MX-ONE Provisioning Manager

USER GUIDE

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1 INTRODUCTION

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.

2 MX-ONE PROVISIONING MANAGER OVERVIEW

MX-ONE Provisioning Manager is a management tool for MX-ONE that is used to configure users and assign services to the users. It is also used to configure administrators with different access privileges for both MX-ONE and PM.

Subsystems can be connected to PM. A subsystem is a component of MX-ONE, for example, a MX-ONE. Any combination of subsystems is allowed. The subsystems provide services to the users.

For more information about PM, see the description for *MX-ONE PROVISIONING MANAGER*.

MX-ONE Provisioning Manager can be connected to MS Active Directory. User changes in AD can automatically trigger changes in PM and its subsystems. For more information, see the document *MX-ONE PROVISIONING MANAGER INTEGRATION WITH MS ACTIVE DIRECTORY.*

MX-ONE Provisioning Manager is part of the MX-ONE Manager concept that consists of several operation and maintenance applications providing management functions for MX-ONE. For more information about PM in MX-ONE, see the system description for *MIVOICE MX-ONE*.

2.1 SYSTEM REQUIREMENTS

MX-ONE Provisioning Manager can be accessed from anywhere using a commercially available browser. The browser requirements are:

- Microsoft Internet Explorer 8 (or later versions)
- Mozilla Firefox 18 (or later versions)
- Google Chrome (latest version)

Both HTTP (TCP Port 80) and HTTPS (TCP Port 443) are supported. If HTTPS is used, it must be configured. For higher security, it is recommended to use a commercial digital certificate issued by a commercial Certification Authority (CA). For more information about PM security, see the description for *MX-ONE PROVISIONING MANAGER*.

2.2 KEY FEATURES OF MX-ONE PROVISIONING MANAGER

The key features of MX-ONE Provisioning Manager are:

- Location access restriction
- Import and export functions of user and department data
- Assignment of services to users
- Support of the following phone types:
  – Analog phones
  – CAS phones
  – Fax
  – Digital phones
  – IP phones
  – Cordless phones (DECT)

- – Mobile phones/remote extensions.
- Backup functions
- MS Active Directory integration
- Comparison of PM data and subsystem data
- End user interface
- Efficiency enhancing features
- Web Service interface for external applications
- Configuration of Least Cost Routing for mobile extensions
- Assignment of function keys for digital and IP phones
- Configuration of personal number lists
- Configuration of parallel ringing
- Configuration of group membership

For more information about key features, see the description for *MX-ONE PROVI-SIONING MANAGER*.

2.3 PREFERRED LANGUAGE

The language used in MX-ONE Provisioning Manager can be set per user in the User task under the Advanced settings. The default language is English.

The sorting of the text columns in PM are by default done after the servers default language (en-US). To sort after another language, the preferred language setting must be set in the web browser.

2.4 GETTING STARTED

There are two ways to set up MX-ONE Provisioning Manager.

- Using the Wizard for Express and Express SAAS installation. A single page of entry fields helps you to quickly set up the system. This is possible since the system is predefined.
- Manual set up for all other installation setups. You are forwarded to the start page where you can access any task in the system to perform your configuration. See the Manual Workflow When Getting Started section below for further details.

2.5 MANUAL WORKFLOW WHEN GETTING STARTED

After installing MX-ONE Provisioning Manager it is recommended to add data into the system, for example to add departments, administrators, subsystems and so on, in the following order:

1. Optionally add additional locations in the Location task.
2. Optionally modify User Defined Fields (UDFs) for users and departments in the UDF Mapping task.
3. Optionally add additional departments in the Departments task. Alternatively the Import task can be used.
4. Optionally add or modify security profiles in the Security Profiles task.

5. Optionally add users to promote to administrators with different security profiles. Use the User and Administrator tasks.

6. Register subsystems

7. Add users and configure services such as extensions and mailboxes for the users using the User task. Alternatively the Import task can be used.

Note: To quickly find the location in the menu for the different tasks, a tip is to use the site map available at the top of MX-ONE Provisioning Manager.

Note: After installation it is recommended to create an extra super user to keep as backup if something happens to the original super user account, for example if the password is lost, otherwise the whole system must be reinstalled.

2.6   INTEGRATING WITH MITEL CMG

The following settings are needed to get the integration with CMG in place:

1. The CMG Server shall be registered in the Subsystem task. Note the setting for CMG Department Structure.

2. Each registered MX-ONE (subsystem task) shall be mapped to a "CMG PBX ID" which is the CMG's own setting for the same MX-ONE.

3. Each registered location (Location task) shall be mapped to a "CMG Customer Group" which is the CMG's own corresponding geographical or logical group number.

4. Users and departments can be imported from CMG in a migration scenario. The UDF (User Defined Fields) fields in PM can be defined during the import procedure.

5. The UDF field mapping to the CMG "Miscellaneous" fields can be managed in the UDF Mapping task when a CMG subsystem has been registered.

6. Make sure that the CMG Connection task in MX-ONE Service Node has been configured to set up the telephony connection between the MX-ONE and CMG Server.

When the above settings are in place, operations in the User task and renaming or changing parent department task will update the CMG.

Note: To open up the communication between the MX-ONE Provisioning Manager and the CMG Server, the AnA and CWI interfaces on the CMG Server must be enabled and activated and access given to the CMG user that was entered when registering CMG in the PM Subsystem task.

Note: If CMG version is 8.2 and CMG speech is installed, then CMG speech shall have web services interface enabled and following files should be configured.

In CMGUserInformationService under Application Settings "SpeechProvisioningEnabled" parameter should be set to TRUE.

..\Aastra\Aastra Speech Service\SpeechServiceConfig.xml the Provisioning Port should be set to 8006

2.7   INTEGRATION WITH MICOLLAB ADVANCED MESSAGING

The following settings are needed to get the integration with Mitel MiCollab Advanced Messaging (AM) in place:

- The MiCollab AM Server shall be registered in the Subsystem task.

When the above configuration is in place the MiCollab AM mailboxes can be configured either through the User task or directory in the Mailbox task.

Note: Operations in the Mailbox task will not update PM user accounts that are tied to the targeted mailbox

Note: To open up the communication between the PM and the Mitel MiCollab AM Server, the web services interface on the Mitel MiCollab AM Server must be enabled and activated.

Note: The Mitel MiCollab AM shall NOT be set to use the "Windows login credentials", because PM will not be able to login into Mitel MiCollab AM in that case.

Note: The user account defined in MiCollab AM, which PM will use for its communication with MiCollab AM, shall have local admin rights in MiCollab AM.

2.8 INTEGRATION WITH MS ACTIVE DIRECTORY

Please see the document *MX-ONE PROVISIONING MANAGER INTEGRATION WITH MS ACTIVE DIRECTORY* for detailed information on how to update MX-ONE automatically from AD.

2.9 INTEGRATION WITH SIP-DECT OMM

MX-ONE Provisioning Manager integrates with the SIP DECT system through the OMM, which is its point of management. An OMM is defined as a subsystem. One OMM is connected to one MX-ONE Service Node. Reversely, an MX-ONE Service Node is connected to one OMM. A resiliency OMM is invisible to the PM, and cannot be separately administrated.

Once Manager Provisioning has the definition of an OMM, it can configure an end users' SIP-DECT service in it, and connect this service as an IP Terminal to a single- or multi-terminal Extension in the MX-ONE Service Node.

Please see the document *"SIP-DECT OM SYSTEM MANUAL; INSTALLATION, ADMINISTRATION AND MAINTENANCE"* for information on how to set up the OMM for use with PM.

2.10 INTEGRATION WITH MICOLLAB SERVER

Please see the *MiCollab Platform Integration Guide* document for detailed information on how to integrate PM with MiCollab Server.

3 USING MX-ONE PROVISIONING MANAGER

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 3.2.2 Using the Help on page 11.

For information about troubleshooting, see *FAULT HANDLING OF MX-ONE PROVISIONING MANAGER*.

3.1 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).

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

For more information, see 3.3 Enabling the Automatic Logout Indicator on page 12.

3.2 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.
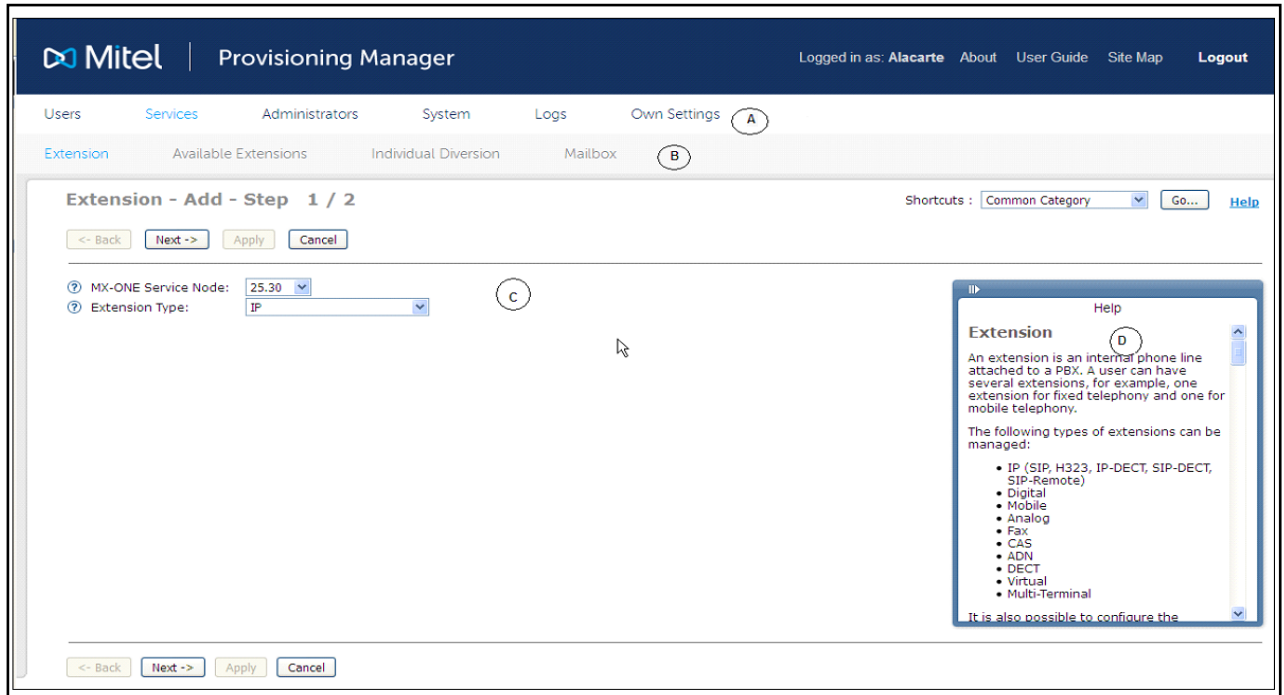
Figure 1:   MX-ONE Provisioning Manager User Interface

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.

3.2.1   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
	Edit field	Enable the field for editing.
	Information	Information exclamation mark followed by system information.
	Restore	Restore the system to a previous state.

Symbol	Function	Description
	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.
	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.

3.2.2 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 that 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.

3.2.3 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**.

3.3　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.

29 minutes left to log out due to inactivity.

Figure 2:　Automatic logout indicator

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.

4 ACTIONS

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 3: List view

4.1 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.

4.2 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 18.

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**). 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.

4.3 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 4.4 Comparing data on page 14.

4.3.1 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.

4.3.2 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
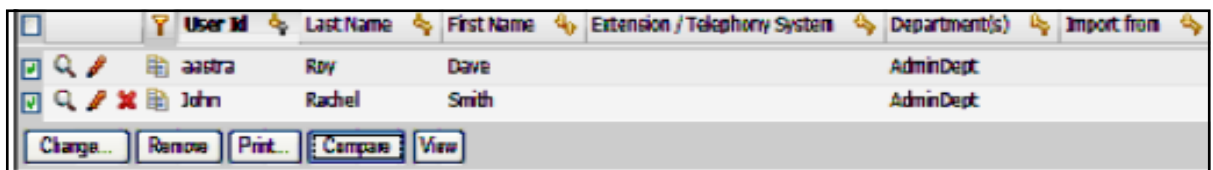
4.4 COMPARING DATA

Configuration item properties can be compared with the compare function. The compare function is available in list views.
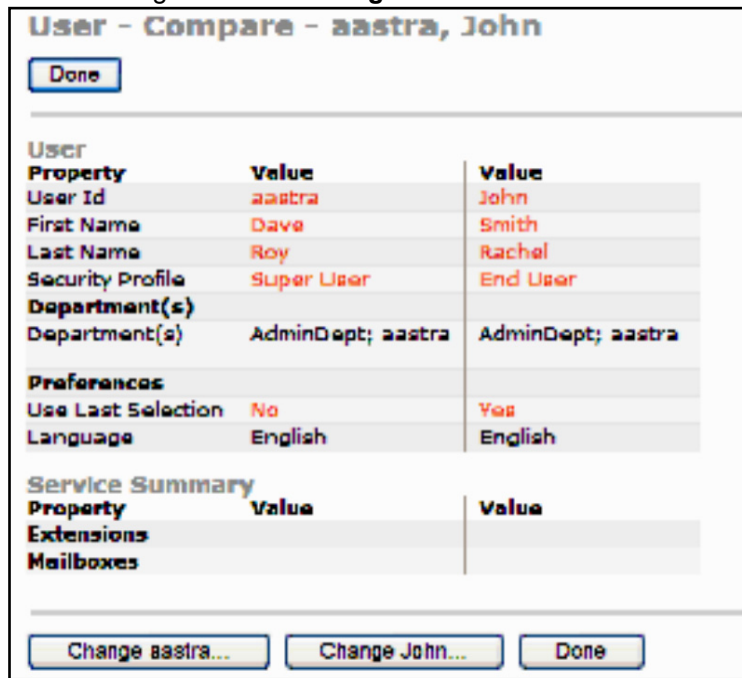
Perform the following steps to compare two configuration items:

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.

4.5   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.

4.6   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.

4.7 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.

4.8 PRINTING DATA

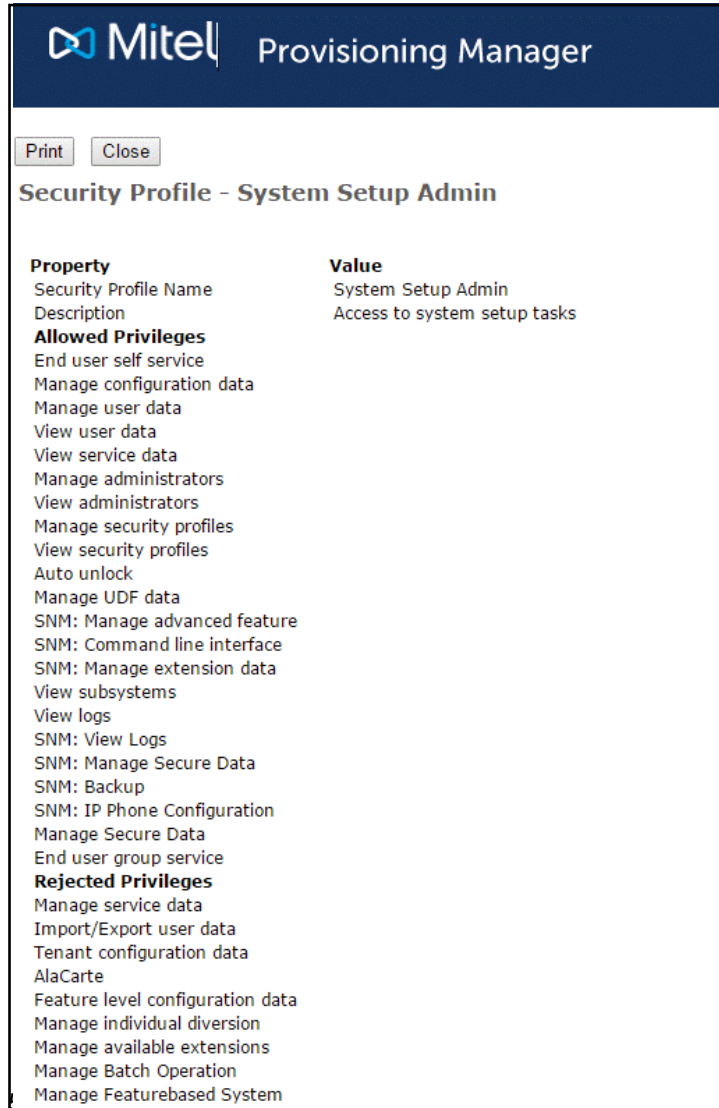Configuration data can be printed in the following ways:

- 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 then ten (10) items.

3. Click the **Print** link.
4. A pop-up window opens that displays the print preview.

desired selections and print the page.

4.9 SWAPPING EQUIPMENT POSITIONS

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**.

4.10 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)

4.10.1 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:
  - Click the **Manage Templates** link.
  - Click **Add New...** and enter property values in the configuration task where applicable.
  - Enter a template name and click **Apply** to save the template.
- Create a template based on an existing configuration item:
  - Click in the list view
  - Enter a template name and click **Apply** to save the template.

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

4.10.2 UPLOADING OR DOWNLOADING A TEMPLATE

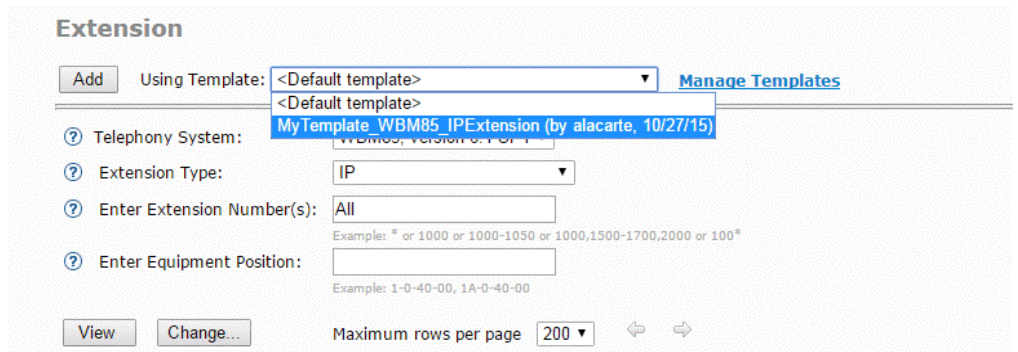Templates can be created in one system and transferred to another. To

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

4.10.3 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.

4.11   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...**.
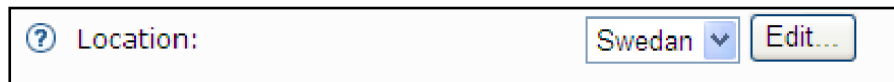
2. Click **Add New...** to add a new configuration item, click ✏ (**Change**) to edit an existing one, or click ✖ (**Remove**) to remove an existing one.
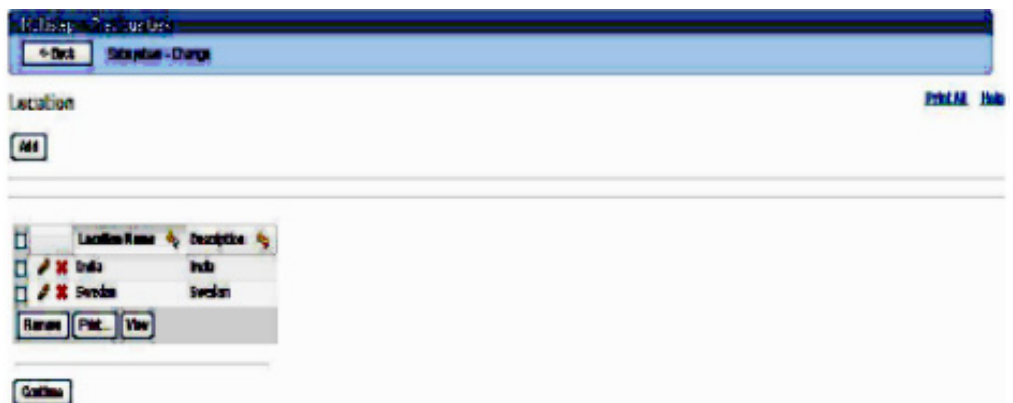
3.   Click **Continue** or **<- Back** to return to task A.

4.12   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.

4.13   USING BACKUP & RESTORE

To avoid loosing 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.

4.14   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 created backup files are stored in the */var/opt/eri_sn* 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.

5 USING COMPARE WITH SUBSYSTEM

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**.

Compare with Subsystem

Add

	Log Date and Time	Subsystem Name	Subsystem Type	Difference(s)
✖	2017/05/30 17:59:08	Abhishek	TelephonyServer	0

```
COMPARE SUBSYSTEM DETAILS - TelephonyServer - wbm

Extension                        Difference
1003                             Only in Telephony System
1008                             Only in Telephony System
1014                             Only in Telephony System
1015                             Only in Telephony System
1017                             Only in Telephony System
```

6 IMPORTING DATA TO MX-ONE PROVISIONING MANAGER

The import function in MX-ONE Provisioning Manager is used to add users and departments to the system in two scenarios:

- When migrating existing users and departments from D.N.A or CMG to MX-ONE Provisioning Manager.

Note: For detailed information on how to migrate to MX-ONE Provisioning Manager from D.N.A. and CMG, see *Installing MX-ONE Provisioning Manager* (9/1531-ANF 901 15).

- When adding new users and departments.

6.1 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).

6.2 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.

7 EXPORTING DATA FROM MX-ONE PROVISIONING MANAGER

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**.

7.1   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 loosing 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.

7.2   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.

7.3 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.

8 TENANT AND FEATURE CONFIGURATION
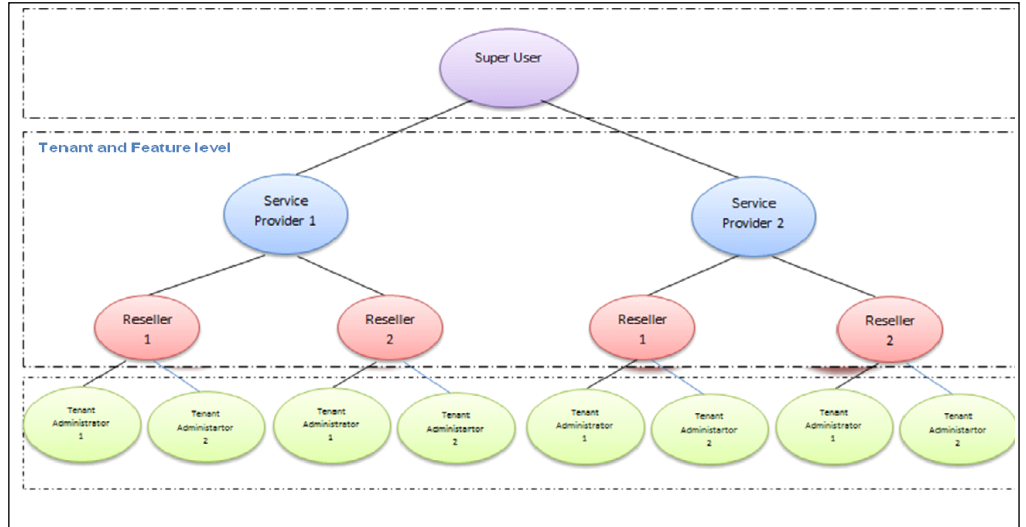
Figure 5:   User hierarchy

8.1   CREATE A SERVICE PROVIDER
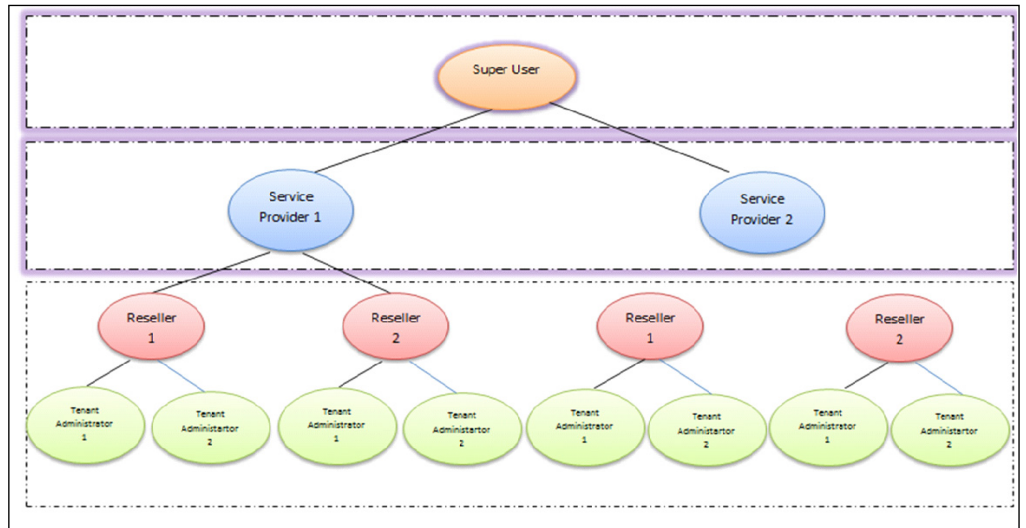
Figure 6:   Create Service Provider

1. Use the user created in the MX-ONE Provisioning Manager setup, i.e. System Setup Admin, to login to the application.
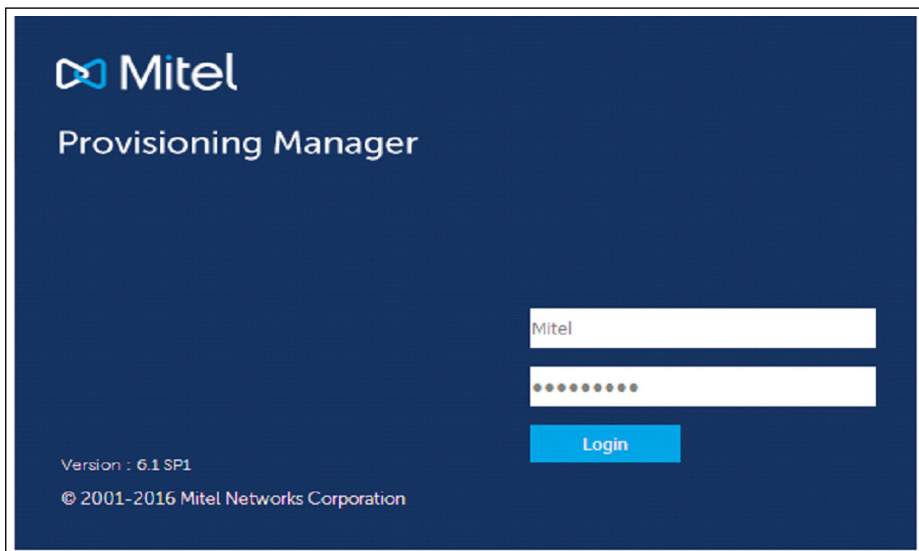
2. Go to Users -> User -> Add a new User.
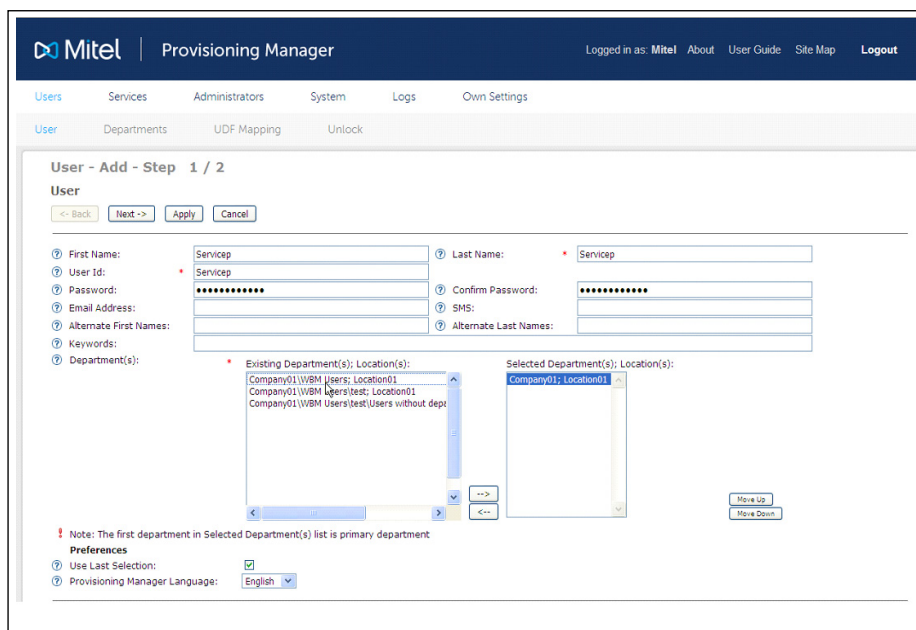
3. Check the result.

4. Go to Administrators -> Administrator.

5. Select the Security Profile "Service Provider" and promote the user to Service Provider.
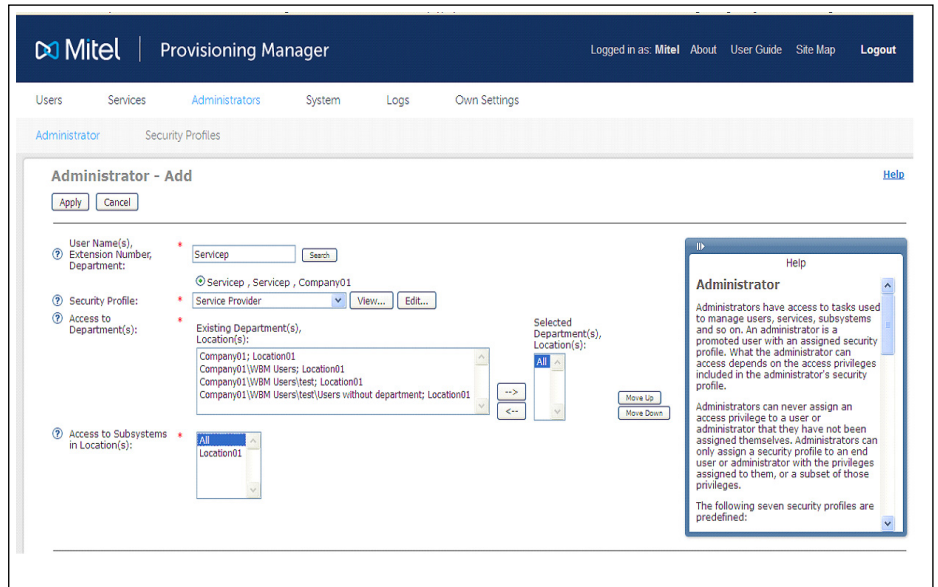
6. Check the result.

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

8.2 CREATE A RESELLER
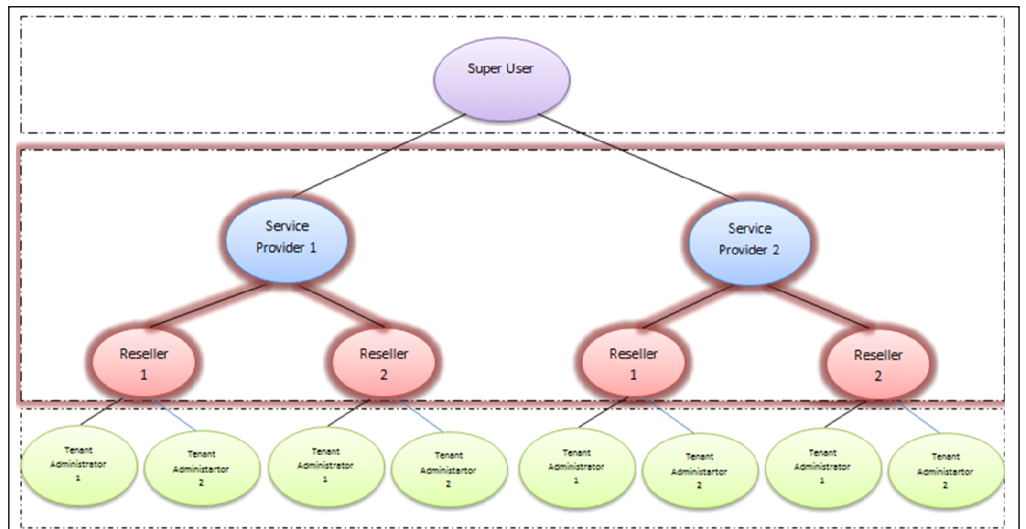
Figure 7:   Create Reseller

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.
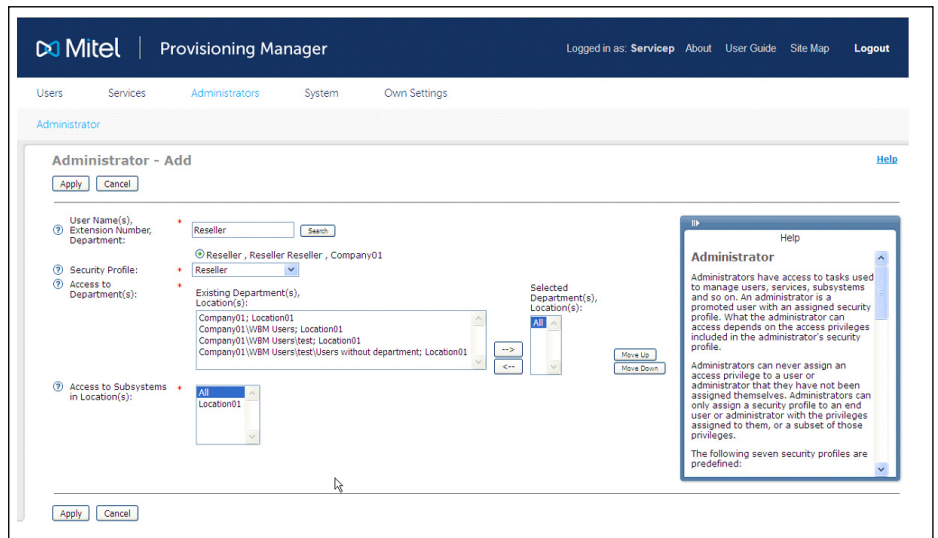
6.   Check the result.

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

8.3 CREATE A TENANT ADMINISTRATOR
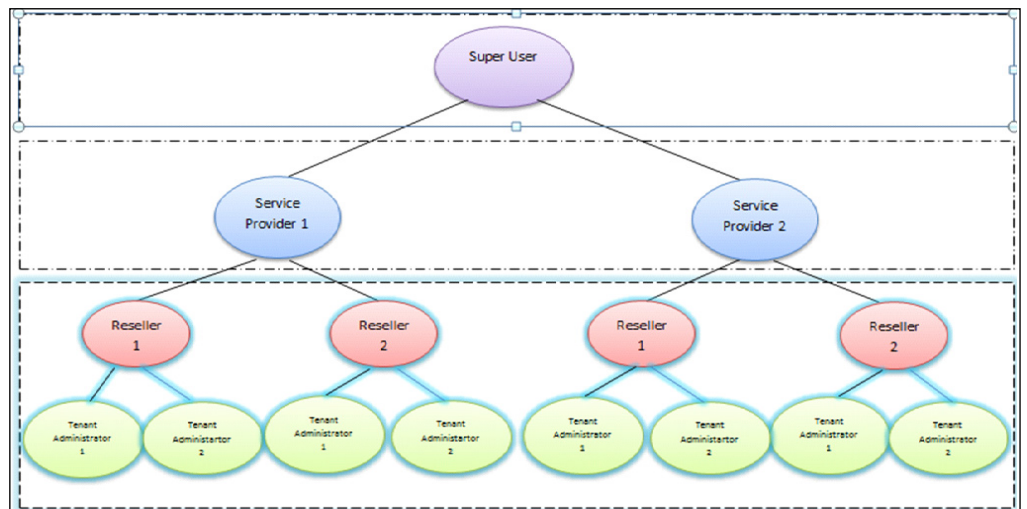
Figure 8:   Create Tenant Administrator

1.   Logon with one of the Reseller Credentials.

2.   Create the tenants and the respective number series.
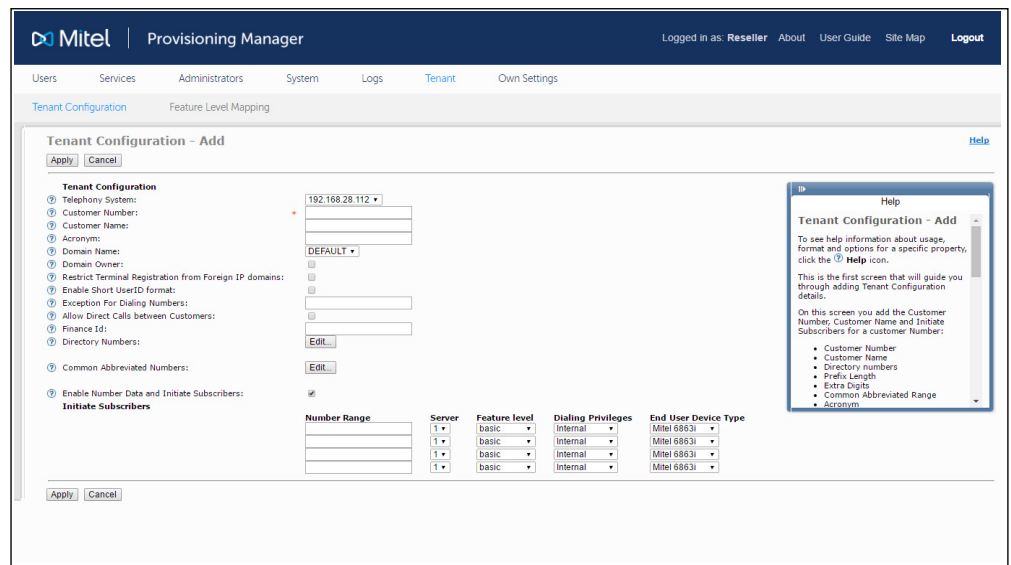
3.   Configure feature levels.

Reseller can provide alias names for the feature level licenses defined in MX-ONE.
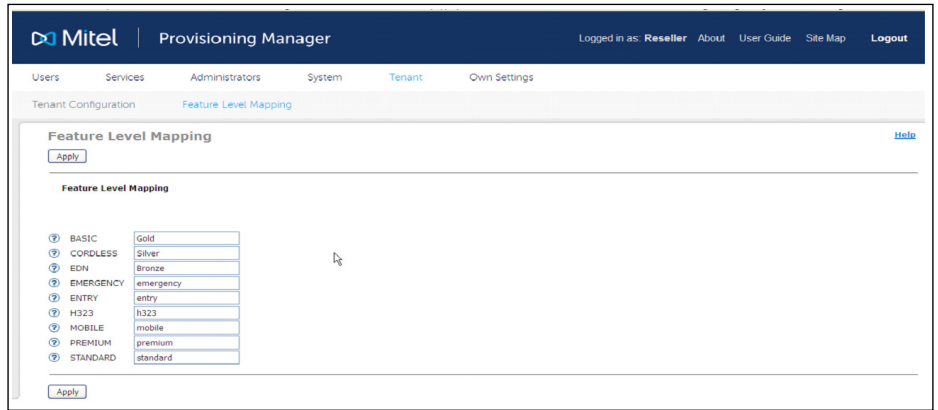
4. Go to User -> Add a new User.

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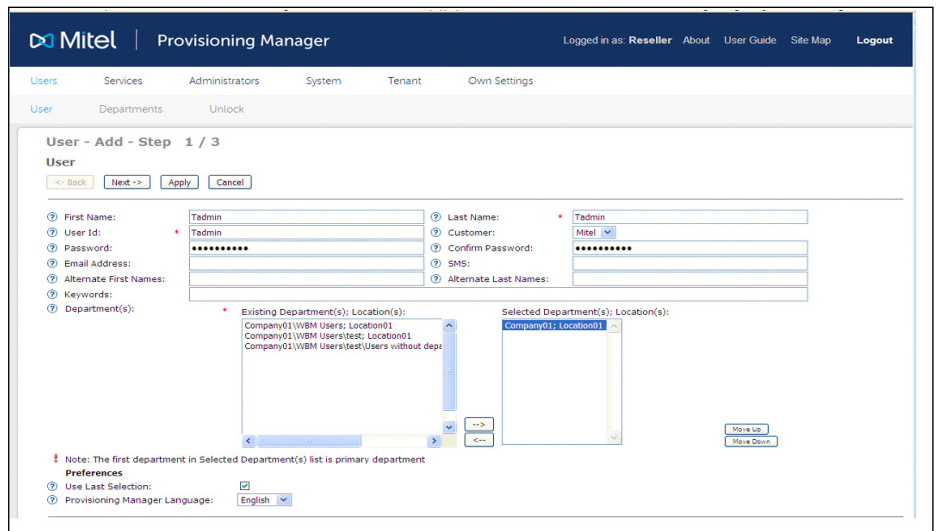
5. Check the result.

6. Go to Administrators -> Administrator.

   Select the Security Profile as Tenant Administrator and promote the User as Tenant Administrator
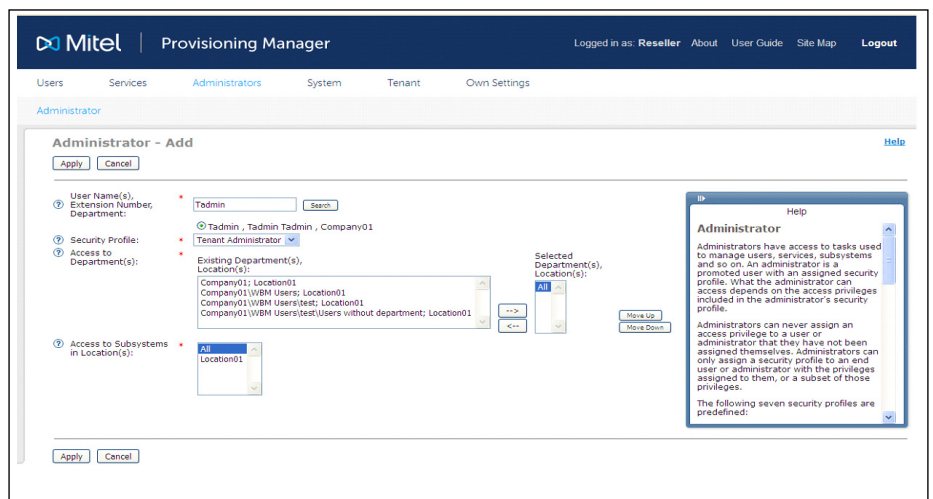
7. Check the result.

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

8.4   CREATE A TENANT

1. Logon with one of the Tenant Administartor Credentials.
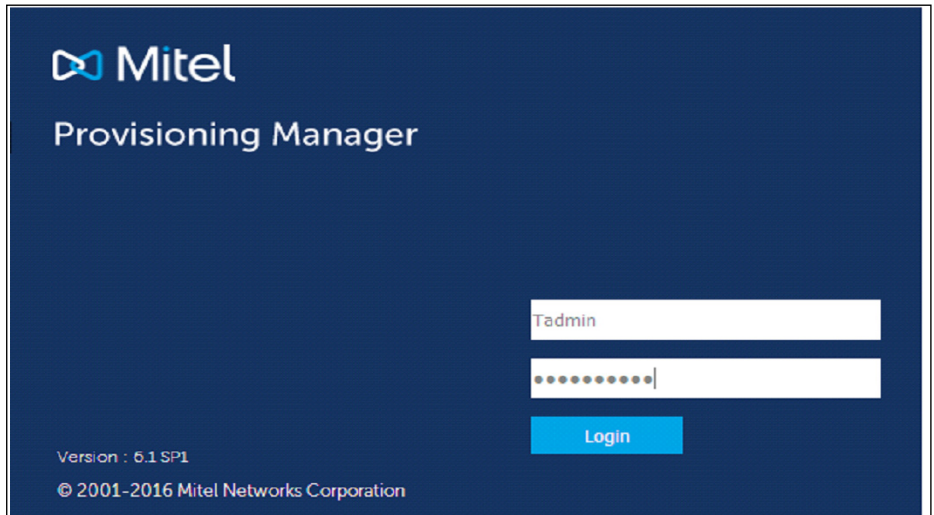
2. Go to Users -> User -> Add a new User.
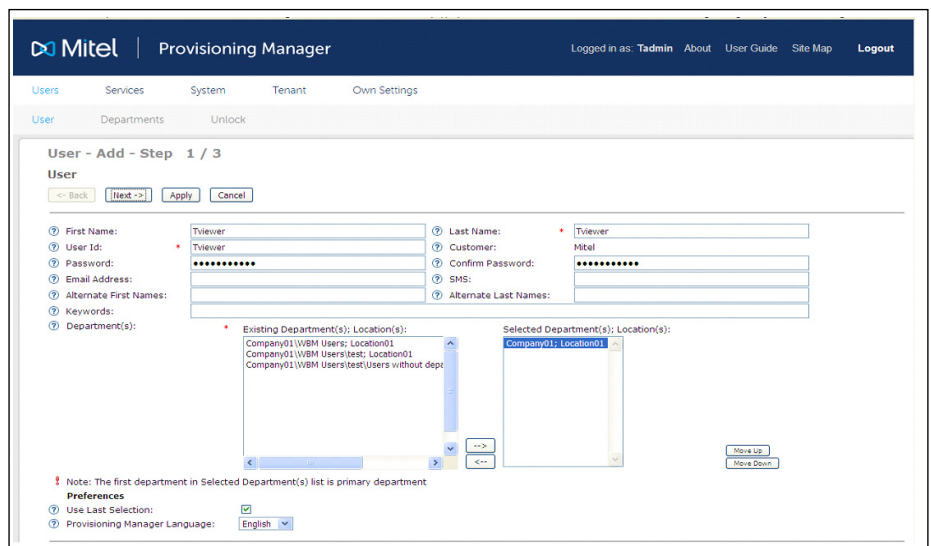
3. Configure the tenant.

Tenant Configuration page is used to create the number series for the single customer.
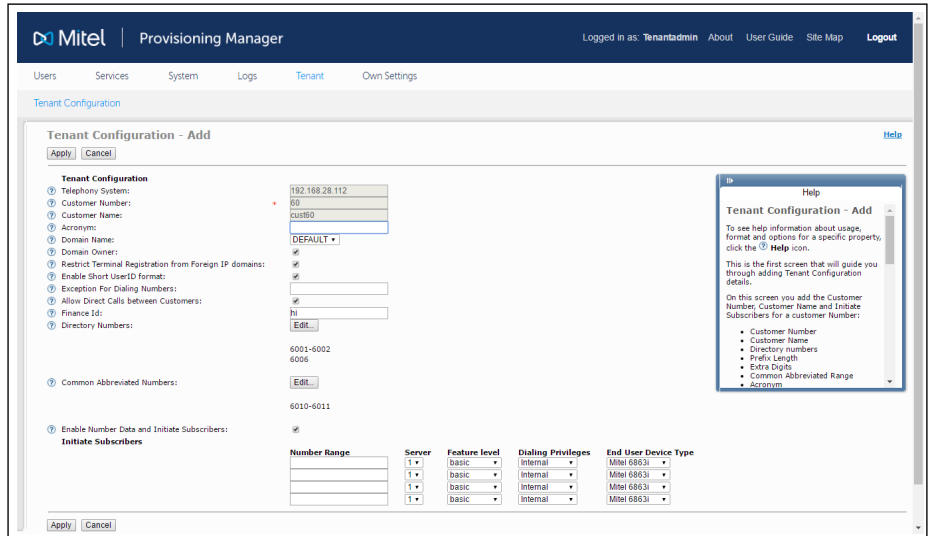
4. Logout the Tenant Administrator login and logon with Tenant Viewer [End User] Credentials.
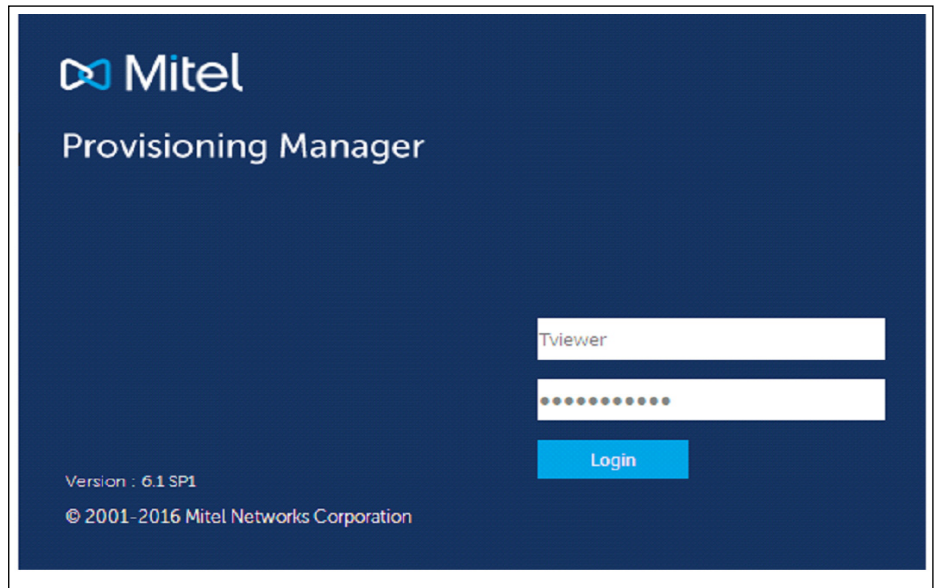
9   SETUP A NEW MX-ONE PROVISIONING MANAGER TO MONITOR DIFFERENT SITES

9.1   GENERAL

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 (á 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.
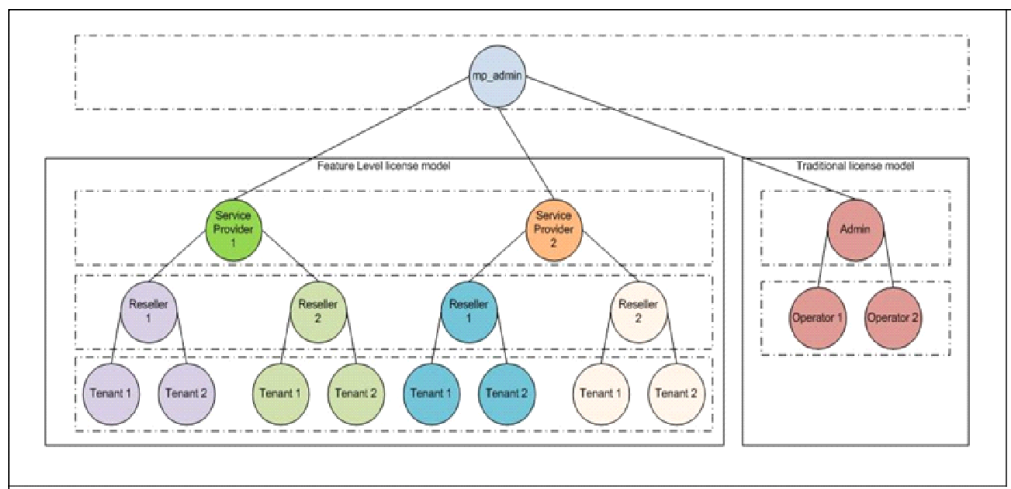
Figure 9:   User hierarchy
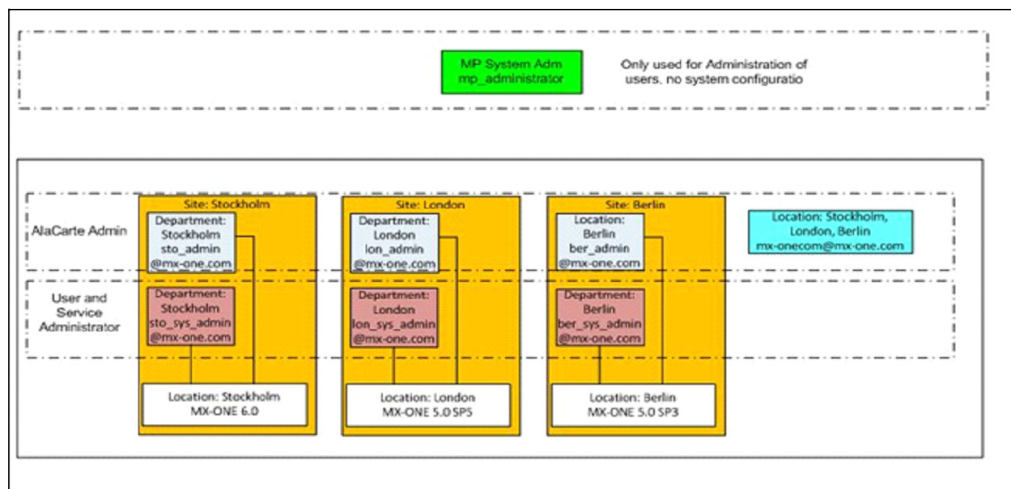
Figure 10:   User hierarchy

9.2 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.
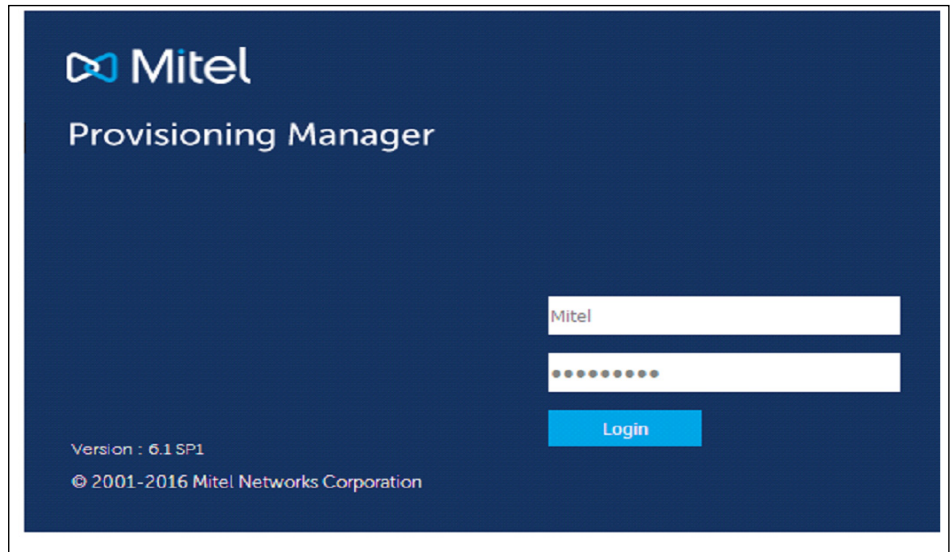
Figure 11: Login page

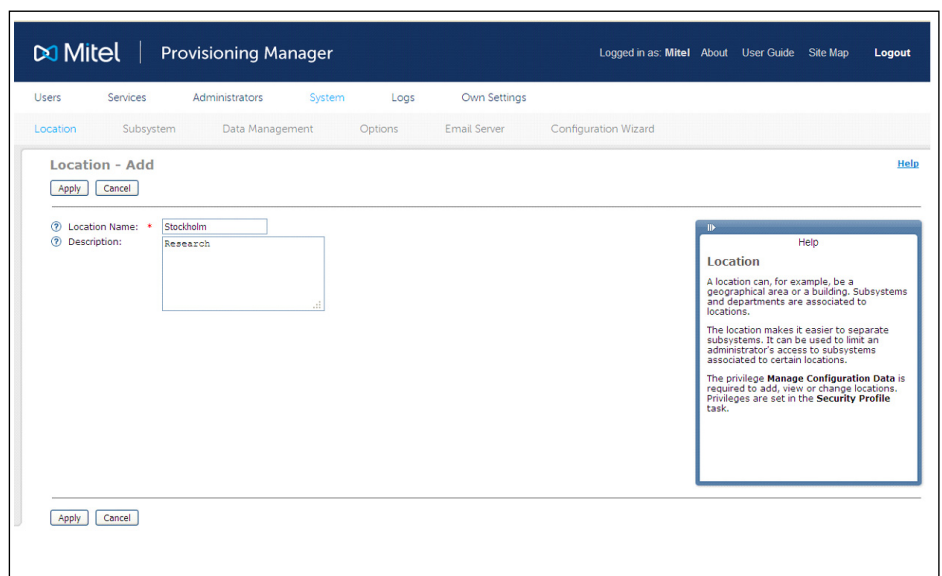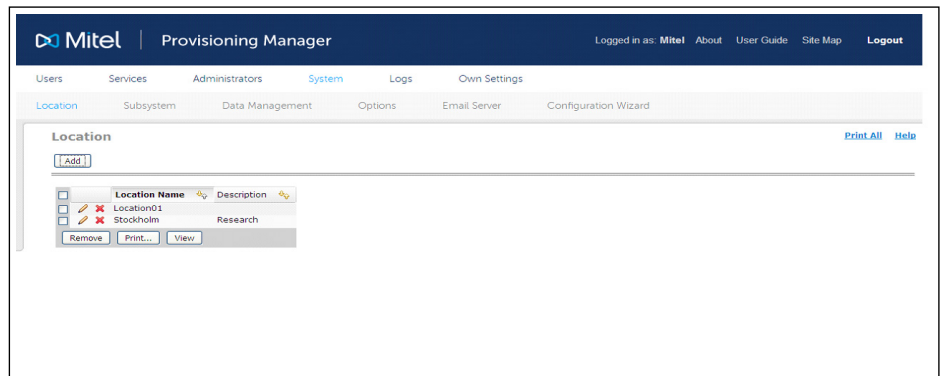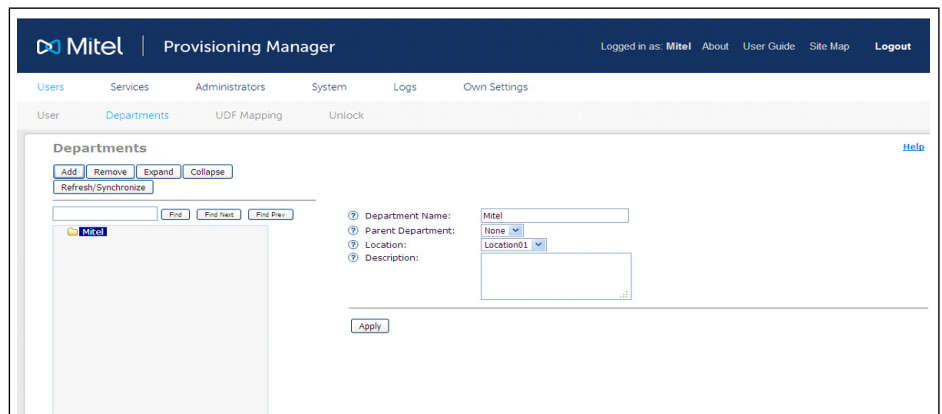2. Go to System, Location and define the locations.

Figure 12: 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 alphanumerical and special characters both. But, the characters such as ", *, ?, \, < and > are not allowed.
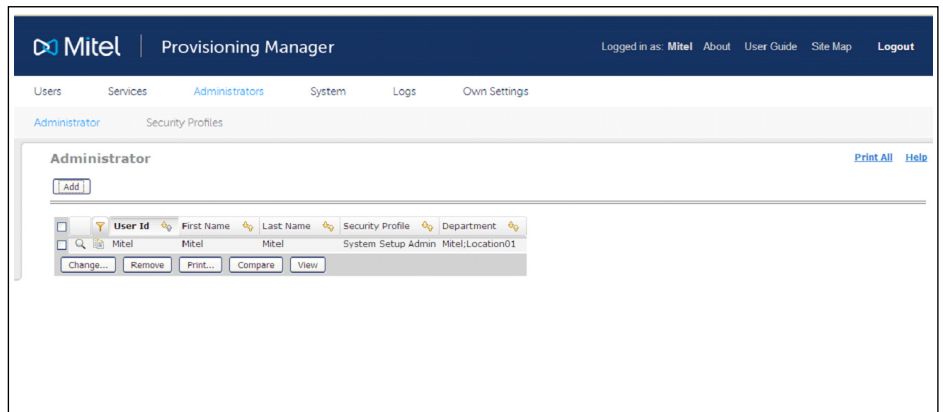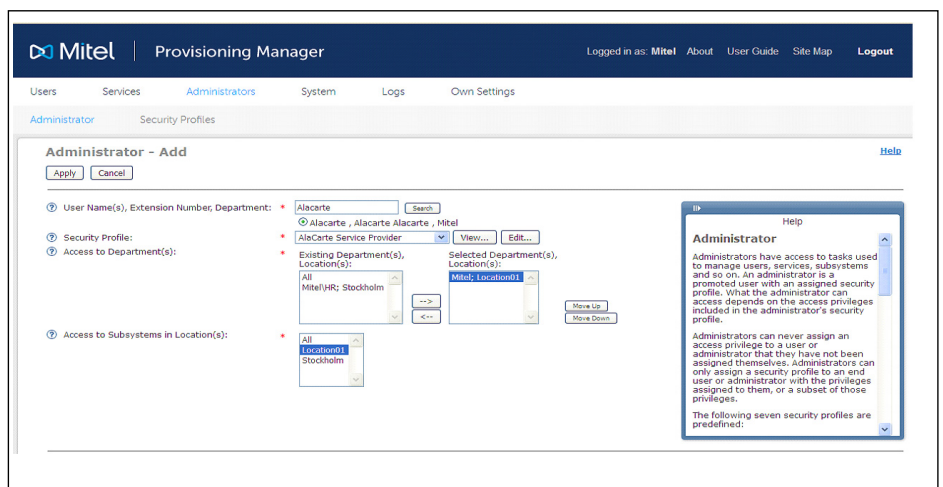
1. Check the result.
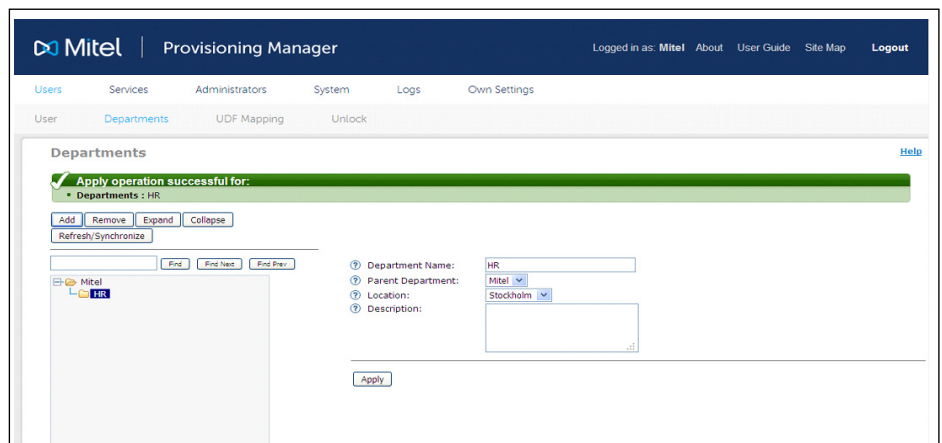
2. Go to Users, Users and add a new user, select the correct department.
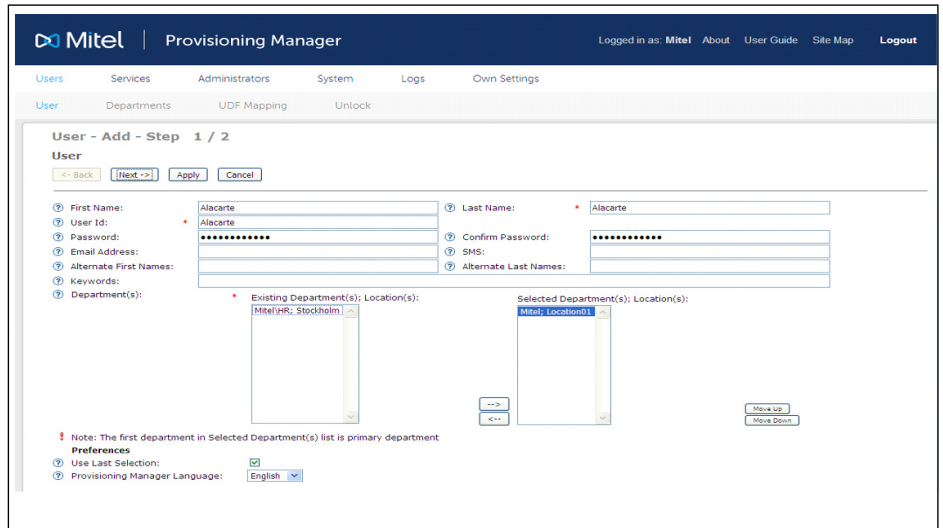
3. Check the result.

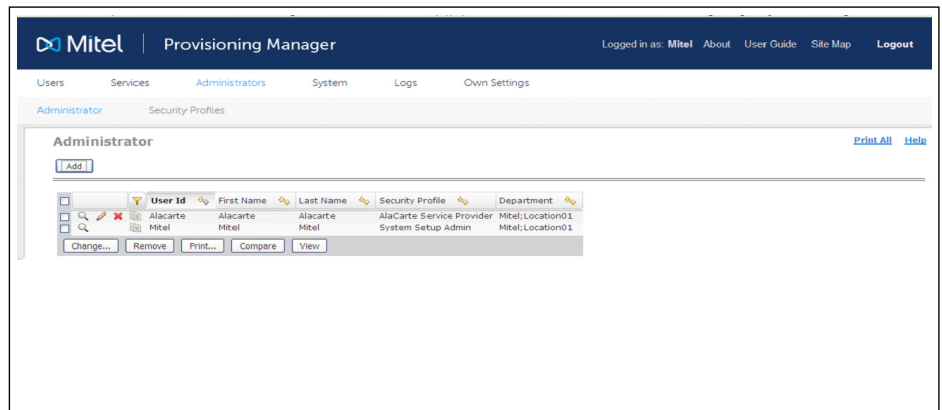4. Go to Administrator Menu, Administrator and add the create user to a service profile.

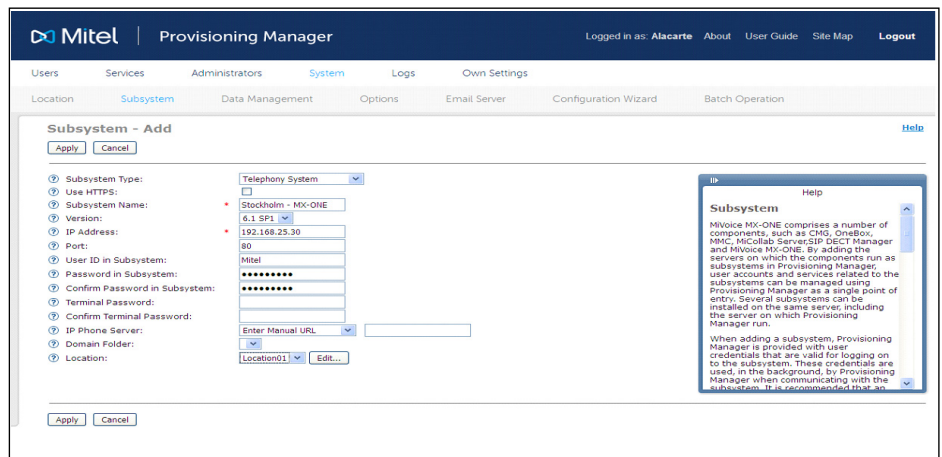5. Select the Security Profile, Access to Departments and Access to Subsystems in Locations.
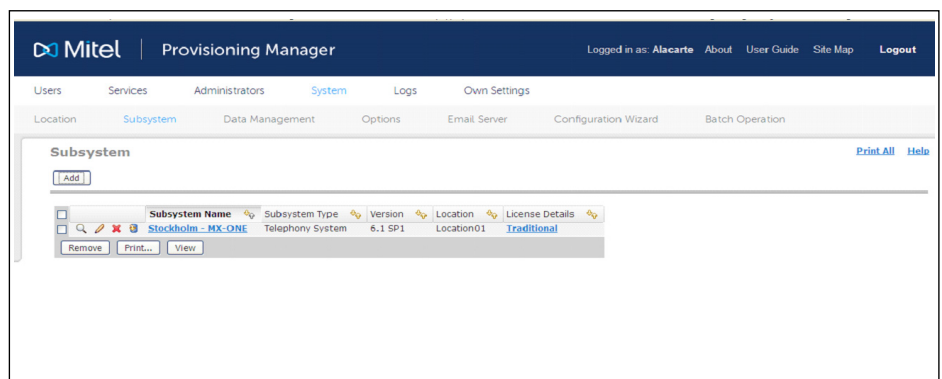
6. Check the result.

7. Logout Administrator and do logon with new user.

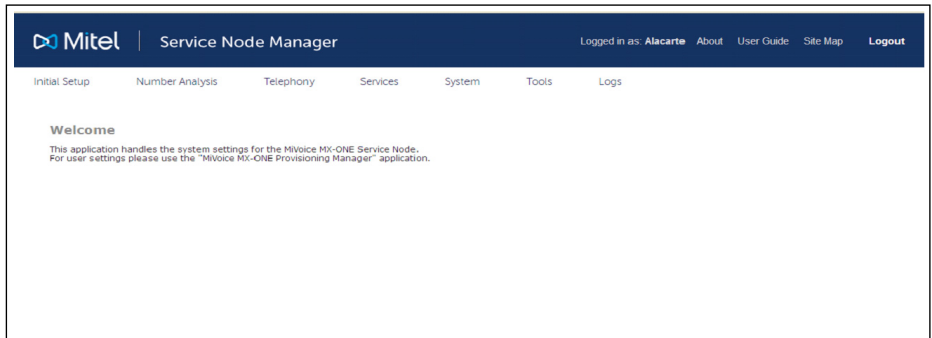8. Add the subsystem and select the location, if the setup is correct, only one appears.
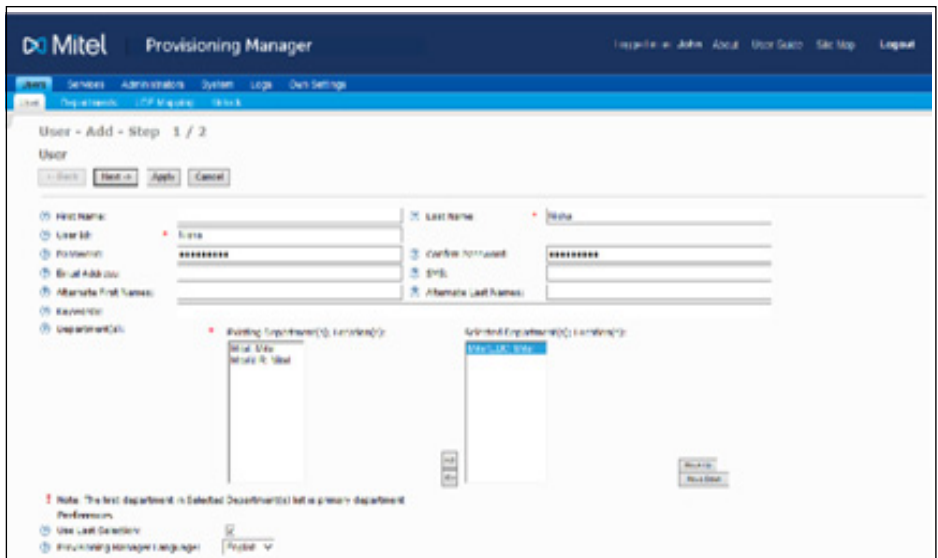

9. Check the result.

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
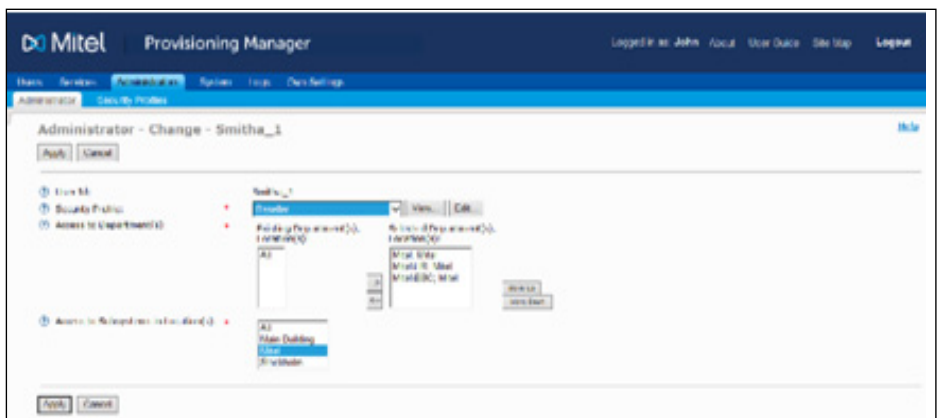
16. Check the result.

10 END USER PROFILE SETTINGS TO MONITOR GROUP DATA

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.
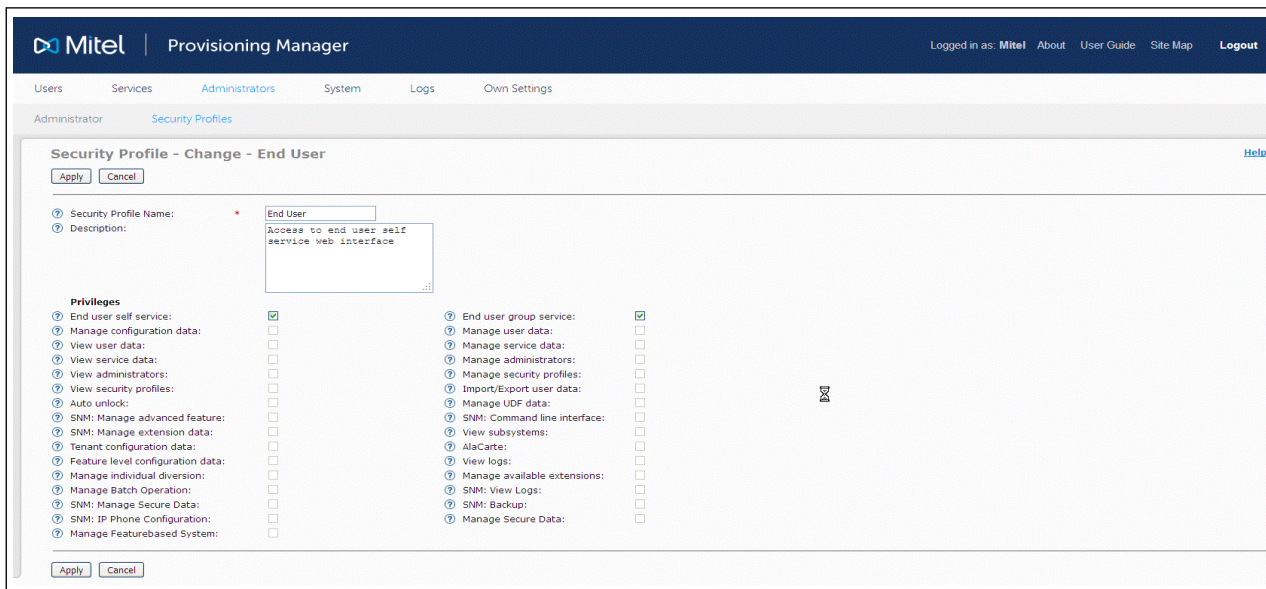

Figure 13: Change screen for End user security profile

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.
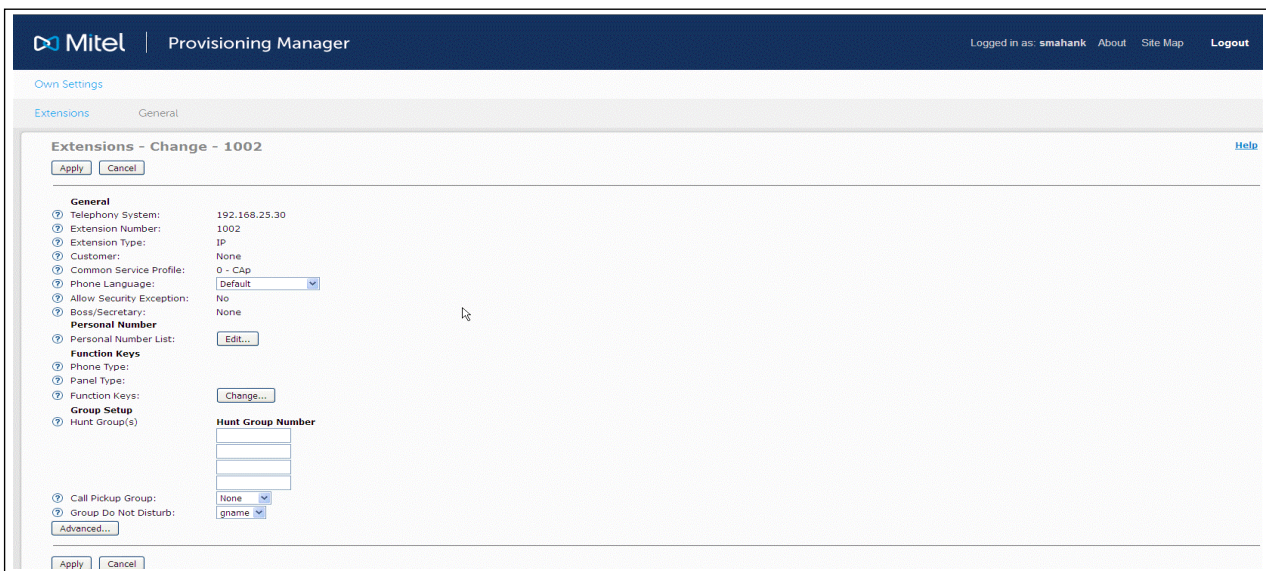

Figure 14: End User Extension page

11 SYSTEM AND ERROR MESSAGES

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.
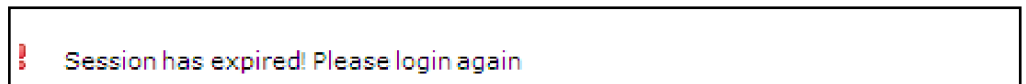

Figure 15: Error messages

Figure 16: Information messages

Figure 17: 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
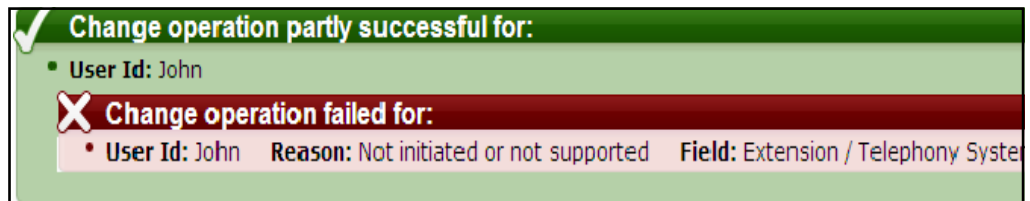

Figure 18: Other messages

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

Figure 19: Pop-up message

11.1 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.

11.1.1 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.

12 POST-INSTALLATION CONFIGURATION TOOL

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.