

# Repair Service Node Server(s)

OPERATING DIRECTIONS



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# 1

## GENERAL

The MX-ONE maintenance Utility is used for bringing a repaired server in operation. The utility is started by command *sudo -H /opt/mxone\_install/bin/mxone\_maintenance* and select option *Repair Service Node Server (LIM) or ssh keys in system*.

During repair, connected units such as trunk lines and DECT, analog, and digital phones are out of order.

The MX-ONE maintenance Utility cannot be used for repair of several servers at the same time. If more than one server needs to be repaired, each server must be brought into operation one at a time.

If more than one server is to be repaired, the procedure has to be repeated for each server.

For detailed information on hardware replacement, see *REPLACING MISCELLANEOUS HARDWARE* and *REPLACING BOARDS IN MITEL MX-ONE MEDIA GATEWAYS*.

## 2 PREREQUISITES

The following prerequisites apply when repairing a server using the *Repair Server* script:

- Server IP addresses
- A copy of the latest configuration mirror (the **/mxone/mirror/** directory). The mirror for each server is a zipped file i.e. `mxone_server1.tar.gz`.
- A Recovery Image (on USB, recommended) or installation files for the SUSE Linux operating system and the MX-ONE Service Node.
- *mxone\_admin* authority.
- *root* authority.
- The new server must have same amount of memory that the server that should be repaired.
- The installation media must have the same version as the installed system (that needs to be repaired).

**Note:** If SN Server 1 (LIM1) is the faulty server that needs to be recovered, a new license file has to be ordered.

## 3 TOOLS, AIDS

O&M terminal with access to the MX-ONE Service Node.

## 4 REFERENCES

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## 5 PROCEDURE

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## 6 EXECUTION

### 6.1 ONE SERVER (LIM) SYSTEM

1. Install and configure a new server using the same configuration as the old one. For details see *INSTALLING AND CONFIGURING MIVOICE MX-ONE*.
2. Restore system data from safety backup.
  - a) Make a safety backup accessible from the MX-ONE Service Node.
  - b) Check the safety backup and make sure that the files that need to be restored are available in the backup.
  - c) On Server 1, change the working directory to / (root directory).

**Note:** It is very important to change the current working directory to / (root) to prevent the safety backup from being restored to the wrong directory. The safety backup will always be restored to the current working directory (according to the pwd printout).

- d) List the files in the safety backup with the command **tar -t --file=xxx**, where xxx is the safety backup file. It is possible to find the differences between the safety backup and the file on the system with the command **tar -d --file=xxx** (current working directory must be /.) For more information about tar, use the command **tar -help**.
- e) To restore all the files from the backup and overwrite the existing files, enter the command **tar -x -p --overwrite -v --file=xxx**
- f) Restore the configuration mirror. Use the command *config\_restore* to restore a configuration mirror from MX-ONE Service Node 1 to all MX-ONE Service Nodes. The command is executed on MX-ONE Service Node 1.
- g) Restart the **xinetd** service on all MX-ONE Service Nodes with MX-ONE Classic Stackable Media Gateways.  
Use the command `/etc/init.d/xinetd restart`.
- h) Restart LDAP and the MX-ONE Service Node, key the command `sudo -H /opt/mxone_install/bin/mxone_maintenance`.  
Select the option repair -> restart\_ldap\_and\_serviceNode.
- i) A new license file has to be ordered to match the new server.

## 6.2

## SYSTEM WITH MULTIPLE SERVERS (LIMS)

1. On a non-faulty SN server (LIM) log in as user *mxone\_admin*.
2. Key command *sudo -H /opt/mxone\_install/bin/mxone\_maintenance* to start *MX-ONE Maintenance Utility*.
3. Select option *repair -> generate\_netconfig* to generate network configuration file for the faulty server (LIM). Follow the on-screen instructions.
4. Replace faulty server.  
For detailed information on hardware replacement, see *REPLACING MISCELLANEOUS HARDWARE* and *REPLACING BOARDS IN MEDIAGATEWAYS*.
5. If not already done, connect a console (keyboard and monitor) to the new server.
6. Login as *root* and start the network configuration.  
Key command *#!/sbin/net\_setup*
7. The MX-ONESetup dialog is started.
8. Select option *repair lim* and follow the on-screen instructions.  
**Note:** Use network configuration file for faulty server (LIM) created in Step 3.
9. MX-ONE is being installed.
10. On SN server 1 (regular LIM 1) log in as user *mxone\_admin*.
11. Key command *sudo -H /opt/mxone\_install/bin/mxone\_maintenance* to start *MX-ONE Maintenance Utility*.
12. Select option *repair -> repair lim* to repair the failing server, and follow the on-screen instructions.
13. A logout and new login is needed, to get the right credentials.
14. The procedure is complete. If more than one SN server shall be repaired, repeat the procedure for each server, otherwise go to chapter 7 Termination on page 8.

## 6.3

### RESTORE MASTER SERVER (LIM1)

This section is valid when all servers in the system have to be repaired. If any other SN server is functional, it is possible to follow the procedure describes in section "6.2".

1. Replace the faulty server.  
For detailed information on hardware replacement, see *REPLACING MISCELLANEOUS HARDWARE* and *REPLACING BOARDS IN MEDIAGATEWAYS*.
2. If not already done, connect a console (keyboard and monitor) to the new server.
3. Login as *root* and copy the config mirror file for Master Server (regular LIM1) to the /root directory. Use USB memory for file transfer.
4. Start the network configuration. Key command `#/sbin/net_setup`
5. The MX-ONESetup dialog is started.
6. Select option *Repair Master Server using Config Mirror file* and follow the on-screen instructions.

**Note:** Use the config mirror file copied in Step 3.

7. MX-ONE is being installed.
8. On SN server 1 (LIM 1) log in as user *mxone\_admin*.
9. Key command `sudo -H /opt/mxone_install/bin/mxone_maintenance` to start *MX-ONE Maintenance Utility*.
10. Select option *repair* -> *repair lim* to repair the failing server, and follow the on-screen instructions.
11. The procedure is complete. If more than one SN server shall be repaired, repeat the procedure described in "6.2" for each server, otherwise go to chapter 7 Termination on page 8.

## 6.4

### COMPLETE MULTI-SERVER SYSTEM

To restore a complete multi-server (multi-LIM) system, first restore the master server (LIM 1) using procedure described in "6.3 Restore Master Server (LIM1)", then restore one server at a time using the procedure described in section "6.2".

When all servers are recovered:

1. Use the command `config_restore` to restore the same data version in the whole system.
2. Use the command `data_restore` to restore exchange data.

## 7

## TERMINATION

Verify that the operation was successful. Use the command *status -system*. Also run the command *trace -print 0*.

Normally adding a SN server (LIM) does not generate any alarms. Check if there are any alarms in the system. Use the command *alarm -p* to print alarms in the alarm log. If there are any alarms, handle them in order of severity. See the fault tracing information for *MIVOICE MX-ONE FAULT LOCATION*.

If exchange data have been modified, perform a data backup of the system. See the *ADMINISTRATOR USER'S GUIDE*.

If Lim 1 is repaired (modified), ensure that you install a new license file for the modified version.

Additionally, you must run the `exchange_info` command to check that all LIMs has the same patch status when the system is restored.