



A MITEL
PRODUCT
GUIDE

MiVoice MX-ONE

MX-ONE Provisioning Manager User Guide

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This chapter contains the following sections:

- [Scope](#)
- [Target Group](#)
- [Internet Browser Settings](#)

This user guide describes a recommended workflow for adding data into MX-ONE Provisioning Manager and how to use the system. MX-ONE Provisioning Manager (PM) is a web-based management tool used to manage users and administrators for both MX-ONE and MX-ONE Provisioning Manager.

1.1 Scope

The user guide contains:

- A workflow describing in which order to add data into PM
- A description of the navigation and the user interface in PM
- An overview of how to perform actions in PM
- Additional information for some tasks
- PM system messages and error handling

1.2 Target Group

This document is intended for users of MX-ONE Provisioning Manager and support personnel.

1.3 Internet Browser Settings

There are a few settings and aspects that needs to be considered to optimize function and performance:

- Javascript must be enabled in the browser in order to use PM.
- The browser must be configured to refresh pages on every visit. For information about browser configuration, see help and documentation specific for your browser.
- Installing many plug-ins in the browser may affect the rendering performance of the browser and may lead to longer lead time to display the web pages. PM does not require any browser plug-ins.

Using MX-ONE Provisioning Manager

3

This chapter contains the following sections:

- [Logging In and Logging Out](#)
- [Navigating in MX-ONE Provisioning Manager](#)
- [Enabling the Automatic Logout Indicator](#)

In MX-ONE Provisioning Manager (PM) there is a number of configuration areas, for example, Users and System. Each configuration area contains a number of configuration tasks, for example, Departments and Subsystem. The configuration tasks are used to set up users, administrators, and their services.

This section describes the user interface and navigation in PM. How to use each task is explained in the online help, see [Using the Help](#).

For information about troubleshooting, see [FAULT HANDLING OF MX-ONE PROVISIONING MANAGER](#).

2.1 Logging In and Logging Out

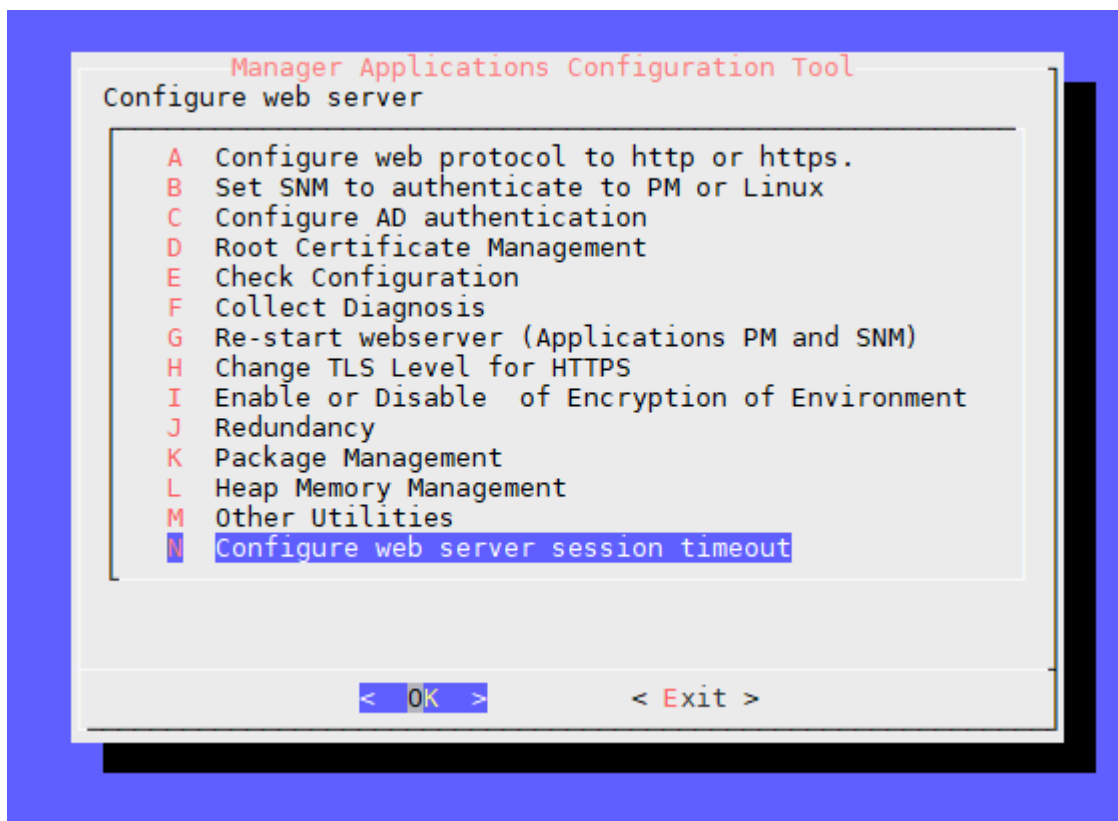
Browse to the login screen of MX-ONE Provisioning Manager. Enter User Id and password provided by the administrator to log in to the application, the User Id and password are case sensitive. After three failed login attempts the user is locked and must be unlocked by an administrator assigned the privilege to unlock users. A user assigned the privilege Auto Unlock, for example the System Setup Admin User, will be automatically unlocked every 20 minutes time interval.

Click Logout in the upper right corner to log out from PM. If the browser window is closed, the user is automatically logged out.

The application has a time limit after which an inactive user is automatically logged out. The time limit is 45 minutes by default, the time left before automatic logout is indicated in the browser status bar (lower left corner).

The time limit can be customized up to a maximum time of 45 minutes using the `webserver_config` tool as shown in the following image:

Figure 1: Configure Web Server Session Timeout



To be able to see this indicator, the browser must be configured for allowing status bar updates using Java Script.

For more information, see Enabling the Automatic Logout Indicator.

2.2 Navigating in MX-ONE Provisioning Manager

The user interface is divided into menu tabs and submenus containing different configuration tasks. For most of the tasks it is possible to view, add, change or remove configuration items. How to perform different actions is found in chapter 4, Actions.

Figure 2: MX-ONE Provisioning Manager User Interface

Table 1: User interface items

Item	Description
A	Main menu
B	Submenu
C	Work area
D	Help frame











Note:












Do not use the **Back** and **Forward** buttons in the browser. Using these buttons will result in an error message. Reload the page to go back to MX-ONE Provisioning Manager.



2.2.1 Icons, Symbols and other Graphical Elements

The following icons and symbols are used in MX-ONE Provisioning Manager:

Table 2: Icons and Symbols in MX-ONE Provisioning Manager

Symbol	Function	Description
	Help	Displays information about the property and how to configure it.
	Change	Change the properties for an existing configuration item.
	View Details	View the details of a configuration item.
	Remove	Remove the configuration item.
	Add new using this as template	Add a new configuration item using an existing item as a template.
	Create template from this	Create a template with the values in the existing configuration item.
	Filter	Display or hide the fields used to filter the list.
	Sort the list	Sort the list in ascending or descending order. The arrow pointing in both directions indicates that the column is unsorted.
	Mandatory	It is mandatory to set a value for this property.
	Undo changes	Restore the value to the previously saved value

Symbol	Function	Description
	Edit field	Enable the field for editing.
	Information	Information exclamation mark followed by system information.
	Restore	Restore the system to a previous state.
	Backup	Keeps the Backup of the current system state.
	Download	Download a template in .xml format.
	Unlock	Unlock a locked user.
	Run	Run a selected batch operation.
	Multi terminal conversion	Conversion of single terminal (Generic extension) to multi terminal.
	Activate	Activate the set personal number list, that is, change status from Set to Active.
	Deactivate	Deactivate the active personal number list, that is, change status from Active to Set
	Not Set	The status of the personal number list is Not Set that is, the list has no defined call sequences.

Symbol	Function	Description
	Set	The status of the personal number list is Set that is, the list has defined call sequences but it is not active.
	Active	The status of the personal number list is Active, that is, the list deflects incoming calls according to the defined call sequences.

2.2.2 Using the Help

There are several levels of Help in MX-ONE Provisioning Manager:

- **User Guide:** This user guide, which is found in the upper right corner of the application.
- **Help:** Online help for a specific task that provides information needed to complete the task. The help is displayed in a pop-up window or in the Help frame.
- **Online context help:** is displayed in a pop-up window for a specific property. The context help describes the property's usage, options and if special conditions must be considered.

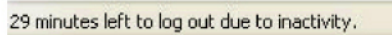
2.2.3 Basic or Advanced Settings

Property settings that are not often used and not mandatory are grouped in advanced settings for a task. Some fields in advanced settings have default values. The advanced settings are displayed by clicking Advanced. Basic settings are displayed by clicking Basic.

2.3 Enabling the Automatic Logout Indicator

MX-ONE Provisioning Manager comprises a function for displaying the remaining time until an automatic logout due to inactivity is performed. The information is displayed in the status bar of the browser.

Figure 3: Automatic logout indicator



29 minutes left to log out due to inactivity.

To be able to see this information, the browser must be configured for allowing status bar updates using Java Script. For information on how to enable this function in the browser, see the browser documentation.

This chapter contains the following sections:

- [Self Services](#)
- [Adding Data](#)
- [Viewing Data](#)
- [Comparing Data](#)
- [Searching for Users](#)
- [Changing Data](#)
- [Removing Data](#)
- [Printing Data](#)
- [Swapping Equipment Positions](#)
- [Handling Templates](#)
- [Using a Multistep Button](#)
- [Using Shortcuts](#)
- [Using Backup & Restore](#)
- [Subsystem Backup](#)

This section describes the actions that can be performed in the different tasks. Most of the actions can be performed at different stages, for example from a result screen or from a list view.

Figure 4: List view

User Id	Last Name	First Name	Extension / MiVoice MX-ONE	Department(s)	Import from	Customer	CloudLink Server	CloudLink Role
Alacarte	Alacarte	Alacarte	1035 / 10.211.159.94	Company01				
Pavan33	Pavan33	Pavan33	1035 / 10.211.159.94	Company01				
Pavan36	Pavan36	Pavan36	1036 / 10.211.159.94	Company01		8		USER

3.1 Self Services

The **Forgot your password** link on the login page of the GUI, makes it possible for users to get a new password. This is useful if the user has forgotten the password or if the user's account has been locked.

The following steps must be done to get a new password:

1. Click on the **Forgot your password** link. The Forgot Password screen is opened.
2. Enter a valid user id and press **Submit**.
3. A confirmation message are shown and a new password has been sent to the user's e-mail address.

Note:

The **Forgot your password** link is only shown when a mail server is connected to the system.

3.2 Adding Data

Data can be added to a new configuration item in the following ways:

1. Click **Add....** System default values are displayed for the new configuration item.

To create a configuration item without using a template, the value <No Template> must be selected in the **Using Template** drop-down list before clicking the button. To create a configuration item using a template, see *4.10.3 Using a Template to Create a Configuration Item on page 19*.

2. From a result screen or a view details screen, click **Add from this....** The previously added configuration item is used as a template.
3. From a list view, click **Add new using this as template** icon. The selected configuration item is used as a template.


Some configuration tasks have predefined values and can only be changed.

Note:

When a user is added in the **User** task, it is automatically assigned the security profile **End User**. An end user can be promoted to administrator by assigning the user a different security profile and defining access to departments and locations in the **Administrator** task.


3.3 Viewing Data

Configuration items can be viewed in the following ways:

- For some tasks the list view is displayed by clicking View. The list displays the existing configuration items with a subset of the property values or all property values.
- From a list view, click  (View details). The details of the configuration item are displayed. Click on the arrows to view the previous or the next configuration item.
- From a list view, select one or more configuration items, by clicking their check boxes, and then click View. The details of the selected configuration items are displayed simultaneously.

Data for selected configuration items can also be compared, see Comparing data.




3.3.1 Filtering Data in List Views

In some tasks, for example the User task, it is possible to filter the list in the list view to find specific configuration items. To display or hide the fields to enter the search criteria in, click  (Filter).

To filter the list, enter the search criteria in one or more fields and click Filter. Wildcards can be used in the search criteria, a question mark (?) to replace one character or an asterisk (*) to replace zero or more characters.

3.3.2 Sorting Listviews

The list in the listview can be sorted by clicking the arrows displayed for the columns:

-  (Sort by <column name>): the column is unsorted, clicking it sorts the list by the items in that column in ascending order
-  (Sort descending): the column is sorted in ascending order, clicking it sorts the list by the items in that column in descending order
-  (Sort ascending): the column is sorted in descending order, clicking it sorts the list by the items in that column in ascending order

3.4 Comparing Data

Configuration item properties can be compared with the compare function. The compare function is available in list views.

Perform the following steps to compare two configuration items:

1. Select two items to compare in the list.
2. Click **Compare**.

A new screen with the result of the comparison is displayed. Property values that differ in the comparison are highlighted. The property values can be changed by clicking one of the **Change <item> ...** buttons.

Property	Value	Value
User Id	Pavan33	Pavan36
First Name	Pavan33	Pavan36
Last Name	Pavan33	Pavan36
Security Profile	End User	End User
Email Address	Pavan33@mitel-test.com	Pavan36@mitel-test.com
Mobile Phone 2	4125345342	9876785

Property	Value	Value
CloudLink Server	8	8
CloudLink Role	USER	USER
Department(s)	Company01; Location01	Company01; Location01

Property	Value	Value
Use Last Selection	No	No
Provisioning Manager Language	English	English



Property	Value	Value
Extension / MiVoice MX-ONE	1035/10.211.159.94	1036/10.211.159.94
Secret / Main User / UDF / IVR / VoiceMail / BluStar Web	false/false/false/false/true	false/false/false/false/true

3.5 Searching for Users

In the User task list view and when adding an administrator, it is possible to search for particular users. In the field, enter All to view a list of all users, User Id, first name, last name, a combination of last name and first name (in that order), extension number or department and click View or Search. Searching for users by only entering the first part of the name is possible. To search on first name only, enter space and then first name. Wildcards can be used, a question mark (?) to replace one character or an asterisk (*) to replace zero or more characters.

3.6 Changing Data

Configuration items can be changed in the following ways:


- From a list view, click  (Change). The configuration item is opened and the set values can be edited.
- From a list view, select one or more configuration items and click Change.... Makes it possible to change values for all selected configuration items at the same time. If changing values for more than one configuration item,  (Change) enables the field.
- From a result screen, click Change This.... The configuration item is opened and the set values can be edited.

To restore the previously saved value in a field, that is to undo the

change, click  (Undo Change). Click Apply to save and apply the changes.

3.7 Removing Data

Configuration items can be removed in the following ways:

- From a list view, click  (Remove).
- From a list view, select one or more configuration items and click Remove.
- From a result screen, click Remove This.

A pop-up confirmation window is displayed before a configuration item is removed.

3.8 Printing Data

Configuration data can be printed in the following ways:

- From a list view, click Print.... Prints the properties of selected configuration items.
- From a list view, click the Print All link. Prints the properties of all existing configuration items.
- From a view details screen, click the Print link. Prints the properties of the configuration item.

Clicking Print..., Print All or Print opens a pop-up window that displays the print preview.

Example:



















Printing Security Profile

1. Go to the Administrators tab and then Security Profile.
2. Select items to print.

Note: Select less than ten (10) items.

3. Click the Print link.
4. A pop-up window opens that displays the print preview.
5. Click Print to open the browser print dialog box, make desired selections and print the page.

3.9 Swapping Equipment Positions

		Extension 	Server / Equipment Position 	Extension Type 	Telephony System 
<input type="checkbox"/>	    	3050	1	IP	WBM85, version 6.1 SP1
<input type="checkbox"/>	    	3051	1	IP	WBM85, version 6.1 SP1
<input type="checkbox"/>	    	3052	1	IP	WBM85, version 6.1 SP1
<input type="checkbox"/>	    	3053	1	IP	WBM85, version 6.1 SP1

Change... Remove Print... Compare View Swap

Figure 4: List-view, including the Swap button

To swap two Equipment Positions, perform the following steps:

1. Select two extensions of the same type from the list.
2. Click on Swap.

3.10 Handling Templates


A template is a set of predefined values that can be used when a new configuration item is added. Templates are used to simplify the process of adding many configuration items with similar property values. Only property values that can be identical for several configuration items can be set in the template. Property values set in templates will not be set in MX-ONE.

Click the Manage Templates link in a task to display the list view with the existing templates for that task. In the list view, the templates are displayed with the defined name, the type, the user that created it, and the date when it was created, for example,

Digital extension_DigitalExtension (by jsmith, 15/02/08)

3.10.1 Creating a Template for a Configuration Item

There are two ways to create a template:

- Create a new template, that is, a template with no predefined values:
 1. Click the Manage Templates link.
 2. Click Add New... and enter property values in the configuration task where applicable.
 3. Enter a template name and click Apply to save the template.
- Create a template based on an existing configuration item:
 1. Click  in the list view
 2. Enter a template name and click Apply to save the template.

Note:

Creating a template will not alter any data in MX-ONE.

3.10.2 Uploading or Downloading a Template

Templates can be created in one system and transferred to another. To upload a template, click Upload....

To download a template, click  (Download). Templates are saved in .xml format.

3.10.3 Using a Template to Create a Configuration Item

To use a template to create a configuration item, perform the following:


1. Select a template from the list.

2. Click **Add New...** and enter property values for the configuration item where applicable.
3. Click **Apply** to save the new configuration item.

3.11 Using a Multistep Button

Multistep buttons are used to make a detour from task A to task B to add or change configuration items in task B before continuing the configuration of an item in task A. Multistep buttons are used when values in a list are configuration items set in another task.

1. To make a detour from task A to task B to edit the values in the drop-down list, click Edit....

2. Click Add New... to add a new configuration item, click  (Change)

to edit an existing one, or click  (Remove) to remove an existing one.

3. Click Continue or <- Back to return to task A.

3.12 Using Shortcuts

In the Add and Change pages of the Extension task there is a shortcut dropdown at the top that quickly will take you to the selected task in MX-ONE to which the managed extension belongs. You will get automatically logged in and navigated to the selected task.

3.13 Using Backup & Restore

To avoid losing system data it is recommended to back up system data regularly. Then, if data has been accidentally deleted or corrupted, it is possible to restore the system to the state it was in when the backup was made. All data except subsystem data is backed up. The data is stored on the server that MX-ONE Provisioning Manager (PM) is installed on.

The system can store an unlimited number of backup directories. Each backup directory is identified by a time stamp and the system release version.

When restoring the system, the backup directory must have the same system release version as the installed version of PM. That is, if PM 1.2 is installed it is not possible to use backup directories with version 1.0 or 1.1. Backup directories can still be used to restore the system when a service pack for PM has been installed. That is, if PM 1.0.2 has been installed, backup directories with system release version 1.0, 1.0.1, and 1.0.2 can be used.

All stored backup directories are displayed in a list, including those with system release versions older than the installed version of Provisioning Manager. The icon



(**Restore**) is only displayed for the backup directories that can be used to restore the system.

The process of saving system data during a backup and the process of restoring data during a restore may take a few minutes.

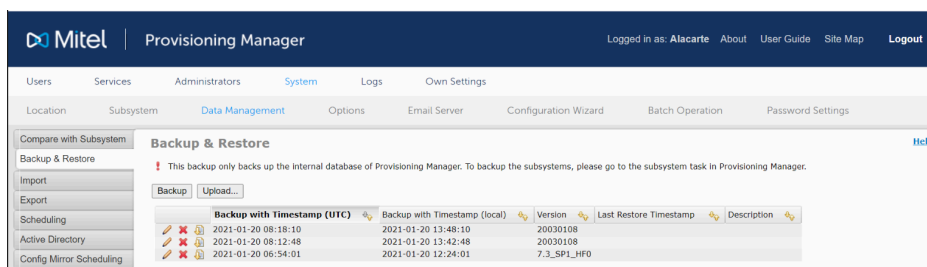


Note:

It is not possible to alter system data during a backup or restore.

A backup or restore is performed in the following way:

1. Go to the **System** tab and then **Backup & Restore**.
2. Click **Backup** to start a backup or click  (**Restore**) to restore the system.



3.14 Subsystem Backup

Enables to take the backup of MiVoice MX-ONE subsystem and Service Node Manager data.

The icon (**Restore**) is only displayed for the backup directories, which is used to restore the system.

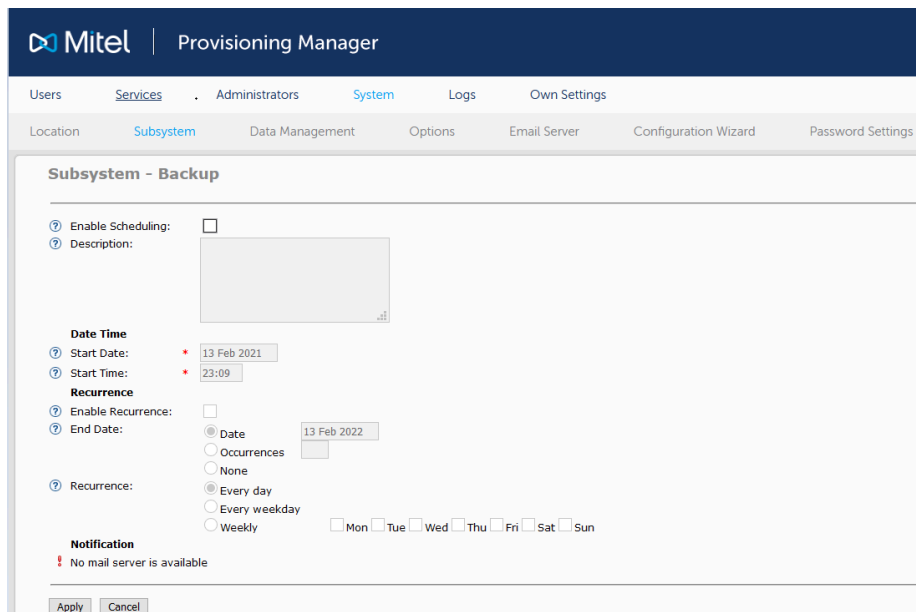
The process of saving system data during a backup and the process of restoring data during a restore may take a few minutes.

Note:

It is not possible to alter system data during a backup or restore.

The backup of the Subsystem is performed in the following way:

1. Go to the **System** tab> **Subsystem**.
2. Click Backup icon start a backup of the system. The following Scheduling page is displayed to schedule the backup.
3. Select the **Enable Scheduling** check box to start the schedule backup. Immediate backup of the subsystem is triggered if the check box is not selected.



The screenshot shows the 'Subsystem - Backup' configuration page in the Mitel Provisioning Manager. The page has a dark blue header with the Mitel logo and 'Provisioning Manager'. Below the header is a navigation bar with tabs: Users, Services, Administrators, System (selected), Logs, and Own Settings. Under the 'System' tab, there are sub-tabs: Location, Subsystem (selected), Data Management, Options, Email Server, Configuration Wizard, and Password Settings. The main content area is titled 'Subsystem - Backup' and contains several sections: 'Enable Scheduling' with an unchecked checkbox; 'Description' with a text area; 'Date Time' with 'Start Date' (13 Feb 2021) and 'Start Time' (23:09); 'Recurrence' with 'Enable Recurrence' unchecked, 'End Date' (13 Feb 2022), and 'Recurrence' options (Every day, Every weekday, Weekly); and 'Notification' with a message 'No mail server is available'. At the bottom are 'Apply' and 'Cancel' buttons.

The created backup files are stored in `/var/opt/eri_sn` the folder on the MiVoice MX-ONE and are used when restoring the MiVoice MX-ONE database. You can restore MiVoice MX-ONE and Service Node Manager using the Backup and Restore task in Service Node Manager.

Using Compare with Subsystem

5

This chapter contains the following sections:

- [Importing from D.N.A. and CMG](#)
- [Importing from CSV](#)

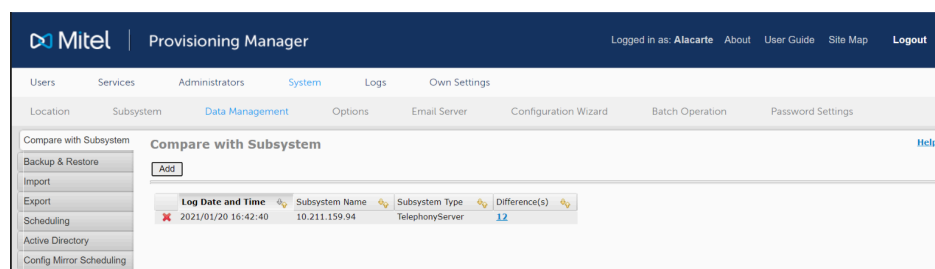
Data inconsistencies can also be caused by subsystem data being modified directly in MX-ONE. Examples:

- extensions are added or removed in MX-ONE but not in MX-ONE Provisioning Manager
- mailboxes are added or removed on the Messaging Server but not in MX-ONE Provisioning Manager
- one of the extensions associated to a user is deleted in MX-ONE while the user's profile in MX-ONE Provisioning Manager is unchanged.

The **Compare with Subsystem** task is used to compare the PM data with the subsystem data to find data inconsistencies. The result is displayed in a list. Based on the list, the administrator decides what to add or remove in the system, using the corresponding tasks, to synchronize PM and subsystem data.

1. Go to the **System** tab, and then **Data Management**.
2. Select which subsystem to compare the PM data with, and maximum number of rows to be displayed per result page.

Click **View**.



3. Click on a post in the Differences column to view the result.

4.1 Importing from D.N.A. and CMG

This is only to be used in when initially setting MX-ONE Provisioning Manager. For details, see Installing MX-ONE Provisioning Manager (9/1531-ANF 901 15).

4.2 Importing from CSV

User and department data can be imported from CSV files, where CSV is the common acronym for Comma Separated Values. This typically allows for batch input data to conveniently be edited with

spreadsheet software. Templates and examples can be downloaded from the CSV import web pages. There is a CSV import option (option CSV file) that can very flexibly process and import much data for each user record. It allows you to connect a column in a CSV to one of many attributes of an PM user. For more information and step by step instructions, see MX-ONE Provisioning Manager Online help.

Exporting Data from MX-ONE Provisioning Manager

6

This chapter contains the following sections:

- [Exporting Data for CMG](#)
- [Exporting General Data](#)
- [Exporting Call Accounting Data](#)

Data in MX-ONE Provisioning Manager can be exported for call accounting purposes or for usage in, for example, CMG or other PM installations.

Follow the steps below to export data from PM:

1. In MX-ONE Provisioning Manager, click System, Data Management and then Export. The Export Data page is displayed.
2. Click Export....
3. Select an export type and click Next.
4. In step 2/2, select the data to include in the export, then click Next.
5. For exports using CMG data format, specify a definition file (this file is required for correct format of the exported data). Then click Apply to initiate export.
6. On the Result page, click Done.

5.1 Exporting Data for CMG

Note:

You may export user data from MX-ONE Provisioning Manager and import it to the CMG if you want to transfer data without enabling the automatic integration between PM and the CMG

The purpose of exporting data in CMG format is if you want to restore CMG with PM data after losing all CMG data without having backed up CMG.

Normally when operating in PM, CMG will automatically be updated. To synchronize PM with CMG, use the Compare with Subsystem task to find the differences and then update the systems with your corrections.

Data exported for CMG is stored using CSV format. The following PM data is included when exporting data for CMG:

- Department data
- User data.

A user can be associated with several extensions in PM, but only one extension in CMG. For users associated with more than one extension in PM, the export file will contain a separate record for each extension in PM.

For correct export file format, definition files for department and user data are required when exporting data for CMG.

5.2 Exporting General Data

The purpose of exporting data in XML format is if you want to post process MX-ONE Provisioning Manager data in another system.

Data exported as general data is stored using XML format. The following MX-ONE Provisioning Manager data is included when exporting general data:

- Complete department data
- Complete user data
- System data: administrators, security profiles, locations, and subsystems.

5.3 Exporting Call Accounting Data

The purpose of exporting data in CAAPI format is if you want to reuse post processing tools as used together with D.N.A. The format of CAAPI is the same as it was for D.N.A. For a more extensive export, please use the XML export format instead.

Call accounting data such as account code data can be exported from MX-ONE Provisioning Manager. The following data files are created when exporting call accounting data:

- Account codes
- Authorization codes
- Cost centers
- Departments
- Extensions
- Voice Line Service.

Note:

To get the cost center data into the COSTCEN.DAT file you need to set the UDF Field Type to "COST CENTER" for the applicable UDF in the UDF Mapping task.

The exported files are stored in a .zip file, available for download on the first page of the Export Data task.

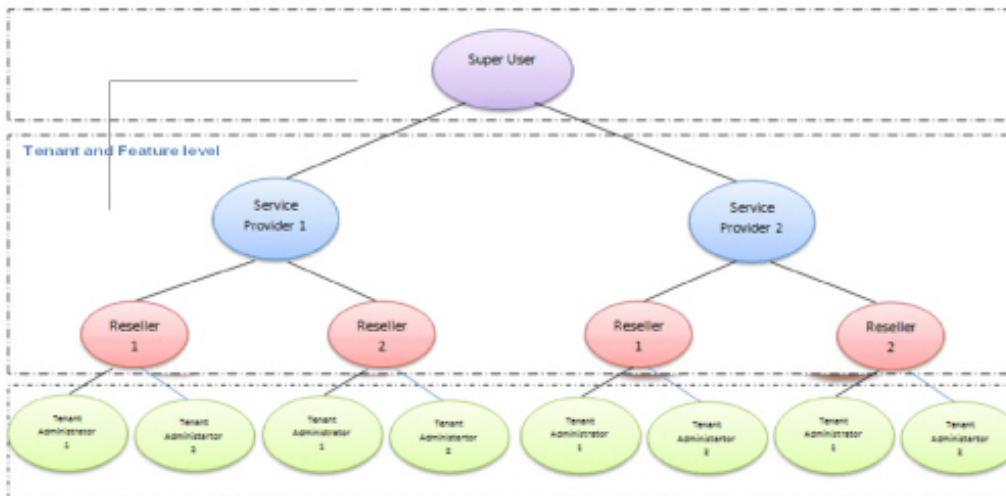
Tenant and Feature Configuration

7

This chapter contains the following sections:

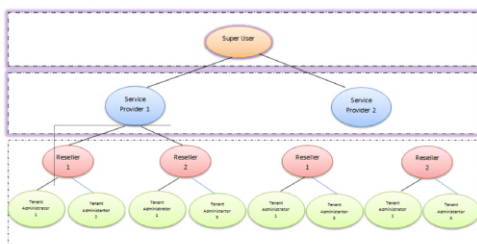
- [Create a Service Provider](#)
- [Create a Reseller](#)
- [Create a Tenant Administrator](#)
- [Create a Tenant](#)

Figure 5: User hierarchy

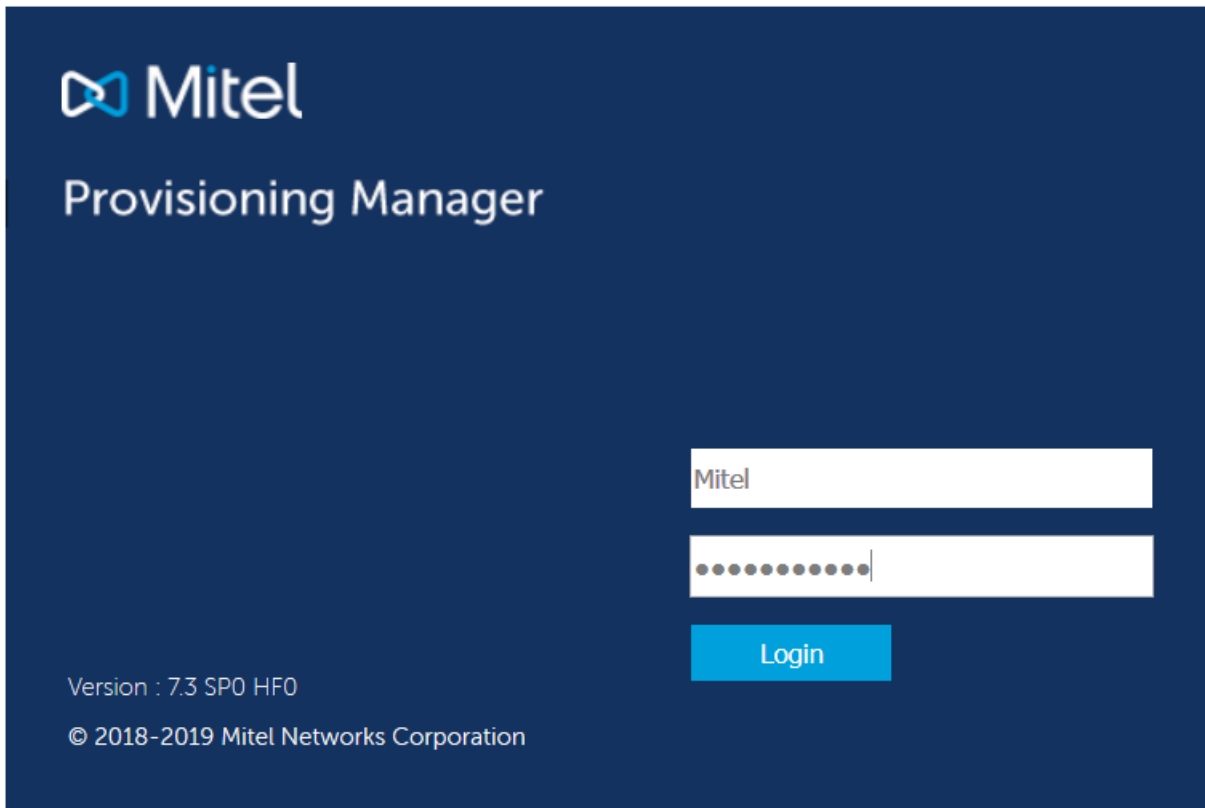


6.1 Create a Service Provider

Figure 6: Create Service Provider



1. Use the user created in the MX-ONE Provisioning Manager setup, i.e. System Setup Admin, to login to the application.



2. Go to Users -> User -> Add a new User.

3. Check the result.
4. Go to Administrators -> Administrator.
5. Select the Security Profile "Service Provider" and promote the user to Service Provider.

Mitel Provisioning Manager | Logged in as: Alacarte

Users Services **Administrators** System Logs Own Settings

Administrator

Administrator - Add

Apply Cancel

User Name(s), Extension Number, Department: * sam Search

Security Profile: * samnel, Sam Neil, Company01

Access to Department(s): * User Administrator

Existing Department(s), Location(s): * All

Selected Department(s), Location(s): * Company01; Location01

Access to Subsystems in Location(s): * All

Apply Cancel

Help

Administrator

Administrators have access to tasks used to manage users, services, subsystems and so on. An administrator is a promoted user with an assigned security profile. What the administrator can access depends on the access privileges included in the administrator's security profile.

Administrators can never assign an access privilege to a user or administrator that they have not been assigned themselves. Administrators can only assign a security profile to an end user or administrator with the privileges assigned to them, or a subset of those privileges.

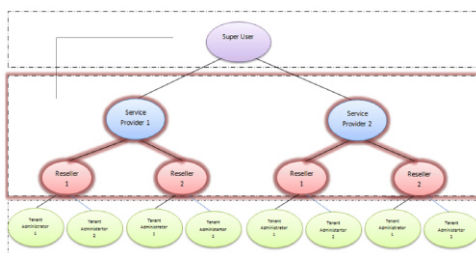
The following seven security profiles are predefined:

- System Setup Admin - Access to all

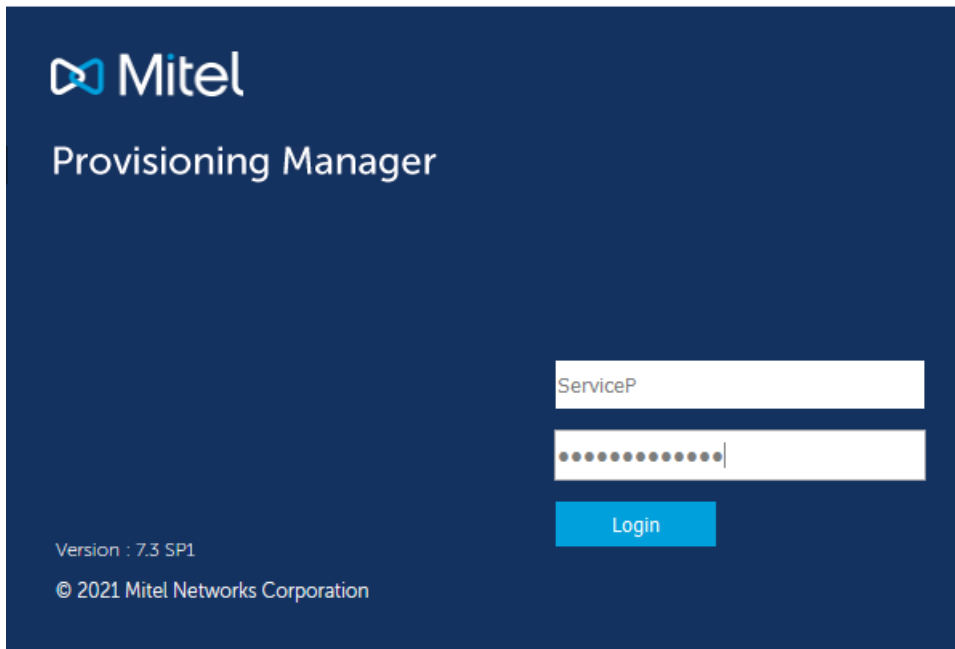
6. Check the result.
7. Repeat the earlier operations in order to create new Service Provider.

6.2 Create a Reseller

Figure 7: Create Reseller



1. Logon with one of the Service provider Credentials.



2. Go to Users -> User -> Add a new User.

3. Check the result.
4. Go to Administrators -> Administrator.

5. Select the Security Profile Reseller and promote the user to Reseller.

6. Check the result.
7. Repeat the earlier operations in order to create another Reseller.

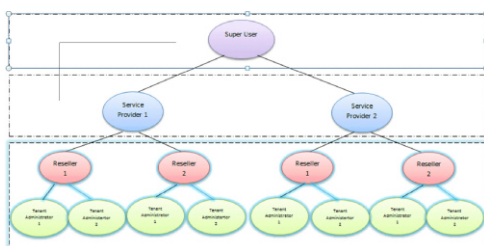
Note:

One Reseller data cannot be seen by other resellers.

Parent can view all the child's data

6.3 Create a Tenant Administrator

Figure 8: Create Tenant Administrator



1. Logon with one of the Reseller Credentials.

2. Create the tenants and the respective number series.

The screenshot shows the 'Tenant Configuration - Add' page in the Mitel Provisioning Manager. The page has a top navigation bar with 'Users', 'Services', 'Administrators', 'System', 'Logs', 'Tenant', and 'Own Settings'. The 'Tenant' tab is selected. The main content area is titled 'Tenant Configuration - Add' and contains a form with various fields and checkboxes. A 'Help' popup is visible on the right side of the form.

3. Configure feature levels.

Reseller can provide alias names for the feature level licenses defined in MX-ONE.

The screenshot shows the 'Feature Level Mapping' page in the Mitel Provisioning Manager. The page has a top navigation bar with 'Users', 'Services', 'Administrators', 'System', 'Logs', 'Tenant', and 'Own Settings'. The 'Tenant' tab is selected. The main content area is titled 'Feature Level Mapping' and contains a table with columns for 'Feature Level' and 'Alias Name'. The 'Feature Level' column has values like 'Basic', 'Advanced', and 'Premium'. The 'Alias Name' column is empty.

4. Go to User -> Add a new User.

Tenant created by the reseller in the tenant configuration page will appear in the User page.

The screenshot shows the 'User - Add' page in the Mitel Provisioning Manager. The page has a top navigation bar with 'Users', 'Services', 'Administrators', 'System', 'Logs', 'Tenant', and 'Own Settings'. The 'Users' tab is selected. The main content area is titled 'User - Add' and contains a form with various fields and checkboxes. A 'Help' popup is visible on the right side of the form.

5. Check the result.

6. Go to Administrators -> Administrator.

Select the Security Profile as Tenant Administrator and promote the User as Tenant Administrator

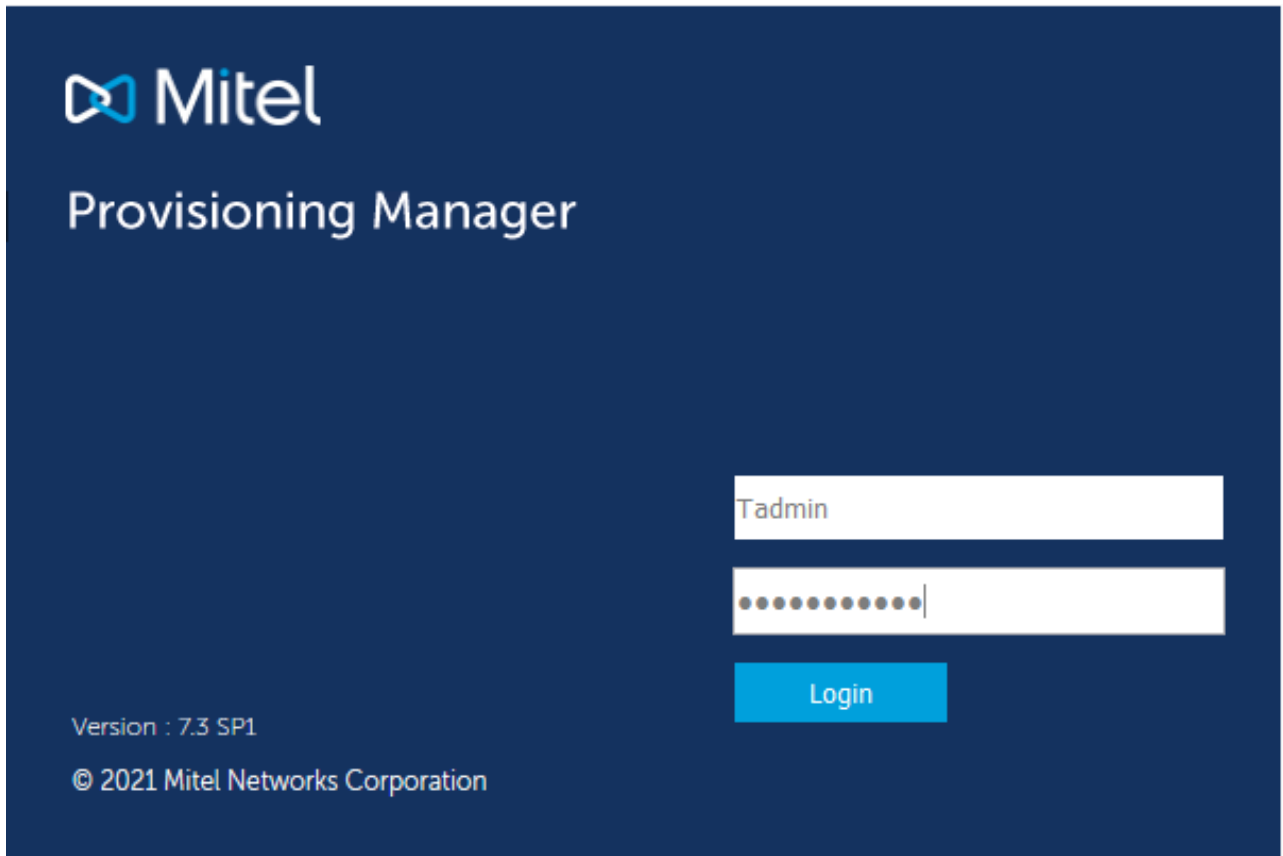
The screenshot shows the 'Administrator - Add' page in the Mitel Provisioning Manager. The page has a top navigation bar with 'Users', 'Services', 'Administrators', 'System', 'Logs', 'Tenant', and 'Own Settings'. The 'Administrators' tab is selected. The main content area is titled 'Administrator - Add' and contains a form with various fields and checkboxes. A 'Help' popup is visible on the right side of the form.

7. Check the result.

8. Repeat the earlier operations to create another Tenant Administrator.

6.4 Create a Tenant

1. Login with one of the Tenant Administrator Credentials.



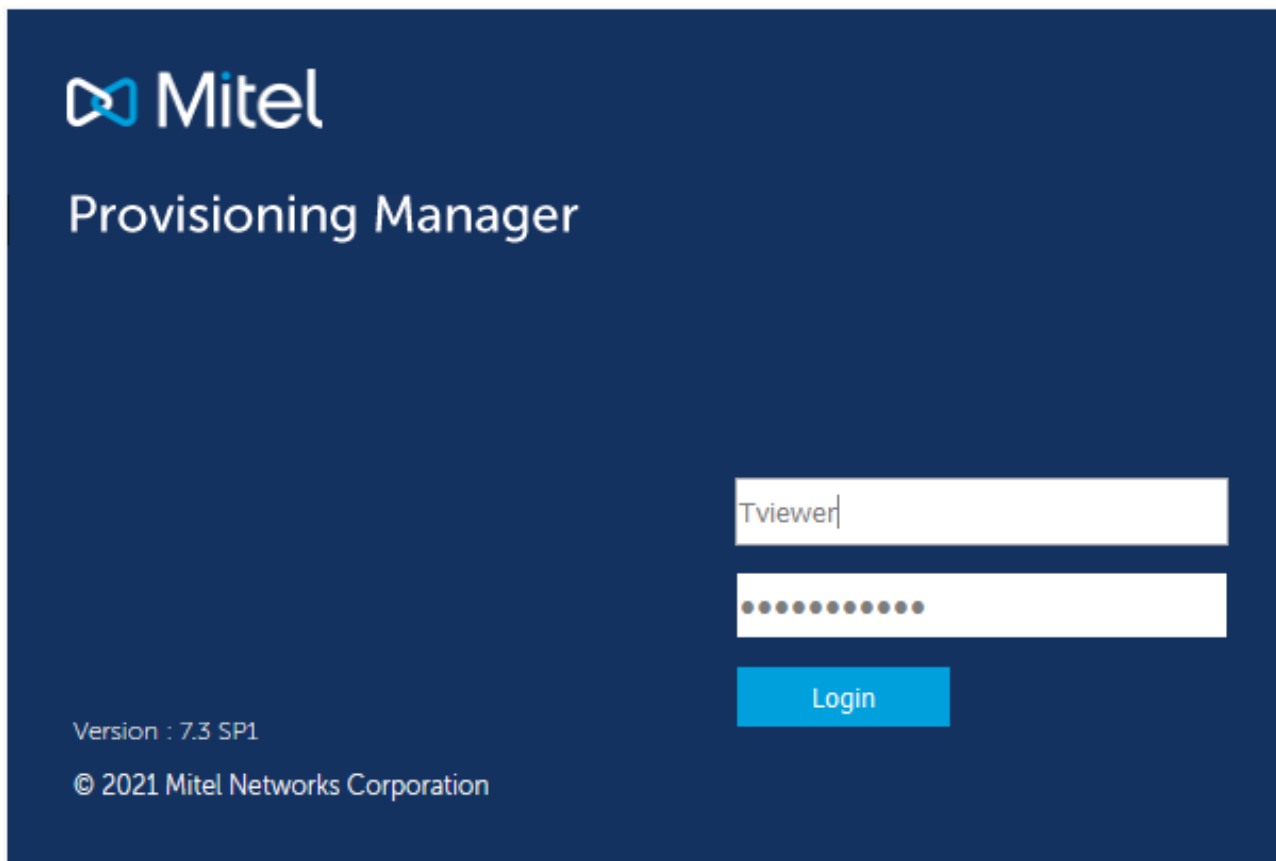
The image shows the login interface for Mitel Provisioning Manager. It features a dark blue background with the Mitel logo and the text 'Provisioning Manager' in white. On the right side, there are two input fields: the first is labeled 'Tadmin' and the second is a password field represented by a series of dots. Below these fields is a blue 'Login' button. In the bottom left corner, the text 'Version : 7.3 SP1' and '© 2021 Mitel Networks Corporation' is displayed.

2. Go to Users -> User -> Add a new User.

3. Configure the tenant.

Tenant Configuration page is used to create the number series for the single customer.

4. Logout the Tenant Administrator login and logon with Tenant Viewer [End User] Credentials.



6.4.1 Promote Tenant User to Tenant Administrator

Pre-requisite

Ensure that the Tenant user is created (without customer) from user task by using the Reseller credentials. For more information, see [Create a Tenant](#) on page 27.

Procedure

Perform the following procedure to promote a Tenant user to the Tenant Administrator:

1. Login to the PM with any one of the Tenant user credentials.
2. Click on **Tenant**.

3. Create a customer from Tenant task as depicted in the following figure.

Tenant Configuration - Add

Apply Cancel

Tenant Configuration

MIvoice MX-ONE: pm

Customer Number: 12

Customer Name: customer12

Acronym:

Domain Name: DEFAULT

Domain Owner:

Restrict Terminal Registration from Foreign IP domains:

Enable Short UserID format:

Exception For Dialing Numbers:

Allow Direct Calls between Customers:

Finance Id:

Directory Numbers: Edit...

Common Abbreviated Numbers: Edit...

Enable Number Data and Initiate Subscribers: ☒

Initiate Subscribers

Number Range	Server	Feature level	Dialing Privileges	End User Device Type
1	1	basic	Internal	Mitel 6863i
1	1	basic	Internal	Mitel 6863i
1	1	basic	Internal	Mitel 6863i
1	1	basic	Internal	Mitel 6863i

Apply Cancel

Figure 9: Create a Customer

4. Edit the Tenant user from user task and assign the customer as depicted in the following figure.

User - Change - Tenant

Apply Cancel

User Service Summary Scheduling

First Name:

User Id: Tenant

Password: *****

Email Address:

Alternate First Names:

Keywords:

Last Name: Tenant

Customer: customer12

Confirm Password: *****

SMS:

Alternate Last Names:

User Defined Fields

testpm:

Business:

Mobile Phone 2:

Business:

Mobile Phone:

Department(s):

Existing Department(s); Location(s):

Selected Department(s); Location(s): Company01; Location01

Figure 10: Assign the Customer

5. Promote the Tenant user to Tenant Administrator as depicted in the following figure.

Mitel | Provisioning Manager

Logged in as: Reseller

Users Services Administrators System Logs Tenant Own Settings

Administrator

Administrator - Add

Apply Cancel

User Name(s), Extension Number, Department: * Search

Tenant, Tenant, Company01

Security Profile: * Tenant Administrator

Access to Department(s):

Existing Department(s), Location(s):

Company01; Location01

Selected Department(s), Location(s):

All

Move Up Move Down

Access to Subsystems in Location(s):

All Location01

Apply Cancel

Figure 11: Promote the User

Setup a New MX-ONE PM to Monitor Different Sites

8

This chapter contains the following sections:

- [CPE Mode Setup](#)

The MX-ONE Provisioning Manager Admin users shall be given either the cloud or CPE rights.

PM in cloud mode allows Service Providers and Reseller to setup systems that are using feature level model.

PM in CPE model is the same as in the previous versions of PM, except that a new user needs to be created to manage the system.

The new user hierarchy is composed by several levels and they are divided basically in the two types of MX-ONE business models, Cloud or CPE (à la carte). A main user is created during the installation of PM and this user is used to create new users and assign the current service profile that fits the system type.

For example, a customer that is running MX-ONE in CPE license model will assign a user as AlaCarte Service Provider.

Figure 12: User Hierarchy

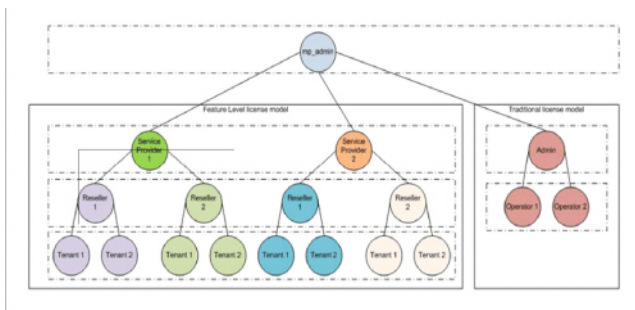
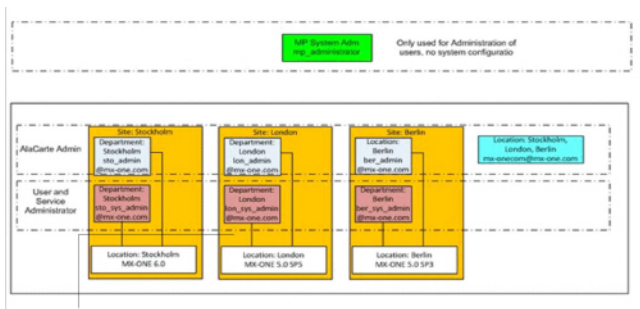


Figure 13: User hierarchy



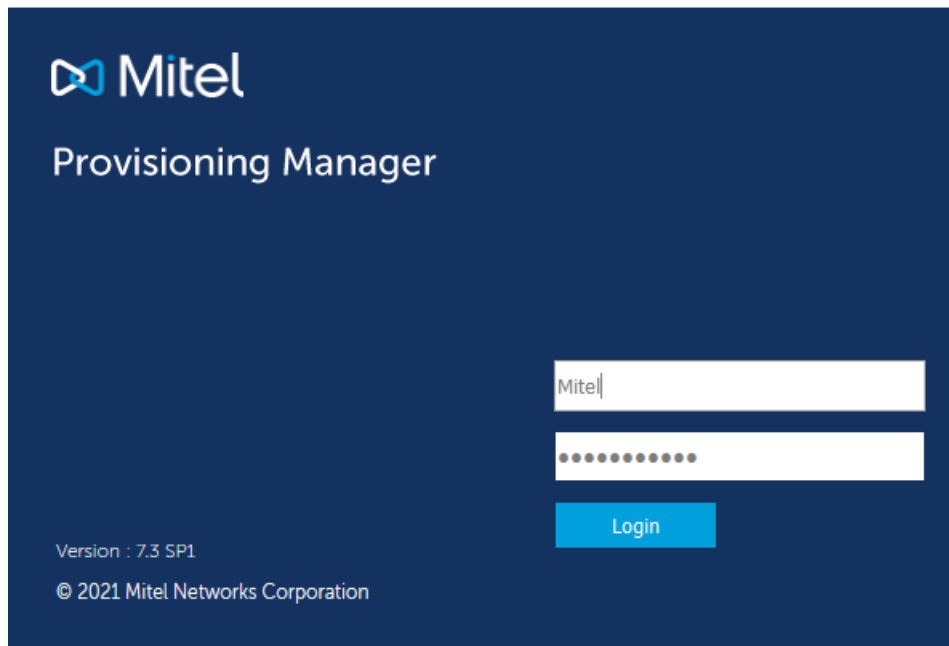
7.1 CPE Mode Setup

Assumptions:

- New PM
- 3 sites
- Users local in the site only see information of their own site
- A corporate admin, can see information from all 3 sites

1. Use the user created in the MX-ONE Provisioning Manager setup, i.e. System Setup Admin User, to login to the application.

Figure 14: Login page



2. Go to System, Location and define the locations.

Figure 15: Location

3. Check the result.

4. Go to Users, Departments and define the Departments.

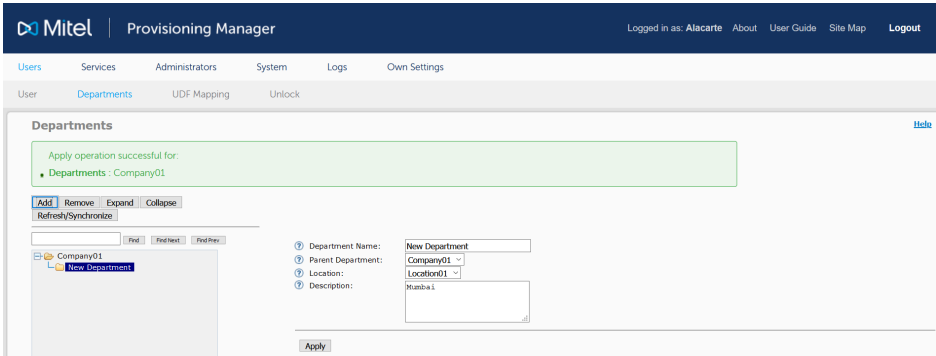
Repeated for each location.

Note:

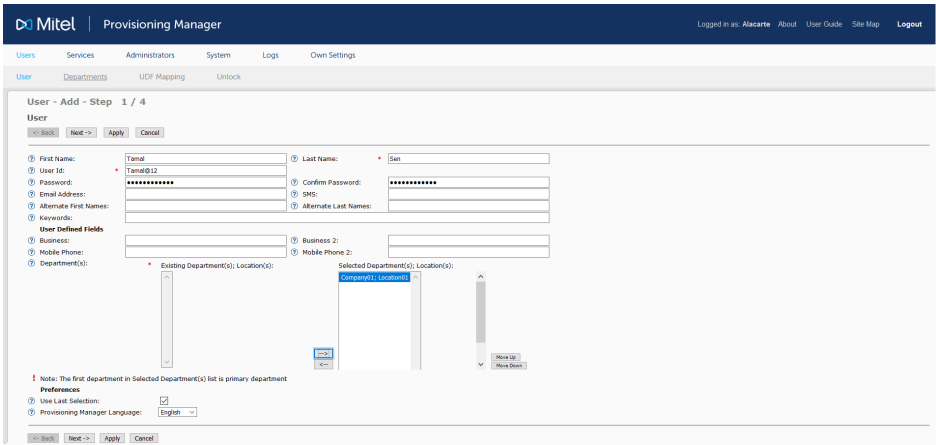
The Department Name can now hold up to 64 alphanumeric and special characters both. But, the characters such as ", *, ?, \, < and > are not allowed.

Setup a New MX-ONE PM to Monitor Different Sites

1. Check the result.



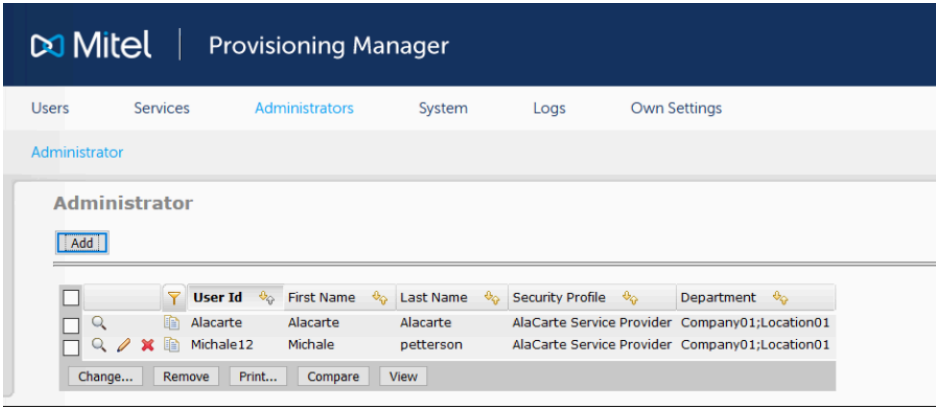
2. Go to Users, Users and add a new user, select the correct department.



35

3. Check the result.

4. Go to **Administrator** Menu, Administrator and add the create user to a service profile.



5. Select the Security Profile, Access to Departments and Access to Subsystems in Locations.

The screenshot shows the 'Administrator - Add' form in the Mitel Provisioning Manager. The form has several sections: 'User Name(s), Extension Number, Department', 'Security Profile', 'Access to Department(s)', and 'Access to Subsystems in Location(s)'. A help window is open on the right side of the form, displaying information about the Administrator role.

6. Check the result.

The screenshot shows the 'Administrator' list view in the Mitel Provisioning Manager. The list displays the newly added administrator with a status of 'Success'.

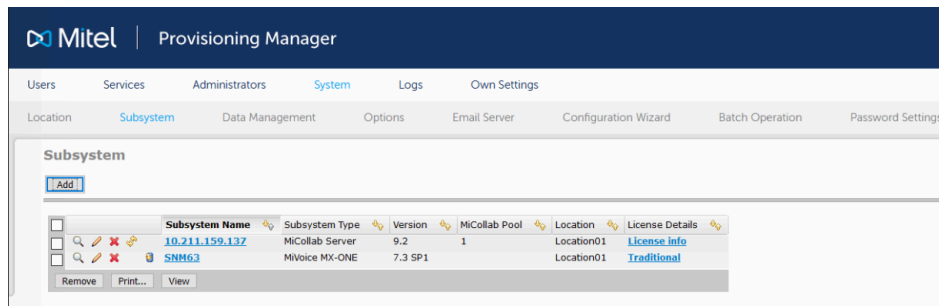
7. Logout Administrator and do logon with new user.

8. Add the subsystem and select the location, if the setup is correct, only one appears.

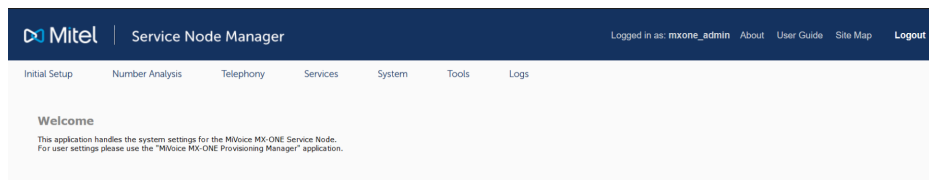
The screenshot shows the 'Subsystem - Add' form in the Mitel Provisioning Manager. The form includes fields for Subsystem Type, Use HTTPS, Subsystem Name, Version, IP/FQDN Address, Port, User ID in Subsystem, Password in Subsystem, Confirm Password in Subsystem, Terminal Password, Confirm Terminal Password, IP Phone Server, Domain Folder, and Location.

9. Check the result.

10. Check the result by clicking the subsystem link (Stockholm - MX-ONE).



11. Access the subsystem that you created on the previous slide and logout.



12. Repeat the operations for all users and sub-systems

Check if everything is correct and that the 3 users cannot see the others systems.

13. Using the "local admin" account create a new user and select the correct department

14. Check the result.

15. Select the Security Profile, Access to Departments and Access to Subsystems in Locations

16. Check the result.

End User Profile Settings to Monitor Group Data

9

Log in to PM with system setup admin privileges, change the End user profile, and assign “End user group service role” to monitor group handling for end users.

Figure 16: Change screen for End user security profile

Mitel | Provisioning Manager

Logged in as: Mitel About User Guide Site Map Logout

Users Services Administrators System Logs Own Settings

Administrator Security Profiles

Security Profile - Change - End User

Apply Cancel

Security Profile Name: End User

Description: Access to end user self service web interface

Privileges

End user self service:	<input checked="" type="checkbox"/>	End user group service:	<input checked="" type="checkbox"/>
Manage configuration data:	<input type="checkbox"/>	Manage user data:	<input type="checkbox"/>
View user data:	<input type="checkbox"/>	Manage service data:	<input type="checkbox"/>
View service data:	<input type="checkbox"/>	Manage administrators:	<input type="checkbox"/>
View administrators:	<input type="checkbox"/>	Manage security profiles:	<input type="checkbox"/>
View security profiles:	<input type="checkbox"/>	Import/Export user data:	<input type="checkbox"/>
Auto unlock:	<input type="checkbox"/>	Manage UDF data:	<input type="checkbox"/>
SNM: Manage advanced features:	<input type="checkbox"/>	SNM: Command line interface:	<input type="checkbox"/>
SNM: Manage extension data:	<input type="checkbox"/>	View subsystems:	<input type="checkbox"/>
Tenant configuration data:	<input type="checkbox"/>	AlaCarte:	<input type="checkbox"/>
Feature level configuration data:	<input type="checkbox"/>	View logs:	<input type="checkbox"/>
Manage individual diversion:	<input type="checkbox"/>	Manage available extensions:	<input type="checkbox"/>
Manage Batch Operation:	<input type="checkbox"/>	SNM: View Logs:	<input type="checkbox"/>
SNM: Manage Secure Data:	<input type="checkbox"/>	SNM: Backup:	<input type="checkbox"/>
SNM: IP Phone Configuration:	<input type="checkbox"/>	Manage Secure Data:	<input type="checkbox"/>
Manage Featurebased System:	<input type="checkbox"/>		

Apply Cancel

Log in to PM with end user privilege. The features under group setup heading shown in the figure below, can be configured by the end user.

Figure 17: End User Extension page

Mitel | Provisioning Manager

Logged in as: Mitel About User Guide Site Map Logout

Users Services Administrators System Logs Own Settings

Administrator Security Profiles

Security Profile - Change - End User

Apply Cancel

Security Profile Name: End User

Description: Access to end user self service web interface

Privileges

End user self service:	<input checked="" type="checkbox"/>	End user group service:	<input checked="" type="checkbox"/>
Manage configuration data:	<input type="checkbox"/>	Manage user data:	<input type="checkbox"/>
View user data:	<input type="checkbox"/>	Manage service data:	<input type="checkbox"/>
View service data:	<input type="checkbox"/>	Manage administrators:	<input type="checkbox"/>
View administrators:	<input type="checkbox"/>	Manage security profiles:	<input type="checkbox"/>
View security profiles:	<input type="checkbox"/>	Import/Export user data:	<input type="checkbox"/>
Auto unlock:	<input type="checkbox"/>	Manage UDF data:	<input type="checkbox"/>
SNM: Manage advanced features:	<input type="checkbox"/>	SNM: Command line interface:	<input type="checkbox"/>
SNM: Manage extension data:	<input type="checkbox"/>	View subsystems:	<input type="checkbox"/>
Tenant configuration data:	<input type="checkbox"/>	AlaCarte:	<input type="checkbox"/>
Feature level configuration data:	<input type="checkbox"/>	View logs:	<input type="checkbox"/>
Manage individual diversion:	<input type="checkbox"/>	Manage available extensions:	<input type="checkbox"/>
Manage Batch Operation:	<input type="checkbox"/>	SNM: View Logs:	<input type="checkbox"/>
SNM: Manage Secure Data:	<input type="checkbox"/>	SNM: Backup:	<input type="checkbox"/>
SNM: IP Phone Configuration:	<input type="checkbox"/>	Manage Secure Data:	<input type="checkbox"/>
Manage Featurebased System:	<input type="checkbox"/>		

Apply Cancel

System and Error Messages

10

This chapter contains the following sections:

- [Logs](#)

MX-ONE Provisioning Manager provides system messages and error messages directly or when a configuration item is submitted. An icon is displayed together with the system information.

Figure 18: Error messages



Figure 19: Information messages

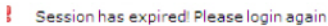
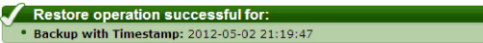


Figure 20: Acknowledge messages



This message type can be displayed for procedures including several sub-procedures, where one or more sub-procedures might be non-successful. Rollbacks are performed for non-successful sub-procedures

Figure 21: Other messages



For certain operations a pop-up window is displayed, please see the following example for invalid template name.

Figure 22: Pop-up message



9.1 Logs

MX-ONE Provisioning Manager provides three logs with different information level:

- Audit trail: Information about all changes made by a user in the system
- Event Log: System log information useful for fault tracing

- Security Log: Information about successful and unsuccessful login attempts

Log files are created every day even if no data is logged. Logs older than 90 days are overwritten.

9.1.1 Changing the Log Level

If not enough or too much information is displayed in the logs in the Logs task, the wrong level for the logging is set in the configuration file `jboss-log4j.xml`. The configuration file is stored on the server that MX-ONE Provisioning Manager is installed on.

The following log levels are available:

- DEBUG
- INFO
- WARN
- ERROR
- FATAL

To change the log level, follow these steps:

1. Go to `opt/jboss/server/default/conf` and open the file `jboss-log4j.xml`.
2. Edit the log level in the following row: `<category name="se.ericsson.ebc.mp"><priority value="INFO" class="se.ericsson.ebc.emtsn.util.log.XLevelTrace"/> <appender-ref ref="MP"><category>`
3. Save the file. After approximately one minute the new log level configuration is applied.

To start the tool, enter one of the following commands in a shell connected to the server:

- If logged in as root, enter the command `mp_config`.
- If logged in as `eri_sn_admin`, enter the command `sudo -H mp_config`.

MX-ONE Provisioning Manager Interface with WebSEAL

12

This chapter contains the following sections:

- [General](#)
- [Requirements](#)
- [WebSEAL](#)
- [Connection to the Provisioning Manager](#)
- [Security Management using WebSEAL IP](#)
- [PM webserver_configuration for login via WebSEAL](#)
- [Registration via WebSEAL](#)

11.1 General

The Provisioning Manager is used to manage and administer the Mitel MX-ONE communication system. This enables you to connect the IBM WebSEAL to the Provisioning Manager for having a centralized access management.

11.2 Requirements

IBM Tivoli Access Manager WebSEAL can be used for SSO authentication to log on to applications. The purpose is to register with the PM via WebSEAL.

11.3 WebSEAL

WebSEAL is a high-performance, multi-threaded web server that applies a fine-grained security policy to the Tivoli Access Manager protected Web object area. WebSEAL can provide SSO solutions and incorporate resources from a back-end web application server into its security policy.

To get more information on IBM Tivoli Access Manager and WebSEAL, click the following link:

https://publib.boulder.ibm.com/tividd/td/ITAME/SC32-1134-01/en_US/HTML/amweb41_admin04.htm

11.4 Connection to the Provisioning Manager

WebSEAL connects to the PM with the establishment of a junction. A junction enables WebSEAL to provide the services (PM) used to the client protected.

To get more information on IBM Tivoli Access Manager and WebSEAL, click the following link:

https://publib.boulder.ibm.com/tividd/td/ITAME/SC32-1359-00/en_US/HTML/am51_webseal_guide16.htm

To create the junction for the PM, use the following values from the table in WebSEAL.

Name of the Junction	/mp
Junction Type	Transparent path
Scripting Support	No
Back-end Server	
Server Type	Apache
Connection Type	Mutual ssl
Host-name and IP	Host-name and IP of the PM
Port	443
Transfer Parameters	
iv-user	Yes
LTPA2-Token	No

Host name and IP refer to the service to be protected (PM). The IV-User Header is used as transfer parameter for the service PM. The service (PM) evaluates the IV user header and determines the login data from this.

11.5 Security Management using WebSEAL IP

To overcome security issues and to prevent unauthorized access from unknown IP addresses, a user must add the IP address that are allowed to access PM/SNM as trusted IPs.

This is achieved using the *Webseal IP management* option available in *webserver_config* command. By default, the own IP address of PM and SNM are added. All other valid IP addresses must be added using this option.

For example; if in a redundancy setup, an alias IP is configured, this also must be added as a trusted IP.

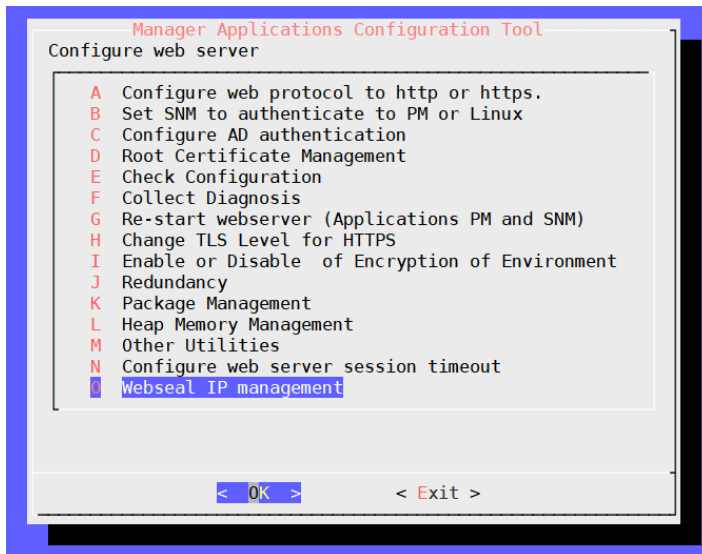
11.6 PM webserver_config for login via WebSEAL

For protection against misuse, the FQDN of the WebSEAL server is stored in the PM. The configuration is done by *webserver_config* tool.

To login via WebSEAL, do the following:

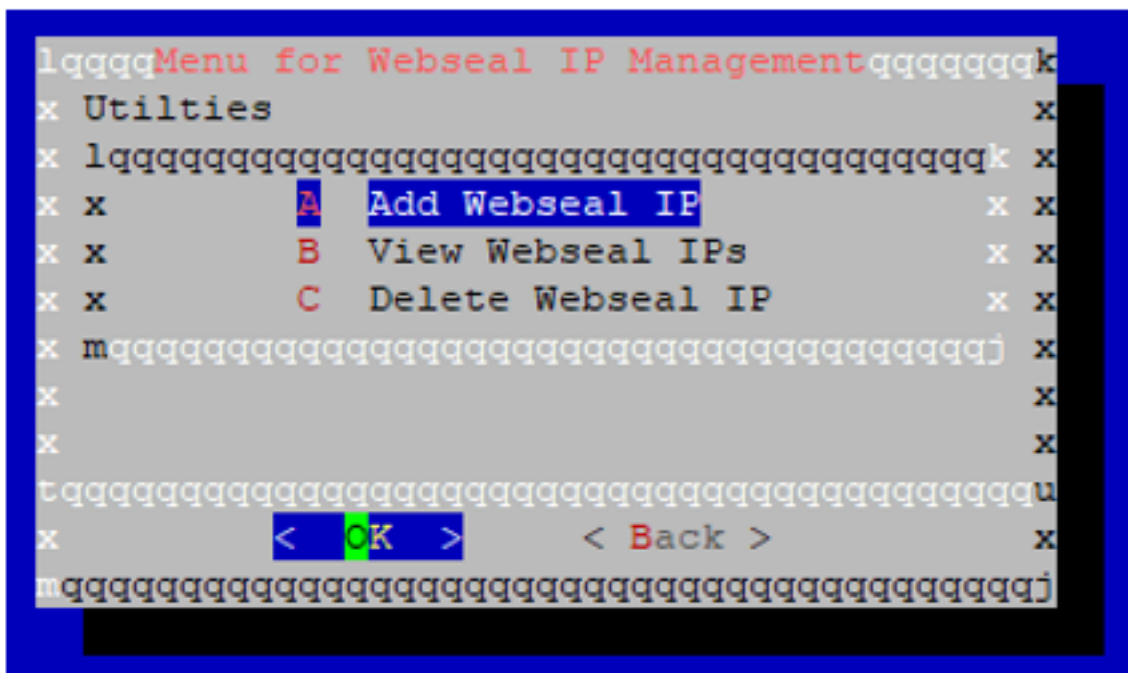
1. Enter the command `sudo -H webserver_config`. The following screen appears.

Figure 23: WebSEAL IP Management



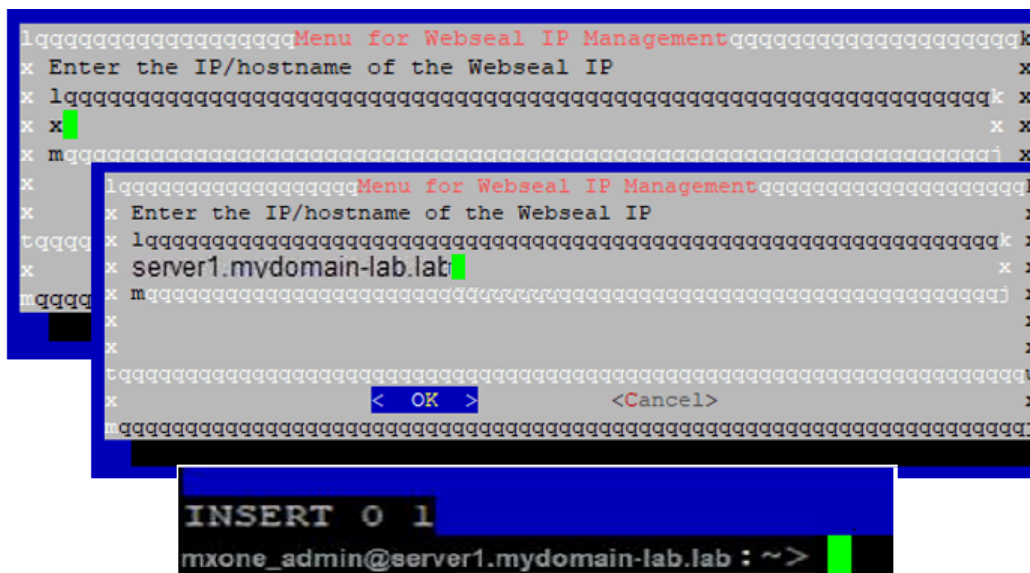
2. Select **(O)** for **Webseal IP management**. Click **OK**. The following screen appears.

Figure 24: Add WebSEAL IP



3. Select **(A)** to enter the address of **Add Webseal IP** and click **OK**. The following subsequent screen appears.

Figure 25: Webseal IP/hostname Entry

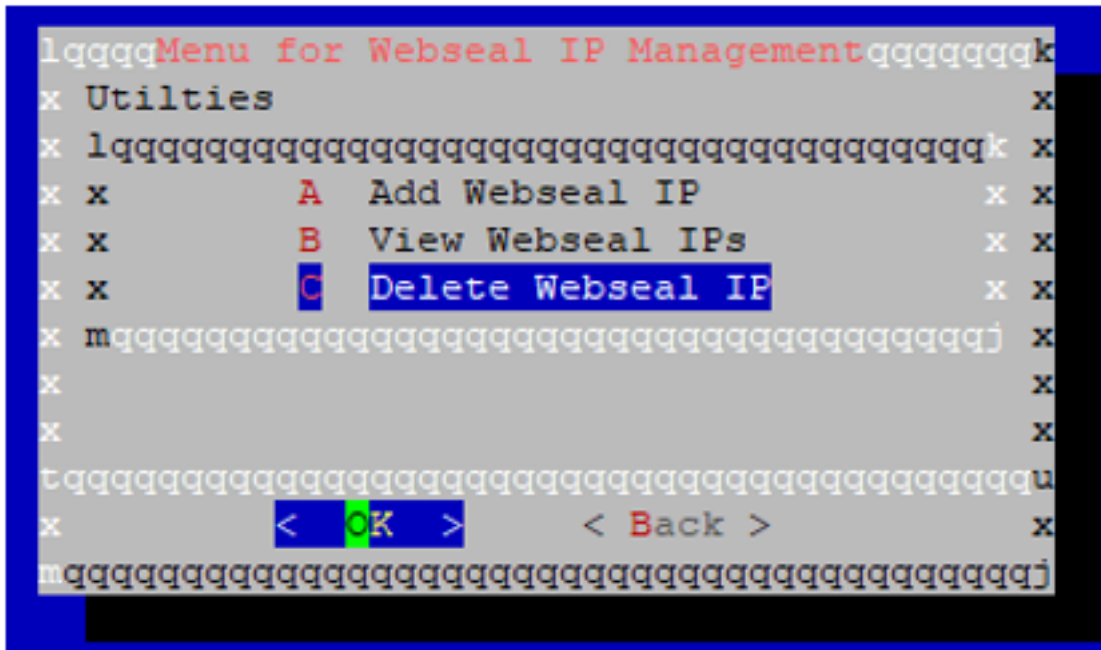


4. Enter the required IP address or the FQDN details.

The webserver_config tool acknowledges the entry with **INSERT 0 1**, the tool webserver_config is closed. A check for validity of the entered values does not take place.

5. Click **OK**. The following screen appears.

Figure 26: Delete WebSEAL IP



6. Select **(C) Delete WebSEAL IP** to delete the existing configuration IP details.

7. Click **OK**. The following screen appears acknowledging that the deletion takes place without inquiry.

Figure 27: Delete Input



The webserver_config tool acknowledges the input with DELETE 1, the tool webserver_config is closed.

11.7 Registration via WebSEAL

To log in to the PM via WebSEAL, do the following:

1. Open the Corporate WebSEAL URL in a browser. The Corporate log in page will be displayed. The user must type the credentials.

After successful authentication, if the user is known in PM, the login takes place. The PM only allows login via the IV user header if the FQDN of the WebSEAL server is stored in the PM.

Figure 28: PM Welcome Page after Successful WebSEAL Registration

