



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

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# **ObjectTel CLASSONE® Endpoint Manager with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services – Issue 1.0**

### **Abstract**

The Application Notes describe configuration required for ObjectTel CLASSONE® Endpoint Manager to successfully interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services.

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

ObjectTel CLASSONE® Endpoint Manager is an application used with Avaya Aura® Communication Manager and Avaya H.323 IP endpoints, enabling disaster recovery and securing business continuity. ObjectTel CLASSONE® Endpoint Manager helps managing Avaya H.323 IP endpoints during switch upgrades, maintenance outages, disasters and system failures.

## 2. General Test Approach and Test Results

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.

### 2.1. Interoperability Compliance Testing

During Interoperability Compliance testing, the following feature tests were executed:

- Upgrading firmware on Avaya H.323 IP Phones, 96xx and 96x1.
- Checking Avaya H.323 IP Phones status via CLASSONE® Endpoint Manager console.
- Failover of Avaya H.323 IP Phones between two Avaya Aura® Communication Managers

### 2.2. Test Results

All Tests were passed with one observation noted as mentioned below:

During Managed Switchover of Avaya H.323 IP Phones, status of the phones was displayed in Green, though the phones were offline. There was no functional impact on the tests that were being performed.

### 2.3. Support

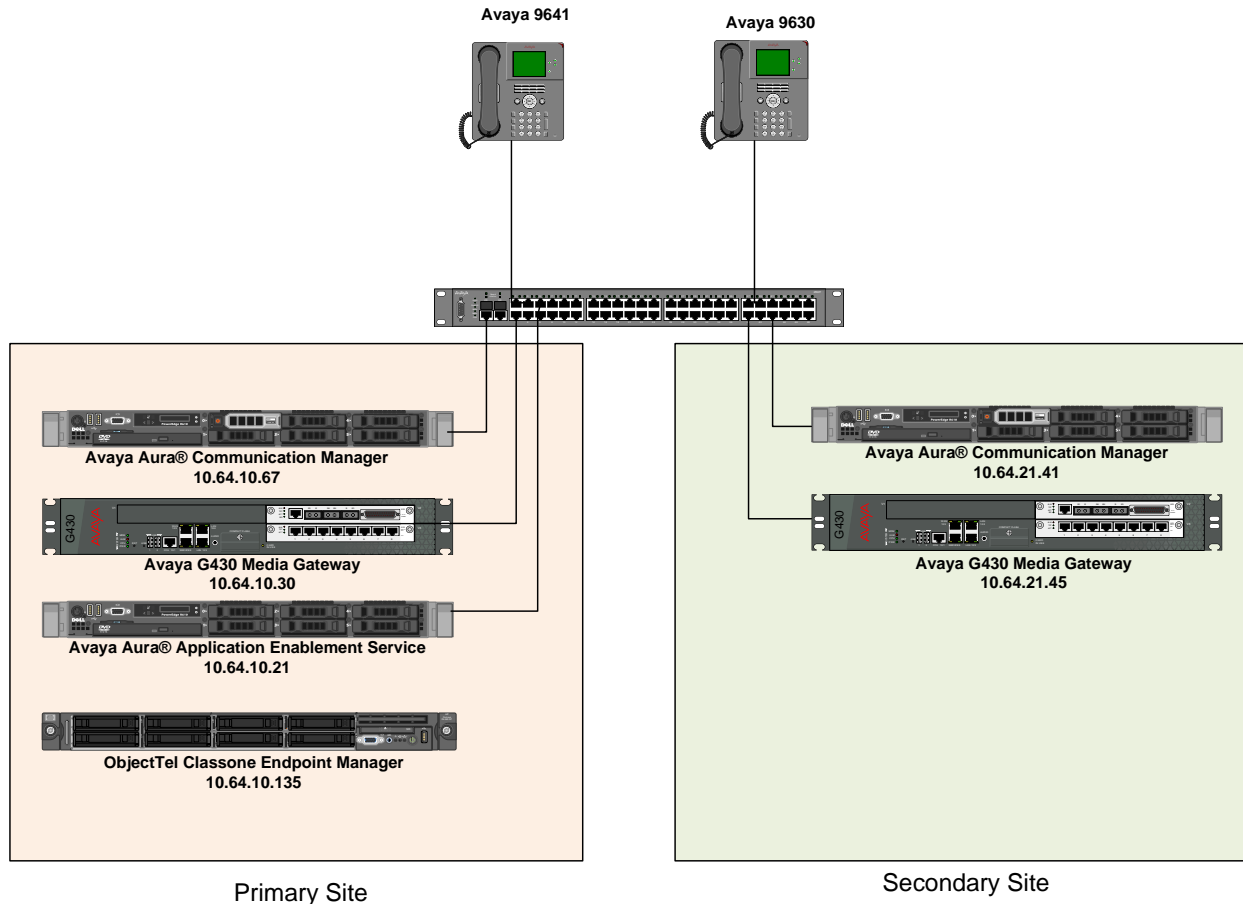
ObjectTel support for customers with current maintenance and support agreement may be obtained via the following means:

Phone: (214) 423-2815

E-mail: [rtisupport@objecttel.com](mailto:rtisupport@objecttel.com)

## 3. Reference Configuration

The following reference configuration shows primary and secondary sites. During compliance testing, Avaya IP Phones were failover between both sites.



**Figure 1:** Reference configuration

## 4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® Communicaiton Manager running on Dell R610 Server	6.2 SP3
Avaya Aura® Application Enablement Services	6.2.12
Avaya G450 Media Gateway	31.20.1
Avaya H.323 IP Phones	3.1.5
Objected CLASSONE® Endpoint Manager	3.2

## 5. Configure Avaya Aura® Communication Manager

Communication Manager used an existing CTI link to Avaya Aura® Application Enablement Services (AES). Configuration of this aspect is standard and not directly relevant to the

interoperability of CLASSONE® Endpoint Manager. These application notes will not cover this aspect of the configuration.

## 5.1. Add System Management Service (SMS) User

CLASSONE® Endpoint Manager uses the Application Enablement Services SMS interface to query for administered stations.

A privileged user was used during Compliance test; however, a local administrator would want to restrict the user account. This involves creating a user profile at the SAT, and then creating and assigning that user to the profile in the web admin pages.

Use **add user-profile *n*** command, where *n* is an available profile.

On Page 1, set the following features to **y**:

- Call Center B
- Stations M

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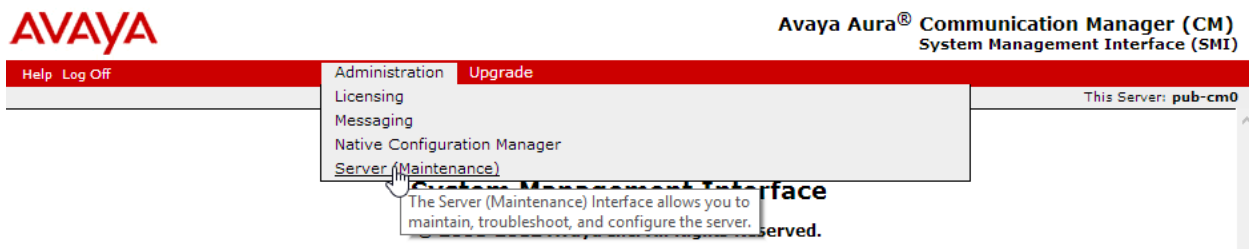
add user-profile 31                                     Page 1 of 41
                                     USER PROFILE 31

User Profile Name: ObjectTel SMS

    This Profile is Disabled? n                Shell Access? y
Facility Test Call Notification? n    Acknowledgement Required? n
    Grant Un-owned Permissions? n            Extended Profile? n

Name          Cat Enbl          Name          Cat Enbl
    Adjuncts A    n          Routing and Dial Plan J    n
    Call Center B  y          Security K    n
    Features C    n          Servers L    n
    Hardware D    n          Stations M    y
    Hospitality E  n          System Parameters N    n
    IP F          n          Translations O    n
    Maintenance G  n          Trunking P    n
Measurements and Performance H    n          Usage Q    n
    Remote Access I  n          User Access R    n
  
```

Create a SMS user account on the Communication Manager **System Management Interface** web page, <https://<communication-manager-ip-address>>. Navigating to **Administration → Server (Maintenance)**



Select **Administrator Accounts** under **Security**, select **Add Login, SAT Access Only** and **Submit**:

- Type in a **Login Name**
- For **Additional Groups**, set it to the user-profile added above. i.e. prof31
- Type in a password in **Enter password or key** and **Re-enter password or key**

## 6. Configure Avaya Aura® Application Enablement Services

Configuration of Application Enablement Services required a user account be configured for CLASSONE® Endpoint Manager.

### 6.1. Configure Application Enablement Services Details

All administration is performed by web browser, <https://<aes-ip-address/>>

A user needs to be created for CLASSONE® Endpoint Manager to communicate with AES. Navigate to **User Management** → **User Admin** → **Add User**.

The screenshot displays the Avaya Application Enablement Services Management Console. The top navigation bar includes 'User Management | User Admin | Add User' and 'Home | Help | Logout'. The left sidebar shows a tree view with 'User Management' expanded to 'User Admin', where 'Add User' is selected. The main content area is titled 'Add User' and contains a form with the following fields:

- \* User Id (text input)
- \* Common Name (text input)
- \* Surname (text input)
- \* User Password (text input)
- \* Confirm Password (text input)
- Admin Note (text input)
- Avaya Role (dropdown menu, currently set to 'None')
- Business Category (text input)
- Car License (text input)
- CM Home (text input)
- Css Home (text input)
- CT User (dropdown menu, currently set to 'No')
- Department Number (text input)

Fields marked with \* can not be empty.

Fill in **User id**, **Common Name**, **Surname**, **User Password** and **Confirm Password**. Set **CT User** to **Yes**, and **Apply**.

Navigate to **Security** → **Security Database** → **CTI Users** → **List All Users**.

### CTI Users

User ID	Common Name	Worktop Name	Device ID
<input type="radio"/> acqueon	acqueon	NONE	NONE
<input type="radio"/> calabrio	Calabrio	NONE	NONE
<input type="radio"/> devconn	Developer	NONE	NONE
<input type="radio"/> DevConnect	DevConnect	NONE	NONE
<input checked="" type="radio"/> interop	interop	NONE	NONE
<input type="radio"/> qfiniti	Autonomy	NONE	NONE
<input type="radio"/> rtitele1	rtitele1	NONE	NONE
<input type="radio"/> utry	utry	NONE	NONE
<input type="radio"/> vhtaes	vhtaes	NONE	NONE

Select the recently added user and click **Edit**. Check the box for **Unrestricted Access** and **Apply Changes**.

### Edit CTI User

User Profile:	User ID Common Name Worktop Name Unrestricted Access	interop interop NONE ▾ <input checked="" type="checkbox"/>
Call and Device Control:	Call Origination/Termination and Device Status	None ▾
Call and Device Monitoring:	Device Monitoring Calls On A Device Monitoring Call Monitoring	None ▾ None ▾ <input type="checkbox"/>
Routing Control:	Allow Routing on Listed Devices	None ▾

## 7. Configure Avaya IP Phones

If DHCP is used to retrieve configuration for Avaya IP Phones:

- Set HTTSRVR to CLASSONE® Endpoint Manager's IP Address:
  - Option option-176 "HTTPSRVR="
  - Option option-242 "HTTPSRVR="

If DHCP is not used, set the HTTP Server for the IP Phones to the IP address of CLASSONE® Endpoint Manager

## 8. Configure ObjectTel CLASSONE® Endpoint Manager

### 8.1. CLASSONE® EM Server Setup via WebAdmin

Logon to EM WebAdmin via a browser; `http://<EM_IP_Address>/`, as user *admin/summer* from the web browser.

#### 8.1.1. Add More Users (Optional)

Navigate to **CONFIGURATION → Profile → Web User → Create Profile...**

Refer to the “CLASSONE® EM Web Admin User Guide” document for instruction to creating a new profile.

#### 8.1.2. Start CLASSONE® Servers

Navigate to **OA&M → Admin Control...**

Refer to the “CLASSONE® EM Web Admin User Guide” document for further details.

#### 8.1.3. Configure IP Phone Firmware Versions

Navigate to **SWITCH OVER → Version Management → Create Version...**

Refer to the “CLASSONE® EM Web Admin User Guide” document for instructions to create a new version.

#### 8.1.4. Create Switchover Groups (Optional)

Navigate to **SWITCH OVER → Group Management → Create Group ...**

Refer to the “CLASSONE® EM Web Admin User Guide” document for instructions to create a new group.

#### 8.1.5. Create Agents

**Note:** Agent ID max length is 5.

##### 8.1.5.1 Single Create

Navigate to **CONFIGURATION → Profile → Agent → Create Profile → Single Create...** to create a single agent.

##### 8.1.5.2 Bulk Create

1. Prepare customer agent.csv file in the same format of the sample file. The sample file can be downloaded from EM Web.
2. Make sure all ‘Agent Group’ in bulk data sheet have already been created.
3. Navigate to **CONFIGURATION → Profile → Agent → Create Profile → Bulk Create...**



Refer to the “CLASSONE® EM Web Admin User Guide” document for further details.

### **8.1.6. Create IP Phones**

**Note:** Phone Extension max length is 15.

#### **8.1.6.1 Single Create**

Navigate to **CONFIGURATION → Profile → IP Telephone → Create Profile → Single Create...** to create a single extension.

#### **8.1.6.2 Bulk Create**

1. Prepare the customer phone.csv file in the same format of the sample file.
2. Make sure all ‘Switch’ & ‘Firmware’ in bulk data sheet are already.
3. Navigate to **CONFIGURATION → Profile → IP Telephone → Create Profile → Bulk Create...**

Refer to the “CLASSONE® EM Web Admin User Guide” document for details.

## 9. Verification Steps

Once the HTTP Server is changed on Avaya IP Phones, reboot it and verify the configuration is pulled from CLASSONE® Endpoint Manager.

## 10. Conclusion

All Test Cases were passed.

## 11. Additional References

[1] Administering Avaya Aura® Communication Manager, Release 6.2, Document 03-3005089, Issue 7.0, December 2012

[2] Avaya Aura® Application Enablement Services Administrations and Maintenance Guide, Release 6.2, Issue 1, July 2012

All documents related to ObjectTel CLASSONE can be obtained via emailing [support@objecttel.com](mailto:support@objecttel.com)

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