



Application Notes for Plantronics Hub Software and Plantronics Blackwire C315/C325 USB Corded Headsets with Avaya E159 Media Station - Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate the Plantronics Hub Software and Plantronics Blackwire C315/C325 USB Corded Headsets with Avaya E159 Media Station using SIP protocols. The Blackwire C315/C325 USB corded headsets provide two-way audio with a flexible microphone and call control buttons. This solution provides call control features directly from the headset, such as answering or terminating a call from the headset, adjusting volume control and mute from the headset.

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 to integrate the Plantronics Hub Software and Plantronics Blackwire C315/C325 USB Corded Headsets with Avaya E159 Media Station using SIP protocol. The Blackwire C315/C325 USB corded headsets provide two-way audio with a flexible microphone and call control buttons. This solution provides call control features directly from the headset, such as answering or terminating a call from the headset, adjusting volume control and mute/unmute from the headset.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from E159 Media Station with the Plantronics Blackwire C315/C325 USB corded headsets and verifying two-way audio, call control from the headset. The call types included calls to voicemail, local extensions, and the PSTN.

The serviceability testing focused on verifying the usability of the Plantronics headsets after restarting E159 Media Station and re-connecting the headset to USB port on E159 Media Station.

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's formal testing and Declaration of Conformity is provided only on the headsets/handsets that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headset/handset to determine interoperability with Avaya phones. However, Avaya does not conduct the testing of non-Avaya headsets/handsets for: Acoustic Pressure, Safety, Hearing Aid Compliance, EMC regulations, or any other tests to ensure conformity with safety, audio quality, long-term reliability or any regulation requirements. As a result, Avaya makes no representations whether a particular non-Avaya headset will work with Avaya's telephones or with a different generation of the same Avaya telephone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their telephones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya telephones does not equate to a guarantee that the headset will provide adequate safety protection or audio quality.

2.1. Interoperability Compliance Testing

All test cases were performed manually. The following features were verified:

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify that the playback volume and recording level were good.
- Placing calls to internal extensions to verify two-way audio.
- Placing calls to the PSTN to verify two-way audio.
- Incoming call alert notification.
- Hearing ring back tone for outgoing calls.
- Using the call control button on the Plantronics headset.
- Using the volume control and mute buttons on the Plantronics headset.
- Answering and terminating calls using E159 Media Station to verify status of call control is reflected on the Plantronics headset.
- Using the Plantronics headset with E159 Media Station using SIP protocol only.

For the serviceability testing, the Plantronics headset is reconnected to USB port, and restarts E159 Media Station to verify proper operation of the headset.

2.2. Test Results

All test cases executed and passed successfully.

2.3. Support

For technical support and information on Plantronics Blackwire C315/C325 USB Corded Headsets, contact Plantronics Support at:

- Phone: 1-855-765-7878
1-831-426-5858 (International)
- Website: <http://www.plantronics.com/us/support/index.jsp>

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Plantronics Blackwire C315/C325 Headsets with E159 Media Station. The configuration consists of an Avaya S8800 Server running Avaya Aura® Communication Manager with an Avaya G450 Media Gateway providing connectivity to the PSTN via an ISDN-PRI trunk. SIP endpoints provisioned by using Avaya Aura® System Manager and registered with Avaya Aura® Session Manager, Avaya Aura® Messaging was used as the voicemail system. The Plantronics Blackwire C315/C325 headsets were connected to USB port of E159 Media Station.

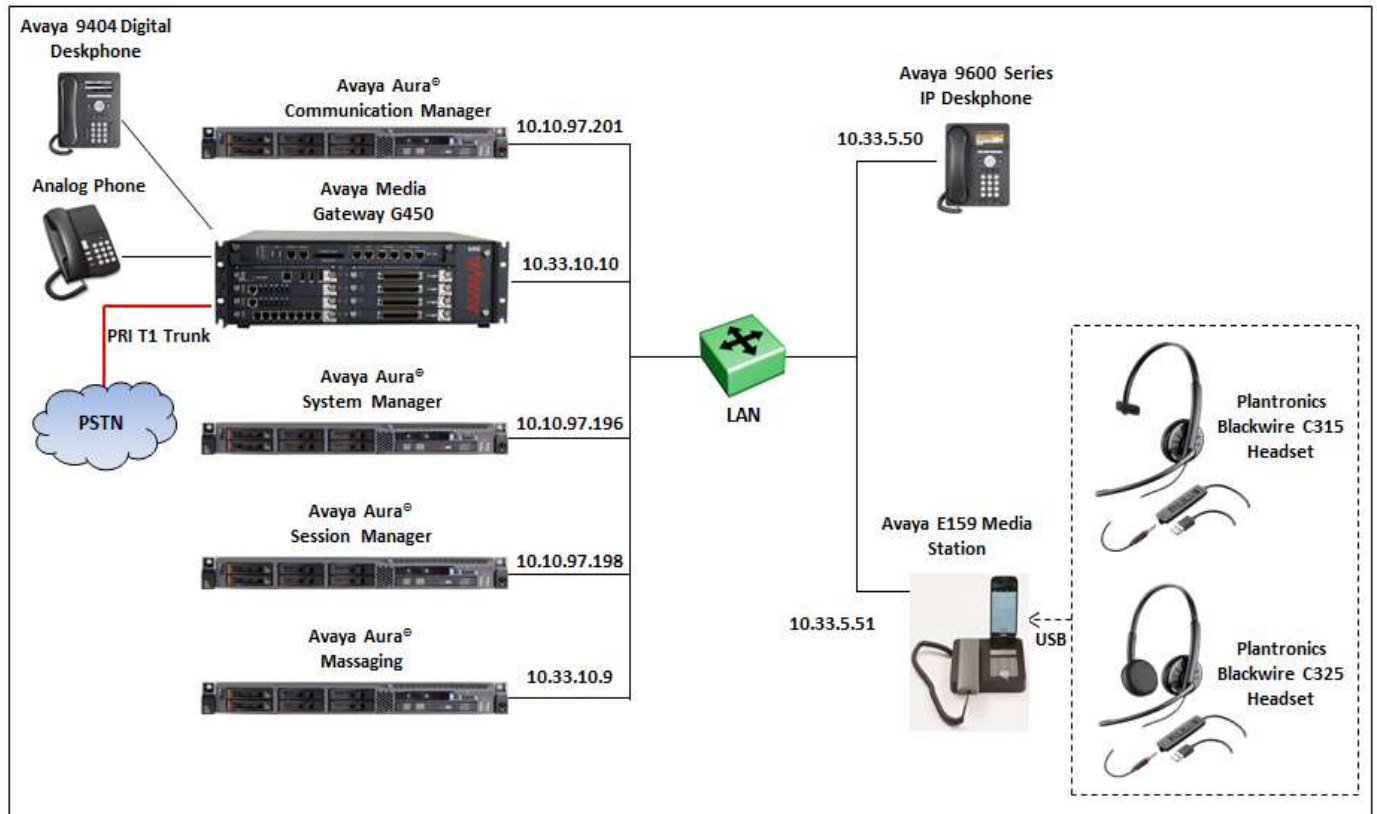


Figure 1: Avaya E159 Media Station with Plantronics Blackwire C315/325 Headsets and Plantronics Hub Software

4. Equipment and Software Validated

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

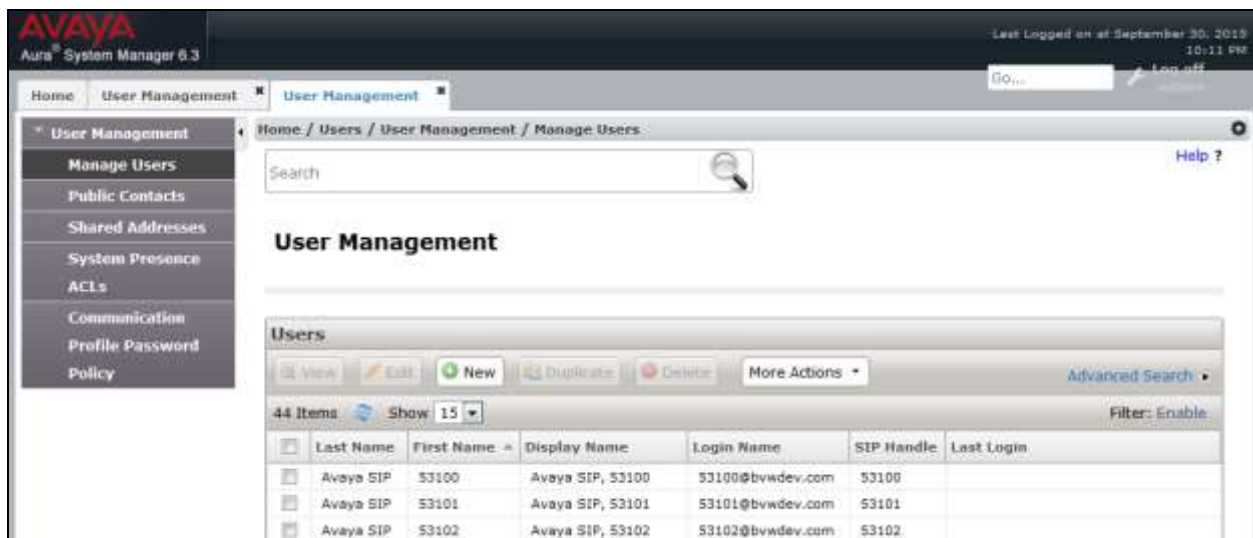
Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on an Avaya S8800 Server	6.3 SP 12 (R016x.03.0.124.0 w/Patch 22505)
Avaya Media Gateway G450	37.19.0
Avaya Aura® Session Manager	6.3 SP 14 (6.3.14.0.631402)
Avaya Aura® System Manager	6.3. SP 14 (6.3.14.11.3595)
Avaya Aura® Messaging	6.3.1
Avaya 96x1 Series IP Deskphones	6.5 (SIP)
Avaya 96x0 Series IP Deskphones	3.25 (H323)
Avaya E159 Media Station	1.1.0.1 (Firmware 825)
Avaya 9408 Digital Deskphone	Firmware12
Analog phone	N/A
Plantronics Blackwire C315/C525 Headsets	V145
Plantronics Hub Software	3.6.51102.21715

5. Configure a Station for E159 Media Station using SIP

This section shows configuration in System Manager to create a SIP user that is used to log on from E159 Media Station.

From the homepage of System Manager, navigate to **Home → Users → User Management → Manager Users**, the **User Management** page is displayed in the right hand side as shown below.

Note: The initial installation, configuration, and licensing of System Manager, Session Manager and Communication Manager servers are assumed to have been previously completed and are not discussed in these Application Notes. These Application Notes focus on describing the sample configuration as it relates to creating a SIP user.



The screenshot displays the Avaya Aura System Manager 6.3 User Management interface. The top navigation bar includes 'Home', 'User Management', and 'User Management'. The left sidebar lists various management options: 'User Management', 'Manage Users', 'Public Contacts', 'Shared Addresses', 'System Presence', 'ACLs', 'Communication', 'Profile Password', and 'Policy'. The main content area shows a search bar and a 'User Management' title. Below this is a 'Users' section with a table of users. The table has columns for 'Last Name', 'First Name', 'Display Name', 'Login Name', 'SIP Handle', and 'Last Login'. Three users are listed: 'Avaya SIP 53100', 'Avaya SIP 53101', and 'Avaya SIP 53102'. The table also includes a 'More Actions' dropdown and a 'Filter: Enable' button.

	Last Name	First Name	Display Name	Login Name	SIP Handle	Last Login
<input type="checkbox"/>	Avaya SIP	53100	Avaya SIP, 53100	53100@bvwdev.com	53100	
<input type="checkbox"/>	Avaya SIP	53101	Avaya SIP, 53101	53101@bvwdev.com	53101	
<input type="checkbox"/>	Avaya SIP	53102	Avaya SIP, 53102	53102@bvwdev.com	53102	

Click on **New** button on the **User Management** page above to create a new SIP user. The **New User Profile** displays, enter parameters of new SIP user in the **Identity** tab as shown below. The fields marked with red star are mandatory and require providing information.

AVAYA
Aura® System Manager 6.3

Last Logged on at October 1, 2015 11:56 AM

Home / User Management / Manage Users

New User Profile

Commit & Continue Commit Cancel

Identity Communication Profile Membership Contacts

User Provisioning Rule

User Provisioning Rule: [v]

Identity

* Last Name: SIP

Last Name (Latin Translation): SIP

* First Name: 53117

First Name (Latin Translation): 53117

Middle Name:

Description:

* Login Name: 53117@bvwddev.com

* Authentication Type: Basic

Password:

Confirm Password:

Localized Display Name:

Endpoint Display Name:

Title:

Next is select the **Communication Profile** tab, enter a password e.g. 1234 in **Communication Profile Password** and **Confirm Password** fields. Note that this password is used to log on the SIP user from E159 Media Station.

Under the **Communication Address** section, click on **New** button to add a new communication address, select Type as **Avaya SIP**, enter a directory number **53117** this is the directory number of SIP user and select **bvwdev.com** domain in the dropdown menu. Note: the domain **bvwdev.com** is previously provisioned when Session Manager installed and configured.

The screenshot displays the 'New User Profile' web interface. On the left is a navigation menu with options: User Management, Manage Users, Public Contacts, Shared Addresses, System Presence, ACLs, Communication, Profile Password, and Policy. The main content area has a breadcrumb trail 'Home / Users / User Management / Manage Users' and a 'Help ?' link. The 'New User Profile' title is at the top right, with 'Commit & Continue', 'Commit', and 'Cancel' buttons. Below the title are tabs for 'Identity', 'Communication Profile', 'Membership', and 'Contacts'. The 'Communication Profile' tab is active, showing fields for 'Communication Profile Password' and 'Confirm Password', both masked with dots. Below these is a 'Name' section with a 'New' button, a 'Primary' selection, and a 'Default' checkbox. The 'Communication Address' section is below, featuring a 'New' button and a table with columns 'Type', 'Handle', and 'Domain'. The table is empty, showing 'No Records found'. Below the table, the 'Type' is set to 'Avaya SIP', the 'Fully Qualified Address' is '53117', and the 'Domain' is 'bvwdev.com'. At the bottom, there are checkboxes for 'Session Manager Profile', 'Collaboration Environment Profile', and 'CM Endpoint Profile'.

Check on the **Session Manager Profile** section, in the **SIP Registration** subsection, select the Session Manager system *DevSM* in the **Primary Session Manager**, select application sequences *DevCM-SEQ* in both **Origination Sequence** and **Termination Sequence** and in the **Call Routing Settings** section, select *Belleville* in the **Home Location**. Note that the Session Manager SIP entity *DevSM*, the Application Sequence *DevCM-SEQ* and the home location *Belleville* are previously provisioned.

☒ **Session Manager Profile**

SIP Registration

* Primary Session Manager
DevSM

Secondary Session Manager
(None)

Survivability Server
(None)

Max. Simultaneous Devices
1

Block New Registration When Maximum Registrations Active?
☐

Application Sequences

Origination Sequence
DevCM-SEQ

Termination Sequence
DevCM-SEQ

Call Routing Settings

* Home Location
Belleville

Conference Factory Set
(None)

Call History Settings

Enable Centralized Call History?
☐

☐ **Collaboration Environment Profile**

☒ **CM Endpoint Profile**

* System
DevCM

* Profile Type
Endpoint

Use Existing Endpoints
☐

* Extension
53117
Endpoint Editor

* Template
9640SIP_DEFAULT_CM_6_3

Set Type
9640SIP

Security Code

Port
IP

Voice Mail Number

Preferred Handle
(None)

Check on **CM Endpoint Profile**, select Communication Manager system *DevCM* in the **System** field and select *Endpoint* in the **Profile Type** field. In the **Extension** field, enter the number *53117* and select the SIP template *9640SIP_DEFAULT_CM_3* in the **Template** field.

☒ **CM Endpoint Profile** ▼

* System

DevCM ▼

* Profile Type

Endpoint ▼

Use Existing Endpoints

☐

* Extension

53117

Endpoint Editor

* Template

9640SIP_DEFAULT_CM_6_3 ▼

Set Type

9640SIP

Security Code

Port

IP

Voice Mail Number

Preferred Handle

(None) ▼

Select the **Endpoint Editor** in the screenshot above to configure feature for SIP user, in the **Feature Options** tab select **IP Softphone** check box as shown in the screenshot below. Click **Done** (not shown) in this page to go back to the **Communication Profiles** page, and in the Communication Page click **Commit** button to complete and save the newly SIP user.

* Template	9640SIP_DEFAULT_CM_6_3	Set Type	9640SIP
* Port	IP	Security Code	
Name	SIP,53117		

General Options (G) *	Feature Options (F)	Site Data (S)	Abbreviated Call Dialing (A)	Enhanced Call Fwd (E)
Button Assignment (B)	Group Membership (M)			

Active Station Ringing	single	Auto Answer	none
MWI Served User Type	None	Coverage After Forwarding	system
Per Station CPN - Send Calling Number	None	Display Language	english
IP Phone Group ID		Hunt-to Station	
Remote Soft Phone Emergency Calls	as-on-local	Loss Group	19
LWC Reception	spe	Survivable COR	internal
AUDIX Name	None	Time of Day Lock Table	None
Speakerphone	2-way	Voice Mail Number	
Short/Prefixed Registration Allowed	default	Music Source	
EC500 State	enabled		

Features

<input type="checkbox"/> Always Use	<input type="checkbox"/> Idle Appearance Preference
<input type="checkbox"/> IP Audio Hairpinning	<input checked="" type="checkbox"/> IP SoftPhone
<input type="checkbox"/> Bridged Call Alerting	<input checked="" type="checkbox"/> LWC Activation
<input type="checkbox"/> Bridged Idle Line Preference	<input type="checkbox"/> CDR Privacy
<input checked="" type="checkbox"/> Coverage Message Retrieval	<input checked="" type="checkbox"/> Direct IP-IP Audio Connections
<input type="checkbox"/> Data Restriction	<input type="checkbox"/> H.320 Conversion
<input checked="" type="checkbox"/> Survivable Trunk Dest	<input type="checkbox"/> IP Video Softphone
<input type="checkbox"/> Bridged Appearance Origination Restriction	<input type="checkbox"/> Per Button Ring Control
<input checked="" type="checkbox"/> Restrict Last Appearance	
<input type="checkbox"/> Turn on mute for remote off-hook attempt	

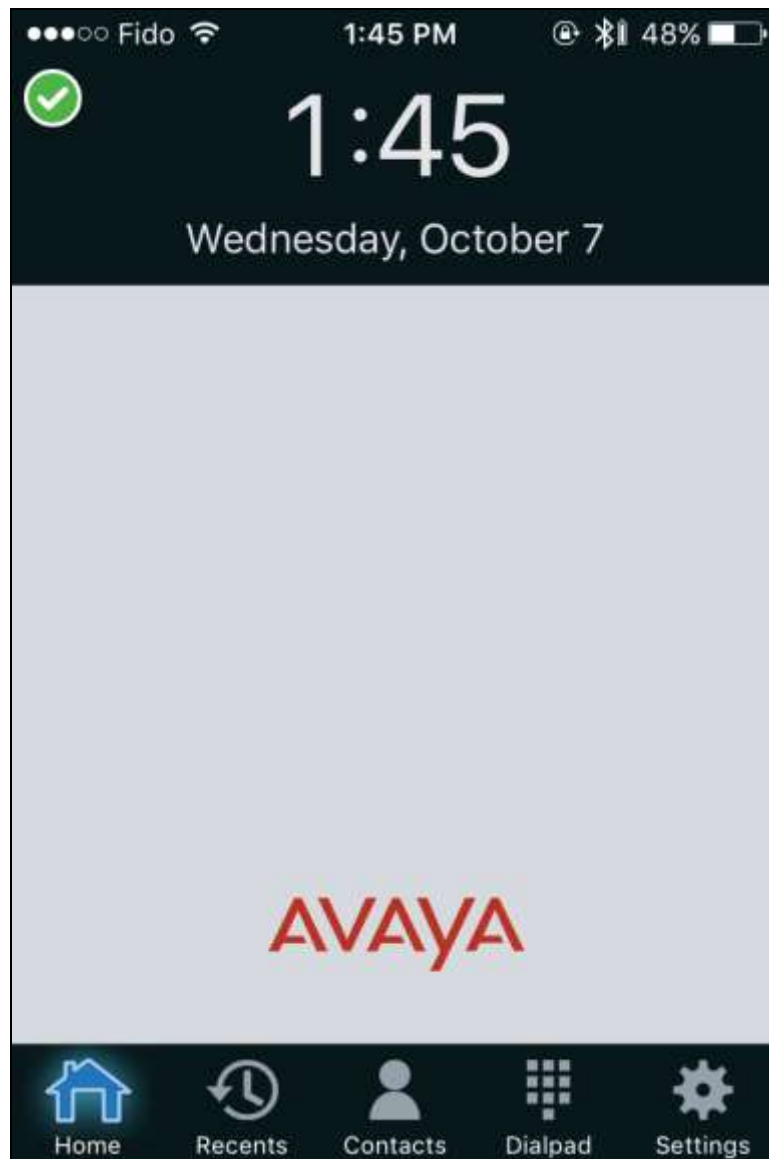
*Required

6. Configure Avaya E159 Media Station

This section provides configuration of Avaya E159 Media Station to register to Session Manager using the SIP user provisioned in **Section 5** above.

This section uses Avaya Media Station application downloaded from Apple store for iPhone to configure E159 Media Station register to Session Manager.

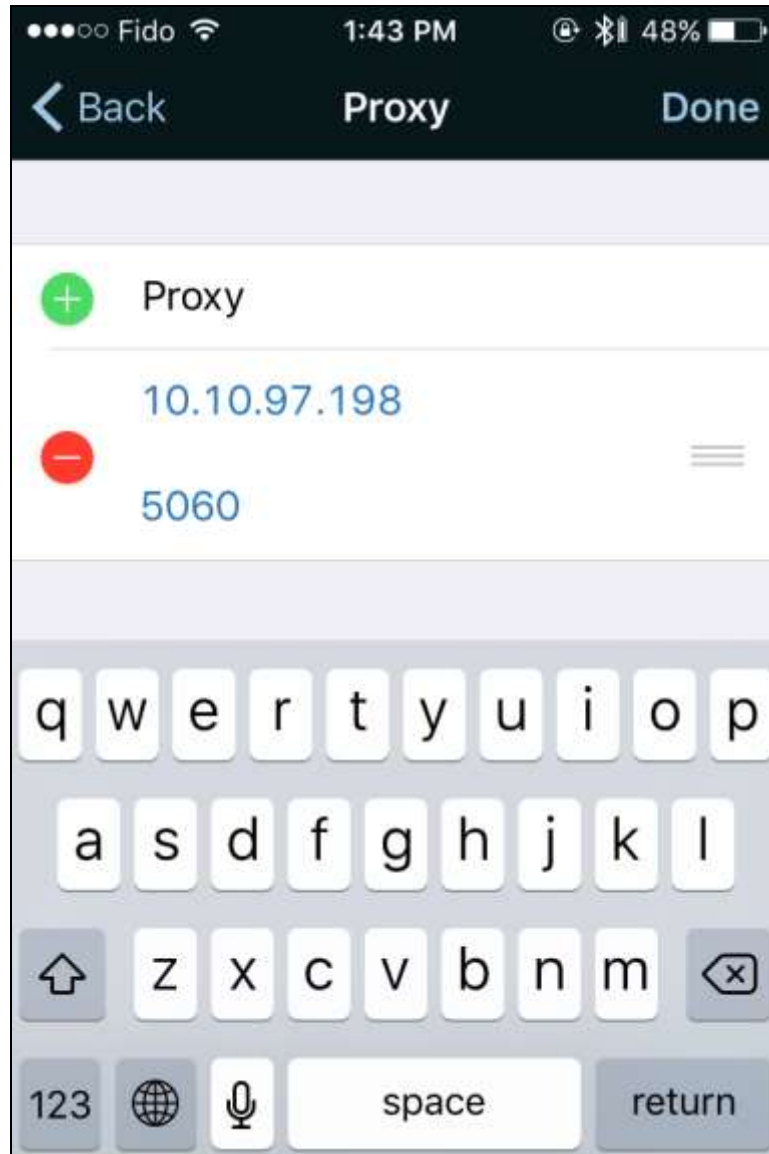
Connect iPhone to E159 Media Station using provided cable that comes with E159 Media Station, start Avaya Media Station application on iPhone. Select the **Settings** icon in the bottom right corner as shown in the screen shot below.



The **Settings** window displays, select **Account Setup** (not shown). In the **Account Setup**, enter the SIP user *53117* in the **Username** field, its password in the **Password** field and the domain *bvwdev.com* in the **Domain** field. Enable the **Advanced Parameters** option.

The screenshot shows the 'Account Setup' screen in the Avaya mobile application. At the top, the status bar indicates 'Fido' carrier, signal strength, time '1:41 PM', and 49% battery. The app header shows a back arrow, the 'Avaya' logo, and a 'Sign In' button. The main form contains three input fields: 'Username' with the value '53117', 'Password' with three dots indicating it is masked, and 'Domain' with the value 'bvwdev.com'. Below these fields is a section titled 'Advanced Parameters' with a green toggle switch that is turned on. Further down, there are three more options: 'Voicemail' with the value 'Optional', 'MWI Enabled' with a green toggle switch turned on, and 'Prefix' with the value 'Optional'. At the bottom, a dark navigation bar contains five icons: a house for 'Home', a clock for 'Recents', a person for 'Contacts', a grid for 'Dialpad', and a gear for 'Settings'.

In the **Advance Parameters** section, select **Proxy** (not shown). In the **Proxy** window, select the green circle button to add a new SIP proxy. Enter the Session Manager IP *10.10.97.198* and the port *5060* as shown in the screenshot below. Select **Done** to save and go back to the **Account Setup** menu.



In the **Account Setup** menu, select **Sign In** (not shown) to log SIP user 53117 in. If the E159 Media Station is able to register successfully to Session Manager, there is the green check on the **Avaya(1)** to indicate that there is one SIP account active.



7. Configure Plantronics Hub software and Plantronics Blackwire C315/C325 Headsets

This section provides the steps configuration for Plantronics Blackwire C315/C325 USB headsets to work with E159 Media Station.

1. Insert the Plantronics C315/C325 headset to an available USB port on E159 Media Station.
2. The Plantronics headset is automatically detected by E159 Media Station without any extra configuration from the Avaya Media Station application.
3. Press the call control button on the headset, the dial tone should be heard through the headset and the E159 Media Station is active and ready to dial a number. Press the call control button on the headset again, the E159 Media Station becomes idle and no dial tone is heard through the headset.

8. Verification Steps

These typical steps below are used to verify the inter-working between Plantronics Blackwire C315/C325 USB Corded Headsets and E159 Media Station.

1. From E159 Media Station with Plantronics headset places a local call to another station.
2. Verify the ring back tone is heard through the Plantronics headset and the light on the call control button on the headset should be on.
3. Answer the call on the other station, verify two-way speech path with clear audio between the E159 Media Station and the other station.
4. During the call, adjust the volume up and down and mute/unmute from Plantronics headset, verify the volume adjusted successfully and status mute/unmute reflected properly on the E159 Media Station.
5. End the call by pressing the call control button on the Plantronics headset, verify the call is terminated and the headset is idle.

9. Conclusion

These Application Notes describe the configuration steps required to integrate the Plantronics Hub software and Plantronics Blackwire C315/C325 USB Corded Headsets and Avaya E159 Media Station. All test cases were completed successfully with observations noted in **Section 0**.

10. Additional References

This section references the Avaya and Plantronics documentation that are relevant to these Application Notes.

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

- [1] *Administering Avaya Aura® Communication Manager, Release 6.3, Issue 10, August 2015, Document Number 03-300509.*
- [2] *Administering Avaya Aura System Manager, Release 6.3, Issue 8, September 2015.*
- [3] *Administering Avaya Aura Session Manager, Release 6.3, Issue 7, September 2015.*
- [4] *Installing and Maintaining the Avaya E159 and E169 IP Media Stations, Release 1.1, February 2015.*

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