

MiVoice MX-ONE

Manager Applications - Description

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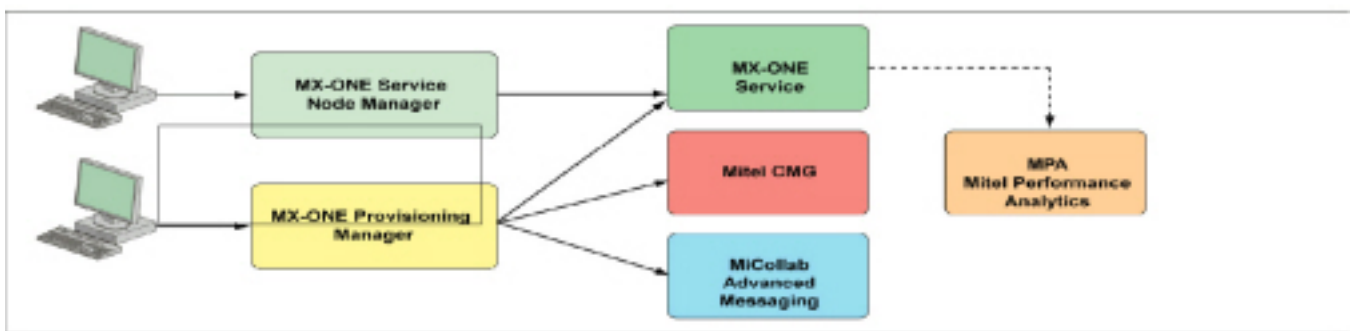
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Introduction

This document describes the MiVoice MX-ONE Manager suite, comprising the following management applications:

- MX-ONE Service Node Manager (system management)
- MX-ONE Provisioning Manager (user and extension management)
- Mitel Performance Analytics (fault and performance management based on SNMP). Also known as the MPA application (and former MarWatch).

Figure 1.1: MX-ONE Manager



The MiVoice MX-ONE Manager suite has the following capabilities:

- Enables configuration and operation of the MX-ONE.
- Provides a common, single point of entry for user and extension administration.
- Provides advanced fault and performance management that is easy to integrate with existing tools or frameworks.
- Provides consistent management user interfaces across the MX-ONE components and applications.

MX-ONE Manager provides management functions for MX-ONE according to the Fault, Configuration, Accounting, Performance, and Security Management (FCAPS) paradigm.

Scope

This document provides a high-level description of the MX-ONE Manager suite.

Target Group

This document is intended for:

- Users of MX-ONE Manager applications
- IT managers
- System Administrators
- Support personnel.

Glossary

For a complete list of abbreviations and a glossary, see the document ACRONYMS, ABBREVIATIONS AND GLOSSARY.

MX-ONE Service Node Manager

The MX-ONE Service Node Manager is a web-based application, accessed using a web browser. The application provides functionality for configuring and managing the MX-ONE including, for example:

- Setting up MX-ONE
- Managing media gateways
- Managing routes
- Managing operators
- Managing groups, number plans, common categories, and service profiles
- Creating and maintaining configuration files for IP phones
- Monitoring IP phones
- Backing up and restoring data in MX-ONE
- Uploading MML commands in the command line interface
- Viewing information about hardware and software revisions
- Viewing security, event, and audit trail logs

Figure 2.1: MX-ONE Service Node Manager GUI

The screenshot shows the MX-ONE Service Node Manager GUI. At the top, there is a navigation bar with tabs: Initial Setup, Number Analysis, Telephony, Services, System, Tools, and Logs. Below this is a sub-navigation bar with 'Walkthroughs' and 'Application ID'. The main content area is titled 'Full Setup - Walkthrough - Step 1 / 28'. It contains a purpose statement: 'Purpose: Set site name to show on login screen, and add contact info for the system administrators.' and a menu location: 'Menu location: Initial Setup - Application ID'. There are '< Back' and 'Next >' buttons. Below this is the 'Application ID' section with 'Apply' and 'Cancel' buttons. A table-like structure shows the configuration details: Type (MX-ONE Manager Telephony System), Revision (5.0_SP2), Site Name (empty field), and Site Information (empty text area). At the bottom, there are 'Apply' and 'Cancel' buttons.

The MX-ONE Service Node Manager is a software component running on the MX-ONE. It is based on the JBoss Application Server and is implemented as a Web-based management tool.

MX-ONE Provisioning Manager or Linux user accounts are used for logging in to the MX-ONE Service Node Manager. Which type of user to use for the MX-ONE Service Node Manager log-in is defined by the authentication method.

If the MX-ONE Provisioning Manager is used for authentication, the MX-ONE Provisioning Manager user database is used for authenticating user log-in to the MX-ONE Service Node Manager. If Linux is used

for authentication, standard Linux procedures are used for the authentication. Which authentication method to use for SNM is set during installation, when running the MX-ONE Maintenance Utility, option Web server config.

The MX-ONE Service Node Manager supports both HTTP and HTTPS signaling and can be accessed from anywhere, using an ordinary web browser. For HTTPS, it is possible to use either a self-signed certificate or a certificate issued by a commercial Certification Authority (CA).

For more information about the MX-ONE Provisioning Manager and MX-ONE Service Node Manager certificate handling, see the description for *AD Authentication*.

For more information about the MX-ONE Service Node Manager, see the description for *MX-ONE Service Node Manager*.

Features

The following tasks and features are available in the MX-ONE Service Node Manager GUI:

Application ID

Manages the installation (site) name and the add or change information about the site.

Backup & Restore

Performs a backup of the Service Node Manager database as well as exchange data. All data can be restored by using the restore function.

Batch Operation

Batch operations are used to create several configuration tasks in a batch, and can be used for repeated or frequently performed operations.

Call Center

Manages automatic call distribution.

Call Diversion

Manages both the system call diversion and the customer call diversion.

Call Discrimination

Manages group names and permitted numbers.

Command Line Interface

The interface allows administrators to enter commands and view system responses without having to log out or change terminals.

CSTA Server

Sets up a CSTA server. Using CSTA, third-party applications can be used for call control.

DECT System

Sets up the DECT system. This includes system ID, DECT boards, Base Stations, SMS servers and SMS clients.

Emergency Number

Makes it possible to add or change emergency number.

External lines

Manages different external lines features, for example, route.

Groups

Manages different group features, for example, hunt group.

Hardware

Makes it possible to block hardware and view the time zone information.

Information System Connections

Sets up information system connections (for Message Waiting, Voice Mail etc.)

IP Phone Configuration

Manages different IP Phone features, for example, IP Phone Administrator.

Logs

Views the security logs, the audit trails and the event logs.

Messages

Manages message diversion and message waiting setup.

Number Plan

Manages numbers, number series and external number length.

Operators

Manages different operator features, for example, operator groups.

Quality of Service

Provides tools for measurement of Quality of Service.

Revisions

Displays hardware and software revisions for the system.

Routing Server

Sets up a routing server (it can either be an MX-ONE traffic carrying node in the network or an MX-ONE node with server functionality).

Setting up a Branch Office

Makes it possible to set up branch offices (but only if the branch office contains an Enterprise Branch Node (EBN)).

System Data

Manages different equipment and system features, for example, equipment data.

System Data for Extensions

Manages, for example, account codes, common categories and common service profiles.

Voice Announcements

Manages voice announcements.

Interactions with Other Applications and Products

The MX-ONE Service Node Manager makes it possible to configure, for example, number plans, routes, branch offices, SMS for DECT, routing servers, and trunks, in the MX-ONE.

The MX-ONE Service Node Manager is also used to create and update configuration files for the IP phones.

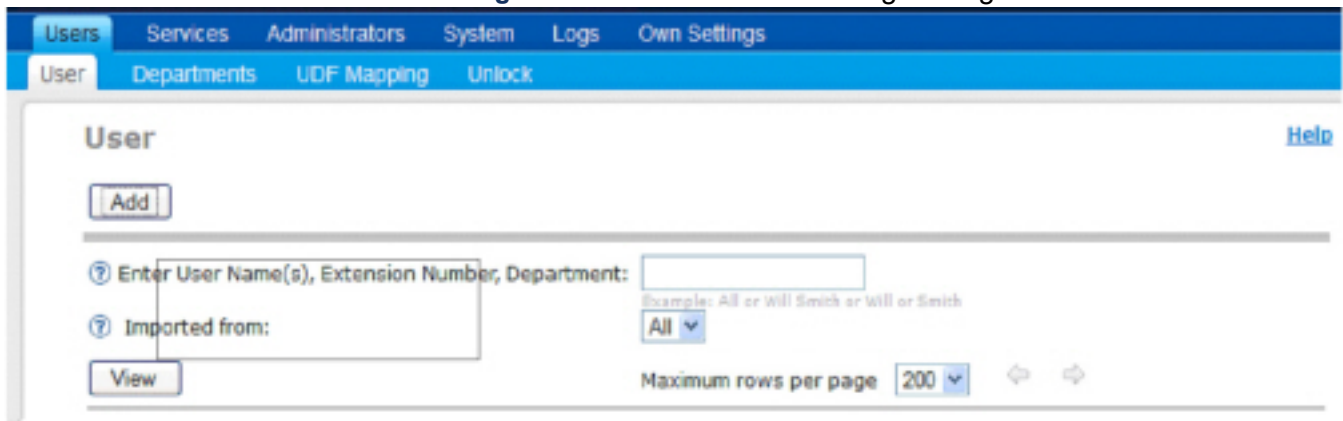
MX-ONE Provisioning Manager

MX-ONE Provisioning Manager is the end-user and extension management application in the MX-ONE, providing a single point of entry for managing user and extension data in the MX-ONE, the MX-ONE MiCollab Advanced Messaging, CMG, and FMC Provisioning Server.

The MX-ONE Provisioning Manager also provides functionality for (for example):

- Managing administrator accounts.
- Adding subsystems, for example, the MX-ONE Service Nodes and CMG servers.
- Importing and exporting user and extension data.
- Performing backup of user and extension data.
- Unlocking locked users.

Figure 3.1: MX-ONE Provisioning Manager

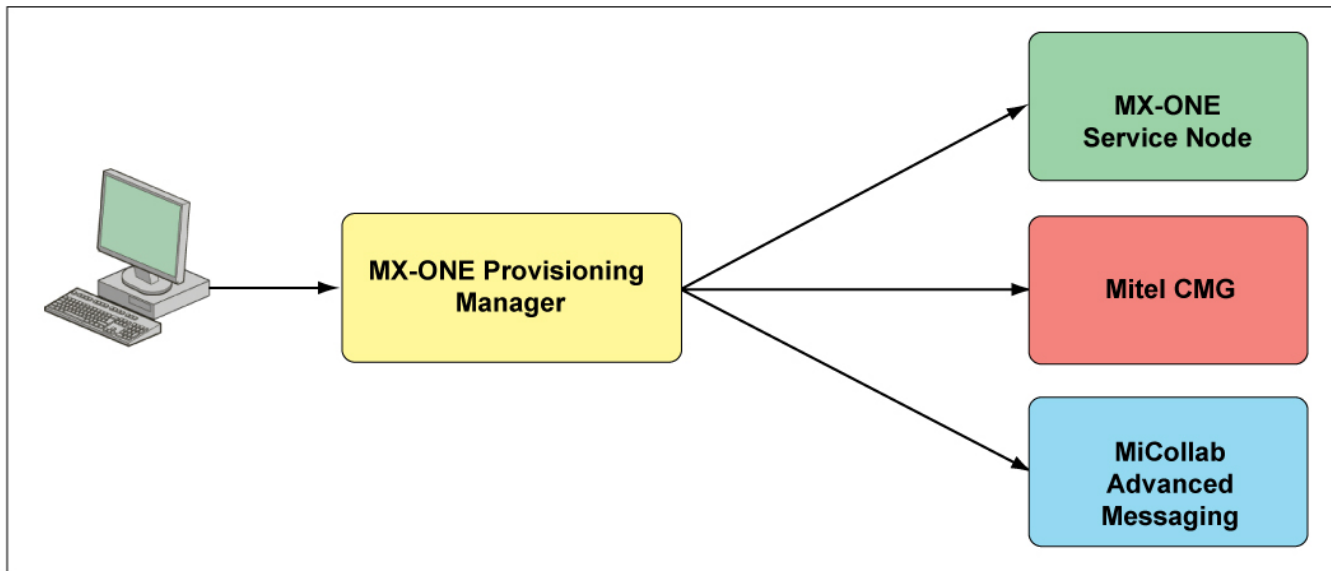


When changing user and extension data in the MX-ONE Provisioning Manager the corresponding data in the MX-ONE, MiCollab Advanced Messaging, and CMG databases is automatically updated accordingly.

NOTE: The MX-ONE Provisioning Manager database is the master user and extension database in the MX-ONE. The MX-ONE Provisioning Manager must therefore be used when, for example, adding or deleting users. Changing user or extension data in CMG or the MX-ONE will cause unsynchronized data in the MX-ONE databases.

Application specific user and extension data, for example, time zone settings in CMG, is managed using the management tool of the specific application. Time zone settings, for example, are managed using CMG's OfficeWeb or Directory Manager.

Figure 3.2: User and extension data flow in MX-ONE



All users created in the MX-ONE Provisioning Manager are assigned a security profile. A security profile is a set of privileges that defines the user's access in the system, that is, what the user is allowed to do.

The MX-ONE Provisioning Manager is a software component that can be installed on a stand alone SuSE Linux server or be co-installed on the MX-ONE Service Node hardware. The MX-ONE Provisioning Manager is based on the JBoss Application Server and is implemented as a Web-based management tool.

For more information, see description for *MX-ONE Provisioning Manager*.

Features

The following features are part of the MX-ONE Provisioning Manager:

Access Rights

User access is restricted by the privileges included in the user's security profile. The privileges restrict which tasks the user has access to

Assignment of services to users

Subsystems that have been registered in the MX-ONE Provisioning Manager provide a number of services that can be configured for the users.

End-user interface

End-users can log in to the MX-ONE Provisioning Manager and view their own settings and extensions assigned to them

Import of user and department data

User data and department data can be imported to the MX-ONE Provisioning Manager from other systems, e.g. Microsoft Active Directory (AD).

Migration from other system

Migrates users and departments from other systems. For example, D.N.A., data can be extracted from the D.N.A. system and imported into the MX-ONE Provisioning Manager

Synchronization of the MX-ONE Provisioning Manager data and Subsystem data

Inconsistencies between the MX-ONE Provisioning Manager data and subsystem data can occur if the MX-ONE Provisioning Manager has been restored using the Backup & Restore task, and if the subsystems were not restored at the same time. If inconsistencies occur, a synchronization is needed. Inconsistencies can also occur if user or extension data is modified in CMG or the MX-ONE.

Interactions with Other Applications and Products

The MX-ONE components providing user services (such as the MX-ONE Service Node or CMG) are added as subsystems in the MX-ONE Provisioning Manager. The MX-ONE Provisioning Manager is the primary application for user and extension management for the added subsystems and changing user or extension data directly in the subsystem will cause inconsistent data.

The following MX-ONE components can be added in the MX-ONE Provisioning Manager as subsystems:

- FMC Provisioning Server.
- CMG Server
- MiCollab Advanced Messaging (former OneBox/Messaging Server)
- Microsoft Active Directory
- MX-ONE Service Node

User, extension, and department data can be imported from:

- Any system using CSV files.
- CMG
- D.N.A.
- Microsoft Active Directory

Data in MX-ONE Provisioning Manager can be exported to:

- CMG
- XML files.

If the subsystem has a web-based user interface, a link to the subsystem will be available in the MX-ONE Provisioning Manager, making the MX-ONE Provisioning Manager a common interface for reaching all its subsystems.

When the MX-ONE Provisioning Manager and the MX-ONE Service Node Manager coexist on the same server, the MX-ONE Provisioning Manager will have the same certificate as the MX-ONE Service Node Manager. That is, if the MX-ONE Service Node Manager uses HTTPS, the MX-ONE Provisioning Manager will also use HTTPS.

Mitel Performance Analytics

The Mitel Performance Analytics, MPA, is an optional application for supervision of the status of system components and of alarms.

MPA consists of a number of web services running on either a cloud-hosted computing platform or on-premises computing platform. There are several components to MPA. The remote 'Probe' installed in non-Internet accessible networks maintains databases of status and events, and provides a web portal with access security. Additionally, MPA has a Remote Access Service that provides a secure "cross-connect" for remote access to the customer network.

A Mitel/Aastra branded MIB developed for MX-ONE is used.

See the MPA System Guide (2.1 or later) for details.

Supported Device Boards

There are several tasks in the management applications that interact with the MiVoice MX-ONE system HW.

Not all installed HW is supported for all tasks in MX-ONE Service Node Manager (SNM) and MX-ONE Provisioning Manager (PM). Guide lines are provided below.

In general, and except for the tasks add and change, all the boards listed in Parameter Description for BRDID, in Technical Reference Guide, MML parameters, are supported by MX-ONE Service Node Manager/MX-ONE Provisioning Manager.

The supported HW is not identical for the different tasks available in the support systems suite. The tasks described below are view, remove, add, change, board list, blocking and equipment vacancies.

Add/Change

Changing and adding tasks can only be executed for board-id's with signaling type as indicated in the table below.

Supported Board Id / Name	SW Name (Signaling type)
118 (ELU34)	EL6 (Extension Line Analog)
128 (ELU34/6)	EL6 (Extension Line Analog)
121 (ELU31/3)	CTL (Cordless DECT Telephone Line)
127 (ELU31/4)	CTL (Cordless DECT Telephone Line)
117 (ELU33)	KL1 (Extension Line Digital)
58 (TLU79, ISDN/BRA)	SL60 (Digital ISDN 2B+D)
125 (PRI, ISDN/MGU)	SL60 (Digital ISDN 30B+D)
57 (TLU76/11)	SL60 (Digital ISDN 30B+D)
27 (TLU**3)	EL7 (CAS Extension Line)

View/Remove

The view and remove tasks supports all HW installed in the applicable system(s), i.e. all extensions/trunks/operators/etc are visible irrespective of the HW version initiated on. They can also be removed from the system(s).

Board List

The board list task support all the boards initiated in the MX-ONE, i.e. BRDID 1-255.

Blocking

The blocking task in MX-ONE Service Node Manager supports the following board ID's and signaling.

Supported Board Id / Name	SW Name (Signaling type)
118 (ELU34)	EL6 (Extension Line Analog)
128 (ELU34/6)	EL6 (Extension Line Analog)
121 (ELU31/3)	CTL (Cordless DECT Telephone Line)
127 (ELU31/4)	CTL (Cordless DECT Telephone Line)
117 (ELU33)	KL1 (Extension Line Digital)
58 (TLU79, ISDN/BRA)	SL60 (Digital ISDN 2B+D)
125 (PRI, ISDN/MGU)	SL60 (Digital ISDN 30B+D)
57 (TLU76/11)	SL60 (Digital ISDN 30B+D)
125 (PRI, ISDN/MGU)	SL63 (Digital ISDN 23B+D)
71 (TLU77/1)	SL63 (Digital ISDN 23B+D)
124 (TLU83)	TL11 (Trunk Line)
96 (ALU2)	AL (Alarm Line)
102 (TMU/2)	AD (Auxiliary Device, Tone/Multi-pty Line)
27 (TLU**3)	EL7 (CAS Extension Line)

Equipment Vacancies

The table below shows the boards and signaling type that are supported by the MX-ONE Service Node Manager.

Supported Board Id / Name	SW Name (Signaling type)
118 (ELU34)	EL6 (Extension Line Analog)
128 (ELU34/6)	EL6 (Extension Line Analog)
117 (ELU33)	KL1 (Extension Line Digital)
58 (TLU79, ISDN/BRA)	SL60 (Digital ISDN 2B+D)

Supported Board Id / Name	SW Name (Signaling type)
125 (PRI, ISDN/MGU)	SL60 (Digital ISDN 30B+D)
57 (TLU76/11)	SL60 (Digital ISDN 30B+D)
125 (PRI, ISDN/MGU)	SL63 (Digital ISDN 23B+D)
71 (TLU77/1, US ISDN)	SL63 (Digital ISDN 23B+D)

Equipment Configuration

The equipment configuration task is only checking the configuration of the server, i.e. no relation to board id's.

Reference Documents

Server Redundancy - 157_15431-ANF90114

