



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for Kurmi Unified Provisioning and Selfcare 7.4 with Avaya Aura® Communication Manager 8.1 and Aura® System Manager 8.1 - Issue 1.0**

## **Abstract**

These Application Notes describe the configuration steps required for configuring Kurmi Unified Provisioning and Selfcare with Avaya Aura® Communication Manager and Avaya Aura® System Manager.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

These Application Notes describe the configuration steps to integrate Avaya Aura® Communication Manager with Kurmi Unified Provisioning and Selfcare. Kurmi uses System Access Terminal (SAT) via SSH with Avaya Aura® Communication Manager and User Management Web Services (UMWS) with Avaya Aura® System Manager. Kurmi Unified Provisioning and Selfcare simplifies everyday telephone tasks and makes information available which allows optimization of the system management and provisioning. The Kurmi Unified Provisioning and Selfcare functions are divided into different connectors which may be used individually or combined, as required. The main components are installed on a CentOS based server, which is also responsible for the communication with the Avaya Aura environment. A Web client enables access to Kurmi Unified Provisioning and Selfcare functions by using a browser. Kurmi Unified Provisioning and Selfcare enables the user to Add, Change and Delete stations and Voicemail boxes. Session Initialization Protocol (SIP) stations can also be administered via the Avaya Aura® System Manager.

## 2. General Test Approach and Test Results

The general test approach was to configure the Kurmi Unified Provisioning and Selfcare (Kurmi) to communicate to the Avaya Aura environment including Communication Manager and System Manager as implemented on a customer site. See **Figure 1** for a network diagram. The interoperability compliance test included both feature functionality and serviceability tests.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and Kurmi utilized capabilities of SSH for SAT access to Avaya Aura Communication Manager and UMWS via HTTPS port 443 to System Manager as requested by Kurmi.

This solution uses the System Access Terminal (SAT) interface to interact with Avaya Aura® Communication Manager. While this solution has successfully completed Compliance Testing for the specific release levels as described in these Application Notes, Avaya does not generally

recommend use the SAT interface as a programmatic approach to integration of 3rd party applications. Avaya may make changes or enhancements to the SAT interface in any subsequent release, feature pack, service pack, or patch that may impact the interoperability of 3rd party applications using this SAT interface. Using the SAT interface in a programmatic manner may also result in a variety of operational issues, including performance impacts to the Avaya solution. If there are no other programmatic options available to obtain the required data or functionality, Avaya recommends that 3rd party applications only be executed during low call volume periods, and that real time delays be inserted between each command execution. NOTE: The scope of the compliance testing activities reflected in these Application Notes explicitly did not include load or performance evaluation criteria, and no guarantees or assurances are made by Avaya that the 3rd party application has implemented these recommendations. The vendor of the 3rd party application using this interface remains solely responsible for verifying interoperability with all later Communication Manager Releases, including feature packs, service packs, and patches as issued by Avaya. For additional details see Avaya Product Support Notices PSN002884u, PSN005085u, and PSN020295u, available at [www.avaya.com/support](http://www.avaya.com/support).

## 2.1. Interoperability Compliance Testing

Feature functionality testing included:

- Verify synchronization between Kurmi and Communication Manager/System Manager/Avaya Messaging.
- Add/Change/Delete Analogue/Digital/IP stations (H.323 and SIP).
- Add/Change/Delete Voicemail boxes.
- Add/Change/Delete Hunt/Pickup groups.
- Change Abbreviation dialing lists.
- Schedule jobs.

Miscellaneous:

- Kurmi disconnect/reconnection
- Restart failed job synchronization

## 2.2. Test Results

Tests were performed to insure full interoperability between Kurmi Unified Provisioning and Selfcare and the Communication Manager/System Manager/Messaging. The tests were all functional in nature and performance testing was not included. The following were observed:

- All test cases completed successfully. Note that administration and synchronization of Avaya Messaging is done through System Manager.

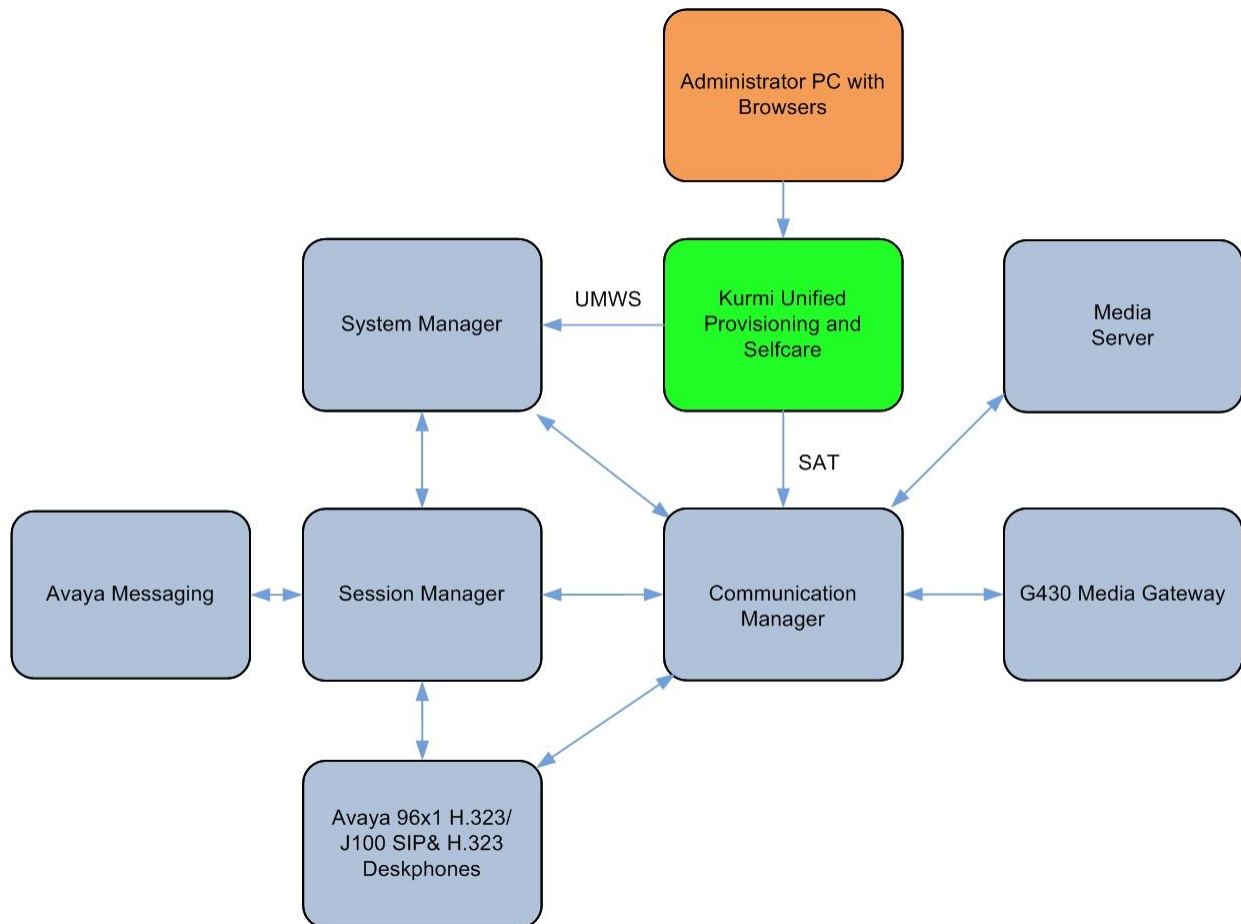
## 2.3. Support

Technical support for Kurmi products can be found as follows:

Email: [support@kurmi-software.com](mailto:support@kurmi-software.com)

### 3. Reference Configuration

**Figure 1** illustrates the network topology used during compliance testing. The Avaya solution consists of Communication Manager, System Manager, Session Manager, Avaya Messaging, and a G430 Media Gateway. The Kurmi Unified Provisioning and Selfcare was installed on Virtual Machine running CentOS and connected to the same Network as the Avaya equipment. A client PC with a web browser was used to access the Kurmi application.



**Figure 1: Test Configuration**

## 4. Equipment and Software Validated

The following table describes the hardware components of the test configuration.

Avaya Equipment/Software	Release/Version
Avaya Aura® Communication Manager	8.1.3.2 (8.1.3.2.0.890.26989)
Avaya Aura® Session Manager	8.1.3.2 (8.1.3.2.813207)
Avaya Aura® System Manager	8.1.3.2 Build No. - 8.1.0.0.733078 Software Update Revision No: 8.1.3.2.1012646 SP 2
Avaya G430 Media Gateway	41.34.3
Avaya Aura Media Server	8.0.2.218
Avaya Messaging (Officelinx)	10.8 SP1SU2
Avaya J100 Series SIP Deskphones	4.0.10.0.4
Avaya 96x1/J100 Series H.323 Deskphones	6.8511
Kurmi Equipment/Software	Release/Version
Kurmi Unified Provisioning and Selfcare running on CentOS 7.9	Version 7.4.2

**Note:** All Avaya Aura® and Kurmi systems runs on VMware 6.7 virtual platform.

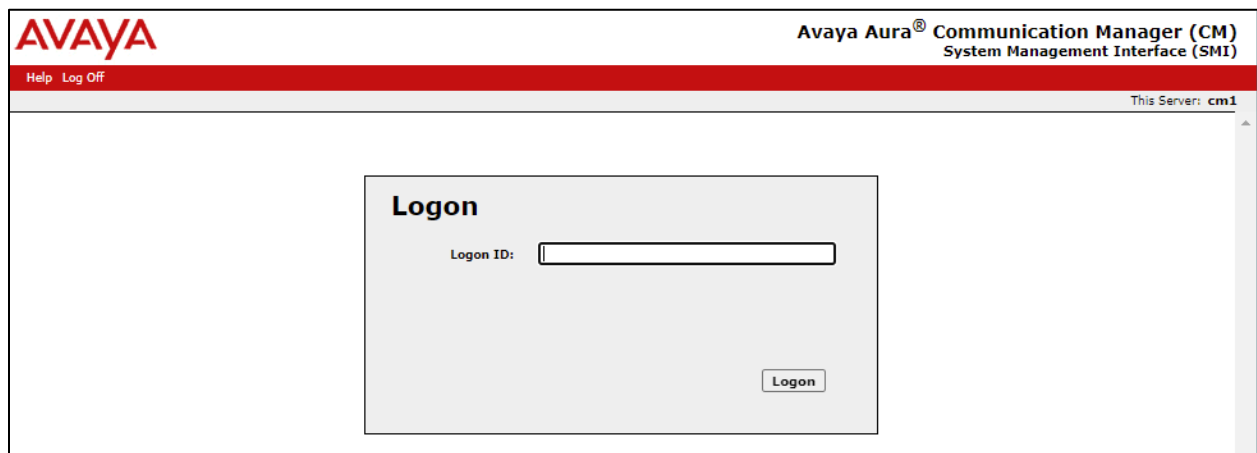
## 5. Configure Avaya Aura® Communication Manager

The only configuration relating to Communication Manager is that an Administrator account as a Privileged Administrator is required for Kurmi. Also, Server access of port 5022 needs to be enabled.

**Note:** The IP address and Release of the Communication Manager will be required for the Kurmi configuration.

### 5.1. Configure Privileged Administrator

To access the OAM web-based interface of Communication Manager use the URL <https://x.x.x.x>, where **x.x.x.x** is the selected IP address of Communication Manager. The Management console is displayed. Log in using the appropriate credentials and click on the **Logon** button.



The screenshot shows the Avaya Aura Communication Manager (CM) System Management Interface (SMI) login page. The page has a red header bar with the Avaya logo on the left and the text "Avaya Aura® Communication Manager (CM) System Management Interface (SMI)" on the right. Below the header, there is a navigation bar with "Help" and "Log Off" links. The main content area is white and contains a gray login box. The login box has the title "Logon" and a label "Logon ID:" followed by a text input field. A "Logon" button is located at the bottom right of the login box. In the top right corner of the main content area, it says "This Server: cm1".

In the subsequent page, click on **Administration** followed by **Server (Maintenance)**.

The screenshot shows the Avaya Aura Communication Manager (CM) System Management Interface (SMI) login page. The top navigation bar includes 'Help', 'Log Off', 'Administration', 'Licensing', and 'Server (Maintenance)'. The 'Administration' menu is expanded, showing 'Server (Maintenance)' as the selected option. The page title is 'Avaya Aura® Communication Manager (CM) System Management Interface (SMI)'. The main content area displays the 'System Management Interface' title, copyright information for 2001-2021 Avaya Inc., and sections for 'Copyright', 'Third-party Components', and 'Trademarks'. The 'Copyright' section states that the product is protected by copyright and other laws. The 'Third-party Components' section mentions that certain software programs may contain third-party components and provides a link to the Avaya website for more information. The 'Trademarks' section lists Avaya, the Avaya Logo, and Avaya Aura as registered trademarks of Avaya Inc., and Linux as a registered trademark of Linus Torvalds.

In the next page select **Security** → **Administrator Accounts** (not shown) from the left pane.

The screenshot shows the Avaya Aura Communication Manager (CM) System Management Interface (SMI) Server Administration page. The top navigation bar includes 'Help', 'Log Off', 'Administration', 'Licensing', and 'Server (Maintenance)'. The 'Administration' menu is expanded, showing 'Server (Maintenance)' as the selected option. The page title is 'Avaya Aura® Communication Manager (CM) System Management Interface (SMI)'. The main content area displays the 'Server Administration' title and a welcome message: 'Welcome to the "Server Administration Interface". This interface allows you to maintain, troubleshoot, and configure the server. Please use the menu to the left for navigation.' The left sidebar contains a list of navigation items: 'Alarms', 'Current Alarms', 'SNMP', 'Agent Status', 'Access', 'Incoming Traps', 'FP Traps', 'FP Trap Test', 'FP Filters', 'Diagnostics', 'Restarts', 'System Logs', 'Ping', 'Traceroute', 'Netstat', 'Server', 'Status Summary', 'Process Status', 'Interchange Servers', 'Busy-Out/Release Server', 'Shutdown Server', 'Server Date/Time', 'Software Version', 'Server Configuration', 'Server Role', 'Network Configuration', 'Duplication Parameters', 'Static Routes', 'Display Configuration', 'Time Zone Configuration', 'NTP Configuration', and 'Server Upgrades'.

On the **Administrator Accounts** page, select the **Add Login** radio button followed by the **Privileged Administrator** radio button. Click on the **Submit** button to continue.

The screenshot shows the Avaya Aura Communication Manager (CM) System Management Interface (SMI) Administrator Accounts page. The page has a red header bar with the Avaya logo on the left and the title 'Avaya Aura® Communication Manager (CM) System Management Interface (SMI)' on the right. Below the header, there is a navigation bar with 'Help' and 'Log Off' links, and a 'Administration' tab. The main content area is titled 'Administrator Accounts' and contains a description: 'The Administrator Accounts SMI pages allow you to add, delete, or change administrator logins and Linux groups.' Below this, there is a 'Select Action:' section with several radio buttons and dropdown menus. The 'Add Login' radio button is selected, and the 'Privileged Administrator' radio button is also selected. Other options include 'Unprivileged Administrator', 'SAT Access Only', 'Web Access Only', 'CDR Access Only', 'Business Partner Login (dadmin)', 'Business Partner Craft Login', and 'Custom Login'. There are also dropdown menus for 'Change Login', 'Remove Login', 'Lock/Unlock Login', 'Add Group', and 'Remove Group'. At the bottom of the page, there are 'Submit' and 'Help' buttons. On the left side of the page, there is a sidebar menu with various configuration options, including 'Server Role', 'Network Configuration', 'Duplication Parameters', 'Static Routes', 'Display Configuration', 'Time Zone Configuration', 'NTP Configuration', 'Server Upgrades', 'Pre Update/Upgrade Step', 'Manage Updates', 'IPSI Firmware Upgrades', 'IPSI Version', 'Download IPSI Firmware', 'Download Status', 'Activate IPSI Upgrade', 'Activation Status', 'Data Backup/Restore', 'Backup Now', 'Backup History', 'Schedule Backup', 'Backup Logs', 'View/Restore Data', 'Restore History', 'Security', 'Administrator Accounts', 'Login Account Policy', 'Change Password', 'Login Reports', 'Server Access', 'Server Log Files', 'Firewall', 'Install Root Certificate', and 'Trusted Certificates'.

Avaya Aura® Communication Manager (CM)  
System Management Interface (SMI)

Help Log Off Administration Duplicate Server: cm2 [10.1.10.232] This Server: cm1

Administration / Server (Maintenance)

### Administrator Accounts

The Administrator Accounts SMI pages allow you to add, delete, or change administrator logins and Linux groups.

Select Action:

☒ Add Login

☒ Privileged Administrator

☐ Unprivileged Administrator

☐ SAT Access Only

☐ Web Access Only

☐ CDR Access Only

☐ Business Partner Login (dadmin)

☐ Business Partner Craft Login

☐ Custom Login

☐ Change Login

☐ Remove Login

☐ Lock/Unlock Login

☐ Add Group

☐ Remove Group



In the next page enter the following:

- **Login name** Enter **Kurmi**.
- **Additional groups** Select **prof18**.
- **Enter password** Enter appropriate login password.
- **Re-enter password** Re-enter the password.
- **Force password change on next login** Click the **No** radio button.

Leave the rest as default. The login with user profile 18 (**prof18**) has access to all possible Web Pages as members of the Linux group **susers** and is for customer with super user access.

Click the **Submit** radio button to save.

**Administrator Accounts -- Add Login: Privileged Administrator**

This page allows you to add a login that is a member of the **SUSERS** group. This login has the greatest access

Login name	<input type="text" value="Kurmi"/>
Primary group	<input type="text" value="susers"/>
Additional groups (profile)	<input type="text" value="prof18"/>
Linux shell	<input type="text" value="/bin/bash"/>
Home directory	<input type="text" value="/var/home/Kurmi"/>
Lock this account	<input type="checkbox"/>
SAT Limit	<input type="text" value="none"/>
Date after which account is disabled-blank to ignore (YYYY-MM-DD)	<input type="text"/>
Enter password	<input type="password" value="....."/>
Re-enter password	<input type="password" value="....."/>
Force password change on next login	<input checked="" type="radio"/> No <input type="radio"/> Yes

## 5.2. Server Access

Port 5022 needs to be enabled so as allow Kurmi access to Communication Manager. Select **Security** → **Server Access** from the left pane. In the **SSH Server Access** section, click on the **Enable** radio button for **SAT**. In the **Minimum TLS Versions** section for **Connection Type System Management Interface (SMI) pages**, select the appropriate **Minimum TLS Version** supported. Click on the **Submit** (not shown) button to save.

**AVAYA** Avaya Aura® Communication Manager (CM) System Management Interface (SMI)

Help Log Off Administration Duplicate Server: **cm2 [10.1.10.232]** This Server: **cm1**

Administration / Server (Maintenance)

**Server Access**

The Server Access SMI page can be used to enable or disable SSH services, set the minimum TLS version number for various link types, and enable or disable Avaya Services Access.

**SSH Server Access**

Service Name	Service State
SSH Server (SCP/SFTP 22)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SAT over SSH (5022)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
High Priority SSH (2222)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

**Notes:**

- The default firewall is configured to allow incoming connections on a service that is enabled (see help for more information). However, this is not applicable if the firewall settings have been altered manually and if so please make sure the firewall is configured correctly to allow for the necessary incoming connections.

**Minimum TLS Versions**

Connection Type	Minimum TLS Version
System Management Interface (SMI) pages:	<input type="text" value="TLS Version 1.0"/>
CM Duplication Link:	<input type="text" value="TLS Version 1.0"/>
Filesync connections:	<input type="text" value="TLS Version 1.0"/>
CM signaling connections:	<input type="text" value="TLS Version 1.0"/>

**Notes:**

- Increasing the minimum TLS version could cause connections with other devices to fail, unless those devices also support the minimum TLS version that is selected.
- The SMI minimum TLS version will take effect immediately after pressing submit. For the other connection types, you will need to restart CM to pick up the changes. This will be service affecting.

**Enable/Disable Avaya Services EASG Access**

**Navigation Menu:**

- Server Role
- Network Configuration
- Duplication Parameters
- Static Routes
- Display Configuration
- Time Zone Configuration
- NTP Configuration
- Server Upgrades
  - Pre Update/Upgrade Step
  - Manage Updates
- PSI Firmware Upgrades
  - IPSI Version
  - Download IPSI Firmware
  - Download Status
  - Activate IPSI Upgrade
  - Activation Status
- Data Backup/Restore
  - Backup Now
  - Backup History
  - Schedule Backup
  - Backup Logs
  - View/Restore Data
  - Restore History
- Security
  - Administrator Accounts
  - Login Account Policy
  - Change Password
  - Login Reports
  - Server Access
  - Server Log Files
  - Firewall
  - Install Root Certificate
  - Trusted Certificates
  - Server/Application Certificates
  - Certificate Alarms
  - Certificate Signing Request
  - SSH Keys
  - Web Access Mask
  - Miscellaneous

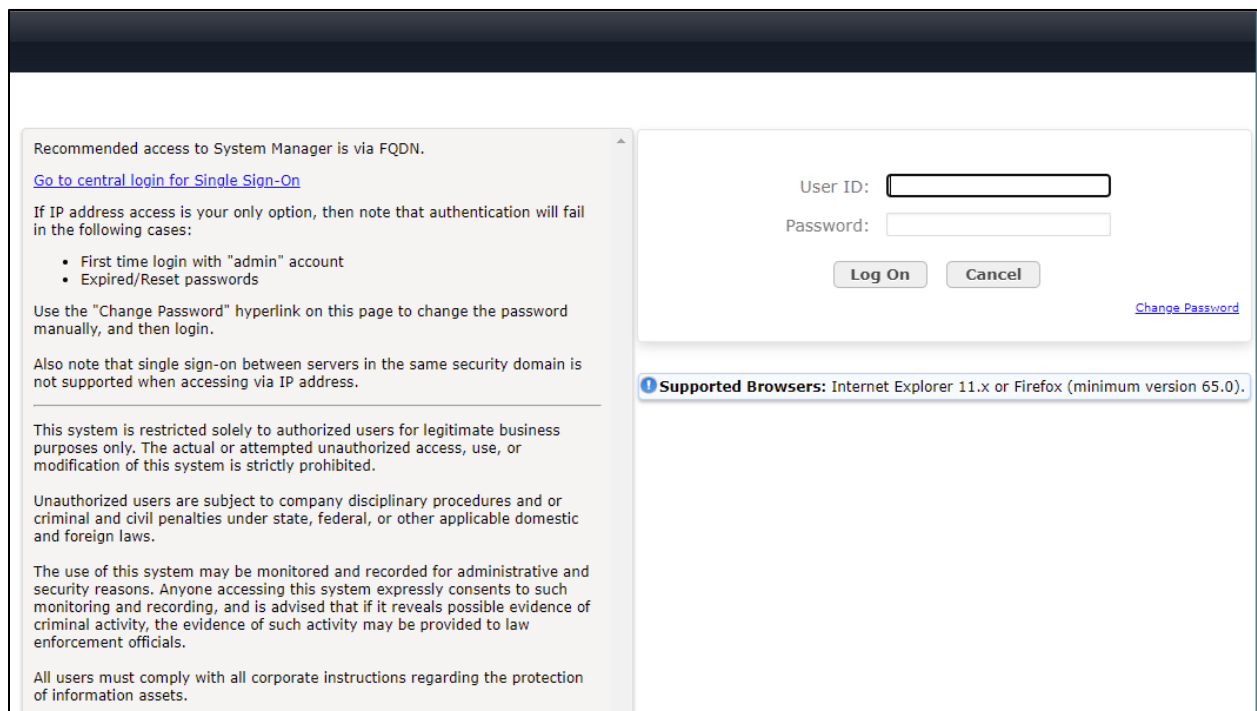
## 6. Configure Avaya Aura® System Manager

The only configuration relating to System Manager is that an Administrative User with a System Administrator Role is required for Kurmi. Also, HTTPs port 443 needs to be enabled which is opened by default.

**Note:** The IP address and Release of the System Manager will be required for the Kurmi configuration.

### 6.1. Configure Administrative User

To access the OAM web-based interface of the System Manager use the URL **https://x.x.x.x**, where **x.x.x.x** is the IP address of the System Manager. Once the System Manager Web page opens, log in with the appropriate credentials and click the **Log On** button.



Recommended access to System Manager is via FQDN.  
[Go to central login for Single Sign-On](#)

If IP address access is your only option, then note that authentication will fail in the following cases:

- First time login with "admin" account
- Expired/Reset passwords

Use the "Change Password" hyperlink on this page to change the password manually, and then login.

Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address.

This system is restricted solely to authorized users for legitimate business purposes only. The actual or attempted unauthorized access, use, or modification of this system is strictly prohibited.

Unauthorized users are subject to company disciplinary procedures and or criminal and civil penalties under state, federal, or other applicable domestic and foreign laws.

The use of this system may be monitored and recorded for administrative and security reasons. Anyone accessing this system expressly consents to such monitoring and recording, and is advised that if it reveals possible evidence of criminal activity, the evidence of such activity may be provided to law enforcement officials.

All users must comply with all corporate instructions regarding the protection of information assets.

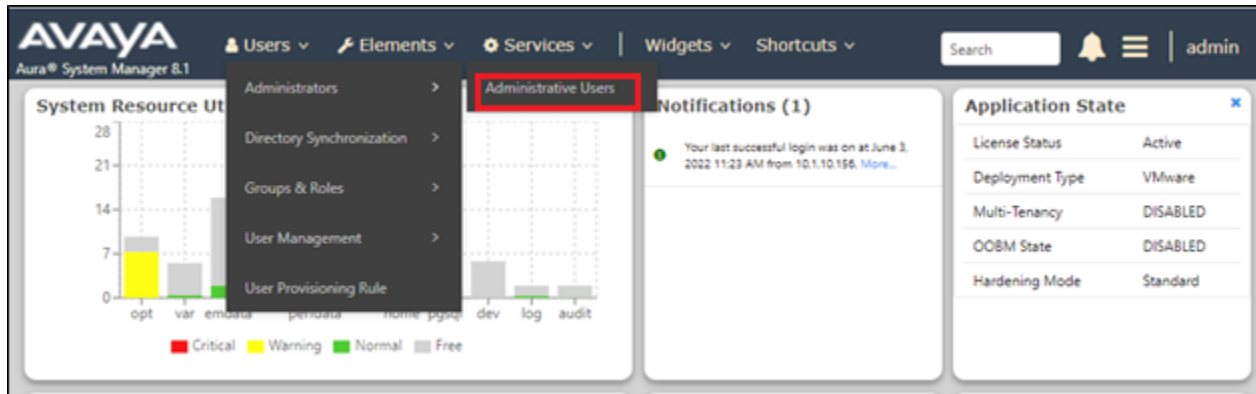
User ID:

Password:

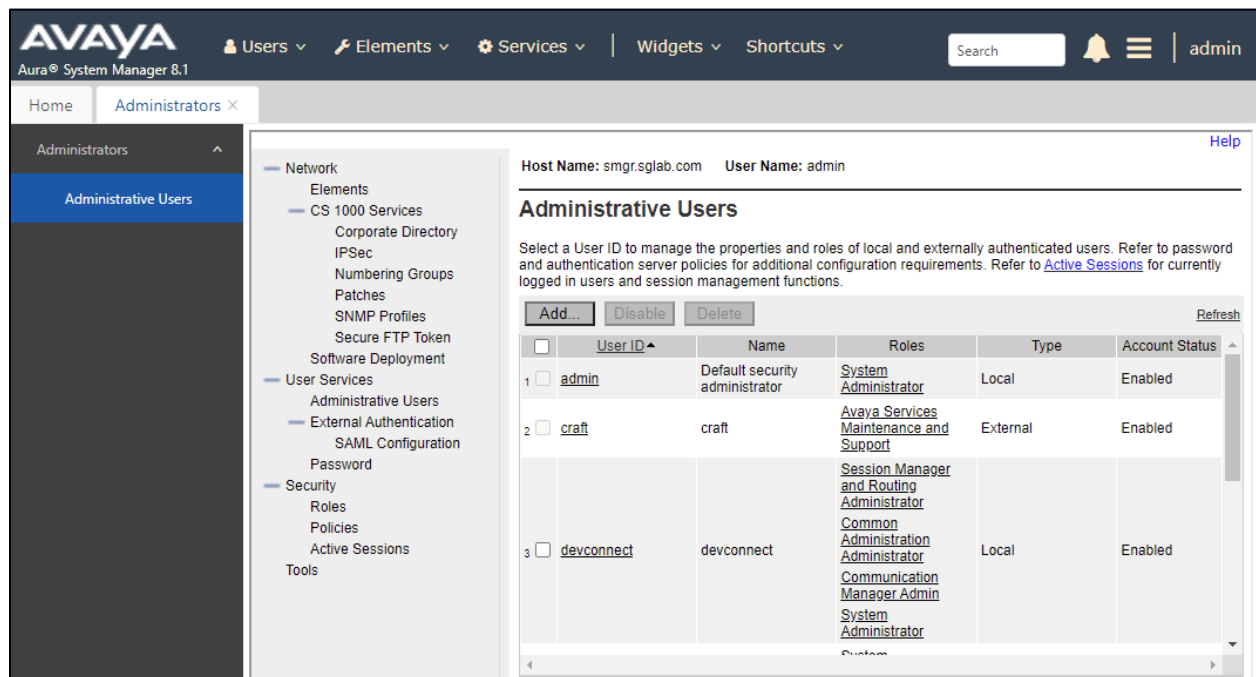
[Change Password](#)

**Supported Browsers:** Internet Explorer 11.x or Firefox (minimum version 65.0).

In the subsequent page, click on **Users** → **Administrators** → **Administrative Users** in the drop-down menu.



When the **Administrative Users** page opens, click on the **Add** button.



When the **Add New Administrative User** page opens enter the following:

- **User ID** Enter user name.
- **Authentication Type** Click **Local**.
- **Full Name** Enter **Kurmi Provisioning**.
- **Password** Enter a temporary password.
- **Re-enter password** Re-enter the password.

Click on the **Commit and Continue** button.

**Note:** The next time the kurmi user logs on to the System Manager, the password will be required to be changed.

Host Name: smgr.sglab.com User Name: admin

### Add New Administrative User

**Step1: Identify the new user.**  
Enter the user's full name and select an authentication type and User ID. Locally authenticated users also required a temporary password.

\* User ID:  (1-31) (Allowed characters are a-z, A-Z, 0-9, ., - and \_)

Authentication Type: ☒ Local  
☐ External

\* Full Name:

E-Mail:

The user will receive notifications on this E-Mail address.

\* Temporary password:

\* Re-enter password:

The user will be required to change this password when logging in.

Allowed characters in the password are: a-zA-Z0-9{}|()<>./,=[]^\_@\$%&-+~?'\; The length of your password must be at least 5 characters.

**Note:** The new user must be saved before you may assign roles.

\* Required

When the next page opens, using the scroll bar on the right side of the **Roles** pane scroll down and click the **System Administrator** box. Click on the **Commit** button to save.

Host Name: smgr.sglab.com User Name: admin

### Add New Administrative User

**Step2:** Assign Role(s)  
Selected roles authorize the user for associated features and element permissions.

Roles		
<input type="checkbox"/>	Routing Administrator	Session Manager and Routing Administrator
<input type="checkbox"/>	30 Session Manager and Routing Auditor	Session Manager and Routing Auditor
<input type="checkbox"/>	31 SIPAS Auditor	Gives read-only access to all SIP Foundation server management functionality.
<input type="checkbox"/>	32 SIPAS Security Administrator	Gives access to the security features provided by the SIP Foundation server. For example, Security Extension.
<input type="checkbox"/>	33 SIPAS System Administrator	Gives read and write access to all the SIP Foundation server management functionality.
<input checked="" type="checkbox"/>	34 System Administrator	Gives the super-user privilege to perform any operation in System Manager through implicit wild card rules.
<input type="checkbox"/>	35 Tenant Administrator Template	A role for basic tenant administration functionality. It can be used as a template to

Commit Cancel

## **7. Configure Avaya Aura® Session Manager**

There is no specific configuration of Session Manager.

**Note:** Release of the Session Manager will be required for the Kurmi configuration.

## **8. Configure Avaya Messaging**

There is no specific configuration of Messaging as administration of voicemail box is through System Manager.

## **9. Configure Kurmi Unified Provisioning and Selfcare**

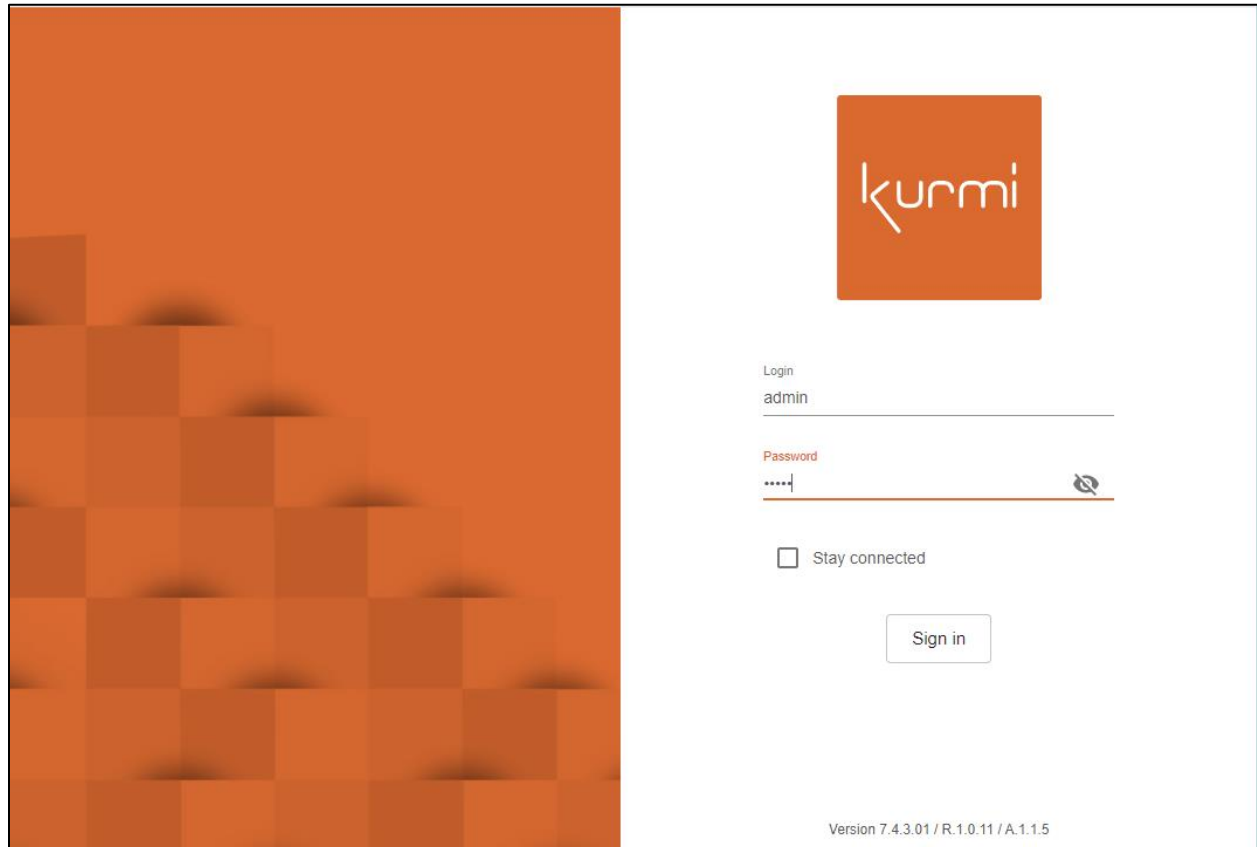
At the request of Kurmi, the configuration of Kurmi Unified Provisioning and Selfcare is excluded from these Application Notes. Kurmi Unified Provisioning and Selfcare is installed and configured by Kurmi Professional Services or trained Kurmi partners.

## 10. Verification Steps

This section provides tests that can be performed to verify correct configuration of the Avaya and Kurmi solution.

### 10.1. Verify synchronization

To access the OAM web-based interface of Kurmi use the URL **http://x.x.x.x**, where **x.x.x.x** is the IP address of Kurmi. The **Sign in** page is displayed. Log in using the appropriate credentials and click on the **Sign in** button to continue.

The screenshot shows the Kurmi web-based interface. On the left is a large orange square with a pixelated pattern. On the right is a white login form. At the top right of the form is the Kurmi logo, which consists of the word 'kurmi' in white lowercase letters on an orange square background. Below the logo are two input fields: 'Login' with the text 'admin' and 'Password' with masked characters '\*\*\*\*'. To the right of the password field is an eye icon for toggling visibility. Below these fields is a checkbox labeled 'Stay connected'. A 'Sign in' button is positioned below the checkbox. At the bottom right of the page, the version information 'Version 7.4.3.01 / R.1.0.11 / A.1.1.5' is displayed.



Click on **Substitution** in the left pane below and select the **Tenants** under **Substitution levels** on the right. Select the appropriate **Tenants** from the list to administer. In this compliance testing, **AvayaTestingv2** is selected.

The screenshot shows the Kurmi application interface. On the left is a dark sidebar with the Kurmi logo at the top. Below the logo is a search bar and a list of menu items: Home, Daily management, Settings, Workspaces design, and Report. At the bottom of the sidebar, there is a 'Substitution' button highlighted with a red box, and a user profile for 'admin admin'. The main content area has a header with 'HOME' and a greeting 'Hello, admin admin' with the date 'Today is 7/20/22' and time '5:28:11 pm'. Below the greeting, there is a section for 'Last scenarios in progress' and a message 'You do not have any scena'. On the right side of the main content area, there is a 'Substitution levels' panel. This panel has a dropdown menu with 'Provider' and 'Tenants' (highlighted with a red box). Below the dropdown is a table with the following data:

Identifier	Description
AvayaComplianceTestingv1	
AvayaTestingv2	
working_tenant	

At the bottom right of the table, it says '1 page(s)' and '3 element(s)'.

### 10.1.1. Verify Avaya Station synchronization

Navigate from the left pane **Settings** → **Advanced resources** → **Users/Lines/Devices** → **Station**. Select a station on the right pane (not shown) say 400011 as shown below. The station details should match the station details configured on Communication Manager (See **Section 10.1.2**).

The screenshot shows the Avaya user interface for modifying a station. The left sidebar contains a navigation menu with the following items: Bundles, Report, Advanced resources, Users/Lines/Devices, Users, Station (highlighted), Devices, Directories, Avaya, Others, and Daily management. At the bottom of the sidebar, there is a 'Substitution' button and a user profile for 'AA admin admin'. The main content area is titled 'LINE #400011 MODIFICATION' and includes a calendar icon for '31', 'Apply', and 'Cancel' buttons. The 'Line Information' section displays the following details: Department: root, Ecosystem: CCCM1, Extension\*: 400011, E164: +1400011, Displayed Number, and Description: Ligne 400011. Below this, there are expandable sections for Status, Other information, Station, Options, Features, and Enhanced call forward. The 'Links' section lists associated entities: Associated Avaya Coverage Answer Groups (coverageanswergroups) set to None, Associated Avaya EC500 set to None, Associated Avaya line groups set to 10000 (AA), Associated devices set to J169 (Not connected - Ligne 400011), and Associated Avaya pickup groups set to None.

LINE #400011 MODIFICATION	
Line Information	
Department :	root
Ecosystem :	CCCM1
Extension * :	400011
E164 :	+1400011
Displayed Number :	
Description :	Ligne 400011
Status	>
Other information	>
Station	>
Options	>
Features	>
Enhanced call forward	>
Links	
Associated Avaya Coverage Answer Groups (coverageanswergroups) :	None
Associated Avaya EC500 :	None
Associated Avaya line groups :	10000 (AA)
Associated devices :	J169 (Not connected - Ligne 400011)
Associated Avaya pickup groups :	None

### 10.1.2. Display Extensions on Avaya Aura® Communication Manager

Using SAT use the **display station** command to display the extension created on Communication Manager.

```
display station 400011                                     Page 1 of 6
STATION
Extension: 40.00.11      Attendant? n Lock Messages? n      BCC: 0
Type: J169              Security Code: *                    TN: 1
Port: S000190           Coverage Path 1: 1                  COR: 0
Name: Erwan J169        Coverage Path 2:                  COS: 1
Unicode Name? y         Hunt-to Station:
STATION OPTIONS
                                Time of Day Lock Table: 1
                                Loss Group: 19
                                Message Lamp Ext: 40.00.11
                                Display Language: english
                                Button Modules: 0
                                Survivable COR: internal
                                Survivable Trunk Dest? y
                                IP SoftPhone? n
                                IP Video? n
```

### 10.1.3. Mail box creation

From the home screen, navigate to **Users** from the left pane and select say user **10069** from the right pane (not shown). Scroll down the user details screen and click the + sign beside **Avaya Messaging**.

Package of the user				
	Service	Number of services	Compliance with the package	Service Health (discrepancies found)
	DepartmentAdmin	-	✓	-
	Selfcare - End user Web Portal	-	✓	-
	Avaya - System Manager ⓘ	1	✓	0
	Avaya - Communication Profile Set ⓘ	1	✓	0
✓	Avaya - Communication Address	3	✓	0
	Voice and Device Management ⓘ	1	✓	0
	Bridged Call Appearance	-	✓	-
	Hunt Group Members	-	✓	-
	Pickup Group Member	-	✓	-
	Coverage Answer Group Members	-	✓	-
	Avaya - Session Manager ⓘ	1	✓	0
	Avaya Messaging	-	✓	-
Non-Package discovered services				

The next screen is shown below. Click the **Apply** button and the creation is in progress.

PROVIDING A SERVICE: AVAYA MESSAGING

General Information

Voicemail Password : Keep current value : ☒

Package

Service Avaya Messaging New

AvayaCommProfileSetService : SIP10069 AVAYA / 10069@sglab.com / 10069@sglab.com - Primary

Avaya Messaging

Mailbox Number \* : 10069

Scheduling

Processing ⓘ : Immediate

Tracking number ⓘ : ☐ ⓘ

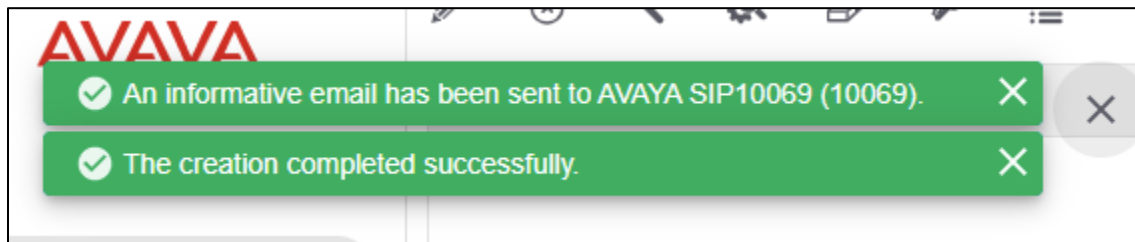
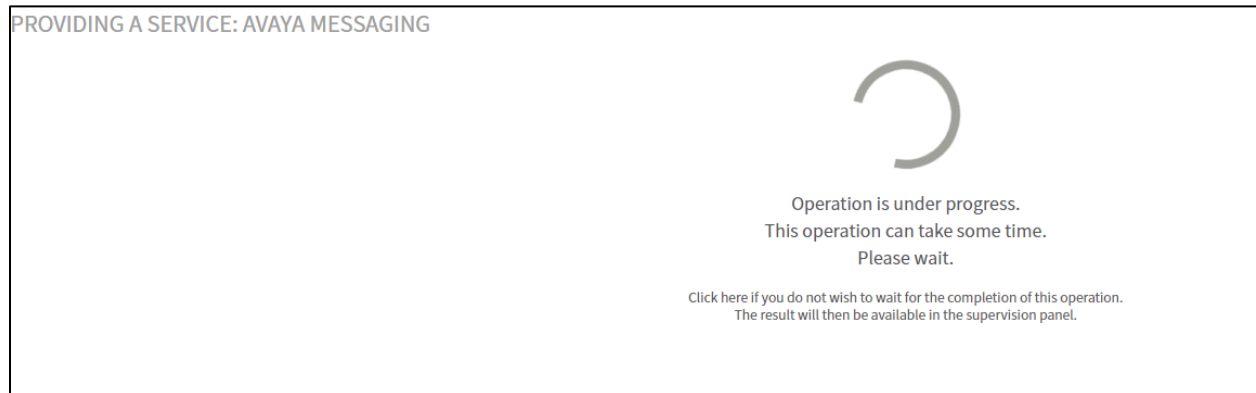
Comment ⓘ : ☐ ⓘ

Apply

Mass extract file...

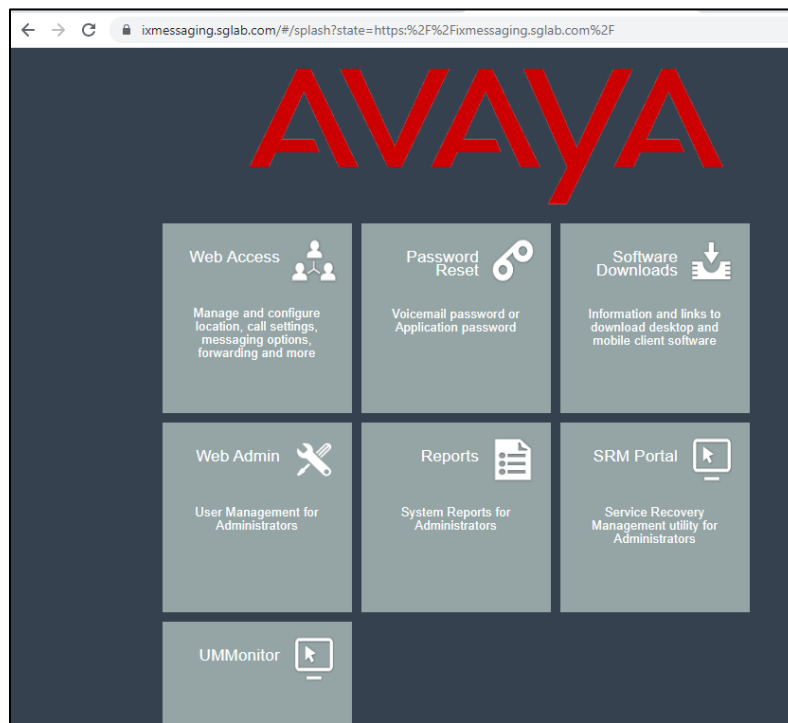
Reset

The screen shows the operation is in progress and once completed successfully, the completion screen is shown on the next screen below.



#### 10.1.4. Verifying User on Avaya Messaging

Access the OAM web-based interface of Avaya Messaging and select **Web Admin**.



When the **Sign In** page pops-up, enter appropriate **User Name** and **Password**.

A screenshot of the 'Sign In' page. The title 'Sign In' is displayed in green at the top. Below the title, there are two input fields: 'User Name' with the text 'Administrator' entered, and 'Password' with a masked password represented by dots. At the bottom of the form is a yellow 'Log in' button.

In the **Manage Users** page that is now displayed, verify that this matches the mail box created in **Section 10.1.3**.

Avaya

Company Profile

Companies > / Company Profile

Settings

Manage Departments

Manage Users

Manage Feature Groups

Manage Voice Menus



Manage Routing Tables

Manage Fax Jobs

New User

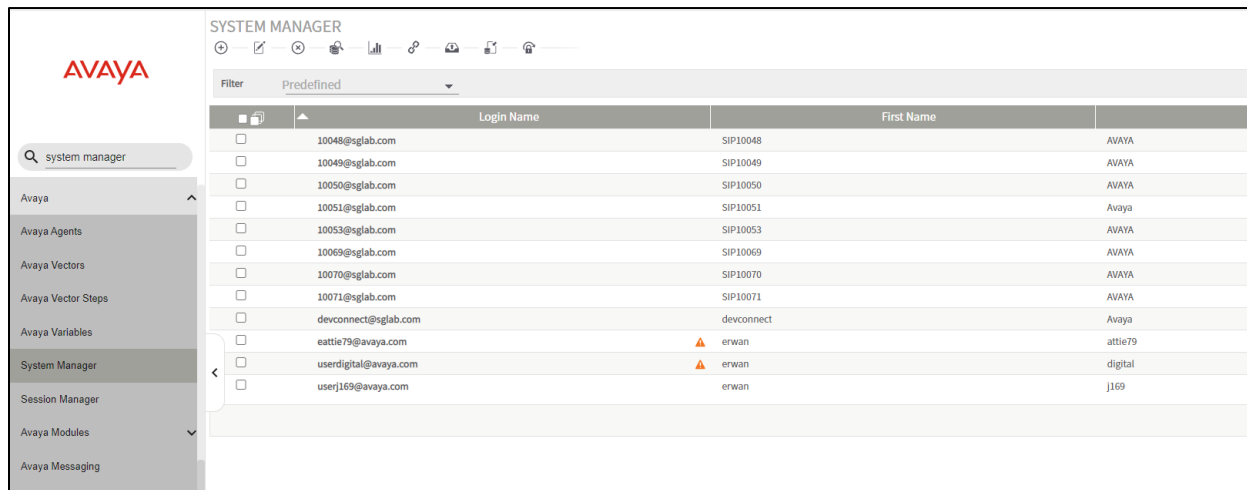
Search by name, number

Go

	Name	Number	Feature Group	Desktop Capability	Storage Mode	Unread Messages	Read Messages	
	SIP10069 AVAYA	10069	1 Default Users	Basic	Database	0	0	<div>Edit</div>
	erwan j169	400011	1 Default Users	Basic	Database	0	0	<div>Edit</div>

### 10.1.5. Verify Avaya Aura® System Manager synchronization

Navigate from the left pane **Settings → Avaya → System Manager**. A list of SIP Users that are configured will be displayed. This list should match the SIP Users configured on System Manager (See **Section 10.1.6**).

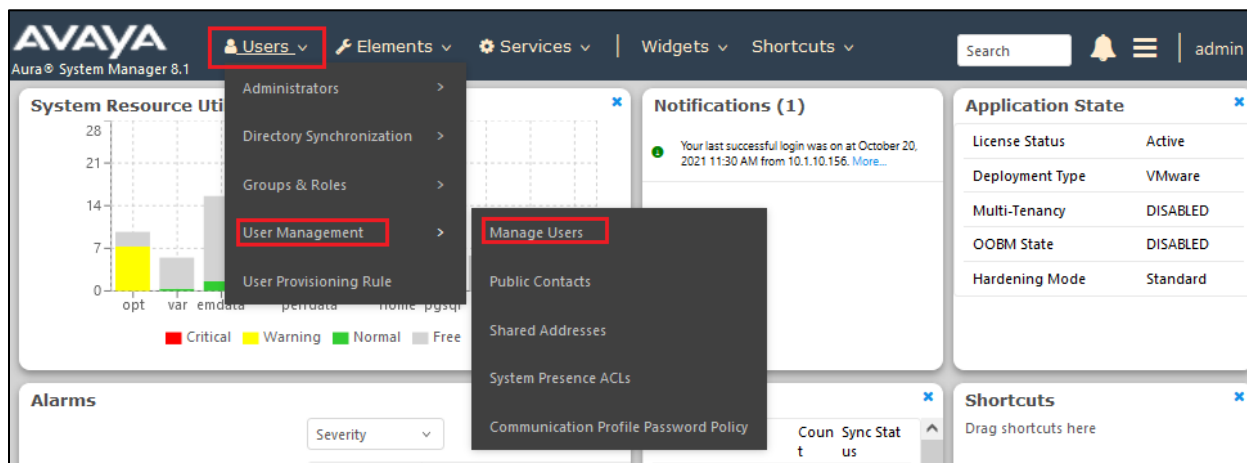


The screenshot shows the Avaya Aura System Manager interface. On the left is a navigation pane with the 'System Manager' option selected. The main area displays a table of SIP users with columns for 'Login Name', 'First Name', and 'Last Name'. The table contains 12 rows of user data, including email addresses like 10048@sglab.com and 10049@sglab.com, and names like erwan, attie79, digital, and j169.

	Login Name	First Name	Last Name
<input type="checkbox"/>	10048@sglab.com	SIP10048	AVAYA
<input type="checkbox"/>	10049@sglab.com	SIP10049	AVAYA
<input type="checkbox"/>	10050@sglab.com	SIP10050	AVAYA
<input type="checkbox"/>	10051@sglab.com	SIP10051	AVAYA
<input type="checkbox"/>	10053@sglab.com	SIP10053	AVAYA
<input type="checkbox"/>	10069@sglab.com	SIP10069	AVAYA
<input type="checkbox"/>	10070@sglab.com	SIP10070	AVAYA
<input type="checkbox"/>	10071@sglab.com	SIP10071	AVAYA
<input type="checkbox"/>	devconnect@sglab.com	devconnect	AVAYA
<input type="checkbox"/>	eattie79@avaya.com	erwan	attie79
<input type="checkbox"/>	userdigital@avaya.com	erwan	digital
<input type="checkbox"/>	userj169@avaya.com	erwan	j169

### 10.1.6. User Management on Avaya Aura® System Manager

Access the OAM web-based interface of System Manager (not shown) and navigate to **Users → User Management → Manage Users**.





When the **User Manager** page opens, verify that this list matches the list shown in **Section 10.1.5**.

Home / User Management / Manage Users					
Search					
<input type="checkbox"/>	First Name	Surname	Display Name	Login Name	SIP Handle
<input type="checkbox"/>	devconnect	Avaya	Avaya, devconnect	devconnect@sglab.com	
<input type="checkbox"/>	SIP10048	AVAYA	AVAYA, SIP10048	10048@sglab.com	+10048
<input type="checkbox"/>	SIP10049	AVAYA	AVAYA, SIP10049	10049@sglab.com	+10049
<input type="checkbox"/>	SIP10050	AVAYA	AVAYA, SIP10050	10050@sglab.com	+10050
<input type="checkbox"/>	SIP10051	Avaya	AVAYA, SIP10051	10051@sglab.com	+10051
<input type="checkbox"/>	SIP10053	AVAYA	AVAYA, SIP10053	10053@sglab.com	+10053
<input type="checkbox"/>	SIP10069	AVAYA	AVAYA, SIP10069	10069@sglab.com	+10069
<input type="checkbox"/>	SIP10070	AVAYA	AVAYA, SIP10070	10070@sglab.com	+10070
<input type="checkbox"/>	SIP10071	AVAYA	AVAYA, SIP10071	10071@sglab.com	
<input type="checkbox"/>	admin	admin	Default Administrator	admin	
Select All					
					Total Users : 13

Home / Users / Manage Users					
Search					
<input type="checkbox"/>	First Name	Surname	Display Name	Login Name	SIP Handle
<input type="checkbox"/>	erwan	attie79	Erwan Attie79	eattie79@avaya.com	+10079
<input type="checkbox"/>	erwan	digital	Erwan Digital	userdigital@avaya.com	+1400009
<input type="checkbox"/>	erwan	J169	Erwan J169	userj169@avaya.com	+1400011
Select All					
					Total Users : 13

## 11. Conclusion

A full and comprehensive set of feature functional test cases were performed during compliance testing. All test cases passed and met all objectives. Kurmi Unified Provisioning and Selfcare 7.4 is considered compliant with Avaya Aura® Communication Manager 8.1 and Avaya Aura® System Manager 8.1. Observations are noted in **Section 2.2**.

## 12. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from <http://support.avaya.com> or from your Avaya representative.

- [1] *Administering Avaya Aura® Communication Manager*, Release 8.1.x, Issue 12, Jul 2021.
- [2] *Administering Avaya Aura® System Manager*, Release 8.1.x, Issue 19, Apr 2022.
- [3] *Administering Avaya Aura® Session Manager*, Release 8.1.x, Issue 10, Sep 2021.
- [4] *IX Messaging™ Server Configuration Guide*, Version 10.8, Apr 2021.

Product Documentation for Kurmi can be obtained at link below where login account is required.  
<http://extranet.kurmi-software.com/extranet>

- [1] *Avaya Aura System Manager Connector dated 2020*
- [2] *Avaya Communication Manager Connector dated 2021*

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