



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for EPOS Connect and EPOS IMPACT 100 Series USB-A Headset with Avaya Workplace Client for Windows - Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required to integrate EPOS Connect and EPOS IMPACT 100 Series USB-A Headset with Avaya Workplace Client for Windows.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

# 1. Introduction

The EPOS IMPACT 100 Series USB-A Headset together with EPOS Connect software allows connection to and call control of Avaya Workplace Client for Windows (hereafter referred to as Avaya Workplace) using a cable connected via the USB interface to the PC. EPOS Connect is a collection of programs that enables remote call control by EPOS headsets when used with Avaya Workplace for Windows. With an EPOS headset connected to the PC USB interface, users can directly answer, end, mute/unmute, and adjust volume using the headset.

The following EPOS IMPACT 100 Series headsets were used for compliance testing.

- IMPACT SC 60 USB ML
- IMPACT SC 75 USB MS

**Note:** See the EPOS Declaration of Compliance, **Attachment 1**, which provides details of other EPOS IMPACT 100 series models for which this testing applies. For additional information contact EPOS support as shown in **Section 2.3**.

## 2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls with Avaya Workplace, answering and ending calls using the call control button on the EPOS headset, and verifying two-way audio. The call types include calls to voicemail, local extensions, and the PSTN. Auto-answer, call hold and resume, mute and un-mute, and volume were also tested.

The serviceability testing focused on verifying the usability of the EPOS headset solution after restarting the Avaya Workplace, restarting the PC, and reconnecting the headset USB cable to the PC.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and endpoints utilized enabled capabilities of TLS/SRTP.

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.
- Answering and ending calls using the call control button on the headset and the soft button on Avaya Workplace.
- Using the soft button on Avaya Workplace to hold and resume the audio.
- Using the volume buttons on the headset to adjust the audio volume.
- Using the mute button on the headset and the soft button on Avaya Workplace to mute and un-mute the audio and verifying the mute status.
- Verifying incoming call notification.
- Verifying call ended notification.

The serviceability testing focused on verifying the usability of the headset solution after restarting the Avaya Workplace, restarting the PC, and reconnecting the USB interface to the PC.

## 2.2. Test Results

All test cases were completed successfully. The following issue was observed:

1. Unable to terminate PSTN call or Voicemail call from headset. Terminating extension call works. Terminating from Avaya Workplace Client for all types of calls also works.

*The problem has been fixed, and the solution is included in the next version of EPOS Connect.*

## 2.3. Support

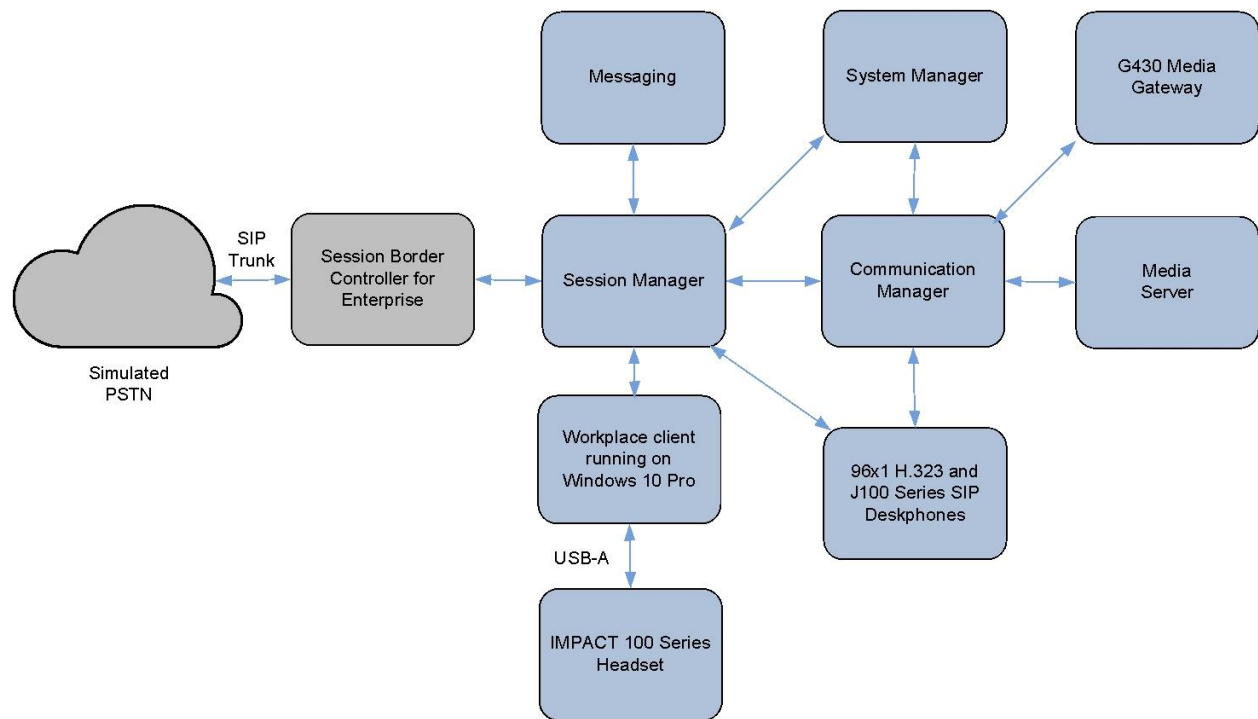
For support on this EPOS headset solution, contact EPOS Technical Support at the website below; sign-in is required:

- Website: <https://eposaudio.com/support/>

## 3. Reference Configuration

**Figure 1** illustrates the test configuration used to verify the EPOS Connect and EPOS IMPACT 100 Series headset with Avaya Workplace. The EPOS Connect software was installed on the PCs together with Avaya Workplace. The EPOS headsets were connected via a cable into the PCs' USB interface. The following EPOS IMPACT 100 headsets are tested:

- IMPACT SC 60 USB ML
- IMPACT SC 75 USB MS



**Figure 1: Test Configuration**

## 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	8.1.3.0.1-FP3P1
Avaya G430 Media Gateway <ul style="list-style-type: none"><li>• MGP</li></ul>	41.34.1
Avaya Aura® System Manager	8.1.3.1 Build No. - 8.1.0.0.733078 Software Update Revision No: 8.1.3.1.1012244 Service Pack 1
Avaya Aura® Session Manager	8.1.3.1.813113
Avaya Aura® Media Server	8.0.2.138
Avaya Messaging	10.8 SP1SU2
Avaya 96x1 Series H.323 Deskphones	6.8511
Avaya J100 Series SIP Deskphones	4.0.10
Avaya Workplace Client running on Windows 10 Pro	3.20
EPOS IMPACT 100 Series Headsets <ul style="list-style-type: none"><li>• IMPACT SC 60 USB ML</li><li>• IMPACT SC 75 USB MS</li></ul>	v15.05.89.0089
EPOS Connect for Windows	4.5.0.1295

## 5. Configure Avaya Aura® Communication Manager

It is implied a working Communication Manager system is already in place, including dial plans and SIP trunks to a Session Manager. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 11**.

## 6. Configure Avaya Aura® Session Manager

This section describes aspects of the Session Manager configuration required for Avaya Workplace to register. It is assumed that the Domains, Locations, SIP entities, Entity Links, Routing Policies, Dial Patterns and Application Sequences have been configured where appropriate for Communication Manager, Session Manager and Messaging.

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

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.

This system is restricted solely to authorized users for legitimate business purposes only. The actual or attempted unauthorized access, use, or modification of this system is strictly prohibited.

Unauthorized users are subject to company disciplinary procedures and or criminal and civil penalties under state, federal, or other applicable domestic and foreign laws.

The use of this system may be monitored and recorded for administrative and security reasons. Anyone accessing this system expressly consents to such monitoring and recording, and is advised that if it reveals possible evidence of criminal activity, the evidence of such activity may be provided to law enforcement officials.

All users must comply with all corporate instructions regarding the protection of information assets.

User ID:

Password:

[Change Password](#)

**Supported Browsers:** Internet Explorer 11.x or Firefox 65.0, 66.0 and 67.0.

## 6.1. Verify Session Manager Ports for SIP endpoint registration

Each Session Manager Entity must be configured so that the SIP Endpoint can register to it. From the home page, under **Elements**, click **Routing** → **SIP Entities** (not shown) and select the Session Manager entity used for registration. Make sure that **TCP**, **UDP** and **TLS** entries are present under **Listen Ports**. During the compliance test, Avaya Workplace registered to the Session Manager using TLS transport.

Listen Ports					
Add Remove					
3 Items		Filter: Enable			
<input type="checkbox"/>	Listen Ports	Protocol	Default Domain	Endpoint	Notes
<input type="checkbox"/>	5060	TCP	sglab.com	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	5060	UDP	sglab.com	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	5061	TLS	sglab.com	<input checked="" type="checkbox"/>	
Select : All, None					

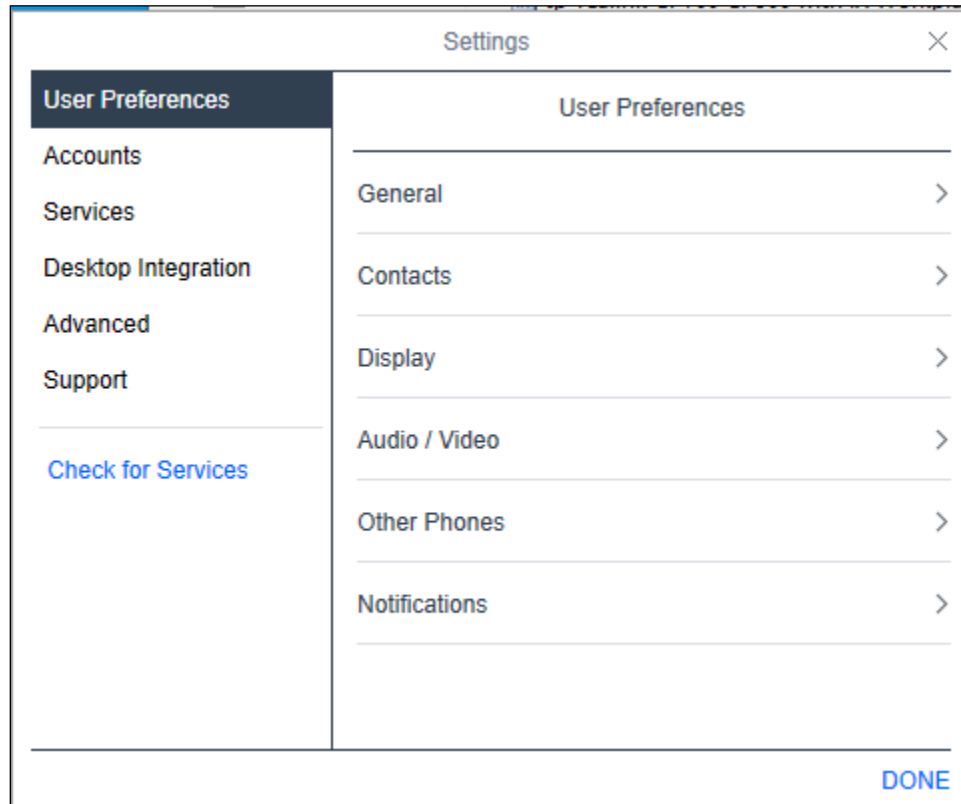
## 6.2. Add SIP User

The addition of a SIP User will not be detailed here. Refer to details in adding user in the administration document for Avaya Aura® Session Manager in [4].




## 7. Configure Avaya Workplace

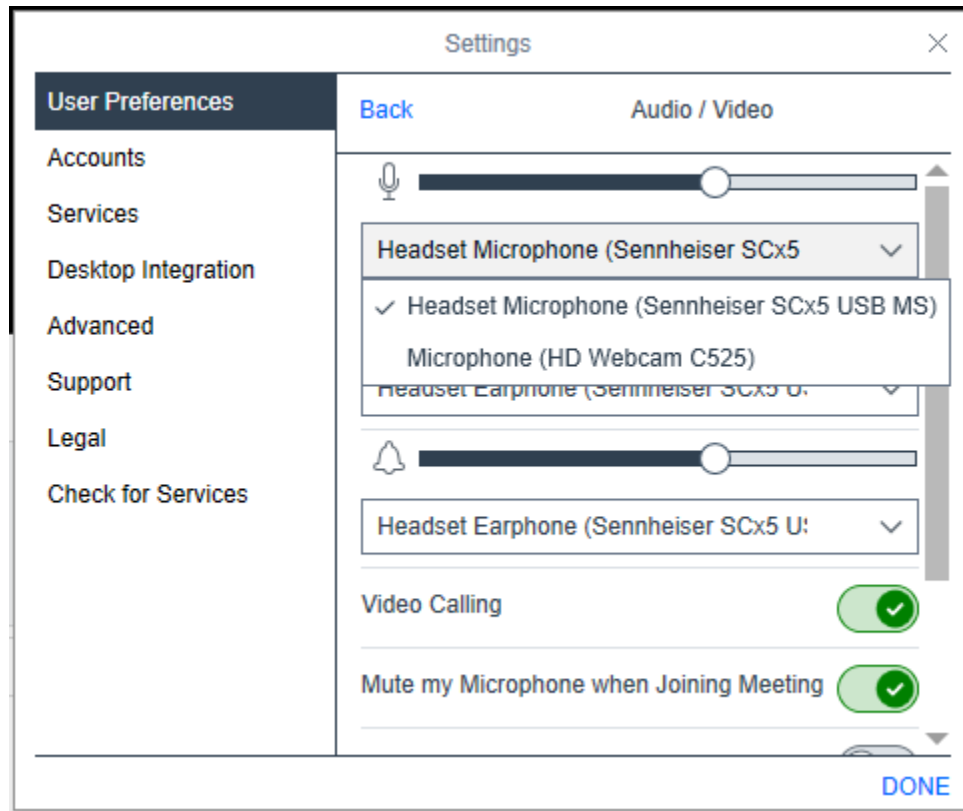
Avaya Workplace is a SIP soft phone application that provides users with access to Unified Communications (UC) services. This section shows how to configure the EPOS IMPACT 100 Series for use with Avaya Workplace.

From Avaya Workplace, navigate to **Settings → User Preferences → Audio/Video**.





Assuming IMPACT SC 75 USB is being used, select *Sennheiser SCx5 USB MS* for Microphone  and the same for Speakers  as shown below. It is optional for Ringing on incoming calls  to be set as *Sennheiser SCx5 USB MS*.



## 8. Configure EPOS IMPACT 100 Series headset Solutions

This section covers the steps to integrate EPOS IMPACT 100 Series headset with Avaya Workplace, including:

- Installing the EPOS Connect Software
- Connecting the EPOS headset
- Configuring the EPOS headset with EPOS Connect

**Note:** After successfully performing this procedure, the EPOS headset will be detected in Avaya Workplace as described in **Section 7**.

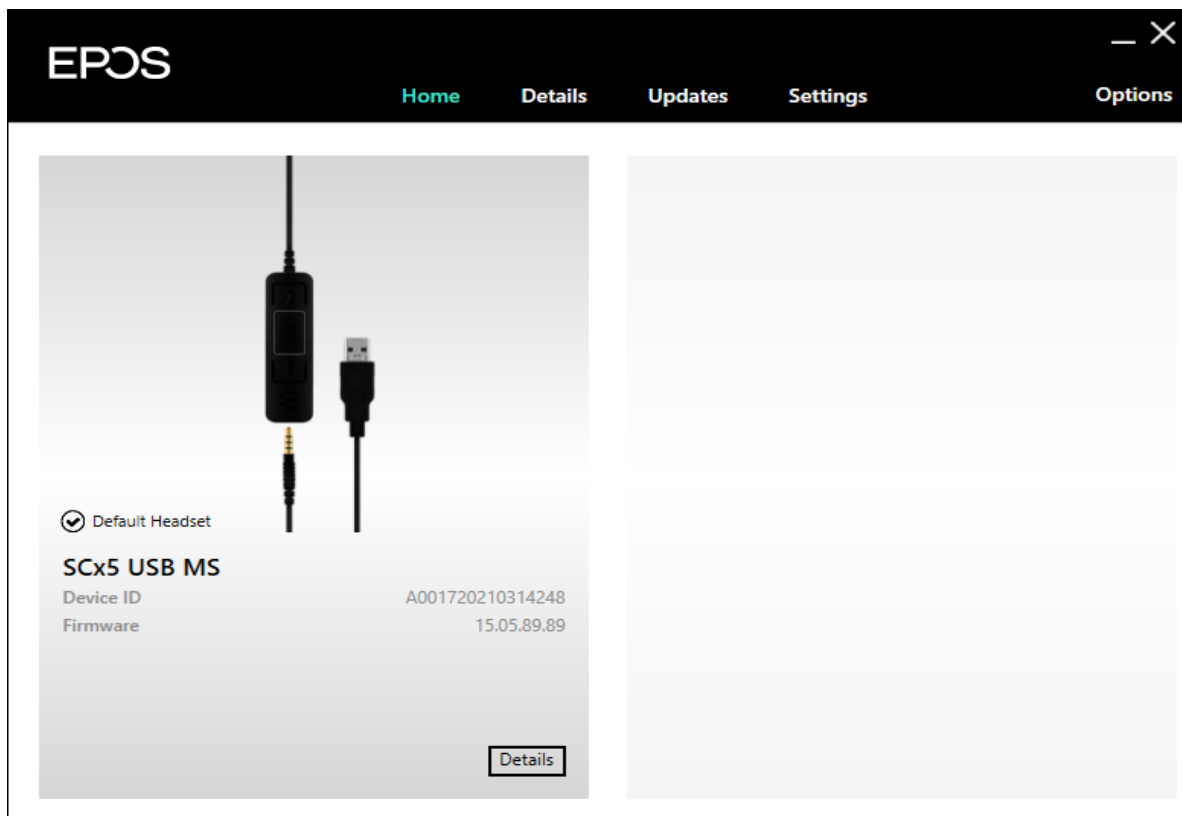
### 8.1. Installing the EPOS Connect Software

EPOS Connect software can be obtained from the EPOS support portal at <https://eposaudio.com/support/>. Installation of the software is done by executing the .exe file and following the prompt.

### 8.2. Connect the EPOS headset

Plug the EPOS IMPACT 100 Series headset cable into the USB port of the PC. The device drivers will automatically be installed.

Open the EPOS Connect program installed on the PC. Select the **Home** tab and check that the headset is detected, as shown below for one of the IMPACT SC 75 USB MS headsets tested.



### 8.3. Configuring EPOS headset with EPOS Connect

Open the Avaya Workplace Client and click the EPOS Connect program **Settings** tab followed by the **Softphone** sub tab as shown below. Verify the **Default Headset** is properly detected. Check that the **Default Softphone** is set as **Avaya Workplace**. Otherwise, click the drop-down menu of **Default Softphone** to select. Click **Save** at the bottom right to retain it.

The screenshot shows the EPOS Connect application window. The top bar has the EPOS logo and navigation tabs: Home, Details, Updates, Settings (highlighted in green), and Options. The main content area is titled 'Softphone' and 'SCx5 USB MS'. It contains a table with settings for Headset, Softphone, and General. The 'Default Headset' is set to 'SCx5 USB MS' and the 'Default Softphone' is set to 'Avaya Workplace'. There is a 'Pause Media' checkbox checked and a 'Configure' button for Windows Sound and Audio Settings. At the bottom, there is a 'Restore Default' button and a 'Save' button.

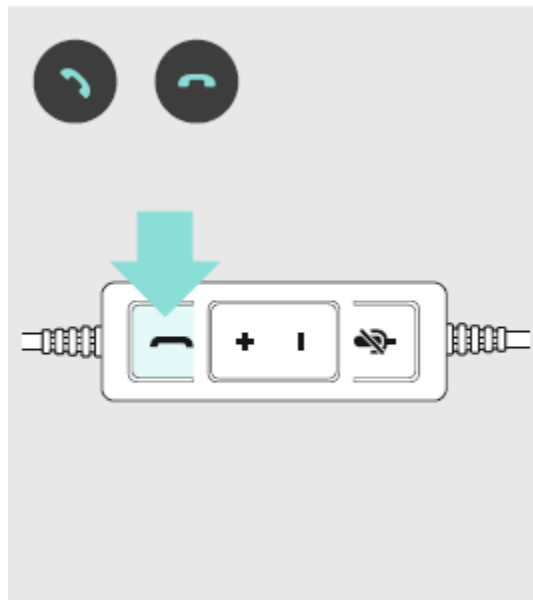
Feature	Setting	Description	Mode
<b>Headset</b>			
Default Headset	SCx5 USB MS	Indicates the headset that will have call	
<b>Softphone</b>			
Default Softphone	Avaya Workplace	Indicates the softphone that will be use	
<b>General</b>			
<input checked="" type="checkbox"/> Pause Media		Controls the function of media players	
<a href="#">Configure</a>	Windows Sound and Audio Settings...		

[Restore Default](#) [Save](#)

## 9. Verification Steps

This section verifies that the EPOS solution has been successfully integrated with Avaya Workplace.

1. Open the EPOS Connect program to verify that the headset has been successfully connected to the PC for use with Avaya Workplace running. Observe that EPOS IMPACT 100 Series headset is detected as detailed in **Section 8.2**.
2. Make incoming and outgoing calls and verify that calls can be established with two-way audio. For incoming calls, answer the call by pressing the call control button on the headset (see inline controller as shown below).
3. End the call by pressing the same call control button on the headset.
4. Verify that remote control call functions, such as mute/un-mute, and adjusting the volume can also be performed by pressing the relevant keys on the headset. Similarly, verify that the same call control functions can also be performed using Avaya Workplace.



## 10. Conclusion

These Application Notes describe the configuration steps required to integrate EPOS Connect and EPOS IMPACT 100 Series USB-A Headsets with Avaya Workplace Client for Windows. All test cases were completed successfully with observations noted in **Section 2.2**.

## 11. Additional References

This section references the Avaya and EPOS 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 8.1.x, Issue 8, Nov 2020
- [2] *Planning for and Administering Avaya Workplace Client for Android, iOS, Mac and Windows*, May 31, 2021.
- [3] *Using Avaya Workplace Client for Android, iOS, Mac, and Windows*, May 31, 2021.
- [4] *Administering Avaya Aura® Session Manager*, Release 8.1.x, Issue 7, Oct 2020.

The following EPOS documentation can be found at <http://www.eposaudio.com>.

- [5] *EPOS IMPACT SC 30 SC60 USB ML Quick Guide*.

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## Declaration of Compliance

We, EPOS Group A/S, declare under sole responsibility that within EPOS IMPACT 100 series there are more variants that have similar features, differences affecting only the wearing style.

These differences have no other impact on firmware (FW) functionality. The schematics of RF board is 100% the same. The firmware version is also the same. The attached headsets which define the acoustics are 100% the same.

<b>Product sales name</b>	<b>IMPACT SC 45 USB MS</b> Single-sided USB-A headset with in-line call control <b>IMPACT SC 75 USB MS</b> Double-sided USB-A headset with in-line call control <b>IMPACT SC 30</b> Single-sided USB-A headset with detachable USB cable and in-line call control <b>IMPACT SC 60</b> Double-sided USB-A headset with detachable USB cable and in-line call control	
<b>Product similarities</b>	Firmware version RF PCBA Schematic Acoustical design	
<b>Differences</b>	Wearing style: Single vs Double sided headset Acoustical components: speaker, microphone	
	SC 45 / SC 75 - Black leatherette padding (headband and ear pad/s cover/s)	SC 30 / SC 60 - Foam padding (headband and ear pad/s cover/s)
<b>connection method to Avaya Workplace</b>	USB-A direct	

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## Appendix 1. Impact 100 Series, comparison overview

Comparison overview				
IMPACT 100 Series				
				
	IMPACT SC 45 USB MS	IMPACT SC 75 USB MS	IMPACT SC 60 USB ML	IMPACT SC 30 USB ML
Art. no.	1000634	1000635	1000551	1000550
Wearing style				
Single-sided headset	*			*
Double-sided headset		*	*	
Headband	*	*	*	*
Connectivity				
Softphone/PC via USB	*	*	*	*
Microphone				
Noise-cancelling	*	*	*	*
Features & technologies				
In-line call control unit	*	*	*	*
EPOS ActiveGard® technology	*	*	*	*
Optimized for communication & multimedia	*	*	*	*
Noise at Work, (EU directive)*	*	*	*	*



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## Appendix 2. Differences in acoustical components: speaker, microphone

	<b>IMPACT SC 30 / SC 60</b>	<b>IMPACT SC 45 USB MS / SC 75 USB MS</b>
<b>Microphone frequency response</b>	100 - 10,000 Hz	150 – 6,800 Hz (Wideband)
<b>Speaker type</b>	Neodymium magnet speaker	High-quality neodymium magnet speaker
<b>Speaker frequency response</b>	50 - 10,000 Hz	60 – 16,000 Hz (Wideband)
<b>Sound pressure</b>	SC 30 - Max 117 dB SC 60 - Max 113 dB	Max 113 dB on USB interface Max 118 dB on 3.5 mm interface