

Upgrading or updating to MiVoice MX-ONE 6.x

INSTALLATION INSTRUCTION



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1 GENERAL

1.1 SCOPE

This document describes the upgrading procedure from MX-ONE 4.x and 5.0 to MX-ONE 6.x, which means a new installation due to the new operating system version, for the MiVoice MX-ONE system.

The document also describes updating of MX-ONE 6.0/6.1/6.2 to MX-ONE 6.3.

1.2 TARGET GROUP

This document is intended for installation-, service-, support technicians and system responsible.

2 PREREQUISITES

For details see installation instructions for *INSTALLING AND CONFIGURING MIVOICE MX-ONE*.

3 PREPARATIONS

For details see installation instructions for *INSTALLING AND CONFIGURING MIVOICE MX-ONE*.

4

SLES11 UPDATE PACKAGES

This section is valid for both SLES Service Packs and for SLES patch packages.

Note: All existing mount points of the remote file system e.g. /srv/ftp, must be removed before starting the update.

Before copying the iso image (also the Recovery Image-MX-ONE_6.3.spX.hfX.rcX.iso could be used as upgrade media for Service Package, SP) or tar file (for patch package), make sure that there is enough free disk space. At least 2 times the size of the SP or patch package is needed.

4.1

MX-ONE SERVICE NODE

4.1.1

PREPARE FOR INSTALLATION OF SLES11 SPX

As user mxone_admin, copy the SLES11 SPX iso image (or patch package tar file) and md5 sum file to the file system at server 1.

Note: If checksum file is missing, the update cannot be done.

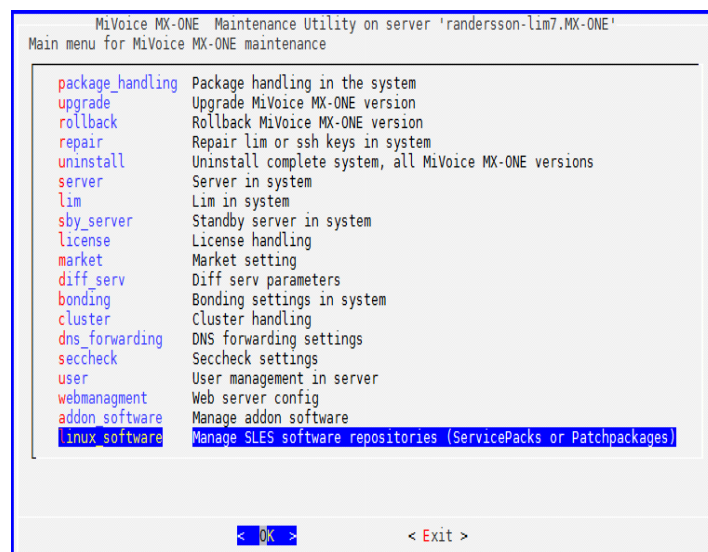


Figure 1: Main menu for MiVoice MX-ONE maintenance

4.1.2

MX-ONE 6.3

Note: Before starting the upgrade, make sure that the Cluster's fallback is set to *Automatic*.

1. Login to server 1 as mxone_admin, and key command
sudo -H /opt/mxone_install/bin/mxone_maintenance to start MX-ONE Maintenance Utility
2. Select option cluster and set fall back option to Automatic.
3. Select option linux_software -> remove to remove existing SLES software repositories (zipper repositories).

4. Select option linux_software -> add to add a repository to all servers in the system.
5. Select option linux_software -> update the system with Service Pack or Patch package
6. After successful update, reboot all servers.

4.1.3

MX-ONE 6.0 (UPGRADING FROM MX-ONE 6.0 SPX TO MX-ONE 6.3)

Note: The MX-ONE 6.0 SPx version of the MX-ONE Maintenance Utility does not have the option for linux upgrade available. Therefore, the MX-ONE 6.3 package must be added and distributed before SLES upgrade is executed.

Load MX-ONE 6.3 MX-ONE Maintenance Utility

1. Login to server 1 as mxone_admin, and key command
`sudo -H /opt/mxone_install/bin/mxone_maintenance` to start MX-ONE Maintenance Utility
2. Select option package handling – add to add MX-ONE 6.3 package to the system.
3. Select option package handling – distribute to distribute MX-ONE 6.3 package across the system.
4. Exit MX-ONE Maintenance Tool.

Upgrade SLES 11 Service Pack or Patch Package

5. Start the new version of mxone_maintenance with command.
`sudo -H /opt/mxone_install/<new mx-version>/target/install_scripts/sn_install_main.sh sles_update 0 0`
6. Select option linux_software -> remove to remove existing SLES software repositories (zipper repositories).
7. Select option linux_software -> add to add a repository to all servers in the system.
8. Select option linux_software -> update to update the system with Service Pack or Patch package.
9. After successful update, reboot all servers.

Upgrade MX-ONE 6.3 software

10. Login to server 1 as mxone_admin, and key command
`sudo -H /opt/mxone_install/bin/mxone_maintenance` to start MX-ONE Maintenance Utility
11. Select option Upgrade MiVoice MX-ONE version-> prepare to prepare the system for upgrade.
12. Select option Upgrade MiVoice MX-ONE version-> upgrade to upgrade the system to MX-ONE 6.3.
13. Follow instruction on screen.

4.2

STANDALONE MEDIA SERVER OR MANAGEMENT SERVER

1. From a server that is upgraded to at least MX-ONE-6.1, copy 2 script files to each standalone server, the files could be placed in /tmp directory.
 - /opt/mxone_install/<new mxone version>/target/install_scripts/standalone_sles_update.sh
 - /opt/mxone_install/<new mxone version>/target/install_scripts/postgres_upgrade.sh
2. Copy the SLES11 SP4 iso (or Recovery_Image_MX-6.3.spX.hfX.rcX.iso) image and md5 sum file to the filesystem to the server.

Note: If checksum file is missing, the update cannot be done.

3. logon as user root on the server do command sh /tmp/standalone_sles_update.sh
4. Select option remove to clean up old software repositories
5. Select option add to add the new SP iso file, also the Recovery_Image-MX-ONE_6.3.spX.hfX.rcX.iso could be used as SP upgrade.
6. Select option update
7. After successful update, reboot the server.

5 UPGRADE TO MIVOICE MX-ONE 6.X

The following steps are included in the upgrade procedure:

1. Collect Telephony data (with PC-Regen-compact).
For more details see 5.2 Collection regeneration of data on page 7.
2. Install MX-ONE 6.x.
For details see installation instructions for *INSTALLING AND CONFIGURING MIVOICE MX-ONE*.
3. Import saved Telephony Data (with PC-Regen-compact)
For more details see 5.3 Import saved telephony data on page 9

5.1 DO PREPARATIONS

For details see chapter 3 Preparations on page 3.

5.2 COLLECTION REGENERATION OF DATA

To save the telephony configuration data from the old MX-ONE Service Node, and to restore the same data in the new MX-ONE Service Node, the upgrading procedure uses PC-Regen-compact for MX-ONE.

Perform the following steps to back up the data from the old MX-ONE

1. Download PC-Regen-compact from the provided web page.
2. Collect the old source data.
3. Back up the telephony data from the old system.
4. Perform the regeneration

5.2.1 COLLECTING DATA FROM SOURCE SYSTEM

For regeneration PC-Regen-compact uses a source and a target directory.

The data collected from the old system shall be stored in the source directory.

The regenerated data will be stored in the target directory.

The default source directory is located as “...**IPC-Regen.compact\source**” at the installation point.

The default target directory is located as “...**IPC-Regen.compact\target**” at the installation point.

For simplicity the whole directory structure ...**IPC-Regen-compact** can be copied to a different place and leaving the installed directory as a reference. This is useful when several systems shall be generated because the default source directory can be used.

If different paths are to be used they need to be specified at runtime.

A batch file to collect the old data is needed. To generate this run the program either from the installation menu (or by clicking on the PC-Regen-compact.exe) and select a target system, a source system and when asked to generate a batch file answer yes.

Following files will be generated:

<code>data_gen.batch</code>	This is the batch file for collecting old data site name.
<code>racep2.batch</code>	This file is to collect customer based recorded voice announcement.
<code>pu_add_info.batch</code>	This file is to collect special program units.
<code>gjts2.batch</code>	This file is used when upgrading from an old TSW based source.

If the file transmission is going to take place from a linux/unix machine, the file **data_gen.batch** is preferably converted to unix format (using dos2unix or equivalent). The rest of this section assumes this is the case.

The files above shall be put under the directory labeled source and zipped together in a special file (that is, **data.zip**). Then this file is moved to a directory, from where the collection takes place, that is the Lim 1 server under directory **/tmp/upgrade**.

The special file is then unzipped in the collection directory on the server.

From the collection directory using SSH sends the following command:

serverLim1/tmp/upgrade # source data_gen.batch | tee TS1log.txt

Zip the output in the collection directory using command:

serverLim1/tmp/upgrade # zip -j pcregenSource.zip *

Note: The -j option does avoid including the directory structure.

Move the file **pcregenSource.zip** to the selected PC-Regen-compact source directory and unzip it.

You now have the necessary data collected under the PC-Regen-compact source directory.

5.2.2

PERFORM THE DATA GENERATION

When the source files are present in the PC-Regen-compact source directory we are ready for a data regeneration.

Run the program from the installation menu (or by clicking on the C-Regen-compact.exe).

Select your target system, your source system.

On the question to generate a batch file answer no,

On the question for syntax check answer no.

You will then get a prompt:

Regeneration MX-One... --> MX-ONE...

Source path : .\source

Target path : .\target

OK? y/n :

Here You get an option to change source and target paths, Otherwise just select y and the regeneration will start.

5.3

IMPORT SAVED TELEPHONY DATA

After installing the new MX-ONE, the following steps need to be performed in PC-Regen for successful regeneration of the telephony data from the old MX-ONE system into the new MX-ONE system

5.3.1

RESTORING SAVED DATA INTO THE MIVOICE MX-ONE 6.X

To restore the telephony data into the new MX-ONE system, the created Init-files first have to be transferred.

1. Zip the folder mentioned in the Target path on the main window of the PC-Regen-compact application. Name it **pcregenTarget.zip**
2. Connect the host system to the new MX-ONE system through the file transfer tool.
3. Connect to MX-ONE through SSH, do as following:
 - a Log on by providing a user name and password
 - b Type in the following command to unzip the target file:
serverLim1/tmp/upgrade # unzip pcregenTarget.Zip
 - c Type in the following command to remove formatting:
serverLim1/tmp/upgrade # dos2unix *
 - d Type in the following command at the prompt:
serverLim1/tmp/upgrade # mdsh -c source REGENCMD.TXT | tee upgradeLog.txt
 - e Wait till the prompt reappears. This command will run the Init files, restoring the telephony data from the old MX-ONE into the MX-ONE system.
 - f Check the file **upgradeLog.txt** for no or wrong loaded data.
Note: The MX-ONE will periodically perform data backups
 - g Check the file upgradeLog.txt for no or wrong loaded data.
 - h Finally, back up the system data by typing in the following command:
serverLim1/tmp/upgrade mdsh -c data_back_up
4. Exit the SSH sessions and close the file transfer tool

5.3.2

MANUALLY REGENERATED COMMANDS

Some commands cannot be regenerated by PC-Regen-compact. However, these commands are stored in the Target folder in the MX-ONE system in corresponding text files. Based on the need, run the corresponding SET command manually at the MDSH prompt with the data in the corresponding file to configure the new MX-ONE system with the data from the old MX-ONE system.

Below is a list of commands that cannot be regenerated by PC-Regen:

Command Not Regenerated	Corresponding File Name
<i>alarm_cfg_reread</i>	alarm_cfg_reread
<i>extension_key (if extra key panels are used for Mitel 6800/6900 SIP phones, and upgrading is done from an MX-ONE 5.x system)</i>	extension_key
<i>license_reread</i>	license_reread

The commands that are listed below are stored in the Target folder in the MX-ONE 6.x system as text files for further references.

Command	Corresponding File Name
<i>data_info</i>	Data_info
<i>trace -print 0</i>	Trace
<i>license_status</i>	License
<i>TRDIP</i>	TRDIP
<i>callinfo_output</i>	callinfo_output

5.3.3

AUTOMATICALLY REGENERATED COMMANDS

Table 1 MML Commands

Commands
AC: <i>ACGRI,ACTNI, ACPAC</i>
AD: <i>ADCOI, ADINI</i>
AS: <i>ASPAC</i>
CD: <i>CDCOI*, CDINI*</i> (* = replaced, see section 4.3.5)
CH: <i>CHCMI</i>
EX: <i>EXCCS,EXTEI</i>
GD: <i>GDNDI</i>
GH: <i>GHGMI, GHGRI</i>
GP: <i>GPAGI, GPGMI, GPGR I</i>
IC: <i>ICFUC, ICFUI, ICMWP</i>
IS: <i>ISEPI, ISFUI</i>
KS: <i>KSANI,KSCHC, KSEXI,KSFKC,KSMDI, KSADC</i>
LC: <i>LCDDI,LCLDI,LCOPI,LCTDI</i>
NC: <i>NCCOI, NCGMI, NCGRI,NCICI, NCNOI, NCSGI</i>
OP: <i>OPADC, OPCGS, OPCTS,OPERI, OPISS, OPRSC, OPSAI,OPNEI, OPCEI</i>
PA: <i>PAGII</i>
RA: <i>RACEI, RADSI, RAEQI, RAGAI, RAGMI, RAGPI, RAMDI, RADNI</i>
RI: <i>RIANI</i>
RO: <i>ROAPI, ROCAI, ROCDI, RODAI, RODDI, RODII, RODNI, ROEQI, ROND I, RORNI, ROVNI</i>
SP: <i>SPEXI</i>
TR: <i>TRDPI, TRRSI</i>
VM: <i>VMFUI, VMGEI,VMPOI</i>

Table 2 Unix-style commands

Commands
<i>account_code_init</i>
<i>alarm_action</i>
<i>alarm_input</i>
<i>alarm_output</i>

Commands
<i>auth_code</i>
<i>board_config</i>
<i>callinfo_condcode_set</i>
<i>callinfo_mask_set, callinfo_output_set, callinfo_status_set, callinfo_qos_report_set</i>
<i>call_list</i>
<i>call_list_profile</i>
<i>csta</i>
<i>dect_cfp, dect_extension, dect_rfp, dect_system_id</i>
<i>diversion (new)</i>
<i>diversion_common (new)</i>
<i>diversion_system (new)</i>
<i>exchange_info</i>
<i>extension, extension_key*, extension_profile, extension_text, extension_registration_distribution</i> * = extension_key cannot be automatically regenerated if extra key panels are used for Mitel 6800/6900 SIP phones.
<i>external_database</i>
<i>external_directory</i>
<i>global_traffic_data (new)</i>
<i>ip_domain</i>
<i>ip_extension</i>
<i>ip_gatekeeper</i>
<i>language_strings_override</i>
<i>media_gateway_config</i>
<i>media_gateway_interface</i>
<i>media_encryption_enable</i>
<i>name</i>
<i>number_conversion_initiate</i>
<i>number_initiate</i>
<i>number_data_initiate</i>
<i>parallel_ringing</i>
<i>pcm_config, pcm_synchronization</i>
<i>remote_extension</i>
<i>route_data_common (new)</i>
<i>sip_domain</i>
<i>sip_route</i>
<i>sec_policy</i>
<i>sms_server_initiate</i>
<i>sms_client_initiate</i>
<i>traffic_matrix (new)</i>
<i>trsp_synchronization, trsp_connection</i>

Note: `recorded_announcement_prompt` initiate file needs to be manually updated by entering the values of parameters "-host" and "--path" and also uncommenting the entries of initiate file before executing them in Service Node.

Example:

```
#recorded_announcement_prompt --load -m 1A --host $HOST$
--file message001.wav --path $PATH$
```

The above initiation needs to be uncommented and should manually edit the values of "-host" and "-path"

```
recorded_announcement_prompt --load -m 1A --host 203.0.113.10 --file
message001.wav --path user/rva/messages.
```

5.3.4

MOVED OR REMOVED COMMANDS AND PARAMETERS

- DECT commands are replaced to Unix-style commands replacing the CX commands as follows:
 - CXAKX: *dect_extension*
 - CXSYX: *dect_system_id*
 - CXCFP: *dect_cfp*
 - CXRFP: *dect_rfp*
- The CDCOx commands are replaced by the Unix-style *diversion_common* commands. The SYTDS command is partly replaced by the *diversion_system* command. Also PARNUM 121 from the ASPAx commands is moved to *diversion_system*. The CDINx commands are replaced by the *diversion* commands.
- NIINx commands are replaced by the *name* commands.
- In *extension* command the parameter --third-party-enhanced-services is replaced by --third-party-sip-client.
- In *extension* and *extension_text* command *language* parameter is replaced by *language-code*.
- Command *csta_initiate* is replaced by *csta* and *csta_status* is removed.
- The command EMFUI in MD110/TSW is not supported in MX-ONE.
- The CPDLx-commands are replaced by the *route_data_common* commands.
- The SYDAS, SYIDI and SYTDS are replaced by the *global_traffic_data* commands.
- The TCMAx-commands are replaced by the *traffic_matrix* commands.

6 UPDATE FROM MX-ONE 6.0 TO MX-ONE 6.X

When updating from MX-ONE 6.0 to 6.x, the SLES11/Linux operating system is the same, but a new Service Pack (for 6.3 the SLES11 SP4) is needed.

Note: Rollback from a MiVoice MX-ONE 6.3 version to an earlier version is not possible. To recover the old system a re-installation of SLES and MiVoice MX-ONE system is needed

The following steps are included in the update procedure:

1. Do preparations. For details see *INSTALLING AND CONFIGURING MIVOICE MX-ONE*, section “Installation and initial configuration”.
2. Save Telephony data (with PC-Regen-compact). For details see section 5.2.1 Collecting data from source system on page 7.
3. Download SW to the Service Nodes. For details see section 4 “SLES11 update packages”.
4. Regenerate the data with PC-Regen-compact. For details see section 5.2.2 Perform the data generation on page 8
5. Restore the data to the new MX-ONE system For details see section 5.3.1 Restoring saved data into the mivoice MX-ONE 6.x on page 9
6. Re-initiate certain data not covered by PC-Regen (if any).

6.1 UPDATE PROVISIONING MANAGER TO 6.X VERSION

The Provisioning Manager application has to be updated separately. See *INSTALLING MX-ONE PROVISIONING MANAGER*.

6.2 MANUAL RE-INITIATIONS (OPTIONAL)

If there were other optional functions in the MX-ONE 6.0 system, not covered by the update and regeneration functions above, re-initiate them manually. See the respective function’s installation documentation.

7

APPENDIX A

The upgrade process of Telephony Server does in normal circumstances not require any manual handling of configuration and/or data connected to Service Node Manager (SNM) or Provisioning Manager (PM). However, the process might be interrupted for some unexpected reason. This could for instance be a manual interaction or a power failure.

To enable the possibility to restore configuration and data after such failure you are advice to take the following steps before the upgrade process starts. In case of need for restoration, please contact your service partner for advice.

7.1

SAVE DATA FOR SERVICE NODE MANAGER

7.1.1

DATABASE BACKUP

1. Make sure that you are logged in as root.
2. Create a folder named, for example, /home/eri_sn_admin/TSBackup/, and change the permission to allow postgres to write in the folder, for example `chmod 757 /home/eri_sn_admin/TSBackup`.
3. Save all data. Use the command `su postgres -c "pg_dump -a -D -d WBM -f /home/eri_sn_admin/TSBackup/wbm_data_only.sql"`. It may be necessary to enter the password for the database, which by default is default.
4. Save all data of QoS Database. Use the command `su postgres -c "pg_dump -U postgres QoS -f /home/eri_sn_admin/TSBackup/QoS_entire_data.sql -C --inserts"`. It may prompt you to enter the password for the database, which is default.
5. Copy the created file to an external media, for example a USB memory, or another safe location.

7.1.2

TEMPLATE DATA BACKUP

1. Make sure that you are logged in as root on the Service Node Manager Server.
2. To archive the templates, use the command: `tar -cf customer.tar --directory=/opt/jboss/server/default/conf/templates customer`.
3. Copy the customer.tar file to an external media, for example, the same USB memory, if used for the Manager TS configuration data.

7.2

SAVE DATA FOR PROVISIONING MANAGER

7.2.1

GENERAL

If Provisioning Manager and Service Node Manager are installed on the same server the data for Provisioning Manager must be saved, because upgrading Service Node Manager will clear the database also used by Provisioning Manager.

Note: Below is a summary of the backup procedure. For more information, see the User guide for Provisioning Manager, chapter Using backup & Restore.

1. Start a shell.
2. Create a folder `/home/eri_sn_admin/TSBackup/` if it does not exist.
Use `mkdir -p /home/eri_sn_admin/TSBackup/`.
3. Enter the command `mp_config` and select Database backup.
4. The backup MP database will be stored in directory `/var/opt/eri_mp_config/` with a file name starting with "mpManagerPostgresDump" followed by date, rpm version and release.
5. Save all data of the Quartz database, use the command `su postgres -c "pg_dump -a -D -d Quartz -f /home/eri_sn_admin/TSBackup/Quartz_data_only.sql"`. It may prompt you to enter the password for the database, which is default.
6. Copy the created file (or the entire directory) to an external media, for example a USB memory, or another safe location.

7.2.2

MP TEMPLATE DATA BACKUP

1. Make sure you are logged on as root on the Provisioning Manager server. This is useful if Provisioning Manager is on a different server.
2. To archive the templates, use the command: `tar -cf customer_mp.tar --directory=/opt/jboss/server/default/conf/templates customer`.
3. Copy the `customer_mp.tar` file to an external media, for example the same USB memory, if used for the Manager TS configuration data.