Avaya Solution & Interoperability Test Lab

Application Notes for iNEMSOFT 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 iNEMSOFT CLASSONE® Endpoint Manager to successfully interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services.

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

iNEMSOFT 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. iNEMSOFT CLASSONE® Endpoint Manager helps managing Avaya H.323 IP endpoints during switch upgrades, maintenance outages, disasters and system failures with the use of Avaya's System Management Service (SMS) interface.

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 expected:

- 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

iNEMSOFT support for customers with current maintenance and support agreement may be obtained via the following means:
Phone: (214) 423-2815
E-mail: rtisupport@inemsoft.com

3. Reference Configuration

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

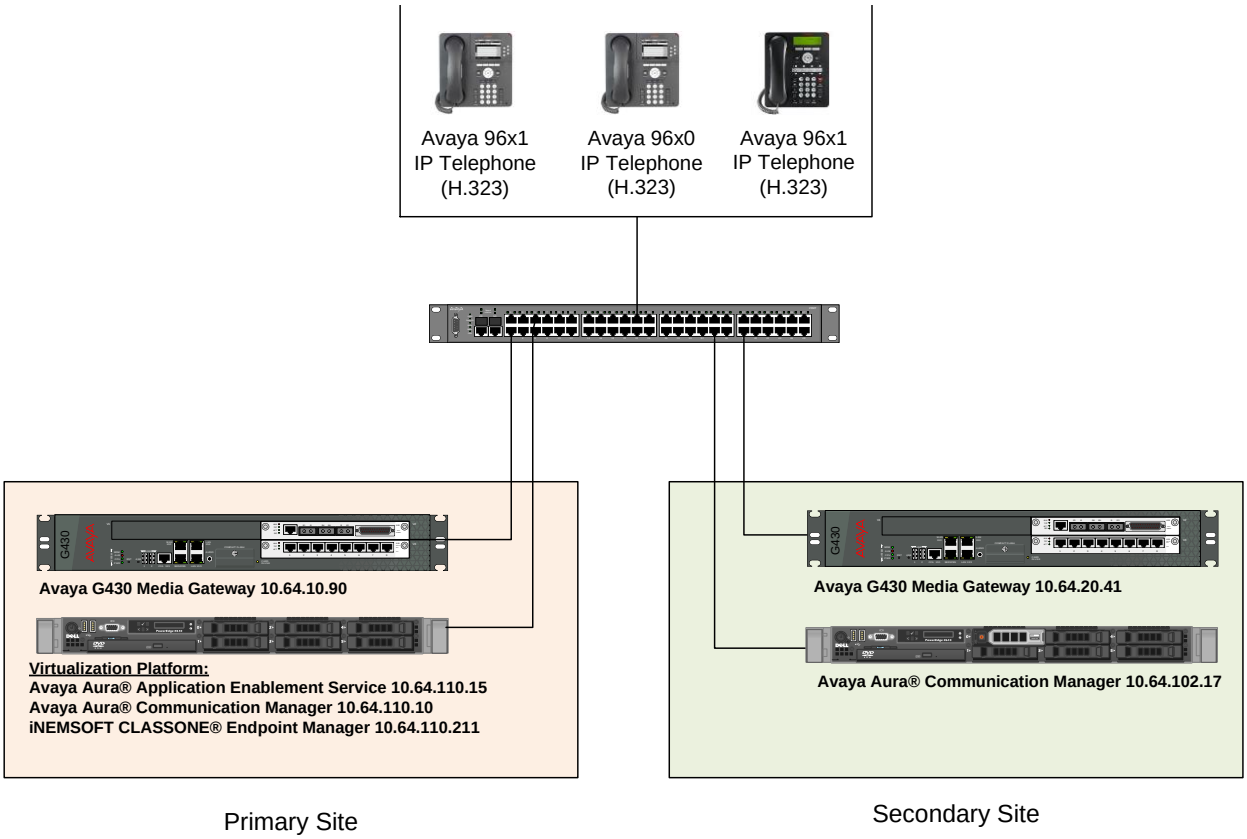


Figure 1: Reference Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on Dell R610 Server	CM 7.0.1.1.1.441.23384
Avaya Aura® Application Enablement Services	7.0.1.0.2.15
Avaya G450 Media Gateway	37.19.0
Avaya 9600 (H.323) IP Deskphones - 96xx - 96x1	 3.2.7 6.3.2
iNEMSOFT CLASSONE® Endpoint Manager	5.1

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.

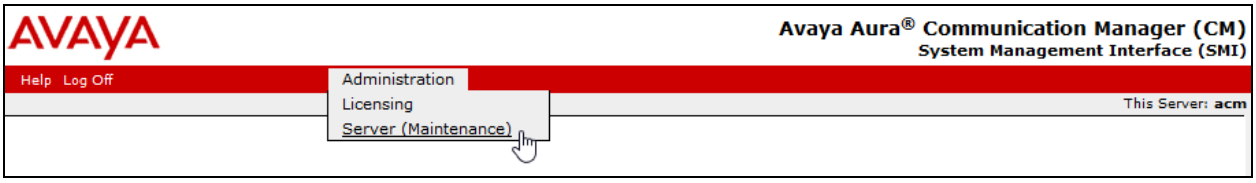
A privileged user account was used during Compliance test; however, a local administrator would want to restrict the user account. This involves creating a user profile at the SAT, and then creating and assigning that user to the profile in the web admin pages.

Use **add user-profile *n*** command, where ***n*** is an available profile.
On Page 1, set the following features to **y**:

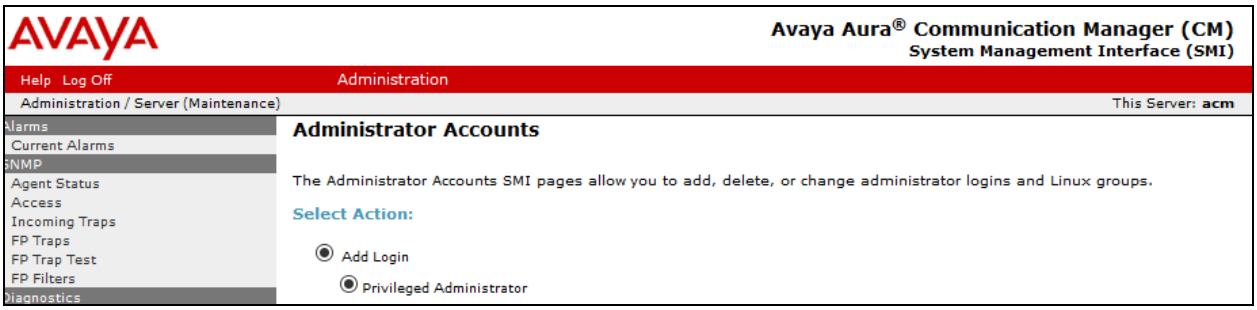
- Call Center B
- Stations M

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

User Profile Name: iNEMSOFT 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)**



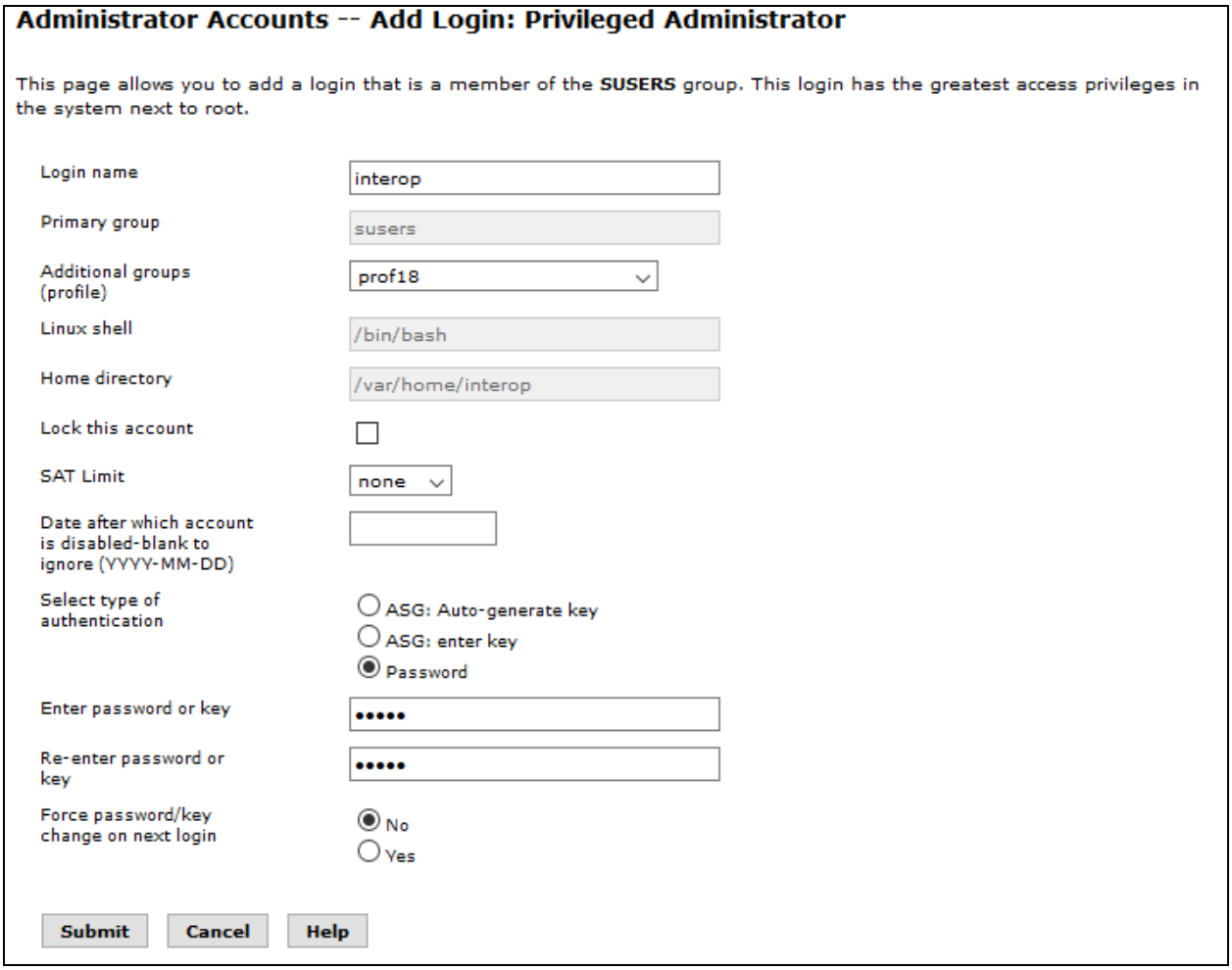
Select **Administrator Accounts** under **Security**, select **Add Login, Privileged Administrator** and **Submit**.



On the **Administrator Accounts – Add Login: Privileged Administrator** page:

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

Once done, select **Submit.**



6. Configure Avaya IP Phones

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

- Set HTTSRVR to CLASSONE® Endpoint Manager's IP Address from **Section 3**:
  - 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.

7. Configure iNEMSOFT CLASSONE® Endpoint Manager

Note that the initial configuration for CLASSONE® Endpoint Manager is performed by iNEMSOFT Engineers. Following sections are for reference purposes only.

7.1. CLASSONE® EM Server Setup via WebAdmin

Log on to EM WebAdmin via a browser; http://<EM_IP_Address>/, as user ***admin*** and default password ***summer***.

7.1.1. 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.

7.1.2. Start CLASSONE® Servers

Navigate to **OA&M → Admin Control…**

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

7.1.3. 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.

7.1.4. 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.

7.1.5. Create Agents

Note: Agent ID max length is 5.

7.1.5.1 Single Create

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

7.1.5.2 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.

7.1.6. Create IP Phones

Note: Phone Extension max length is 15.

7.1.6.1 Single Create

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

7.1.6.2 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.

8. Verification Steps

Once the HTTP Server is changed on Avaya IP Phones, reboot the phones and verify the configuration and/or firmware update is pulled from CLASSONE® Endpoint Manager. To verify that the configuration is getting updated from the correct HTTP Server; while the phone is booting up, verify on the phone screen, an HTTP request for 46xxsetting.txt to the newly configured HTTP Server, followed by a 200 OK response.

9. Conclusion

A set of feature and functional test cases were performed during Compliance testing. iNEMSOFT CLASSONE successfully demonstrated the ability to manage Avaya IP Phones.

10. Additional References

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

[2] Avaya Aura® Application Enablement Services Administrations and Maintenance Guide, Release 7.0

[3] CLASSONE® EM Web Admin User Guide

All documents related to Avaya products can be obtained via https://support.avaya.com.

All documents related to iNEMSOFT CLASSONE® can be obtained via emailing support@inemsoft.com

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.