



Application Notes for Configuring Yealink VP530 SIP Video Deskphone with Avaya Aura® Communication Manager R6.2 and Avaya Aura® Session Manager R6.2 – Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning Yealink VP530 SIP Video Deskphone to interoperate with Avaya Aura® Communication Manager and Avaya Aura® Session Manager.

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 steps required to connect Yealink VP530 SIP video deskphone (VP530) to a SIP infrastructure consisting of Avaya Aura® Session Manager and Avaya Aura® Communication Manager. Yealink VP530 is a 7 inch TFT colour touch screen with 3 line appearances, range of on board menus including an 18 key Busy Lamp Field. Also described is how Avaya Aura® Communication Manager features can be made available in addition to the standard features supported in Yealink VP530. In this configuration, the Off-PBX Stations (OPS) feature set is extended from Avaya Aura® Communication Manager to Yealink VP530, providing Yealink VP530 with enhanced calling features.

2. General Test Approach and Test Results

The interoperability compliance testing evaluates the ability of Yealink VP530 to make and receive both voice and video calls to and from Avaya H.323 and SIP deskphones as well as the Avaya Flare and Avaya one-X Communicator using video. Avaya Aura® Messaging was used to allow users leave voicemail messages and to demonstrate Message Waiting Indication and DTMF control on Yealink VP530.

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 compliance testing included the test scenarios shown below. Note that when applicable, all tests were performed with Avaya SIP deskphones, Avaya H.323 deskphones, Avaya Flare, Avaya one-X Communicator and Yealink VP530.

- Basic Calls with only audio
- Basic Calls with audio and video
- Hold and Retrieve with only audio
- Hold and Retrieve with audio and video
- Attended and Blind Transfer with only audio
- Attended and Blind Transfer with audio and video
- Call Forwarding Unconditional, No Reply and Busy
- Call Waiting
- Call Park/Pickup
- Conference with only audio
- Conference with audio and video
- Calling Line Name/Identification
- Codec Support
- DTMF Support
- Message Waiting Indication

2.2. Test Results

The following observations were noted during testing.

- When call forward busy was activated on Communication Manager the calls did not forward to the forwarded number of the Yealink VP530 SIP endpoint, this is not an issue with Yealink VP530.
- When using BLF key for Call Pickup this needs to be set so DSS Key TYPE = Direct Pickup Call pickup on Yealink.
- Yealink supports up to 3-way audio conference and 3-way video conference.

2.3. Support

Support from Avaya is available by visiting the website <http://support.avaya.com> and a list of product documentation can be found in **Section 11** of these Application Notes. Technical support for the Yealink deskphones can be obtained as follows:

- <http://www.yealink.co.uk/support/>
- email: support@yealink.co.uk
- Tel: +44 (0) 161 763 2060

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. Yealink VP530 is placed on the Telephony LAN. The VP530 registers as a third-party SIP user with Session Manager in order to be able to make/receive calls to and from the Avaya H.323 and SIP deskphones and video calls to the Avaya Flare and Avaya one-X Communicator.

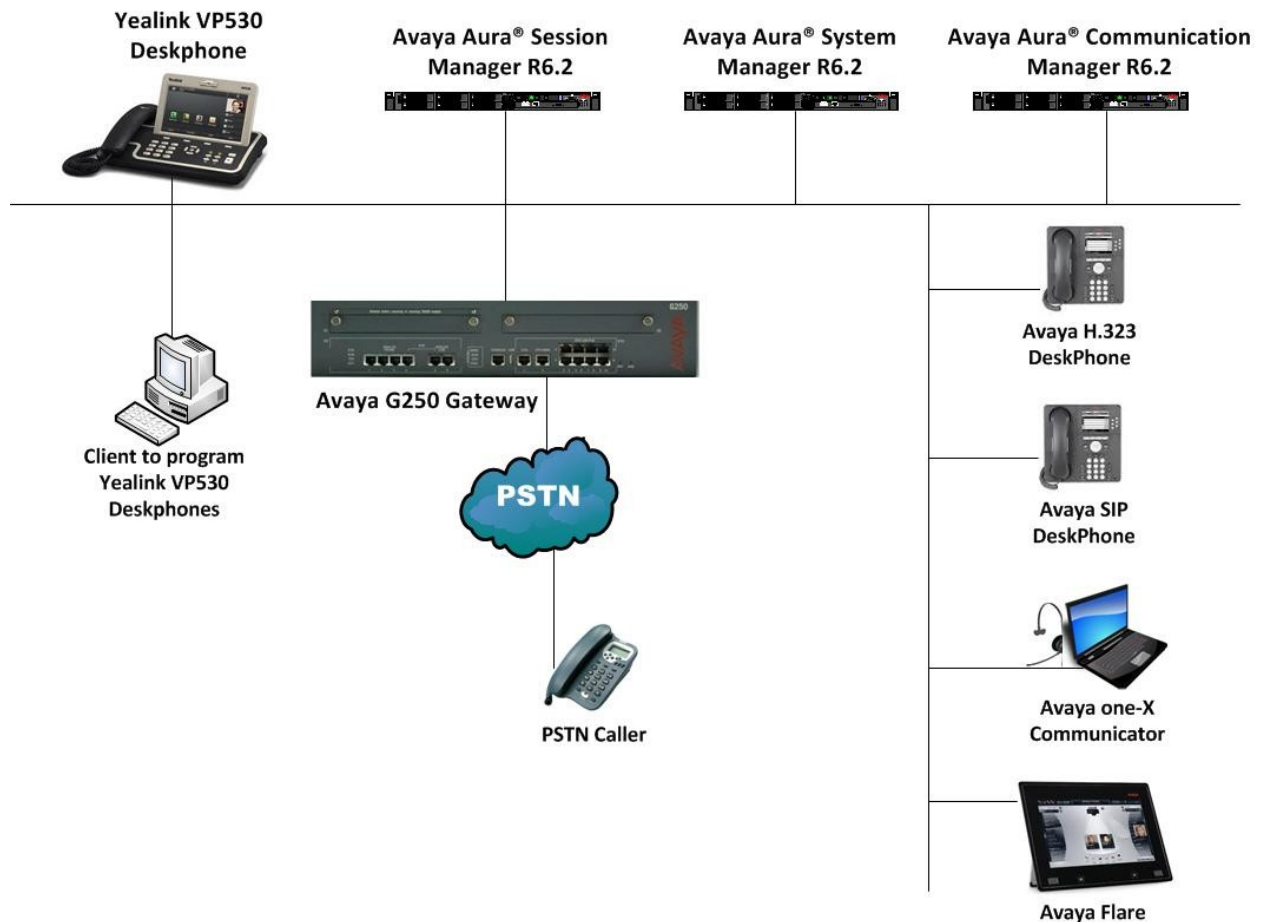


Figure 1: Network Solution of Yealink VP530 SIP Deskphone with Avaya Aura® Communication Manager R6.2 and Avaya Aura® Session Manager R6.2

4. Equipment and Software Validated

The following equipment and software was used for the compliance test.

| Equipment/Software | Release/Version |
|---|---|
| Avaya Aura® Communication Manager running on Avaya S8800 Server | R6.2 SP4 (R016x.02.0.823.0) |
| Avaya Aura® System Manager running on Avaya S8800 Server | R6.2 SP4 (6.2.0.0.15669) |
| Avaya Aura® Session Manager running on Avaya S8800 Server | R6.2 SP3 (6.2.3.0.623006) |
| Avaya Aura® Messaging running on S8800 Server | R6.1 |
| Avaya 96xx Series Deskphone | 96xx H.323 Release 3.1 SP2 |
| Avaya 96xx Series Deskphone | 96xx SIP Release 2.6 SP3 |
| Avaya Flare | Signalling Protocol: SIP |
| Avaya one-X Communicator | R6.1.7.04-SP7-39506 Signalling Protocol: SIP |
| Yealink VP530 | SW Ver 23.70.0.40 HW Ver 23.5.1.201.18.0.8 |

5. Configure Avaya Aura® Communication Manager

It is assumed that a fully functioning Communication Manager is in place with the necessary licensing with a SIP Trunk in place to Session Manager. For further information on the configuration of Communication Manager please see **Section 11** of these Application Notes. The following sections go through the following.

- Verify System Capacity
- Dial Plan Analysis
- Feature Access Codes
- IP Interfaces
- Network Region
- IP Codec
- Verify Off PBX Station Mapping

5.1. Verify System Capacity

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 Yealink VP530.

| display system-parameters customer-options | | Page 1 of 11 |
|--|------------------------------|--------------|
| OPTIONAL FEATURES | | |
| G3 Version: V16 | Software Package: Enterprise | |
| Location: 2 | System ID (SID): 1 | |
| Platform: 28 | Module ID (MID): 1 | |
| | USED | |
| Platform Maximum Ports: | 65000 | 57 |
| Maximum Stations: | 41000 | 31 |
| Maximum XMOBILE Stations: | 41000 | 0 |
| Maximum Off-PBX Telephones - EC500: | 41000 | 3 |
| Maximum Off-PBX Telephones - OPS: | 41000 | 19 |
| Maximum Off-PBX Telephones - PBFMC: | 41000 | 0 |
| Maximum Off-PBX Telephones - PVFMC: | 41000 | 0 |
| Maximum Off-PBX Telephones - SCCAN: | 0 | 0 |
| Maximum Survivable Processors: | 313 | 0 |

5.2. Configure Dial Plan Analysis

Use the **change dialplan analysis** command to configure the dial plan using the parameters shown below. Extension numbers (**ext**) are those beginning with **2, 3, 4** and **5**. Feature Access Codes (**fac**) use digits **8** and **9** or **#**.

| change dialplan analysis | | | | | | Page 1 of 12 | | |
|--------------------------|--------------|-----------|---------------|--------------|-----------|-----------------|--------------|-----------|
| DIAL PLAN ANALYSIS TABLE | | | | | | | | |
| Location: all | | | | | | Percent Full: 1 | | |
| Dialed String | Total Length | Call Type | Dialed String | Total Length | Call Type | Dialed String | Total Length | Call Type |
| 2 | 4 | ext | | | | | | |
| 3 | 4 | ext | | | | | | |
| 4 | 4 | ext | | | | | | |
| 5 | 4 | ext | | | | | | |
| 8 | 1 | fac | | | | | | |
| 9 | 1 | fac | | | | | | |
| * | 3 | dac | | | | | | |
| # | 3 | fac | | | | | | |

5.3. Configure Feature Access Codes

Use the **change feature-access-codes** command to configure access codes which can be entered from VP530 deskphones to initiate Communication Manager call features. These access codes must be compatible with the dial plan described in **Section 5.2**. The following access codes need to be setup.

- **Answer Back Access Code** : **#22**
- **Auto Alternate Routing (AAR) Access Code** : **8**
- **Auto Route Selection (ARS) - Access Code 1** : **9**
- **Call Park Access Code** : **#11**
- **Call Pickup Access Code** : **#12**

| change feature-access-codes | | | Page 1 of 10 | | |
|---|--|--|--------------------|--|--|
| FEATURE ACCESS CODE (FAC) | | | | | |
| Abbreviated Dialing List1 Access Code: | | | | | |
| Abbreviated Dialing List2 Access Code: | | | | | |
| Abbreviated Dialing List3 Access Code: | | | | | |
| Abbreviated Dial - Prgm Group List Access Code: | | | | | |
| Announcement Access Code: | | | | | |
| Answer Back Access Code: #22 | | | | | |
| Attendant Access Code: | | | | | |
| Auto Alternate Routing (AAR) Access Code: 8 | | | | | |
| Auto Route Selection (ARS) - Access Code 1: 9 | | | Access Code 2: | | |
| Automatic Callback Activation: | | | Deactivation: | | |
| Call Forwarding Activation Busy/DA: | | | All: Deactivation: | | |
| Call Forwarding Enhanced Status: | | | Act: Deactivation: | | |
| Call Park Access Code: #11 | | | | | |
| Call Pickup Access Code: #12 | | | | | |
| CAS Remote Hold/Answer Hold-Unhold Access Code: | | | | | |
| CDR Account Code Access Code: | | | | | |
| Change COR Access Code: | | | | | |

Change Coverage Access Code:

5.4. Configure Node-Names IP

Shown below is an example of the nodes names used in the compliance testing. Use the **change node-names ip** command to configure the IP address of Session Manager. **SM100** is the **Name** used for Session Manager Security Module and **192.168.50.16** is the **IP Address**.

| change node-names ip | | Page 1 of 2 |
|----------------------|---------------|-------------|
| IP NODE NAMES | | |
| Name | IP Address | |
| SM100 | 192.168.50.16 | |
| default | 0.0.0.0 | |
| g250-dcp | 192.168.50.18 | |
| procr | 192.168.50.13 | |
| procr6 | :: | |

5.5. Configure Network Region

Use the **change ip-network-region x** (where x is the network region to be configured) command to assign an appropriate domain name to be used by Communication Manager, in the example below **devcon.avaya** is used. Note this domain is also configured in **Section 6.1**.

| change ip-network-region 1 | | Page 1 of 20 |
|---------------------------------|---|---------------------------------------|
| IP NETWORK REGION | | |
| Region: 1 | | |
| Location: 1 | Authoritative Domain: devcon.avaya | |
| Name: default NR | | |
| MEDIA PARAMETERS | | Intra-region IP-IP Direct Audio: yes |
| Codec Set: 1 | | Inter-region IP-IP Direct Audio: yes |
| UDP Port Min: 2048 | | IP Audio Hairpinning? y |
| UDP Port Max: 3329 | | |
| DIFFSERV/TOS PARAMETERS | | |
| Call Control PHB Value: 46 | | |
| Audio PHB Value: 46 | | |
| Video PHB Value: 26 | | |
| 802.1P/Q PARAMETERS | | |
| Call Control 802.1p Priority: 6 | | |
| Audio 802.1p Priority: 6 | | |
| Video 802.1p Priority: 5 | | |
| H.323 IP ENDPOINTS | | AUDIO RESOURCE RESERVATION PARAMETERS |
| H.323 Link Bounce Recovery? y | | RSVP Enabled? n |
| Idle Traffic Interval (sec): 20 | | |
| Keep-Alive Interval (sec): 5 | | |
| Keep-Alive Count: 5 | | |

5.6. Configure IP-Codec

Use the **change ip-codec-set x** (where x is the ip-codec set used) command to designate a codec set compatible with the VP530 deskphone, which support both **G.711A** and **G.729A**.

| | | | | | | |
|-----------------------|-------------|---------|-----------|------|------|---|
| change ip-codec-set 1 | | | | Page | 1 of | 2 |
| IP Codec Set | | | | | | |
| Codec Set: 1 | | | | | | |
| Audio | Silence | Frames | Packet | | | |
| Codec | Suppression | Per Pkt | Size (ms) | | | |
| 1: G.711A | n | 2 | 20 | | | |
| 2: G.711U | n | 2 | 20 | | | |
| 3: G.729A | n | 2 | 20 | | | |

5.7. Configuration of Coverage Path and Hunt Group for Voicemail

The coverage path setup used for compliance testing is illustrated below. Note the following:

| | |
|--------------------------------------|---|
| Don't Answer is set to y | The coverage path will be used in the event the phone set is not answered |
| Number of Rings is set to 4 | The coverage path will be used after 4 rings |
| Point 1: is set to h59 | Hunt Group 59 is utilised by this coverage path |

```
display coverage path 59
```

| COVERAGE PATH | | | |
|---------------------------------------|--|------------------------|--|
| Coverage Path Number: 59 | | | |
| Cvg Enabled for VDN Route-To Party? n | | Hunt after Coverage? n | |
| Next Path Number: | | Linkage | |

COVERAGE CRITERIA

| Station/Group Status | Inside Call | Outside Call | |
|----------------------|-------------|--------------|--------------------|
| Active? | n | n | |
| Busy? | Y | Y | |
| Don't Answer? | Y | Y | Number of Rings: 4 |
| All? | n | n | |
| DND/SAC/Goto Cover? | Y | Y | |
| Holiday Coverage? | n | n | |

COVERAGE POINTS

Terminate to Coverage Pts. with Bridged Appearances? n

| | | |
|-------------|------|---------|
| Point1: h59 | Rng: | Point2: |
| Point3: | | Point4: |
| Point5: | | Point6: |

The hunt group used for compliance testing is shown below. Note on **Page 1** the **Group Extension** is **5999** which is the voicemail pilot number for Messaging, and on **Page 2** **Message Center** is set to **sip-adjunct**.

| | | |
|-----------------------------------|----------------------------|--------------|
| display hunt-group 59 | | Page 1 of 60 |
| HUNT GROUP | | |
| Group Number: 59 | ACD? n | |
| Group Name: Voicemail | Queue? n | |
| Group Extension: 5999 | Vector? n | |
| Group Type: ucd-mia | Coverage Path: | |
| TN: 1 | Night Service Destination: | |
| COR: 1 | MM Early Answer? n | |
| Security Code: | Local Agent Preference? n | |
| ISDN/SIP Caller Display: mbr-name | | |

| | | |
|------------------------------------|-------------------|-----------------------------|
| display hunt-group 59 | | Page 2 of 60 |
| HUNT GROUP | | |
| Message Center: sip-adjunct | | |
| Voice Mail Number | Voice Mail Handle | Routing Digits |
| | | (e.g., AAR/ARS Access Code) |
| 5999 | 5999 | 8 |

5.8. Verify Off PBX Station Mapping

Use the **display off-pbx-telephone station-mapping** command to verify that SIP Endpoints, added to Session Manager in **Section 6.3**, have been administered in Communication Manager. The example below shows that Station Extensions **3000** to **3012** are configured as **OPS**.

display off-pbx-telephone station-mapping

Page 1 of 3

STATIONS WITH OFF-PBX TELEPHONE INTEGRATION

| Station Extension | Application | Dial Prefix | CC | Phone Number | Trunk Selection | Config Set | Dual Mode |
|-------------------|-------------|-------------|----|--------------|-----------------|------------|-----------|
| 2000 | OPS | - | | 2000 | 1 | 1 | |
| 2000 | EC500 | - | | 3000 | 1 | 1 | |
| 2001 | OPS | - | | 2001 | aar | 1 | |
| 2011 | EC500 | - | | 3001 | 1 | 1 | |
| 2013 | EC500 | - | | 3006 | 1 | 1 | |
| 3000 | OPS | - | | 3000 | 1 | 1 | |
| 3001 | OPS | - | | 3001 | 1 | 1 | |
| 3002 | OPS | - | | 3002 | 1 | 1 | |
| 3003 | OPS | - | | 3003 | 1 | 1 | |
| 3005 | OPS | - | | 3005 | 1 | 1 | |
| 3006 | OPS | - | | 3006 | 1 | 1 | |
| 3007 | OPS | - | | 3007 | 1 | 1 | |
| 3008 | OPS | - | | 3008 | 1 | 1 | |
| 3010 | OPS | - | | 3010 | 1 | 1 | |
| 3011 | OPS | - | | 3011 | 1 | 1 | |
| 3012 | OPS | - | | 3012 | 1 | 1 | |

6. Configure Avaya Aura® Session Manager

The Yealink VP530 deskphones are added to Session Manager as SIP Users. In order to make changes in Session Manager a web session to System Manager is opened.

6.1. Configuration of a Domain

Navigate to <http://<System Manager IP Address>/SMGR>, enter the appropriate credentials and click on **Log On** as shown below.

System Manager - Windows Internet Explorer provided by Avaya IT

https://192.168.50.8/network-login/

File Edit View Favorites Tools Help

links Customize Links Free Hotmail Windows Windows Marketplace Windows Media To Be Reviewed SSO

System Manager

AVAYA Avaya Aura® System Manager 6.2

Home / Log On

Log On

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.

User ID:

Password:

Log On Cancel

[Change Password](#)

Once logged in, click on **Routing** highlighted below.

AVAYA Avaya Aura® System Manager 6.2

Help | About | Change Password | Log off a

| Users | Elements | Services |
|---|---|---|
| Administrators Manage Administrative Users | B5800 Branch Gateway Manage B5800 Branch Gateway 6.2 elements | Backup and Restore Backup and restore System Manager database |
| Directory Synchronization Synchronize users with the enterprise directory | Communication Manager Manage Communication Manager 5.2 and higher elements | Bulk Import and Export Manage Bulk Import and Export of Users, User Global Settings, Roles, Elements and others |
| Groups & Roles Manage groups, roles and assign roles to users | Conferencing Manage Conferencing Multimedia Server objects | Configurations Manage system wide configurations |
| User Management Manage users, shared user resources and provision users | Inventory Manage, discover, and navigate to elements, update element software | Events Manage alarms, view and harvest logs |
| | Meeting Exchange Manage Meeting Exchange and Avaya Aura Conferencing 6.0 elements | Licenses View and configure licenses |
| | Messaging Manage Avaya Aura Messaging, Communication Manager Messaging, and Modular Messaging | Replication Track data replication nodes, repair replication nodes |
| | Presence Presence | Scheduler Schedule, track, cancel, update and delete jobs |
| | Routing Network Routing Policy | Security Manage Security Certificates |
| | | Templates Manage Templates for Communication |

Click on **Domains** in the left window. If there is not a domain already configured click on **New** highlighted below and enter a suitable domain name. Note the domain **Name** used in the compliance testing was **devcon.avaya**. Note this domain is also referenced in **Section 5.5**.

AVAYA Avaya Aura® System Manager 6.2 Help | About |

Home / Elements / Routing / Domains

Domain Management

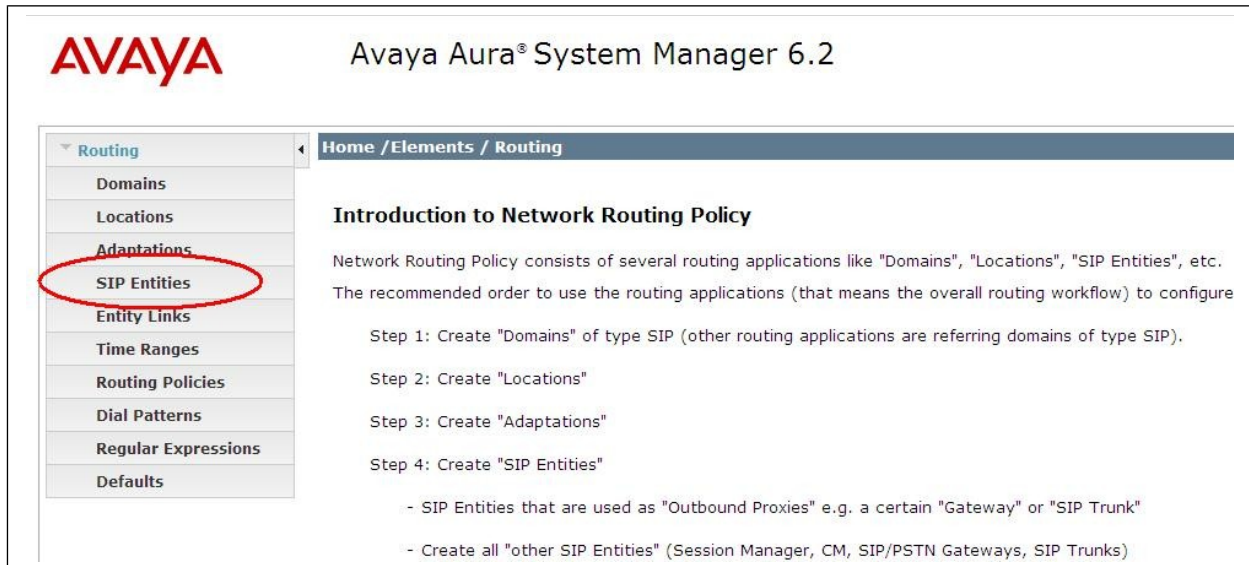
1 Item Refresh

| <input type="checkbox"/> | Name | Type | Default | Notes |
|--------------------------|--------------|------|--------------------------|-------|
| <input type="checkbox"/> | devcon.avaya | sip | <input type="checkbox"/> | |

Select : All, None

6.2. Configuration of SIP Entities

Log into System Manager as described in **Section 6.1** above, click on **SIP Entities** highlighted below.



The screenshot shows the Avaya Aura System Manager 6.2 interface. On the left, a navigation menu is visible with the following items: Routing, Domains, Locations, Adaptations, SIP Entities (highlighted with a red circle), Entity Links, Time Ranges, Routing Policies, Dial Patterns, Regular Expressions, and Defaults. The main content area displays the 'Introduction to Network Routing Policy' page, which includes a breadcrumb trail 'Home / Elements / Routing' and a list of steps for configuring the routing policy.

Avaya Aura® System Manager 6.2

Home / Elements / Routing

Introduction to Network Routing Policy

Network Routing Policy consists of several routing applications like "Domains", "Locations", "SIP Entities", etc. The recommended order to use the routing applications (that means the overall routing workflow) to configure

Step 1: Create "Domains" of type SIP (other routing applications are referring domains of type SIP).

Step 2: Create "Locations"

Step 3: Create "Adaptations"

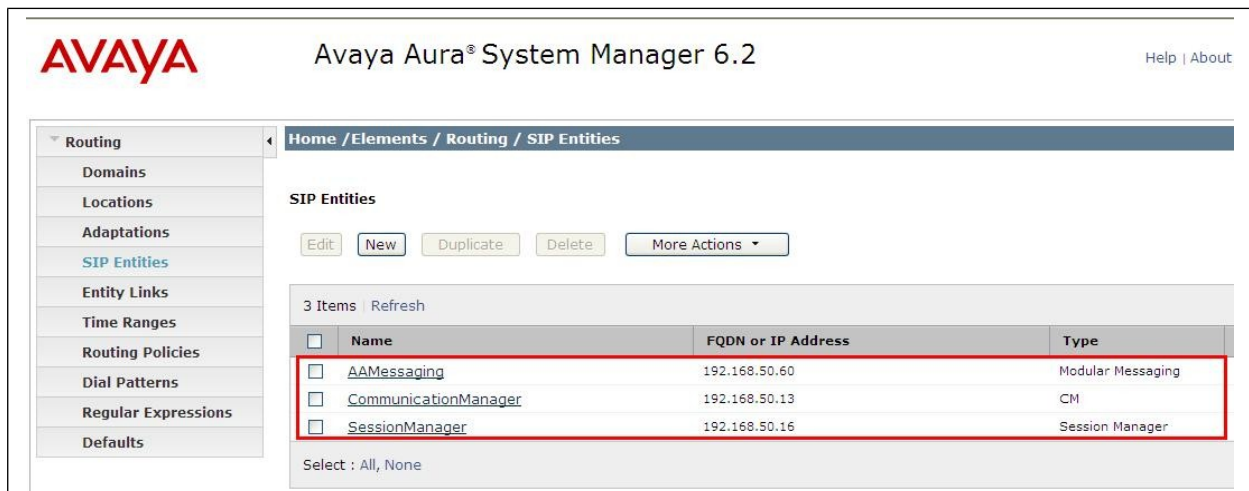
Step 4: Create "SIP Entities"

- SIP Entities that are used as "Outbound Proxies" e.g. a certain "Gateway" or "SIP Trunk"
- Create all "other SIP Entities" (Session Manager, CM, SIP/PSTN Gateways, SIP Trunks)

Clicking on **SIP Entities** shows what SIP Entities have been added to the system and allows the addition of any new SIP Entity that may be required. Please note the SIP Entities present for the Compliance Testing of Yealink VP530 deskphones.

- Communication Manager SIP Entity
- Session Manager SIP Entity
- Messaging SIP Entity

Note: There is no SIP Entity present or required for Yealink.



The screenshot shows the Avaya Aura System Manager 6.2 interface with the 'SIP Entities' page selected. The breadcrumb trail is 'Home / Elements / Routing / SIP Entities'. The page displays a table of existing SIP Entities. The table has columns for Name, FQDN or IP Address, and Type. Three entities are listed: AAMessaging, CommunicationManager, and SessionManager. The table is highlighted with a red border.

Avaya Aura® System Manager 6.2

Help | About

Home / Elements / Routing / SIP Entities

SIP Entities

Edit New Duplicate Delete More Actions

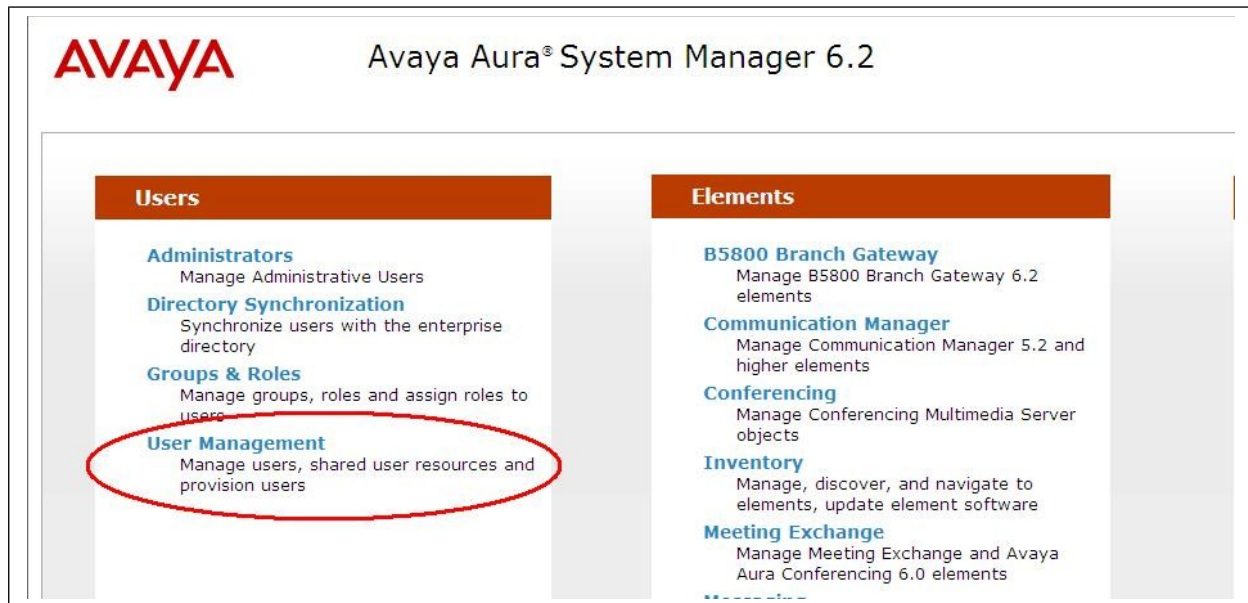
3 Items Refresh

| <input type="checkbox"/> | Name | FQDN or IP Address | Type |
|--------------------------|----------------------|--------------------|-------------------|
| <input type="checkbox"/> | AAMessaging | 192.168.50.60 | Modular Messaging |
| <input type="checkbox"/> | CommunicationManager | 192.168.50.13 | CM |
| <input type="checkbox"/> | SessionManager | 192.168.50.16 | Session Manager |

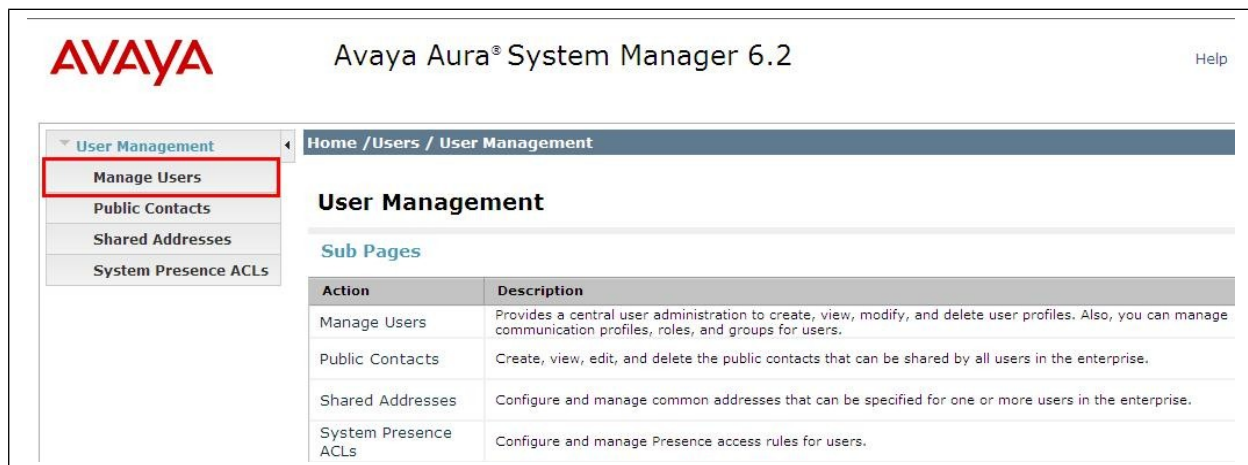
Select : All, None

6.3. Adding Yealink VP530 SIP Users

From the home page click on **User Management** highlighted below.



Click on **Manage Users**.



Click on **New** highlighted to add a new SIP user.

The screenshot shows the Avaya Aura System Manager 6.2 interface. The left sidebar contains a 'User Management' menu with 'Manage Users' highlighted. The main content area is titled 'User Management' and shows a list of users. A 'New' button is highlighted in the 'Users' section. Below the buttons, there is a table with columns: Last Name, First Name, Display Name, Login Name, and E164 Handle. The table shows 13 items.

Under the **Identity** tab fill in the user's **Last Name** and **First Name** as shown below. Enter the **Login Name** and ensure **Authentication Type** is set to **Basic**.

The screenshot shows the 'User Profile Edit' interface for user 3002@devcon.avaya. The 'Identity' tab is selected. The form contains the following fields:

- Last Name:** VP 530
- First Name:** 3002
- Middle Name:** (empty)
- Description:** (empty)
- Status:** Offline
- Update Time:** February 19, 2013 10:2
- Login Name:** 3002@devcon.avaya
- Authentication Type:** Basic
- Source:** local
- Localized Display Name:** VP530 3002
- Endpoint Display Name:** VP530 3002

Under the **Communication Profile** tab enter a suitable **Communication Profile Password** and click on **Done** when added, note that this password is required when configuring the VP530 deskphone in **Section 8**. Click on **New** to add a new **Communication Address**.

Identity * **Communication Profile *** Membership Contacts

Communication Profile ▾

Communication Profile Password: [Edit](#)

[New](#) [Delete](#) **[Done](#)** [Cancel](#)

| Name |
|---------|
| Primary |

Select : None

* Name: Primary

Default : ☒

Communication Address ▾

[New](#) [Edit](#) [Delete](#)

| Type | Handle | Domain |
|------|--------|--------|
|------|--------|--------|

Enter the extension number and the domain for the **Fully Qualified Address** and click on **Add** once finished.

Communication Address ▾

[New](#) [Edit](#) [Delete](#)

| Type | Handle | Domain |
|-----------|--------|--------------|
| Avaya SIP | 3002 | devcon.avaya |

Select : All, None

Type: Avaya SIP ▾

* Fully Qualified Address: 3002 @ devcon.avaya ▾

[Add](#) [Cancel](#)

Ensure **Session Manager Profile** is checked and select the **Primary Session Manager**, select the **Origination Application Sequence** and the **Termination Application Sequence** and the **Home Location** as highlighted below.

The screenshot shows the 'Session Manager Profile' configuration page. The following fields are highlighted with red boxes:

- ☒ **Session Manager Profile**
- * **Primary Session Manager**: SessionManager
- Secondary Session Manager**: (None)
- Origination Application Sequence**: CMAPPSEQ
- Termination Application Sequence**: CMAPPSEQ
- Conference Factory Set**: (None)
- Survivability Server**: (None)
- * **Home Location**: DevconLAB

Two tables are visible on the right side of the page:

| Primary | Secondary | Maximum |
|---------|-----------|---------|
| 12 | 0 | 12 |

| Primary | Secondary | Maximum |
|---------|-----------|---------|
| | | |

Ensure that **CM Endpoint Profile** is selected and choose the **DEFAULT_9620SIP_CM_6_2** as the **Template** and ensure **Port** is set to **IP**. Click **Endpoint Editor** to configure the buttons and features for that handset on Communication Manager.

The screenshot shows the 'CM Endpoint Profile' configuration page. The following fields are highlighted with red boxes:

- ☒ **CM Endpoint Profile**
- * **System**: CommunicationManager62
- * **Profile Type**: Endpoint
- Use Existing Endpoints: ☐
- * **Extension**: 3002 (with 'Endpoint Editor' button)
- Template**: DEFAULT_9620SIP_CM_6_2
- Set Type**: 9620SIP
- Security Code**: (empty)
- * **Port**: IP
- Voice Mail Number**: (empty)
- Preferred Handle**: (None)
- Delete Endpoint on Unassign of Endpoint from User or on Delete User: ☒
- Override Endpoint Name: ☒

Under the **General Options** tab ensure that **Coverage Path 1** is set to that configured in **Section 5.6**. Also ensure that **Message Lamp Ext.** is showing the correct extension number. Click on **Done** once the information is filled correctly.

| General Options (G) * | | Feature Options (F) | | Site Data (S) | | Abbreviated Call Dialing (A) | | Enhanced Call Fwd (E) | |
|------------------------------|--------------------------|--------------------------|----------------|---------------|--|------------------------------|--|-----------------------|--|
| Button Assignment (B) | | Group Membership (M) | | | | | | | |
| * Class of Restriction (COR) | 1 | * Class Of Service (COS) | 1 | | | | | | |
| * Emergency Location Ext | 3002 | * Message Lamp Ext. | 3002 | | | | | | |
| * Tenant Number | 1 | * SIP Trunk | Q 1 | | | | | | |
| Type of 3PCC Enabled | None | Native Name | VP530 3002 | | | | | | |
| Coverage Path 1 | 1 | Coverage Path 2 | | | | | | | |
| Lock Message | <input type="checkbox"/> | Multibyte Language | Not Applicable | | | | | | |

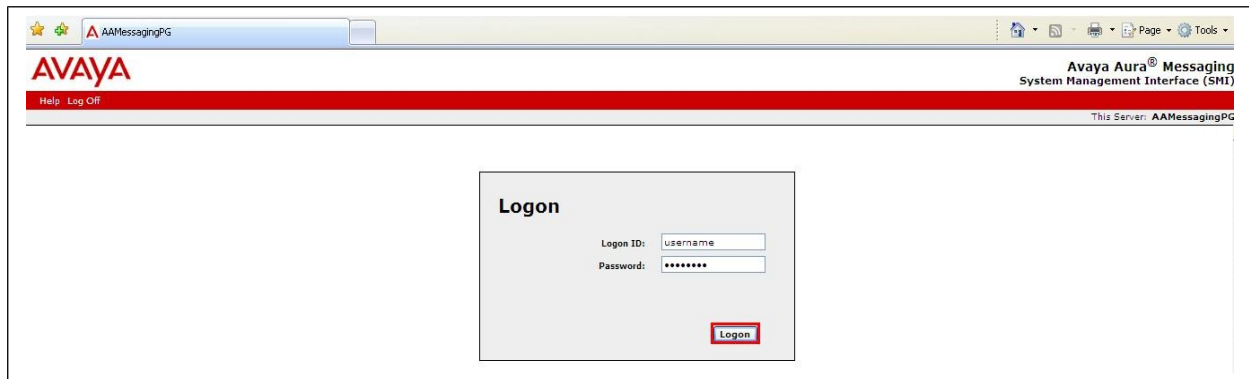
*Required

Done {

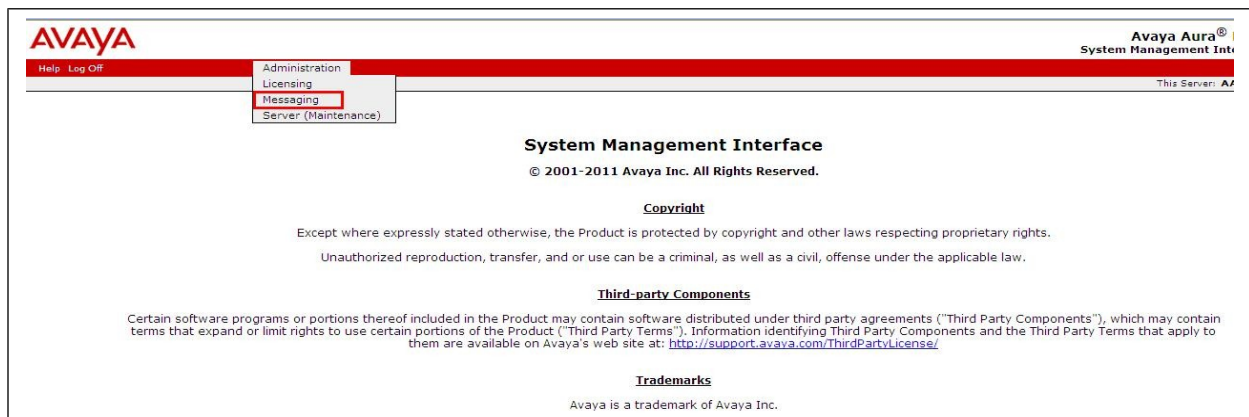
7. Configure Avaya Aura® Messaging

It is assumed that a fully working messaging system is in place and the necessary configuration for Communication Manager and Session Manager has already been done. For further information on the installation and configuration of Messaging please refer to **Section 11** of these Application Notes.

Navigate to <http://<Messaging IP Address>>. Enter the appropriate credentials and click on **Logon** highlighted below.



Once logged on select **Messaging** under **Administration** as shown below.



Click on **User Management** in the left hand column and click on **Add** under **Add User/Info Mailbox** as highlighted below.

AVAYA

Help Log Off Administration

Administration / Messaging

Messaging System (Storage)

User Management

Class of Service

Sites

Topology

Storage Destinations

System Policies

Enhanced List Management

System Mailboxes

System Ports and Access

User Activity Log Configuration

Reports (Storage)

Users

Info Mailboxes

Remote Users

Uninitialized Mailboxes

Login Failures

Locked Out Users

Server Information

System Status (Storage)

System Status (Application)

Alarm Summary

Voice Channels (Application)

Cache Statistics (Application)

Server Settings (Storage)

External Hosts

User Management

License Status

License mode: Normal

Edit User/Info Mailbox

Edit a user's properties. Possible identifiers are: mailbox number.

Identifier:

Edit

Add User/Info Mailbox

Add a new user:

Add

Add a new Info Mailbox:

Enter a suitable **First Name** and **Last Name**. Select the appropriate **Site** from the drop down box. Enter the correct **Mailbox number** and **Extension**. Select the appropriate **Class of Service**.

AVAYA

Help Log Off Administration

Administration / Messaging

Messaging System (Storage)

User Management

Class of Service

Sites

Topology

Storage Destinations

System Policies

Enhanced List Management

System Mailboxes

System Ports and Access

User Activity Log Configuration

Reports (Storage)

Users

Info Mailboxes

Remote Users

Uninitialized Mailboxes

Login Failures

Locked Out Users

Server Information

System Status (Storage)

System Status (Application)

Alarm Summary

Voice Channels (Application)

Cache Statistics (Application)

Server Settings (Storage)

External Hosts

Trusted Servers

Networked Servers

Request Remote Update

IMAP/SMTP Settings (Storage)

General Options

Mail Options

IMAP/SMTP Status

User Management > Properties for New User

User Properties

First name:

Last name:

Display name:

ASCII name:

Site:

Mailbox number:

Extension:

☒ Include in Auto Attendant directory

Additional extensions:

Class of Service:

Ensure that **MWI Enabled** is set to **Yes**. Enter a suitable **password** and click on **Save** once finished.

The screenshot shows the Avaya Administration web interface. The top navigation bar includes 'Help', 'Log Off', and 'Administration'. Below this is a breadcrumb trail 'Administration / Messaging'. A left-hand sidebar contains a tree view of system components, including 'Messaging System (Storage)', 'Reports (Storage)', 'Server Information', and 'Server Settings (Storage)'. The main content area is titled 'Class of Service' and contains several configuration fields. The 'MWI enabled:' field is set to 'Yes' and is highlighted with a red rectangle. Below it, the 'New password:' and 'Confirm password:' fields are also highlighted with a red rectangle. At the bottom, there are checkboxes for 'User must change voice messaging password at next logon', 'Voice messaging password expired', and 'Locked out from voice messaging'. A 'Save' button is highlighted with a red rectangle, and a 'Delete' button is also visible.

AVAYA

Help Log Off Administration

Administration / Messaging

Messaging System (Storage)

- User Management
- Class of Service
- Sites
- Topology
- Storage Destinations
- System Policies
- Enhanced List Management
- System Mailboxes
- System Ports and Access
- User Activity Log Configuration

Reports (Storage)

- Users
- Info Mailboxes
- Remote Users
- Uninitialized Mailboxes
- Login Failures
- Locked Out Users

Server Information

- System Status (Storage)
- System Status (Application)
- Alarm Summary
- Voice Channels (Application)
- Cache Statistics (Application)

Server Settings (Storage)

- External Hosts
- Trusted Servers
- Networked Servers
- Request Remote Update

Class of Service:

Standard

Pronounceable name:

MWI enabled: Yes

Miscellaneous 1:

Miscellaneous 2:

New password:

Confirm password:

☐ User must change voice messaging password at next logon

☐ Voice messaging password expired

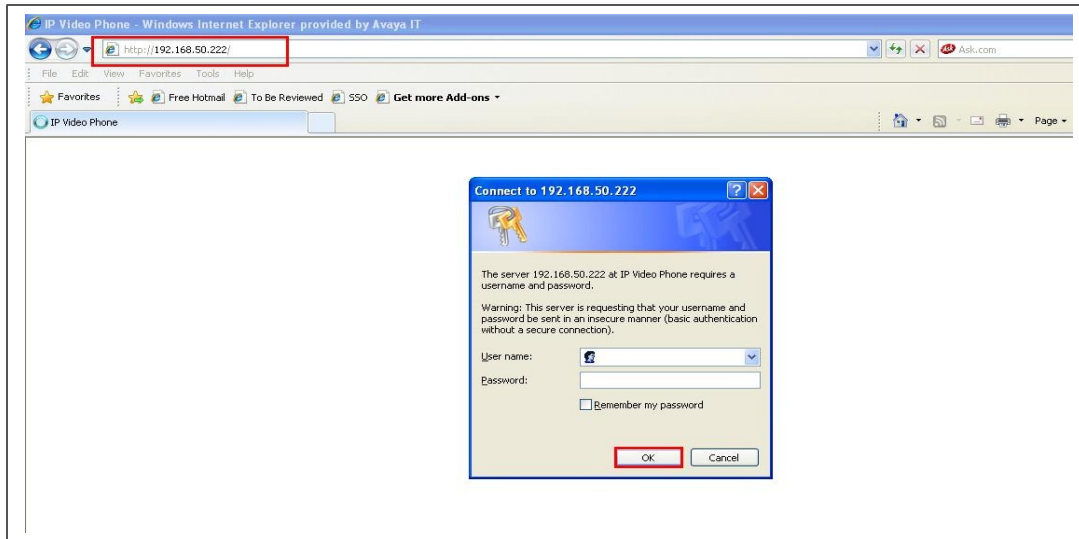
☐ Locked out from voice messaging

Save Delete

8. Configure Yealink VP530 SIP Video Deskphone

Configuration of Yealink VP530 is done using a web browser to the IP address of Yealink VP530. In order to obtain the IP address of the phone press the OK button located at the centre of the directional keys (not shown).

Open a web browser and enter the IP address of Yealink VP530. Enter the proper credentials and press **OK** as shown below.



Click on the **Basic** tab in the left window. Click on the **Account** tab in the main window and enter all the credentials as shown below. Note the **SIP Server** IP address is the SM100 IP address as shown in **Section 5.4**. The **User Name** and **Password** entered is that which was created in **Section 6.3**. Click **Confirm** once all the information has been entered correctly.

Yealink

Status **Account** Network DSS Key Phone Directory Security

Basic Codec Advanced

Account Account 1

Register Status: Registered

Account Active: Enabled

Label: 3003

Display Name: 3003

Register Name: 3003

User Name: 3003

Password:

SIP Server: 192.168.50.16 Port: 5060

Enable Outbound Proxy Server: Disabled

Outbound Proxy Server: Port: 5060

Transport: UDP

Backup Outbound Proxy Server: Port: 5060

NAT Traversal: Disabled

STUN Server: Port: 3478

Voice Mail: 5999

Proxy Require:

Anonymous Call: Off

On Code:

Off Code:

Anonymous Call Rejection: Off

On Code:

Off Code:

Missed Call Log: Enabled

Auto Answer: Disabled

XML Idle Screen: Disabled

XML Idle Screen URL:

Ring Tones: common

Confirm Cancel

Copyright © 1998-2011 **Inc. All Rights Reserved

NOTE

Display Name
SIP service subscriber's name which will be used for Caller ID display.

Register Name
SIP service subscriber's ID used for authentication.

User Name
User account, provided by VoIP service provider.

NAT Traversal
Defines the STUN server will be active or not.

Proxy Require
A special parameter just for Nortel server. If you login to Nortel server, the value should be: com.nortelnetworks.firewall

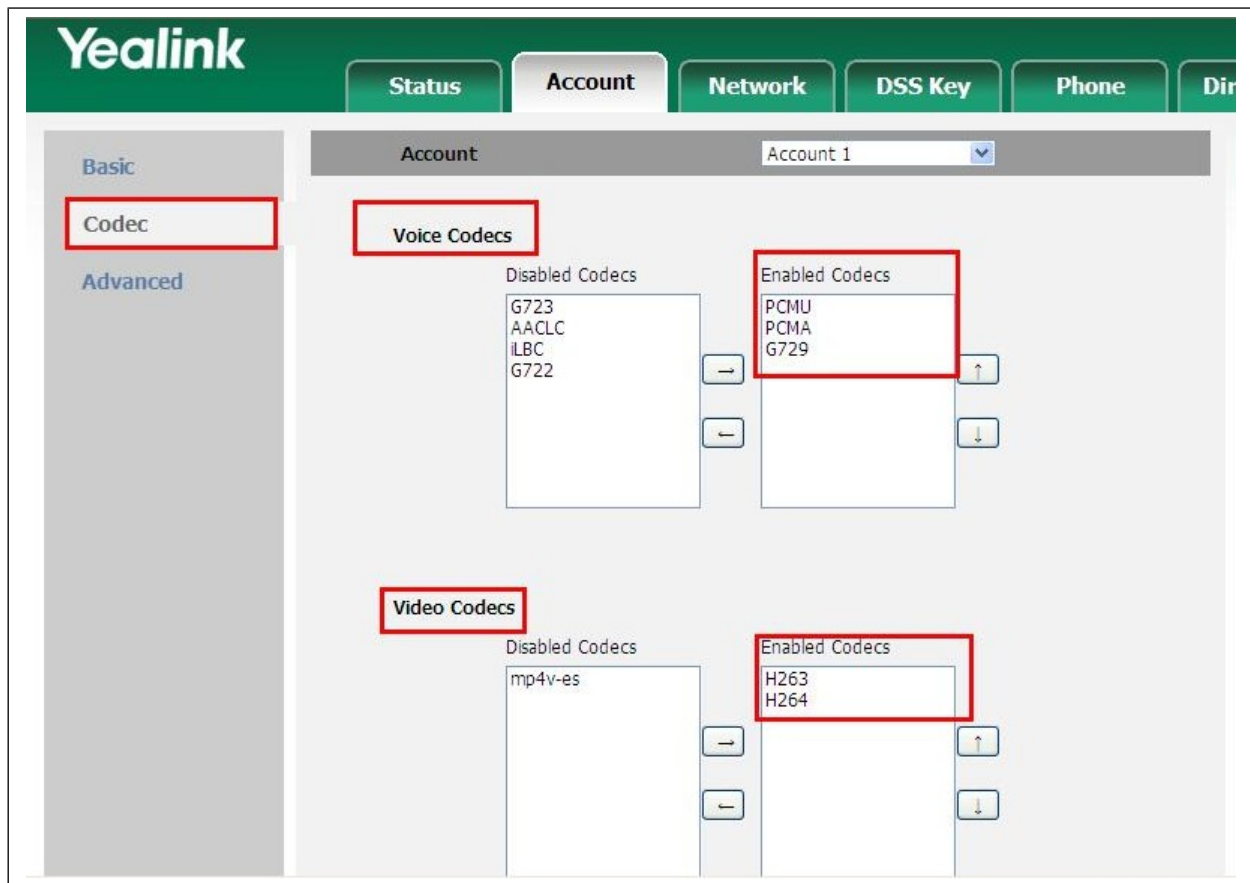
Codecs
Choose the codecs you want to use.

Advanced
The Advanced parameters for administrator.

Click on the **Advanced** tab in the left window and ensure the **Subscribe for MWI** is **Enabled**, and the **MWI Subscription Period** is set to **120**.

| | | |
|-----------------|---|------------|
| Basic | Account | Account 1 |
| Codecs | UDP Keep-alive Message | Enabled ? |
| Advanced | UDP Keep-alive Interval (seconds) | 30 |
| | Login Expire (seconds) | 3600 ? |
| | Local SIP Port | 5060 ? |
| | Rport | Enabled ? |
| | SIP Session Timer (seconds) T1 | 0.5 ? |
| | SIP Session Timer (seconds) T2 | 4 |
| | SIP Session Timer (seconds) T4 | 5 |
| | Subscribe Period (seconds) | 180 ? |
| | DTMF Type | RFC2833 ? |
| | How to INFO DTMF | Disabled |
| | DTMF Payload | 101 |
| | 100 Reliable Retransmission | Disabled ? |
| | Enable Precondition | Disabled ? |
| | Subscribe Register | Disabled ? |
| | Subscribe for MWI | Enabled ? |
| | MWI Subscription Period (Scope:0~84600) (seconds) | 120 |
| | Caller ID Header | FROM ? |

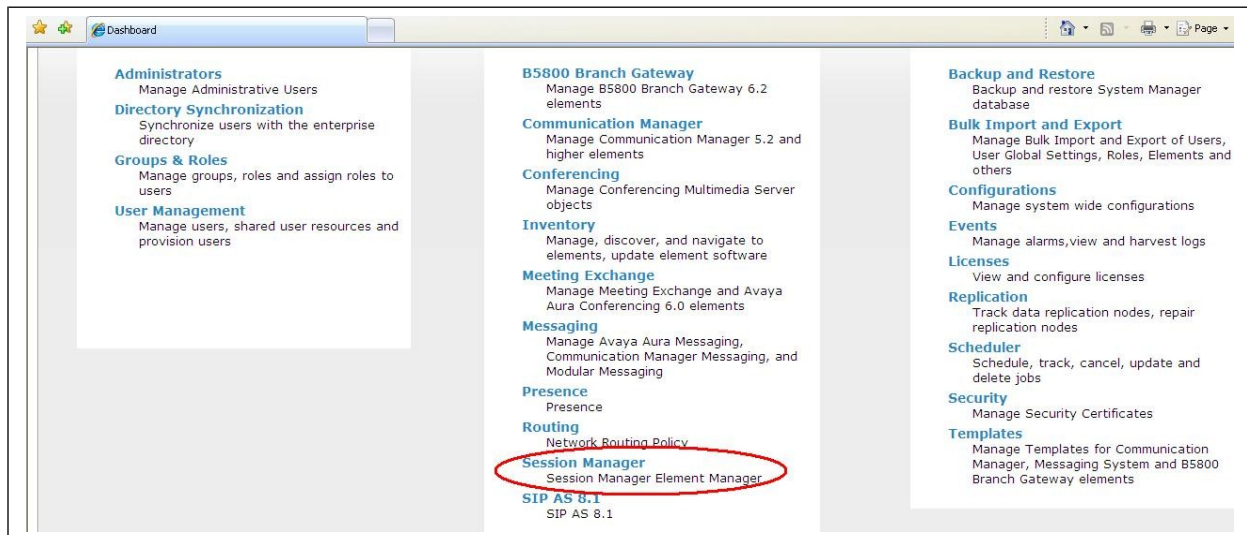
Click on the **Codec** tab in the left windows and select the necessary **Voice Codecs** and **Video Codecs** in the main window.



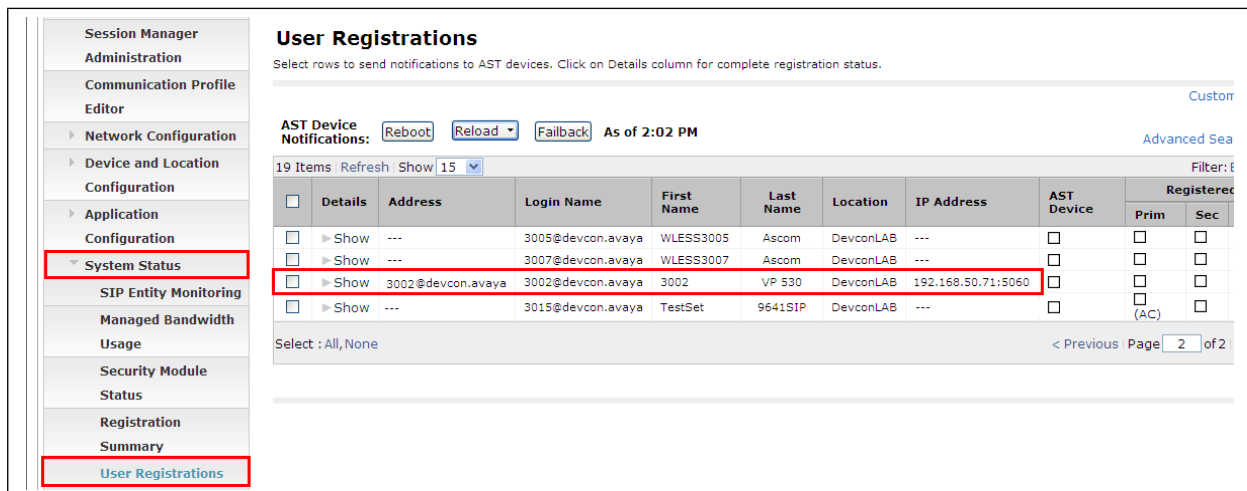
9. Verification Steps

The following steps can be taken to ensure that connection between Yealink VP530 and Session Manager are up.

Log into System Manager as done previously in **Section 6.1**, select **Session Manager** as highlighted below.



Select **System Status** and **User Registrations** in the left column. This displays the users that are currently registered with Session Manager. Yealink VP530 should show as being registered when the **Address** and the **IP Address** columns are populated with the Yealink VP530 user information as shown below.



10. Conclusion

These Application Notes describe the configuration steps required for Yealink VP530 to successfully interoperate with Avaya Aura® Communication Manager R6.2 and Avaya Aura® Session Manager R6.2 by registering Yealink VP530 with Session Manager as a third-party SIP phone. Please refer to **Section 2.2** for test results and observations.

11. Additional References

This section references documentation relevant to these Application Notes. The Avaya product documentation is available at <http://support.avaya.com> where the following documents can be obtained.

- [1] *Administering Avaya Aura® Communication Manager*, Document ID 03-300509
- [2] *Avaya Aura® Communication Manager Feature Description and Implementation*, Document ID 555-245-205
- [3] *Implementing Avaya Aura® Session Manager* Document ID 03-603473
- [4] *Administering Avaya Aura® Session Manager*, Doc ID 03-603324

Please refer to **Section 2.3** of these Application Notes for information on Yealink support. Product documentation can be found at www.yealink.com.

©2013 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

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.