0. Special handling for loadware and administration is not necessary any more.

HiPath 4000 V3.0

The feature "Signaling and Voice Encryption via Secure Real Time Protocol (SRTP)" has been introduced with HiPath 4000 V3.0. DLS (Deployment Service) in the customer's network is mandatory.

IMPORTANT: Communication between HiPath 4000 Trunking V1.0 and HiPath 4000 Trunking V2.0 is not possible. Trunking is only possible using the same board on both sides.

IMPORTANT: Encryption via SRTP from HiPath 4000 V3.0 cannot be used from HiPath 4000 V4. The new "Signaling and Voice Encryption" feature is released from HiPath 4000 V4 Release 1. DLS version V2.0 is mandatory for this new feature!

HiPath 4000 V4

With HiPath 4000 V4 STMI boards (STMI4 with 60/120 b channels) were introduced.

The Common Gateway HG 3500 (STMI2/4) is configured with AMO BFDAT - AMO BCSU - AMO CGWB.

A part of the configuration information is shifted into the web base management WBM.

The following trunking gateways are supported by HiPath 4000 V4:

- HG 3550 V1 (STMI /Q2303-X10) and (Q2303-X20))
- HG 3500 V4 (Common Gateway)

with the boards

- STMI2 (Q2316-X and Q2316-X10)
- STMI4 (Q2324-X500 and Q2324-X510)
- STMIX (Q2343-X)
- STMIY (Q2361-X)

For the new feature "Signalling and Payload Encryption" DLS V2.0 R2 is mandatory!

IMPORTANT: Starting with V10R0 the support for STMI2 will not be offered anymore. The replacement for STMI2 is STMIX/STMIY.

4.3.6 OpenScape 4000 HFA V2.0

IMPORTANT: Starting with V10R0 the support for STMI2 will not be offered anymore. The replacement for STMI2 is STMIX/STMIY.

HiPath 4000 V2.0

STMI boards (STMI2) were introduced with HiPath 4000 V2.0. Only in conjunction with these boards new features (like DMC, new Codecs etc.) can be used.

HiPath 4000 V3.0

With HiPath 4000 V3.0 the new feature "different time zones" was introduced. It is now possible to display different local time zones for HFA or IPDA extensions. Further information can be found in the Service Manual, "IP-Solutions", "Different Time Zones".

The feature "Signalling and payload encryption via SRTP" has been introduced with HiPath 4000 V3.0. DLS (Deployment Service) in the network of the customer is mandatory.

HiPath 4000 V4 up to OpenScape 4000 V8

The feature "Signalling and payload encryption via SRTP" from HiPath 4000 V3.0 cannot be used in HiPath 4000 V4 and newer versions. There is a new feature for encryption that has been released with HiPath 4000 V4 Release 1!

The new OpenStage devices introduced with HiPath 4000 V4 have to be configured with Deployment Service DLS V2.0 (if encryption is used at least DLS V2.0 R2 is mandatory).

4.3.7 OpenScape 4000 Assistant

The handling for OpenScape 4000 Assistant has not changed with OpenScape 4000 V8.

Licensing has been added to access management. The OpenScape 4000 Plattform Administration (Portal) can be accessed via the Expert Mode menu. The documentation for OpenScape 4000 V8 (switch and OpenScape 4000 Assistant) is included in the OpenScape 4000 Plattform Administration (Portal).

Licensing has been added to the Access Management. Via the menu Expert Mode you have access to the OpenScape 4000 Plattform Administration (Portal). The E-doku for OpenScape 4000 V8 has been implemented in the OpenScape 4000 Plattform Administration (Portal).

5 Distribution of Information and Realization

5.1 Arrange a Realization Workshop (Invitation, Participants and program)

(Responsibility: sales)

After the service department did the necessary inspections and the realization of the project is fixed, a workshop with the relevant parties: sales, service, project management and the customer should be planned. Therefore the sales department creates a program, specifies the participants and sends out the invitations. The program should include all relevant items of the upgrading concept.

5.2 Create Security Concept (Redundancy / Risk Analysis)

Using the result list project management works out a risk analysis for the switches affected and creates a redundancy concept for a "WORST CASE" scenario.

5.3 Execution of the Realization Workshop

According to the previous created program all results of the upgrade concept will be discussed in the realization workshop:

- Planned time and date for the conversion in coordination with the customer.
- Are all the necessary components for the switches affected available at the time of conversion (hardware / software / firmware / loadware)?
- Are the technicians (specialists) available for the conversion?

5.4 Check for Support of BLS and / or Product Support

When time and date for the conversion is defined, project management decides if and when support through BLS or even Product Support is necessary.

5.5 Define Contact Person in BLS and / or Product Support

Project management defines the contact person (by name) for support of BLS and Product support. The decision is based on the volume (size of the network) and the characteristics, that are present at the customer like e.g.:

- Connected applications
- Particulars of the numbering plan
- Customer specific patches
- Installed "branch office-solutions" etc.

5.6 Information to BLS and / or Product Support concerning the conversion process

Project management must deliver the information about the conversion process and the planned action to BLS. On request they must pass all relevant documents referring the conversion to BLS. Based on the volume of the conversion, a decision is made if it is necessary to also inform Product Support.

5.7 Information to BLS and / or Product Support concerning the Start Time of the Conversion

When all information is delivered (to all relevant parties) BLS will be informed about the planned starting time of the conversion. If necessary, Product Support will also be informed about the planned starting time.

5.8 Create Customer Specific Function Checklist

The function check must be executed from all switches to all switches in the network. When doing the functional tests a special attention must be paid to switches with different SW versions.

IMPORTANT: For all tests: check for correct Displays!

- Basic Call
Extension-A calls extension-B, check if the display (call number and name) and the CDR data is correct.
- Consult, return to held call, Transfer
Check display and CDR data. After consultation and transfer check the caller list and the last number redial.
- Call forward
When testing call forward also test with "chained" CFW. Test the CFW in no answer and busy state. Check display and CDR data.
- Call back
Test call back in no answer- and busy-state at participants with or without message key function. Check if all call backs can be deleted and the message key light can be turned on and off.
- VF (switchboard) - network-wide
Test all VF-functions in the network and if available also the night service to a ZVF (central switchboard).
- Incoming and Outgoing trunk seizure
On incoming traffic check intercept, call number modification and CDR data if applicable. On outgoing traffic, for example break out, check CDR and call number modification.
- Conference (network-wide)
Set up a conference with all switches in the network.

Distribution of Information and Realization

Set a Time Frame for the Network Conversion

- Toggle function in the network
Toggle between several switches in the network.
- Customer individual features
Test pin net wide, SA-Net wide, recall to trunk, catching as well as applications available.

5.9 Set a Time Frame for the Network Conversion

When all necessary requirements are fulfilled Project management will set up a detailed timeframe for the upgrade procedure per switch and the complete network including the required manpower.

5.10 Determination of Signalling Protocols during Conversion

It might be necessary to first upgrade a couple or all the switches during conversion and then switch over the protocol to the final version. (e.g. Cornet V33 to Cornet-NQ).

5.11 Start Conversion of the Network

Project management announces the point of start according to the previous worked out timeframe.

5.12 Work out Function Check List

The functional tests must be executed and the results then documented in the function check list.

5.13 Conversion finished

After completion of the functional check list project management will inform sales, members of project planning team, BLS and the customer of the successful conversion.

6 Implementation of Conversion

6.1 Preparation on site

- Perform an update of the system:
EXEC-UPDATE:A1,ALL;

EXEC-UPDATE:BP,ALL;
- Turn off the Automatic Fault Report (AFR):
DEACT-AFR:AFR1;
- Take care of servers and applications e. g. : ACD, DMS, CTM etc. Query of applications with AMO:
REG-APC; / REG-DAPPL; / REG-XAPPL; / REG-CPTP; / REG-ACMSM;
- Back up application data (especially CDR data, analyse the results).
- Display active customer-specific patches.
DIS-PATCH:SYS;
DIS-PATCH:OPT;
REG-PATCH:OPT;
DISP-ZANDE:OPTFEA;
- Query state of periphery (boards / ports) :
DIS-SDSU:DEF&DEFIL&UNACH&TRS,,PEN,PER3;
- Do a "regen" of the active user features.
REGEN-ACTDA; / REGEN-ZIEL;
- Do a "regen" of the Passwords and the user IDs:
REGEN-PASSW;
REGEN-USER;
- Save the passwords and user accounts with HiPath 4000 Expert Access to your PC:
:PAS:PASSWORD;
:PAS:UDT;
- Query and document the switch data:
DIS-TINFO:N;

DIS-TINFO:T;

6.2 Conversion of Hardware

For the following described activities the switch must be turned off as described below.

This will be done in accordance to the software conversion.

6.2.1 Conversion activities on peripheral boards

These Conversion activities must be executed according to [Section 9.5, "Update with Current Products"](#).

6.2.2 Conversion activities on central boards

The following shelves are supported:

- 600ECX after converting the control to EcoServer, Branch or VM
- OpenScape Access

The following shelves are no longer supported:

- cPCI
- 80CXE,
- 80CMX,
- 80CMX-DSC and
- 600ECX.

6.2.3 Conversion Activities on the following Hardware

Perform conversion on the frames, cabinets, cables, power supply (keep in mind current exchange / upgrade procedures) and devices documented in [Section 9.5, "Update with Current Products"](#).

6.3 Conversion of Software

6.3.1 Requirements

- Valid and supported OpenScape 4000 deployment with software and generated customer data base is available.
- Keep release documentation of OpenScape 4000 V8 and the current SMR in mind.
- Pay attention to all release notes and conversion instructions, even the intermediate ones when doing a change of version.

6.3.2 Carry out Software Conversion

IMPORTANT: If you activate the APE mode, stations connected to the IPDAs can continue to make calls during conversion of the host.

NOTICE: Below description is valid for conversions of systems older versions to OpenScape 4000 V10, which are using and will keep the older versions to V10 infrastructure.

The software conversion will be done in accordance to the conversion of central boards.

- Replace cPCI shelf with EcoServer, Branch or VM. Keep in mind that in case LTU shelves are needed, only EcoServer can be used.

Final Activities Simplex / Duplex Switches

- Activate optional Customer patches

ACT-PATCH:OPT, . . .

- Update optional patches:

EXEC-UPDAT:A1, ALL;

EXEC-UPDAT:BP, ALL;

IMPORTANT: Execute data backup using HBR of the OpenScope 4000 Assistant, like described in [Section 6.6, "Host System Data Backup"](#).

- Check if CGD-Area (CDR) is turned on:

DIS-DDSM:A1, C, 1;

- Check daylight saving time settings.

DIS-SONUS;

- Check HISTA- FILE and analyse boot-up messages.

STA-HISTA:SEARCH;

- Implementation of the regenerated user features (AMO ACTDA and AMO ZIEL). It is important to use of the tool PCDAON due to the change of parameters.

- Activation of the implemented user features.

ADD-ACTDA

ADD-ZIEL

- Update the changes:

EXEC-UPDAT:BP;

- Implementation of user names and passwords with:

:PAS:PASSWORD";

:PAS:UDT";

ADD-PASSW:TAB;

COPY-USER;

- Update and implementation of TINFO-Information:

ADD-TINFO:N,;

ADD-TINFO:T,;

- Check the switches current state:

DIS-VADSU;

DIS-VADSM;

- If necessary adapt SIRA to UnixWare access

SIRA home page (<https://sira.global-intra.net/>)

- Turn on and check SIRA

6.4 Conversion Steps for AP Emergency

- Switch off UnixWare7

DEACT-DSSM:MODUL=A1, CNU=1, UNIXBOOT=YES; (Unix shut down)

IMPORTANT: As of the next step the APE is no more in Switching operations!

- Switch-off tension of the AP (unplug).

- Remove HD/CF HD/MO.

- Installation of the new CSAPE with the part number S30810-U66300-X100.

Implementation of Conversion

Total system function test

- Replace DSCXL with DSCXL2.
- Switch on tension of the AP (plug in)

Startup from DSCXL2

Startup the system with the new software version.

- **You can also install the software with the OpenScape 4000 Installer (SWS) only with a XML file.** With this method you don't have any configuration in YaST and OpenScape 4000 Platform Administration (Portal).
- Configure the backup server with OpenScape 4000 Assistant.
- Test of connection to host system

Remote Appliance Reinstallation (RAR)

With the feature **Remote Appliance Reinstallation (RAR)** the following appliances can be updated from remote via the host system

- APE "DSCXL2 board in CC-AP.
- Standalone OpenScape 4000 SoftGate: OpenScape Access 500, OpenScape 4000 Branch or VMware®.
- Survivable OpenScape 4000 SoftGate: OpenScape Access 500, OpenScape 4000 Branch or VMware®.

The feature RAR can be divided into three steps:

- 1) Preparation of the remote appliance.
- 2) Upgrade or reinstallation of the host system.
- 3) Activation of RAR at the host system.

NOTICE: For a detailed description please refer to the document "OpenScape 4000 V8, Installation, Configuration and Migration".

6.5 Total system function test

Check system using checklist (siehe [Section 5.8, "Create Customer Specific Function Checklist"](#))

6.6 Host System Data Backup

The system data backup is done via the OpenScape 4000 Platform Administration (Portal) in the menu **System > SWU Boot Device**.

Creation of a secondboot device (=copy of the RMX data basis which can start up):

- 1) COPY-DDRSM:A1,1,E,6,E;
COPY-DDRSM:A1,1,F,6,F;

The following possibilities are still available via RMX-access:

- Regeneration of all RMX-AMO-commands:
EXEC-UPDAT:A1;
EXEC-UPDAT:BP;
START-REGEN:.....
- Check of automatic backup times and set them, if necessary:
REG-UPDATE;
ADD-CDBR:..;
- Setting of automatic backup times in HBR of the OpenScape 4000 Assistant

6.7 Documentation

- Update data in SIRA.
- Update switch documentation.

6.8 Customer Briefing

Information about changes in the switch such as different display messages at VF (attendant console, new features etc.

Check Lists

Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V10 (Simplex Switch, using EcoServer, Branch and VM infrastructure in target version)

7 Check Lists

7.1 Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V10 (Simplex Switch, using EcoServer, Branch and VM infrastructure in target version)

Table 1: Check list software conversion (Simplex switches)

No.	Action	Done
Preparing actions		
1	Arrange date for conversion and regen	
2	Check firmware versions	
3	Check for connected servers and applications	
3.1	DEACT-AFR:AFR1;	
3.2	REG-APC;	
3.3	REG-DAPPL; REG-XAPPL; REG-CPTP;	
4	Query the patches:	
4.1	DIS-PATCH:SYS; DIS-PATCH:OPT; REG-PATCH:OPT; REG-ACMSM;	
Actions before converting		
5	Is the CDR data transferred?	
6	Query switch status and activated user features:	
6.1	DIS-SDSU:DEF&DEFIL&UNACH,,PEN,PER3;	
6.2	REGEN-ACTDA;	
6.3	REGEN-ZIEL;	
7	Back up password & user file to PC:	
7.1	REG-PASSW; REG-USER;	
7.2	Save ":PAS:PASSWORD"	
7.3	Save "PAS:UDT"	
8.	Backup of TINFO:	
8.1	DIS-TINFO:T;	
8.2	DIS-TINFO:N;	
9	Execute conversion:	

No.	Action	Done
9.2	Shut down UnixWare 7	
9.3	Turn off power supply in cPCI	
9.4	Plug in HDTR into slot 3	
9.5	Plug DSCXL2 board into HDTR (upper tray)	
9.6	Plug RTM module into slot 1	
9.7	Remove HDMO/HDCF and SF2X8 boards. Attach covers.	
9.8	Turn on power supply in cPCI	
9.9	Wait until the switch has booted up	
9.10	Activate customer-specific patches	
9.11	DIS-BSCU:TBL; all boards "ready"?	
10	Restore password and user file from PC.	
10.1	Copy the file Password to "PAS:PASSWORD";	
10.2	Copy the file UDT to ":PAS:UDT";	
10.3	ADD-PASSW:TBL;	
10.4	COPY-USER;	
11	ADD-TINFO;	
12	Implement the activated customer features	
12.1	Activate customer features via PCDAICON	
12.2	ADD-ZIEL;	
12.3	ADD-ACTDA;	
12.4	DELTA (e.g. PERSI-entries) implementation in between generation and conversion	
13	Perform several tests depending on switch config (TW, ACD, Phonemail etc.)	
14	Are there any errors in the switch?	
14.1	DIS-VADSU;	
14.2	DIS-VADSM;	
15	Check if CGD area is turned on: (CDR)	
15.1	DIS-DDSM:A1,C,1;	
16	Convert SIRA and check for functionality	
17	EXEC-UPDAT:BP;	

Check Lists

Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 (Duplex Switch, using cPCI infrastructure in target version)

No.	Action	Done
18	EXEC-UPDAT:A1;	
19	Check Histo file and analyze boot-up messages	
19.1	STA-HISTA:SEARCH,XXXXXXXXX	
20	Data backup via OpenScape 4000 administration portal	

7.2 Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 (Duplex Switch, using cPCI infrastructure in target version)

Table 2: Check list software conversion (Duplex)

No.	Actions	Done
Preparing actions		
1	Arrange date for conversion and regen	
2	Check firmware versions	
3	Check for connected servers and applications	
3.1	DEACT-AFR:AFR1;	
3.2	REG-APC;	
3.3	REG-DAPPL; REG-XAPPL; REG-CPTP;	
4	Query the patches	
4.1	DIS-PATCH:SYS; DIS-PATCH:OPT; REG-PATCH:OPT; REG-ACMSM;	
Actions before conversion		
5	Is the CDR data transferred?	
6	Query current switch status and activated user features:	
6.1	DIS-SDSU:DEF&DEFIL&UNACH,,PEN,PER3;	
6.2	REGEN-ACTDA;	
6.3	REGEN-ZIEL;	
7	Back up password & user file to PC	
7.1	REG-PASSW; REG-USER;	
7.2	Save file "PAS:PASSWORD";	
7.3	Save file "A16F:UDT";	
8	Backup of TINFO:	
8.1	DIS-TINFO:T;	

No.	Actions	Done
8.2	DIS-TINFO:N;	
9	Execute conversion:	
9.1	Shut down UnixWare7	
9.2	Turn off power supply in cPCI	
9.3	Replace DSCXL board	
9.5	Remove HDMO/HDCF board	
9.6	Remove SF2X8 board	
9.7	Plug DSCXL2 modules into slot 1 and 5	
9.8	Remove RTM module from slot r2	
9.9	Plug RTM modules into r1 and r5	
9.10	Turn on power supply in cPCI	
9.11	Wait until the switch has booted up	
9.12	Activate customer-specific patches	
9.13	DIS-BCSU:TAB; all boards "READY"again?	
10	Restore password and user file from PC:	
10.1	COPY to ":PAS:PASSWORD";	
10.2	COPY to ":PAS:UDT";	
10.3	ADD-PASSW:TAB;	
10.4	COPY-USER;	
11	ADD-TINFO;	
12	Implement activated user features:	
12.1	Activate user features using PCDAICON	
12.2	ADD-ZIEL;	
12.3	ADD-ACTDA;	
12.4	DELTA (e.g. PERSI-entries) implementation in between generation and conversion	
13	Perform several tests depending on switch config (TW, ACD, Phonemail etc.)	
14	Are there any errors in the switch?	
14.1	DIS-VADSU;	
14.2	DIS-VADSM;	

Check Lists

Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 (APE)

No.	Actions	Done
15	Check if CGD area is activated	
15.1	DIS-DDSM:A1,C,1;	
16	Convert SIRA to UNIXWARE and check for functionality	
17	EXEC-UPDAT:BP;	
18	EXEC-UPDAT:A1;	
19	Check Histo file and analyze boot-up messages	
19.1	STA-HISTA:SEARCH,XXXXXXXXX	
20	Data backup with OpenScape 4000 Platform Administration (Portal)	

7.3 Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 (APE)

Only the essential steps for the hard disk are described here.

For all other subscriber-specific steps, see

- [Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V10 \(Simplex Switch, using EcoServer, Branch and VM infrastructure in target version\)](#)
- [Check List Software Conversion HiPath 4000 V2.0 to OpenScape 4000 V8 \(Duplex Switch, using cPCI infrastructure in target version\).](#)

Table 3: Check list software conversion (AP-E)

No.	Action	Done
Preparatory activities		
1	Arrange date for conversion	
2	Execute conversion	
2.1	Shut down UW7	
2.2	Turn off power supply in APE	
2.3	Remove old CSAPE unit. Install the new CSAPE unit with the part number S30807-U66300-X100.	
2.4	Install DSCXL V2 board	
2.5	Switch on power supply in CC APE	
2.6	Wait for the APE to restart	
2.7	Enter data in YAST and OpenScape 4000 Platform Administration (Portal)	

No.	Action	Done
2.8	Point 2.7 is not applicable in case of installation with xml file	
2.9	Enter the backup server in OpenScape 4000 Assistant	
3	Check the automatic AP backup / restore function	
3.1	Data backup with HBR of the OpenScape 4000 Assistant	

8 Technical approval and final tasks

8.1 Update of Customer Documentation

The documentation on customer site must be updated according to changes done. The customer must be informed about that. The user should also be informed about any changes made to "COS" or "LCOS" on sites, which are administered by the customer itself.

These changes must be documented as well.

8.2 Set a date for technical approval

Once everything is finalised project management decides on a date in cooperation with the customer, sales and the project team for technical approval.

8.3 Technical approval of Conversion / Migration together with the customer

The technical approval and hand over is done according to the fixed approval criteria together with sales and the project team. It will be documented in a protocol and confirmed by the customer.

8.4 Security Checklist

Use the security checklist to adopt / to check the required security settings for each product.

9 Appendix Equipment Tables

9.1 Appendix 1: Survey Sheet for Applications

Table 4: Appendix 1: Survey sheet for applications

HiPath 4000/OpenScape 4000 Network Conversion	
-> Connected applications / branch solutions	
Survey by (Name, department, phone no.):	platzhalter platzhalter platzhalter platzhalter platzhalter
Date of Survey:	
HiPath 4000 / OpenScape 4000 (switch identification)	
Product Name (application / solution)	
Hersteller (code no./serial no. if available)	
Hardware Platform	
Software Platform	
Software Version	
Quantity of Licenses (if relevant)	
Product Version	
Physical Interface	
Application / Solution	
Transmission Protocol	
Physical Interface HiPath 4000/OpenScape 4000	
Location of Application / Solution (building / room)	

Appendix Equipment Tables

Appendix 2: Result List of Network Analysis

HiPath 4000/OpenScape 4000 Network Conversion

-> Connected applications / branch solutions

Comment

9.2 Appendix 2: Result List of Network Analysis

Table 5: Appendix 2: Result list of network analysis

Customer:				
Chapter / Pt.	Feature	Activity	Necessary changes	Comments

9.3 Appendix 3: Survey List Terminals / Desktops

Table 6: Appendix 3: Survey list terminals / desktops

Customer:				
Quantity	Type	Serial number	Revision	Comments

9.4 Appendix 4: Table of Applications

An overview of all corresponding products / applications can be found in "Sales Information - Large Scale Common Compatibility Matrix" on the product homepage (<https://enterprise-businessarea.unify.com/productinfo/producthomageservice.jsp?mainTab=documents>).

9.5 Update with Current Products

9.5.1 Form 1: Boards

The current firmware version of the boards can be retrieved in KMOSS.
Example of a table that shows the firmware release:

Table 7: Form 1: Boards

Quantity	Boards			
	Type	Code Number	Used Firmware	Current Firmware
		S30810-		

9.5.2 Form 2: Frame / Power Supply

Table 8: Form 2: Frame / power supply

Quantity	Shelves / Cabinets / Cables			
	Type	Serial Number	Revision	Comment

9.5.3 Form 3: Server / Applications

Table 9: Form 3: Server / applications

Quantity	Server / Applications			
	Type	Serial Number	Revision	Comment
	OSCC			
	UC			

Appendix Equipment Tables

Quantity	Server / Applications			
	Type	Serial Number	Revision	Comment
	XPR			
	HiMed			
	Manager			
	AC-WIN			
	IP			
	ASC			
	DLS			

Index

A

- Appendix 1
 - Survey Sheet for Applications [45](#)
- Appendix 2
 - Result list of network analysis [46](#)
- Appendix 3
 - Survey list Terminals / Desktops [46](#)
- Appendix 4
 - Table of Applications [46](#)

C

- Check List Software Conversion (mono switch) [38](#)

F

- Final activities Simplex / Duplex switches [35](#)
- Function Checklist (customer specific) [31](#)

M

- Migration together with the customer [44](#)

T

- Technical approval of Conversion [44](#)

