

# Remove LIM

OPERATIONAL DIRECTIONS



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# 1

## GENERAL

These operational directions show the removal of a LIM, i.e. an MX-ONE Service Node Server and its associated Media Gateways, but several LIMs can be removed using the same procedure.

**Note:** MX-ONE software is not removed from the removed LIM Server. Depending on the applications used, e.g. IPsec, manual removal of selected software can be necessary. This is then done after the LIM removal procedure.

# 2

## PREREQUISITES

### 2.1

### CONDITIONS

The following conditions must apply before this procedure can be completed:

- This procedure should preferably be performed at low traffic. When the removal of LIM is taking place the exchange data must not be changed in the system.
- An experienced technician is available on site.
- The technician has the adequate system privilege for the task to be performed.
- Affiliations towards other LIMs in the system must be removed before the LIM is removed from the system. Affiliations embrace all exchange data and functions that concern the relevant LIM, internal group hunting, for example.
- All active common functions have to be relocated to a LIM that is not to be removed
- The LIM to be removed should not have any Hardware or Media Gateway configured.
- It is not possible to remove Server number one.
- It is not possible to remove the Server that is the current Master Server, see the command *status -system*. In that case the Master Server has to be changed.
- The LIM should not be part of a cluster, remove it from cluster prior starting the LIM remove execution.

### 2.2

### DATA

The following data must be known to complete this procedure:

- The LIM number for the LIM to be removed
- The IP address of eth0 for the LIM to be removed

## 3 AIDS

Monitor the execution with the command  
**tail -F /var/log/messages.**

## 4 REFERENCES

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## 5 PROCEDURE

Before starting the procedure, Make a Safety Backup of the system and save the resulting files in a safe place. For more information about backups, see the *ADMINISTRATOR USER'S GUIDE*.

Select action from the screen menu and follow the operations as they are presented on the screen.

## 6 EXECUTION

### 6.1 NORMAL CASE

#### 6.1.1 BACKUP

Make a data backup. Use the command *data\_backup*. See the *ADMINISTRATOR USER'S GUIDE*.

Use the command *config\_mirror*. See the *ADMINISTRATOR USER'S GUIDE*.

Make a safety backup. See the *ADMINISTRATOR USER'S GUIDE*.

#### 6.1.2 MOVE IF MASTER

Check that the LIM to remove is not the current Master Server. Check with the command *status -system*. To change the active Master Server, reload the Server with the command *reload -lim*.

#### 6.1.3 CHECK DEPENDENCIES

On LIM 1log in as user *mxone\_admin*.

Check that no affiliations to other LIMs in the system remains in the LIM to be removed. Remove if any.

##### 6.1.3.1 Remove Group Data

There should be no groups, possibly referenced from other Servers, assigned to directory numbers in the Server that is to be removed. Different groups to look out for are, for example, ACD groups, internal hunt groups, call pickup groups, and PBX operator groups.

Print the ACD group category. Use the command *ACGCP:GRP=ALL*; If any ACD groups are found for the Server, find the member directory numbers. Use the command *ACGMP:GRP=*. Remove all members in the group. Use the command *ACGME:DIR=*. Then erase the ACD group with the command *ACGRE:GRP=*.

Check if group hunting is set in the Server. Use the command *GHDAP:GRP=ALL*; If set, erase all members. Use the command *GHGME*. When the members are removed, remove the hunt group. Use the command *GHGRE*. Group hunting can also be set through MX-ONE Service Node Manager.

Check if there are call pickup members in the Server. Use the command *GPDAP:GRP=ALL*; For all call pickup groups remove its members. Use the command *GPGME:GRP=*. Then remove the group. Use the command *GPGRE*. Call pickup can also be set through MX-ONE Service Node Manager.

For removing PBX operators, see the operational directions for *PBX Operator Traffic*, *OP*, in the chapter Erase the PBX Operator.

## 6.1.3.2

*Remove Equipment*

Check if there are initiated line individuals in the (LIM) Server. Use the command `resource_status --equipment -l x`

If line individuals exist use the command `resource_status --extensions -d all -l x`, to get directory numbers and equipment positions.

If **analog** or **CAS** individuals exist, remove these. Use the command `EXTEE :DIR=`.

If **digital** lines exist, remove these. Use the command `KSEXE :DIR=`.

## 6.1.3.3

*Remove Servers*

Is there any SMS server on the (LIM) Server?

Check with the command `sms_server_print -dir all -lim x`. If so, end it with the command `sms_server_end -dir`.

## 6.1.3.4

*Remove IP Terminals*

Use the command `mxone_data -p` to find the IP address of the (LIM) Server to be removed.

Check which IP extension directory numbers that are initiated on the IP address of the Server to be removed. Use the command `ip_extension -p`.

Use the command `ip_extension -e -d` to remove the terminals.

## 6.1.3.5

*Remove Gatekeepers*

Check if the (LIM) Server serves as an IP gatekeeper.

Use the command `ip_gatekeeper -p -l`.

Check if there are domains related to the (LIM) Server. Use the command `ip_domain -p -l`.

Remove any set domains. Use the command `ip_domain -e --ip_domain_name`.

## 6.1.3.6

*Remove Generic Extensions*

Check if there are generic extensions tied to the (LIM) Server. Use the command `resource_status --extensions -d all -l x`.

Remove those found for the (LIM) Server. Use the command `extension -e -d`

## 6.1.3.7

*Remove Trunks*

Check if there are any routes associated to the (LIM) Server. Use the command `ROEDP :ROU=ALL,TRU=ALL;`

Remove any route equipment with the command `ROECE:EQU=,CDU=`.

Check if there are any public exchange numbers for the (LIM) Server. Use the command `route_data_common -p`.

If any, remove these. Use the command `route_data_common -e`.

## 6.1.4

## REMOVE MEDIA GATEWAY

Make sure that MX-ONE is running properly. Use the command *alarm* to print (list) alarms in the alarm log.

Use the command *board\_list* to see if any boards are assigned. If that is the case remove them. Use the command *board\_config -remove -bpos*.

Check that no hardware or Media Gateway is configured in the (LIM) Server. Use the command *media\_gateway\_config -p -lim*.

Remove if any. Use the command *media\_gateway\_config -e --media-gateway*.

When completed, perform a data backup. Use the command *data\_backup*. See the *ADMINISTRATOR USER'S GUIDE*

## 6.1.5

## RELOCATE COMMON FUNCTIONS

Recheck that the (LIM) Server to remove is not the current Master (LIM) Server. Check with the command *status -system*.

Before the relocation, perform a data backup. Use the command *data\_backup*. See the *ADMINISTRATOR USER'S GUIDE*.

Check that no active common function or non duplicated common function is located in the (LIM) Server. Relocate common functions if needed.

Check common function relocation with the command *status -comfunc*.

Change active common functions by manually blocking the Server. Use the command *block -lim*. Observe that blocking a Server with active common functions will lead to a data reload. You will lose non backup exchange data. Relocated units will be moved back if a data reload occurs.

Relocation of common functions is performed with the commands *pu\_remove* and *pu\_add*. Be sure to not remove the active version of a common function. Make a data backup when units have been relocated.

Make a data backup. Use the command *data\_backup*. See the *ADMINISTRATOR USER'S GUIDE*.

## 6.1.6

## PERFORM CONCLUDING ROUTINES

1. On LIM 1 log in as user *mxone\_admin*.
2. Key command *sudo -H /opt/mxone\_install/bin/mxone\_maintenance* to start MX-ONE Maintenance Utility.
3. Remove a LIM from system by choosing option LIM in system.  
Follow the procedure as instructed on screen.
4. Remove server from system by choosing option Server in system.  
Follow the procedure as instructed on screen.
5. The procedure is complete. go to chapter 7 Termination on page 8.

The remove LIM procedure executes a data backup as its final action.

**Note:** There is still software installed on the removed server. In order to remove the software, login as root and execute the command *ts\_uninstall*.

## 6.2 POSSIBLE FAULT SITUATIONS

### 6.2.1 RECOVERY OF REMOVED LIM

The remove LIM action will fail if a system measure with higher priority interferes. If a data reload is executed in the system before a successful data backup is performed the system will try to recover the removed Server. In this situation it could be necessary to run *eri\_sn restart* on the removed Server to recover it.

## 7 TERMINATION

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

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

When the operation is successful, the MX-ONE services are shutdown in the removed Server.