

Avaya Solution & Interoperability Test Lab

Application Notes for Aiphone IX Series Video Door Stations (IX-EA) R5.4 and Avaya Aura[®] Communication Manager and Avaya Aura[®] Session Manager R8.1 – Issue 1.0

Abstract

These Application Notes describe the procedures for configuring Aiphone IX Series Video Door Stations (IX-EA) which was compliance tested with Avaya Aura[®] Communication Manager and Avaya Aura[®] Session Manager.

The overall objective of the interoperability compliance testing was to verify Aiphone IX Series Video Door Stations (IX-EA) functionalities in an environment comprised of Avaya Aura[®] and various Avaya endpoints. Aiphone IX Series Video Door Stations are SIP based door phones.

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 required for Aiphone IX Series Video Door Stations to interoperate with Avaya Aura[®] Communication Manager and Avaya Aura[®] Session Manager. During the compliance testing, Aiphone IX-EA was used.

The Aiphone IX Series Video Door Stations (IX-EA) are part of Aiphone IX Series Door Stations. The Video Door Stations, IX-EA, act as SIP phones when connected to Avaya Aura[®]. The Video Door Stations come in both surface mount and flush mount varieties. All door stations have dry contacts that can be used to release doors when activated by another intercom or phone. The dry contacts can also be used to trigger external signaling devices, such as strobes.

During the compliance test, Aiphone IX-EA registered as a 3rd party SIP phone using UDP to Avaya Aura[®] Session Manager.

2. General Test Approach and Test Results

The focus of this interoperability compliance testing was to verify that the Aiphone IX-EA can register as a SIP endpoint on Session Manager, and is able to originate and receive audio and video calls to and from the Avaya Aura[®] system.

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 Aiphone did not utilize secure capabilities.

2.1. Interoperability Compliance Testing

The general test approach was to place calls to and from, Aiphone IX-EA, and exercise basic telephone operations. The main objectives were to verify the following:

- Registration
- Calls to Avaya SIP Audio & Video endpoints
- Calls to Avaya H.323 Audio endpoints
- Calls to Avaya Digital & Analog endpoints
- Calls to PSTN via SIP Trunks
- Call termination (origination/destination)
- Serviceability

2.2. Test Results

The test objectives were verified, and the features tested worked as expected.

2.3. Support

For technical support on Aiphone IX-EA, please contact Aiphone via the following:

Japan

- Web: <u>https://www.aiphone.co.jp/</u>
- Phone: 052-228-9961

USA, Canada

- Web: <u>https://www.aiphone.com/home</u>
- Email: tech@aiphone.com
- Phone: 800-692-0200

France

- Web: <u>https://www.aiphone.fr/</u>
- Phone: 01 69 11 46 00

Australia, New Zealand

- Web: <u>https://www.aiphone.com.au/</u>
- Phone: (02)80364507

Singapore

- Web: <u>http://www.aiphone.com.sg/</u>
- Email: admin@aiphone.com.sg
- Phone: 6534-1135

United Kingdom

- Web: <u>https://www.aiphone.co.uk/</u>
- Phone: 020-7507-6250

3. Reference Configuration

Figure 1 illustrates a sample configuration consisting of Avaya Aura[®] components and Aiphone IX-EA.

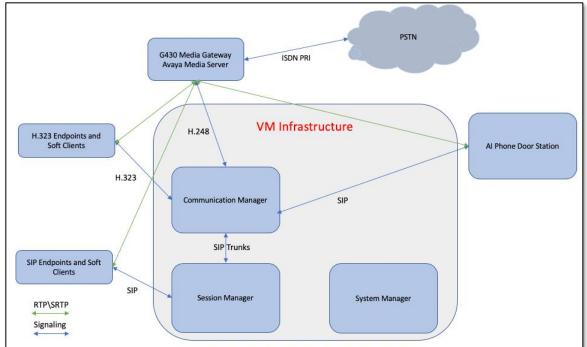


Figure 1: Test Configuration of Aiphone IX-EA with Avaya Aura®

4. Equipment and Software Validated

The following equipment and software were used for the test configuration.

| Equipment | Software/Firmware |
|---|---------------------------|
| Avaya Aura [®] Communication Manager | 8.1.1.0.0.890.25763 (FP1) |
| Avaya Aura [®] Session Manager | 8.1.1.0.811021 |
| Avaya Aura [®] System Manager | 8.1.1.0.0310782 (FP1) |
| Avaya 9600 Series H.323 IP Deskphones | 6.8304 |
| Avaya J129 SIP Phone | 4.0.4.0.10 |
| Avaya IX Workspace | 3.7.0.102.3 |
| Avaya H175 Collaboration Station | 1.0.2.3 |
| Avaya Vantage K175 Phone | 3.5.0 |
| Avaya 9504 Digital Phone | 0.55 |
| Avaya 6210 Analogue Telephone | - |
| Aiphone IX Series Video Door Station IX-EA | 5.40 |

5. Configure Avaya Aura® Communication Manager

This section provides the procedures for configuring Communication Manager. The procedures include the following areas:

- Verify System Capacity (License)
- Define Dial Plan
- Enable IP Video

These steps were performed using an SSH Terminal session.

5.1. Verify System Capacity (License)

The license file installed on the system controls these attributes. If a required feature is not enabled or there is insufficient capacity, contact an authorized Avaya sales representative. Use the **display system-parameters customer-options** command to determine these values. On **Page 1**, verify that the **Maximum Off-PBX Telephones** allowed in the system is sufficient. One OPS station is required per SIP device.

```
display system-parameters customer-options
                                                          Page
                                                                1 of 12
                              OPTIONAL FEATURES
    G3 Version: V18
                                             Software Package: Enterprise
      Location: 2
                                               System ID (SID): 1
      Platform: 28
                                               Module ID (MID): 1
                                                        USED
                          Platform Maximum Ports: 48000 73
                                Maximum Stations: 36000
                                                            48
                        Maximum XMOBILE Stations: 36000
                                                           0
               Maximum Off-PBX Telephones - EC500: 41000
                                                            0
               Maximum Off-PBX Telephones - OPS: 41000
                                                           27
               Maximum Off-PBX Telephones - PBFMC: 41000
                                                            0
               Maximum Off-PBX Telephones - PVFMC: 41000
                                                            0
               Maximum Off-PBX Telephones - SCCAN: 0
                                                             0
                                                             0
                   Maximum Survivable Processors: 313
       (NOTE: You must logoff & login to effect the permission changes.)
```

On Page 2 of the system-parameters customer-options form, verify that the number of Maximum Administered SIP Trunks supported by the system is sufficient.

| display system-parameters customer-options | | Page | 2 of 12 |
|---|-------|------|---------|
| OPTIONAL FEATURES | | | |
| | | | |
| IP PORT CAPACITIES | | USED | |
| Maximum Administered H.323 Trunks: | 12000 | 0 | |
| Maximum Concurrently Registered IP Stations: | 2400 | 3 | |
| Maximum Administered Remote Office Trunks: | 12000 | 0 | |
| Max Concurrently Registered Remote Office Stations: | 2400 | 0 | |
| Maximum Concurrently Registered IP eCons: | 128 | 0 | |
| Max Concur Reg Unauthenticated H.323 Stations: | 100 | 0 | |
| Maximum Video Capable Stations: | 36000 | 0 | |
| Maximum Video Capable IP Softphones: | 2400 | 16 | |
| Maximum Administered SIP Trunks: | 12000 | 10 | |
| Max Administered Ad-hoc Video Conferencing Ports: | 12000 | 0 | |
| Max Number of DS1 Boards with Echo Cancellation: | 688 | 0 | |
| | | | |

5.2. Define the Dial Plan

Use the **change dialplan analysis** command to define the dial plan used in the system. This includes all telephone extensions. In the sample configuration, telephone extensions are 5 digits long and begin with **7**.

| change dialplan analysis | | Page 1 of 12 |
|---|-------------------------------------|----------------------|
| | DIAL PLAN ANALYSIS Location: all | |
| | Docación, ali | reicent fuit. i |
| Dialed Total Call | Dialed Total Cal | |
| String Length Type | String Length Typ | e String Length Type |
| $\frac{1}{2}$ $\frac{3}{5}$ $\frac{dac}{aut}$ | | |
| $\frac{2}{3} \qquad \qquad \frac{5}{5} \frac{\text{ext}}{\text{ext}}$ | | |
| $\frac{3}{4}$ $\frac{3}{5}$ $\frac{6 \times 1}{6}$ | | |
| $\frac{1}{7}$ $\frac{1}{5}$ $\frac{1}{1}$ ext | | |
| 8 1 fac | | |
| 9 <u>1</u> fac | | |
| * <u>3</u> fac | | |
| <u>#3_fac</u> | | |
| | | |

5.3. Enable IP Video

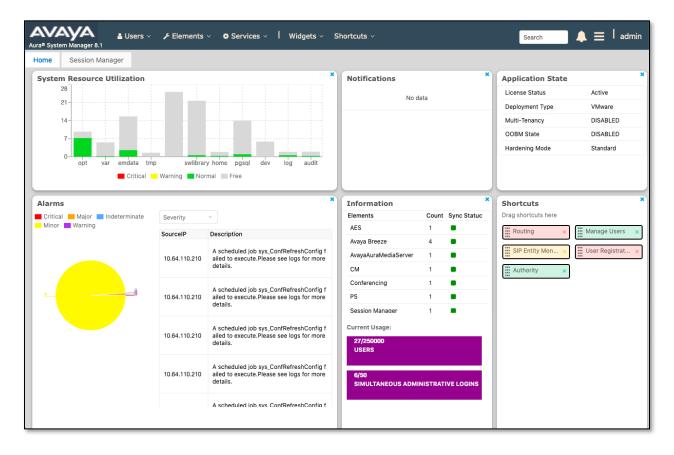
Use the change signaling-group command to enable IP video in the system.

change signaling-group 1 Page 1 of 3 SIGNALING GROUP Group Number: 1 Group Type: sip IMS Enabled? n Transport Method: tls Q-SIP? n IP Video? y Priority Video? n Enforce SIPS URI for SRTP? n Peer Detection Enabled? y Peer Server: SM Clustered? n Prepend '+' to Outgoing Calling/Alerting/Diverting/Connected Public Numbers? y Remove '+' from Incoming Called/Calling/Alerting/Diverting/Connected Numbers? n Alert Incoming SIP Crisis Calls? n Near-end Node Name: procr Far-end Node Name: sm81 Near-end Listen Port: 5061 Far-end Listen Port: 5061 Far-end Network Region: 1 Far-end Domain: avaya.com Bypass If IP Threshold Exceeded? n Incoming Dialog Loopbacks: eliminate RFC 3389 Comfort Noise? n DTMF over IP: rtp-payload Direct IP-IP Audio Connections? n Session Establishment Timer(min): 65 IP Audio Hairpinning? y Enable Layer 3 Test? y Alternate Route Timer(sec): 6

6. Configure Avaya Aura® Session Manager

This section describes aspects of the Session Manager configuration required for interoperating with Aiphone IX-EA. It is assumed that the Domains, Locations, SIP entities, Entity Links, Routing Policies, Dial Patterns and Application Sequences have been configured where appropriate for Communication Manager and Session Manager.

Session Manager is managed via System Manager. Using a web browser, access https://<ip-addr of System Manager>/SMGR. In the Log On screen, enter appropriate User ID and Password and click the Log On button.



6.1. Verify Session Manager Listen Port for SIP Endpoint Registration

Each Session Manager Entity must be configured so that SIP endpoint can register to it using UDP, TCP, or TLS. From the web interface click **Routing** \rightarrow **SIP Entities** (not shown) and select the Session Manager entity used for registration. In the compliance test, **TCP** and **UDP** listen ports were used.

| Liste | Listen Ports | | | | | | |
|--------|--------------------------|----------|----------------|-----------------------|-------|--|--|
| Add | Add Remove | | | | | | |
| 4 Iter | 4 Items 🦑 Filter: Enable | | | | | | |
| | Listen Ports | Protocol | Default Domain | Endpoint | Notes | | |
| | 5060 | тср 💌 | avaya.com 💌 | | | | |
| | 5060 | UDP 💌 | avaya.com 💌 | ✓ | | | |
| | 5061 | TLS 💌 | avaya.com 💌 | ✓ | | | |
| | 5062 | TLS 💌 | avaya.com 💌 | | | | |
| Select | Select : All, None | | | | | | |

6.2. Add a SIP User

A SIP user must be added for Aiphone IX-EA. Click User Management \rightarrow Manage Users \rightarrow New (not shown) and configure the following in the Identity tab.

- First Name and Last Name Enter an identifying name
- Login Name Enter the extension number followed by the domain, in this case 72003@avaya.com

| dentity Communication | Profile Membership (| Contacts | | |
|-----------------------|--------------------------|---------------------------|--------------------------------------|-----------------------|
| Basic Info | User Provisioning Rule : | ~ · | | |
| Address | | | J | |
| LocalizedName | * Last Name : | EA | Last Name (in Latin alphabet | EA |
| | * First Name : | | characters): First Name (in Latin | |
| | + First Name: | IX | alphabet characters): | X |
| | * Login Name : | 72003@avaya.com | Middle Name: | Middle Name Of User |
| | Description : | Description Of User | Email Address: | Email Address Of User |
| | Password: | | User Type : | Basic V |
| | Confirm Password: | | Localized Display Name : | EA, IX |
| | Endpoint Display Name : | IX-EA | Title Of User: | Title Of User |
| | Language Preference: | English (United States) V | Time Zone : | v |
| | Employee ID : | Employee Id Of User | Department : | Department Of User |

Note in this and subsequent steps, press Commit & Continue after making entries or selections.

Click the **Communication Profile** tab and in the **Communication Profile Password** and **Confirm Password** fields, enter a numeric password. This will be used to register the device during login.

| User Profile I Edit I 720 | 🗈 Commit & Continue | Commit Cancel | |
|--------------------------------|---------------------------------|--------------------------------|------------------|
| Identity Communication | Comm-Profile Password | × | |
| Communication Profile Password | Comm-Profile Password: | | Options ~ |
| PROFILE SET : Primary V | | | Domain 🔶 🝸 |
| Communication Address | | | avaya.com |
| PROFILES | Re-enter Comm-Profile Password: | Re-enter Comm-Profile Password | |
| Session Manager Profile | | Generate Comm-Profile Password | 10 / page 🗸 Goto |
| Avaya Breeze® Profile | | Cancel | |
| CM Endpoint Profile | | | |
| Presence Profile | | | |

In the **Communication Address** section, for **Type** select **Avaya SIP** from the drop-down list. In the **Fully Qualified Address** field enter the extension number as required and select the appropriate **Domain** from the drop-down list. Click **OK** when done.

| User Profile I Edit I 720 | 03@avaya.com | | 🖺 Commit & C | Continue | Commit S Cancel |
|--------------------------------|---------------------------|------------|--------------|----------|---------------------|
| Identity Communication | Communication Address | s Add/Edit | | × | |
| Communication Profile Password | | | | | Options ~ |
| PROFILE SET : Primary | * Type : | Avaya SIP | | ~ | Domain 🖨 😤 |
| Communication Address | *Fully Qualified Address: | 72003 | @ avaya.com | ~ | avaya.com |
| PROFILES | | | | | |
| Session Manager Profile | | | | | 10 / page ~ Goto |
| Avaya Breeze® Profile C | | | Cancel | ок | |
| CM Endpoint Profile | | | | | |

Click on the Session Manager Profile link and configure the Primary Session Manager, Max Simultaneous Devices, Origination Application Sequence, Termination Application Sequence and Home Location, from the respective drop-down lists.

| User Profile Edit 720 | 03@avaya.com | | 🗈 Commit & Continue | 🗈 Commit | ⊗ Cancel |
|---|---|--------------------|---------------------|----------|----------|
| Identity Communication | Profile Membership C | Contacts | | | |
| Communication Profile Password PROFILE SET : Primary Communication Address | SIP Registration * Primary Session Manager: | sm81 Q | 0 | | |
| PROFILES Session Manager Profile | Secondary Session Manager: | Start typing Q | 0 | | |
| Avaya Breeze® Profile | Survivability Server : | Start typing Q | 0 | | |
| CM Endpoint Profile | Max. Simultaneous | 2 | ~ | | |
| | Block New Registration When Maximum Registrations Active? | | | | |
| | Application Sequen | ces | | | |
| | Origination Sequence : | cm81 | ~ | | |
| | Termination Sequence : | cm81 | × | | |
| | Emergency Calling | Application Sequen | ces | | |
| | Emergency Calling Origination Sequence : | Select | ~ | | |
| | Emergency Calling Termination Sequence : | Select | × | | |
| | Call Routing Setting | ļS | | | |
| | * Home Location : | DevConnect | Q | | |

Click the **CM Endpoint Profile** link and configure as follows:

- System Select the relevant Communication Manager SIP Entity from the drop-down list
- **Profile Type -** Select **Endpoint** from the drop-down list
- Extension Enter the required extension number, in this case 72003
- **Template** Select **J129_DEFAULT_CM_8_1** from the drop-down list
- **Port** The "IP" is auto filled out by the system

Click on **Endpoint Editor** in the Extension field to edit Communication Manager settings if desired.

| User Pro | file I Edit I | 72003@ | ®avaya.com | | Commit & Continue | Commit |
|------------|-------------------|-------------|--|---------------------|---|------------|
| Identity | Communic | ation Profi | le Membership C | ontacts | | |
| Communical | tion Profile Pass | word | | | | |
| PROFILE SE | ET : Primary | ~ | * System : | cm81 ~ | Profile Type : | Endpoint Y |
| Communic | ation Address | | Use Existing Endpoints: | | Extension : | 72003 🖵 💆 |
| PROFILES | | | Template : | | * Set Type : | |
| Session Ma | anager Profile | | remplate : | Start typing Q | * Set Type: | J129 |
| Avaya Bree | ze® Profile | | Security Code: | Enter Security Code | Port: | S000086 Q |
| CM Endpoi | int Profile | | Voice Mail Number: | | Preferred Handle : | Select V |
| Presence P | Profile | | | | | Delevi |
| | | | Calculate Route Pattern: | | Sip Trunk : | aar |
| | | | SIP URI: | Select ~ | Enhanced Callr-Info | |
| | | | | | Display for 1-line | |
| | | | Delete on Unassign from User or on Delete User: | | Override Endpoint Name and Localized Name: | ✓ |
| | | | Allow H.323 and SIP | _ | | |
| | | | Endpoint Dual | | | |
| | | | Designation - | | | |

7. Configure Aiphone IX Series Video Door Station

This section provides steps to configure Aiphone IX-EA.

To configure Aiphone IX-EA, using a web browser, navigate to <u>https://<IP Address of IX-EA>/webset.cgi?login</u> and log in using appropriate credentials.

| | HONE IX System | |
|------------------|--|--|
| ID: Password: | Enter ID and password Login | |
| | | |
| Convergence 20 | 112-2019 AIPHONE Co.,Ltd. All rights reserved. | |

Once logged in, for the **Number** field, type in the SIP extension that is being configured (from **Section 6.2**), and a desired **Name.** Select **Update** to save changes.

| AIPHONE IX Syste | em Setting Station Type: IX-EA, IX-EAU | | | ⇒Update |
|-----------------------------------|---|-------|--------------------|--|
| Station Information | | Stati | on Information | |
| Identification ID and Password | | | | Required Setting: |
| Language <u>Time</u> | | | | |
| Expanded System Network Settings | •Identification— | | | |
| IP Address DNS | Number • | | 72003 | 3-5 digits |
| SIP Multicast Address | Name Location | | IX-EA | 1-24 alphanumeric characters(*1) 1-24 alphanumeric characters(*1) |
| Video | | | (*1)Certain charac | cters may not be displayed correctly on IX-MV and IX-MV7-* |

From the left, select **Network Settings** \rightarrow **SIP** and configure as follows:

- **SIP Signaling Port:** Set to **5060**.
- User Agent: Type in a desired value.
- **ID:** SIP Extension number from **Section 6.2**.
- **Password:** SIP Extension password from **Section 6.2**.
- IPv4 Address: LAN IP Address of Session Manager
- Port: Set to 5060.

Once done, select **Update** to save changes.

| AIPHONE IX Syste | em Setting Station Type: IX-EA, IX-EAU | | :) Üpdate |
|-----------------------------|---|------------------|----------------------------------|
| Station Information | | Network Settings | |
| Identification | •SIP | | |
| ID and Password Language | SIP Connections | | |
| Time Expanded System | SIP Signaling Port • | 5060 | 1-65535 |
| Network Settings | User Agent | IX-EA | 1-36 alphanumeric characters |
| IP Address | | | |
| DNS SIP | SIP Server | | |
| Multicast Address | Primary Server | | |
| Video | ID | 72003 | 1-24 alphanumeric characters |
| Audio | Password | ••••• | 1-24 alphanumeric characters |
| Packet Priority | IPv4 Address | 10.64.110.212 | 1.0.0.1-223.255.255.254 or hostr |
| NTP | IPv6 Address | | ::FF:0-FEFF:FFFF:FFFF:FFFF:FFFF: |
| System Information | Port • | 5060 | 1-65535 |

From the left, select **Call Settings** \rightarrow **Called Stations** and configure as follows: The numbers configured here will be dialed when the button on the IX-EA is pressed.

- Station Number: Type in an extension number that will be called for a given line.
- IPv4: Type in the LAN IP Address for Session Manager.

Select **Update** to save changes.

| AIPHONE IX Syste | em Setting | | | | date | | | | |
|--------------------------|---|--|--------------|--------------|----------|--|--|--|--|
| Category: Video Stations | Station Type: IX-EA, IX-EAU | | | | | | | | |
| Station Information | | Call Settings | | | | | | | |
| Identification | Called Stations (for Door) | | | | | | | | |
| ID and Password | | | | | | | | | |
| Language Time | Option Input #: Group 01 | ~ | | | | | | | |
| Expanded System | | | | | | | | | |
| Network Settings | Station Number must be 3-5 digits. (3-32 digits IPv4 must be 1.0.0.1-223.255.255.254 or hostn | | | | | | | | |
| IP Address | IPv6 must be ::FF:0-FEFF:FFFFF:FFFF:FFFF;FFFF;FFFF;FFFF;FFF | FFF:FFFFF:FFFFFFFFFFFFFFFFFFFFFFFFFFFF | | | | | | | |
| DNS | Enter SIP Primary Server IP address for VoIP Phone, set only one VoIP Phone per call group. Station Type must be "VoIP Phone" when calling via SIP server. | | | | | | | | |
| SIP | Staton 1/pe must be "Voll" Phone" when calling via SIP server. U = Unicast, M = Multitast | | | | | | | | |
| Multicast Address | If designating "M", multicast IP addresses must | be configured for the station(s). | | | | | | | |
| Video | | 1 | | | | | | | |
| Audio | # Station Number | IPv4 Address | IPv6 Address | Station Type | Protocol | | | | |
| Packet Priority | 1 70101 | 10.64.110.212 | | VoIP Phone 🗸 | U 🗸 | | | | |
| <u>NTP</u> | 2 72000 | 10.64.110.212 | | IX-MV7-* 🗸 | U 🗸 | | | | |
| System Information | | | | t | | | | | |

Continuing from above, scroll down to the **Video** sub section and verify the Video Encoder settings are as shown below.

| AIPHONE IX Syste | em Setting | | ⇒ Update | | | | | | | | | |
|--------------------------------|---|---|----------|--|--|--|--|--|--|--|--|--|
| | Station Type: IX-EA, IX-EAU | | | | | | | | | | | |
| <u>^</u> | ^ Network Settings | | | | | | | | | | | |
| Station Information | | Network Settings | | | | | | | | | | |
| Identification | | | | | | | | | | | | |
| ID and Password | • Video | | | | | | | | | | | |
| Language | Video Encoder 1 | | | | | | | | | | | |
| <u>Time</u> Expanded System | | | | | | | | | | | | |
| | The "Video Encoder 1" RTP End Port should be gre | | | | | | | | | | | |
| Network Settings | Resolution | O320x240(QVGA) | | | | | | | | | | |
| IP Address | Frame Rate [fps] | 30 🗸 | | | | | | | | | | |
| DNS | Select Profile | High | | | | | | | | | | |
| SIP | I-picture interval + | 30 1-100 | | | | | | | | | | |
| Multicast Address Video | Bit rate [kbps] | 1024 ~ | | | | | | | | | | |
| Audio | RTP Start Port+ | 30000 1-65534 | | | | | | | | | | |
| Packet Priority | RTP End Port+ | 31000 1-65535 | | | | | | | | | | |
| NTP | | | | | | | | | | | | |
| Sector Television | | | | | | | | | | | | |
| System Information | Video Encoder 2 | | | | | | | | | | | |
| Custom Sound Registry | | | | | | | | | | | | |
| Call Settings | Items marked [H.264 / AVC] or [Motion-JPEG] app The "Video Encoder 2" RTP End Port should be gre | | | | | | | | | | | |
| Station Settings | Second Video Encoder | ©Enable ODisable | | | | | | | | | | |
| Called Stations (for Door) | Video Codec | Intersection Control Contro | | | | | | | | | | |
| Call Origination | Resolution | 1280x720(HD) ~ | | | | | | | | | | |
| Incoming Call | Frame Rate [fps] | 30 ~ | | | | | | | | | | |
| Option Input / Relay | Select Profile [H.264 / AVC] | High ~ | | | | | | | | | | |
| Output Settings | I-picture interval [H.264/AVC] + | 30 1-100 | | | | | | | | | | |
| Option Input | Bit rate [kbps] [H.264 / AVC] | 2048 🗸 | | | | | | | | | | |
| Relay Output | Select Quality [Motion-JPEG] | 6 ~ | | | | | | | | | | |
| Function Settings | RTP Start Port+ | 32000 1-65534 | | | | | | | | | | |
| Paging Settings | RTP End Port+ | 33000 1-65535 | | | | | | | | | | |

8. Verification Steps

The following steps may be used to verify the configuration:

• In the System Manager web interface, navigate to Elements → Session Manager → System Status → User Registrations to confirm successful registration.

| Avra® System Manager 8.1 | Users · | 🗸 🎤 Ele | ments 🗸 🔅 Ser | vices ~ I | Widgets | v Shortcu | ts v | | | Search | 1 | ▲ ≡ | ۱, | admin |
|--------------------------|---------|--|--------------------------|--------------------|--------------|--------------------|---------------|------------------|-------------------|--------------------|---------------|------------|-------|--------|
| Home User Managemen | it S | Session Ma | nager | | | | | | | | | | | |
| Session Manager ^ | Use | er Regi | strations | | | | | | | | | | | Help ? |
| Dashboard | | rows to send ation status. | notifications to devices | . Click on Details | column for | complete | | | | | | | | |
| Session Manager Ad | | | | | | | | | | | | C | ustom | nize 👎 |
| Global Settings | Vie | View Default Export Force Unregister Ast Device Notifications: Reboot Reload Failback As of 1:26 PM Advanced Search Advanced Search | | | | | | | | | | | | |
| Communication Profil | 22 It | 22 Items 💲 Show 15 🔹 Filter: Enable | | | | | | | | | | | | |
| Network Configurat V | | Details Address | Address | First Name | Last Name | Actual Location | IP Address | Remote Office | Shared Control | Simult. Devices | AST Device | Registered | | |
| | | Details | | ringe realing a | | | | | | | | Prim | Sec | Surv |
| Device and Locatio 🗡 | | →Show | 72005@avaya.com | IX | SPMIC | | 192.168.4.135 | | | 1/2 | | 2 | | |
| | | →Show | 72003@avaya.com | IX | EA | | 192.168.4.136 | | | 1/2 | | ~ | | |
| Application Configu V | | →Show | | IX | DA | | | | | 0/2 | | | | |
| System Status | 0 | Show | | IX | SSA | | | | | 0/2 | | | | |

Place a call from Aiphone IX-EA to an Avaya endpoint. The state of the call be viewed on Communication Manager using the **status trunk** command in a SAT Terminal session:

```
status trunk 1
                            TRUNK GROUP STATUS
Member
         Port
                 Service State
                                    Mtce Connected Ports
                                    Busy
0001/0001 T000001 in-service/active
                                         T000007
                                    no
0001/0002 T000002 in-service/idle
                                    no
0001/0003 T000003 in-service/idle
                                    no
0001/0004 T000004 in-service/idle
                                    no
0001/0005 T000005 in-service/idle
                                    no
0001/0006 T000006 in-service/idle
                                    no
0001/0007 T000007 in-service/active
                                    no
                                         T000001
```

To view the status of the endpoints connected to the SIP Trunk, and codecs in use, use **status trunk 1/0001** where /0001 is a trunk port connected to the call.

```
      status trunk 1/0001
      Page 4 of 4

      SRC PORT TO DEST PORT TALKPATH

      src port: T000001

      T000007:TX:192.168.4.130:40750/g711u/20ms

      001V062:RX:10.64.50.54:2054/g711u/20ms:TX:ctxID:542

      001V061:RX:ctxID:542:TX:10.64.50.54:2056/g711u/20ms

      T000001:RX:192.168.4.136:20000/g711u/20ms
```

Solution & Interoperability Test Lab Application Notes ©2020 Avaya Inc. All Rights Reserved. To verify video codecs used, scroll to page 2 and note the Video Near-end Codec and Video Farend Codec and highlighted below.

```
status trunk 1/0007
                                                     Page
                                                           2 of
                                                                  4
                             CALL CONTROL SIGNALING
Near-end Signaling Loc: PROCR
 Signaling IP Address
                                                  Port
  Near-end: 10.64.110.213
                                                 : 5061
   Far-end: 10.64.110.212
                                                 : 5061
H.245 Near:
 H.245 Far:
  H.245 Signaling Loc: H.245 Tunneled in Q.931? no
Audio Connection Type: ip-tdm Authentication Type: None
   Near-end Audio Loc: MG1
                                           Codec Type: G.711MU
  Audio IP Address
                                                   Port
  Near-end: 10.64.50.54
                                                 : 2054
   Far-end: 192.168.4.136
                                                 : 40750
Video Near: 192.168.4.130
                                                 : 30000
 Video Far: 192.168.4.136
                                                 : 45752
Video Port: T000007
 Video Near-end Codec: H.264
                                   Video Far-end Codec: H.264
```

9. Conclusion

Aiphone IX-EA was compliance tested with Avaya Aura[®]. Aiphone IX-EA functioned properly for feature and serviceability.

10. Additional References

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

Documentation related to Aiphone IX-EA can be found at: Japan: <u>https://www.aiphone.co.jp/products/business/ix/</u> USA, Canada: <u>https://www.aiphone.com/home/products/ix-series</u> France: <u>https://www.aiphone.fr/catalogue/interphonie-ip-protocole-sip-ix/</u> Australia, New Zealand: <u>https://www.aiphone.com.au/product/ix/</u> Singapore: <u>http://www.aiphone.com.sg/</u> United Kingdom: <u>https://www.aiphone.co.uk/featured_item/ix2/</u>

Appendix A

Following devices are based on the same firmware as IX-EA:

- IX-EA
- IX-EAU

The difference in each IX-EA devices is their mounting method:

- IX-EA
 - Surface mounting
- IX-EAU
 - \circ Flush mounting

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