Detailed IVT Test Plan and Report for UC Accessory Manager for Cisco Jabber 12.0 and Felitron

Test Result	**PASS**
Test Date	20th August 2018
Product Name	FELITRON
Product Version # (must be generally available)	USB/VID_0D8C&PID_016C
Vendor Software Version (Plugin)	Not Available
Call Manager Version X.X(x)	CUCM 12.0
Soft Client Product (Jabber-Win, Jabber-VXME-Win, Jabber-VXME-Linux)	CISCO Jabber 12.0.1
Product Type(headset, handsfree, handset, keyboard):	HEADSET
API/Protocol(s) Used	USB
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Revision History

Revision	Author	Date	Comment
0.1	Niall Murphy	07/02/2013	Initial Draft
0.2	Niall Murphy	25/02/2013	Added Lifecycle test
0.3	Niall Murphy	12/03/2013	Update based on feedback from vendors and IVT test lab. Added tests for reject, disabling the plugin, call transfer, sign out/in, outgoing call to invalid number.
0.4	Niall Murphy	14/03/2013	Added note to section 7 to exclude 6215 (where plugin is bundled). Dropped steps 9/10 of test 10.1.
0.5	Niall Murphy	20/4/2013	Added option of a multifunction key that includes resume option. Dropped section 15 as this was an accidental repeat of another test. Reworded some tests to allow docking the headset/handset to be equivalent to the end call button.
1.0	Niall Murphy	03/04/2013	Updated 20.1 to clarify that user signs in when they restart the Application. Add check that accessory may show 'phone registered' when device is plugged in. Section 4.2 specifies win7 only (not XP) Test 10.2 specifies not for keyboard. Added test 15.2 for unexpected termination of UC application.

Revision	Author	Date	Comment
1.1	Niall Murphy	01/05/2013	Update volume to allow for local/operating system volume Test 20.2 Clarify the state of unplugged USB device.
1.2	Niall Murphy	13/05/2013	Added test for Dial pad/DTMF
1.3	Bosco Dooley	14/05/2013	Added more call control tests to the following areas – answer/end, outgoing calls, mute, hold/resume, volume, video start/stop, audio routing, plug/un-plug and display. Added new section on multiple plugins.
1.4	Bosco Dooley	20/05/2013	Section 10.5 "UC KB: Mute audio, stop video, hold call" removed as it is covered by section 16 "Testing Video Start/Stop".
1.5	Bosco Dooley	20/05/2013	Added performance/stress tests.
1.6	Niall Murphy	17/06/2013	Added test for Audio Quality Verification
1.7	Tony Nally	25/06/2013	Review and minor updates
1.8	Sandeep Prasad	1/07/2013	Overview + OS Tests
1.9	Gonzalo Mariano	02/08/2013	Added path continuity verification tests in relevant sections. Confirmed Audio Quality text.
1.10	Niall Murphy	15/08/2013	Updates to restrict headset functionality to be equivalent to Generic HID
1.11	Sandeep Prasad	18/11/2013	Voicemail, Audio Routing, VXME for Linux
1.12	Sandeep Prasad	2/12/2014	MWI Indicator Tests
1.13	Sandeep Prasad	4/12/2014	Updated Test Case Results Criteria and Section 19.

Revision	Author	Date	Comment
1.14	Sandeep Prasad	12/20/14	Minor Edits, updated 11.3, 23.2
1.15	Sandeep Prasad	2/5/14	Minor Edits for Clarity
1.16	Sandeep Prasad	2/19/14	Minor Updates for Clarity, Added 23.6
1.17	Sandeep Prasad	2/25/14	Updated Section 23
1.18	Sandeep Prasad	3/5/14	Updated Section 23 – clarity
1.19	Sandeep Prasad	7/22/14	Updated 11.3 and Test Requirements
1.20	Ashwin George	8/20/2018	Updated test results.

Table of Contents

1 Introduction

This document is the detailed test plan and report for validating a UC Accessory **Felitron** which works with **Cisco Jabber 12.0.**

1.2 Overview

The vendor's product must complete and pass a two-step validation process based on the following Cisco criteria for the Cisco Compatibility logo:

1. Cisco Jabber Engineering Team has successfully validated the vendor's plugin

   Note: This first step is based on available Cisco resources and business priorities which are subject to change. The timing and testing of the vendor's submitted plugin is at Cisco's sole discretion on a vendor by vendor and product by product basis. Cisco does not guarantee testing completion for any specific vendor as deliverables are subject to change.

2. After completion of step 1, the vendor is eligible to go through the standard IVT process.
3. Vendors must mail 2 samples of every planned IVT certified accessory to:

- Brendan Finan
  bfinan@cisco.com
  Oranmore Business Park
  Oranmore
  Galway, Connacht
  Ireland
  +353 91 48 4013

1.3 Entry Criteria

Before testing can begin, the 3rd party partner shall run this entire test plan in their lab for all the supported OS per the associated platform listed in Section 4.2. If there are any test cases not supported, not applicable or are not successful, the partner needs to identify this in their test plan provided to tekVizion. Once testing has been initiated, the device under test is considered frozen for certification testing purposes. No software/firmware load can be changed during the testing period. However, configuration can be modified to accommodate testing.

1.4 Exit Criteria

To be deemed certified as configured, the devices under test should have zero severity 1 and severity 2 defects and no more than two severity 3 defects detected.

If a severity 1 or 2 failure occurs, irrespective of whom is responsible for the problem (Cisco or the 3rd party product), and the testing is considered unsuccessful.

Table **1 Defect Severity Level Description**

Severity	Description
1	Catastrophic - Common circumstance causes the entire system or a major subsystem to stop working affects other areas/devices no workaround
2	Severe- Important functions are unusable does not affect other areas/devices no workaround
3	Moderate - Very unusual circumstances cause failure minor feature doesn't work at all there's a low impact workaround

If any tests fail, the configuration will be verified to resolve the issue. If the issue cannot be resolved, the tester will attempt to continue testing if possible. If the testing cannot proceed without this problem being resolved, the testing is considered complete and the devices under test are deemed not certified.

The following procedures are followed when testing fails:

- Preliminary analysis is made to determine the source of the problem. If the problem is related to a device under test, then the problem is reported to that partner. If the problem is deemed Cisco related, the problem will be reported to Cisco, but the partner is responsible to open a TAC case with Cisco developer services. Partners should provide the TAC case number to the test team so they can document it in the report.
- If testing can continue past a failure, the other test cases will be tested and verified for pass or fail. If the testing cannot progress past a problem, testing will be halted and a final test report submitted to Partner and Cisco.
- All problems and resolutions encountered during testing are documented in the final test report.

Any deviations of the test execution or problem acceptance are documented in the test report.

Note: *The Cisco approval process may increase/decrease the severity level of the defect after the test cycle, if considered necessary.*

2 Product Overview

Epko Headset with dynamic receiver and Voice Tube and electret microphone and QD – Quick Disconnect.
USB DSP Interface with QD – Quick Disconnect connector and USB connector.

3 Executive Summary

The following summarizes tekVizion's findings:

- Test Case Failures:
  - None

- Test Cases Not Supported:

  - TC ID 8.1 Answer and end both on accessory
  - TC ID 8.2 Answer in UC Application and end on accessory
  - TC ID 8.3 Answer on accessory and end in UC application
  - TC ID 8.4 Answer when a call is active
  - TC ID 8.5 Answer when a call is on hold
  - TC ID 8.6 Testing end call from accessory while muted
  - TC ID 8.7 Testing end call from UC application while call is muted
  - TC ID 8.8 Testing end call from calling endpoint while call is held
  - TC ID 9.1 Make call button while no call active
  - TC ID 9.5 Make a call when a call is active
  - TC ID 10.3 Testing mute and toggle between call
  - TC ID 10.4 Mute / Unmute on Accessory / UC Application
  - TC ID 11.1 Hold / Resume from the Accessory
  - TC ID 11.3 Hold / Resume with Mute
  - TC ID 11.4 Hold / Resume with Multiple Calls
  - TC ID 11.5 Testing mute on held call
  - TC ID 11.6 Make a call when a call is held
  - TC ID 13.1 Undock while not on a call
  - TC ID 13.2 Undock and dock while on a call
  - TC ID 14.1 Reject while call alerting
  - TC ID 18.2 Switching audio (accessory to handset) on active call
  - TC ID 19.1 Switching audio devices from UC application (Audio Accessories and Keyboard) (Applies to all accessory types)
  - TC ID 19.2 Audio routing shortcuts when selecting in the UC Application while not on a call (Applies to Handsfree and Handset)
  - TC ID 19.3 Audio routing shortcuts when selecting in the UC Application while on a call (Applies to Handsfree and Handset)
  - TC ID 20.2 Test plugging out and in while on a call
  - TC ID 20.5 Test plugging out during muted call
  - TC ID 22 Test call initiation to voicemail (Keyboard Only)
  - TC ID 23.6 Answer from one device, transfer to another

- Test Cases that are Not Applicable:

  - TC ID 7.2 Validate Disabling the Plugin
  - TC ID 16.1 Changing Video Sending during a call
  - TC ID 17.1 Calling Voice Mail Pilot

- TC ID 17.2 Calling Voice Mail Pilot (Accessories with MWI Indicator – Voicemail LED)
- TC ID 17.3 Activating Visual Voicemail[1]
- TC ID 21.1 Test name and number display (Keyboard Only)
- TC ID 21.2 Test name and number change during transfer (Keyboard Only)
- TC ID 21.3 Display time in sync with OS time (Keyboard Only)
- TC ID 21.4 Testing call duration on multiple calls (Keyboard Only)
- TC ID 22 Test call initiation to voicemail (Keyboard Only)
- TC ID 24.1 Multiple Button Presses during 10 Minute Video Call

- Test Cases that were Not Executed:
  - None

- Observations:
  - The headset have volume and mute button options whereas it does not have options to answer, call, hold, reject ,end buttons and keyboard in the headset.
  - For changing the audio from primary headset to the secondary headset, user has to manually select it from the UC application.
  - The mute button in the headset is not synchronized with the jabber application. When the mute button in the headset is pressed the audio is muted between the endpoints but the mute option in the jabber client is not updated.
  - In the call alerting state and call connected state, the headset indicate the status by blinking blue LED light.

4 Features Tested

The following features are tested as part of this test plan:

- Basic call control: answer call, end call, make call, and mute.
- Audio Routing – Audio automatically switches to the accessory that the user wants to make a call to.

Also tested:

- Audio path verification: where the audio path is checked end-to-end to confirm behaviour as per expectations within the test scenario (whether one- or two-way).
- Basic audio quality: verification that the user's voice is recognized when using the audio device under test.

4.2 Items Not Tested

Features that are specific to the internals of the 3rd party product or any features not listed will not be tested.

1. Limitations of the headset included,
    - No MWI Indicator was seen – LED for Voicemail Alert
    - No Voicemail button on accessory.
2. No range testing of the wireless headset with base was performed.

4.3 Vendor Test Coverage

By testing with the latest UC Client version and depending on the platform, vendors may be automatically certified for previous UC Client versions and other associated platforms.

If testing with Cisco Jabber, please test with the latest supported version on Cisco CCO. IVT will always use the latest Jabber available. The earliest release that can be used for testing and IVT certification is Cisco Jabber 9.6:

- Certification for Jabber for Windows 9.6+ (if passed)
    - Certifies for all future versions of Jabber for Windows until notified
    - Certifies VXME for Windows (all versions)

5 Test Environment

5.1 Administration, Testing and Debugging tools

Tools used/required – Identify any tools required by 3rd party (partner under test). Also add Trace and Debug settings here

Table 2 Administration, Testing and Debugging Tools

Product Name	Version	Type	Purpose	Units	Notes
Test Tools					
None					
3rd Party Tools					
None					
Debug Tools					
Wireshark	2.4.5	Software	For analyzing the sip call trace	1	Lab provided

5.2 Equipment Requirements

Table 3 identifies all equipment/versions used for in this IVT.

Table 3 – Equipment and Product Information

Product	Version	Type	Purpose	Units	Notes
Cisco Products					
Cisco Unified Call Manager	12.0	Call Server	Allow all test end points to be configured	1	Lab Provided

Product	Version	Type	Purpose	Units	Notes
CUPS	12.0	Presence Server	Presence and Messaging	1	Lab Provided
Cisco Jabber	12.0.1	UC application	End point	1	Lab Provided
A secondary USB headset with speaker and mic – not the partner device under test.	1.0.8	Sennheiser	End point	1	Lab Provided
3rd Party Products					
Felitron	USB/VID_0D8C&PID_016C	USB Headset	End point	2	Customer provided

5.3 Deployment Architecture

5.4 Test Environment Architecture

The test environment includes;

- CUCM
- Window 7 configured to connect to CUCM and CUPS.
- Window 8 configured to connect to CUCM and CUPS.
- UC Application.

- At least two Cisco IP Phones, one of which is video capable.

In the case of VXME for SUSE Linux the environment also incudes

- One supported SUSE Linux Model

In the case of VXME for SUSE Linux testing a single Hosted Virtual Desktop is required and must be configured to be accessible from the endpoint.

6 Partner Product Specification

6.1 Plugin log files

The plugin must specify a string that is used when initializing the plugin. This string usually includes the vendor or product name. It will appear in all strings logged by the application for the plugin. This string is passed to the Logger API's get-Logger () function in the initialize () function of the plugin.

Logging Prefix	

6.2 Plugin bundling

In some cases the plugin is bundled with UC Client, and not supplied as a separate installer.

Is the plugin bundled with UC Client (e.g. Jabber)?	No, the Felitron headset doesn't have a plugin bundled in it.

6.3 Device Buttons

An accessory may have the following single use buttons. This table to be completed with 'Present' or 'Not Present' to indicate whether the product under test has the specified button. The right hand column should say 'Combined' if the feature is present but combined with another key. Any buttons present on the device under test must be functional and respond as described in any tests that refer to that button.

Answer	Not present
Reject	Not present
End Call	Not present
Make Call	Not present
Hold	Not present
Resume	Not present
Mute	Present
Unmute	Present
Volume Up	Present
Volume Down	Present
Start Video Tx	Not present
Stop Video Tx	Not present
Voice Mail	Not present

Many accessories combine buttons. This test suite supports devices with the following combinations. This table to be completed with 'Present' or 'Not Present' to indicate whether the product under test has the specified button.

Answer/End/Make Call	Not present
Answer/End/Make Call/Resume	Not present
Answer/Make Call	Not present
Hold/Resume	Not present
Mute/Unmute	Combined
Video Start/Stop Tx	Not present

In the tests that follow if the test specifies that a button is pressed and the single use button does not exist then the combined button that corresponds is used. If the device does not have the button at all then that test is not applicable.

If the combined button is used and performs one of the alternative actions, then the test has failed. For example if the Answer button is required by the test and the Answer/End/Make Call button is pressed and the End action is performed then the test has failed, since the test required the Answer action. In these cases the expected response described in the test will make it clear which action was expected.

In some cases there may not be a simple button, but an alternative user action may be available such as removing the accessory from its cradle, or holding a button down for a number of seconds. If this is the documented behaviour of the device then that action can be substituted where the test says 'Press the button'.

6.4 Device Cradle

Some devices have a cradle where the headset or handset can dock. If a cradle is present then docking or undocking from the cradle will cause a UC Application response as described in the tests.

Cradle is present (Yes/No)	**No**

6.5 Device Indicators

The device may have the following visual indicators. This table is to be completed with 'State Visible' or 'State Not Visible' to indicate whether the product under test has indicators (LED, LCD, audible or otherwise) that make it possible for the user to observe the state described. Details of exactly how these states are displayed can be included here, or provided in the products documentation.

Idle	State Visible
Call Alerting	State Visible
Call Alerting While on Active Call	State not Visible
Call Alerting While Call Held	State not Visible
Remote Alerting	State Visible
Call Connected	State Visible
Call Waiting	State not Visible
Call Held	State not Visible
Mute indicator	State Visible
Sending Video	State not Visible
Not Sending Video	State not Visible
Voice Mail Message Waiting (MWI)	State not Visible

The device is not obliged to have these indicators, but if it has, then when a call is incoming or active on the device then the indicator must conform to the state indicated in the test responses.

It is possible that the three Call Alerting states listed above may be identical depending on the combination of LEDs and colors available on the device.

Any one, or all, of the states may be the same as idle, if the device does not have indicators to support it.

6.6 Volume Synchronization

The volume control on the accessory has two possible ways of synchronizing volume on the accessory with the system. Partner to insert Yes/No in table below to indicate the method of control.

Local Volume	Volume is controlled on the device and no communication happens with the computer.	No
Operating System Synchronization	The device sends standard HID messages to the operating system and can synchronize with the currently active audio playout channel	Yes

6.7 Test Applicability

Tests can be marked Not Applicable if the button required to perform the test steps is not available on the accessory.

6.8 Test Case Legend

Table 3 – Test Results Legend

Result	Description
Pass	The test case passed with no exceptions
Fail	The test case failed – details of the failure are noted in the Comments column **(Please mark fail if your accessory cannot deliver the expected experience (i.e. lower tier accessories may have issues with certain test cases, this would be a fail [most common case is with headsets])**
N/S	Not Supported. This particular test case function is not supported by this specific model of accessory **(i.e. some accessories may not have physical hold/resume buttons so some test cases will not apply)**
N/A	The test case is not applicable to the product under test. Justification must be provided in the Comments column. **(i.e. Test case applies for a different type of accessory than the one currently being tested (ex. keyboard only test cases)**
N/T	Not tested. The feature is supported by the product under test, but external factors (lab configuration, e.g.) prevented execution of the test. Justification must be provided in the Comments column.
Blocked	Other test case failures prevented the execution of this test. Reference to the corresponding failed test case must be provided in the Comments column.

All test cases are written with the expectation that the accessory will uphold the desired Cisco experience and meet our requirements of all applicable test cases below. If it's a fail Cisco will determine if the experience is acceptable or not.

7 Testing Loading of Plugin

This section only applies to deployments where the plugin is distributed by the vendor and not bundled as part of a Cisco product.

7.1 Validate Version Number Recorded

Step 1	Ensure the UC Application is not running. Delete the log file of the UC Application (csf-unified.log* in the %LOCALAPPDATA%\\Cisco\Unified Communications\Jabber\CSF\Logs the case of Jabber for Windows. For VXME-6215 thin clients, rebooting the thin client will clear the log. For VXME-Windows, The log file is on the client side windows machine and the files %LOCALAPPDATA%\Cisco\VXME\vxc.log* should be deleted.). Start the UC Application.
Response	Examine the log file and search for the occurrences of the plugin's logging prefix as recorded in the 'Plugin log files' section above. For the VXME-6215 the easiest way to access the log files is to generate a PRT from the UC Application and then locate the vxc.log file in the PRT report. One of the log messages with this prefix must record the version of the plugin. This version must match the version number recorded as the 'Vendor Software Version' on the cover sheet of this document.
Pass/Fail	Comments
Pass	Go to SOUND \ RECORDING\ DEVICE - PROPERTIES and GENERAL - PROPERTIES Chose DETAILS - PROPERTIES HARDWARE ID

7.2 Validate Disabling the Plugin

This test does not apply to bundled plugins.

Step 1	Follow vendor supplied instructions for disabling the plugin. If the plugin is delivered as part of a larger installation then it should be possible to disable the plugin without removing the entire package. (See Implementation Note 1). Start the UC Application.
Response	Examine the log file and search for the occurrences of the plugin's logging prefix as recorded in the 'Plugin log files' section above. There should be no such log messages since the plugin has been disabled.
Step 2	Re-enable the plugin.
Response	Examine the log file and search for the occurrences of the plugin's logging prefix as recorded in the 'Plugin log files' section above. One of the log messages with this prefix must record the version of the plugin. This version must match the version number recorded as the 'Vendor Software Version' on the cover sheet of this document.
Pass/Fail	Comments
N/A	There is no plugin software for the headset.

8 Testing Answer and End Call

8.1 Answer and end both on accessory

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows call alerting.
Step 2	Answer the call on the accessory by pressing the Answer button or by undocking the headset/handset.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	End the call on the accessory, by pressing the end call button or by docking the headset/handset.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N/S	There is no answer and cancel button in the accessory. The call should be answered from the application.

8.2 Answer in UC Application and end on accessory

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Click the Answer button on the UC applications toast.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	End the call on the accessory, by pressing the end call button or by docking the headset/handset.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N/S	There is no end button in the accessory, call should be end on the UC application.

8.3 Answer on accessory and end in UC application

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Answer the call on the accessory by pressing the Answer button or by undocking the headset/handset.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	Click the end call button on the UC application.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N/S	There is no Answer button in the accessory, call should be answered on the UC application.

8.4 Answer when a call is active

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	User presses the Answer button on the accessory.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	Phone 3 is used to initiate a call to the primary endpoint.
Response	The primary endpoint remains on the current call and displays incoming call toast from phone 3. The accessory shows Call Alerting While on Active Call.

Step 4	Press the Answer button on the accessory.
Response	The accessory shows Call Connected. The UC application shows the initial call in the held state. The UC application shows the call to phone 3 in the active state. Confirm this by checking remote party name or number in the UC Application. (See Implementation Note 2).
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 5	The user presses the End Call button on the accessory.
Response	The call is ended. The accessory no longer shows Call Connected. The accessory shows Call Held. The call to phone 2 remains on hold.
Step 6	Use the UC Application to resume the call to phone 2. Then press the End Call button on the accessory.
Audio Path	After Resume and End, speak from each direction and confirm that the audio is not heard at each far-side.
Response	The call is ended. The accessory no longer shows Call Connected. There are no remaining calls.
Pass/Fail	Comments
N/S	There is no answer button and no end button in accessory. The first and second call is answered from the jabber application.

8.5 Answer when a call is on hold

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	Press the Answer button on the accessory.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	Click on the hold button in the UC Application
Response	The call is held in the UC Application. The accessory indicates Call Held (if it has an indicator)
Step 4	Phone 3 is used to initiate a call to the primary endpoint.
Response	The primary endpoint has a call on hold to phone 2 and displays an incoming call toast from phone 3. The accessory shows Call Alerting While Call Held.
Step 5	Press the answer button on the accessory.
Response	The accessory shows Call Connected. The UC application shows the initial call in the held state. The UC application shows the call to phone 3 in the active state. Confirm this by checking remote party name or number in the UC Application.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 6	Use the UC Application to end the call.
Response	The call is ended. The accessory no longer shows Call Connected. The accessory shows Call Held. The call to phone 2 remains on hold.
Step 7	Use the UC Application to resume the call to phone 2. Then press the End Call button on the accessory.
Audio Path	After Resume and End, speak from each direction and confirm that the audio is not heard at each far-side.

Response	The call is ended. The accessory no longer shows Call Connected. There are no remaining calls.
Pass/Fail	Comments
N/S	There is no answer button and no end button in the accessory. The first and second call is answered from the jabber application.

8.6 Testing end call from accessory while muted

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	Press the Answer button on the accessory.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Response	The accessory shows Call Connected.
Step 3	Click on the mute button on the accessory
Response	The call is muted from the accessory end.
Audio Path	Confirm that there is no audio from the mute direction, and that there is audio from the opposite direction.
Step 4	End the call on the accessory, by pressing the end call button or by docking the headset/handset.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N/S	There is no answer and end button in the accessory.

8.7 Testing end call from UC application while call is muted

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	Press the Answer button on the accessory.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	Click on the mute button on the accessory
Response	The call is muted from the accessory end.
Audio Path	Confirm that there is no audio from the mute direction, and that there is audio from the opposite direction.
Step 4	Click the end call button on the UC application.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N/S	There is no answer and end button in the accessory.

8.8 Testing end call from calling endpoint while call is held

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Press the Answer button on the accessory.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	Click on the hold button on the accessory
Response	The call is held in the UC Application. The accessory indicates Call Held
Audio Path	Confirm that there is no audio from either direction.
Step 4	End the call from the calling endpoint.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N/S	There is no hold button in the accessory.

9 Testing Outgoing calls

9.1 Make call button while no call active

Step 1	Minimize the UC Application
Response	The UC application window is not visible. Its icon is available via the task bar.
Step 2	Press the Make Call button on the accessory. If the accessory does not have a Make Call button but has a dock or cradle, then undock the accessory.
Response	The UC application becomes visible, such that the user can enter a contact name or number without having to navigate to another window.
Pass/Fail	Comments
N/S	There is no call button or cradle in the accessory.

9.2 Testing outgoing call to a valid number

Step 1	Make a call to phone 2 using the UC application. Do not answer at phone 2.
Response	The accessory should be in its Remote Alerting state.
Step 2	End the call using the UC Application.
Response	The UC application closes the call window. The accessory shows the idle state.
Pass/Fail	Comments
Pass	

9.3 Testing outgoing call to an invalid number

Step 1	Make a call using the UC application to a number which is not configured in CUCM.
Response	The UC Application shows the call window briefly, and then disappears when the call fails. The accessory may optionally be in its Remote Alerting state while the UC Application's call window is visible. After the call window disappears the accessory must revert to its idle state.
Pass/Fail	Comments
Pass	Accessory is in remote alerting state till the application window is visible.

9.4 Testing if call is not answered the call sate returns to onhook

Step 1	Make a call to phone 2 using the UC application. Do not answer at phone 2.
Response	The accessory should be in its Remote Alerting state.
Step 2	Let the call ring out.
Response	The accessory returns to the onhook state.
Pass/Fail	Comments
Pass	

9.5 Make a call when a call is active

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	User presses the Answer button on the accessory.
Response	The accessory shows Call Connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 3	Place a call to Phone 3 endpoint from the UC application. Answer the call on Phone 3 endpoint.
Response	The accessory shows Call Connected. The UC application shows the initial call in the held state. The UC application shows the call to phone 3 in the active state. Confirm this by checking remote party name or number in the UC Application. (See Implementation Note 2).
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 4	End the call from the accessory.
Response	The connected call to Phone 3 endpoint disconnects. The accessory shows the initial Call in the Held state. The UC application shows the initial call in the held state.
Step 5	The user resumes the call from the accessory.
Response	The accessory shows Call Connected. The UC application shows the call connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 6	Then press the End Call button on the accessory.
Response	The call is ended. The accessory no longer shows Call Connected. There are no remaining calls.

Pass/Fail	Comments
N\S	There is no answer and end button in the accessory.

10 Testing Mute

10.1 Mute / Unmute on Accessory

Step 1	Initiates a call to phone 2 using the UC application.
Response	Phone 2 rings.
Step 2	Answers the call on phone 2.
Response	The accessory shows Call Connected. Confirm that there is an audio path.
Step 3	Press Mute on the Accessory.
Response	The UC Application shows that the call is muted (you may have to hover the mouse over the video window to display). The accessory's mute indicator shows that the accessory is muted. Confirm that the audio from the UC Application is not heard at phone 2; confirm that there is audio in the opposite direction.
Step 4	User presses Unmute on the Accessory.
Response	The UC Application shows that the call is not muted. The accessory's mute indicator shows that the accessory is not muted. Confirm that the audio from the UC Application is heard at phone 2.
Step 5	User presses Mute on the Accessory.
Response	The UC Application shows that the call is muted. The accessory's mute indicator shows that the accessory is muted. Confirm that the audio from the UC

	Application is not heard at phone 2; confirm that there is audio in the opposite direction.
Step 6	End the call on the UC Application
Response	The accessory indicator indicates the Idle state.
Step 7	Initiates a call to phone 2 using the UC application.
Response	Phone 2 rings.
Step 8	Answer the call on phone 2.
Response	The accessory shows Call Connected. Confirm that there is an audio path. Confirm that the accessory does not indicate a mute state.
Step 9	Press the End Call button on the accessory.
Response	The UC Application indicates the call is ended. The accessory is in the idle state.
Pass/Fail	Comments
Pass	Mute indicator is shown in headset. The mute button in the headset is not synchronized with the jabber application. When the mute button in the headset is pressed the audio is muted between the endpoints but the mute option in the jabber client is not updated.

10.2 Disable Mute when call is active on different device (Audio Routing)

This test only applies to devices that have a speaker and mic (i.e. not the UC Keyboard). These tests are in the Audio Routing category and apply only to Cisco Jabber 9.6+.

Step 1	Initiate a call to phone 2 using the UC application.
Response	Phone 2 rings.
Step 2	Answers the call on phone 2.
Response	The accessory shows Call Connected. Confirm that there is an audio path between phone 2 and the accessory under test.
Step 3	Use the UC Application to change the active device to the secondary USB headset.
Response	Confirm that the audio path from the end point to phone 2 is active and is routed through the secondary USB headset selected in this step.
Step 4	Press the mute button on the primary accessory under test.
Response	The mute indicator on the accessory should not change – it should still be off. The mute state within the UC Application should not change. Confirm that the audio path from the end point to phone 2 is active and is routed through the secondary USB headset selected in the previous step.
Step 5	Mute the call via the UC Application
Response	Confirm that the audio from the UC Application is muted. Confirm that the mute state on the primary accessory still has not changed – it should still be off.
Step 6	Press the End Call button on the accessory.
Response	The UC Application indicates the call is ended. The accessory is in the idle state.
Pass/Fail	Comments

Pass	There is no call and end button in the accessory. The call should be answered and ended on the jabber application.

10.3 Testing mute and toggle between calls

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	Press the Answer button on the accessory.
Response	The accessory shows Call Connected.
Step 3	Press the mute button on the accessory
Response	The UC Application shows that the call is muted (you may have to hover the mouse over the video window to display). The accessory's mute indicator shows that the accessory is muted. Confirm that the audio from the UC Application is not heard at phone 2; confirm that there is audio in the opposite direction.
Step 4	Phone 3 is used to initiate a call to the primary endpoint.
Response	The primary endpoint has an active call from phone 2 and displays an incoming call toast from phone 3. The accessory should show Call Alerting.
Step 5	Press the answer button on the accessory.
Response	The accessory shows Call Connected and the UC application shows that the call is not muted (you may have to hover the mouse over the video window to display). The accessory's mute indicator is not active. The UC application shows the initial call in the held state. The UC application shows the call to phone 3 in the active state. Confirm this by checking remote party name or number in the UC Application.
Step 6	Toggle from active call to held call using the accessory.

Response	The accessory shows Call Connected and the UC application shows that the call is muted (you may have to hover the mouse over the video window to display). The accessory's mute indicator is active. The UC application shows the previous call in the held state. The UC application shows the call to phone 3 in the active state.
Step 7	End the active call with the accessory
Response	The call is ended. The previous held call is now connected.
Step 8	End the active call with the accessory
Response	The call is ended.
Pass/Fail	Comments
N/S	Headset does not support call waiting. When a second call comes in, the user has to end the first call in order to answer the second call.

10.4 Mute / Unmute on Accessory / UC Application

Step 1	Initiates a call to phone 2 using the UC application.
Response	Phone 2 rings.
Step 2	Answers the call on phone 2.
Response	The accessory shows Call Connected. Confirm that there is an audio path.
Step 3	Press Mute on the Accessory.
Response	The UC Application shows that the call is muted (you may have to hover the mouse over the video window to display). The accessory's mute indicator shows that the accessory is muted. Confirm that the audio from the UC Application is not heard at phone 2; confirm that there is audio in the opposite direction.
Step 4	User presses Unmute on the UC application.
Response	The UC Application shows that the call is not muted. The accessory's mute indicator shows that the accessory is not muted. Confirm that the audio from the UC Application is heard at phone 2.
Step 5	User presses Mute on the UC application.
Response	The UC Application shows that the call is muted. The accessory's mute indicator shows that the accessory is muted. Confirm that the audio from the UC Application is not heard at phone 2; confirm that there is audio in the opposite direction.
Step 6	User presses Unmute on the accessory.
Response	The UC Application shows that the call is not muted. The accessory's mute indicator shows that the accessory is not muted. Confirm that the audio from the UC Application is heard at phone 2.
Step 7	Press the End Call button on the accessory.
Response	The UC Application indicates the call is ended. The accessory is in the idle state.

Pass/Fail	Comments
N/S	The mute button in the headset is not synchronized with the jabber application. When the mute button in the headset is pressed the audio is muted between the endpoints but the mute option in the jabber client is not updated.

11 Testing Hold/Resume

11.2 11.1Hold / Resume from the Accessory

Step 1	Set up a call with phone 2.
Response	None.
Step 2	Press the Hold button on the accessory.
Response	The UC Application indicates that the call is on hold. The accessory indicates the Call Held state.
Audio Path	Confirm that there is no audio from either direction.
Step 3	Press the End Call button on the Accessory. Only perform this step if the End Call button is NOT an Answer/End/Make Call/Resume button. If the End Call button is combined with the Resume function then skip to Step 4.
Response	No change. Confirm the call remained in the Call Held state.
Step 4	Press the Resume button on the accessory
Response	The UC Application indicates that the call is Connected. The accessory indicates the call is connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 5	Press the End Call button on the accessory.
Response	The UC Application indicates the call is ended. The accessory is in the idle state.

Pass/Fail	Comments
N/S	There is no hold and end button in the accessory.

11.3**11.2Hold / Resume from the UC Application**

Step 1	Set up a call with phone 2
Response	None.
Step 2	Click the Hold button on the UC Application.
Response	The UC Application indicates that the call is on hold. The accessory indicates the Call Held state.
Audio Path	Confirm that there is no audio from either direction.
Step 3	End the call on the accessory, by pressing the end call button or by docking the headset/handset.
Response	No change. Confirm the call remained in the Call Held state.
Step 4	Click the Resume button on the UC Application.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Response	The UC Application indicates that the call is Connected. The accessory indicates the call is connected.
Step 5	End the call on the accessory, by pressing the end call button or by docking the headset/handset.
Response	The UC Application indicates the call is ended. The accessory is in the idle state.

Pass/Fail	Comments
Pass	There is no hold and end button in the accessory.

11.4**11.3 Hold / Resume with Mute**

Step 1	Set up a call with phone 2
Response	None.
Step 2	Press the Mute button on the Accessory
Response	The call is Muted on the accessory and in the UC Application.
Audio Path	Confirm that there is no outgoing audio from the accessory
Step 3	Press the Hold button on the accessory.
Response	The UC Application indicates that the call is on hold. The accessory indicates the Call Held state. The accessory should not indicate mute since the call is on hold.
Audio Path	Confirm that there is no audio from either direction.
Step 4	Press the Resume button.
Response	The UC Application indicates that the call is Connected. The accessory indicates the call is connected. Confirm that the call in the UC Application is still muted. Confirm that the accessory is still muted.
Audio Path	Speak from each direction and confirm that no audio is heard at each far-side.
Step 5	Press the End Call button.
Response	The UC Application indicates the call is ended. The accessory is in the idle state. The accessory does not indicate mute
Pass/Fail	Comments

N/S	There is no hold and end button in the accessory. The mute button in the headset is not synchronized with the jabber application. When the mute button in the headset is pressed the audio is muted between the endpoints but the mute option in the jabber client is not updated.

11.5 **11.3 Hold / Resume with Multiple Calls**

Step 1	Set up a call with phone 2
Response	None.
Step 2	Press the Hold button on the Accessory
Response	The call is held on the accessory and in the UC Application.
Audio Path	Confirm that there is no audio from either direction.
Step 3	Make another incoming call from phone 3, and answer it from the accessory.
Response	The call from phone 3 is now connected. The call from phone 2 is on hold.
Step 4	Press the Hold button
Response	The UC Application indicates that the call from phone 3 is now held. The call from phone 2 is also held.
Step 5	If the accessory has a display, observe which call is being displayed. Press the Resume button.
Response	One of the held calls is now connected. If the accessory has a display then it should be the same call as was displayed before the user pressed Resume.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 6	Press the End Call button.
Response	The UC Application indicates the call is ended. The accessory should indicate held state for call from phone 2.
Pass/Fail	Comments
N/S	There is no hold and end button in the accessory.

11.6 **11.4 Testing mute on held call**

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	Answer the call on the primary accessory.
Response	The accessory shows Call Connected.
Step 3	Press Hold on the Accessory
Response	The UC Application shows that the call is held.
Step 4	The user presses the audio mute button on the accessory
Response	The accessory or UC application should not indicate that the call is muted.
Step 5	Resume the call from the UC application and press the End Call button on the accessory.
Response	The UC Application indicates the call is ended. The accessory is in the idle state.
Pass/Fail	Comments
N/S	There is no hold and end button in the accessory.

12 Testing Volume Change

Only one of the tests in this section is to be run based on the type of volume synchronization used by the accessory.

12.1 Local Volume: No Synchronization with the application or Operating System

Note that in this test it is possible to set the volume of the device very low so that the sound may be very low or inaudible even when the application volume is set to its maximum.

Note that in Jabber the volume slider of the UC Application is accessed via the Options/Audio tab and is the slider for the Speaker.

Step 1	Set up a call and make the volume slider of the UC Application visible. Move the slider up and down using the mouse.
Response	Confirm the audio path received by the UC Application, and heard on the accessory under test gets louder / quieter as the slider moves.
Step 2	Change the volume via the Accessory.
Response	Confirm that the loudness changes in response to the changes on the accessory. Note that if the accessory does not have an audio path (e.g. the Cisco UC Keyboard) then the audio path is heard on the active device.
Pass/Fail	Comments
Pass	

12.2Operating System Synchronization: Volume synchronization with the operating system controls

Step 1	Set up a call and make the volume slider of the UC Application visible. Move the slider up and down using the mouse.
Response	Confirm the audio path received by the UC Application, and heard on the accessory under test gets louder / quieter as the slider moves.
Step 2	Open the Windows Mixer (left click on system tray speaker icon and select Open Volume Mixer). Change the volume via the Accessory.
Response	The slider for the current audio device (left column) should move up and down as the accessory is being adjusted. Confirm the audio heard on the accessory gets louder/quieter. Note that if the accessory does not have an audio path (e.g. the Cisco UC Keyboard) then the audio path is heard on the active device.
Step 3	Use the mouse to move the slider for the device in the Volume Mixer.
Response	Confirm that the loudness changes in response to the changes on the accessory. If the accessory is capable of displaying volume (as a number or LED bar or other visual) then confirm that the accessory's visible indicator of volume changes. Note that if the accessory does not have an audio path (e.g. the Cisco UC Keyboard) then the audio path is heard on the active device.
Pass/Fail	Comments
Pass	

12.3 Adjust audio level with device while in connected state

Step 1	Set up a call and adjust the call volume using the accessory.
Response	Confirm the audio volume received by the UC Application, and heard on the accessory under test gets louder / quieter as volume is adjusted from the accessory.
Pass/Fail	Comments
Pass	

13 Cradle Tests

13.1 Make a call when a call is held

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	User presses the Answer button on the accessory.
Response	The accessory shows Call Connected.
Step 3	The user presses Hold on the accessory
Response	The UC Application shows that the call is held. The accessory indicates that the call is held.
Audio Path	Confirm that there is no audio in either direction.

Step 4	Place a call to Phone 3 endpoint from the UC application. Answer the call on Phone 3 endpoint.
Response	The accessory shows Call Connected. The UC application shows the initial call in the held state. The UC application shows the call to phone 3 in the active state. Confirm this by checking remote party name or number in the UC Application. (See Implementation Note 2).
Step 5	End the call from the accessory.
Response	The connected call to Phone 3 endpoint disconnects. The accessory shows the initial Call in the Held state. The UC application shows the initial call in the held state.
Step 6	The user resumes the call from the accessory.
Response	The accessory shows Call Connected. The UC application shows the call connected.
Audio Path	Speak from each direction and confirm that the audio is heard at each far-side.
Step 7	Then press the End Call button on the accessory.
Response	The call is ended. The accessory no longer shows Call Connected. There are no remaining calls.
Pass/Fail	Comments
N/S	Headset does not support hold/resume feature.

13.2 Undock while not on a call

Step 1	Minimize the UC Application
Response	The UC application window is not visible. Its icon is available via the task bar.
Step 2	Undock the accessory from its cradle.
Response	The UC application becomes visible, such that the user can enter a contact name or any other number without having to navigate to another window.
Pass/Fail	Comments
N/S	Headset does not have a cradle.

13.3 Undock and dock while on a call

Step 1	Establish a call between the UC Application and Phone 2. Make the secondary headset the active device
Response	Confirm that the audio path from phone 2 goes to the secondary headset.
Step 2	Undock the accessory from its cradle.
Response	Confirm that the audio path now goes from phone 2 to the accessory under test (i.e. the one that was just undocked).
Step 3	Dock the accessory.
Response	Confirm that the call ended.
Pass/Fail	Comments
N/S	Headset does not have a cradle

14 Reject Call

Reject is known as iDivert in CUCM terminology.

14.1 Reject while call alerting

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The UC Application shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	User presses the Reject button on the accessory.
Response	The UC Application no longer shows incoming call toast. The accessory no longer indicates a Call Alerting. Confirm that Phone 2 is connected to the voicemail for the UC Application user.
Step 3	End the call from phone 2 to the voice mail system.
Response	None.
Pass/Fail	Comments
N/S	Headset does not support the reject feature.

15 Testing Lifecycle

15.1 Signing out and Signing in

Step 1	Initiate a call from phone 2. Answer on the accessory
Response	Confirm that the accessory was able to answer.
Step 2	End the call using the UC Application.
Response	The call ends.
Step 3	Sign out of the UC Application. Do not exit the UC Application.
Response	If the accessory has a display that is capable of showing the registered state, then it should now show that it is not registered.
Step 4	Initiate a call from phone 2. The call cannot succeed because the UC Application is signed out, so end the call.
Response	Confirm that the UC Application and the accessory do not indicate an incoming call.
Step 5	Sign in to the UC Application.
Response	If the accessory has a display which is capable of showing the registered state, then it should now show that it is registered.
Step 6	Initiate a call from phone 2. Answer on the accessory
Response	Confirm that the accessory was able to answer.
Pass/Fail	Comments
Pass	Headset does not have a display. The primary headset should be selected on the jabber application. The call should be answered from the jabber application.

15.2 Unexpected Termination of UC Application

This test only applies to Windows 7 and 8.

Step 1	Establish a call between phone 2 and the UC Application
Response	Confirm that the audio path is present.
Step 2	Use the Task Manager to terminate the UC application.
Response	The accessory may be left indicating that the call is still in progress. This is an error state, but the device must be able to recover in the following step.
Step 3	Start the UC Application
Response	If the accessory has a display which is capable of showing the registered state, then it should now show that it is registered.
Step 4	Initiate a call from phone 2. Answer on the accessory
Response	Confirm that the accessory was able to answer. Confirm that the audio path is present.
Step 5	End the call from the accessory
Response	The call ends.
Pass/Fail	Comments
Pass	

16 Testing Video Start/Stop (Keyboard Only)

16.1 Changing Video Sending during a call

Step 1	Ensure that the UC Application's options are set to start calls on video. Use Phone 3 to initiate a call.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Press the Answer button on the accessory.
Response	The accessory shows Call Connected. The call is a two way video call. Confirm that the image sent by the UC Application is visible on phone 3. A 'Stop Video' button is available in the UC Application (you may have to hover the mouse over the video window to see this).
Step 3	Press the Video Stop Tx button on the accessory.
Response	The UC Application indicates that video is no longer being sent. This is indicated by the 'Stop Video' button changing text to 'Start Video'. Confirm that the UC Applications video cannot be viewed on phone 3. Confirm that the accessory shows the Not Sending Video state.
Step 4	Press the Video Start Tx button on the accessory.
Response	The UC Application indicates that video is being sent. This is indicated by the 'Start Video' button changing text to 'Stop Video'. Confirm that the UC Applications video can be viewed on phone 3. Confirm that the accessory shows the Sending Video state.
Step 5	End the call using the UC Application.
Pass/Fail	Comments
N/A	There is Video buttons in the headset.

17 Testing Voice Mail (Keyboard Only)

17.1 Calling Voice Mail Pilot

Step 1	Ensure that the UC Application's does not have visual voicemail configured. Ensure that the CUCM has a voicemail pilot number configured. Ensure that there are no voicemail messages in the inbox of the primary endpoint. The UC Application is running. No call is active. Press the Voicemail button.
Response	A call is initiated to the Voice mail pilot number, as configured in the CUCM
Step 2	End the call using the UC Application.
Response	The call ends. Confirm that the accessory is not indicating Voice Mail Message Waiting.
Pass/Fail	Comments
N/A	There is no Voice mail button in the headset.

17.2 Calling Voice Mail Pilot (Accessories with MWI Indicator – Voicemail LED)

Step 1	Use phone 2 to initiate a call to the primary endpoint. Do not answer the call.
Response	The call should be diverted to voicemail.
Step 2	Using phone 2, leave a brief message, and then hang up.
Response	Confirm that the accessory is indicating Voice Mail Message Waiting when it is the default and non-default audio device.
Step 3	Press the Voice Mail button on the accessory (UC Keyboard Only) or dial voicemail pilot number (if accessory only has MWI indicator).
Response	A call is initiated to the Voice mail pilot number, as configured in the CUCM
Step 4	Listen to the message that was left by phone 2, and delete the message, then end the call.
Response	Confirm that the accessory is not indicating Voice Mail Message Waiting.
Pass/Fail	Comments
N/A	There is no Voice mail button in the headset.

17.3Activating Visual Voicemail

Step 1	Ensure that the UC Application's does have Visual Voicemail configured. Ensure that the user's voicemail account it signed in and the have an active connection with the VVM server The UC Application is running. No call is active. Press the Voicemail button on the accessory.
Response	The Jabber Hub Windows is brought to the front (if it's not the foreground window already) and the tab view switches to the Visual Voicemail tab
Pass/Fail	Comments
N/A	There is no Voice mail button in the headset.

18 Testing Audio Routing

These tests are in the Audio Routing category and apply only to Cisco Jabber 9.6+.

18.1 Routing Audio when answering

Step 1	Using the UC Application or by hitting "make call" on the accessory, change the default audio path to the secondary accessory.
Response	None.
Step 2	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 3	Answer the call on the main Accessory.
Response	The accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through the main accessory and not through the secondary USB headset.
Pass/Fail	Comments
Pass	There is no call and end button in the accessory. The call should be answered from jabber application. The primary headset should be selected manually from the UC application.

18.2 Switching audio (accessory to handset) on active call

This test requires a handset device to be connected.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Answer the call on the Accessory
Response	The accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through the headset accessory.
Step 3	Pick up the handset from the cradle.
Response	The accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through the handset and not through the headset.
Pass/Fail	Comments
N/S	No handset with the cradle or accessory connected to the Jabber client.

19 Testing Audio Routing Shortcuts on UC Keyboard

These tests are in the Audio Routing category and apply only to Cisco Jabber 9.6+.

The Audio routing shortcuts are the device selection keys on the Logitech UC Keyboard and for the accessory to be properly assigned to the correct corresponding key (speaker and handset); Cisco must add it to the hardcoded list in Cisco Jabber for Windows. The keys will not work if not hardcoded. Please contact Cisco to have your portfolio added.

These following tests require a hardcoded: handsfree speaker connected by USB, a handset and Logitech UC Keyboard; all connected to the endpoint. The secondary USB headset used in other tests is also used here.

19.1 Switching audio devices from UC application (Audio Accessories and Keyboard) (Applies to all accessory types)

This test requires a handsfree speaker, headset & handset devices to be connected with Logitech UC Keyboard.

Step 1	Ensure headset is the default path by using the UC Application or by hitting "make call" on the headset. Using the UC Application or by hitting "make call" on the hands-free accessory, change the default audio from headset to hands-free.
Response	The device selection shall be changed from headset to hands-free on the KB The display title bar shall show 'Audio Selection'. Display shall show hands-free 'device type icon' and 'device name'.
Step 2	Using the UC Application or by off-hooking the handset, change the default audio from handsfree to handset.
Response	The device selection shall be changed from handsfree to handset on the KB The display title bar shall show 'Audio Selection'. Display shall show handset 'device type icon' and 'device name'.

Step 3	Using the UC Application or by hitting "make call" on the headset, change the default audio from handset to headset.
Response	The device selection shall be changed from handset to headset on the KB The display title bar shall show 'Audio Selection'. Display shall show headset 'device type icon' and 'device name'.
Pass/Fail	Comments
N/S	No Keyboard or handset in the headset.

19.2Audio routing shortcuts when selecting in the UC Application while not on a call (Applies to Handsfree and Handset)

Step 1	Change the default audio path to the secondary USB headset by using the UC Application or by hitting "make call" on the accessory
Response	The headset shortcut should be indicated as selected on the UC Keyboard. The other two shortcuts should not be indicated as selected.
Step 2	Change the default audio path to the handsfree speaker by hitting the handsfree button on the UC Keyboard.
Response	The handsfree shortcut should be indicated as selected on the UC Keyboard. The other two shortcuts should not be indicated as selected.
Step 3	Change the default audio path to the handset by hitting the handset button on the UC Keyboard.
Response	The handset shortcut should be indicated as selected on the UC Keyboard. The other two shortcuts should not be indicated as selected.
Step 4	Phone 2 initiates a call to the primary endpoint.

Response	The primary endpoint shows incoming call toast.
Step 5	Answer the call using the UC Application by clicking answer in the toast.
Response	Confirm that the audio path is routed to the handset.
Step 6	End the call. Then disconnect the handset from its USB port.
Response	Confirm that the handset button is no longer indicated as selected on the UC keyboard.
Step 7	Connect the handset to its USB port. If the UC application prompts to ask if the user wants to use this device then confirm that you do want to use it.
Response	Confirm that the handset shortcut is indicated as selected.
Pass/Fail	Comments
N/S	No Keyboard or handset in the headset.

19.3 Audio routing shortcuts when selecting in the UC Application while on a call (Applies to Handsfree and Handset)

Step 1	Change the default audio path to the secondary USB headset by using the UC Application or by hitting "make call" on the accessory
Response	The headset shortcut should be indicated as selected. The other two shortcuts should not be indicated as selected.
Step 2	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 3	Answer the call using the UC Application by clicking answer in the toast.
Response	Confirm that the audio path is routed to the secondary USB headset.
Step 4	Change the default audio path to the handsfree speaker by hitting the handsfree button on the UC keyboard.
Response	The handsfree shortcut should be indicated as selected. The other two shortcuts should not be indicated as selected. Confirm that the audio path is routed to the handsfree.
Step 5	Change the default audio path to the handset by hitting the handset button on the UC Keyboard.
Response	The handset shortcut should be indicated as selected. The other two shortcuts should not be indicated as selected. Confirm that the audio path is routed to the handset.
Step 4	End the call.
Pass/Fail	Comments
N/S	No Keyboard or handset in the headset.

20 Testing Plug / Unplug

20.1 Test plugging in after UC Application started

Step 1	Exit the UC Application. Unplug the accessory. Restart the UC Application
Response	None. The state of the display on the accessory while the USB plug is disconnected is undefined. On most devices it will simply have all indicators off.
Step 2	Restart the UC Application and sign in.
Response	The UC Application is now connected to the CUCM.
Step 3	Connect the Accessory to a USB port.
Response	If the Accessory has a way of indicating that the Application is registered with CIUCM then that indication should be visible.
Step 4	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows call alerting.
Step 5	Answer the call on the accessory by pressing the Answer Call button or by undocking the headset/handset.
Response	The accessory shows Call Connected.
Step 6	End the call on the accessory by pressing the End Call button or by docking the headset/handset.
Response	The call is ended. The accessory no longer shows Call Connected and indicates the Idle state.
Pass/Fail	Comments
Pass	The call should be answered and ended in the jabber application. The headset doesn't have call or end button.

20.2 Test plugging out and in while on a call

This test only applies to devices that have a speaker and mic (i.e. not the UC keyboard)

Step 1	Set up a call. And use the mute button on the accessory to mute the call.
Response	Confirm that the audio path is routed to the accessory, and that mute button works.
Step 2	Disconnect the accessory from the USB port.
Response	Confirm that the audio path is routed to another audio device on the end point.
Step 3	Reconnect the accessory to a different USB port. Set the audio path to be the accessory.
Response	Confirm the audio path is set to the accessory, and that the call is still muted.
Step 4	Use the mute button on the accessory to unmute the call.
Response	Confirm that the mute state on the UC Application changes to unmuted on the accessory and in the UC Application.
Step 5	Disconnect the accessory from the USB port.
Response	Confirm that the audio path is routed to another audio device on the end point. The state of the display on the accessory while the USB plug is disconnected, red is undefined. On most devices it will simply have all indicators off.
Step 6	Reconnect the accessory to a different USB port. Set the audio path to be the accessory.
Response	Confirm the audio path is set to the accessory, and that the call is not muted.
Step 7	Use the mute button on the accessory to mute the call.
Response	Confirm that the mute state on the UC Application changes to muted on the accessory and in the UC Application.
Step 8	End the call using the accessory.
Response	Confirm that the call ends.

Pass/Fail	Comments
N/S	The accessory disconnected with mute state is changed to unmute state when it is reconnected. The mute button in the headset is not synchronized with the jabber application. When the mute button in the headset is pressed the audio is muted between the endpoints but the mute option in the jabber client is not updated.

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20.3 Test plugging in a device during incoming call

This test only applies to devices that have a speaker and mic (i.e. not the UC keyboard).

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The primary accessory shows Call Alerting.
Step 2	Plug in a new accessory.
Response	The call should not be answered or ended The new accessory should become active device The new accessory device should start ringing. The KB LCD shall display accessory device info.
Pass/Fail	Comments
Pass	The plugged headset should be selected manually from the jabber application.

Note: The new accessory has to be newly added (first time Jabber has seen the device). If not, please delete the accessory out of Jabber options before doing this test case.

20.4 Test plugging out a device during held call

This test only applies to devices that have a speaker and mic (i.e. not the UC keyboard).

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Answer the call from the UC application and then put the call on hold from the UC application.
Response	The UC application displays the call in the held state.
Step 2	Plug out the accessory.
Response	The call should stay in the held state. *** The internal speaker/mic shall become the active deice(s) ***.
Pass/Fail	Comments
Pass	

20.5 Test plugging out during muted call

This test only applies to devices that have a speaker and mic (i.e. not the UC keyboard).

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Answer the call from the accessory and then mute the call from the accessory.
Response	No audio is received at the Phone 2. The mute icon should be active on the UC application.
Step 2	Plug out the accessory.
Response	The call should not end. The audio path should shift to speaker The mute icon should be active on the UC application.
Pass/Fail	Comments
N/S	The mute button in the headset is not synchronized with the jabber application. When the mute button in the headset is pressed the audio is muted between the endpoints but the mute option in the jabber client is not updated.

21 Testing the Display (Keyboard Only)

21.1 Test name and number display (Keyboard Only)

Step 1	Ensure that the line for the CSF device in the CUCM is configured to have a Line Text Label set to 'Test Line Text Label'. Ensure that the Line of phone 2 is configured such that the line has a Display (Internal Caller ID) set to 'Secondary Internal Caller ID'. Start the UC Application.
Response	If the display shows the user's name and/or number, they must match the Line Text Label and/or directory number configured in CUCM. A Line Text Label or a number which does not fit in the display may be truncated.
Step 2	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The display shows the incoming directory number and the text 'Secondary Internal Caller ID' as the name.
Step 3	Answer the call using the UC Application.
Response	If the display shows the current remote party it should display the phone number of phone 2 and/or the name 'Secondary Internal Caller ID'
Step 4	End the call using the UC Application
Response	Confirm that the phone 2 details are no longer displayed.
Pass/Fail	Comments
N/A	There is no keyboard in the headset.

21.2 Test name and number change during transfer (Keyboard Only)

Step 1	Ensure that the line for the CSF device in the CUCM is configured to have a Line Text Label set to 'Test Line Text Label'. Ensure that the Line of phone 2 is configured such that the line has a Display (Internal Caller ID) set to 'Secondary Internal Caller ID'. Ensure that the Line of phone 3 is configured such that the line has a Display (Internal Caller ID) set to 'Phone 3 Internal Caller ID' The UC Application is running.
Response	If the display shows the user's name and/or number, they must match the Line Text Label and/or directory number configured in CUCM. A Line Text Label or a number which does not fit in the display may be truncated.
Step 2	Use phone 2 to initiate a call to phone 3. Answer on phone 3. Use phone 2 to transfer the call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The display shows the incoming directory number and the text 'Secondary Internal Caller ID' as the name.
Step 3	Answer the call using the UC Application.
Response	If the display shows the current remote party it should display the phone number of phone 2 and/or the name 'Secondary Internal Caller ID'
Step 4	Press the transfer button on phone 2 again to complete the transfer.
Response	The remote party details no longer show the details for phone 2. Instead they show the phone number and or name ('Phone 3 Internal Caller ID') for phone 3.
Step 5	End the call using the UC Application.
Response	Confirm that the phone 3 details are no longer displayed.
Pass/Fail	Comments
N/A	There is no keyboard in the headset.

21.3 Display time in sync with OS time (Keyboard Only)

Step 1	Compare time displayed on OS & time on display.
Response	Display time & OS time should be in sync.
Pass/Fail	Comments
N/A	There is no display in the headset.

21.4 Testing call duration on multiple calls (Keyboard Only)

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting while on active call.
Step 2	Press the Answer button on the accessory.
Response	The call timer starts at 00:00.
Step 3	Keep idle for 3 minutes.
Response	The call duration on the display is at 3:00.
Step 4	Phone 3 is used to initiate a call to the primary endpoint.
Response	The primary endpoint has a call on hold to phone 2 and displays an incoming call toast from phone 3. The accessory shows Call Alerting While Call Held.
Step 5	Press the answer button on the accessory.
Response	The call timer starts at 00:00
Step 6	Toggle from active call to the first call.
Response	The timer shall display the correct duration for the first call.
Step 7	Toggle from active call to the second call.
Response	The timer shall display the correct duration for the second call.
Pass/Fail	Comments
N/A	There is no keyboard in the headset.

22 Test call initiation to voicemail (Keyboard Only)

Step 1	Ensure there are no current calls in progress. Using the dial pad on the accessory enter voice mail pilot number and press the Call button
Response	The Voicemail system should automatically answer, and request the users PIN.
Step 2	Enter the user's PIN using the dial pad on the accessory, followed by the # character on the dial pad.
Response	The voicemail system should confirm that this user is now logged in and can access their messages.
Step 3	End the call using the UC Application.
Response	The call is now ended.
Pass/Fail	Comments
N/A	There is no keyboard in the headset.

23 Testing Multiple Plugins (Interop)

This test requires more than 1 vendor plugin to be installed and the appropriate devices connected to utilize these plugins. Plugin1 refers to the vendor's plugin under test; plugin2 refers to another vendor's plugin.

Note that if Jabber 9.6 or later is under test it will already contain 2 bundled plugins, so no further plugin installation will be required for this test.

23.1 Multiple devices should ring during an incoming call

Both plugin1 & plugin2 accessories are connected at the start of this test.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 2	Answer the call using the plugin2 accessory.
Response	The plugin2 accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin2 accessory.
Step 3	Phone 3 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 4	Answer the call using the plugin1 accessory.
Response	The plugin1 accessory shows the Call Connected. The UC Application shows that the 2nd call is connected. Confirm that the audio path from phone 3 is played through plugin1 accessory. The initial call should be in the held state.
Pass/Fail	Comments
Pass	When the 2nd call is initiated the plugin 1 headset should be manually selected from the jabber application.

23.2 Answer from one device, end from another

Both plugin1 & plugin2 accessories are connected at the start of this test.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 2	Answer the call using the plugin2 accessory.
Response	The plugin2 accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin2 accessory.
Step 3	End the call from plugin1 accessory. (If accessory has separate buttons for answer/end, proceed accordingly) [If accessory has combo button of answer/end, **Skip Step 4 and Step 5**]
Response	The call should not disconnect. Both plugin2 accessory and UC application should display active call still. [If accessory has combo button, call should be transferred from plugin2 accessory to plugin1 accessory]
Step 4	Phone 3 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 5	Answer the call using the plugin1 accessory.
Response	The plugin1 accessory shows Call Connected. The UC Application shows that the call is connected and call from phone 2 is now on hold. Confirm that the audio path from phone 3 is played through plugin1 accessory.
Step 6	End the call from Phone 3 (or Phone 2 if accessory has combo button) using plugin1 accessory.
Response	The call should disconnect. Both plugin1 accessory and UC application should only show the held call from phone 2. (2nd part of response only applicable to accessory with separate answer/end buttons)
Pass/Fail	Comments
Pass	The plugin 1 accessory should be manually selected on the jabber application.

23.3 Multiple devices should stop ringing when call is answered

Both plugin1 & plugin2 accessories are connected at the start of this test.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 2	Answer the call using the plugin1 accessory.
Response	The plugin1 accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin1 accessory. Confirm that plugin1 accessory stops alerting.
Pass/Fail	Comments
Pass	There is no answer button in the headset.so the call should be answered from jabber application. The plugin 1 accessory should be manually selected as the primary headset from the jabber application. When the primary headset starts ringing, the secondary headset shows the call alert in its call button.

23.4 Plug in second device when call is connected

Only plugin1 accessory is connected at the start of this test.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 2	Answer the call using the plugin2 accessory.
Response	The plugin2 accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin1 accessory.
Step 3	Connect plugin1 accessory.
Response	The plugin1 accessory should automatically become the active device. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin1 accessory.
Pass/Fail	Comments
Pass	Only plugin 2 is connected at start of test. Thereafter headset 1 is connected and audio path should be manually switched to the primary headset.

Note: The plugin1 accessory has to be a new device (not listed in Jabber Options) or a higher priority device than plugin2 accessory for it to automatically route the audio.

23.5 Can't mute/un-mute from non-active audio device

Both plugin1 & plugin2 accessories are connected at the start of this test.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 2	Answer the call using the plugin2 accessory.
Response	The plugin2 accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin2 accessory.
Step 3	Press the mute button on the plugin1 audio accessory.
Response	The call should not be muted.
Step 4	Press the mute button on the plugin2 audio accessory.
Response	The call should be muted.
Step 5	Press the un-mute button on the plugin1 audio accessory.
Response	The call should stay muted.
Pass/Fail	Comments
Pass	

23.6 Answer from one device, transfer to another

Both plugin1 & plugin2 accessories are connected at the start of this test.

Step 1	Phone 2 initiates a call to the primary endpoint.
Response	The primary endpoint shows incoming call toast.
Step 2	Answer the call using the plugin2 accessory.
Response	The plugin2 accessory shows Call Connected. The UC Application shows that the call is connected. Confirm that the audio path from phone 2 is played through plugin2 accessory.
Step 3	Answer or off-hook the call from plugin1 accessory.
Response	The call should be transferred to plugin1 accessory. Confirm both plugin1 accessory and the UC application displays the active call still. Confirm that the audio path from phone 2 is played through plugin1 accessory.
Pass/Fail	Comments
N/S	There is no answer button in the headset.

24 Stress Testing

24.1 Multiple Button Presses during 10 Minute Video Call

Step 1	Phone 2 initiates a video call to the primary endpoint.
Response	The primary endpoint shows incoming call toast. The accessory shows Call Alerting.
Step 2	Answer the call on the accessory by pressing the Answer button or by undocking the headset/handset
Response	The accessory shows Call Connected.
Step 3	If the accessory has the hold/resume feature, perform multiple Hold/Resume (at least 50) on the call using the accessory.

Response	No deviations from expected behaviour occur.
Step 4	Perform multiple Mute/Unmute (at least 50) on the call using the accessory.
Response	No deviations from expected behaviour occur.
Step 5	If the accessory has the video start/stop feature Perform multiple video Start/Stop (at least 50) on the call using the accessory.
Response	No deviations from expected behaviour occur.
Step 6	Perform multiple volume adjustments (at least 50) on the call using the accessory.
Response	No deviations from expected behaviour occur.
Step 7	After normal testing is complete, end the call using the accessory.
Response	The call is ended. The accessory no longer shows Call Connected.
Pass/Fail	Comments
N\A	In this scenario, the headset is limited to only mute and volume adjustments.

25 Audio Quality Verification

25.1 Audio quality verification through device under test

Cycle through the steps below for each of the following audio codecs: G.711u, G.729a, G.722.1 (24kbps). These changes are made through CUCM.

Step 1	With the audio device under test connected to the UC Client, place a call to Phone 2.
Step 2	Answer call at Phone 2.
Audio Quality	At the UC Client and Phone 2, verify that for each audio codec the received voice can be recognized at each far-side.
Step 3	End the call.
Pass/Fail	Comments
Pass	

To change the audio codec, please follow the instructions in CUCM from the following link, and refer to the procedures in Chapter 7:
http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/admin/9_0_1/ccmcfg/CUCM_BK_CDF59AFB_00_admin-guide-90.pdf

26 Implementation Notes

Note 1: The mechanism for disabling the plugin can take advantage of the fact that the plugin is found via the registry entry. Altering the registry key will make the plugin inaccessible to the UC Application.

Note 2: The answer Call API is sufficient to place a currently active call on hold, and to answer the currently incoming call. The plugin does not need to make any function call to apply hold to the current call.