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Avaya Solution & Interoperability Test Lab

Application Notes for iNEMSOFT CLASSONE® iCAS Dispatch Console with Avaya Aura® Session Manager – Issue 1.0

Abstract

These Application Notes describe the procedures for configuring iNEMSOFT CLASSONE® iCAS Dispatch Console which were compliance tested with Avaya Aura® Session 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 contain instructions for iNEMSOFT CLASSONE® iCAS (iCAS) Dispatch Console with Avaya Aura® Session Manager (Session Manager) to successfully interoperate.

The iCAS is a system-of-systems, enabling operators to take control of their communications network and manage multiple transactions from many types of devices.

iCAS solution enables operators to handle inbound calls, connect with radio dispatch, bridge various radio talk groups and frequencies with each other and with back office voice systems, collaborate and manage field operations regardless of the type of voice-enabled device, while maintaining the highest level of business continuity and interoperability. iCAS as a solution, integrates with several interfaces provided by Avaya products. However, this document only contains instructions for iCAS Dispatch Console with Session Manager. iCAS Dispatch Console registers to Session Manager as a SIP Endpoint. Application notes related to other interfaces may be obtained via Avaya Support site.

- Application Notes for iNEMSOFT CLASSONE® iCAS with Avaya Meeting Exchange
- Application Notes for iNEMSOFT CLASSONE® iCAS IP Radio Gateway with Avaya Aura® Session Manager
- Application Notes for iNEMSOFT CLASSONE® iCAS Dispatch Console with Avaya Aura® Session Manager

These Application Notes assume that Communication Manager and Session Manager are already installed and basic configuration steps have been performed. Only steps relevant to this compliance test will be described in this document. For further details on configuration steps not covered in this document, consult references [1], [2], and [3].

2. General Test Approach and Test Results

The general test approach was to place calls to and from iCAS Dispatch Console and exercise basic telephone operations. The main objectives were to verify the following:

- Registration
- Codecs (G.711MU)
- Inbound calls
- Outbound calls
- Hold/Resume
- Call termination (origination/destination)
- Three party conference (origination/destination)
- Serviceability

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

The interoperability compliance test included features and serviceability. The focus of the interoperability compliance testing was primarily on verifying call establishment on iCAS IP Radio Gateway. iCAS Dispatch Console operations such as inbound calls, outbound calls and hold/resume and iCAS Dispatch Console interactions with Session Manager, Communication Manager, and Avaya SIP, H.323, and digital telephones were verified. The serviceability testing introduced failure scenarios to see if iCAS Dispatch Console can recover from failures.

2.2. Test Results

The test objectives were verified. For serviceability testing, iCAS Dispatch Console operated properly after recovering from failures such as cable disconnects, and resets of iCAS Dispatch Console and Session Manager. iCAS Dispatch Console successfully negotiated the codec that was used. The features tested worked as expected.

2.3. Support

iNEMSOFT CLASSONE® iCAS support can be obtained via following means:
Phone: 214-423-2815
Web: www.inemsoft.com
Email: rtisupport@inemsoft.com

3. Reference Configuration

Figure 1 illustrates a sample configuration that consists of Avaya Products and iNEMSOFT CLASSONE® iCAS. Though this document only contains instructions for and iNEMSOFT CLASSONE® iCAS Dispatch Console with Avaya Aura® Session Manager, the following diagram shows the entire solution that was tested during compliance testing.
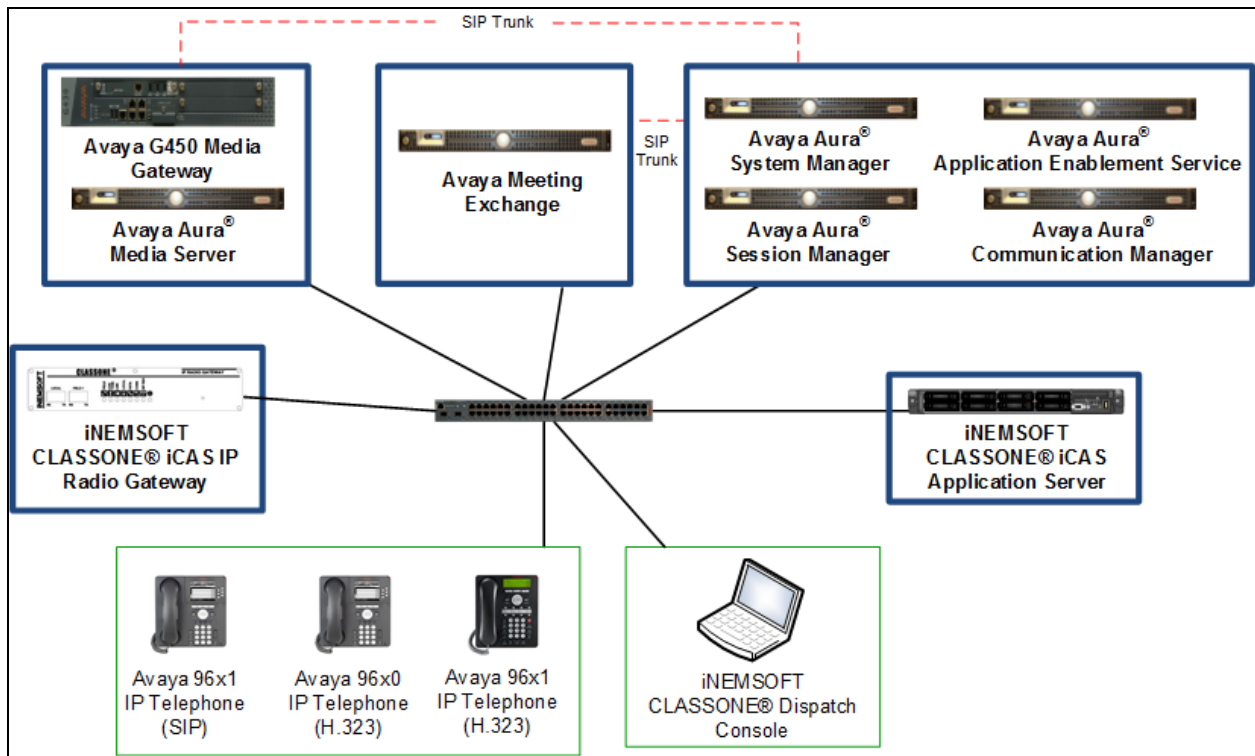
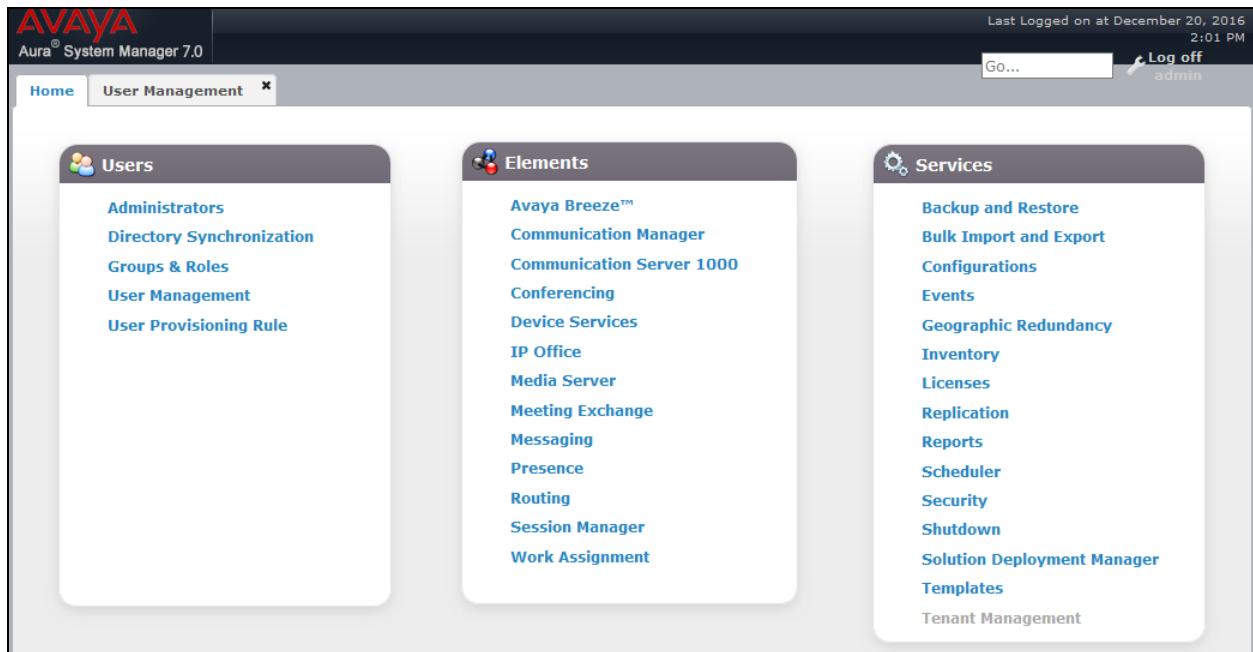**Figure 1: Test Configuration of CLASSONE® Dispatch Console by iNEMSOFT**

4. Equipment and Software Validated

The following equipment and software were used for the test configuration. With the exception of Avaya G450 Gateway, all other Avaya products were deployed on a Virtualization Environment.

Equipment	Software/Firmware
Avaya Aura® Communication Manager	CM 7.0.1.2.0.441.23384
Avaya Aura® System Manager	7.0.1.1. 065378
Avaya Aura® Session Manager	7.0.1.1.701114
Avaya G450 Media Gateway	37.19.0
iNEMSOFT CLASSONE® iCAS Dispatch Console	4.7

5. Configure Avaya Aura® Session Manager

This section provides the procedures for configuring Session Manager as provisioned in the reference configuration. Session Manager is comprised of two functional components: the Session Manager server and the System Manager server. All SIP call provisioning for Session Manager is performed through the System Manager web console and is then downloaded into Session Manager.
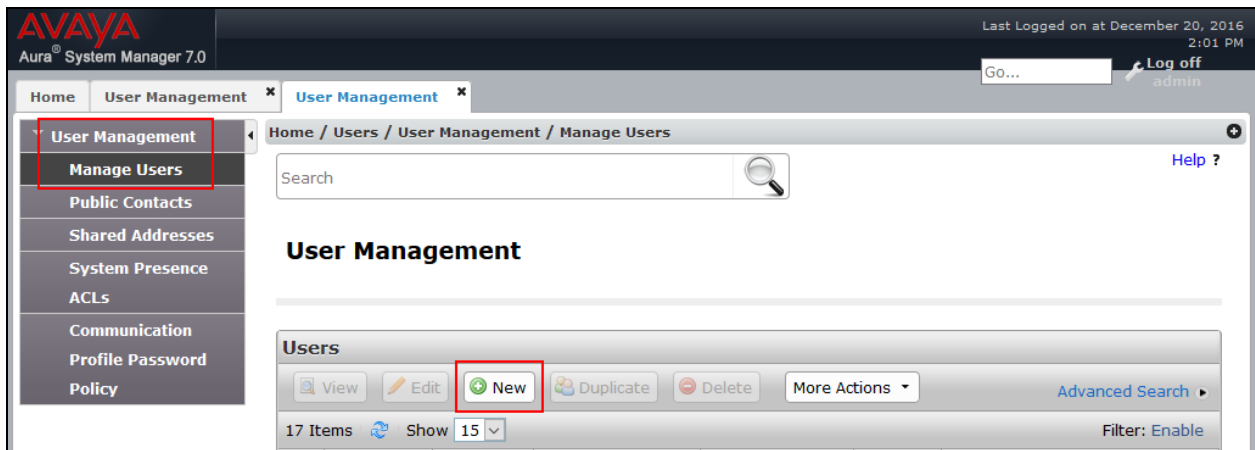
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5.1. Configure SIP Users

During the compliance test, no special users were created for this solution. However, the steps to configure a user are included.
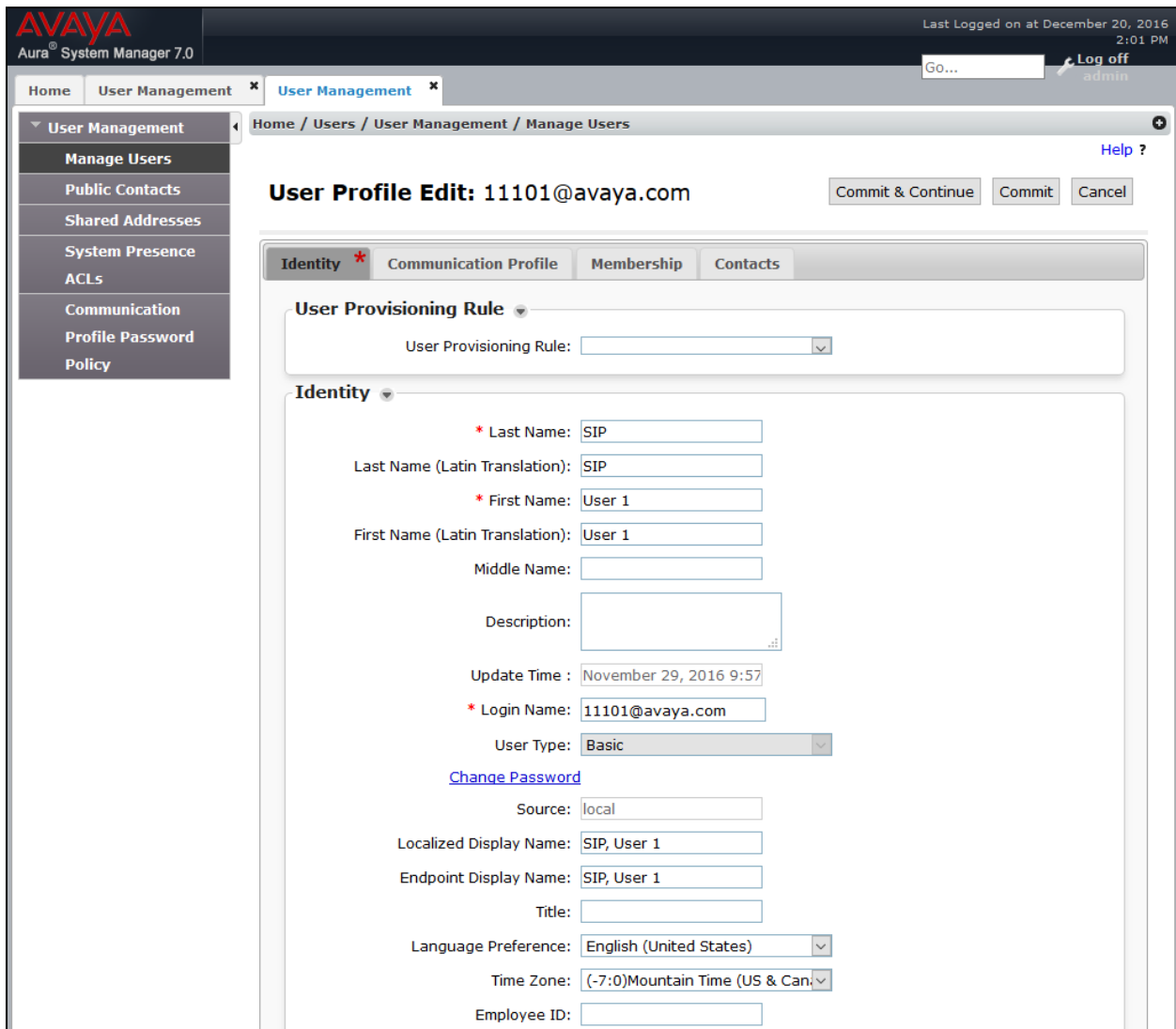
Add a new SIP user for each iCAS IP Radio Gateway. During compliance testing SIP Users 11101, 11102, 11103 and 11104 were created for iCAS IP Radio Gateway.

To add new SIP users, Navigate to **Home → Users → User Management → Manage Users**. Click **New.**

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Configure the **Identity** tab as follows:
- **Last Name –** Enter last name of user.
- **First Name –** Enter first name of user.
- **Login Name –** Enter extension number@sip domain name.
- **User Type –** Verify **Basic** is selected.
- Enter **Localized Display Name**
- Enter **Endpoint Display Name**
- Select **English** as **Language Preference**
- Set the appropriate **Time Zone.**

Configure the **Communication Profile** tab as follows:

Provide the following information:
- **Communication Profile Password** – Enter a numeric value used to logon to SIP end point.
- **Confirm Password** – Repeat numeric password.
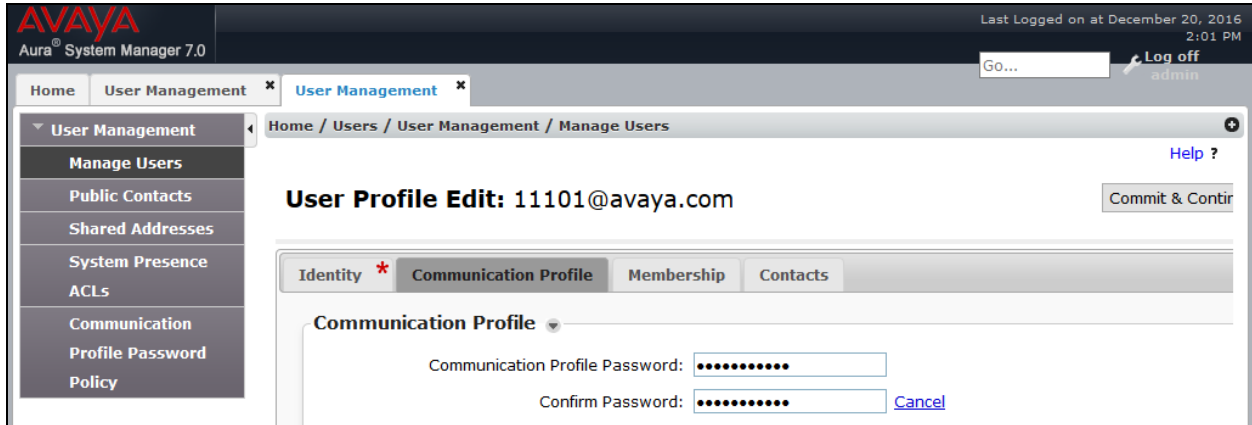
- Communication Address sub-section
  Select **New** to define a **Communication Address** for the new SIP user, and provide the following information.
  - **Type** – Select **Avaya SIP** using drop-down menu.
  - **Fully Qualified Address** – Enter same extension number and domain used for Login Name, created previously.
  Click the **Add** button to save the Communication Address for the new SIP user.
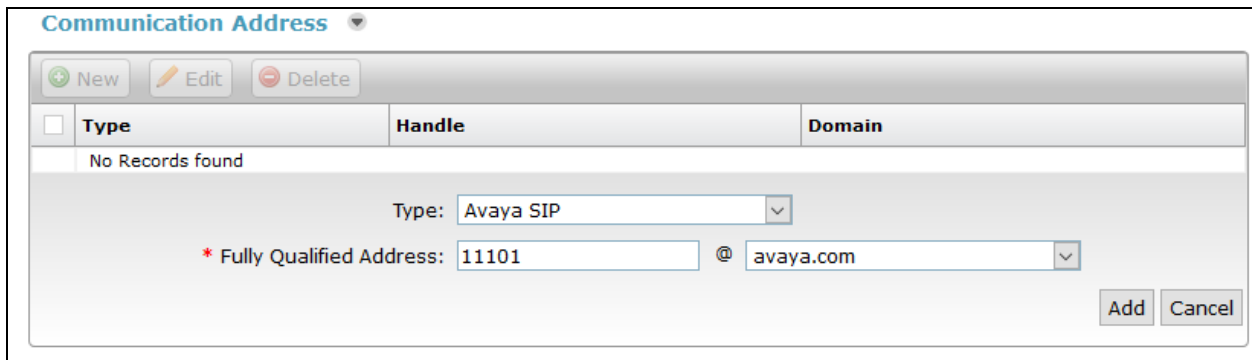
- Session Manager Profile section
    - o **Primary Session Manager** – Select one of the Session Managers.
    - o **Origination Application Sequence** – Select Application Sequence defined (not shown) for Communication Manager.
    - o **Termination Application Sequence** – Select Application Sequence defined (not shown) for Communication Manager.
    - o **Home Location** – Select a predefined location.

☑ **Session Manager Profile** ▾

SIP Registration

	Primary	Secondary	Maximum
* Primary Session Manager Q asm	12	0	12

Secondary Session Manager Q

Survivability Server Q

Max. Simultaneous Devices [1 ▾]

Block New Registration
When Maximum Registrations
Active?   ☐

Application Sequences

Origination Sequence [acm ▾]

Termination Sequence [acm ▾]

Call Routing Settings

* Home Location [DevConnect-Lab ▾]

Conference Factory Set [(None) ▾]

Call History Settings

Enable Centralized Call
History?   ☐

- Endpoint Profile section
  - **System** – Select Managed Element defined in **System Manager** (not shown) for Communication Manager.
  - **Use Existing Endpoints -** Leave unchecked to automatically create a new endpoint on Communication Manager when the new user is created. Or else, check the box if endpoint is already defined in Communication Manager.
  - **Extension** - Enter same extension number used in this section.
  - **Template** – Select template for type of SIP phone. During the compliance test, 9641SIP_DEFAULT_CM_7_0 was selected.

Select **Commit** once done.

☑ **CM Endpoint Profile** ▼

* System	acm
* Profile Type	Endpoint
Use Existing Endpoints	☐
* Extension	Display Extension Ranges 11101 Endpoint Editor
Template	9641SIP_DEFAULT_CM_7_0
Set Type	9641SIP
Security Code	
Port	IP
Voice Mail Number	
Preferred Handle	(None)
Calculate Route Pattern	☐
Sip Trunk	aar
Enhanced Callr-Info display for 1-line phones	☐
Delete Endpoint on Unassign of Endpoint from User or on Delete User.	☑
Override Endpoint Name and Localized Name	☑
Allow H.323 and SIP Endpoint Dual Registration	☐

6. Configure iNEMSOFT CLASSONE® iCAS Dispatch Console

Installation and configuration of iCAS Dispatch Console is done by designated iNEMSOFT engineers. Hence, no configuration is provided in this document.

7. Verification Steps

The following steps may be used to verify the configuration:

- Verify that iCAS Dispatch Console successfully registers with Session Manager server by following the **Session Manager → System Status → User Registrations** link on the System Manager Web Interface.

User Registrations

Select rows to send notifications to devices. Click on Details column for complete registration status.

Customize ▶

| View ▾ | Default | Force Unregister | AST Device Notifications: | Reboot | Reload ▾ | Failback | As of 2: |

12 Items ⟳   Show All ▾   Filter: Enable

☐	Details	Address	▾	First Name	Last Name	Actual Location	IP Address	Remote Office	Share Contr
☐	▶ Show	11111@avaya.com		iPhone User	CounterPath	---	10.80.130.150	☐	☐
☐	▶ Show	11102@avaya.com		User 2	SIP	DevConnect-Lab	10.64.10.47	☐	☐
☐	▶ Show	11101@avaya.com		User 1	SIP	---	10.64.59.208	☐	☐
☐	▶ Show	---		User 1	Audiocodes	---	---	☐	☐
☐	▶ Show	---		User 7	SIP	---	---	☐	☐
☐	▶ Show	---		User 2	AudioCodes	---	---	☐	☐
☐	▶ Show	---		User 3	SIP	---	---	☐	☐
☐	▶ Show	---		Station 6	SIP	---	---	☐	☐
☐	▶ Show	---		iPad User	CounterPath	---	---	☐	☐
☐	▶ Show	---		User 5	SIP	---	---	☐	☐
☐	▶ Show	---		Nexus User	CounterPath	---	---	☐	☐
☐	▶ Show	---		User 4	SIP	---	---	☐	☐

Select : All, None

- Place calls to and from iCAS Dispatch Console and verify that the calls are successfully established with two-way talk path.

8. Conclusion

During compliance testing, iNEMSOFT CLASSONE® Dispatch Console successfully registered with Avaya Aura® Session Manager, placed and received calls to and from SIP and non-SIP telephones.

9. Additional References

The following Avaya product documentation can be found at http://support.avaya.com

[1] *Administering Avaya Aura® Communication Manager*, August 2016, Release 7.0.1, Document Number 03-300509.

[2] *Administering Avaya® Session Manager,* May 2016, Release 7.0.1, Issue 2

[3] *Administering Avaya® System Manager*, November 2016, Release 7.0.1,.Issue 2.2

Documentation related to iCAS can be directly obtained from iNEMSOFT.

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