

Avaya Solution & Interoperability Test Lab

# Application Notes for Configuring Yealink's SIP T32G 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's SIP T32G 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's SIP T32G Gigabit deskphone (T32G) to a SIP infrastructure consisting of Avaya Aura® Session Manager R6.2 and Avaya Aura® Communication Manager R6.2. Yealink's T32G is a colour display handset with 3 line appearances, 4 soft keys and 16 feature buttons. Also described is how Avaya Aura® Communication Manager features can be made available in addition to the standard features supported on Yealink's T32G. In this configuration, the Off-PBX Stations (OPS) feature set is extended from Avaya Aura® Communication Manager to Yealink's T32G providing the T32G with enhanced calling features.

# 2. General Test Approach and Test Results

The interoperability compliance testing evaluates the ability of Yealink's T32G to make and receive calls to and from Avaya H.323 and SIP deskphones. Avaya Aura® Messaging was used to allow users leave voicemail messages and to demonstrate Message Waiting Indication and DTMF control on the T32G.

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, Yealink's T32G and PSTN endpoints.

- Basic Calls
- Hold and Retrieve
- Attended and Blind Transfer
- Call Forwarding Unconditional, No Reply and Busy
- Call Waiting
- Call Park/Pickup
- Conference
- Do Not Disturb
- Calling Line Name/Identification
- Codec Support
- DTMF Support
- Message Waiting Indication

### 2.2. Test Results

The following observations were noted during testing.

- When using Busy Lamp Field (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.

### 2.3. Support

Support from Avaya is available by visiting the website <u>http://support.avaya.com</u> 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: <u>support@yealink.co.uk</u>
- Tel: +44 (0) 161 763 2060

# 3. Reference Configuration

**Figure 1** shows the network topology during compliance testing. Yealink's T32G is placed on the Telephony LAN. The T32G 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 on Communication Manager. System Manager is used to configure Session Manager.

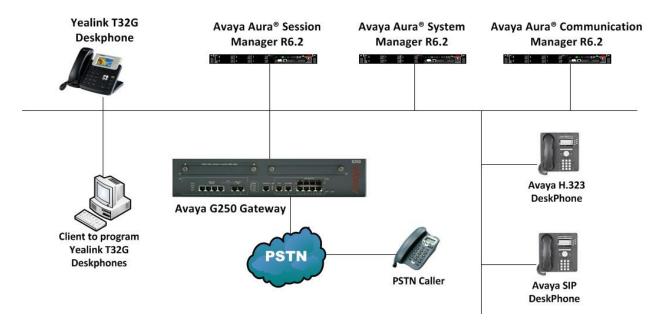


Figure 1: Network Solution of Yealink T32G SIP Deskphone with Avaya Aura® Communication Manager R6.2 and Avaya Aura® Session Manager R6.2

# 4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® System Manager running on Avaya S8800 Server	R6.2 SP4 (6.2.0.0.15669)
Avaya Aura® Communication Manager running on Avaya S8800 Server	R6.2 SP4 (R016x.02.0.823.0)
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 IP Deskphone (with Avaya one-X® H.323 firmware)	96xx H.323 Release 3.1 SP2
Avaya 96xx Series IP Deskphone (with Avaya one-X® SIP firmware)	96xx SIP Release 2.6 SP3
Yealink T32G	SW Ver 32.70.0.105 HW Ver 22.0.2.32.0.0.0

## 5. Configure Avaya Aura® Communication Manager

It is assumed that a fully functioning Communication Manager is in place with the necessary licensing and a SIP Trunk 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.

- Dial Plan Analysis
- Feature Access Codes
- IP Interfaces
- Network Region
- IP Codec
- Hunt Group
- Off-PPX Stations

### 5.1. 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 dialp	olan an	alysis	גום וגדם	NT 7 NT 7 T X			Page	1 of	12
				cation:	SIS TABLE all		ercent Fi	ull: 1	
Dialed	Total	Call	Dialed	Total	Call	Dialed	Total	Call	
String	Lengt	h Type	String	Length	Туре	String	Length	Туре	
2	4	ext							
3	4	ext							
4	4	ext							
5	4	ext							
8	1	fac							
9	1	fac							
*	3	dac							
#	3	fac							

### 5.2. Configure Feature Access Codes

Use the **change feature-access-codes** command to configure access codes which can be entered from the Yealink T32G to initiate Communication Manager call features. These access codes must be compatible with the dial plan described in **Section 5.1**. The following access codes need to be setup.

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

### 5.3. 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
                    192.168.50.18
g250-dcp
                     192.168.50.13
procr
procr6
                     ::
```

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### 5.4. 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**.

```
1 of
                                                                           20
change ip-network-region 1
                                                               Page
                              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
                                     AUDIO RESOURCE RESERVATION PARAMETERS
H.323 IP ENDPOINTS
                                                       RSVP Enabled? n
 H.323 Link Bounce Recovery? y
Idle Traffic Interval (sec): 20
  Keep-Alive Interval (sec): 5
           Keep-Alive Count: 5
```

## 5.5. 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 T32G, which supports **G.711A**, **G.711U** and **G.729A**.

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

### 5.6. 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 1
                            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
                       n
          Active?
Busy?
                                        n
                           У
                                         У
                          у
У
n
У
     Don't Answer?
                                                Number of Rings: 4
                                        У
           All?
                                        n
DND/SAC/Goto Cover?
                                        У
  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 number for Messaging and on **Page 2**, **Message Center** is set to **sip-adjunct**.

display hunt-group 59			Page	<b>1</b> o	f	60
	HUI	NT GROUP				
	5.0	1 0 0 0				
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 HUNT GROUP

Message Center: sip-adjunct

Voice Mail Number
Voice Mail Handle
(e.g., AAR/ARS Access Code)
5999
5999
8

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## 5.7. 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-ph	display off-pbx-telephone station-mapping Page 1 of 3 STATIONS WITH OFF-PBX TELEPHONE INTEGRATION						
Station Extension		al CC refix	Phone Number	Trunk Selection	Config Set	Dual Mode	
2000 2000 2001	OPS EC500 OPS		2000 3000 2001	l 1 aar	1 1 1		
2011 2013	EC500 EC500	-	3001 3006	1	1		
3000 3001 3002	OPS OPS OPS		3000 3001 3002	1 1 1	1 1 1		
3003 3005 3006	OPS OPS	-	3003 3005 3006	1 1	1 1		
3007 3008	OPS OPS OPS		3008 3007 3008	1 1	1 1		
3010 3011 3012	OPS OPS OPS		3010 3011 3012	1 1 1	1 1 1		

## 6. Configure Avaya Aura® Session Manager

Yealink's T32G is added to Session Manager as a SIP User. 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/	Certificate Error
File Edit View Favorites Tools Help nis 🔊 Customize Links 🔊 Free Hotmail 🔊 Windows 💖 Windows Marketplace 🔊 Windows Media 🔊 To Be	Reviewed 😰 SSO
🖗 🏈 System Manager	🟠 🔹 📾 👻 🔂 Page 🕶 🎯 1
Avaya Aura ® System Manage Home/Log On Log On	er 6.2
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: Passw • First time login with "admin" account	r ID:
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.	Log On Cancel Chance Passuo

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

Avaya Aura <sup>®</sup> System Manager 6.2 Help   About   Change Password   L			
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 Groups & Roles	Communication Manager Manage Communication Manager 5.2 and higher elements	Bulk Import and Export Manage Bulk Import and Export of Use User Global Settings, Roles, Elements others	
Manage groups, roles and assign roles to users User Management	Conferencing Manage Conferencing Multimedia Server objects	Configurations Manage system wide configurations	
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	
	Manage Meeting Exchange and Avaya	Licenses View and configure licenses	
	Aura Conferencing 6.0 elements Messading	Replication Track data replication nodes, repair replication nodes	
	Manage Avaya Aura Messaging, Communication Manager Messaging, and Modular Messaging	Scheduler Schedule, track, cancel, update and delete jobs	
	Presence Presence	Security Manage Security Certificates	
	Routing Network Routing Policy	Templates Manage Templates for Communication	

Solution & Interoperability Test Lab Application Notes ©2013 Avaya Inc. All Rights Reserved. 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 5.4**.

AVAYA	Avaya Aura® System M	anager 6.2		Help   About
* Routing	Home / Elements / Routing / Domains			
Domains				
Locations	Domain Management			
Adaptations		(manufacture)		
SIP Entities	Edit New Duplicate Delete More A	actions •		
Entity Links	1 Item Refresh			
Time Ranges	Name	Туре	Default	Notes
Routing Policies	devcon.avaya	sip		
Dial Patterns	Select : All, None			
Regular Expressions				
Defaults				

## 6.2. Configuration of SIP Entities

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

AVAYA	Avaya Aura® System Manager 6.2
* Routing	Home /Elements / Routing
Domains	
Locations	Introduction to Network Routing Policy
Adaptations	Network Routing Policy consists of several routing applications like "Domains", "Locations", "SIP Entities", etc.
SIP Entities	The recommended order to use the routing applications (that means the overall routing workflow) to configure
Entity Links	
Time Ranges	Step 1: Create "Domains" of type SIP (other routing applications are referring domains of type SIP).
Routing Policies	Step 2: Create "Locations"
Dial Patterns	Step 3: Create "Adaptations"
Regular Expressions	
Defaults	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 T32G Deskphone.

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

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

AVAYA	A	∕aya Aura® System M	anager 6.2	Help   Abo
* Routing	<b>∢</b> Home	/Elements / Routing / SIP Entitie	5	
Domains				
Locations	SIP En	tities		
Adaptations	To dia	New Developmente Delete	More Actions 🔻	
SIP Entities	Edit	New Duplicate Delete	More Actions •	
Entity Links	2 The	ms Refresh		
Time Ranges	2001	ns keiresn		
Routing Policies		Name	FQDN or IP Address	Туре
Dial Patterns		AAMessaging	192.168.50.60	Modular Messaging
Regular Expressions		CommunicationManager	192.168.50.13	CM
Defaults	Selec	<u>SessionManager</u> t : All, None	192.168.50.16	Session Manager

### 6.3. Adding Yealink T32G SIP Users

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

<b>NVAYA</b>	Avaya Aura <sup>®</sup> Sys	stem Manager 6.2
Users		Elements
Directory Synch Synchronize u directory Groups & Roles Manage group Usere User Manageme	sers with the enterprise s, roles and assign roles to ent shared user resources and	B5800 Branch Gateway Manage B5800 Branch Gateway 6.2 elements Communication Manager Manage Communication Manager 5.2 and higher elements Conferencing Manage Conferencing Multimedia Server objects Inventory Manage, discover, and navigate to elements, update element software Meeting Exchange Manage Meeting Exchange and Avaya Aura Conferencing 6.0 elements

#### Click on Manage Users.

AVAYA	Avaya Aur	a® System Manager 6.2 Help
▼ User Management	Home /Users / Use	r Management
Manage Users		
Public Contacts	User Manage	ement
Shared Addresses	Sub Pages	
System Presence ACLs	Subrages	
	Action	Description
	Manage Users	Provides a central user administration to create, view, modify, and delete user profiles. Also, you can manage communication profiles, roles, and groups for users.
	Public Contacts	Create, view, edit, and delete the public contacts that can be shared by all users in the enterprise.
	Shared Addresses	Configure and manage common addresses that can be specified for one or more users in the enterprise.
	System Presence ACLs	Configure and manage Presence access rules for users.

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

AVAYA	Avaya Aura	a® System №	Manager 6.2		Help
• User Management	Home /Users / User	Management / M	anage Users		
Manage Users					
Public Contacts	User Manager	ment			
Shared Addresses	ever manage.				
System Presence ACLs					
	Users View Edit New	Duplicate	Delete More Action	IS T	
	13 Items   Refresh   S	how ALL 💌			
	Last Name	First Name	Display Name	Login Name	E164 Handle

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 ID password (not shown) also needs to be added.

Manage Users Public Contacts Shared Addresses System Presence ACLs	User Profile Edit: 3000@devcon.avaya           Identity *         Communication Profile *         Membership         Contacts	Commit & Continue) Commit
	Identity 👁	
	* Last Name: T32	
	* First Name: 3000	
	Middle Name:	
	Description:	
	Status: Offline	
	Update Time : February 19, 2013 10:0	
	* Login Name: 3000@devcon.avaya	
	* Authentication Type: Basic 🔽	
	Change Password	
	Source: local	
	Localized Display Name: T32 3000	
	Endpoint Display Name: T32 3000	

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 Yealink T32G in **Section 8**. Click on **New** to add a new **Communication Address**.

Identity *	Communication Profile * Me	embership Contacts	
Communic	ation Profile 💌		
	Communication Profile Passwo	ord: •••••••	
New	Done Cancel		
Name			
OPrimary	4		
Select : Nor	ie		
- 0)	* Nai	me: Primary	
	Defa	ult: 🗹	
	Communication Address 🔹		
	New Edit Delete		
	ПТуре	Handle	Domain

Enter the extension number and the domain defined in Section 6.1 for the Fully Qualified Address and click on Add once finished.

ew Edit Delete			
Туре	Handle	Domain	
Avaya SIP	3000	devcon.avaya	
	Type: Avaya SIP	~	
* Fully Qual	Type: Avaya SIP	devcon.avaya	

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

* Primary Session Manager	SessionManager 🐱	Primary	Secondary	Maximun
Frindry Session Manager	Sessionmanager	12	0	12
	(None)	Primary	Secondary	Maximum
Secondary Session Manager	(None) 💙			
Origination Application Sequence	CMAPPSEQ 💌			
Termination Application Sequence	CMAPPSEQ 💌			
Conference Factory Set	(None) 🚩			
Survivability Server	(None)			
* Home Location	DevconLAB 👻			

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.

CM Endpoint Profile 🖲				
		CommunicationMa	anager62 ⊻	
Use Existing End				
* Ext	ension	<b>Q</b> 3000	Endpoint Editor	
Ter	mplate	DEFAULT_9620SI	P_CM_6_2	~
Se	et Type	9620SIP		
Security				
	* Port	QIP		
Voice Mail N	lumber			
Preferred H	Handle	(None)	*	
Delete Endpoint on Unassign of E from User or on Delete				
Override Endpoint	t 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.

	eature Options (F) Group Membership (	<b>Site Data</b> (S) M)	Abbreviated Call Dialing (A)	Enhanced Call Fwd (E)
<ul> <li>Class of Restriction (COR)</li> <li>Emergency Location Ext</li> <li>Tenant Number Type of 3PCC Enabled</li> <li>Coverage Path 1</li> </ul>	1 3000 1 None 💌		<ul> <li>Class Of Service (COS)</li> <li>Message Lamp Ext.</li> <li>SIP Trunk Native Name Coverage Path 2</li> </ul>	1 3000 Q.aar T32 3000
Lock Message			Multibyte Language	Not Applicable

# 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.

AAMessagingPG		🟠 🔹 🗟 🔹 🖶 👻 Page 🕶 🌍 Tools 👻
AVAYA		Avaya Aura <sup>®</sup> Messaging System Management Interface (SMI)
Help Log Off		This Server: AAMessagingPG
	Logon ID: username Password:	

Once logged on select Messaging under Administration as shown below.

avaya	Avaya Aura <sup>®</sup> System Management Int
Help Log Off Administration	
Licensing Messaging	This Server: A
Server (Maintenance)	
	System Management Interface
	© 2001-2011 Avaya Inc. All Rights Reserved.
	Copyright
Except where ex	pressly stated otherwise, the Product is protected by copyright and other laws respecting proprietary rights.
Unauthorize	d reproduction, transfer, and or use can be a criminal, as well as a civil, offense under the applicable law.
	Third-party Components
Certain software programs or portions there terms that expand or limit rights to use cert	of included in the Product may contain software distributed under third party agreements ("Third Party Components"), which may contain ain portions of the Product ("Third Party Terms"). Information identifying Third Party Components and the Third Party Terms that apply to them are available on Avaya's web site at: <u>http://support.avava.com/ThirdPartyLicense/</u>
	Trademarks
	Avaya is a trademark of Avaya Inc.

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

Αναγα	
Help Log Off	Administration
Administration / Messaging	
Messaging System (Storage) User Management Class of Service Sites Topology Storage Destinations	User Management
System Policies Enhanced List Management System Mailboxes System Ports and Access	License Status License mode: Normal
User Activity Log Configuration Reports (Storage) Users Info Mailboxes	Edit User/Info Mailbox Edit a user's properties. Possible identifiers are: mailbox number.
Remote Users Uninitialized Mailboxes Login Failures Locked Out Users Server Information	Identifier:
System Status (Storage) System Status (Application) Alarm Summary Voice Channels (Application) Cache Statistics (Application)	Add User/Info Mailbox Add a new user:
Server Settings (Storage) External Hosts	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**.

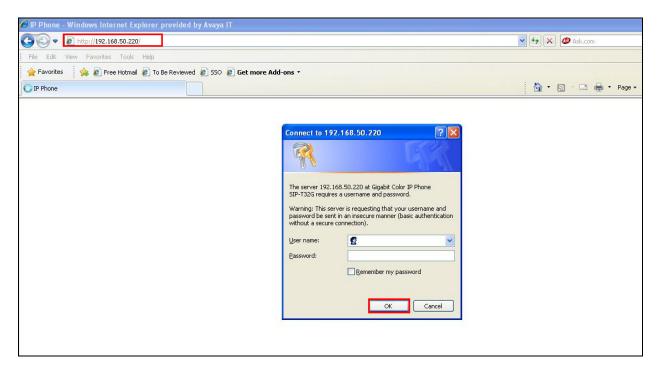
Help Log Off	Administration	
Administration / Messaging		
essaging System (Storage)	▲	
User Management		
Class of Service	🐪 User Managem	ent > Properties for New U
Sites	10000000000000000000000000000000000000	entroneter alle entroneter versionerer anderer anderer anderer anderer
Topology	User Properties	
Storage Destinations	and a second sec	
System Policies	First name:	Yealink3000
Enhanced List Management	Last name:	T32
System Mailboxes	Last hame.	132
System Ports and Access	Display name:	YealinkT32, 3000
User Activity Log Configuration	ASCII name:	
Reports (Storage)	ASCII name.	
Users		
Info Mailboxes		
Remote Users	Site:	Messaging PG 💙
Uninitialized Mailboxes		
Login Failures Locked Out Users		
Server Information	Mailbox number:	3000
System Status (Storage)	1	
System Status (Storage) System Status (Application)		
Alarm Summary	Extension:	3000
Voice Channels (Application)		
Cache Statistics (Application)	Include in Auto Atter	ndant directory
Server Settings (Storage)	Additional extensions:	
External Hosts	Additional extensions.	
Trusted Servers		
Networked Servers		
Request Remote Update		
MAP/SMTP Settings (Storage)		
General Options		
Mail Options	Class of Service:	Standard 💙
IMAP/SMTP Status		

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Αναγα		
Help Log Off	Administration	
Administration / Messaging		
Messaging System (Storage) User Management Class of Service Sites Topology Storage Destinations System Policies	Class of Service:	Standard 💌
	Pronounceable name:	
Enhanced List Management System Mailboxes System Ports and Access	MWI enabled:	Yes
User Activity Log Configuration Reports (Storage) Users Info Mailboxes Remote Users Uninitialized Mailboxes Login Failures Locked Out Users Server Information System Status (Application) Alarm Summary Voice Channels (Application) Cache Statistics (Application) Server Settings (Storage) External Hosts Trusted Servers Networked Servers Request Remote Update	Miscellaneous 1: Miscellaneous 2:	
	New password: Confirm password:	•••••
	User must change Voice messaging p Locked out from vo	

# 8. Configure Yealink T32G SIP Deskphone

The configuration of Yealink T32G is achieved by opening a web browser. 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 the T32G. 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 of the Communication Manager Profile username and password which was created in **Section 6.3**. Click **Confirm** once all the information has been entered correctly. Enter all the credentials as shown.

	Account	Account 1	~				
	Register Status	Registered		NOTE			
	Account Active	-	~	Display Name SIP service subscriber's name			
ed	Label	3000		which will be used for Caller ID display.			
	Display Name	3000		Register Name			
	Register Name	3000		SIP service subscriber's ID user for authentication. User Name User account, provided by VoI service provider. NAT Traversal Defines the STUN server will b			
	- User Name	3000	=				
	Password	•••••	7				
	SIP Server	192.168.50.16	Port 5060				
	Enable Outbound Proxy Server	Disabled	. 0	active or not. <b>Proxy Require</b> A special parameter just for Nortel server. If you login to Nortel server, the value shoul be: com.nortelnetworks.firew			
	Outbound Proxy Server		Port 5060				
	Transport	UDP	• 0				
	Backup Outbound Proxy Server		Port 5060	Codecs			
	NAT Traversal	Disabled	. ⊘	Choose the codecs you want use.			
	STUN Server		Port 3478	Advanced			
	Voice Mail	5999	0	The Advanced parameters for administrator.			
	Proxy Require		0				
	Anonymous Call	Off	. 0				
	On Code		0				
	Off Code		0				
	Anonymous Call Rejection	Off	· 0				
	On Code		0				
	Off Code		0				
	Missed Call Log	Enabled					
	Auto Answer	Disabled	• 0				
	XML Idle Screen	Disabled	☑ 🕜				
	XML Idle Screen URL		0				
	Ring Tones	common	✓ Ø				

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

Basic	Account	Account 1	×		
	UDP Keep-alive Message	Enabled	~	0	
Codecs	UDP Keep-alive Interval (seconds)	30			
Advanced	Login Expire (seconds)	3600		0	
	Local SIP Port	5060		0	
	Rport	Enabled	~	0	
	SIP Session Timer (seconds) T1	0.5	0.5		
	SIP Session Timer (seconds) T2	4			
	SIP Session Timer (seconds) T4	5			
	Subscribe Period (seconds)	180		0	
	DTMF Type	RFC2833	~	0	
	How to INFO DTMF	Disabled	V		
	DTMF Payload	101			
	100 Reliable Retransmission	Disabled	~	0	
	Enable Precondition	Disabled	~	0	
	Subscribe Register	Disabled	~	0	
	Subscribe for MWI	Enabled	~	0	
	MWI Subscription Period (Scope:0~846 (seconds)	00) 120			
	Caller ID Header	FROM	*	0	

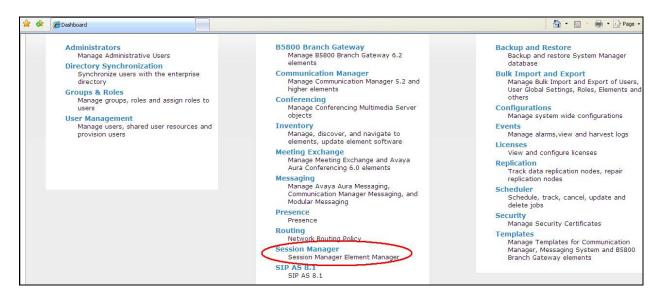
Click on the **Codec** tab in the left windows and select the necessary **Audio Codecs** consistent with IP Codec Set defined in **Section 5.5** in the main window.

Yealink	Status	It Network DSS Key Ph	none Co
Basic	Account	Account 1	
Codecs Advanced	Audio codecs Disabled Codec G723_63 G726-16 G726-24 G726-32 G726-40 G723_53 G722 Confir	PCMA PCMU G729 ↑	

## 9. Verification Steps

The following steps can be taken to ensure that connection between the Yealink T32G 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. The T32G should show as being registered when the **Address** and the **IP Address** columns are populated with the T32G user information as shown below.

Session Manager Administration		_	istrations nd notifications to AST d	evices. Click on Details	column for com	iplete registra	tion status.				
Communication Profile Editor											Custo
Network Configuration		Device fications:	Reboot Reload •	Failback As of 2	:02 PM					Advar	nced Sea
Device and Location	19 Ite	ems   Refre	sh   Show 15 💌								Filter:
Configuration		Details	Address	Login Name	First	Last	Location	IP Address	AST	Registere	
Application		Details	Address	Login Name	Name	Name	Location	IP Address	Device	Prim	Sec
Configuration		►Show		3005@devcon.avaya	WLESS3005	Ascom	DevconLAB				
▼ System Status		▶ Show		3007@devcon.avaya	WLESS3007	Ascom	DevconLAB				
SIP Entity Monitoring		►Show	3002@devcon.avaya	3002@devcon.avaya	3002	VP 530	DevconLAB	192.168.50.71:5060			
Managed Bandwidth		►Show		3015@devcon.avaya	TestSet	9641SIP	DevconLAB			(AC)	
Usage	Selec	t : All, None							< Previous	Page	2 of 2
Security Module											
Status											
Registration											
Summary											
User Registrations											

## 10. Conclusion

These Application Notes describe the configuration steps required for Yealink's SIP T32G Deskphone to successfully interoperate with Avaya Aura® Communication Manager R6.2 and Avaya Aura® Session Manager R6.2 by registering the T32G 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 <u>http://support.avaya.com</u> 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 <u>www.yealink.com</u>

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