A MITEL
PRODUCT
GUIDE

Unify OpenScape Xpressions

Upgrade Instructions

Installation Documentation
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Mitel

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History of Changes

Date	Changes	Reason
03/2012	First draft	
2012-04-23	Upgrade table in Section 2.1, “Upgrade Versions”, on page 13 updated	
2012-09-03	New note in Section 2.9, “Upgrading from XPR V6 32-bit to XPR V7”, Section 2.11, “Upgrading from MRS 8.03 to XPR V7” and section “Upgrading XPR V6 64-bit to XPR V7”	CQ00215677
2012-09-04	Table for upgrading from V5 to V7 supplemented	CQ00219597
2012-09-07	New Section 2.10, “Upgrading from XPR V5 to XPR V7”	
2012-09-07	Section 2.9, “Upgrading from XPR V6 32-bit to XPR V7”, Section 2.11, “Upgrading from MRS 8.03 to XPR V7” and section “Upgrading XPR V6 64-bit to XPR V7”corrected	CQ00201017
2012-09-07	Satellite system: Note in Section 2.12.2, “Preparing the Satellite Computers” and new Section 2.12.4, “Host Name of the Satellite Computer”	CQ00221310
2012-09-14	Disabling IPv6: Note in Section 2.3.1.1, “Server with Operating System Windows Server”	CQ00215681
2013-05-24	The supported operating systems have been updated (see Section 2.3.1.1, “Server with Operating System Windows Server”, on page 16). The operating system that are supported for clusters have been added (see point 1 on page 122).	FRN5992
2013-05-24	Section 2.3.4, “Setup Medium for Upgrading to a Fix Release”, on page 29 added.	FRN5399
2013-05-24	Some upgrades include a fresh installation of the XPR server. During this installation, the same password must be used for user PGROOT of the PostgreSQL database as was used for setting up the old XPR system (see Section 2.10.2, “Installing the XPR V7 Server”, on page 97, Section 2.9.2, “Installing the XPR V7 Server”, on page 90 and Section 2.11.2, “Installing the XPR V7 Server”, on page 106).	CQ00201017
2013-06-13	Section 2.8.2, “Silent Upgrade”, on page 84 added.	FRN6055
2013-11-18	Section 2.3.1.1, “Server with Operating System Windows Server”, on page 16: Windows Server 2008 R2 SP1 Datacenter Edition is supported. This applies for Windows Cluster also. Windows Server 2008 Datacenter Edition is still not supported.	
2013-11-18	Additional steps are required for voice messages when upgrading from XPR V5 32-bit or MRS 8.03 to XPR V7 (see step 3 on page 100 and step 3 on page 109)	CQ00264840
2013-11-18	Audio conferences are no longer supported for HiPath 3000 V5, V6 and V7 and for HiPath 4000 V3 and V4 (see Section 2.1, “Upgrade Versions”, on page 13 and point 7 on page 122).	
2013-11-18	The name “Unify” has been introduced.	

Date	Changes	Reason
2013-11-18	The sections Section 2.9, “Upgrading from XPR V6 32-bit to XPR V7”, on page 87, Section 2.10, “Upgrading from XPR V5 to XPR V7”, on page 94 and Section 2.11, “Upgrading from MRS 8.03 to XPR V7”, on page 103 have been restructured. Information about upgrading XPR V6 64-bit to XPR V7 R1 has been moved without modifications (see step 2 on page 64, step 57 on page 83 and step 58 on page 83).	
2013-11-18	The following sections that describe upgrading on a Windows cluster have been added: - Section 3.3, “Upgrading from XPR V6 32-bit to XPR V7”, on page 148 - Section 3.4, “Upgrading from XPR V5 32-bit to XPR V7”, on page 149 - Section 3.5, “Upgrading from MRS 8.03 to XPR V7”, on page 150	
2014-01-03	The name “Unify” has been introduced in screenshots.	
2014-02-10	R2 of Windows Server 2012 is supported (see Section 2.3.1.1, “Server with Operating System Windows Server”, on page 16).	FRN7927
2014-02-10	Links in Section 2.3.1, “Checking the System Requirements for the Server PC”, on page 16 updated	CQ00283457
2014-02-10	When upgrading XPR V6 32-bit to XPR V7, install the highest MTA hofixes and the highest UCC hotfixes (see step 3 on page 91).	
2014-02-10	VMware ESXi V5.5 is supported (see Section 2.3.1.1, “Server with Operating System Windows Server”, on page 16).	FRN7740
2014-02-10	“Lotus Notes” has been replaced by “IBM Notes” for version 9 and higher.	
2014-05-19	Upgrade from versions lower than XPR V5 removed (see Section 2.1, “Upgrade Versions”, on page 13)	
2014-05-19	Refer to the service documentation *OpenScape Xpressions Release Notice* for details about the supported operating systems (see Section 1.1, “Who should read this Manual?”, on page 9, Section 2.3.1, “Checking the System Requirements for the Server PC”, on page 16, Section 2.3.1.1, “Server with Operating System Windows Server”, on page 16, Section 2.3.12, “Automatic Speech Recognition (ASR)”, on page 52 and point 1 on page 122).	
2014-06-11	Execute the `clusterprep.exe` file before upgrading XPR (see step 7 on page 124 and step 4 on page 134).	CQ00298170
2014-06-11	Upgrading XPR on Windows Server 2012 in the cluster added(see Section 3.2.2, “Upgrading XPR on Windows Server 2008/2012 in the Cluster”, on page 134)	
2014-06-24	Verify the XPR authentication parameters after the upgrade (see step 55 on page 82, step 12 on page 85, step 2 on page 90, step 2 on page 97, step 2 on page 106, step 14 on page 126 and step 16 on page 137).	CQ00304303
2014-07-02	You must start certain files to start the license service automatically on a cluster after an upgrade and a fail over (see step 15 on page 127 and step 17 on page 138).	CQ00303492

Date	Changes	Reason
2014-11-03	We recommend to execute the CompactDB tool to reduce the database size (see step 52 on page 81, step 13 on page 86, step 12 on page 126 and step 13 on page 136).	CQ00300916
2014-11-03	Refer to the *OpenScape Xpressions Release Notice* for a list of the supported operating systems and Dialogic/Eicon ISDN boards (see Section 2.3.1.1, “Server with Operating System Windows Server”, on page 16 and Section 2.3.3.1, “Dialogic/Eicon ISDN Boards”, on page 28).	

1 Introduction

This manual describes how to upgrade your Xpressions system to XPR V7.

Upgrading to XPR V7 directly is supported only with restrictions. You may have to perform an upgrade to an intermediate version first before you can start upgrading to XPR V7.

You can also upgrade to XPR V7 from an MRS system.

IMPORTANT: Please refer to Section 2.1, “Upgrade Versions”, on page 13 to see which upgrade procedure is appropriate for your system.

1.1 Who should read this Manual?

This manual addresses system administrators who want to upgrade the XPR system to the product version 7. In order to understand the described functions and processes, the reader must have specialized knowledge in the following areas:

- Administration and configuration with or without a Windows cluster
- Network technology
- Installation and configuration of the XPRsystem. You can acquire such knowledge by taking part in a seminar of the Unify Software and Solutions GmbH & C
- Configuration of the PBX used in connection with the XPRsystem.

1.2 Required Tools

1.2.1 Manuals

During the XPR installation and configuration the following Cycos manuals in electronic or printed format will be referred to:

Part number	Documentation type	Title
A31003-S2370-S100-*-20	Service documentation	Release Notice
	Current development information	Release notes
A31003-S2370-J100-*-31	Installation guide	Server Installation
A31003-S2370-J101-*-31	Installation guide	Cluster Installation
A31003-S2370-J103-*-31	Installation guide	Client Installations
A31003-S2370-M100-*A9	Administrator documentation	Server Administration
A31003-S2370-M101-*A9	Installation and administrator documentation	Microsoft Exchange Gateway
A31003-S2370-M102-*A9	Installation and administrator documentation	IBM Notes Gateway
A31003-S2370-M103-*A9	Installation and administrator documentation	SAP R/3 Gateway
A31003-S2370-U100-*-19	User guide	Client Applications
A31003-S2370-U101-*-19	User guide	Web Assistant
A31003-S2370-U104-*-19	User guide	optiClient 130
A31003-S2370-U118-*-19	User guide	Communications

1.3 Document Conventions

Passages in the text conveying important information are indicated by striking symbols.

IMPORTANT: Such a section points to settings and processes to be performed with special care.

NOTE: Such a section marks passages in the text that contain additional notes or supplementary examples.

1.4 Acronym Directory

The following table lists the most important acronyms used in this manual in alphabetical order.

Acronym	Description
ACD	Automatic Call Distributor
APL	Access Protocol Layer
ASR	Automatic Speech Recognition
BRI	Basic Rate Interface
CLA	Customer License Agent
CLC	Customer License Client
CLM	Customer License Management
CLS	Central License Server
CRM	Customer Relationship Management
CSTA	Computer Supported Telecommunication Applications
CTI	Computer Telephony Integration
DTMF	Dual Tone Multi Frequency
ERP	Enterprise Resource Planning
GUI	Graphical User Inteface
HKLM	HKEY_LOCAL_MACHINE
HTTP	Hypertext Transfer Protocol
IDE	Integrated Device Electronics
IMAP4	Internet Message Access Protocol
IP	Internet Protocol
IVR	Interactice Voice Response
LDAP	Lightweight Directory Access Protocol
MMCC	Multimedia Contact Center
MWI	Message Waiting Indicator
POP3	Post Office Protocol
PRI	Primary Rate Interface
RPC	Remote Procedure Call
SCSI	Small Computer System Interface
SMS	Short Message Service
SMTP	Simple Mail Transfer Protocol
SOAP	Simple Object Access Protocol
SSDP	Smart Services Delivery Platform
TAPI	Telephony Application Programming Interfaces
TCP	Transmission Control Protocol

Acronym	Description
TTS	Text to speech
UCC	Unified Communications and Collaboration
UM	Unified Messaging
VM	Virtual Machine
VMS	Voice Mail Server
VPIM	Voice Profile for Internet Mail
XML	Extended Markup Language
XPR	OpenScape Xpressions

2 Upgrading an XPR without Cluster

This upgrade instruction guides you through the procedures to be considered for the possible XPR components.

Only a portion of the processes described here may be relevant for the system to be upgraded.

2.1 Upgrade Versions

You can upgrade to version OpenScape Xpressions 7 R1 only from versions MRS 8.xx, OpenScape Xpressions 5.0 R4 FR13, 6 R0, 6 R1, 6 R2 and 7 R0.

Please obtain from the following table the possible previous versions and the intermediate versions that may be required for an upgrade. You find information about upgrading to an intermediate version in the upgrade instructions of the intermediate version.

For both installations and upgrades alike applies that audio conferences are not supported for an XPR connected to HiPath 3000 V5, V6 and V7, HiPath 4000 V3 and V4, because the program SIPControl is no longer supported by Dialogic Diva.

From version	Bit Width	via the intermediate version(s)	to version
XPR 7 R0	64	-	XPR 7 R1
XPR 6 R2	64	-	XPR 7 R1
	32	-[1 2 3]	XPR 7 R1
XPR 6 R1	32	-[4 1 2 3] or XPR 6 R2[2 5]	XPR 7 R1
XPR 6 R0	32	-[4 1 2 3] or XPR 6 R2[2 5]	XPR 7 R1
MRS 8.xx	64	-[1 2 6] or MRS 8.03[2 5]	XPR 7 R1
	32	-[1 2 6] or MRS 8.03[2 5]	XPR 7 R1
XPR 5.0 R4	32	XPR 5.0 R4 FR13[1 2 7] or XPR 6 R2[2]	XPR 7 R1
XPR 5.0 R3	32	XPR 5.0 R4 FR13[1 2 7] or XPR 6 R2[2]	XPR 7 R1
XPR 5.0 R2	32	XPR 5.0 R4 FR13[1 2 7] or XPR 6 R2[2]	XPR 7 R1
XPR 5.0 R1	32	XPR 5.0 R4 FR13[1 2 7] or XPR 6 R2[2]	XPR 7 R1
XPR 5.0 R0	32	XPR 5.0 R4 FR13[1 2 7] or XPR 6 R2[2]	XPR 7 R1
MRS 7.xx	32	MRS 8.03[2]	XPR 7 R1

1 You upgrade the XPR 6 R2 32 bit, XPR 6 R1, XPR 6 R0, XPR 5.0 R4 FR13 or MRS 8.xx to XPR 7 **DIRECTLY** by executing the following major steps:
- Making the **TOV7** (to version 7) check box visible in the WebAssistant
- Backing up MRS/XPR data
- Uninstalling the MRS/XPR
- Installing the XPR 7 freshly
- Restoring the backed up data

If the **TOV7** check box is unavailable on your MRS/XPR server, check that the corresponding hotfixes have been installed instead. You can obtain details on this subject from section 2.2 of the current Release Notes.
You do not need TOV7 for a “normal” upgrade without data backup and restore.

2 **IMPORTANT**: Given that you have one of the following initial situations:
- XPR or MRS on a Windows cluster on a 32-bit operating system
- MRS 8.xx on a Windows cluster

Supposing that you do not have a project-specific release for a Connection APL on a satellite computer in addition.
If you wish to upgrade on a Windows cluster (always on a 64-bit operating system) on XPR 7 R1, a project-specific release is required for XPR 7 R1, because specific parts of the Connection APL on a satellite computer are needed for this upgrade. See also point 33 on page 75, point 7 on page 79 and point 4g on page 90.
The same applies if you wish to upgrade XPR 5.0 R4 FR13 to XPR 7 R1 on a Windows cluster directly.

3 The XPR WebClient data will not be backed up before this upgrade, so that you must configure them in the XPR 7 WebClient manually after the upgrade.

4 Upgrades from XPR 6 R0 or 6 R1 to XPR 7 are released only for the case that no conferences are activated on your XPR.

5 This intermediate step is only necessary if conferences are activated on your MRS or XPR.

6 You can perform this upgrade only if MRS 8.03 is present or no conferences are activated on your MRS.
MRS 8.xx cyPhoneWeb data will not be backed up before the upgrade, so that you must configure them in the XPR -7 WebClient manually after the upgrade.

7 Comply with or heed the following points:
Verify that the **TOV7** check box is available.
Instead of the XPR 5.0 SMS APL there is the SMSIP APL on XPR 7. Consequently, the SMS APL configuration will get lost during the upgrade. The password of user Network Administrator and the Local Profile are kept during the upgrade only if the computer name (host name) and the IP address of the XPR 5 server computer are also used for the XPR 7 server computer.

2.2 Basic Upgrade Procedure

IMPORTANT: The upgrade steps described here are valid for an upgrade from XPR V6 R2 to XPR V7 R1 on a **64-bit** operating system. If you wish to upgrade from an XPR V6 R2 on a 32-bit operating system, then switch to Section 2.9, “Upgrading from XPR V6 32-bit to XPR V7”, on page 87.

How to upgrade to OpenScape Xpressions V7 R1:

1. Preparatory Steps	Section 2.3, “Preparatory Steps”, on page 16
a) Checking the System Requirements for the Server PC	Section 2.3.1, “Checking the System Requirements for the Server PC”, on page 16
b) Backup	Section 2.3.2, “Backup”, on page 20
c) Drivers for Communication Hardware	Section 2.3.3, “Drivers for Communication Hardware”, on page 28
d) Licenses Check	Section 2.3.5, “Licenses Check”, on page 36
2. Updating the XPR Server Software and Client Components	Section 2.4, “Updating the XPR Server Software and Client Components”, on page 58
3. Upgrading Satellite Computers	Section 2.12, “Upgrading Satellite Computers”, on page 112
4. Modified and new Features	Section 2.13, “Modified and new Features”, on page 116

2.3 Preparatory Steps

2.3.1 Checking the System Requirements for the Server PC

IMPORTANT: The hardware used must have been tested and released by the producer of the operating system. For information about tested and released hardware, please refer to the following address:

http://www.windowsservercatalog.com/default.aspx

NOTE: TTS and ASR have been released only for specific operating systems (see the service documentation *OpenScape Xpressions Release Notice*).

2.3.1.1 Server with Operating System Windows Server

If you work with the Windows Server operating system platform, the following minimum requirements of the server computer should be met:

- **Processor**
  - Intel Pentium 4 (or compatible) (Xeon processor and dual-core system), at least 2 GHz
  - Using T.38 Fax on more than two parallel lines requires a server with at least 2 GHz, at least 2 GB RAM and at least one dual core system
  - For conference usage one additional core per 50 voice channels
  - Using the OpenScape Web Client a powerful processor depending on the number of users and sessions. The performance requirement per OpenScape Web Client user is approximately twice as high as for a optiClient 130 user.
- **Working memory**
  - 2 GB (recommendation: 4 GB)
  - in case of TTS usage
    - additional 100 MB per installed TTS voice of Nuance Vocalizer for Network 5 and
    - additional 2MB per channel

at least, however, 1 GB in addition

– in case of ASR usage 512 MB in addition

– in case of conference usage 2 GB in addition

– in case of OpenScape Web Client usage at least 1 GB in addition

- **Hard disks**

  2 hard disks with at least 100 GB (IDE or SCSI) each.

IMPORTANT: Be sure that the partition on which the XPR server software is installed has a minimum size of 10 GB. In addition, the target path must not contain any blanks!

- **Second hard disk for data backup recommended**
- **USB-Port** for installing the XPR from the setup medium
- **LAN**

  Ethernet 100 Base T or Gigabit

  – The network board must be connected to the LAN to ensure trouble-free XPR server booting.

  – The network board settings must correspond to those of the router/HUB.

  – An MS Loopback Adapter must be installed.

  – If the web conference server and a WebAPL is to be installed on the computer that also hosts the XPR server, the following requirements must have been complied with:

    - The computer must have two IP addresses or two DNS host entries that point to the same IP address.
    - Port 80 (TCP) and port 5000 (TCP) must be accessible.

IMPORTANT: Protocol IPv6 must be disabled.

- **Slots**

  When using ISDN boards, PCI respectively PCIe slots are required depending on the boards to be deployed.

- **Operating systems**

  IMPORTANT: Be sure that the partition on which the XPR server software is installed has a minimum size of 10 GB. In addition, the target path must not contain any blanks!

  Refer to the service documentation *OpenScape Xpressions Release Notice* for details about the supported operating systems.

- Correctly configured TCP/IP protocol stack

IMPORTANT: If a replacement of the network card changes the MAC ID of the computer on which the CLA is installed, a new license file must be installed via the HLM, because the licenses are bound to the MAC ID of the network card.

IMPORTANT: The installation of an XPR system on substituted drives is not possible, since the setup program cannot create the required directory shares of the XPR system.

IMPORTANT: Installing the XPR system on a domain controller is not permitted.

IMPORTANT: You must not set up an XPR on a computer on which a ComAssistant is installed. In this context it is irrelevant whether or not the XPR is to be integrated in the ComAssistant.

IMPORTANT: If an XPR integrated with a ComAssistant is to be upgraded, the following assignments must have been entered in the `<Inst_Path>\config\common\Xpressions.cfg` file on the computer that hosts the ComAssistant:

```
Xpressions.remotePort=10000
Xpressions.localPort=10001
```

See step 56 on page 83.

IMPORTANT: OpenScape Web Client must not be installed if the XPR is integrated with a ComAssistant. In this case you may consider the replacement of the ComAssistant with the OpenScape Web Client integrated in Xpressions.

- Web conference server

  The web conference server must comply with the following minimum requirements:

  – Processor and RAM

    - Up to 20 parallel sessions: Pentium 4 computer with more than 2 GHz with 512 MB RAM
    - 20 - 100 parallel sessions: Xeon with 2,5 GHz and 1 GB RAM

  – We recommend free memory of 50 GB for file transmissions during sessions. The harddisk size is not critical since, with the exception of writing log files, no considerable data amount is written on the harddisk.

  – We recommend a network board with 1 Gbit/s.

  – Operating systems

    - Microsoft Windows Server 2008 Enterprise Edition German/English in the 64-bit version
    - Microsoft Windows Server 2008 Standard Edition German/English in the 64-bit version
    - Microsoft Windows Server 2003 R2 with SP2 Enterprise Edition German/English in the 64-bit version
    - Microsoft Windows Server 2003 R2 with SP2 Standard Edition German/English in the 64-bit version

  – No IIS (Internet Information Server) or another web server must have been installed.

  – Bandwidth to the internet

    - In each session, 15 kbit/s must be made available per simultaneously connected master and per simultaneously connected client. If 10 parallel sessions take place, i. e. there are 10 masters and 10 clients, a bandwidth of 300 kbit/s is required.
    - When using top video quality, the necessary transmission rate is ten times higher.

  – Port 80 (TCP; HTTP), port 443 (TCP; HTTPS) and port 5000 (TCP) must be accessible. When using HTTPS, a certificate must be present for each server. Using HTTPS increases the necessary bandwidth via proxy server.

  – Every server requires an IP address. IP V6 is not supported yet.

  – Virtualization is supported. See the OpenScape Xpressions *Release Notice* for the supported versions and features.

– Installing the web conference server and a WebAPL on the computer on which the XPR server is set up requires two IP addresses or two DNS host entries that point to the same address.

2.3.2 Backup

To ensure that you have a fallback solution when an upgrade cannot be carried out successfully, please perform the following steps for backup: First make sure that the following requirements are met:

- Keep the setup media of the Windows operating system at hand. They should be provided by the customer.
- Keep the setup medium of the old system at hand. It should be provided by the customer.
- Create a backup directory on the XPR server computer or on a network drive where you can store the saved files (for example `C:\backup`).

NOTE: Create images of the hard disks used for the XPR server and save the created images externally (for example on a network drive). If the upgrading fails, this is the most efficient way to restore the previous system.

IMPORTANT: The restoration requires that all installation and data directories have the same name. The restoration of new installation directories is not supported.

What you do after laying the foundations:

Exporting the XPR server database

Export the XPR server database completely. Proceed as follows:

1. Click on **Start** in the taskbar.
2. Click **Run...**. A dialog opens.
3. Enter `cmd` in the entry field.
4. Click **OK**. A command prompt opens.
5. In the command prompt enter the command

   x:

   with *x* representing the letter of the drive on which the XPR server setup directory is found.
6. Enter the command

   `cd` < *Install*>`\SDKTools`

   , with < *Install*> representing the XPR server setup directory.
7. Then enter the command

   `infotool fullexport file=`<*Backup*>`\fullexport.txt`

   , with <*Backup*> representing the backup directory you have created. The database export may take some time for XPR systems with large databases.
8. Close the command prompt.

The XPR server database export is now complete.

Backing up important files

If you have changed the *<XPR Install>*`\res\WebApl\ippassistant\param.xml` file, it must be backed up because it may be overridden during the upgrade.

Backing up important directories

Back up the statistics and log files under

- *<XPR_Install>*`\Stat` and
- *<XPR_Install>*`\Log`,

as well as the directories

- *<XPR_Install>*`\Folders` and
- *<XPR_Install>*`\Userdata` with all sub-directories.

Copy these folders into a backup folder for this purpose. Proceed as follows:

1. Click **Start** in the task bar with the right mouse button.
2. Select the **Explore** menu entry.
3. Navigate to the XPR server setup directory.
4. Click the `Log` folder entry with the right mouse button.
5. Select the **Copy** function in the context menu.
6. Navigate to the backup directory you have defined.
7. Click the folder entry with the right mouse button and select **Paste** in the context menu.
8. Back up the directories `Stat`, `Folders` and `Userdata` analog to the steps 4 on page 22 to 7 on page 22 described for the `Log` directory.

Backing up the directories is now complete.

Backing up/restoring relevant registry entries

Save the entries from the Windows registry relevant for the XPR server, so that the settings may later be checked or recovered. Proceed as follows:

1. Click the **Start** button in the task bar.
2. Click **Run...**. A dialog opens.
3. Enter `regedt32` in the input field. The registry editor opens.
4. Navigate to the `HKEY_LOCAL_MACHINE\Software\Wow6432Node\PP-COM` folder.
5. Click the `PP-COM` folder with the right mouse button.
6. Select the **Export** function in the context menu. A dialog opens in which you need to specify a name and a storage location for the exported data.
7. In this dialog, navigate to the backup directory you have defined and enter a file name in the **File name:** field (e.g. `xpr.reg`).
8. Then click the **Save** button.
9. Close the registry editor.

Saving the relevant entries from the Windows registry is thus complete.

Database mask export

If customer-specific modifications have been performed at the **database schema**, a **mask export** of the database is necessary. Proceed as follows:

1. Click on **Start** in the taskbar.
2. Click **Run...**. A dialog opens.
3. Enter *cmd* in the entry field.
4. Click **OK**. A command prompt opens.
5. In the command prompt enter the command

   `cd` *x*

   with *x* representing the letter of the drive on which the XPR server setup directory is found.
6. Enter the command

   `cd` < *Install*>`\SDKTools`

   , with < *Install*> representing the XPR server setup directory.
7. Then enter the command

   `infotool maskexport file=`<*Backup*>`\maskexport.mdl`

   , with <*Backup*> representing the backup directory you have created.
8. Close the command prompt.

The database mask export is thus complete.

Backing up the maintenance script modifications

Customer-specific modifications performed at the **maintenance script** should be backed up as they will be overwritten by the default maintenance script during the upgrade.

To back up the maintenance script, you must save the modified version under a different name in the <*XPR Install*>`\res\maint` directory. This new name with complete path specification must then be entered in the `MaintenanceScript [REG_SZ]` registry value.

How to enter a modified Maintenance Script version in the registry:

1. Click the **Start** button in the task bar.
2. Click **Run...**. A dialog opens.
3. Enter *regedt32* in the entry field. The registry editor opens.
4. Open the `HKEY_LOCAL_MACHINE\Software\Wow6432Node\PP-COM\MRS\MTA` entry.
5. Doubleclick the **MaintenanceSkript** entry in the right window. The **Edit String** dialog opens.
6. In the **Value data** field of this dialog enter the path and the name that you have selected when saving the file.
   For example: `C:\xpr\res\maint\maint_custom.scr`
7. Click **OK** to save the modified value.
8. Close the registry editor.

2.3.2.1 Saving User-defined Routing Rules

Save user-defined routing rules in a text file. For this purpose you can open the rule editor in the **Routing Rules** tab of the **MTA configuration dialog** via the **Modify...** buttons. Then copy its content via the clipboard to a text file. Save the text file with the Routing Rules in Proceed as follows:

1. Start the XPR monitor and log in with the administrator account for the XPR server.
2. In the **Modules** window open the **MTA** entry via the corresponding plus symbol.
3. Doubleclick the **Edit Settings** entry. The **Message Transfer Agent (MTA) Configuration** dialog opens.
4. Open the **Routing Rules** tab.
5. Click the **Edit** button in the **Document Routing Rules** section.
6. Click the text entry area with the right mouse button and choose the **Select All** option in the context menu. The entire text in the window is selected.
7. Click the text entry area with the right mouse button again and select **Copy** in the context menu.
8. Then click the **Cancel** button. The text window closes.
9. Click the **Start** button in the task bar and select the **Run...** option. The **Run** dialog opens.
10. Enter **notepad** in the entry field. The *Notepad* editor starts.
11. Click the text entry area of the editor with the right mouse button and select **Paste** in the context menu.
12. In the Notepad menu open the **File** > **Save As** menu option. The **Save As** dialog opens.
13. Navigate to the above created backup directory and specify the file name under which the routing rules are to be stored (for example routingrules.txt).
14. Click the **Save** button.
15. Close Notepad.

2.3.2.2 Backing up Reports

So that the new Report APL version can be installed during the upgrade, the old Report APL version must first be uninstalled. The available reports are deleted in this process. If you have made modifications to these reports, you need to back them up. Proceed as follows:

1. Open the XPR setup directory.
2. Open the `res` directory.
3. Copy the `RepApl` directory to a temporary directory (e.g.: `c:\backup`).

Backing up the reports is complete.

2.3.3 Drivers for Communication Hardware

2.3.3.1 Dialogic/Eicon ISDN Boards

IMPORTANT: At times, Dialogic uses different version numbers for the same board. For example, the hardware description features a specific version number for a board, but in the Dialogic Diva Configuration Manager you find another version number for the same board. The version numbers used for Dialogic ISDN boards in this XPR V7 R1 guide are always the version numbers specified in the Dialogic Diva Configuration Manager!

Refer to the *OpenScape Xpressions Release Notice* for a list of the supported Dialogic/Eicon ISDN boards.

Mixed operation between different BRI or PRI cards as well as mixed operation of BRI and PRI cards on a server computer is not released.

During the driver setup, (see step 26 on page 73 to step 32 on page 75) settings are copied for the available boards. New boards are supported and recognized during the Dialogic/Eicon driver setup.

2.3.4 Setup Medium for Upgrading to a Fix Release

NOTE: Skip this section if the complete setup medium of the XPR version you wish to upgrade to is already available.

NOTE: The instructions given in this section apply only for an upgrade to a fix release on a non-cluster system.

NOTE: The instructions given in this section do not apply for the upgrade on satellite computers.

If you wish to upgrade to a new fix release, you can create a setup medium for the upgrade from the setup medium of the installed XPR version and an additional EXE file by executing the following steps:

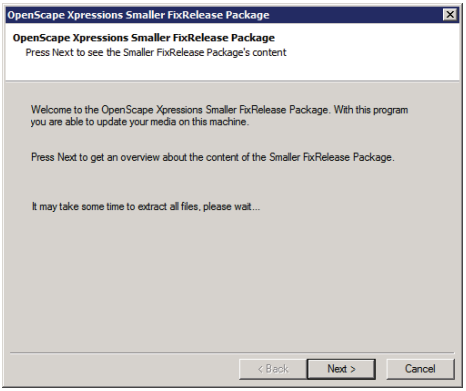
1. Provide a Windows computer that has sufficient disk space. Remember that the files to be unpacked and also the setup medium to be created will allocate disk space.
2. Make sure that the Microsoft Visual C++ 2005 Redistributable (vcredist 2005) is present of this computer.
3. Both, 32-bit and 64-bit operating systems are supported.
4. Download the `XPRV7R1-FR0-FR1.exe` file from the SWS (Software Supply Server) computer.
5. If you wish to upgrade ASR also, download the `XPRV7R1-FR0-FR1-ASR.exe` file from the SWS computer as well.
6. Such files have been created for a specific XPR build number. Provide the setup medium of the same build number. You find this number in the `XpressionsInstall\HiSPA.txt` file of a setup medium.

   Example of the content of the `HiSPA.txt` file:

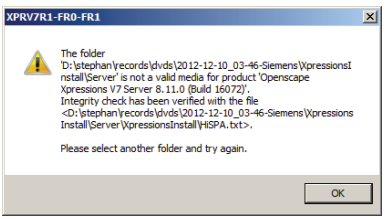
   ```
   Product= OpenScape Xpressions V7 DVD
   Version= 8.11.0.16072
   ```

   In this example, `16072` is the build number.

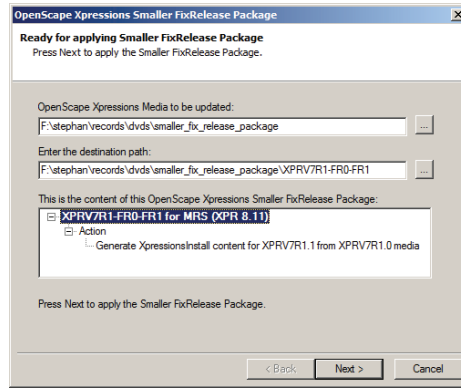
7. Start the `XPRV7R1-FR0-FR1.exe` file.



NOTE: If the build number of the file does not match the build number of the setup medium, an error message of the following pattern is put out:

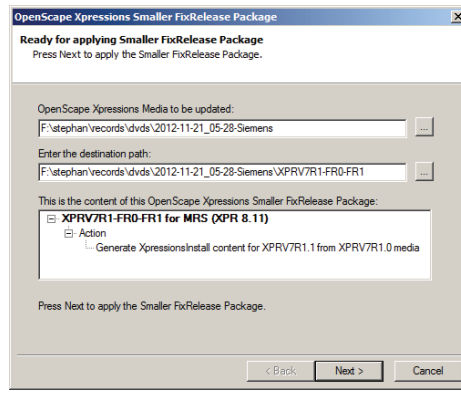


8. Click on **Next**.

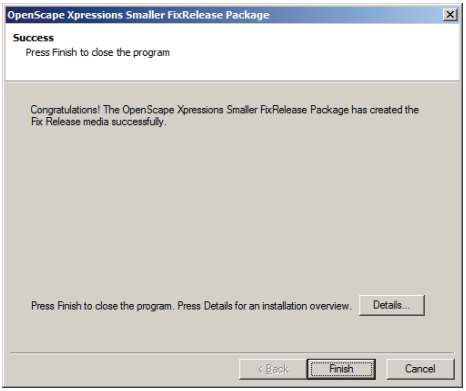


9. Enter in the **OpenScape Xpressions Media to be updated** field the directory that contains the XPR setup medium (see step 6 on page 29).

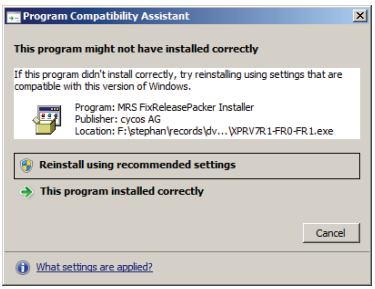
10. Specify in the **Enter the destination path** field the directory in which the XPR setup medium shall be created for the upgrade.



11. Click on **Next**.



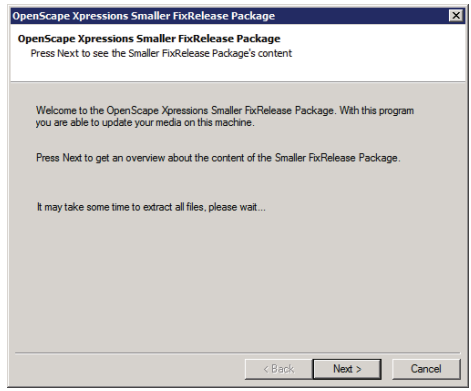
12. Creating the setup medium for upgrading the XPR server except ASR is now complete. Click on the **Cancel** button. If you clicked on **Finish**, upgrading the XPR server would commence.



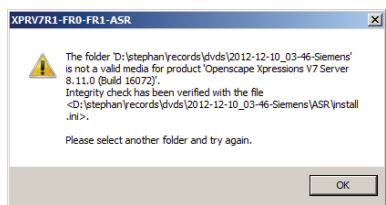
13. Click on **This program installed correctly**.

14. If you wish to upgrade ASR also, execute the steps 15 on page 33 to 21 on page 35.

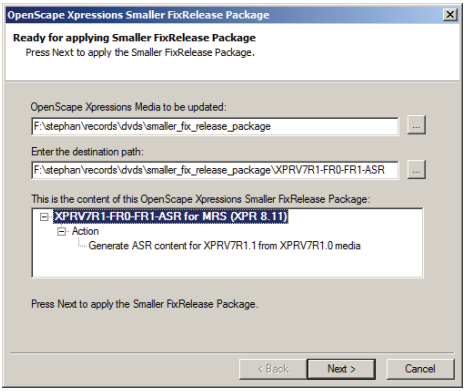
15. Start the `XPRV7R1-FR0-FR1.exe` file.



NOTE: If the build number of the file does not match the build number of the setup medium, an error message of the following pattern is put out:

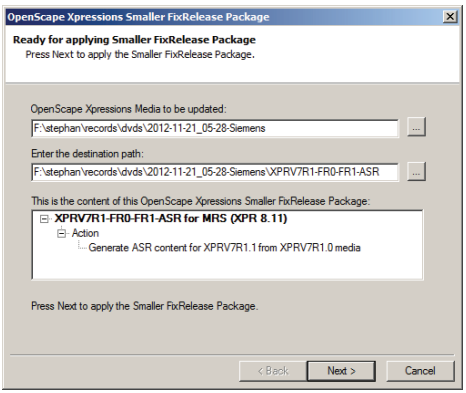


16. Click on **Next**.

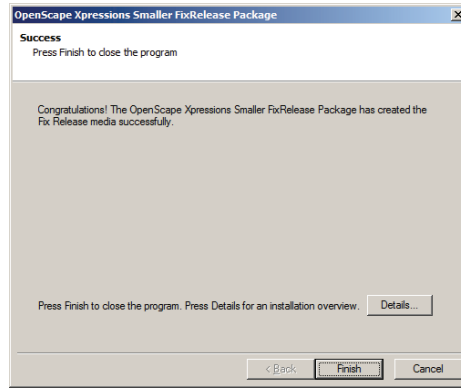


17. Enter in the **OpenScape Xpressions Media to be updated** field the directory that contains the XPR setup medium (see step 6 on page 29).

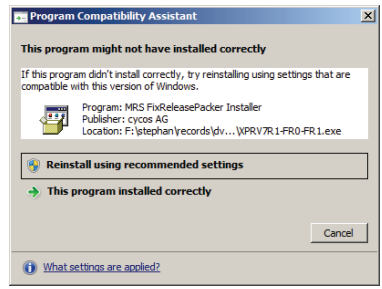
18. Specify in the **Enter the destination path** field the directory in which the XPR setup medium shall be created for the ASR upgrade.



19. Click on **Next**.



20. Creating the setup medium for upgrading ASR of the XPR server is now complete. Click on the **Cancel** button. If you clicked on **Finish**, upgrading the XPR server would commence.



21. Click on **This program installed correctly**.
22. Provide the created setup media to the XPR server computer.

2.3.5 Licenses Check

When replacing the network card and changing the server hardware configuration, the MAC ID used must definitely be checked. If the MAC ID changes, the old MAC ID is locked and a new license file must be installed for the new MAC ID.

You can obtain a new license file via the license server under the URL https://www.central-license-server.com/license-management/session/login.htm as no license disks are shipped anymore. Have the order and delivery note number ready for this at any rate.

Licensing is comprehensively explained in the OpenScape Xpressions *Server Installation* manual.

NOTE: You can add an OpenScape Xpressions V7 R1 license to an already existing HiPath Xpressions V5 license in the HLM.

IMPORTANT: In case of an XPR V7 R0 upgrade with the web conferencing server you must update the license.

2.3.6 Installation of the License Management and License Service

The HiPath License Management (CLM) is in charge of the license management for the XPR server. This HiPath License Management must already be available in the network before you can perform the upgrade. Furthermore, a Customer License Agent (CLA) must be installed in the network, for which the licenses for the XPR server have already been activated with the help of the CLM. Information on activating the necessary licenses can be found via the **Help** button in the HiPath License Management interface.

Besides the HiPath License Management, which may be installed on any computer in the network, a license service is installed on the computer on which the XPR server is also to be installed. The XPR server modules communicate with the CLA via the license service. This service is a Windows service that provides the XPR server modules with the required license information. Upon the setup start a local license service already installed may be upgraded. If such a local license service is not available it will be installed (cf. Section 2.8.1, “Standard Upgrade”, on page 63, step 5 on page 64).

Before you can set up a OpenScape Xpressions server, the following requirements must be met:

- A CLM must be available in the network (cf. Section 2.3.8, “Installation of the CLM”, on page 40).
- A HiPath Customer License Agent (CLA) must be installed (cf. Section 2.3.9, “Installation of the CLA”, on page 43). The CLA can be installed on any computer in the network. Please heed the scenarios described in the following (cf. Section 2.3.7, “Possible Scenarios for the CLM”, on page 39).
- The licenses you have purchased must be activated via the CLM and transferred to the corresponding CLA. Please read the corresponding section in the CLM help on this.

2.3.6.1 The CLM Operation Mode

The CLM operation mode is comprehensively explained in the product documentation, which you can open via the **Help** button in the CLM product interface. Here, we only provide a short outline:

1. The CLM and the XPR server are installed
2. By means of the CLM and via the Internet you generate the required licenses at the Central License Server (CLS). To do this you need the authorization code and the MAC ID of the computer on which the CLA is installed (locking ID). The authorization code and the locking ID are sent by the CLM to the CLS.
3. With the help of the authorization code and your specific locking ID the CLS generates a license file and returns this file to your CLM. Thus the licenses are bound to the MAC ID of the computer on which the CLA has been installed. This affects the scenarios described further below.
4. Using the CLM the license file is transferred to the selected CLA. Based on the locking ID the latter checks whether the license file is valid for the XPR server. If the locking ID matches the one in the license file, the XPR server is released, otherwise the XPR server is not released.
5. The license service is installed according to Section 2.8.1, “Standard Upgrade”, on page 63. This service communicates with the CLA using the CLC. The CLC is a function library (DLL = Dynamic Link Library), which provides functions required for communication between the license service and the CLA.
6. When the XPR server starts, the installed APLs query the license service for an available license. Using the CLC the license service transfers this request to the CLA. The CLA checks whether a license is available on the specific XPR server for the corresponding APL and answers accordingly. After a successful check the APL starts and may be used.

2.3.7 Possible Scenarios for the CLM

IMPORTANT:
When you select your scenario make sure the licenses are always bound to the MAC ID of the computer on which the CLA is installed and operates.

Scenario 1:

The XPR server is installed on an individual computer. CLM and CLA are installed on other computers in the network. This is the scenario most commonly used.

Scenario 2:

The XPR server and the CLA are installed on one computer. The CLM is installed on another computer in the network. In this case you need an individual license pack for each installed XPR server.

Scenario 3:

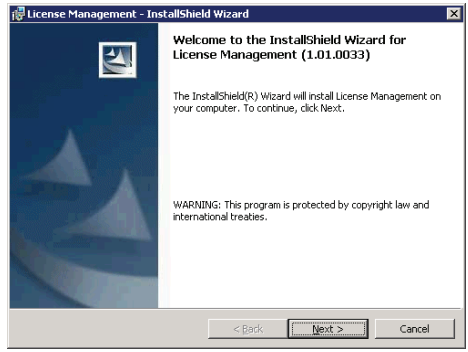
The XPR server, the CLM and the CLA are installed on the same computer.

2.3.8 Installation of the CLM

How to install the CLM:

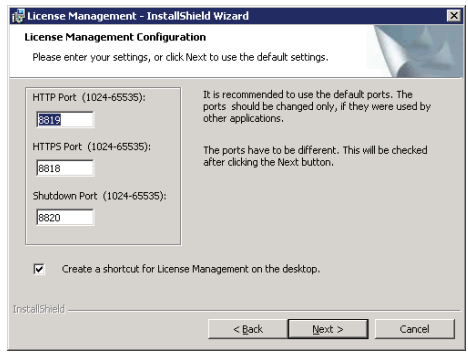
1. Start the `setup.exe` file from the `XpressionsInstall\Prerequisites\HLM\CLM` directory of the setup medium.

   The setup is prepared and the following dialog opened:



2. Click the **Next** button.

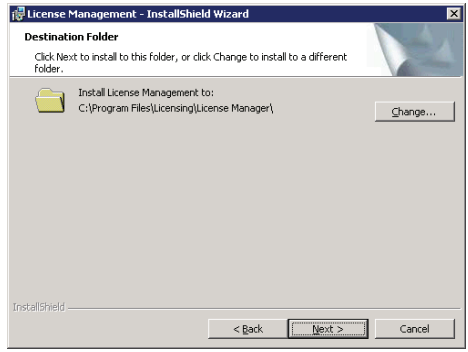
   Up comes this dialog:



NOTE:
We recommend to use the preset ports and not to modify them until port conflicts with other applications occur. Also verify that these ports are correspondingly released in a firewall that may exist in the network. In case of doubt please contact the network administrator.

3. Click the **Next** button.

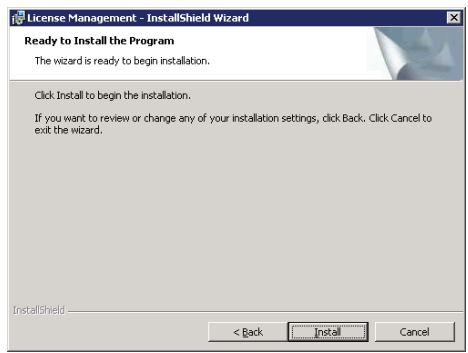
   Up comes this dialog:



4. If you want to use the defaulted target folders, click the **Next >** button.

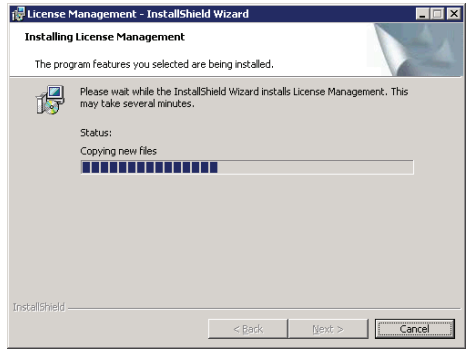
   Via the **Change...** button you can specify another target folder for the installation. After you have changed the target folder, click in this dialog on the **Next >** button.

   Up comes this dialog:

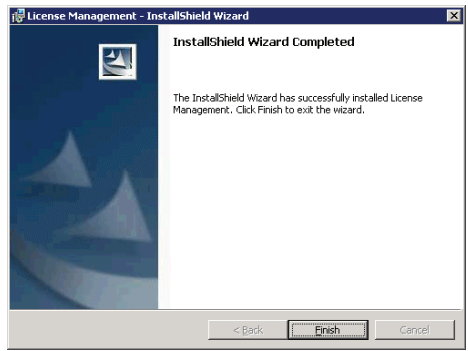


5. Click the **Install** button.

   The installation starts and you can see the progress in the following dialog:



   As soon as the installation process is complete, the following dialog appears:



6. Click the **Finish** button to complete the installation.

   The dialog closes and the CLM installation is complete.

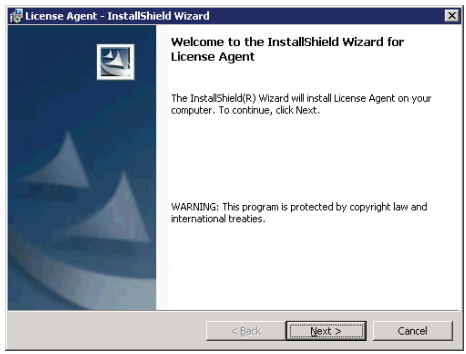
   After the CLM installation you find an icon on the desktop via which you start the CLM. Further information about the CLM is available after the start via the **Help** button.

2.3.9 Installation of the CLA

How to install a CLA:

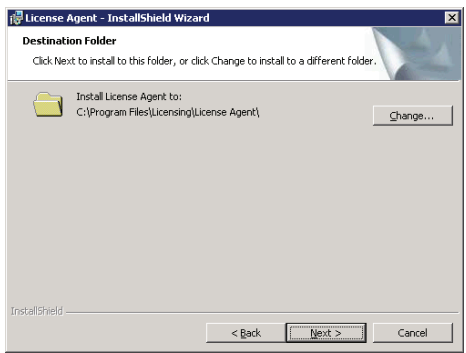
1. Start the `setup.exe` file from the `XpressionsInstall\Prerequisites\HLM\CLM` directory of the setup medium.

   The setup is prepared and the following dialog opened:



2. Click the **Next** button.

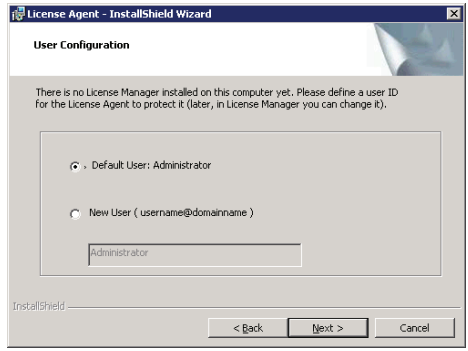
   Up comes this dialog:



3. If you want to use the defaulted target folders, click the **Next >** button.

   Via the **Change...** button you can specify another target folder for the installation. Subsequently, click the **Next** button in this dialog.

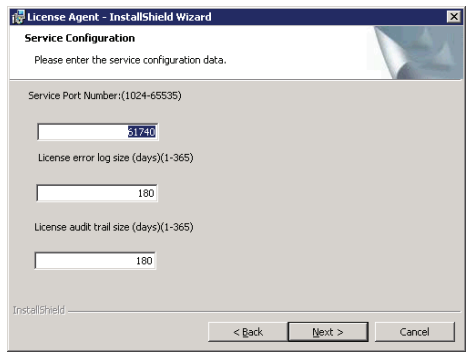
   Up comes this dialog:



4. Select the user under whose account the CLA is to run. If you select the **New User** option, the account under which you perform the installation must have the corresponding privileges on the computer or in the domain.

   Click the **Next** button.

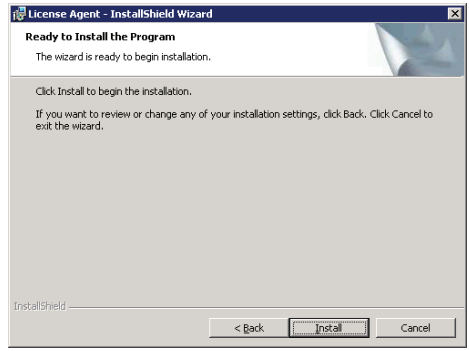
   Up comes this dialog:



5. If you have not changed the ports during the CLM installation, you can copy the settings here. Click the **Next** button.

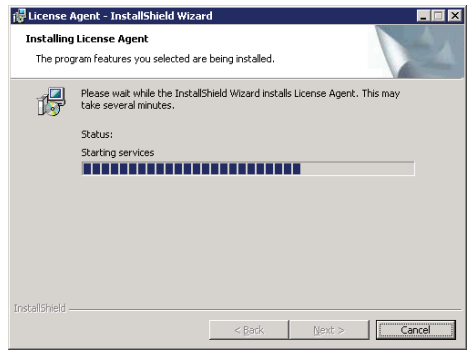
NOTE: If you change the entry in the **Service Port Number** field you need to enter this modified port number with the license service installation (cf. Section 2.8.1, “Standard Upgrade”, on page 63, step 8 on page 67).

Up comes this dialog:

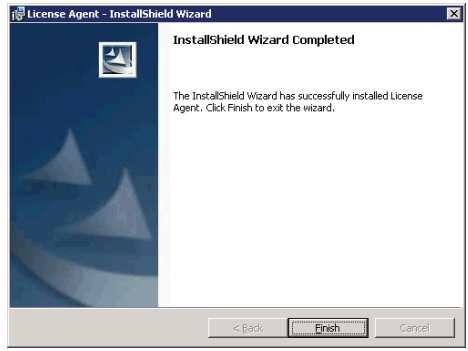


6. Click the **Install** button.

   The installation starts and you can see the progress in the following dialog:



   As soon as the installation process is complete, the following dialog appears:



7. Click the **Finish** button to complete the installation.

   The dialog closes and the CLA installation is complete.

2.3.9.1 Activating a License

Activating a license means transferring the license file to a CLA so that this can provide the product with the necessary licenses. The procedure for activating a license is described in detail in the HiPath License Management operating manual that you may start via the **Help** button on the HiPath License Management interface.

2.3.10 Using the Report APL with SQL Databases

2.3.10.1 Using Microsoft SQL Server 2008 Express

Microsoft SQL Server 2008 Express is a restricted version of the Microsoft SQL Server 2008. The Microsoft SQL Server 2008 Express used for reporting is not included in the OpenScape Xpressions scope of delivery and can be downloaded free of charge under the following URI:

ttp://www.microsoft.com/download/en/details.aspx?id=27597

Microsoft SQL Server 2008 Express requires .NET Framework 4 Redistributable. .Net Framework 4 can be provided by the XPR installation or start the installation manually by executing the dotNetFx40_Full_x86_x64.exe file from the setup medium under XpressionsInstall\Prerequisites\Frameworks\NET.

The Microsoft SQL Server 2008 Express and the OpenScape Xpressions server can be operated on one computer in parallel.

Installation

The Microsoft SQL Server 2008 Express needs to be set up manually.

A database and a user must be created that are both to be deployed by the Report APL. Use the Management Studio Express for this purpose.

IMPORTANT:
After the installation, remove the read and write privileges from the folder C:\Program Files(x86)\Microsoft SQL Server\MSSQL.1\MSSQL\Binn for the **User** group.

IMPORTANT:
Microsoft SQL Server 2008 does not recognize the data type *datetime*. For a patch see
http://www.microsoft.com/downloads/details.aspx?FamilyId=A7C903FE-35A7-4BB2-8E73.

IMPORTANT:
The name of the database must correspond to rules that you find on the page

http://msdn2.microsoft.com/en-us/library/ms175874.aspx

under the heading *Rules for Regular Identifiers*. The name must not contain blanks, for example. A valid name would be `ReportAPLDB`, but not `Report APL-DB` or `Report APL DB`.

Report APL Configuration

NOTE:
You find detailed information of the Report APL configuration in chapter *Report APL* in the OpenScape Xpressions *Server Administration* manual.

How to use the database defined in the previous section with the Report APL:

1. Open the OpenScape Xpressions monitor and log in as administrator.
2. Open the Report APL configuration dialog.
3. Open the **Database** tab.
4. Select the **ADO** entry under **Access mode** and click the **Configure...** button.

   Another dialog opens.
5. Select the **Microsoft OLE DB Provider for SQL Server** entry on the **Provider** tab and click the **Next>>** button.

   The **Connection** tab opens.
6. Enter the following information on the **Connection** tab:

   a) The name of the server on which the database defined above runs. You can make a selection from the pull-down list.

   b) User name and password

   NOTE:
   The data specified during the Microsoft SQL Server 2008 Express installation must be entered as user name and password.

   c) The database to be used by the Report APL
7. Click the **Test Connection** button to test the connection to the SQL server with the settings performed.

   A successful connection test is indicated by a corresponding dialog and the Report APL configuration is thus complete.

   If the test fails, check the Report APL configuration.

2.3.10.2 Using a Microsoft SQL Server

If the data amount exceeds 1GB, using a Microsoft SQL server is an option. This is only realized in the scope of a project including the Professional Services Organization. Over the course of the project the data amount is to be estimated and a corresponding scenario designed. Possible scenarios are:

- OpenScape Xpressions server and Microsoft SQL server parallel on one computer
- OpenScape Xpressions server and Microsoft SQL server on an individual computer each

In both cases the customer needs to provide the required licenses (among others Microsoft SQL Server and if necessary Windows Server 2003) as well as the required hardware. If both servers are operated parallel on one computer, this computer's hardware is to be measured accordingly.

The Microsoft SQL server lets you manage very large amounts of data. Besides the actual SQL server the packet includes a number of management and analysis tools.

You can obtain Microsoft SQL server setup details from the corresponding product documentation or from the product homepage under http://www.microsoft.com/sql/. Details for connecting the Report APL to the Microsoft SQL server are coordinated in the project scope.

2.3.10.3 Switching from CodeBase to Microsoft SQL Server 2005 Express or Microsoft SQL Server

When switching from CodeBase to Microsoft SQL Server 2005 Express or Microsoft SQL Server, available data can only be copied by installing the `st*.log` files. Prerequisite is the use of a suitable backup concept and that `st*.log` files are available.

To perform a **Backup/Restore** of the databases, please read the *Backup/Restore* section in chapter *Report APL* of the OpenScape Xpressions *Server Administration* manual.

IMPORTANT:
When changing from CodeBase to Microsoft SQL Server 2005 Express or Microsoft SQL Server, available customer-specific reports cannot be used any

further. Default reports are available in revised version.
Customer-specific reports must either be created by the customer or with the support of the Professional Service Organization.

IMPORTANT:
After the installation, remove the read and write privileges from the folder C:\Program Files(x86)\Microsoft SQL Server\MSSQL.1\MSSQL\Binn for the **User** group.

2.3.10.4 Changing from MSDE to Microsoft SQL Server 2005 Express

You find information about a change from Microsoft SQL Server 2000 Desktop Engine (MSDE) to Microsoft SQL Server 2005 Express under

http://www.microsoft.com/technet/prodtechnol/sql/2005/msde2sqlexpress.mspx.

In case of a change verify that the MSDE was installed by MSI setup.

XPR 7 also works with MSDE, but MSDE has be following disadvantages compared to Microsoft SQL Server 2005 Express:

- MSDE is no longer supported by Microsoft.
- MSDE is not operable on Windows Vista.
- MSDE databases have a maximum size of 1 GB against 4 GB with Microsoft SQL Server 2005 Express.
- MSDE is harder to install than Microsoft SQL Server 2005 Express.
- MSDE does not have a graphic administration tool.
- Future XPR versions may use Microsoft SQL Server 2005 Express features that MSDE does not offer.

2.3.11 Installed Components

Owing to far-reaching modifications the setup of the new version cannot automatically determine, which components have already been installed. For this reason, the components already installed must be manually determined and noted down. Proceed as follows:

1. Open the operating system's software management via **Start** > **Control Panel** > **Add or Remove Programs**.
2. Make a list of the components itemized there:

- Communications
- Xpressions Server or MRS Server
- Exchange SnapIns for MMC
- ACD Agent
- ACD Supervisor
- Crystal Report Viewer

  The Crystal Report Viewer requires a Crystal Reports XI Developer Edition.
- Application Generator

  In XPR 6 R0 the Application Generator has been replaced with the Application Builder.
- EVO
- CallerGuide
- Installed language packets

During the upgrade, you need to manually select such components for updating them as well. Please note that all components concerning the contact center functionality are no longer included in the scope of delivery. Both, the ACD Agent and the ACD Supervisor have consequently been dropped.

3. Check whether ISDN cards are installed in the system, and if so, which ones. Open the device manager via **Start** > **Control Panel** > **System** > **Hardware tab** > **Device Manager**. Next, open the **Network adapters** entry and check whether entries named **Dialogic/Eicon Diva Server** are available.

2.3.12 Automatic Speech Recognition (ASR)

Owing to a restriction in the *Openspeech 3.0* software an existing Openspeech version cannot be automatically upgraded.

If automatic speech recognition is installed, for example, for CallerGuide or EVO, the existing Openspeech version must first be uninstalled. Not until then can the new version Openspeech 3.0 be installed.

NOTE: The uninstallation of Openspeech Recognizer 2.0 requires a system reboot.

NOTE: TTS and ASR have been released only for specific operating systems (see the service documentation *OpenScape Xpressions Release Notice*).

How to uninstall Openspeech:

1. Open the Windows software manager via **Start** -> **Settings** -> **Control Panel** -> **Add or Remove Programs**.
2. Select the *Openspeech Recognizer 2.0* entry in the list and click on **Remove**.
3. Answer the security prompt with **Yes**.

   The uninstallation starts.
4. Answer the system reboot prompt with **Yes**.

After the reboot, uninstalling *Openspeech Recognizer 2.0* is complete.

2.3.13 Function *CTI Journal*

The **CTI Journal** switch in the Web Assistant and in Communications activates the CIP journal for a user as of HiPath Xpressions 4.0SA10 or MRS 6.01. As of version OpenScape Xpressions 6 or MRS 8.0 this switch activates the entire CTI functionality for a user.

2.3.14 LDAP APL

The functionality of the LdapS APL available in the previous version has been completely integrated in the Ldap APL. The LdapS APL is not available any more.

Information about the migration from the LdapS APL to the Ldap APL is currently provided in a separate service info in the g-DMS (INF-07-000391).

2.3.15 TCP/IP APL

The feature *Name Reverse Resolving* (Revolving an IP address into a domain name) is not available any longer.

2.3.16 Web APL

In case of an update, customer-specific settings in configuration files are prevented from being overridden as two configuration files are available, e.g.:

- `<file name>_default.xml`
- `<file name>.xml`

The contents of the configuration files is identical at the initial installation. The customer performs his/her individual changes exclusively in the `<file name>.xml` file. The `<file name>_default.xml` file remains unaffected.

The respective component reads out the customer-specific file with the customized contents first. Then the default file is read out. The parameters already read out in the customer-specific file are ignored when the default file is read out.

IMPORTANT:
The `<file name>_default.xml` file must not be removed because system errors occur otherwise.

2.3.17 Migration of Exchange Server 2003 to Exchange Server 2007

How to migrate an XPR server from an existing connection to *Exchange Server 2003* to a connection to *Exchange Server 2007*:

- Uninstall the existing connector (E2kApl). Use the **Modify** option from the XPR server setup for this purpose.
- Then install the new XPR Foreign Connector (E7kApl). When installing the connector, establish a connection to the server that is to adopt the "Hub Transport Server Role".
- Keep in mind that after the new installation of the XPR Foreign Connector the **mailbox replication** feature in not supported anymore. Users who used to access the Exchange mailbox via this feature must be reset to True Unified Messaging (TUM).

2.3.18 BIRT as Alternative to Crystal Reports

The scheduler for the report module creates and sends statistical reports in different formats. This module assumes an installed report module and either an installed Crystal Reports XI Developer Edition or BIRT (Business Intelligence and Reporting Tool).

The BIRT runtime component is on the XPR setup medium and installed in the <*XPR_Install*>`/ReportEngine` directory during the ReportScheduleApl setup.

BIRT can be downloaded from http://www.eclipse.org/birt free of charge.

BIRT requires the Sun-Java runtime environment version 6 or higher. BIRT does not work with an older version or with an JVM by another producer. The JRE must be installed on the computer that also hosts the ReportSchedule APL. The JVM is neither shipped nor installed with the XPR. You can download it from `http://java.sun.com` free of charge.

BIRT requires the installed Microsoft SQL Server 2005 JDBC driver. This driver is neither shipped nor set up with the XPR. You can download it from http://msdn.microsoft.com/en-us/data/aa937724.aspx free of charge. Extract the sqljdbc.jar file from the downloaded file and copy it to the directory <*XPR_Install*>`/ReportEngine/ plugins/org.eclipse.birt.report.data.oda.jdbc_2.2.0.v20070615/drivers`.

Layout files of Crystal Reports (RPT files) and of BIRT (RPTDESIGN files) are not compatible.

BIRT provides the export formats PDF and HTML. We recommend PDF exports. BIRT reports are available in German, English and French only.

To modify BIRT layout files you need to download the BIRT report designer component under consideration of the matching eclipse components and versions from www.eclipse.org/birt free of charge and install it in the <*XPR_Install*>`/ReportEngine` directory.

2.3.19 Configuring the Web Conference Server

IMPORTANT: The web conference server must be configured **prior to completing the upgrade**! A retrospective configuration may lead to an erroneous behavior of the web conference server.

---

1. Open the `settings.ini` file in the setup folder of the web conference server in an editor. This is path `C:\Program Files(x86)\WebConferenceServer` by default.
2. Look for the following line:

   `ExternalAddress=Change2YourServer`
3. Replace value `Change2YourServer` with the external, fully qualified domain name (FQDN) of the web conference server computer.

NOTE: The external FQDN is the full outward name of the web conference server computer. The internal FQDN is the full name of this computer seen from the internal company network. If only a single FQDN is available, use it.

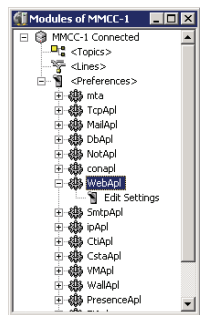
---

4. Save the modifications.

Assigning a permanent IP

The system must have two IP addresses. One of them is used by the web conference server and the other one by the WebAPL. A permanent IP must be assigned to the web conference server for this purpose.

5. Open the **XPR monitor** under **Start >Programs> Xpressions>**.
6. Select in the dialog **Modules of> Preferences> WebApl**.



7. Doubleclick **Edit Settings**.

   The **Web APL Configurations** dialog opens. The **HTTP** tab indicates the Web Apl IP address used.
8. Open the **command prompt** and enter the `ipconfig` command.

IMPORTANT: Enter this command exactly as described. Heed upper and lower case, inverted commas and blanks.

The available IP addresses are listed. Note down the IP address not used by the WebAPL, since it is assigned to the web conference server.

9. Enter the command `cd "\Program files(86)"` in the command prompt.
10. Enter the command `cd WebConferenceServer` in the command prompt.

IMPORTANT: If you use the httpcfg tool, **do not** assign port information to the IP address.
You can query the already present settings with the `httpcfg query iplisten` command. If the configuration has more than one port entry, the web conference server starts imperfectly.

---

11. Enter the command `httpcfg set iplisten -i <IP for the web conference server>` in the command prompt.
12. Enter the command `httpcfg set iplisten -i 127.0.0.1` in the command prompt.

    The configuration is complete.

2.3.20 Uninstalling unsupported Components

The following components are no longer supported and must be uninstalled before an upgrade.

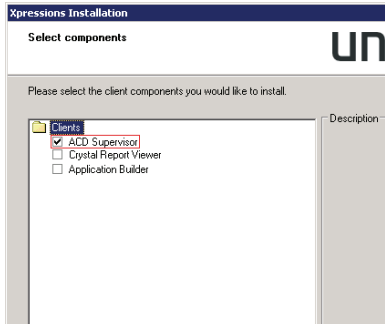
- MMCC (Multimedia Contact Center)
- SAPbyDesign

You must not include these features in an upgrade to XPR V7. They must be uninstalled.

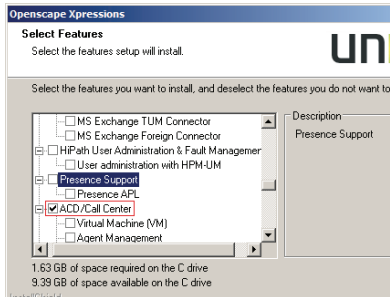
All information about these features in other XPR V7 documentation is obsolete.

2.3.20.1 Uninstalling MMCC (Multimedia Contact Center)

1. Insert the XPR/MRS setup medium of the system to be upgraded in the computer.
2. Start the Setup.exe and select **Modify**.
3. Follow the instructions on the screen until the **Select components** window appears.
4. Disable the **ACD Supervisor** check box



5. Follow the instructions on the screen until the **Select Features** window appears.
6. Disable the **ACD/Call Center** check box.



7. Click the **Next** button.

When the installation continues, all features deactivated by you will be uninstalled.

2.4 Updating the XPR Server Software and Client Components

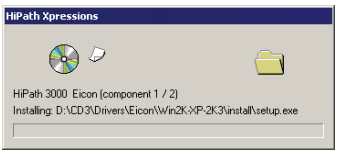
2.4.1 Installation Basics

NOTE: The specifications in this section do not apply for a silent upgrade (see Section 2.8.2, “Silent Upgrade”, on page 84).

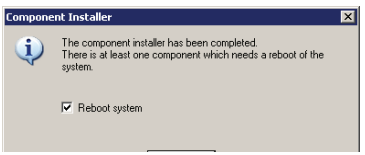
Because the XPR system consists of several components, the installation of the product is realized as a so-called *Component Installer*.

This installation mode starts with the selection of all product components to be installed. In the second step, the setup programs of the selected components are called and executed one after another.

During the whole setup program a dialog is displayed for a better overview, showing you where exactly in the Component Installer you are.



IMPORTANT: The computer may only be restarted when the Component Installer asks you to via the following dialog:



2.4.2 Mixed Operation with several Versions

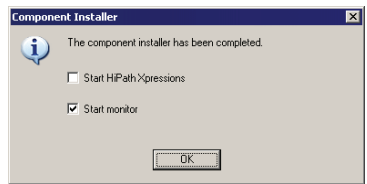
If several XPR servers exist in the same organization and one of them is to be upgraded from version 5.0 Rx to version V7 R1, definitely execute the following steps in the sequence given here:

1. Publish the ServerBasedForms of the new version V7 R1 in the public form folder *Organization Forms* of the Exchange server that the XPR server to be upgraded connects to. Please read the corresponding chapter in the OpenScape Xpressions *Exchange Gateway* manual on this.

   NOTE: If several Exchange servers connected to XPR servers to be upgraded are operated in the organization, the ServerBasedForms must be published on each of these Exchange servers.

2. Upgrade the relevant XPR server to V7 R1 according to the instructions in Section 2.8.1, “Standard Upgrade”, on page 63.

   IMPORTANT: In step 52 on page 81 definitely verify that the option **Start OpenScape Xpressions** in the following dialog is **NOT** enabled.

3. Reboot the XPR server manually.

4. Update the Outlook components (ServerBasedFormsClientComponents) on the user computers that collaborate with an XPR server of version V7 R1.

   User computers that still collaborate with an XPR server of version 4.0SA10 may continue using the old forms. Please read the corresponding chapter in the OpenScape Xpressions *Server Installation* manual on this.

2.5 Upgrading the Outlook Client Components

The Outlook client components of the version used under XPR 4.0SA10 **cannot** be upgraded to the current version. This comprises the following components:

- Local SMTP forms
- Server-based forms
- Server-based client components

So that the new version can be used, the old one must first be uninstalled.

Proceed as follows:

1. Open the software management via **Start** > **Control Panel** > **Add or Remove Programs**.
2. Find the corresponding entry in the list.
3. Select this entry and click on **Change/Remove**. The uninstallation is performed fully automatically.
4. Install the new version. You find the setup files on the setup medium in the following directory:

```
XpressionsInstall\AddOn\Client\Exchange\Forms\ServerBasedForms
```

   Start the setup.exe file in the corresponding subdirectory.

5. Click **Continue**.
6. Specify the Web Assistant address. Then click **Next**.
7. Click **Install**.
8. Perform the steps 1 to 7 on each client computer.

2.6 Upgrading the optiClient 130

During the optiClient 130 setup, registry keys are automatically created. In case of an upgrade, these keys are then automatically reset to their default value. Keys manually created for optiClient 130 will not be reset during an upgrade. Please refer to the administrator documentation and operating instructions OpenScape Xpressions optiClient 130 to learn which keys are manually created.

2.7 Connecting the CTI APL to a HiPath 4000

In the new version, the connection of the CTI APL to a HiPath 4000 is enabled via the CA4000 connector. Therefore, the scenario used with XPR 4.0SA10 and a CAP server is no longer applied and the CAP server no longer required.

The installation and configuration of the CTI APL connection to a HiPath 4000 is comprehensively described in the OpenScape Xpressions *Server Administration* manual.

2.8 Upgrading XPR V6 64-bit to XPR V7

The major steps of upgrading XPR V6 installed on a 64-bit operating system to XPR V7 consist of executing a `Setup.exe` file and selecting the **Repair** radio button in a dialog. This procedure is described in Section 2.8.1, “Standard Upgrade”, on page 63.

Alternatively, you can upgrade XPR V6 without user interaction under specific restrictions. This is described in Section 2.8.2, “Silent Upgrade”, on page 84.

If an XPR installed on a 32-bit operating system or an MRS is upgraded, upgrading must occur mandatorily by the following major steps:

1. Data backup of the old XPR/MRS installation
2. Reinstallation of XPR V7
3. Data restore on the XPR V7 installation

This procedure is described in the following sections:

- Section 2.10, “Upgrading from XPR V5 to XPR V7”, on page 94
- Section 2.9, “Upgrading from XPR V6 32-bit to XPR V7”, on page 87
- Section 2.11, “Upgrading from MRS 8.03 to XPR V7”, on page 103

2.8.1 Standard Upgrade

NOTE: The silent upgrade (see Section 2.8.2, “Silent Upgrade”, on page 84), which does without user interaction, is an alternative to the standard upgrade under specific restrictions.

IMPORTANT: **Before performing the upgrade, please make sure that a HiPath License Management exists within the network and that a Customer License Agent with the necessary licenses is available. Please also read Section 2.3.6, “Installation of the License Management and License Service”, on page 37.**

IMPORTANT: If you perform an installation via a remote desktop connection and you wish to install Text-To-Speech (TTS) (see step 21 on page 72), do not use **Start** > **Programs** > **Accessories** > **Communication** > **Remote Desktop Connection**, because setting up the XPR cannot be correctly finished then. Instead, start the remote desktop connection by entering the command
`mstsc /v:`*<IP address>* `/console`
or
`mstsc /v:`*<IP address>* `/admin`
in a command prompt. Use the `admin` parameter with Windows XP Professional as of SP3, Windows Vista as of SP1, Windows 7 and Windows Server 2008 and use the `console` parameter with all other operating systems. In this case `<IP address>` is the IP address of the computer on which the XPR is to be upgraded. Insert the XPR setup medium in the computer or connect the shares of the remote desktop client to a drive letter.

To update the XPR server software you must perform the following steps:

1. Check whether you may upgrade from the available XPR version (see Section 2.1, “Upgrade Versions”, on page 13).
2. If UCC components are installed, execute the following sub-steps:
   a) Change the privileges of the SQL FastViewer service user account to a user account that has privileges of the XPR service.
   b) Perform the following queries on the Postgres database user interface:

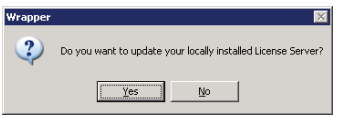
```
UPDATE symVCC.symConferenceUserTempl SET InvitationAddress = lower(InvitationAddress);
UPDATE symConferencing.Invitees SET InvitationAddress = lower(InvitationAddress);
```

3. Stop the XPR server via **Start > Programs > Xpressions > Stop Server**.
4. Insert the setup medium of OpenScape Xpressions V7 R1 in the server computer. If the autorun mode is on, the Component Installer starts automatically.

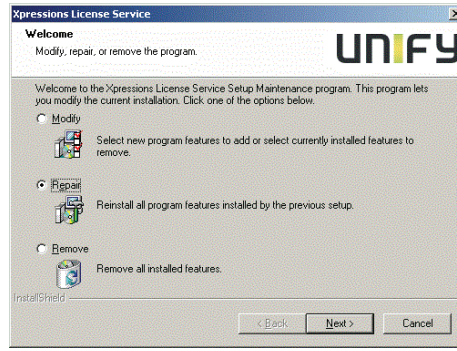
NOTE: If you have disabled the autostart mode for the setup medium, execute the `Setup.exe` program in the `XpressionsInstall` directory of the setup medium to install XPR on your computer. To do this, select the **Run** command in the Windows **Start** menu. Then enter `x:\XpressionsInstall\Setup` in the **Open:** text field, with *X* being the drive letter of your setup medium or of the connected network drive. Confirm your input with **OK.**

The installation starts with a welcome screen. Then commences the license server installation.

5. If a license service is installed on the computer, the following window opens:



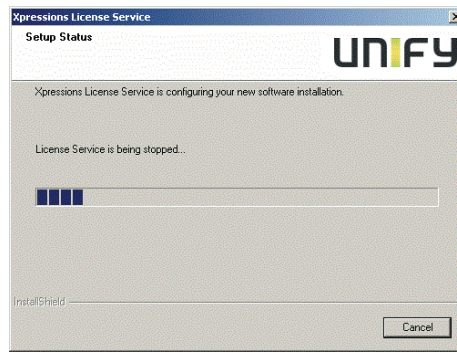
Click the **Yes** button to upgrade the license service. Click the **No** button to skip upgrading the license service. If you click the **Yes** button, the following dialog opens:



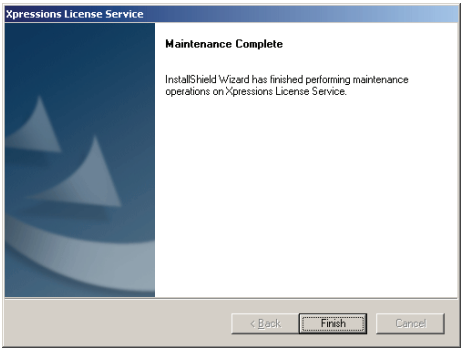
Maintain the default set option and click on **Next**.

NOTE: If you select **Repair**, all APLs already installed will be upgraded, if the licenses for the APLs are available. So, if the IP APL as well as the ISDN APL are installed, both APLs are upgraded in one upgrade process. Please also heed the notes for the IP APL.

The license service upgrade process starts.

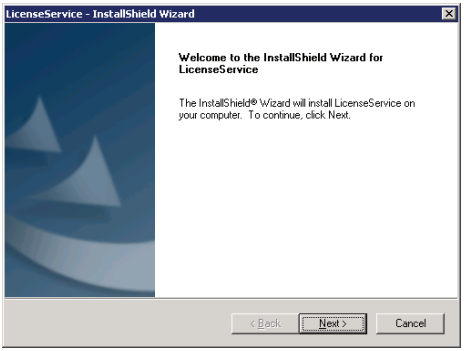


The license service upgrade process finishes with the following window:



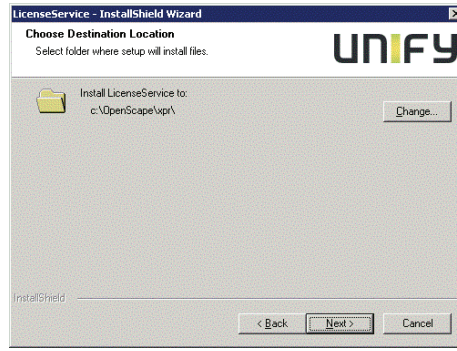
The XPR server upgrade is continued with step 11 on page 69.

If no license service has been installed on the computer, the license service setup starts automatically.



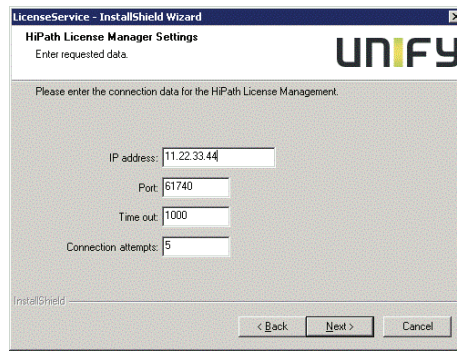
6. Click **Next**.

   Up comes this dialog:

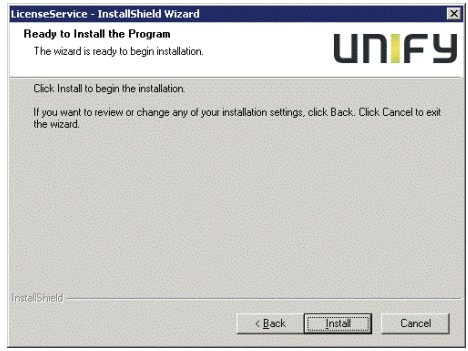


7. Accept the defaulted target path for the installation or click the **Change** button to specify another installation target path. Then click **Next**.

NOTE: We recommend to copy the default.

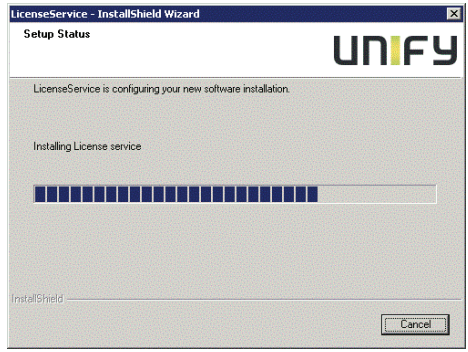


8. In the **IP address** field specify the IP address of the computer on which the CLA runs. Click the **Next** button. The time-out in the **Time-out** field is specified in milliseconds.

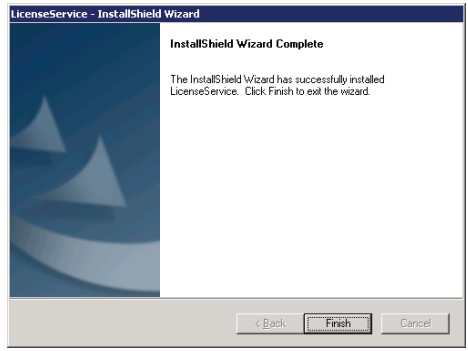


9. Click the **Install** button.

   The license service installation starts. The installation progress is displayed in the following dialog:



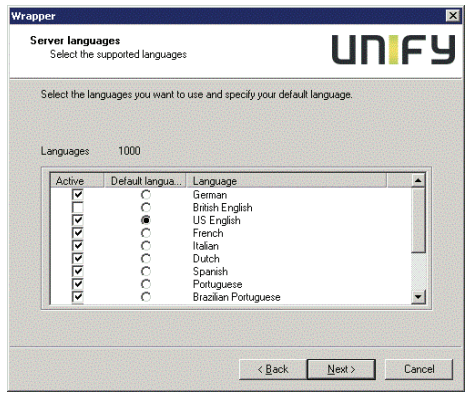
   After the copying process has been completed, the following dialog opens:



10. Click on the **Finish** button.

    Up comes this dialog:

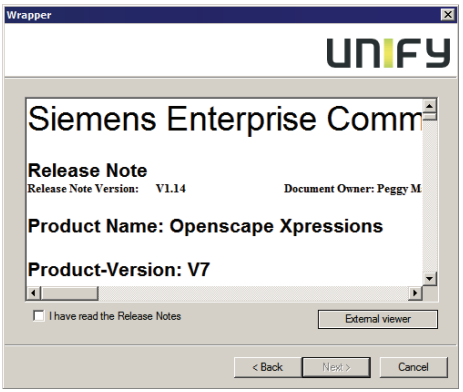
11. Click **Yes**. Up comes this dialog:



12. The available languages are already preselected. In the **Active** column select the languages to be additionally installed. Only select as many languages as licenses are available.

NOTE: You need to select at least one language, otherwise you cannot continue the upgrade.

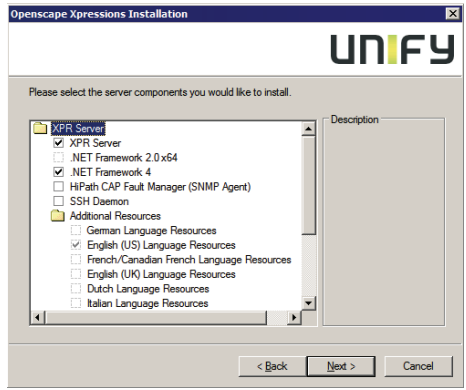
13. If required, change the language the server is to use as default in the **Default language** column.
14. Click the **Next** button. Up comes this dialog:



This dialog represents the `ReleaseNotes.rtf`, which is found in the `XpressionsInstall` directory of the setup medium.

15. Please read the Release Notes. Via the **Open in external viewer** button you can open the corresponding file in the application that is registered in the operating system for the file type *RTF*.
16. Select the **I have read the Release Notes** checkbox. This activates the **Next >** button.

    If you do not select the checkbox, the **Next >** button stays inactive and you cannot continue the upgrade.
17. After you have read the Release Notes, click the **Next >** button. Up comes this dialog:



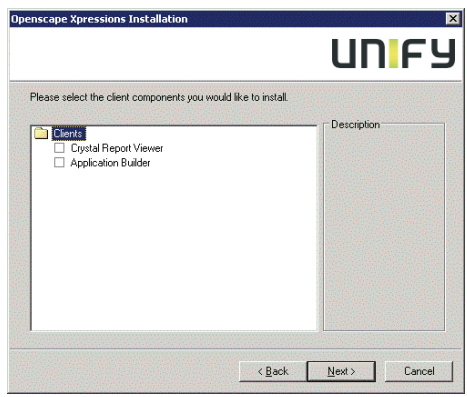
Language packets that you have already selected in step 12 are indicated in this dialog. The checkbox that you have activated for the default language there is displayed here in gray and cannot be deselected.

18. Select the components to be installed.

    Here you **must always select the XPR server component** to update the XPR server software.

    In the **Administration** section select the administrative client applications (such as **Communications**) for updating.

19. Click the **Next** button. Up comes this dialog:

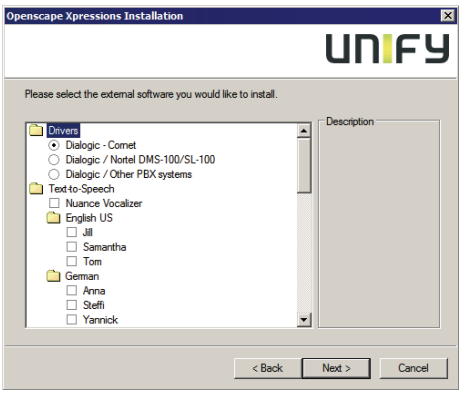


20. Select the components that are already installed on the system and that you have noted down in Section 2.3.11, “Installed Components”, on page 50.

NOTE: Please note that the Application Generator has been replaced with the Application Builder in XPR V6.

NOTE: If the behavior of the Application Builder is incorrect after the installation, replace in the registry under `HKLM\SOFTWARE\PP-COM\XPR\MTA\File Systems` value `/USERDATA;//<computer name>/MRSUSERDATA$` with value `/userdata;//<computer name>/MrsUserdata$`.

Then click **Next**. Up comes this dialog:



21. Select here the driver to be updated. You find more detailed information about the driver versions in the OpenScape Xpressions *Server Installation* manual.

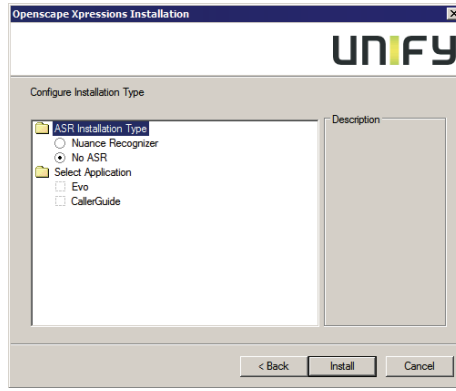
NOTE: *Nuance Vocalizer* requires a corresponding text-to-speech license for the XPR server as well as a *Nuance Vocalizer* license.

NOTE: If you have selected **Repair** in step 4 on page 64, all APLs already installed will be upgraded, if the licenses for the APLs are available. So, if the IP APL as well as the ISDN APL are installed, both APLs are upgraded in one upgrade process.

Then click **Next**. Up comes this dialog:

22. The viewer software is version 9 of the Adobe Acrobat Reader. If there is an older version on the system, you can upgrade this version now.

23. If you have a license for Automatic Speech Recognition (ASR), the dialog features the **Next** button instead of **Install >**. Click on **Next >** to open the dialog for determining the installation type for ASR. Up comes this dialog:



24. Select in the **ASR Installation Type** section the installation type with which ASR is already installed. In the **Select Application** section choose **Evo** and/or **CallerGuide** for installation.

    If you have not selected a driver for communication hardware, please continue with 34 on page 76.

25. The selection of the components to be updated is now complete. Click on **Install** to start the setup programs of the selected components in succession.

26. The driver update of an Dialogic/Eicon ISDN board starts with a welcome dialog. Up comes this dialog:

27. Click on **Next** to start the driver update.

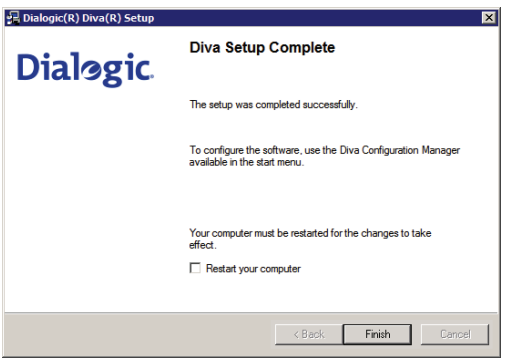
IMPORTANT: At times, Dialogic uses different version numbers for the same board. For example, the hardware description features a specific version number for a board, but in the Dialogic Diva Configuration Manager you find another version number for the same board. The version numbers used for Dialogic ISDN boards in this XPR V7 R1 guide are always the version numbers specified in the Dialogic Diva Configuration Manager!

NOTE: During the driver update the current settings for the Dialogic/Eicon ISDN boards are inherited.

NOTE: Please note the list of supported Dialogic/Eicon ISDN boards in Section 2.3.3.1, “Dialogic/Eicon ISDN Boards”, on page 28.

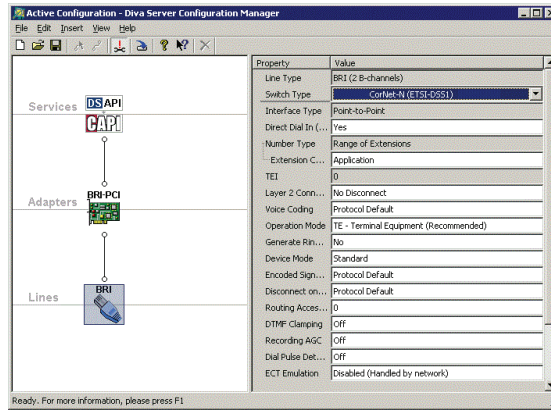
---

28. The new driver files are now copied to the system.
29. After the successful update, the following dialog opens:



30. Verify that the ***Restart your computer*** option is deactivated. Then click **Finish** to complete the procedure.

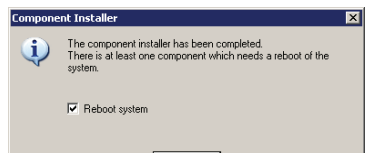
    The **Diva Configuration Manager** starts:



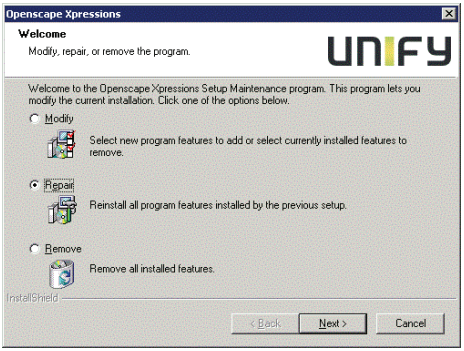
31. Check whether the configuration of the Dialogic/Eicon board used so far is correct. If yes, close the program via the menu option **File > Exit**. If you are then prompted to **restart the computer**, click on **No**.

    If you want to perform modifications to the configuration, you can do so at this point. Activate your modifications via the menu option **File > Activate** and close the configuration program. In the upcoming prompt to **restart the computer** click on **No**.

    The Component Installer now displays the following dialog with a restart prompt:



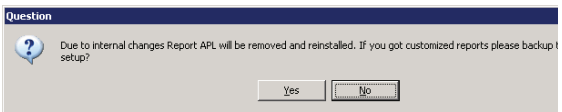
32. Confirm this prompt with **Reboot system**.
33. After you have rebooted the computer, the Component Installer is automatically continued and the following dialog opens:



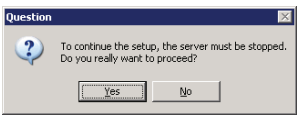
34. Select the **Repair** option. This option first upgrades all components of OpenScape Xpressions V6 R2 to the current version OpenScape Xpressions V7 R1.

    If you want to install further OpenScape Xpressions V7 R1 features, perform the setup program after the update once more and select **Modify**. Click the **Next** button to continue.

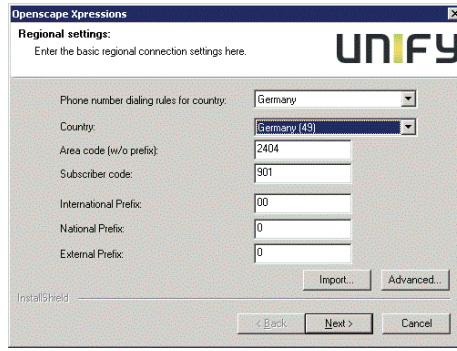
    If the Report APL is installed, the following dialog opens:



35. Click on **Yes** if you have backed up the reports (cf. Section 2.3.2.2, “Backing up Reports”, on page 26), or if backing up the reports is not necessary because they have not been changed. Up comes this dialog:



36. Click **Yes**. The XPR server is being upgraded and the required data copied. The progress is displayed via a status dialog. After the copying process has been completed, the following dialog opens:



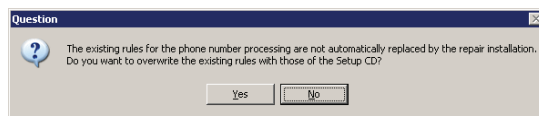
37. In the **Phone number dialing rules for country** field select the country for which you want to perform the connection settings.

NOTE: If the respective country is not listed, select a country that corresponds to the desired connection settings or choose the **General** option.

38. In the other dialog fields check the connection settings of your system for correction. If entries are incorrect, perform the necessary modifications here.

Field/Button	Description
Country	Select your country from this list to define the international country code.
Area code (without prefix)	Enter here the area code without prefix. In Germany this is thus the area code without the leading 0, in the US the area code without the leading 1. Example: 2404 from +49-2404-901-195
Subscriber code	Enter here the subscriber code of a phone number. Example: 901 from +49-2404-901-195 In US this is called *Office Code*.
International prefix	Specify here the international prefix. In the US this is 011, in Germany 00.
National prefix	Enter here the prefix that is part of your area code. In Germany this is the leading zero of the area code, in the US this is the 1.
External prefix	Enter here the external prefix.

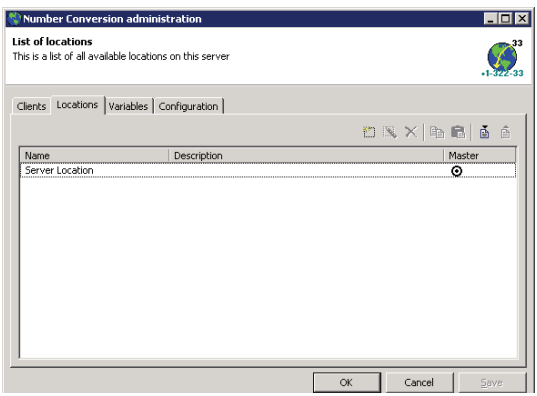
39. Click the **Advanced...** button. The following dialog opens:



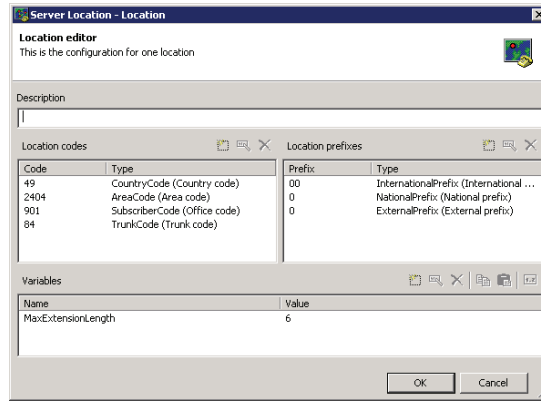
40. Answer the question whether existing NCO rules are to be replaced or maintained as follows:

    - Select **NO** if you have modified the NCO rules on the XPR server or added new ones that may get lost. Only new rules missing in the XPR server and required by an APL or a client will be copied then. New rules are stored in the *<XPR Install>*`\res\NCO` directory and can be imported from there in the existing rule set by means of the NCO admin tool.
    - Select **Yes** if you want to replace the rules available on the XPR server with the new rules from the setup medium. **Rules probably modified will then be irretrievably lost**.

    The **Number Conversion administration** dialog opens with a list of all locations:



41. Open the **Locations** tab.
42. Doubleclick the location entry that you want to edit. The **Location editor** opens:



43. Check and configure the correct range codes for the locations. If several subscriber codes are available, the **SubscriberCode** entry must be deleted. Use **RangeCode** instead to subsequently specify the subscriber codes with the corresponding DID-ranges. How to specify a RangeCode:

    a) Click the **Location codes** field with the right mousebutton and select the **Add** entry in the context menu. Then select the **RangeCode** entry.

    b) A dialog opens for you to enter the data to the new RangeCode.

    c) Click the **OK** button to save the RangeCode settings.

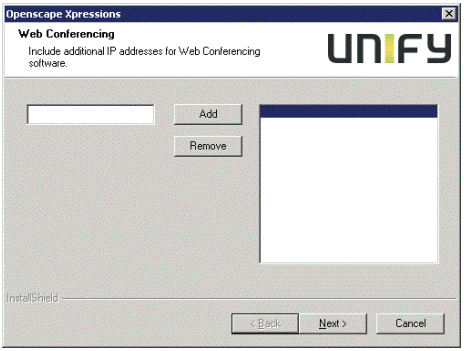
44. In the **Location editor** click the **OK** button. You are taken back to the **Number Conversion administration** dialog.

45. Perform step 43 on page 79 and 44 on page 79 for all available locations.

46. In the **Number Conversion administration** dialog click on **OK** and answer the question whether the configuration modifications should be saved with **Yes**. You are taken back to the **Regional Settings** dialog.

47. Check the settings in this dialog and click the **Next** button.

48. The upgrade continues and the dialog that features further IP addresses for web conferences is shown.



49. If you want to add further addresses to those already specified with the initial installation, do so and click on **Next**.
50. Upgrading is continued and a progress dialog displayed.
51. Upgrading is continued and the selected language packets and client programs installed. The language packets are installed fully automatically.

IMPORTANT: Please note that manual configurations of the web conference server are required **before** the upgrade to gurarantee smooth operation after the setup! The detailed description of this process is contained in chapter Section 2.3.19, “Configuring the Web Conference Server”, on page 54

Some client programs (like e. g. Communications and Application Builder) require a manual intervention during their setup. Proceed as follows:

a) Example Communications:

   1. In the welcome dialog click **Next**.
   2. Activate the **Update existing installation (recommended)** option and click on **Next**.
   3. The available client program installation is being updated.
   4. Click **Finish**.

b) Example Application Builder:

   1. In the welcome dialog click **Next**.
   2. Specify the destination folder for the Application Builder and click on **Next**.
   3. Select a language for the Application Builder and click on **Next**.

4. Click the **Next** button.
5. Click **Finish**.

Perform these substeps for all further client programs to be updated.

After the installation of the voice packets and client programs, the following dialog opens:

52. For upgrades from a version lower then V7 R1 we recommend to execute the CompactDB tool to reduce the database size.

    If want to do so, execute the following substeps:

    NOTE: You can reduce the database size later at any time when XPR is not in operation.

    ---

    a) Read the prerequisites in the “CompactDB” section of the administrator documentation *OpenScape Xpressions Server Administration*.

    b) If the prerequisites apply, deactivate the **Reboot system** checkbox.

    c) Click the **OK** button.

    d) Execute the instructions in the “CompactDB” section of the administrator documentation *OpenScape Xpressions Server Administration*.

    e) Reboot the computer.

    If you do not want to reduce the database size, verify that the **Reboot system** checkbox is active, click the **OK** button. The computer reboots.

53. After rebooting the computer, you can install the Smart Services Delivery Platform (SSDP). To do this, double-click the `XpressionsInstall\AddOn\Misc\SSDP\ssdp.exe` file on the XPR setup medium and follow the instructions. Please obtain further information from the PDF document `SSDP CopSSH Installation Guide` in this directory.

54. Execute the following substeps to synchronize the Connection APL database.

    a) Start the XPR monitor.

    b) In the **Modules** dialog open the Connection APL configuration dialog by doubleclicking **Con APL** > **Edit Settings**.

c) Click on the **Properties** button next to the **Database** checkbox.

d) Click on the **Synchronization** tab.

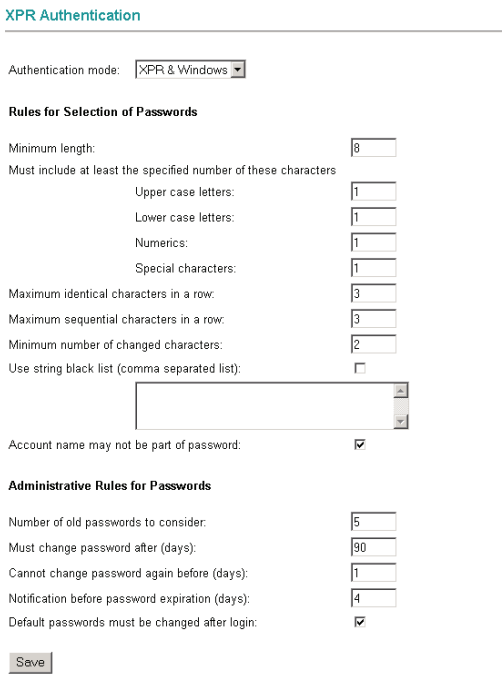
e) Click on the **Sync now** button.

f) Click the **OK** button.

g) Click the **OK** button.

55. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

56. If the XPR is integrated with a ComAssistant, the following assignments must have been entered in the `<Inst_Path>\config\common\Xpressions.cfg` file on the computer that hosts the ComAssistant:

    ```
    Xpressions.remotePort=10000
    Xpressions.localPort=10001
    ```

57. Install the following hotfixes:

    - Mta-810-15217 (or later)
    - Ucc-810-15276 (or later).

58. You must set the registry value `DisableUserTOSSetting` under `HKLM/SYSTEM/CurrentControlSet/Services/Tcpip/Parameters` to `0` for the QoS settings of the IP APL to be used for communication.
    In most Windows versions this registry value is not configured by default. In this case you need to manually add it as REG_DWORD as described in the respective passage. Furthermore, the computer system needs to be rebooted for the registry modification to take effect. If the IP APL cannot find this registry value with the entry 0, a corresponding error message is issued in the XPR monitor during the IP APL start.

Upgrading is now complete.

2.8.2 Silent Upgrade

Silent upgrade does without user interaction and is an alternative to the standard upgrade (see Section 2.8.1, “Standard Upgrade”, on page 63). Silent upgrade does not include any feature modifications, i. e. it corresponds to a normal upgrade initiated using the **Repair** radio button.

Restrictions

You can automatically upgrade to XPR V7 R1 FR1 from XPR V6 R2 64-bit, XPR V7 R0 64-bit and XPR V7 R1 64-bit only.

The silent upgrade of UCC components such as Web Collaboration Server, Connection APL, Media Server and conferencing modules on satellite computers is not supported.

How to proceed

IMPORTANT: **Before performing the upgrade, please make sure that a HiPath License Management exists within the network and that a Customer License Agent with the necessary licenses is available. Please also read Section 2.3.6, “Installation of the License Management and License Service”, on page 37.**

To update the XPR server software you must perform the following steps:

1. Stop the XPR server via **Start > Programs > Xpressions > Stop Server**.
2. Stop XPR clients such as Communications or XPR Monitor.
3. Insert the setup medium of OpenScape Xpressions V7 R1 in the server computer.

   If the autorun mode is on, the Component Installer starts automatically. Cancel the component installation program.
4. Click on **Start** in the taskbar.
5. Click **Run...**. A dialog opens.
6. Enter `cmd` in the entry field.
7. Click **OK**. A command prompt opens.
8. Enter the following command in the command prompt:

   ```
   x:
   ```

   `x` represents the letter of the drive on which the XPR server setup directory is found.
9. Enter the following command:

   ```
   cd <XPR_Install>\
   ```

`<XPR_Install>` represents the installation directory of the XPR server.

10. If you upgrade from XPR V6 R2 64-bit, enter the following command:

    `setup.exe --silent-repair --new-hlm:<IP address>`

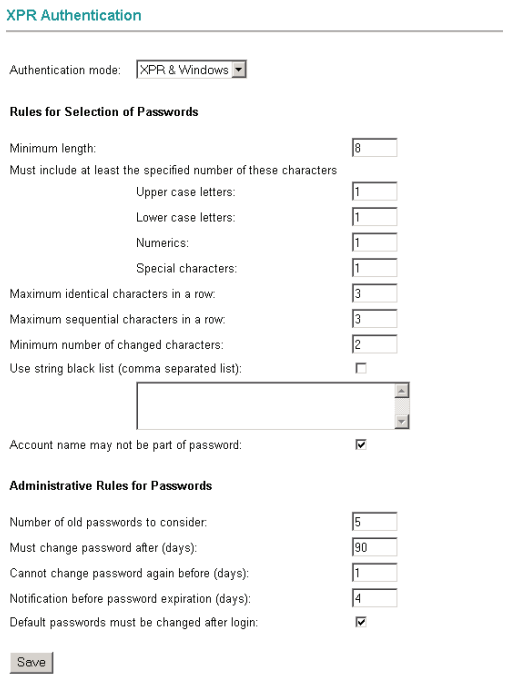
    `<IP address>` represents the IP address of the HiPath license management of this XPR.

11. If you upgrade from XPR V7 R0 64-bit or XPR V7 R1 64-bit, enter the following command:

    `setup.exe --silent-repair`

12. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

    The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

13. For upgrades from a version lower then V7 R1 we recommend to execute the CompactDB tool to reduce the database size by following the instructions in the “CompactDB” section of the administrator documentation *OpenScape Xpressions Server Administration*.

NOTE: You can reduce the database size later at any time when XPR is not in operation.

2.9 Upgrading from XPR V6 32-bit to XPR V7

NOTE: You can upgrade to OpenScape Xpressions V7 from versions XPR V6R2.x only. Please obtain further information from the table in Section 2.1, “Upgrade Versions”, on page 13.

IMPORTANT: The **Smart Backup & Restore** feature assumes that the user assigned to the MTA service is also the installing one.

IMPORTANT: If you have installed the Connection APL on a satellite system, back up the configuration data manually.

Upgrading from XPR V6 32-bit to XPR V7 comprises the following major steps:

1. Data backup of the old XPR V5 installation
2. Reinstallation of XPR V7
3. Data restore on the XPR V7 installation

These major steps are detailed in the following sub-sections.

2.9.1 Data Backup on XPR V6 32-bit

1. Install the latest hotfixes on the XPR V6 32-bit. A table in section *Upgrade/ Update* in the *Release Notes* lists the hotfixes according to the versions.

   The following hotfixes must be installed:

   - Ucc-803-14924
   - WebApl-803-14511
   - WebAssistant-803-14511
   - ConApl-803-15063
   - Mta-803-15218
   - CycosOpenSSL-803-20120119

2. If UCC components are installed, execute the following sub-steps:

   a) Change the privileges of the SQL FastViewer service user account to a user account that has privileges of the XPR service.

   b) Perform the following queries on the Postgres database user interface:

```
UPDATE symVCC.symConferenceUserTempl SET InvitationAddress = lower(InvitationAddress);
UPDATE symConferencing.Invitees SET InvitationAddress = lower(InvitationAddress);
```

3. Start the Web Assistant and log on as administrator. In the navigator, click on **Server settings** and then on **Smart backup and restore**. The **Smart Backup and Restore** dialog opens.

   IMPORTANT: The **Smart Backup and Restore** feature assumes the user assigned to the MTA service also to be the installing user.

4. Additionally, tick off the **TOV7** check box in the options list.

5. Check which of the following check boxes you must activate:

   - **NCO** backs up the configuration settings of the Number Conversion Object. The NCO configuration files `NcoMainTree.xml` and `VariableProposals.xml` are backed up. All other files available in the `<XPR Install>\NCO` directory are dynamically created at runtime.
   - **REGISTRY** backs up the entries of the XPR server in the registry. The `HKLM\Software\PP-COM\MRS` section in the registry of the kernel computer is backed up in the `regexp_serverconf.reg` file.
   - **INFOSTOR** backs up the data of the XPR server database. User and system data (Correlation database) and the database with the message headers (Journal database) are completely exported to the `fullexp.exp` file.
   - **FOLDERS** backs up the data of the message store. A complete copy of the directories is created under the share `MrsFolders$`. This includes all messages on the system.
   - **USERDATA** backs up the user-created configurations. A complete copy of the directories is created under the share `MrsUserData$`. This includes for example private greetings of the users.
   - **ISC** backs up the configuration settings for a possibly configured system networking. A complete copy of the directories is created beneath `<XPR Install>\ISC` for this purpose. The configuration data for the system networking is stored there.

- **UCC** backs up the data of the PostgreSQL database. The PostgreSQL database **mrsdb** is written in the `dump.sql` file. Furthermore, the following files from the `<XPR Install>/UCC/application_host/` directory are backed up:

  - `applets/conference/ConferencingApplication.xml`
  - `binders/terminal/bindings/conference.xml`
  - `providers/sip-connectivity/sip-connectivity.xml`
  - `providers/streaming-mps/streaming-mps.xml`

  The following files are backed up in addition:

  ```
  <XPR_Install>/cyPHONEWeb/config/*.*
  <XPR_Install>/cyPHONEWeb/.keystore
  <XPR_Install>/UCC/common/conf/instance_8dff7acb-6780-4b7d-
  9089-e2684fc8b326-localhost.xml
  C:\Program Files\webconferenceserver\settings.ini
  ```

- **SATELLITE** backs up the configuration files of a satellite installation. The registry section `HKLM\Software\PP-COM\MRS` of the satellite computers is backed up in the `<name of the satellite>.reg` files.

6. The **Backup Path** field is allocated with value `<XPR_Install>`. Change this value is required.
7. Click on **Backup now**. The backup file is created. It will be used in step 5 on page 92 for restore.

NOTE: If the MTA does not operate under a user account, the backup is written in the `c:\windows\temp` directory, otherwise in the temp directory of the corresponding user account. The backup file is a TAR file.

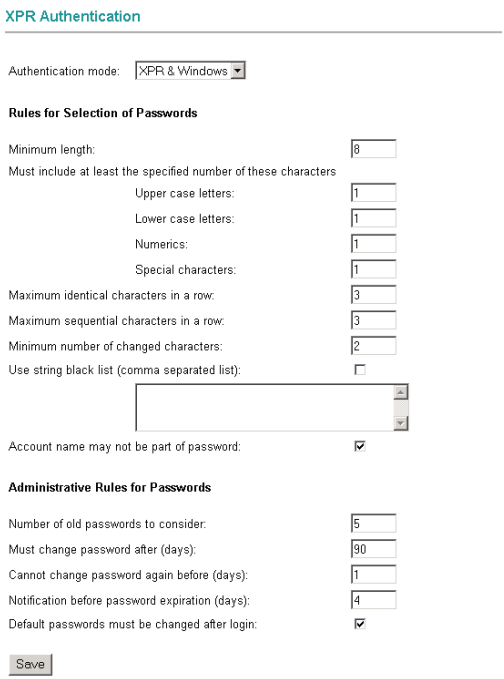
---

8. If you have installed the Connection APL on a satellite computer, back up the configuration data manually.

2.9.2 Installing the XPR V7 Server

1. Install the XPR V7 server. In doing so please heed the following points:
   - Keep the XPR server's name.
   - When performing the installation, deploy for user PGROOT of the PostgreSQL database the same password you used when setting up the old V5 system. Keep the server name.
   - For systems integrated in Exchange you need to install the ldap, exchapl and exumapl; the configuration may occur at a later date.
   - The Web Assistant is used for restore, so you need to configure the WebApl now.
2. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

   The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

3. Install the latest hotfixes on the XPR V7 server before starting the restore.

IMPORTANT: The restore assumes all installation and data directories to have the same name. The restoration of new installation directories is not supported.

Check that the following hotfixes have been installed:

- The highest MTA hotfix
- The highest UCC hotfix
- For an XPR V7 server integrated in a Microsoft Exchange 2007/2010 server: E2k7ApIInstaller-810-15204

4. If the Web Conference server is installed on the same computer as the XPR V7 server, perform the configuration for the Web Conference server. Please read section *Configuring the Web Conference Server* in the *OpenScape Xpressions Server Installation* manual on this.

2.9.3 Restore on the XPR V7 Server

Restore

1. If you have installed UCC components, stop the Connection APL service (ConApl).
2. If you have installed UCC components, start the Postgres service.
3. Start the Web Assistant.
4. In the navigator, click on **Server settings** and then on **Smart backup and restore**. The **Smart Backup and Restore** dialog opens.
5. Access the **Files to restore** combo box to select the backup file you created in step 7 on page 89 on the XPR V6 computer.
6. Click on **Restore**.
7. If you have installed UCC components, stop the Postgres service.
8. Open a Microsoft command prompt and execute the `renservr` command for every modified IP address.

   ```
   renserv OLD_IP NEW_IP
   ```

9. Execute the `renservr` command for every modified computer name.

   ```
   renserv OLD_MACHINE_NAME NEW_MACHINE_NAME
   ```

10. Stop the XPR V7 server.

Additional Instructions

11. Correct the DNS entries of your XPP server on the DNS server.
12. If the XPR V7 is integrated in a Microsoft Exchange 2007/2010 server, deactivate the connector of the XPR V6 in the Exchange server. Execute the following command in the Exchange Management Shell to receive the name of the Exchange connector:

    ```
    Get-ForeignConnector | fl
    ```

    Enter the following command to disable the Exchange connector:

    ```
    Set-ForeignConnector -Enabled $false
    ```

Activating the XPR V7

1. Stop the XPR V6 32-bit.
2. Start the XPR V7.
3. For systems integrated in Exchange 2007/2010 you need to execute the following commands:
   - `<XPR_Install>\bin\ExchAplConfigurator.exe` and follow the configuration steps.

- `<XPR_Install>\bin\E2K7Apl.exe install`
- `<XPR_Install>\bin\E2KApl.exe register`
- `<XPR_Install>\bin\ExUmApl.exe install`
- `<XPR_Install>\bin\ExUmApl.exe register`

4. For systems integrated in Exchange 2003 you need to execute the following commands:
   - `<XPR_Install>\bin\ExchAplConfigurator.exe` and follow the configuration steps.
   - `<XPR_Install>\bin\E2KApl.exe install`
   - `<XPR_Install>\bin\E2KApl.exe register`
   - `<XPR_Install>\bin\ExUmApl.exe install`
   - `<XPR_Install>\bin\ExUmApl.exe register`

NOTE: The Web Client settings on your old XPR V6 32-bit will not be copied for the Web Client in XPR **V7**. You must adjust the Web Client after the migration. You find a backup of the Web Client installation files in the `<XPR_Install>\xprWebClient_backup` directory.

IMPORTANT: You must set the registry value `DisableUserTOSSetting` under `HKLM/SYSTEM/CurrentControlSet/Services/Tcpip/Parameters` to `0` for the QoS settings of the IP APL to be used for communication. In most Windows versions this registry value is not configured by default. In this case you need to manually add it as REG_DWORD as described in the respective passage. Furthermore, the computer system needs to be rebooted for the registry modification to take effect. If the IP APL cannot find this registry value with the entry 0, a corresponding error message is issued in the XPR monitor during the IP APL start.

2.10 Upgrading from XPR V5 to XPR V7

NOTE: Of XPR V5 you can upgrade only XPR V5 R4 FR13 to XPR V7. Please obtain further information from the table in Section 2.1, “Upgrade Versions”, on page 13.

NOTE: XPR V5 is supported on 32-bit operating systems only.

Upgrading from XPR V5 to XPR V7 comprises the following major steps:

1. Data backup of the old XPR V5 installation
2. Reinstallation of XPR V7
3. Data restore on the XPR V7 installation

These major steps are detailed in the following sub-sections.

2.10.1 Backing up Data on XPR V5

1. Install the latest hotfixes on the XPR V5. A table in section *Upgrade/Update* of the *Release Notes* lists the hotfixes according to the versions.

   The following hotfixes must be installed:

   - Mta-720FR13-15524
   - WebApl-720FR13-15524
   - WebAssistant-720FR13-15524
   - CfgSvc-720FR13-15591

2. Start the Web Assistant and log on as administrator. In the navigator, click on **Server settings** and then on **Smart backup and restore**. The **Smart Backup and Restore** dialog opens.

   IMPORTANT: The **Smart Backup and Restore** feature assumes the user assigned to the MTA service also to be the installing user.

3. Additionally, tick off the **TOV7** check box in the options list.
4. Check which of the following check boxes you must activate:

- **NCO** backs up the configuration settings onf the Number Conversion Object. The NCO configuration files `NcoMainTree.xml` and `VariableProposals.xml` are backed up. All other files available in the `<XPR Install>\NCO` directory are dynamically created at runtime.
- **REGISTRY** backs up the entries of the XPR server in the registry. The `HKLM\Software\PP-COM\MRS` section in the registry of the kernel computer is backed up in the `regexp_serverconf.reg` file.
- **INFOSTOR** backs up the data of the XPR server database. User and system data (Correlation database) and the database with the message headers (Journal database) are completely exported to the `fullexp.exp` file.
- **FOLDERS** backs up the data of the message store. A complete copy of the directories is created under the share `MrsFolders$`. This includes all messages on the system.
- **USERDATA** backs up the user-created configurations. A complete copy of the directories is created under the share `MrsUserData$`. This includes for example private greetings of the users.
- **ISC** backs up the configuration settings for a possibly configured system networking. A complete copy of the directories is created beneath `<XPR Install>\ISC` for this purpose. The configuration data for the system networking is stored there.
- **UCC** backs up the data of the PostgreSQL database. The PostgreSQL database **mrsdb** is written in the `dump.sql` file. Furthermore, the following files from the `<XPR Install>/UCC/application_host/` directory are backed up:

  - `applets/conference/ConferencingApplication.xml`
  - `binders/terminal/bindings/conference.xml`
  - `providers/sip-connectivity/sip-connectivity.xml`
  - `providers/streaming-mps/streaming-mps.xml`

  The following files are backed up in addition:

  ```
  <XPR_Install>/cyPHONEWeb/config/*.*
  <XPR_Install>/cyPHONEWeb/.keystore
  <XPR_Install>/UCC/common/conf/instance_8dff7acb-6780-4b7d-
  9089-e2684fc8b326-localhost.xml
  C:\Program Files\webconferenceserver\settings.ini
  ```

- **SATELLITE** backs up the configuration files of a satellite installation. The registry section `HKLM\Software\PP-COM\MRS` of the satellite computers is backed up in the `<name of the satellite>.reg` files.

5. The **Backup Path** field is allocated with value `<XPR_Install>`. Change this value is required.

6. Click on **Backup now**. The backup file is created. It will be used in step 6 on page 100 for restore.

NOTE: If the MTA does not operate under a user account, the backup is written in the `c:\windows\temp` directory, otherwise in the temp directory of the corresponding user account. The backup file is a TAR file.

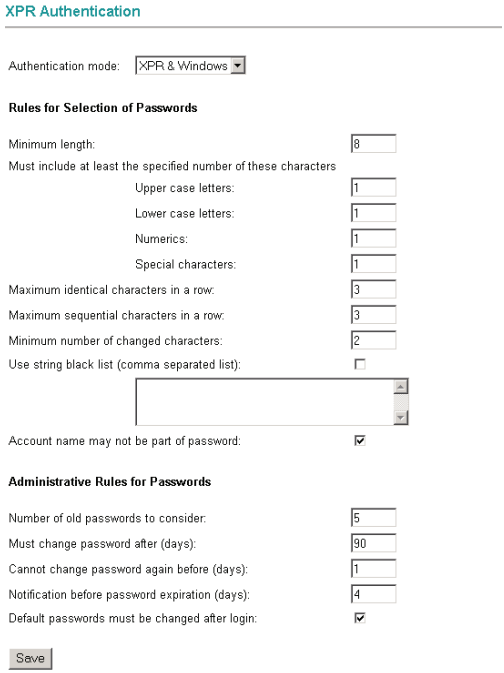
---

7. If you have installed the Connection APL on a satellite computer, back up the configuration data manually.

2.10.2 Installing the XPR V7 Server

1. Install the XPR V7 server. In doing so please heed the following points:
   - Instead of the XPR V5 SMS APL there is the SMSIP APL on XPR V7 . Consequently, the SMS APL configuration will get lost during the upgrade. The password of user Network Administrator and the Local Profile are kept during the upgrade only if the computer name (host name) and the IP address of the XPR V5 server computer are also used for the XPR 7 server computer.
   - Keep the XPR server's name.
   - When performing the installation, deploy for user PGROOT of the PostgreSQL database the same password you used when setting up the old V5 system. Keep the server name.
   - For systems integrated in Exchange you need to install the ldap, exchapl and exumapl; the configuration may occur at a later date.
   - The Web Assistant is used for restore, so you need to configure the WebApl now.
2. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

   The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

3. Install the latest hotfixes on the XPR V7 server before starting the restore.

IMPORTANT: The restore assumes all installation and data directories to have the same name. The restoration of new installation directories is not supported.

Make sure that the following hotfix has been installed:

- For an XPR V7 server integrated in a Microsoft Exchange 2007/2010 server: E2k7AplInstaller-810-15204

4. If the Web Conference server is installed on the same computer as the XPR V7 server, perform the configuration for the Web Conference server. Please read section *Configuring the Web Conference Server* in the *OpenScape Xpressions Server Installation* manual on this.

2.10.3 Restore on the XPRh V7 Server

Restore

1. Stop the Connection APL service (ConApl).
2. Start the Postgres service.
3. Start the Web Assistant.
4. In the navigator, click on **Server settings** and then on **Smart backup and restore**. The **Smart Backup and Restore** dialog opens.
5. Access the **Files to restore** combo box to select the backup file you created in step 6 on page 96 on the XPR V5 computer.
6. Click on **Restore**.
7. Stop the Postgres service.
8. Open a Microsoft command prompt and execute the `renservr` command for every modified IP address.

   ```
   renserv OLD_IP NEW_IP
   ```

9. Execute the `renservr` command for every modified computer name.

   ```
   renserv OLD_MACHINE_NAME NEW_MACHINE_NAME
   ```

10. Stop the XPR V7 server.

Additional Instructions

11. Correct the DNS entries of your XPR server on the DNS server.
12. If the XPR V7 is integrated in a Microsoft Exchange 2007/2010 server, deactivate the connector of the XPR V5 in the Exchange server. Execute the following command in the Exchange Management Shell to receive the name of the Exchange connector:

    ```
    Get-ForeignConnector | fl
    ```

    Enter the following command to disable the Exchange connector:

    ```
    Set-ForeignConnector -Enabled $false
    ```

Activating the XPR V7

1. Stop the XPR V5.
2. Start the XPR V7.
3. Execute the following sub-steps on the XPR V7 server computer.
   a) Open a Microsoft command prompt.
   b) Access the `<XPR_Install>\SDKtools` directory.
   c) Execute the following command:

```
infotool export rec=JOURNAL file=journal.txt
```

This command exports the XPR server journal to the `<XPR_Install>\SDKtools\journal.txt` file.

d) Open this file in an editor.

e) If the last line `CONTENTTYPE` contains value `4352` or a value greater than `499` and smaller than `600`, replace those values with value `1092` and continue with sub-step f.

Otherwise, close the file, delete it and continue with step 4 on page 101.

f) Back up the file.

g) Stop the XPR V7 server.

h) Enter the following commands in the Microsoft command prompt:

```
del <XPR_Install>\InfoStor\*.idx
```

This command deletes all index files. They will be recreated at the fresh start of the XPR V7 server.

i) Delete the `journal.dat` file:

```
del <XPR_Install>\InfoStor\journal.dat
```

It will be recreated at the fresh start of the XPR V7 server.

j) Start the XPR V7 server.

k) Execute the following command in the Microsoft command prompt:

```
infotool import rec=JOURNAL file=journal.txt
```

This command imports the journal file in the XPR V7 server. The XPR V7 server now recognizes old voice messages as voice messages.

4. For systems integrated in Exchange 2007/2010 you need to execute the following commands:

- `<XPR_Install>\bin\ExchAplConfigurator.exe/exchapl` and follow the configuration steps.
- `<XPR_Install>\bin\ExchAplConfigurator.exe/exumapl` and follow the configuration steps.
- `<XPR_Install>\bin\E2K7Apl.exe install`
- `<XPR_Install>\bin\E2K7Apl.exe register`
- `<XPR_Install>\bin\ExUmApl.exe install`
- `<XPR_Install>\bin\ExUmApl.exe register`

5. For systems integrated in Exchange 2003 you need to execute the following commands:

- `<XPR_Install>\bin\ExchAplConfigurator.exe/exchapl` and follow the configuration steps.
- `<XPR_Install>\bin\ExchAplConfigurator.exe/exumapl` and follow the configuration steps.
- `<XPR_Install>\bin\E2KApl.exe install`
- `<XPR_Install>\bin\E2KApl.exe register`
- `<XPR_Install>\bin\ExUmApl.exe install`
- `<XPR_Install>\bin\ExUmApl.exe register`

NOTE: The Web Client settings on your old XPR V5 will not be copied for the Web Client in XPR V7. You must adjust the Web Client after the migration. You find a backup of the Web Client installation files in the `<XPR_Install>\xprWebClient_backup` directory.

IMPORTANT: You must set the registry value `DisableUserTOSSetting` under `HKLM/SYSTEM/CurrentControlSet/Services/Tcpip/Parameters` to `0` for the QoS settings of the IP APL to be used for communication. In most Windows versions this registry value is not configured by default. In this case you need to manually add it as REG_DWORD as described in the respective passage. Furthermore, the computer system needs to be rebooted for the registry modification to take effect. If the IP APL cannot find this registry value with the entry 0, a corresponding error message is issued in the XPR monitor during the IP APL start.

2.11 Upgrading from MRS 8.03 to XPR V7

NOTE: You can upgrade an MRS to XPR V7 only from versions MRS 8.0x. Please obtain further information from the table in Section 2.1, “Upgrade Versions”, on page 13.

NOTE: MRS 8.03 is supported on 32-bit as well as on 64-bit operating systems.

Upgrading from MRS 8.03 to XPR V7 comprises the following major steps:

1. Data backup of the old MRS 8.03 installation
2. Reinstallation of XPR V7
3. Data restore on the XPR V7 installation

These major steps are detailed in the following sub-sections.

2.11.1 Backing up Data on MRS 8.03

1. Install the latest hotfixes on the XPR V5. A table in section *Upgrade/Update* of the *Release Notes* lists the hotfixes according to the versions.

   The following hotfixes must be installed:

   - Ucc-803-14924
   - WebApl-803-14511
   - WebAssistant-803-14511
   - ConApl-803-15063
   - Mta-803-15218
   - CycosOpenSSL-803-20120119

2. If UCC components are installed, execute the following sub-steps:

   a) Change the privileges of the SQL FastViewer service user account to a user account that has privileges of the XPR service.

   b) Perform the following queries on the Postgres database user interface:

```
UPDATE symVCC.symConferenceUserTempl SET InvitationAddress = lower(InvitationAddress);
UPDATE symConferencing.Invitees SET InvitationAddress = lower(InvitationAddress);
```

3. Start the Web Assistant and log on as administrator. In the navigator, click on **Server settings** and then on **Smart backup and restore**. The **Smart Backup and Restore** dialog opens.

   IMPORTANT: The **Smart Backup and Restore** feature assumes the user assigned to the MTA service also to be the installing user.

   ---

4. Additionally, tick off the **TOV7** check box in the options list.

5. Check which of the following check boxes you must activate:

   - **NCO** backs up the configuration settings onf the Number Conversion Object. The NCO configuration files `NcoMainTree.xml` and `VariableProposals.xml` are backed up. All other files available in the `<XPR Install>\NCO` directory are dynamically created at runtime.
   - **REGISTRY** backs up the entries of the XPR server in the registry. The `HKLM\Software\PP-COM\MRS` section in the registry of the kernel computer is backed up in the `regexp_serverconf.reg` file.
   - **INFOSTOR** backs up the data of the XPR server database. User and system data (Correlation database) and the database with the message headers (Journal database) are completely exported to the `fullexp.exp` file.
   - **FOLDERS** backs up the data of the message store. A complete copy of the directories is created under the share `MrsFolders$`. This includes all messages on the system.
   - **USERDATA** backs up the user-created configurations. A complete copy of the directories is created under the share `MrsUserData$`. This includes for example private greetings of the users.
   - **ISC** backs up the configuration settings for a possibly configured system networking. A complete copy of the directories is created beneath `<XPR Install>\ISC` for this purpose. The configuration data for the system networking is stored there.

- **UCC** backs up the data of the PostgreSQL database. The PostgreSQL database **mrsdb** is written in the `dump.sql` file. Furthermore, the following files from the `<XPR Install>/UCC/application_host/` directory are backed up:

  - `applets/conference/ConferencingApplication.xml`
  - `binders/terminal/bindings/conference.xml`
  - `providers/sip-connectivity/sip-connectivity.xml`
  - `providers/streaming-mps/streaming-mps.xml`

  The following files are backed up in addition:

  ```
  <XPR_Install>/cyPHONEWeb/config/*.*
  <XPR_Install>/cyPHONEWeb/.keystore
  <XPR_Install>/UCC/common/conf/instance_8dff7acb-6780-4b7d-
  9089-e2684fc8b326-localhost.xml
  C:\Program Files\webconferenceserver\settings.ini
  ```

- **SATELLITE** backs up the configuration files of a satellite installation. The registry section `HKLM\Software\PP-COM\MRS` of the satellite computers is backed up in the `<name of the satellite>.reg` files.

6. The **Backup Path** field is allocated with value `<XPR_Install>`. Change this value is required.
7. Click on **Backup now**. The backup file is created. It will be used in step 5 on page 109 for restore.

NOTE: If the MTA does not operate under a user account, the backup is written in the `c:\windows\temp` directory, otherwise in the temp directory of the corresponding user account. The backup file is a TAR file.

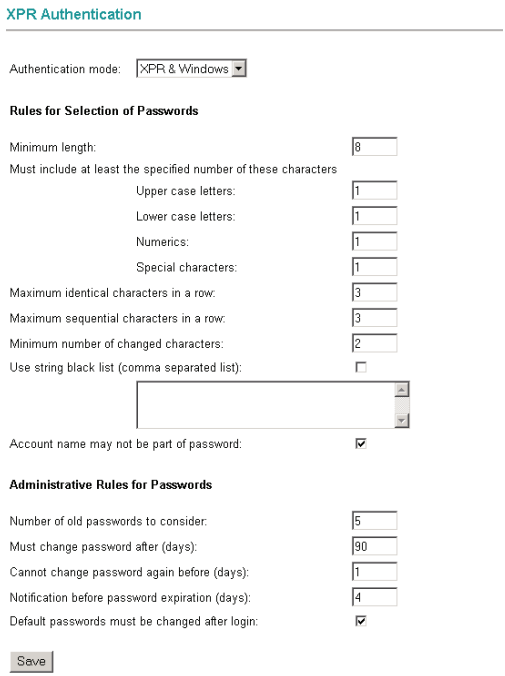
---

8. If you have installed the Connection APL on a satellite computer, back up the configuration data manually.

2.11.2 Installing the XPR V7 Server

1. Install the XPR V7 server. In doing so please heed the following points:
   - Keep the MRS server's name.
   - When performing the installation, deploy for user PGROOT of the PostgreSQL database the same password you used when setting up the old MRS system.
   - For systems integrated in Exchange you need to install the ldap, exchapl and exumapl; the configuration may occur at a later date.
   - The Web Assistant is used for restore, so you need to configure the WebApl now.
   - Change the privileges of the SQL FastViewer service user account to a user account that has privileges of the XPR service.
2. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

   The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

3. Install the latest hotfixes on the XPR V7 server before starting the restore. A table in section *Upgrade/Update* of the *Release Notes* lists the hotfixes according to the versions.

IMPORTANT: The restore assumes all installation and data directories to have the same name. The restoration of new installation directories is not supported.

Check that the following hotfixes have been installed:

- Mta-803-15218

- Ucc-810-xxxx
- For an XPR V7 server integrated in a Microsoft Exchange 2007/2010 server: E2k7ApIInstaller-810-15204

4. If the Web Conference server is installed on the same computer as the XPR V7 server, perform the configuration for the Web Conference server. Please read section *Configuring the Web Conference Server* in the *OpenScape Xpressions Server Installation* manual on this.
5. If you have installed UCC components, please read the *OpenScape Xpressions V7 Server Administration, Administrator Documentation* manual and follow the instructions in section *Backing up the PostgresSQL Database*.

2.11.3 Restore on the XPR V7 Server

1. If you have installed UC components, stop the Connection APL service (ConApl).
2. If you have installed UC components, start the Postgres service.
3. Start the Web Assistant.
4. In the navigator, click on **Server settings** and then on **Smart backup and restore**. The **Smart Backup and Restore** dialog opens.
5. Access the **Files to restore** combo box to select the backup file you created in step 7 on page 105 on the MRS 8.03 computer.
6. Click on **Restore**.
7. If you have installed UC components, stop the Postgres service.
8. Open a Microsoft command prompt and execute the `renservr` command for every modified IP address.

   ```
   renserv OLD_IP NEW_IP
   ```

9. Execute the `renservr` command for every modified computer name.

   ```
   renserv OLD_MACHINE_NAME NEW_MACHINE_NAME
   ```

10. Stop the XPR V7 server.

Additional Instructions

11. Correct the DNS entries of your XPP server on the DNS server.
12. If the XPR V7 is integrated in a Microsoft Exchange 2007/2010 server, deactivate the connector of the MRS 8.03 in the Exchange server. Execute the following command in the Exchange Management Shell to receive the name of the Exchange connector:

    ```
    Get-ForeignConnector | fl
    ```

    Enter the following command to disable the Exchange connector:

    ```
    Set-ForeignConnector -Enabled $false
    ```

Activating the XPR V7

1. Stop the MRS 8.03.
2. Start the XPR V7.
3. Execute the following sub-steps on the XPR V7 server computer.
   a) Open a Microsoft command prompt.
   b) Access the `<XPR_Install>\SDKtools` directory.
   c) Execute the following command:

```
infotool export rec=JOURNAL file=journal.txt
```

This command exports the XPR server journal to the `<XPR_Install>\SDKtools\journal.txt` file.

d) Open this file in an editor.

e) If the last line `CONTENTTYPE` contains value `4352` or a value greater than `499` and smaller than `600`, replace those values with value `1092` and continue with sub-step f.

Otherwise, close the file, delete it and continue with step 4 on page 110.

f) Back up the file.

g) Stop the XPR V7 server.

h) Enter the following commands in the Microsoft command prompt:

```
del <XPR_Install>\InfoStor\*.idx
```

This command deletes all index files. They will be recreated at the fresh start of the XPR V7 server.

i) Delete the `journal.dat` file:

```
del <XPR_Install>\InfoStor\journal.dat
```

It will be recreated at the fresh start of the XPR V7 server.

j) Start the XPR V7 server.

k) Execute the following command in the Microsoft command prompt:

```
infotool import rec=JOURNAL file=journal.txt
```

This command imports the journal file in the XPR V7 server. The XPR V7 server now recognizes old voice messages as voice messages.

4. For systems integrated in Exchange 2007/2010 you need to execute the following commands:

   - `<XPR_Install>\bin\ExchAplConfigurator.exe` and follow the configuration steps.
   - `<XPR_Install>\bin\E2K7Apl.exe install`
   - `<XPR_Install>\bin\E2K7Apl.exe register`
   - `<XPR_Install>\bin\ExUmApl.exe install`
   - `<XPR_Install>\bin\ExUmApl.exe register`

5. For systems integrated in Exchange 2003 you need to execute the following commands:

   - `<XPR_Install>\bin\ExchAplConfigurator.exe` and follow the configuration steps.
   - `<XPR_Install>\bin\E2KApl.exe install`

- `<XPR_Install>\bin\E2KApl.exe register`
- `<XPR_Install>\bin\ExUmApl.exe install`
- `<XPR_Install>\bin\ExUmApl.exe register`

NOTE: The cyPHONE Web settings on your old MRS 8.03 cannot be copied for the Web Client in XPR V7. You must manually adjust the Web Client after the migration. You find a backup of the cyPHONE Web installation files in the directory `<XPR_Install>\cyPHONEWeb`.

IMPORTANT: You must set the registry value `DisableUserTOSSetting` under `HKLM/SYSTEM/CurrentControlSet/Services/Tcpip/Parameters` to `0` for the QoS settings of the IP APL to be used for communication. In most Windows versions this registry value is not configured by default. In this case you need to manually add it as REG_DWORD as described in the respective passage. Furthermore, the computer system needs to be rebooted for the registry modification to take effect. If the IP APL cannot find this registry value with the entry 0, a corresponding error message is issued in the XPR monitor during the IP APL start.

2.12 Upgrading Satellite Computers

After upgrading the kernel computer, all satellite computers must be upgraded to the same version.

1. For this purpose, the `SatPrep.exe` program must first be executed on the satellite computer. Please refer to Section 2.12.2, “Preparing the Satellite Computers”, on page 113.
2. You then need to execute the instructions given in Section 2.8.1, “Standard Upgrade”, on page 63) to upgrade the already installed components (APLs) on each satellite computer. Be sure to select the **Repair** radio button in step 5 on page 64 and also in step 33 on page 75.

IMPORTANT: Make sure that all language packets are already installed on the kernel computer before they are installed on a satellite computer. A language packet may only be **un**installed on a satellite if the satellite computer **does not** have a connection to the kernel computer.

IMPORTANT: The restoration requires that all installation and data directories have the same name. The restoration of new installation directories is not supported.

2.12.1 User Accounts of the XPR Services

Make **definitely** sure that the following OpenScape Xpressions kernel services on the kernel computer and all XPR services installed on the satellites are logged on with the same Windows account and password:

- XPR Administrator (mrs)
- XPR Config-Service (cfgsvc)
- XPR Information Store (infostor)
- XPR Message Router (mta)
- XPR Name Locator (nameloc)
- XPR Status Dispatcher (xmrsvc)

This account must provide the following group memberships and privileges:

- is member of the domain in which the kernel and satellite computer are found
- has local administrator privileges on kernel and satellite computers

- has the "logon as service" privilege on all satellite computers

If this is not the case, the kernel computer cannot start the services on the satellite computers or the satellite APLs are not displayed in the kernel computer monitor.

Make sure that all services of the kernel computer run under this user account before the upgrade of the satellite computers. After the satellite computer upgrade this user account must also be assigned to their XPR services. To furnish services with another account, proceed as described in Section 2.12.3, “Modifying the Service Account for OpenScape Xpressions Services” further below.

2.12.2 Preparing the Satellite Computers

Since new services and a modified configuration were added, the `SatPrep.exe` program must be executed again for each satellite system to install such novelties. Proceed as follows:

1. Check that the XPR server on the kernel computer is started and running.

   NOTE: This note applies for an upgrade from **XPR V5** to **XPR V7** only. To restore the satellite configuration, you need to use the same computer names for the new satellite computers. Please read Section 2.12.4, “Host Name of the Satellite Computer” on this.

2. Make sure that the user account under which the services run has the "Logon as a service" right on all satellite computers. Please proceed as follows to assign the "Logon as a service" right to a user account:

   a) Open the Windows security settings on a satellite computer via **Start** -> **Control Panel** -> **Local Security Policy**.

   b) Doubleclick the **Local Policies** entry in the list on the left hand side and then click **User Rights Assignment**. The **Log on as a service Properties** dialog opens. This dialog lists all user accounts that have the “Log on as a service“ privilege.

   c) Click on **Add User or Group...**.

   d) Enter the name of the user account and click on **Check Names**. When the account has been found in the domain, its name is represented underscored.

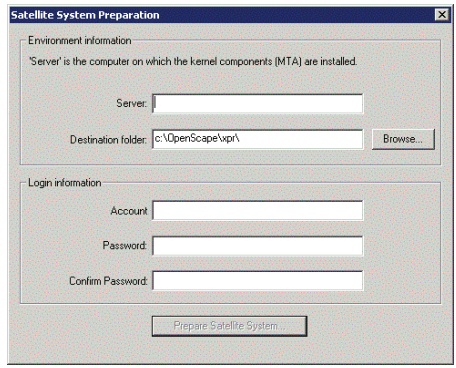
   e) Click **OK**.

   f) Click **OK**.

   g) Close the Windows security settings.

h) Execute the steps a to g on each satellite computer.

3. Start the `SatPrep.exe` from the `Satellite` directory on the setup medium. Up comes this dialog:



4. Enter the computer name or the IP address of the kernel computer in the **Server:** field.
5. Verify that the path to the setup directory of the existing XPR server is entered in the **Destination folder:** field. Check which installation path is valid for your system.
6. In the **Login information** section fill the account information of the domain user, under whom the services are started, in the corresponding fields. Please note the box on the previous page on this.
7. Click on **Prepare Satellite System**.

   The satellite is being prepared.
8. After a successful preparation a dialog is shown that you confirm with **OK**. If errors should occur, you receive an error report with continuative information.
9. Perform the steps 1 to 7 for each available satellite system.
10. Perform the upgrade on each satellite system as described in Section 2.8.1, “Standard Upgrade”, on page 63. In doing so, check which components are already installed on the respective satellite and select **exclusively** such components in the server setup for upgrading.
11. After all satellites have been upgraded, restart the XPR server on the kernel computer. This also restarts all services on the satellite computers automatically. As soon as all services are restarted on the kernel computer and on the satellites, the satellite system upgrade is complete.

2.12.3 Modifying the Service Account for OpenScape Xpressions Services

How to change the account under which a Windows service runs:

1. Click the **Start** button in the task bar.
2. Click the **Start > Settings** > **Control Panel** menu option.
3. Doubleclick the **Administrative Tools** icon.
4. Doubleclick the **Services** icon. The **Services** dialog opens.
5. In the services list browse to the OpenScape Xpressions services (they begin with XPR).
6. Doubleclick the service to be modified. The properties dialog of this service opens.
7. Open the **Log On** tab.
8. Select **This account** under **Log on as:**.
9. Click the **Browse...** button to select an account with which the service is to log on.
10. Enter the corresponding password in the **Password:** field and confirm it in the **Confirm password:** field.
11. Repeat steps 4 to 8 for each XPR service on the kernel computer and on all satellite computers.

NOTE: If the password is changed, either because it expires automatically or the customer changes the password for this account, it must also be changed in the properties of each single service on the kernel computer and on all satellite computers. **Please do not forget to inform the customer about this!**

2.12.4 Host Name of the Satellite Computer

If you have changed the host names of the satellite computers while grading up, the satellite information will not be restored. There are two options as a remedy.

1. Reconfigure all satellite APLs on each satellite computer.
2. Extract the `<hostname>.reg` from the backup file. Replace all registry paths named: <`HKLM\Software\PP-COM`> with <`HKLM\Software\Wow6432Node\PP-COM`>. Execute the REG file on each satellite computer.

2.13 Modified and new Features

You find an overview of modified and new features in the Release Notice. Here, only some resulting specialties are dealt with.

The features mentioned in the following subsections may be already present depending on the XPR version installed.

2.13.1 Name Dialing Default Setting

When recognizing the user entry, the first name is expected before the second name by default. This can be configured via the **Addressing** parameter tab in the **Script** configuration tab in the protocol. Please read on this the section **Parameter Tab *Addressing*** in the OpenScape Xpressions *Server Administration* manual.

2.13.2 No Support of Media Extension Bridge (MEB)

MEB is not supported. If you upgrade from an XPR version that supports the MEB, this upgrade will not automatically uninstall the MEB.

Please note the following:

- During an upgrade, the following applies for the entries on the **Device** tab of the configuration dialog of a telematics APL:
  - An entry **Unify HiPath CorNet-IP via MEB** is maintained. When you doubleclick this entry the GUI opens, but setting modifications performed in the dialog take no effect in the backend. Only a new installation of the XPR server will remove this entry.

- An entry **H.323 Protocol Stack** is kept in the list, i. e. **H.323 Protocol Stack CorNet-IP** does not appear though the H.323 protocol stack now offers CorNet-IP functionalities as well. After a doubleclick, however, a dialog opens that is extended by additional setting options for CorNet-IP. Only a new installation of the XPR server effects a correct entry.

IMPORTANT: An MWI previously bound to H.323 must be rebound to H.323 after the upgrade.

IMPORTANT: When using an HG1500 or HG3550 module and T.38 or G.711 verify that no HG logging is active.

IMPORTANT: When using T.38 Fax and a HiPath 3000 or HiPath 4000, the fax error correction method t38UDPRedundancy must be set in the HG module of the HiPath as well as in the IP APL of the XPR, so that the fax transmission error rate is kept minimal as far as possible.

2.13.3 Modified default Settings

- **Privilege *No obligation to change password after first login* (`NO_OBLIG_PWD`)**

  The user is not obliged to change his/her PIN in the TUI after initial login.

  When using VMS, a PIN may be enabled for the user by means of a customer parameter. This is particularly useful when the user has already identified him/herself by his/her Hicom-PIN.

  Users who do not yet have a PIN and have not been assigned this privilege are prompted to assign an individual PIN the first time they log on with the default PIN 000000. This default PIN only applies to the default TUI configuration profile!

  If the user or administrator have already defined a PIN via the Web Assistant, this PIN is used without the user being compelled to assign a new one.

  In the Web Assistant the user may keep a default password or PIN assigned by the administrator and is not prompted to change it at the initial log-in.

- IBM/Lotus Notes default settings

  The registry keys *NDLConversion_FormPrintMode* and *NDLKeepNotesClientOpened* are active by default. For details please refer to the installation and administration manual *IBM Notes Gateway*.

2.13.4 Conversion from PDF to Fax

In the past, the conversion from PDF to fax was done by the Adobe Reader application. In the new version, a considerable gain of velocity has been obtained by implementing GhostScript.

The upgrade of a system in which the conversion was done by the Adobe Reader, to the current version with GhostScript support does not require any further adjustments. If you install a program at a later date that is registered in the operating system for the extension `.pdf`, no adjustments will be required either.

2.13.5 BIRT

BIRT (Business Intelligence and Reporting Tool) is a free-of-charge alternative to Crystal Reports for creating reports (see Section 2.3.18, “BIRT as Alternative to Crystal Reports”, on page 54).

2.13.6 Keeping Menuconfi.ini

When performing a telematic hotfix or an upgrade, the Menuconfig.ini file will not be overridden. Customer-specific modifications may be performed in this file. When performing a telematic hotfix or an upgrade, the default_menuconfig.ini file will be overridden and used. The default_menuconfig.ini file must not be customized. If no menuconfig.ini can be found, the default_menuconfig.ini file is used as fall-back solution.

2.13.7 Fax Transmission

How to transmit fax messages:

- Via the ISDN APL (classic fax)
- By T.38 via the IP APL (fax as data). This may occur via H.323, SIP or CorNet-IP, but not via TAPI.

An IP APL can be operated in parallel to an ISDN APL on one computer. One IP APL cannot support two protocols of the infrastructure layer (e. g. H.323, CorNet-IP or SIP) in parallel. But the following scenarios are possible, for example, provided the protocols mentioned are supported by the connected PBX:

- Parallel operation of Voice via H.323 and T.38 Fax via H.323
- Parallel operation of Voice via SIP and T.38 Fax via SIP.

You find details on this in the *OpenScape Xpressions Server Administration* manual. The IP APL cannot be instantiated on a computer system several times. However, it is well possible to install several IP APLs in a distributed XPR system.

2.13.8 SMS Connector

With XPR V7 R1 the SMS APL and the SMSIPAPL were combined in one APL. In the upgrade, already configured lines are automatically converted, so that no special steps are required. The GSM adapter monitoring has changed its behavior. Up to now, the associated SMS APL was completely shut down. For each GSM adapter a line is now available, which is only stopped. The corresponding SNMP message has therefore changed.

Old: *There are technical problems regarding your SmsBox. Shutdown SmsApl.*

New: *There are technical problems regarding your SmsBox. Please verify as soon as possible.*

2.13.9 Smart Client Updates

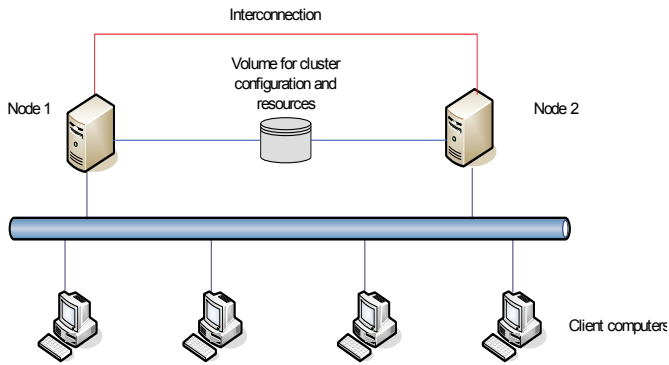
The following client-setup packages can now be selected during the server installation and stored in a share on the server. Via the MSP, an update for the installed clients is then searched for and, if found, made available. In case of components such as the local Outlook forms for SMTP that do not required an MSP the correct update server may be asked for.

- Communications
- Application Builder
- Lotus Notes conference plugin
- Lotus Notes fax printer driver
- Lotus Notes ActiveX components
- Local Outlook forms for SMTP
- Outlook conference plugin
- Server-based forms client components
- Server forms

3 Upgrading an XPR in a Cluster

A cluster is a group of independent computer systems that are called a node and cooperate as one system. The purpose of a cluster is to provide the clients with applications and resources with increased availability or improved performance, and to minimize downtimes. There are two types of clusters:

- In case of a performance cluster, several nodes are combined to increase the performance compared to a single server.
- In an availability cluster, each node is able to perform the tasks of another node from the cluster if required. If a node is not available owing to maintenance work or technical failures, another node immediately takes over the tasks of the unavailable one. The XPR server in a cluster is always operated in an availability cluster, i.e. always only one node may operate as XPR server.



When upgrading an XPR in the cluster, the same specifications apply as for an XPR without cluster. Only the proceedings are different, and also please note the restrictions listed in the following.

3.1 Restrictions

1. Refer to the service documentation *OpenScape Xpressions Release Notice* for details about the supported operating systems for clusters.
2. On the two cluster nodes the following programs may be locally installed on the nodes but not on the cluster. Please note that if licenses are required, one license must be purchased for each node.
   a) Client License Management (CLM)
   b) Business Intelligence and Reporting Tool (BIRT)
   c) Text-To-Speech (TTS)
   d) Automatic Speech Recognition (ASR)
   e) ACD Supervisor
   f) Application Builder
3. The tables in section “Configuring XPR Services as Resources“ in the OpenScape Xpressions *Cluster Installation* setup manual tell you which XPR services can be installed on a cluster.

   Please note the differentiation between mandatory and optional services as well as between services with general (GA) and limited availability (LA).
4. The Connection APL (UCC, Web Conference Server, PostgreSQL and optiClient 130 Web) must neither be installed in the cluster nor locally on a cluster node.
5. C++ 2008 Redistributable must be installed on all available nodes to grant the system starting up smoothly.
6. If you do not perform the application conversion with Ghostscript but with Microsoft Office, you need to install Microsoft Office on both nodes. Please remember that you need two licenses for this purpose.
7. For both installations and upgrades alike applies that audio conferences are not supported for an XPR connected to HiPath 3000 V5, V6 and V7, HiPath 4000 V3 and V4, because the program SIPControl is no longer supported by Dialogic Diva.

3.2 Upgrading from XPR V6 64-bit to XPR V7

3.2.1 Upgrading XPR on Windows Server 2003 in the Cluster

Upgrading an XPR in the cluster requires special proceedings.

IMPORTANT: Update the license service (step 5) before you upgrade the server (step 6). Complications may occur otherwise.

1. Perform a system backup to be able to restore the previous status in case of a failed upgrade.
2. Start the cluster administrator via **Start > Programs > Administrative Tools > Cluster Administrator**. Open a connection to the cluster with **File > Open Connection** or click the corresponding icon in the cluster administrator's toolbar. In the **Action** field select the action **Open connection to cluster**. In the **Cluster or server name** field select the computer name of the virtual server on which the XPR is installed. If no computer name is displayed, click on **Browse** to select one. Click the **OK** button to open the connection to the cluster.
3. Move the group in which the XPR resources are compiled to the node on which the XPR was installed first. This is the node the registry of which contains the

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Cycos AG\Server Installation
```

   folder.

   You move the group by clicking with the right mouse button in the left-hand window of the cluster administrator on the group for the installed XPR server and selecting the **Move Group** option in the context menu.
4. Bring all resources of this XPR group offline. Then bring the license service online. This is important as the replication of the registry in the cluster depends on the license service online status.
5. Execute all instructions given in chapter “Creating a Command Prompt as Resource” of the OpenScape Xpressions *Cluster Installation* setup manual, if no command prompt has yet been created as resource.

IMPORTANT: This command prompt is different from a normal command prompt as the commands executed in it are executed in the cluster context. This means that, for example, the `hostname` command in this command prompt represents the name of the cluster, thus the name you find in the cluster administrator in the XPR group with the resource of type **Network**

Name on the **Parameters** tab in the **Name** field (see installation manual OpenScape Xpressions *Cluster Installation*). If this command is executed in a normal command prompt, the computer name will be put out.

IMPORTANT: All resources this command prompt depends on are automatically brought online also.

IMPORTANT: Start the Windows Explorer exactly in this way as only then the Windows Explorer will be executed in the cluster context.

6. Bring this command prompt online. In this command prompt enter `explorer` and push the <ENTER> key. The Windows Explorer opens.
7. In step 6 on page 124 you have started a Windows Explorer. In this Windows Explorer start the file `XpressionsInstall\Cluster\clusterprep.exe` on the XPR setup medium. Enter the cluster name and click on the **OK** button.

   NOTE: As an alternative you can execute the file `XpressionsInstall\Cluster\clusterprep.exe` in the command prompt in the cluster context that you have started in step 5 on page 123.

   IMPORTANT: Start `clusterprep.exe` exactly in this way as only then it will be executed in the cluster context.

8. Upgrade the license service
   a) Bring the XPR group offline.
   b) In step 6 on page 124 you have started a Windows Explorer. In this Windows Explorer start the file `XpressionsInstall\Prerequisites\LicSvcSetup.exe` on the XPR setup medium. Perform the installation.

      NOTE: As an alternative you can execute the file `XpressionsInstall\Prerequisites\LicSvcSetup.exe` in the command prompt in the cluster context that you have started in step 5 on

page 123.

IMPORTANT: Start `LicSvcSetup.exe` exactly in this way as only then it will be executed in the cluster context.

c) Bring the license service online. Move the XPR group to the second node and test whether the license service can be correctly brought online there also. Move the license service back to the first node.

d) Use this Windows Explorer to start the `XpressionsInstall\Server\Setup.exe` file on the XPR setup medium for the upgrade.

IMPORTANT: **Do not** start the `XpressionsInstall\Setup.exe` file. It may only be used if **no** cluster installation is available.

e) If you wish to install another language, start the `Setup.exe` in the appropriate language directory in this Windows Explorer, for example `XpressionsInstall\Languages\French\Setup.exe`

to install the French language.

IMPORTANT: In the dialogs offered to you, perform exactly the same settings as in step 8d on page 125.

For example, if you have selected the **Repair** option in the server setup, you also need to select **Repair** when installing further languages. If, instead, you have selected the **Modify** option in the server setup, you also need to select **Modify** when installing another language.

9. After the setup has terminated, set the XPR services to *Manual* and specify their login account as described in the chapters “Stopping XPR Services” and “Creating a Login Account for XPR Services” in the OpenScape Xpressions *Cluster Installation* setup manual.
10. If required, check and modify keys, which specify node names, in the registry under `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM` according to the instructions given in chapter “Reassignment of the Computer Name in the Registry“ of the *OpenScape Xpressions Cluster Installation* setup manual.
11. Set the registry key

`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM\MRS\TcpApl\NwPlugTcp\BindAddress`

to the value of the IP address described in chapter “Specifying a new IP Address as Resource” of the OpenScape Xpressions *Cluster Installation* setup manual.

If this key does not exist, create it.

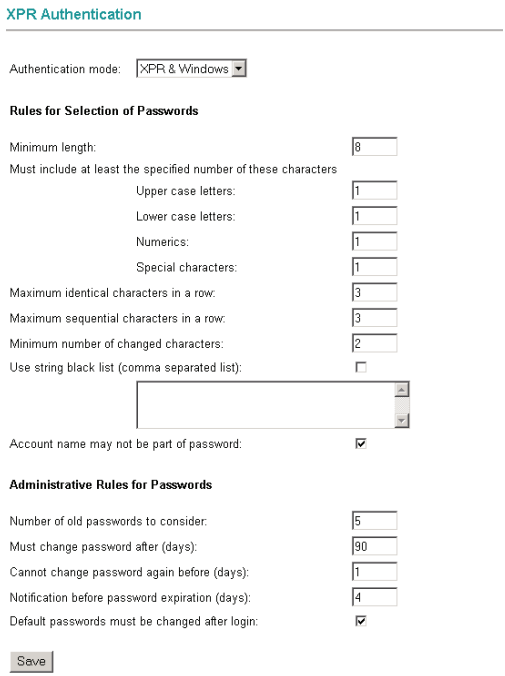
12. For upgrades from a version lower then V7 R1 we recommend to execute the CompactDB tool to reduce the database size by following the instructions in the “CompactDB” section of the administrator documentation *OpenScape Xpressions Server Administration*.

NOTE: You can reduce the database size later at any time when XPR is not in operation and all resources in the XPR group are offline.

---

13. Bring all resources of the XPR group online. We recommend to test whether the XPR can be moved to the second node and back again.
14. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

    The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

15. Execute the following substeps on all nodes to start the license service automatically after a fail over:

a) Connect the setup medium used to the node.

b) Search the `XpressionsInstall\Prerequisites\` directory on the setup medium for the following files and start them locally on the node:

- `vcruntimeinst.exe`
- `vcredist_x86.exe`
- `vcredist_x64.exe`

- `vc9\vcredist_x86.exe`
- `vc10\vcredist_x86.exe`

NOTE: No dialog window announcing the end of this file's execution will be displayed.

16. Start the file `r:\OpenScape\xpr\SDKTools\SystemVersionInfo.exe` or `r:\OpenScape\xpr\SDKTools\FileVersionInfo.exe` to check the version numbers of the installed APLs. In this process, `r:\OpenScape\xpr` is the `xpr` directory on the cluster drive (see the OpenScape Xpressions *Cluster Installation)* setup manual. This file can be started in any command prompt or Windows Explorer. It need not be the command prompt respectively Windows Explorer described in step dd on page 125.

3.2.1.1 Upgrading the Infostor Resource

If the infostor resource is of type **Generic Service** and not of type **mrsClusRes**, the following steps must be performed:

1. Copy the `mrsclusres.dll` file from the `XpressionsInstall\AddOn\Misc\Cluster` directory on the XPR setup medium to the `%WindowsInstallDir%\cluster` directory on both nodes. If Windows does not permit this because of the *File in use* message, stop the cluster service before copying and reboot it after copying.
2. Start on each node a command prompt without cluster context. In the command prompt execute the

   ```
   cluster resourcetype mrsclusres /create /dll:mrsClusRes.dll
   ```

   command. This registers the resource type mrsClusRes with the cluster. Resources of this type can now be created.
3. We recommend to set the second node to **Pause Node** to prevent a possible failover.
4. Open the cluster administrator via **Start > Programs > Administrative Tools > Cluster Administrator**.
5. In the cluster administrator, click with the left mouse button on the folder of the group for the XPR server.
6. Remove all dependencies of other resources, for example of the XPR Message Router, on the Infostor resource.

   IMPORTANT: If you do not perform this step and remove the Infostor resource in the next step, all resources that depend on the Infostor resource will also be removed.

   How to remove the dependencies:

   a) Click with the right mousebutton a resource that depends on the Infostor resource.

   b) Select **Properties**.

   c) Click the **Dependencies** tab.

   d) Push the **Modify** button.

   e) In the **Dependencies** field select the entry for the Infostor resource of type **Generic service**.

   f) Push the **<--** button.

   g) Push the **OK** button.

h) Push the **OK** button.

i) Execute these substeps for all other resources that depend on the Infostor resource.

7. Remove the Infostor resource by clicking it with the right mousebutton and selecting **Delete**.
8. In the cluster administrator, click with the right mouse button on the folder of the group for the XPR server.
9. Select in the context menu the option **New > Resource** or from the **File** menu the option **New > Resource**.

   The **New Resource** dialog opens.
10. In the **Name** field specify a unique name for the service, for example XPR *Information Store Res*.
11. Optional: Enter in the **Description** field a supplementary description for the new service.
12. In the **Resource type** drop-down menu select the **mrsClusRes** option.

IMPORTANT: Very important! Create only one resource of type **mrsClusRes**. If another resource of this type is created, the cluster administrator cannot be operated anymore.

---

13. In the **Group** drop-down menu select the group in which the XPR services are executed.
14. Ignore the **Run this resource in a separate Resource Monitor** option.
15. Click on **Next**.

    The **Possible Owners** dialog appears.
16. From the **Available nodes** list select the nodes to which the cluster configuration and the resources are transferred in case of a failover.

    a) In the **Available nodes** list select the desired node.

    b) Click on the **Add->** button to shift the selected nodes into the **Possible owners** list.

    c) If you want to remove a node from the list **Possible owners**, select this node in the list and click on the **<-Remove** button.
17. Click on the **Next >** button after you have selected all required nodes.

    The **Dependencies** dialog opens.

a) In the **Available resources** list select
   - the resource of type **Network Name**,
   - the resource of the status dispatcher and
   - the drive on which the Infostor files are found (cluster drive).

b) Click the **Add->** button. The selected entries will be moved to the **Resource dependencies** list.

A concluding confirmation dialog is displayed.

18. In this confirmation dialog click on the **OK** button to return to the cluster administrator overview.
19. In step 6 on page 129 you have removed the dependency of other resources on the Infostor resource. These resources must now be made dependend on the Infostor resource again.
20. The configuration of the new resource is thus complete. The right window of the cluster administrator now displays a new resource of type **mrsClusRes**.

NOTE: When creating a resource of type **mrsClusRes**, no parameters and no values are entered for the registry replication.

3.2.1.2 Configuring the stunnel Resource

If no stunnel resource has been configured yet, you need to do this via the following steps.

1. Set on both nodes in the registry folder

`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-Com\MRS\Tcpapl\NWPlugTCP`

the value of the `BindAddress` key to the IP address of the virtual XPR server (see resource of type **IP Address** in the group for the XPR server, **Parameters** tab, **Address** field).

IMPORTANT: Neither enter the IP address of the resource of type **IP Address** of the cluster group nor the IP address of the node.

---

2. On the node on which the XPR installation was performed first (node 1) open the service administration by selecting **Start > Programs > Administrative Tools > Services**.
3. Stop the stunnel service (if it runs) by clicking the service with the right mousebutton and selecting the **Stop Service** option from the context menu.
4. Click with the right mouse button on the stunnel service and select **Properties** from the context menu.
5. In the **Startup type** field select the **Manual** option.
6. Click on the **OK** button to close the dialog.
7. Configure a resource for the stunnel service according to the description in the OpenScape Xpressions *Cluster Installation* manual. Verify that this resource depends on the TCP APL service.
8. Open the cluster administrator on the second node.
9. Stop the stunnel resource if it runs.
10. Move the group with the resources for the XPR to the second node.
11. Open the command prompt in the cluster context, i. e. the command prompt created as resource.
12. In this command prompt enter the `stunnel -install` command using the XPR setup path <XPR_*Install*>`/bin/stunnel`.

IMPORTANT: Enter this command only in the command prompt that exists in the cluster context. This means that, for example, the `hostname` command in this command prompt represents the name of the cluster, thus the name you find in the cluster administrator in the XPR group with the resource of type **Network Name** on the **Parameters** tab in the **Name** field

(see installation manual OpenScape Xpressions *Cluster Installation*). If, in contrast, the `hostname` command is executed in a normal command prompt, the computer name will be put out.

---

13. Bring the stunnel resource online.
    a) In the cluster administrator, click with the right mouse button on the folder of the group for the XPR server.
    b) Select in the right portion the stunnel resource with the right mousebutton.
    c) Select **Bring Online**.

3.2.2 Upgrading XPR on Windows Server 2008/2012 in the Cluster

Upgrading an XPR in the cluster requires special proceedings.

IMPORTANT: Update the license service (step 5) before you upgrade the server (step 6). Complications may occur otherwise.

1. Perform a system backup to be able to restore the previous status in case of a failed upgrade.
2. Start the Failover Cluster Management via **start > Programs > Administrative Tools > Failover Cluster Management**.
3. Move the application in which the XPR resources are compiled to the node on which the XPR was installed first. This is the node the registry of which contains the

`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Cycos AG\Server Installation`

folder.

You move the application by rightclicking the application for the installed XPR server in the left window of the Failover Cluster Management and selecting the option **Move this service or application to another node > 1 - Move to node <name of the first node>** in the context menu.

4. On this node, start the `XpressionsInstall\Cluster\clusterprep.exe` file on the XPR setup medium in a command prompt or in the Windows Explorer. Enter the cluster name and click on the **OK** button.
5. Bring all resources of this XPR application offline. Then bring the license service online. This is important as the replication of the registry in the cluster depends on the license service online status.
6. Upgrade the license service.
   a) Bring the XPR application offline.
   b) Start the `XpressionsInstall\Prerequisites\LicSvcSetup.exe` file on the XPR setup medium in a command prompt or in the Windows Explorer.
   c) Perform the installation.
   d) Bring the license service online. Move the XPR application to the second node and test whether the license service can be correctly brought online there also. Move the license service back to the first node.

If the attempt to bring the resource online fails, you can execute one or both of the substeps 14a on page 136 and 14b on page 136 to solve the problem. This depends on whether the resource's state is **Offline** or **Failed** after the attempt or an error message appears.

7. Bring all resources online that have been configured for the XPR.
8. Execute the `XpressionsInstall\Server\Setup.exe` file to start the upgrade.

IMPORTANT: Do not start the `XpressionsInstall\Setup.exe` file. It may only be used if no cluster installation is available.

---

9. If you wish to install another language, start the `Setup.exe` in the appropriate language directory in this Windows Explorer, for example `XpressionsInstall\Languages\French\Setup.exe` to install the French language.

IMPORTANT: In the dialogs offered to you, perform exactly the same settings as in step 8 on page 135.

For example, if you have selected the **Repair** option in the server setup, you also need to select **Repair** when installing further languages. If, instead, you have selected the **Modify** option in the server setup, you also need to select **Modify** when installing another language.

---

10. After the setup has terminated, set the XPR services to *Manual* and specify their login account as described in the chapters “Stopping XPR Services” and “Assigning a Login Account for XPR Services” in the OpenScape Xpressions *Cluster Installation* setup manual.
11. If required, check and modify keys, which specify node names, in the registry under `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM` according to the instructions given in chapter “Reassignment of the Computer Name in the Registry“ of the *OpenScape Xpressions Cluster Installation* setup manual.
12. Set the registry key

`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM\MRS\TcpApl\NwPlugTcp\BindAddress`

to the value of the IP address described in chapter “Specifying a new IP Address as Resource” of the OpenScape Xpressions *Cluster Installation* setup manual.

If this key does not exist, create it.

13. For upgrades from a version lower then V7 R1 we recommend to execute the CompactDB tool to reduce the database size by following the instructions in the “CompactDB” section of the administrator documentation *OpenScape Xpressions Server Administration*.

    NOTE: You can reduce the database size later at any time when XPR is not in operation and all resources in the XPR group are offline.

14. Bring all resources of the XPR application online. We recommend to test whether the XPR can be moved to the second node and back again.

    If the attempt to bring the resource online fails, you can execute one or both of the following substeps to solve the problem. This depends on whether the resource's state is **Offline** or **Failed** after the attempt or an error message appears:

    a) Open a command prompt and enter the command as follows:

    ```
    sc config <service name> depend= /
    ```

    IMPORTANT: Please note that a blank must follow the equals sign.

    Example:

    ```
    sc config licsvc depend= /
    ```

    Example output of a successful performance:

    ```
    C:\Users\administrator.X>sc config licsvc depend= /
    [SC] ChangeServiceConfig SUCCESS
    C:\Users\administrator.X>
    ```

    IMPORTANT: Be sure **not** to enter a command according to the following pattern:
    `sc config <service name> depend= \`
    The consequence of this wrong command would be that the resource to be created for this service could not be brought online.
    Even in case of this wrong command the described message of successful execution is issued.

    b) Execute the replacement described below:

    IMPORTANT: Very important! Be sure to replace the local computer name **only in the two specified registry database folders `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\SIEMENS` and `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM`** in the following steps. In all other registry folders the local computer name must

definitely be maintained, since otherwise the Windows operating system may not work any more. If required, create a backup copy of the registry before changing keys in it.

Start the registry editor. Click on **Start > Run**. Enter the **regedit** command in the **Open** field. The registry editor starts.

Execute the following substeps to replace the name:

In the **Edit** menu click on the **Find...** option. The **Find** dialog opens.

In the **Find what** field enter the computer name of the local node. Activate the options **Keys**, **Values** and **Data**. Click on **Find next**. The next occurrence of the computer name is displayed.

If you are in the registry database folder `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Siemens` or `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM` (see the status bar), replace the local computer name with the value of <network name> in **Name:<network name>** in the **Server Name** category in the middle section of the Failover Cluster Management.

More changes may have to be performed in a key. If, for example, `XPR` is the name of the XPR server in the cluster system, `TLCLKN1` is the name of the node in the cluster, and the key

`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-COM\MRS\MRS Globals\Monitor Directory`

has, for example, the two-line value

`\\XPR\MrsMonitor`

`\\TLCLKN1\MrsMonitor`

, the second line must be removed without substitution.

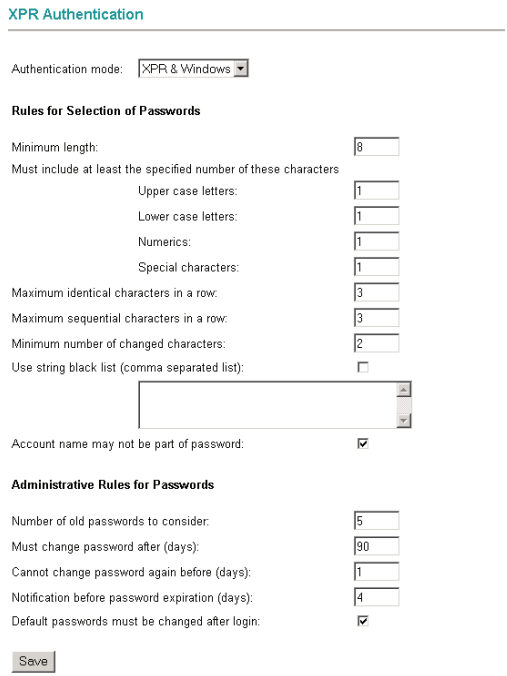
IMPORTANT: Do not replace the name of the local computer with the application's name.

Push key F3 to find the next appearance. In doing so be sure not to leave the above registry folders.

Repeat these steps until all appearances of the computer name are replaced.

15. Bring the XPR application online.
16. Log on to the Web Assistant as administrator and open the menu option **Server settings** > **XPR Authentication**.

    The following page will be displayed:



a) Verify the settings. Refer to the section “Defining Passwort Policies” in the user guide *Web Assistant* for details about the parameters. Consider the section “Securing the User Interfaces” in the planning guide *OpenScape Xpressions Security Checklist*.

b) If you have changed values, click on the **Save** button.

17. Execute the following substeps on all nodes to start the license service automatically after a fail over:

    a) Connect the setup medium used to the node.

    b) Search the `XpressionsInstall\Prerequisites\` directory on the setup medium for the following files and start them locally on the node:

    - `vcruntimeinst.exe`
    - `vcredist_x86.exe`
    - `vcredist_x64.exe`

- `vc9\vcredist_x86.exe`
- `vc10\vcredist_x86.exe`

NOTE: No dialog window announcing the end of this file's execution will be displayed.

18. Start the `r:\OpenScape\xpr\SDKTools\SystemVersionInfo.exe` or `r:\OpenScape\xpr\SDKTools\FileVersionInfo.exe` file to check the version numbers of the installed APLs. `r:\OpenScape\xpr` is the `xpr` directory on the cluster drive (see the installation guide OpenScape Xpressions *Cluster Installation)*.

3.2.2.1 Upgrading the Infostor Resource

If the infostor resource is of type **Generic Service** and not of type **mrsClusRes**, the following steps must be performed:

1. Copy the `mrsclusres.dll` file from the `XpressionsInstall\AddOn\Misc\Cluster` directory on the XPR setup medium to the `%WindowsInstallDir%\cluster` directory on both nodes. If Windows does not permit this because of the *File in use* message, stop the cluster service before copying and reboot it after copying.
2. Start command prompt on each node. In the command prompt execute the

   `cluster resourcetype mrsclusres /create /dll:mrsClusRes.dll`

   command. This registers the resource type mrsClusRes with the cluster. Resources of this type can now be created.
3. We recommend to set the second node to **Pause** to prevent a possible failover.
4. Open the Failover Cluster Management under **start > Programs > Administrative Tools > Failover Cluster Management**.
5. In the Failover Cluster Management, click the folder of the application for the XPR server.
6. Remove all dependencies of other resources, for example of the XPR Message Router, on the Infostor resource.

   IMPORTANT: If you do not perform this step and remove the Infostor resource in the next step, all resources that depend on the Infostor resource will also be removed.

   How to remove the dependencies:

   a) Click with the right mousebutton a resource that depends on the Infostor resource.

   b) Select **Properties**.

   c) Click the **Dependencies** tab.

   d) In the **Specify ...** field select the entry for the Infostor resource of type **Generic service**.

   e) Push the **Delete** button.

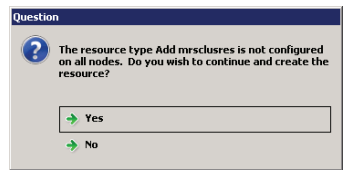
   f) Push the **OK** button.

   g) Execute these substeps for all other resources that depend on the Infostor resource.

7. Remove the Infostor resource by clicking it with the right mousebutton and selecting **Delete**.
8. In the Failover Cluster Management, rightclick the folder of the application for the XPR server.
9. Select **Add a resource > More resources > 8 - Add mrsclusres** in the context menu.

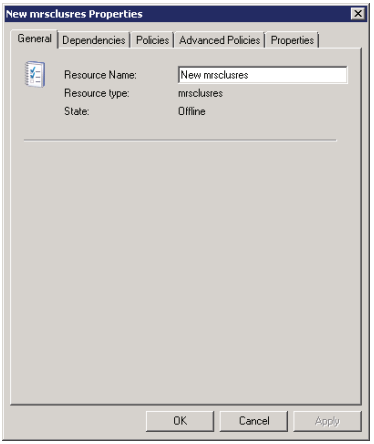
IMPORTANT: Very important! Create only a single resource of type **mrsClusRes**. If another resource of this type is created, the Failover Cluster Management cannot be operated anymore.

If you see the following error message, click on **No**, copy the `mrsclusres.dll` file to **all** nodes and select **Add a resource > More resources > 8 - Add mrsclusres** once more.



10. An entry **New mrsclusres** is created in the Failover Cluster Management under the **Other Resources** category.

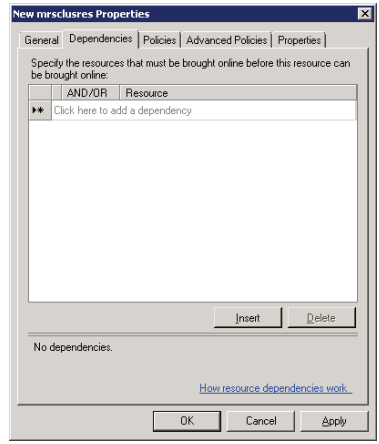
11. Double-click this entry.



NOTE: In case of a resource of type **mrsClusRes**, no parameters and no values are entered for the registry replication.

12. Change the value of field **Resource Name** according to your requirements, for example in `Information Store Res`.

13. Click on the **Dependencies** tab.



a) Click on the **Insert >** button.

b) Click on the triangle to the right of the newly created field.

c) Select **Cluster Disk 2**.

a) Click on the **Insert >** button.

b) Click on the triangle to the right of the newly created field.

c) Select **File Server Res**.

a) Click on the **Insert >** button.

b) Click on the triangle to the right of the newly created field.

a) Select the **Status Dispatcher Res**.

b) Click on the **Insert >** button.

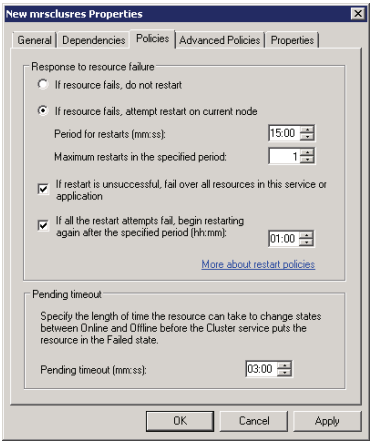
c) Click on the triangle to the right of the newly created field.

d) Select the **Name: UMKernelServer**.

NOTE: It is not sufficient to enter the dependencies of the resource XPR Information Store Res on **File Server Res** and **Status Dispatcher Res**, though XPR Information Store Res depends on **Cluster Disk 2** via **File Server Res** and on **Name: UMKernalServer** via **File Server Res** and via **Status Dispatcher Res** indirectly.

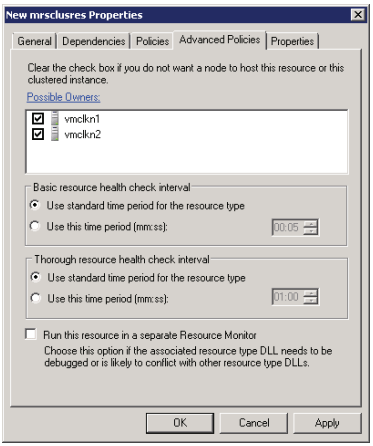
---

14. Click on the **Policies** tab.



15. Perform the settings according to the description in section “Failover and Failback” in the OpenScape Xpressions *Cluster Installation* setup manual.

16. Click on the **Advanced Policies** tab.

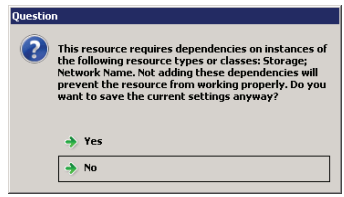


a) Verify that the checkboxes for all cluster nodes are active in the topmost field.

b) Verify that the **Run this resource in a separate Resource Monitor** is inactive.

17. Click on the **OK** button to complete the configuration of the service as resource and to return to the Failover Cluster Management.

18. If some dependencies of this resource on other resources were not entered or all are missing, the following error message appears:



    a) Click on **No**.

    b) Execute step 13 on page 143. Be sure to make XPR Information Store Res dependent on all resources mentioned there.

    c) Click the **OK** button.

19. In the middle section of the Failover Cluster Management select the just created resources with the right mouse button and select **Bring this resource online**.

    If the attempt to bring the resource online fails, you can execute one or both of the substeps 14a on page 136 and 14b on page 136 to solve the problem. This depends on whether the resource's state is **Offline** or **Failed** after the attempt or an error message appears.

NOTE: The Eventlog may deliver further notes for bug fixing. The meaning of an error code is delivered by the `net helpmsg <error code>` command. The `net helpmsg 1075` command delivers for example the following output:
`The dependency service does not exist or has been marked for deletion.`

---

20. In step 6 on page 140 you have removed the dependency of other resources on the Infostor resource. Now make these resources dependend on the Infostor resource again.

21. The configuration of the new resource is thus complete.

3.2.2.2 Configuring the stunnel Resource

If no stunnel resource has been configured yet, you need to do this via the following steps.

1. Set on both nodes in the registry folder

`HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\PP-Com\MRS\Tcpapl\NWPlugTCP`

the value of the BindAddress key to the IP address of the virtual XPR server (value of <IP address> in **IP Address:<IP address>** in the category **Server Name** in the middle section of the Failover Cluster Management). If the `BindAddress` key does not exist, create it (type REG_SZ).

IMPORTANT: Do not enter the IP address of the node.

---

2. On the node on which the XPR installation was performed first (node 1), open the service administration by selecting **Start** > **Programs** > **Administrative Tools** > **Services**.
3. Stop the stunnel service (if it runs) by clicking the service with the right mousebutton and selecting the **Stop Service** option from the context menu.
4. Click with the right mouse button on the stunnel service and select **Properties** from the context menu.
5. In the **Startup type** field select the **Manual** option.
6. Click on the **OK** button to close the dialog.
7. Configure a resource for the stunnel service according to the description in the OpenScape Xpressions *Cluster Installation* manual. Verify that this resource depends on the TCP APL service.
8. Open the Failover Cluster Management on the second node.
9. Stop the stunnel resource if it runs.
10. Move the application with the resources for the XPR to the second node.
11. Enter the following command in a command prompt on the second node:

```
sc create stunnel binpath= "<XPR_Install>/bin/stunnel/
stunnel.exe
```

IMPORTANT: Please note that a blank must follow the equals sign.

---

12. Bring the stunnel resource online.

a) In the Failover Cluster Management, rightclick the folder of the application for the XPR server.

b) Select in the right portion the stunnel resource with the right mousebutton.

c) Select **Bring this resource online**.

If the attempt to bring the resource online fails, you can execute one or both of the substeps 14a on page 136 and 14b on page 136 to solve the problem. This depends on whether the resource's state is **Offline** or **Failed** after the attempt or an error message appears.

NOTE: The Eventlog may deliver further notes for bug fixing. The meaning of an error code is delivered by the `net helpmsg <error code>` command. The `net helpmsg 1075` command delivers for example the following output:

```
The dependency service does not exist or has been marked
for deletion.
```

3.3 Upgrading from XPR V6 32-bit to XPR V7

Execute the following steps:

1. Follow the instructions in Section 2.9.1, “Data Backup on XPR V6 32-bit”, on page 87.

   NOTE: It is irrelevant which of the two nodes is online during the data backup and whether all resources are online.

2. Perform a fresh installation according to the setup guide *OpenScape Xpressions Clusterinstallation* and heed the following points for this process:

   a) The following points of the fresh installation may be identical with the old installation but do not have to.

      - The group name (default: **group0**) for the XPR server
      - The application name for the XPR server
      - The operating system
      - The letter for the quorum drive (default: **r:**)

   b) Heed the instructions in Section 2.9.2, “Installing the XPR V7 Server”, on page 90.

3. Follow the instructions in Section 2.9.3, “Restore on the XPR V7 Server”, on page 92. Heed the following points:

   a) When you execute the `renserv` commands mentioned in Section 2.9.3, “Restore on the XPR V7 Server”, on page 92, use the IP address of the virtual server and none of the following IP addresses:

      - IP address of the cluster
      - IP address of one of the two nodes for the internal cluster connection (Interconnect)
      - IP addresses of the two nodes

      The same applies for the computer names.

      You find details on this in the setup guide *OpenScape Xpressions ClusterInstallation*.

   b) It is irrelevant which of the two nodes is online during the data restore.

3.4 Upgrading from XPR V5 32-bit to XPR V7

Execute the following steps:

1. Follow the instructions in Section 2.10.1, “Backing up Data on XPR V5”, on page 94.

   NOTE: It is irrelevant which of the two nodes is online during the data backup and whether all resources are online.

2. Perform a fresh installation according to the setup guide *OpenScape Xpressions Clusterinstallation* and heed the following points for this process:

   a) The following points of the fresh installation may be identical with the old installation but do not have to.

      - The group name (default: **group0**) for the XPR server
      - The application name for the XPR server
      - The operating system
      - The letter for the quorum drive (default: **r:**)

   b) Heed the instructions in Section 2.10.2, “Installing the XPR V7 Server”, on page 97.

3. Follow the instructions in Section 2.10.3, “Restore on the XPRh V7 Server”, on page 100. Heed the following points:

   a) When you execute the `renserv` commands mentioned in Section 2.10.3, “Restore on the XPRh V7 Server”, on page 100, use the IP address of the virtual server and none of the following IP addresses:

      - IP address of the cluster
      - IP address of one of the two nodes for the internal cluster connection (Interconnect)
      - IP addresses of the two nodes

      The same applies for the computer names.

      You find details on this in the setup guide *OpenScape Xpressions ClusterInstallation*.

   b) It is irrelevant which of the two nodes is online during the data restore.

3.5 Upgrading from MRS 8.03 to XPR V7

Execute the following steps:

1. Follow the instructions in Section 2.11.1, “Backing up Data on MRS 8.03”, on page 103.

   NOTE: It is irrelevant which of the two nodes is online during the data backup and whether all resources are online.

2. Perform a fresh installation according to the setup guide *OpenScape Xpressions Clusterinstallation* and heed the following points for this process:

   a) The following points of the fresh installation may be identical with the old installation but do not have to.

      - The group name (default: **group0**) for the XPR server
      - The application name for the XPR server
      - The operating system
      - The letter for the quorum drive (default: **r:**)

   b) Heed the instructions in Section 2.11.2, “Installing the XPR V7 Server”, on page 106.

3. Follow the instructions in Section 2.11.3, “Restore on the XPR V7 Server”, on page 109. Heed the following points:

   a) When you execute the `renserv` commands mentioned in Section 2.11.3, “Restore on the XPR V7 Server”, on page 109, use the IP address of the virtual server and none of the following IP addresses:

      - IP address of the cluster
      - IP address of one of the two nodes for the internal cluster connection (Interconnect)
      - IP addresses of the two nodes

      The same applies for the computer names.

      You find details on this in the setup guide *OpenScape Xpressions ClusterInstallation*.

   b) It is irrelevant which of the two nodes is online during the data restore.

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