Cisco BroadWorks

Call Settings Web View

Solution Guide

Release 23.0

Document Version 8

Copyright Notice

Document Revision History

Release	Version	Reason for Change	Date
23.0	0.1	Created document from two original Market Request (MR) documents.	June 14, 2019
23.0	0.2	Incorporated changes from dev teams.	October 17, 2019
23.0	1	Edited and published document.	October 30, 2019
23.0	2	Added additional information in sections *5.1.6 Sequential Ring* and *5.6 Service Provider Customization Folder*.	March 18, 2020
23.0	2	Edited changes and published document.	April 16, 2020
23.0	3	Added section *5.4.1.1 Call Center General Switch* and updated sections *11.2.2.1 Command set* and *11.2.2.2 Command get* in "Add General Context".	October 15, 2020
23.0	3	Added keywords to document properties. Edited changes and published document.	October 18, 2020
23.0	4	Added section *19 Common Deployment* . Modified services list in section *5 Feature Operation*.	November 18, 2020
23.0	4	Edited changes and published document.	November 23, 2020
23.0	5	Updated Figures 6 and 13 to match 1.7.x styling. Added section *20 Layout Changes*.	December 11, 2020
23.0	5	Edited changes and published document.	December 15, 2020
23.0	6	Added section *19.7 Usage of CSWV Deployed in Clustered Environment*.	March 11, 2021
23.0	6	Updated copyright notice. Edited changes and published document.	July 29, 2021
23.0	7	Updated the following: ▪ Section *5.7.1 Fonts and Colors* with "PrimaryButtonText" branding option. ▪ Section *3.17 User Modifies "Voicemail" Section* with US HIPPA regulation behavior in Voicemail.	April 26, 2022
23.0	7	Edited changes and published document.	April 28, 2022
23.0	8	Updated the following: ▪ Section 5.7.1 removed ▪ Section 5.7.2 Fonts and Colors moved to 5.7.1 ▪ Updated section 5.7.1 with screenshots how the colors are used, and sample post how the colors are passed to CSWV	March 5, 2025

Table of Contents

Table of Figures

1 Summary of Changes

This section describes the changes to this document for each release and document version.

1.1 Changes for Release 23.0, Document Version 7

This version of the document includes the following changes:

■ Updated section *5.7.1 Fonts and Colors* with "PrimaryButtonText" branding option.

■ Updated section *3.17 User Modifies "Voicemail" Section* with US HIPPA regulation behavior in Voicemail.

1.2 Changes for Release 23.0, Document Version 6

This version of the document includes the following change:

■ Added section *19.7 Usage of CSWV Deployed in Clustered Environment*.

1.3 Changes for Release 23.0, Document Version 5

This version of the document includes the following changes:

■ Updated Figures 6 and 13 to match 1.7.x styling.

■ Added section *20 Layout Changes*.

1.4 Changes for Release 23.0, Document Version 4

This version of the document includes the following changes:

■ Added section *19 Common Deployment* .

■ Modified services list in section *5 Feature Operation*.

1.5 Changes for Release 23.0, Document Version 3

This version of the document includes the following changes:

■ Added section *5.4.1.1 Call Center General Switch*.

■ Updated sections *11.2.2.1 Command set* and *11.2.2.2 Command get* in "Add General Context".

1.6 Changes for Release 23.0, Document Version 2

This version of the document includes the following change:

■ Added additional information in sections *5.1.6 Sequential Ring* and *5.6 Service Provider Customization Folder*.

1.7 Changes for Release 23.0, Document Version 1

This document was created for Cisco BroadWorks Release 23.0.

2 Feature Purpose and Overview

2.1 Purpose

The Call Settings Web View (CSWV) application enables users to view and modify any of their services related to the call settings via a Web View from a mobile, tablet, or desktop Cisco BroadWorks UC-One / Webex application .

2.2 Overview

Call Settings Web View is a web application deployed on the Xtended Services Platform (XSP). It allows users to configure their call-related settings. Cisco BroadWorks UC-One / Webex applications (today) have independent *Call Settings* pages developed under each of them. These applications allows the appearance of the same set of *Call Settings* pages across different UC-One / Webex applications and platforms, such as Windows, Mac, iOS, Android, and different devices such as mobile, tablet, and desktop. These applications can customize the colors and font styles of the Call Settings Web View application, and also set the locale for the Call Settings Web View application.

Service providers can customize the visibility of a service (even though a service is enabled to the user) shown in the Call Settings Web View application through the device configuration file. Service providers can also customize the service name and the text shown for different languages and images.

3 Use Cases

3.1 UC-One/Webex Applications Sends HTTP POST

Precondition

The UC-One /Webex applications sends the HTTP POST request with the request data required by the Call Settings Web View application.

Execution

The Call Settings Web View application validates the login credentials successfully, and it fetches the list of services assigned to the user.

Post Condition

The Call Settings Web View application is opened with the following main headers: *Incoming Calls, Outgoing Calls, Call Control*, and *Voicemail*.

3.2 UC-One/Webex Applications Hides Services to Be Displayed

Precondition

The UC-One/Webex application sends the HTTP POST request with the request data required by the Call Settings Web View application.

Execution

The HTTP POST request data contains the configuration to show or hide the services inside the application.

Post Condition

The Call Settings Web View application shows all the services that are assigned to the user. The services that are configured as *visible*" are set to "false" in the HTTP POST request are not displayed in the application. The other services supported by the application are displayed.

3.3 UC-One/Webex Applications Sends Colors to Be Displayed

Precondition

The application sends the HTTP POST request with the request data required by the Call Settings Web View application.

Execution

The HTTP POST request data contains the configuration for the colors to be used for different areas and components inside the application.

Post Condition

The Call Settings Web View application is displayed in the configured colors for the components.

The components are displayed in default colors if any of the colors are not specified in the request body.

3.4 UC-One/Webex Applications Sends Font Style and Sizes to Be Displayed

Precondition

The UC-One/Webex applications sends the HTTP POST request with the request data required by the Call Settings Web View application.

Execution

The HTTP POST request data contains the configuration for the font style and the font sizes to be used for different text in the application.

Post Condition

The Call Settings Web View application is displayed in the configured font style for all the text throughout the application.

The text is displayed in appropriate sizes as received in the HTTP POST request or in the default sizes if not specified.

3.5 Service Provider Overrides Service Names, Service Description Text, and Icons

Precondition

The application sends the HTTP POST request with the request data required by the Call Settings Web View application.

Execution

The Call Settings Web View application looks for the service name, service description configurations, and icons under the domain-specific folder. The domain is identified from the host part of the Call Settings Web View root URI that is used to access the application by UC-One /Webex. The locale in which the application is to display the text is also received in the HTTP POST data.

Post Condition

The service names and service description text are displayed with the values configured for the locale specific to the service providers under the domain folders.

The icons are picked from the domain folders specific to the service providers.

If these are not configured, the default values are used by the application.

3.6 User Expands Incoming Calls

Precondition

The UC-One/Webex application sends the HTTP POST and the Call Settings Web View application has authenticated and has the list of services to be displayed.

Execution

The user clicks the *Incoming Calls* header.

Post Condition

The application displays the services in the following order, if assigned to the user and configured to be displayed:

a) Do Not Disturb

b) Out of Office (BroadWorks Personal Assistant)

c) Anonymous Call Rejection

d) Call Forwarding

    i) Always

    ii) When no answer

    iii) When busy

iv) When not reachable

e) Simultaneous Ring

f) Sequential Ring

g) Remote Office

h) Call Waiting

3.7 User Expands Outgoing Calls

Precondition

The UC-One/Webex application sends the HTTP POST and the Call Settings Web View application has authenticated and has the list of services to be displayed.

Execution

The user clicks the *Outgoing Calls* header.

Post Condition

The application displays the services in the following order, if assigned to the user and configured to be displayed:

a) Block My Caller ID

b) Automatic Callback

3.8 User Expands Call Control

Precondition

The UC-One/Webex application sends the HTTP POST and the Call Settings Web View application has authenticated and has the list of services to be displayed.

Execution

The user clicks the *Call Control* header.

Post Condition

The application displays the following services, if assigned to the user and configured by the application to be displayed:

- Call Center Queues

- BroadWorks Anywhere

- BroadWorks Mobility

3.9 User Expands Voice Mail

Precondition

The UC-One/Webex application sends the HTTP POST and the Call Settings Web View application has authenticated and has the list of services to be displayed.

The Voice Mail service is assigned to the user.

Execution

The user clicks the *Voicemail* header.

Post Condition

The application displays the configurations that can be viewed or modified for the user.

The *Voicemail* header is not displayed if the service is not assigned to the user.

3.10 User Modifies "Do Not Disturb", "Anonymous Call Rejection", "Call Waiting" Services Under Incoming Calls

Precondition

The user clicks on the *Incoming Calls* header to expand its contents and display the list of services.

Execution

The application displays the present state of the services along with other services under it.

- Do Not Disturb
- Anonymous Call Rejection
- Call Waiting

Post Condition

The user can switch any of the preceding services on and off from the application.

3.11 User Modifies "Call Forwarding" Service Under Incoming Calls

Precondition

The user clicks on the *Incoming Calls* header to expand its contents and display the list of services.

Execution

The application displays the present state of the *Call Forwarding* section along with the services under it.

The Call Forwarding service is displayed as "on" if any of the following subsections is on.

- Always
- When no answer
- When busy
- When not reachable

Post Condition

The user can switch on and off any of the subsections under the Call Forwarding service section.

In addition, the user can configure the numbers and other options for each of the subsections.

3.12 User Modifies "Simultaneous Ring" Service Under Incoming Calls

Precondition

The user clicks on the *Incoming Calls* header to expand its contents and display the list of services.

Execution

The application displays the present state of the Simultaneous Ring service along with the settings under it.

The subsections for this service are:

- Do not ring when on a call
- Ring Numbers (list of numbers)
- When to Ring (criteria)

Post Condition

The user can switch on and off any of the subsections under the Simultaneous Ring service section.

In addition, the user can configure the numbers and other options for each of the subsections.

3.13   User Modifies "Remote Office" Service Under Incoming Calls

Precondition

The user clicks on the *Incoming Calls* header to expand its contents and display the list of services.

Execution

The application displays the present state of the Remote Office service along with the section under it.

The subsections for this service display an option to enter the phone number.

Post Condition

The user can switch on and off any of the subsections under the Remote Office service section.

In addition, the user can configure the numbers for Remote Office.

3.14 User Modifies "Out of Office" Service Under Incoming Calls

The user opens the Call Settings Web View application from the UC-One/Webex application. The user clicks on the *Incoming Calls* header to expand its contents and display the list of services.

The application displays the present state of the Personal Assistant service along with other settings under it. The user can set a presence from any of the following states:

- Business Trip
- Gone for the Day
- Lunch
- Meeting
- Out of Office
- Temporarily Out
- Training
- Unavailable
- Vacation

■ The expiration *date-time* for the status can be modified by the user. The user can enable or disable the expiration time. If the expiration time is disabled, it means the availability status that had been set is indefinite (forever) unless the user modifies it. The transfer number and *Ring Splash* option are also available to be modified for the user. The user can enable or disable the "*Transfer to attendant"* option.

3.15 User Modifies "Sequential Ring" Service Under Incoming Calls

The user opens the Call Settings Web View application from the UC-One/Webex application. The user clicks on the *Incoming Calls* header to expand its contents and display the list of services.

The application displays the present state of the Sequential Ring service along with the settings under it. The subsections of this service (lower-level services) are:

■ Ring Base Location First

■ Caller May Cancel

■ Ring Numbers (list of numbers)

■ When to Ring (criteria)

The user can switch on and off any of the lower-level services under the Sequential Ring service section. In addition, the user can configure the numbers and other options for each of the numbers. The user can switch on or off any of the criteria under the *When to Ring* section.

3.16   User Modifies "Block My Caller ID", "Automatic Callback" Services Under Outgoing Calls

Precondition

The user clicks on the *Outgoing Calls* header to expand its contents and display the list of services.

Execution

The application displays the present state of the following services:

■ Block My Caller ID

■ Automatic Callback

Post Condition

The user can switch any of the preceding services on and off from the application.

3.17   User Modifies "Voicemail" Section

Precondition

The user is assigned the Voice Messaging User service.

The user clicks on the *Voicemail* header to expand its contents.

Execution

The application displays the present state of the service.

The subsections for this service display options to configure:

■ Send Calls to Voicemail

– Always

   – When busy

   – When unanswered

  ■ When a message arrives:

   – Use unified messaging

   – Forward to email address

 ■ Email Notification

 ■ Email Carbon Copy

 ■ Press "0" to Transfer

Post Condition

The user can switch on and off any of the subsections under the Voicemail service section.

> **NOTE**: In addition, the user can configure the numbers and other options for each of the subsections.

HIPPA regulation requirement update:

The "Email Vm Messages" flag in service array passed in the initialization POST body is added to control "Email Carbon copy" and "Forward to email address" visibility behavior since CSWV 1.8.6.

```
{
    "name": "Email Vm
Messages",
    "visible": true
},
```

IF the service node "Email Vm Messages" DOES NOT exist, "Email Carbon copy" and "Forward to email address" visibility is TRUE.

Otherwise, it is controlled by the "visible" flag.

3.18   User Modifies "Call Center Queues" Service Under Call Control Section

The user opens the Call Settings Web View application from the UC-One/Webex application. The user clicks on the *Call Control* header to expand its contents and display the list of services.

The application displays the present Automatic Call Distribution (ACD) status of the user along with the settings for Call Center service under it. The user can modify their ACD status and unavailable codes. In addition, the user can join or unjoin from a call center to which they are assigned.

3.19   User Modifies "BroadWorks Anywhere" Service Under Call Control Section

The user opens the Call Settings Web View application from the UC-One/Webex application. The user clicks on the *Call Control* header to expand its contents and display the list of services.

The application displays the present state of the BroadWorks Anywhere service along with the settings under it. The subsections (or lower levels) for this service display options to select *Alert All Locations* and add or remove numbers under the *Ring Numbers* section. The user can add a valid number under the *Ring Numbers* section and set the following options for each of the numbers added:

- *Description*

- *Do not forward*

- *Answer confirmation*

- *Call control*

■ The user can enable or disable any of the numbers present under the *Ring Numbers* section.

3.20 User Modifies "BroadWorks Mobility" Service Under Call Control Section

Precondition

The user clicks on the *Call Control* header to expand its contents and display the list of services.

Execution

The application displays the present state of the BroadWorks Mobility service along with the settings under it.

The subsections for this service display options to configure the user's fixed number persona as "Primary Number" and the mobile number of the device currently in use as "Mobile Number".

The user can configure the options only if the BroadWorks Mobility service is switched on for them by the administrator.

Post Condition

The user can configure the fixed phone number persona and the primary mobile identity persona for themselves.

The user can configure the *Ring fixed devices* and *Ring mobile devices* options under the *Primary Number* section.

The user can configure the *Enable Alerting*, *General settings*, *Ring fixed devices*, and *Ring mobile devices* fields under the *Mobile Number* section.

4 Provisioning Description

4.1 Licensing Impacts

4.1.1 Feature Access Code Impacts

There is no impact.

4.1.2 Web Impacts

There is no impact.

4.1.3 Help Page Impacts

There is no impact.

4.1.4 CLI Impacts

There is no impact.

4.1.5 Public Interface Impacts

There is no impact.

4.1.6 Help Pages Impacts

There is no impact.

4.2 Enhanced Call Logs Interface

4.2.1 Enhanced Call Log Contents for Placed Calls

There is no impact.

4.2.2 Enhanced Call Log Contents for Missed and Received Calls

There is no impact.

4.2.3 Public Interface Impacts

There is no impact.

4.2.4 Application Server Enterprise Migration Tool Impacts

There is no impact.

5   Feature Operation

The Call Settings Web View application consists of a web page that any UC-One/Webex application (iOS, Android, or desktop) can use to show the call settings of a user. The Call Settings Web View application enables a user to view or manage the services assigned to the user.

The Call Settings Web View application is hosted on the Xtended Services Platform along with other applications such as Xsi-Actions. The Call Settings Web View application talks to Xsi-Actions and Cisco BroadWorks to validate the user and fetch and update the services for the user that sends requests from the UC-One/Webex application. The following figure shows how a typical deployment looks.

NOTE: Common deployment issues 19.5 and 19.7.
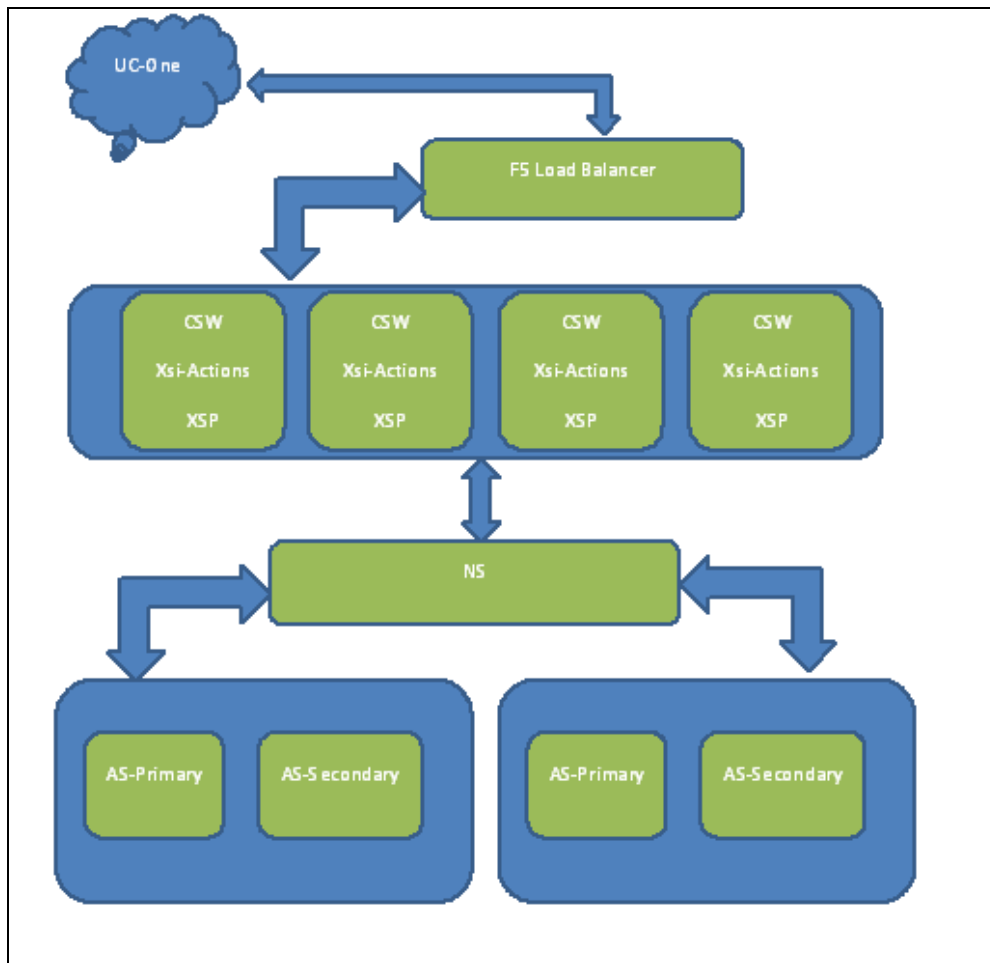
Figure 1 High-level Component Diagram

The following figure shows a high-level interaction flow between the different components.
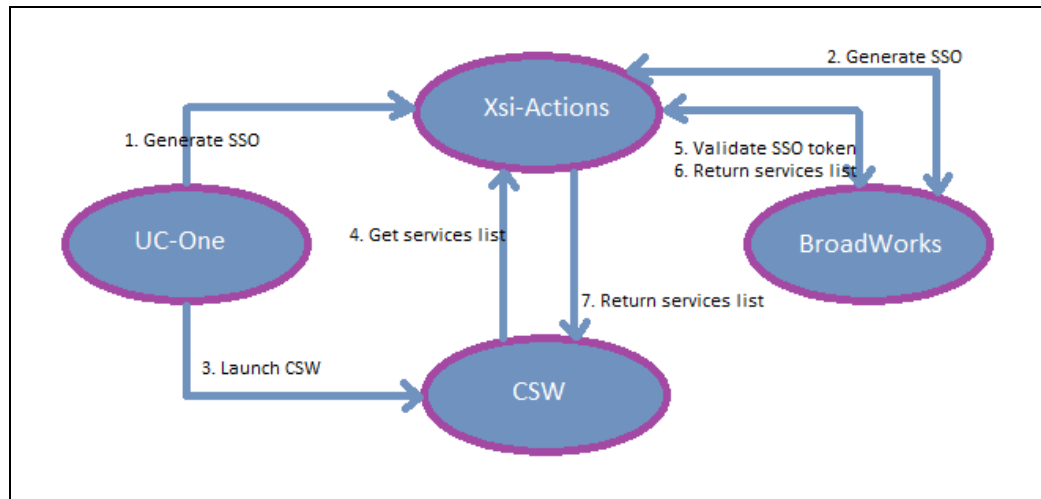
Figure 2 High-level Interaction Diagram

In the preceding figure, sequence 1, 2, 3, and 5 occurs during the first call only when the session is also established. Once the session is successfully established, sequence 4, 6, and 7 is enough to fetch and update the user services.

The UC-One/Webex application, along with its other functionalities, also allows the users to enable or disable call settings assigned to them. The Call Settings Web View application provides a single web interface that can be shown by any UC-One/Webex application via a Web View within it.

The following list of services are supported by the Call Settings Web View application.

- Do Not Disturb

- Call Forward Always

- Call Forward No Answer

- Call Forward Busy

- Call Forward Not Reachable

- Simultaneous Ring

- Sequential Ring

- Hide Number/Block Caller ID (in Calling Line ID Delivery Blocking service)

- Remote Office

- BroadWorks Anywhere

- BroadWorks Mobility

- Personal Assistant

- Voice Management

- Rings Before Greeting (in the Voice Management and Call Forwarding No Answer services)

- Anonymous Call Rejection

- Automatic Callback

■ Call Waiting

■ Call Center Queues (also known as Queues)

To integrate with the Call Settings Web View application, UC-One/Webex applications must invoke the HTTP POST on the Call Settings Web View root URI. The applications can choose their design to configure and read the Call Settings Web View root URI. For example, the Call Settings Web View root URI for the Connect application is to be configured in the device configuration file of the user. The HTTP post to the Call Settings Web View root URI must include a JavaScript Object Notation (JSON) body with the following information:

■ User ID and login credentials (Can be any authorization scheme and credentials accepted by the Cisco BroadWorks platform).

■ Optional information related to the application's name and version.

■ Optional information related to the language and platform.

■ Optional information related to the visibility of services. By default, all the services are shown.

■ Optional information related to the mobile number tagged to the device.

■ Optional branding information related to colors and font styles.

The following excerpt shows a sample JSON body for the POST request.

```
URL: https://<XSP fqdn>/csw/

METHOD: POST

X-BROADSOFT-PROTOCOL-VERSION: 1.0

Content-Type: application/json; charset=utf-8

REQUEST BODY :


  {

        "userId": "abc@broadsoft.com",

        "authorization": "BroadWorksSSO abcdefghijklmno…==",

"language": "en_US",

"platform": "iOS_Mob",

"appName":"Connect",

"appVersion":"2.3",

"deviceMobileNo":"89898798798",

"services": [

            {

                "name": "Call Forwarding Always",

                "visible": false

            }, {

                "name": "Anonymous Call Rejection",

                "visible": false

        }, , {
```

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```
                    "name": "Call Forwarding Busy",
                    "visible": false
                }, {
                    "name": "Call Forwarding No Answer",
                    "visible": false
                }, {
                    "name": "Simultaneous Ring",
                    "visible": false
                }
    ],
    "branding": {
            "fontStyle": "Roboto",
            "fontSize": {
                            "RestrictiveButtonStyle": 16,
                            "RestrictiveLabelStyle": 14,
                            "RestrictiveSmallLabelStyle": 13
            },
            "color": {

                            "PrimaryButton": "#2DBD9B",
                            "ContentBackground": "#FFFFFF",
                            "HeadersBackground": "#F8F8F8",
                            "HeaderText": "#323232",
                            "PrimaryContentText": "#323232",
                            "TertiaryContentText": "#929292",
                            "DimmedText": "#b4b4b4"
            }
        }

    }
```

NOTE: The Call Settings Web View URL should always have a trailing "/" configured in the device configuration, which the UC-One/Webex application uses to invoke the application in its Web View. Example: http(s)://<XSP-FQDN>/<CSW-Context-Path>/

The following table defines the JSON attributes (or keys) (for the preceding sample) that should be included in the HTTP POST body to the Call Settings Web View application.

Property Key	Parent Node	Definition and Possible Values	Default	Required
userId		Type: String The Cisco BroadWorks user ID of the user whose call settings are to be displayed. The user ID should also have the domain part, to invoke the Xsi-Actions API for the user.		Y
authorizati on		Type: String The authorization parameter accepted by the Cisco BroadWorks platform. The UC-One/Webex application can use any of the authorization methods supported by the Cisco BroadWorks platform. The string must include both the authorization scheme and the authorization string. Example: ▪ Bearer <llt or long live token> ▪ BroadWorksSSO <single-use-SSO-token> ▪ Basic <Base64Encoded UserID:Password>		Y
appName		Type: String This is the Cisco name of the application that invokes the Call Settings Web View application. Possible values: ▪ "connect" ▪ "Iris" ▪ "communicator"		Optional
appVersio n		Type: String This is the Cisco version of the application that invokes the Call Settings Web View application.		Optional
deviceMob ileNo		Type: String This is the mobile number that is assigned to the device used by the user, from the UC-One/Webex application (that is invoking the Call Settings Web View application). This number is used to get and modify the mobile number persona for the BroadWorks Mobility service.		Optional
language		Type: String The locale from which the service name and description text are shown for the user from the UC-One/Webex application. Possible values: ▪ "en_US (or) en-US" ▪ "zh_CN (or) zh-CN" ▪ "nl_NL (or) nl-NL" ▪ "fr_FR (or) fr-FR" ▪ "fr_CA (or) fr-CA" ▪ "de_DE (or) de-DE" ▪ "it_IT (or) it-IT" ▪ "ja_JA (or) ja-JA" ▪ "ko_KO (or) ko-KO" ▪ "es_ES (or) es-ES" ▪ "es" ▪ "pt_PT (or) pt-PT"	en_US	Optional

Property Key	Parent Node	Definition and Possible Values	Default	Required
platform		Type: String The platform from which the Call Settings Web View application is invoked. Possible values: ▪ "iOS_Mob" ▪ "iOS_Tab" ▪ "android_Mob" ▪ "android_Tab" ▪ "win_DT" ▪ "mac_DT"	iOS_Mob	Optional
services		Type: Array, given as [] The services that are to be shown in the Call Settings Web View application. Every object in the array has name and visible objects.	Blank list (All services are shown.)	Optional
name	services	Type: String Accepted values for name object: ▪ Anonymous Call Rejection ▪ Call Forwarding Always ▪ Call Forwarding Busy ▪ Call Forwarding Not Reachable ▪ Call Forwarding No Answer ▪ Simultaneous Ring Personal ▪ Sequential Ring ▪ Do Not Disturb ▪ Remote Office ▪ Automatic Callback ▪ Call Waiting ▪ Calling Line ID Delivery Blocking ▪ Personal Assistant ▪ BroadWorks Anywhere ▪ Call Center Queues ▪ BroadWorks Mobility ▪ Voice Messaging User		Optional
visible	services	Type: Boolean The property that shows or hides the particular service in the web application. The default value is "true".	true	Optional
branding		Type: JSON object, given as {} The information about the font style, size, and colors to be used in the application. This contains sub-objects of type: ▪ style ▪ size ▪ color		Optional
fontStyle	branding	Type: String The font style that should be used to display all the text throughout the application.	Roboto	Optional

Property Key	Parent Node	Definition and Possible Values	Default	Required
fontSize	branding	Type: Object, given as {} The categories of font sizes used for different text in the application. When any of the categories have missed being specified, the default values are used. Accepted values: ▪ "RestrictiveButtonStyle" ▪ "RestrictiveLabelStyle" ▪ "RestrictiveSmallLabelStyle"		Optional
size properties such as *Restrictive ButtonStyle*	branding. fontSize	Type: Integer The size for each of the font categories used under specific areas in the application.	Default values are mentioned in the table in section *5.7 Branding*.	Optional
color	branding	Type: Object, given as {} The font colors that are available to be branded in the application. When any of the categories does not have a color specified, the default values are used. Accepted values: ▪ "PrimaryButton" ▪ "ContentBackground" ▪ "ControlBackground" ▪ "PrimaryBackground" ▪ "PrimaryText" ▪ "PrimaryContentText" ▪ "DimmedText" ▪ "Separators" ▪ "SymbolicGreen" ▪ "SymbolicRed"		Optional
color properties such as *PrimaryButton*	branding. color	Type: String HEX codes for the color to be used in the application.	Default values are mentioned in the table in section *5.7 Branding*.	Optional

The Call Settings Web View application displays the services for the user if the corresponding service is assigned for the user and the visibility of the services is not set to "false" by the invoking UC-One/Webex application. The application can control the visibility of any service for the user by setting the *visible* state of the corresponding service in the visible elements on the JSON body. A service provider can hide any service by configuring the same under the *web-call-settings* tag in the device configuration file. The UC-One/Webex application is expected to read the *web-call-settings* tag set by the service provider and send the same to the Call Settings Web View application in the JSON body of the request.

The Call Settings Web View application initially displays all the sections in a collapsed state: Incoming Calls, Outgoing Calls, Voicemail, and Call Control. When a user clicks on any of these section headers, these sections expand to show the services under them.
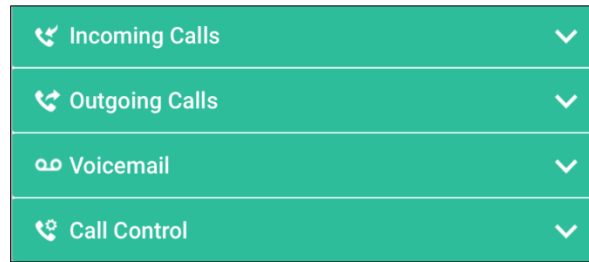
Figure 3 Section Headers Displayed on Opening Application

Upon expanding the section headers, the Call Settings Web View application gets the current setting for each of the services grouped under it. The application allows the user to enable, disable, or modify the settings displayed under each of the services. The services inside a group are refreshed with the latest values from the server when the corresponding group is (re)opened.

The opened section header remains at the top based on the group that the user is viewing.

Example: The *Incoming Calls* header sticks to the top of the page as long as the user is viewing any of the services under the section. The following figure shows an example of this.
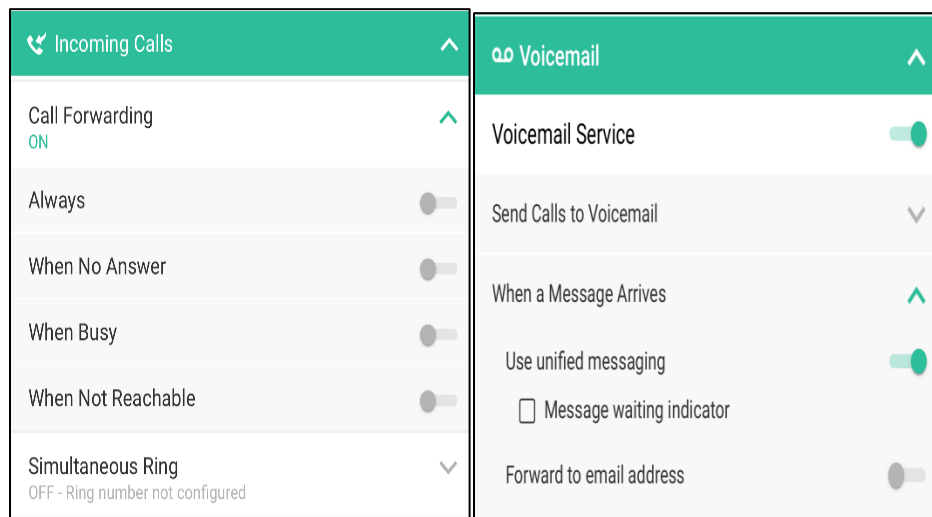
Figure 4 Section Headers Remain at Top of Page

5.1 Incoming Calls

The list of settings displayed under *Incoming Calls* are in the following order:

1) Do Not Disturb

2) Out of Office (BroadWorks Personal Assistant)

3) Anonymous Call Rejection

4) Call Forwarding

5) Simultaneous Ring

6) Sequential Ring

7) Remote Office

8) Call Waiting
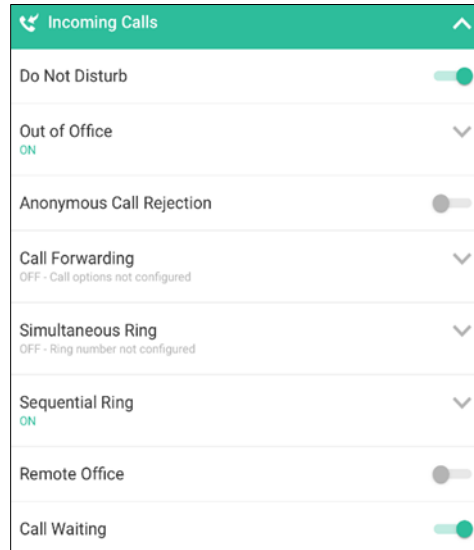
Figure 5 Services Under Incoming Calls Services Group

5.1.1   Do Not Disturb

The service is shown if the Do Not Disturb service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can switch the service on and off from the application.

The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the Do Not Disturb service, even though the service is assigned to the user.

5.1.2   Out of Office (BroadWorks Personal Assistant)

The function is shown if the Personal Assistant service is assigned to the user and its value is not set to "false" in the POST request from the UC-One/Webex application.

The user can perform the following:

- Set their presence status and the expiration *date-time* by when the presence set expires.

- Enable or disable the expiration time option.

- Set a number to which the calls are to be transferred until the set status expires.

- Enable or disable the option of transferring the calls to the attendant.

- Select the *Ring Splash* option.

The status of the service *OFF – Availability not specified* is shown if there is no presence status set for the service. The status of the service "ON" is shown if the presence is set to a value other than "None". The application sets a default value for expiration *date-time* field when selecting a presence status. For the different presence states and the default values set on selecting a presence, see the *Personal Assistant Service Feature Description* [1].

The service is not shown when the UC-One/Webex application sends a visible value as "false" for the Personal Assistant service, even though the service is assigned to the user.
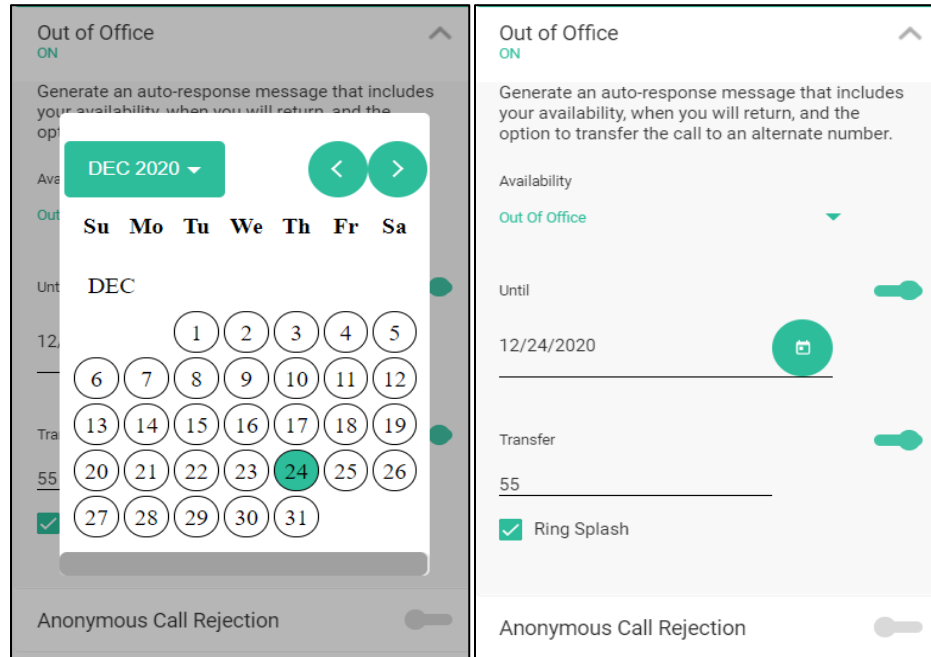
Figure 6 Out of Office Service Expanded

5.1.3 Anonymous Call Rejection

The service is shown if the Anonymous Call Rejection service is assigned for the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can switch the service on and off from the application.
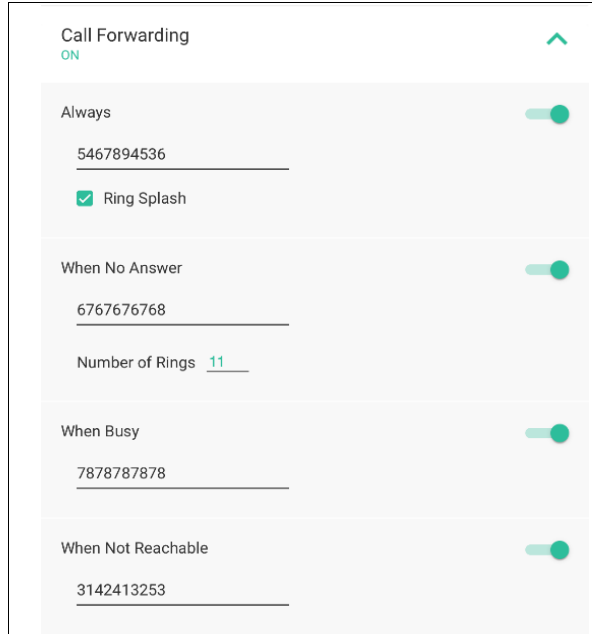
The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the Anonymous Call Rejection service, even though the service is assigned to the user.

5.1.4 Call Forwarding

The Call Forwarding service is displayed if any of the Call Forwarding Always, Call Forwarding When No Answer, Call Forwarding When Busy, and Call Forwarding When Not Reachable services are assigned and each of their *visible* values is not set to "false" in the POST request from the UC-One/Webex application. The *Call Forwarding* section is hidden if the *visible* value is set to "false" for all of these parameters in the JSON POST data. Each of the services under the *Call Forwarding* section is hidden when the *visible* property of the appropriate service is set to "false" in the JSON POST data.

The user can set a:

- *Call Forwarding Always* number and *Ring Splash* option from the application.

- *Call Forwarding When No Answer* number and the *Number of Rings* option from the application.

- *Call Forwarding When Busy* number from the application.

- *Call Forwarding When Not Reachable* number from the application.

Figure 7 Call Forwarding Section Expanded

5.1.5 Simultaneous Ring

The service is shown if the Simultaneous Ring Personal service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can expand the section to configure further options for the service.

The user can:

- Switch the *Do not ring when on a call* option.
- Expand the *Ring Numbers* section.

The user switches the service on and off by using the *Ring Numbers* switch. Under the *Ring Numbers* section, the user can enter the number and select the *Answer confirmation required* option. When the user enters a number for one of the text boxes, additional text boxes are created to allow the user to add more numbers for the service. The Simultaneous Ring service is switched on for the user only when one or more than one number is configured in the *Ring Numbers* section.

The user can expand the *When to Ring* section under the service. The user can switch on and off a criterion under this section.

The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the Simultaneous Ring Personal service, even though the service is assigned to the user.

Figure 8 Simultaneous Ring Service Expanded

5.1.6 Sequential Ring

The Sequential Ring service is shown if the Sequential Ring service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can expand the section to configure further options for the service.

The user can:

- Switch on and off the *Ring Base Location First* option.

- Switch on and off the *Caller May Cancel* option.

- Expand the *Ring Numbers* section.

- Expand the *When to Ring* section.

The user can switch the *Ring Base Location First* option on and off. When this option is switched on, the user can set the *Number of rings* and select the *Continue if busy* option

Under the *Ring Numbers* section, the user can enter up to five numbers. The user can set *Number of rings* and select *Answer confirmation required* for each of the numbers set. When the user enters a number for one of the text boxes, additional text boxes are created to allow the user to add more numbers for the service.

The user can expand the *When to Ring* section under the service. The user can switch on and off a criterion under this section. The Sequential Ring service is switched on only when one or more criteria are switched on.

The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the Sequential Ring service, even though the service is assigned to the user.
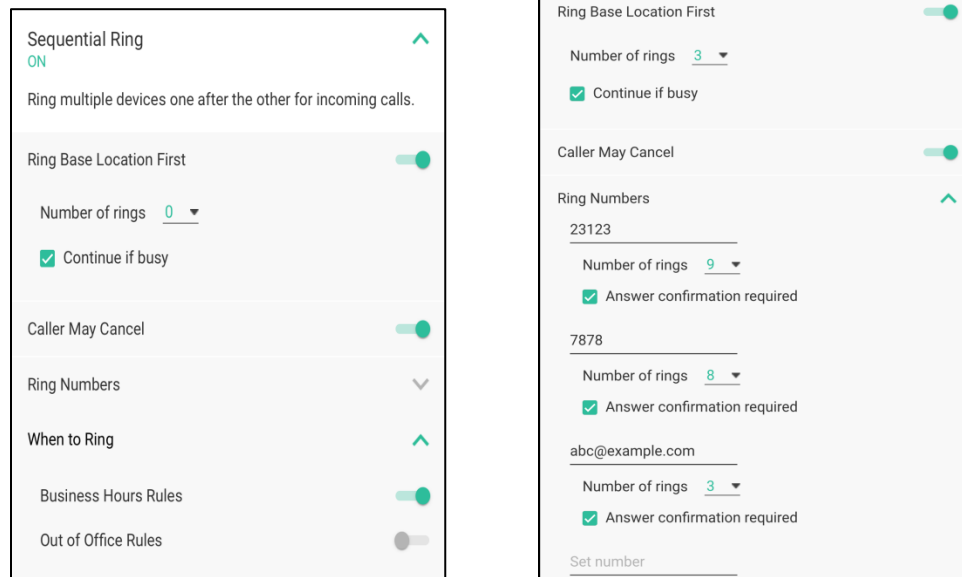
Figure 9 Sequential Ring Service Sections Expanded

When to Ring rules can be displayed in two ways:

- By the Criteria description name (for example, Criteria description) - **default**

- By the Schedule name (for example, Out of Office)

In order to see the current setting, navigate in the BroadWorks command line interface (CLI) to the following level.

```
XSP_CLI/Applications/BWCallSettingsWeb_<Deployed_version_number>/General
```

A get command should display the following output.

```
XSP_CLI/Applications/BWCallSettingsWeb_1.7.2/General> get
xsiActionsContextOrURL=/com.broadsoft.xsi-actions
displayCriteriaOrScheduleName=criteria
```

The possible values for *displayCriteriaOrScheduleName* are **criteria** and **schedule**. To change the value, execute the following and then restart Cisco BroadWorks.

```
XSP_CLI/Applications/BWCallSettingsWeb_1.7.2/General> set
displayCriteriaOrScheduleName schedule
*** Warning: BroadWorks needs to be restarted for the changes to take effect
***

XSP_CLI/Applications/BWCallSettingsWeb_1.7.2/General> get
xsiActionsContextOrURL=/com.broadsoft.xsi-actions
displayCriteriaOrScheduleName=schedule
```

5.1.7 Remote Office

The service is shown if the Remote Office service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can expand the section to configure further options for the service.

The user can enter a number in the *Remote phone number* field under the service.

The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the Remote Office service, even though the service is assigned to the user.

5.1.8 Call Waiting

The service is shown if the Call Waiting service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can switch the service on and off from the application.

The service is not shown when the application sends a *visible* value as "false" for the Call Waiting service, even though the service is assigned to the user.

5.2 Outgoing Calls

The following settings are displayed under *Outgoing Calls*:

- Block My Caller ID (Calling Line ID Delivery Blocking)
- Automatic Callback
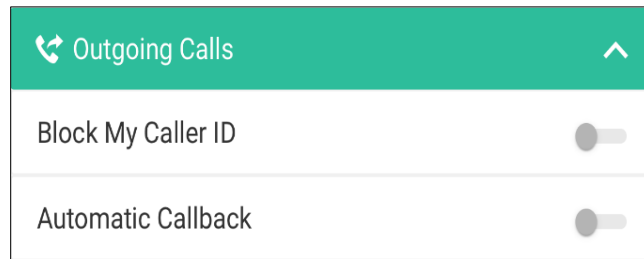
Figure 10 Services Under Outgoing Calls Service Group

5.2.1 Block My Caller ID

The service is shown if the Calling Line ID Delivery Blocking service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can switch the service on and off from the application.

The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the Block My Caller ID service, even though the service is assigned to the user.

5.2.2 Automatic Callback

The service is shown if the Automatic Callback service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can switch the service on and off from the application.

The service is not shown when the application sends a *visible* value as "false" for the Automatic Callback service, even though the service is assigned to the user.

5.3   Voicemail

The section under *Voicemail* displays all the settings related to the Voicemail service.
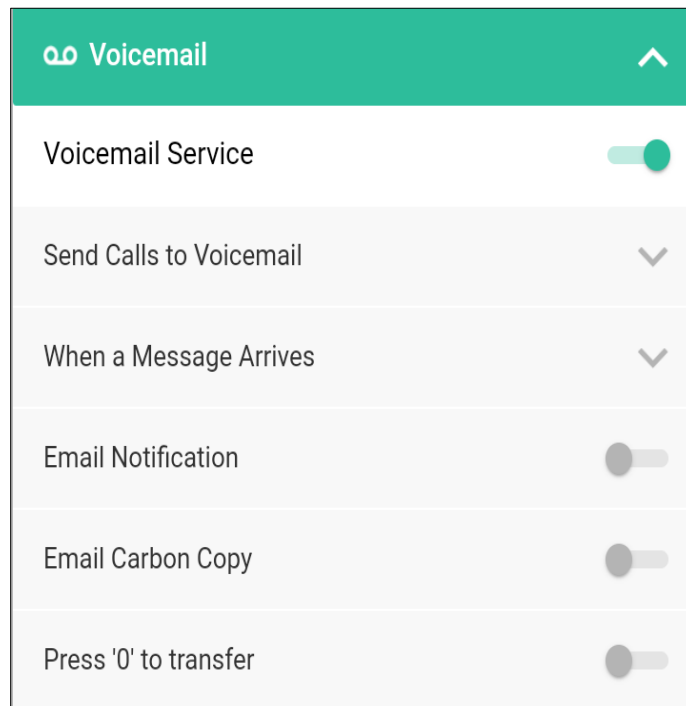
Figure 11 Voicemail Settings Grouped Under Voicemail Group

The service is shown if the Voice Management service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can expand the section to configure further options for the service.

The service is not shown when the application sends a *visible* value as "false" for the Voice Management service, even though the service is assigned to the user.

The user can expand the *Send Calls to Voicemail* section. The user can select any or all settings from "Always", "When busy", and "When no answer". In addition, the user can select the *Number of rings*.
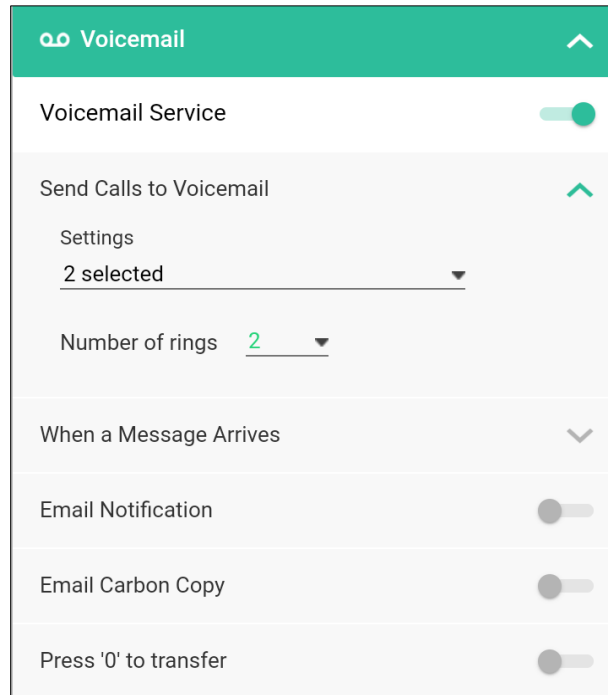
Figure 12 Send Calls to Voicemail Expanded – Voicemail Service
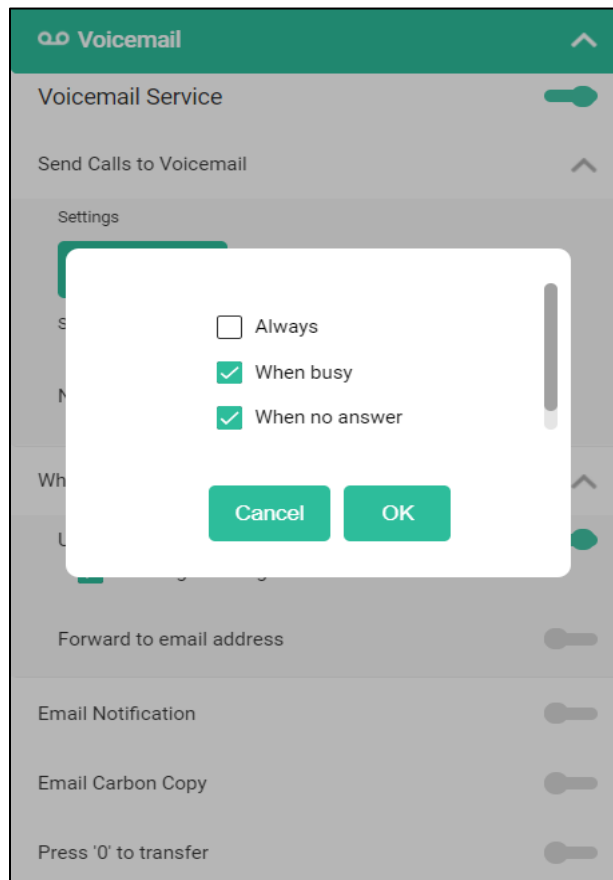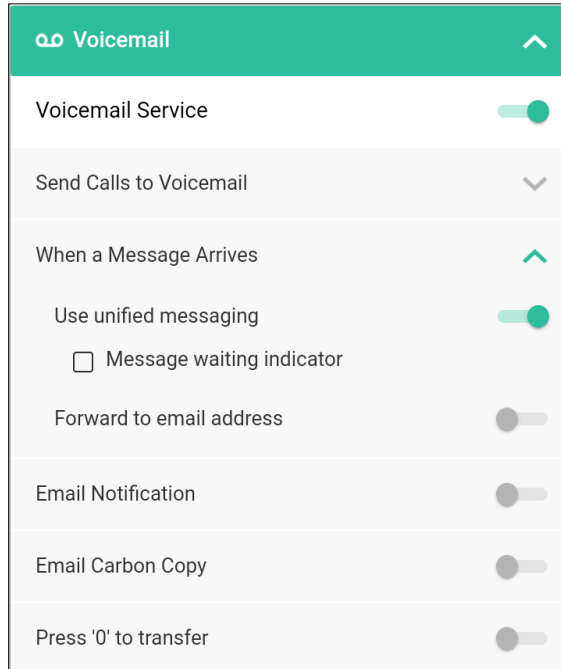
Figure 13 User Selecting Options for Settings Field

The user can expand the *When a Message Arrives* section. The user can switch on either of the *Use unified messaging* or *Forward to email address* options. When the *Use unified messaging* option is switched on, the user can select the *Message waiting indicator* option. At this point, if the *Forward to email address* is switched on, it is switched off automatically. When the *Forward to email address* option is switched on, the user can enter an email address in the field under it.

Figure 14 When Message Arrives Is Expanded − Voicemail Service

The user can switch on the *Email Notification* option and enter an email address provided in the field under it. The user can switch on the *Email Carbon Copy* option and enter an email address provided in the field under it. The user can switch on the *Press '0' to Transfer* option and enter a number provided in the field under it.
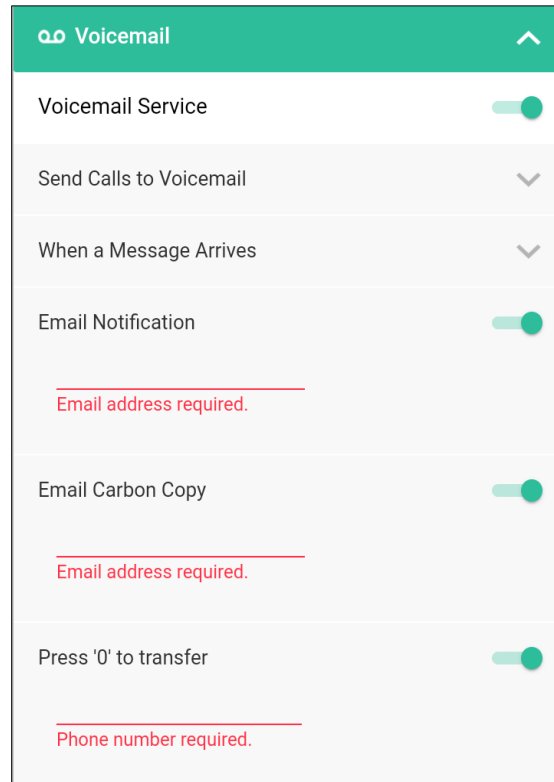
Figure 15 Email Notification, Email Carbon Copy, Press '0' to Transfer Expanded – Voicemail Service

5.3.1 Rings Before Greeting

The setting is shown if the Voice Management service is assigned for the user and/or its *visible* value is set to "true" in the POST request from the UC-One/Webex application.

The *Number of rings* option under the Voicemail service settings represents the *Number of rings before greeting* setting. The setting is enabled or disabled along with the Voice Management service and it cannot be enabled or disabled individually.

5.4 Call Control

The settings displayed under *Call Control* are:

- Call Center Queues
- BroadWorks Mobility
- BroadWorks Anywhere
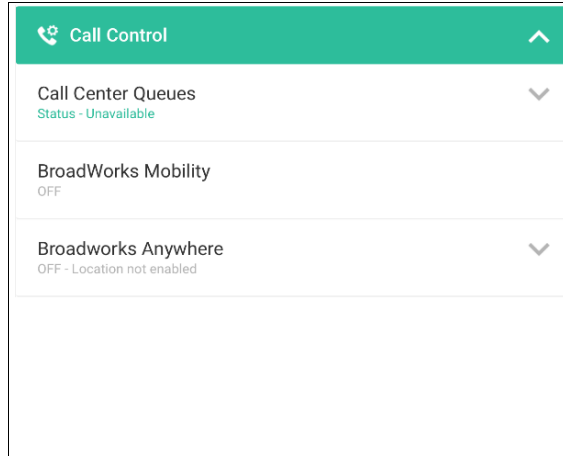
Figure 16 Call Control Service Group

5.4.1   Call Center Queues

The service is shown if either Call Center – Basic, Call Center – Standard, or Call Center – Premium is assigned to the user and the visible value for any of these values is not set to "false" in the POST request from the UC-One/Webex application.

The user can set their ACD status. If the status is set to "Unavailable", the user can choose any of the unavailable codes set for the service provider.

The list of call centers to which the user is assigned is listed under the *Call Center IDs* section. The user can join or unjoin any of the call center(s) to which the user is assigned.

The service is not shown when the application sends a *visible* value as "false" for either of the Call Center – Basic, Call Center – Standard, or Call Center – Premium service, even though the service is assigned to the user.
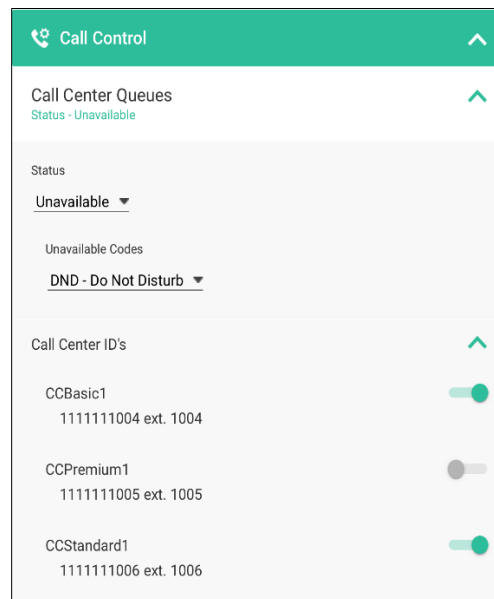
Figure 17 Call Center Queues Service Expanded

5.4.1.1   Call Center General Switch

Note that beginning with CSWV Release 1.7.5, there is a new service input parameter *Call Center*. This parameter controls "Call Center Queues" visibility with higher priority than Call Center – Basic, Call Center – Standard, or Call Center – Premium services settings. If the *visible* key is set to "false" then the *Call Center Queues* menu will not be displayed even if the Call Center Basic, Standard, or Premium service is activated.

```
{
        "service":"Call Center",
        "visible":<boolean>,
        "settings":[
                {"showCallCenters":<boolean>}
        ]
}
```

Figure 18 Call Center General Switch JSON Structure

The nested "showCallCenters" switch controls *Call Center IDs* submenu visibility. If set to "false", then the *Call Center IDs* submenu will not be displayed.

If the Call Center General switch does not exist, then "Call Center Queues" visibility is based on Call Center – Basic, Call Center – Standard, or Call Center – Premium services settings.

5.4.2   BroadWorks Mobility

The service is shown if the BroadWorks Mobility service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can expand the section to configure further options for the service.

The service is not shown when the UC-One/Webex application sends a *visible* value as "false" for the BroadWorks Mobility service, even though the service is assigned to the user.

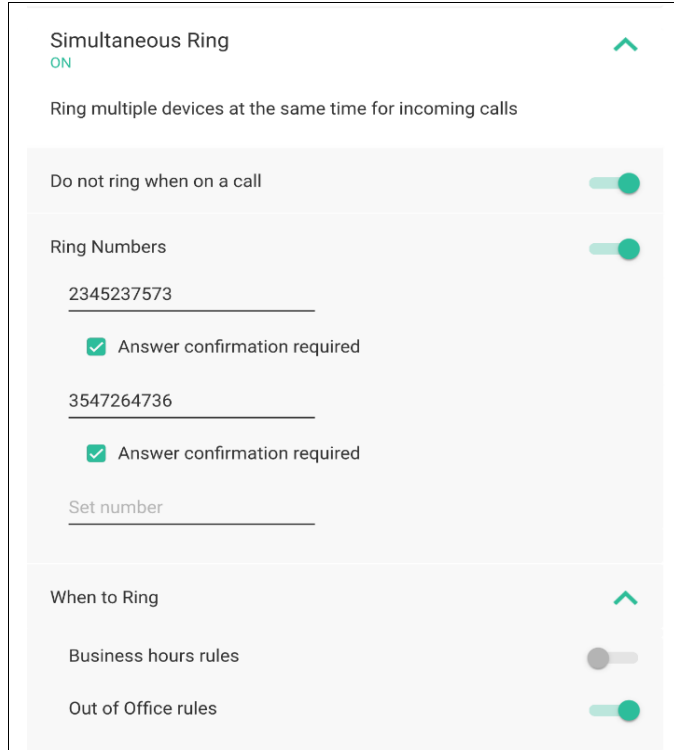The service is expanded and allows the user to configure the settings only when the service is switched on by administrator for that user. The user is now allowed to expand if the service is switched off for the user.

The user can configure the options for the fixed number persona under the *Primary Number* section. The fixed number configured for the user profile is displayed as the primary number persona to be configured. The user can select zero or more of the following options: "Shared Call Appearance", "Executive Assistant", and "BroadWorks Anywhere" for the *Ring fixed devices* field. The user can view the list of mobile numbers assigned to them under the *Ring mobile devices* field. The user can select any or all mobile numbers.

The user can configure the options for a mobile number under the mobile number persona. The mobile number is the *deviceMobileNo* received in the HTTP POST request from the application. The user can configure the mobile persona only for this mobile number. The user is allowed to configure mobile persona only if there is a valid value present in the *deviceMobileNo* parameter in the request from the UC-One/Webex application. The user can select on and off in the *Enable Alerting* field. The user can choose zero or more of the following options: "Alert agent calls", "Alert click to dial calls", "Alert group paging calls", "Answer confirmation", "Call control services", "Don't forward calls", and "Caller ID" options for the *General Settings* field. The user can select zero or more of the following options: "Shared Call Appearance", "Executive Assistant", and "BroadWorks Anywhere" for the *Ring fixed devices* field for the mobile persona. The user can view the list of mobile numbers assigned to them under the- *Ring mobile devices* field. The user can select any or all mobile numbers.

Figure 19 BroadWorks Mobility

5.4.3   BroadWorks Anywhere

The BroadWorks Anywhere service is shown if the BroadWorks Anywhere service is assigned to the user and its *visible* value is not set to "false" in the POST request from the UC-One/Webex application. The user can expand the section to configure further options for the service.

The BroadWorks Anywhere service is **not** shown when the UC-One/Webex application sends a *visible* value as "false" for the BroadWorks Anywhere service, even though the service is assigned to the user.

The user can select the *Alert All Locations* option. The user can expand the *Ring Numbers* section that lists the numbers assigned to the user for the service.

The user can add numbers under the *Ring Numbers* section. For each of the numbers, the user can enter a description and select options such as *Do not forward, Answer confirmation,* and *Call control*. The status for the service is shown as *ON* if any of the numbers under *Ring Numbers* is enabled. The status for the service is shown as *OFF – Location not enabled* when none of the numbers under *Ring Numbers* is enabled. The status for the service is shown as *OFF – Location not configured* when there are no numbers under the *Ring Numbers* section.

Figure 20 BroadWorks Anywhere Service Expanded

5.5 Error Handling

The Call Settings Web View application displays any validation errors for components, within the application, underneath the respective component.
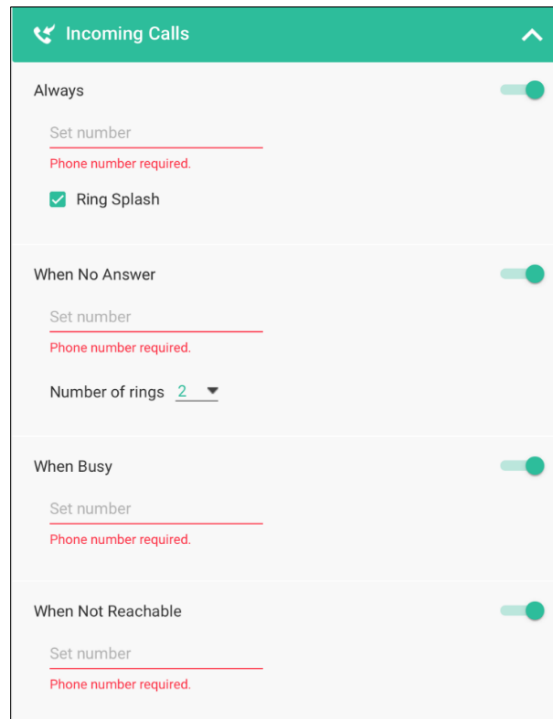
Figure 21 Sample Validation Error Message

Any error encountered while enabling or disabling a service or while setting values for a service are displayed within the service widget shown in the Web View. These error messages are displayed at the bottom of the service that encountered the error.

5.5.1 Authentication Error (401)

If the login credentials or the session between client and Xsi-Actions is invalidated or expires for any reason, the Call Settings Web View application refreshes only one time automatically on the set URL of the Call Settings Web View application. UC-One/Webex applications anticipate such refreshes, which eventually end up with an authentication error again (that is, HTTP Status 401). The UC-One/Webex application regenerates fresh credentials and refreshes the Call Settings Web View application to reinitiate the session.

5.5.2 Miscellaneous Server Error (5xx, 4xx Not Including 401)

For all other errors, the Call Settings Web View application shows a generic error such as "Service not available. Please retry after some time or contact System Administrator".

5.6 Service Provider Customization Folder

The service provider can customize the name of the service, text, and images of the Call Settings Web View application. A folder with the name of the service provider's domain is to be created in the *customPath* of the application on the Xtended Services Platform (XSP) where the Call Settings Web View application is hosted. The service provider's domain must match the host of the root URL of the Call Settings Web View application that is used by the UC-One/Webex application.

The *customPath* of the application is configured through the following settings in the CLI.

```
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding>
customPath=/var/broadworks/BWCallSettingsWeb
```

A service provider's domain-specific folder name is to be created under the above *customPath* such as what is in the following example.

```
/var/broadworks/BWCallSettingsWeb_<version>/[domain]
```

If the *customPath* is not set for the application, then the default path for customization is set to the following path in the Xtended Services Platform.

```
/var/broadworks/webapps/conf/BWCallSettingsWeb_<Version>
```

Additionally, a *branding* folder and a *branding/images* folder (the images folder under the branding folder) need to be created under the *customPath*. The *branding* and *branding/images* folders are automatically created under the default path, that is, */var/broadworks((/webapps/conf/BWCallSettingsWeb_<Version>*.

All the custom images and icons shown in section *5.6.1 Service Name and Text* are to be copied to the *branding/images* folder. A *callsettings.json* file is to be created under the *branding* folder, which contains all the custom service names and customized text of the application for the service provider. The same thing is done by default by the application for default path.

> **IMPORTANT NOTE**: The application always uses *customPath/callsettings.json* as a default settings file. It is mandatory that this be created even when it is a duplicate with *callsettings.json* under the *branding* folder.

5.6.1 Service Name and Text

The Call Settings Web View application allows a service provider to override the default service names, service description, and other text used in the application by modifying the *callsettings.json* file, which follows. All text in the file is grouped by the locale.

The service name and other text for every locale is represented in a JSON format in this configuration file. The table after the following example shows the JSON data definition to be set in the configuration file.

```
{
    "services":{
        "en_US": {
                        "incoming_calls": "Incoming Calls",
                        "outgoing_calls": "Outgoing Calls",
                        "voice_mail": "Voicemail",
                        "call_control": "Call Control",
                        "service_on": "ON",
                        "set_number": "Set number",
                        "none": "None",
                        "error": {
                                "numberexist": "Phone number already exists.",
                                "updatefailed": "Unable to update data. Try
again or contact the administrator.",
                                "unabletofetch": "Settings unavailable. Try
again or contact the administrator.",
"code": "Code: ",
"networkerror": "Your network is offline.",
"noservice": "No services assigned. Please contact the administrator." ,
"invalid_number": "Invalid phone number."
                        },
                        "do_not_disturb": {
```

```
                                        "name": "Do Not Disturb",
                                        "text": " "
                                },
                                "out_of_office":{
                                        "name": "Out of Office",
                                        "off_text": "OFF - Availability not specified",
                                        "on_text": "ON",
                                        "text": "Generate an auto-response message that
includes your availability, when you will return, and the option to transfer the
call to an alternate number.",
                                        "availability": "Availability",
                                        "until": "Until",
                                        "transfer": "Transfer",
                                        "ring_splash": "Ring Splash",
                                        "business_trip": "Business Trip",
                                        "gone_for_the_day": "Gone for the Day",
                                        "lunch": "Lunch",
                                        "meeting": "Meeting",
                                        "out_of_office": "Out Of Office",
                                        "temporarily_out": "Temporarily Out",
                                        "training": "Training",
                                        "unavailable": "Unavailable",
                                        "vacation": "Vacation",
                                        "forever": "Forever",
                                        "one_day": "1 day",
                                        "one_hour": "1 hour",
                                        "none": "None"
                                },
                                "call_forwarding": {
                                        "name": "Call Forwarding",
                                        "text": " ",
                                        "ring_splash": "Ring Splash",
                                        "number_of_rings": "Number of rings",
                                        "number_required": "Phone number required.",
                                        "off_text": "OFF - Call options not configured",
                                        "on_text": "ON",
                                        "err_msg": "Data unavailable. Try again or
contact the administrator."
                                },
                                "call_forwarding_always": {
                                        "name": "Always",
                                        "text": " ",
                                        "err_text": "Phone number required.",
                                        "ring_splash": "Ring Splash",
                                        "server_err_text": "Unable to update data. Try
again or contact the administrator.",
                                        "invalid_phone_number_msg": "Invalid phone
number."
                                },
                                "call_forwarding_busy": {
                                        "name": "When Busy",
                                        "text": " ",
                                        "err_text": "Phone number required.",
                                        "server_err_text": "Unable to update data. Try
again or contact the administrator.",
                                        "invalid_phone_number_msg": "Invalid phone
number."
                                },
                                "call_forwarding_no_answer": {
                                        "name": "When No Answer",
                                        "text": " ",
                                        "no_of_rings": "Number of rings",
                                        "err_text": "Phone number required.",
                                        "server_err_text": "Unable to update data. Try
again or contact the administrator.",
                                        "invalid_phone_number_msg": "Invalid phone
number."
                                },
                                "call_forwarding_not_reachable": {
                                        "name": "When Not Reachable",
```

```
                                "text": " ",
                                "err_text": "Phone number required.",
                                "server_err_text": "Unable to update data. Try
again or contact the administrator.",
                                "invalid_phone_number_msg": "Invalid phone
number."
                        },
                        "simultaneous_ring": {
                                "name": "Simultaneous Ring",
                                "off_text": "OFF - Ring number not configured",
                                "text": "Ring multiple devices at the same time
for incoming calls.",
                                "phone_number_required": "Phone number
required.",
                                "donot_ring_when_oncall": "Do Not Ring When On a
Call",
                                "ring_numbers": "Ring Numbers",
                                "answer_confirmation_required": "Answer
confirmation required",
                                "when_to_ring": "When to Ring",
                                "error_duplicateNumber": "Phone number exists."
                        },
                        "block_caller_id": {
                                "name": "Block My Caller ID",
                                "text": " "
                        },
                        "sequential_ring": {
                                "name": "Sequential Ring",
                                "off_text": "OFF - When to Ring option not
selected",
                                "text": "Ring multiple devices one after the
other for incoming calls.",
                                "ring_base_location": "Ring Base Location
First",
                                "number_of_rings": "Number of rings",
                                "continue_if_busy": "Continue if busy",
                                "caller_may_cancel": "Caller May Cancel",
                                "ring_numbers": "Ring Numbers",
                                "answer_confirmation_required": "Answer
confirmation required",
                                "when_to_ring": "When to Ring",
                                "criteria_activation_required": "At least one
option must be selected to activate Sequential Ring.",
                                "criteria_required": "Criteria must be added to
activate Sequential Ring.",
                                "invalid_phone_number_msg": "Invalid phone
number."                        },
                        "remote_office": {
                                "name": "Remote Office",
                                "text": "Make calls from a remote phone and have
it appear from your business line. In addition, any incoming calls to your
business line will ring on this remote phone.",
                                "remote_phone_number": "Remote phone number",
                                "err_msg": "Phone number required.",
                                "invalid_phone_number_msg": "Invalid phone
number."
                        },
                        "anonymous_call_rejection": {
                                "name": "Anonymous Call Rejection",
                                "text": " "
                        },
                        "automatic_callback": {
                                "name": "Automatic Callback",
                                "text": " "
                        },
                        "call_waiting": {
                                "name": "Call Waiting",
                                "text": " "
                        },
                        "voice_management": {
```

```
                                            "name": "Voicemail Service",
                                            "text": " ",
                                            "send_calls_to_voice_mail": "Send Calls to
Voicemail",
                                            "settings": "Settings",
                                            "all_settings": "All settings",
                                            "always": "Always",
                                            "when_busy": "When busy",
                                            "when_unanswered": "When no answer",
                                            "number_of_rings": "Number of rings",
                                            "when_message_arrives": "When a Message
Arrives",
                                            "use_unified_messaging": "Use unified
messaging",
                                            "message_waiting_indicator": "Message waiting
indicator",
                                            "forward_to_email_address": "Forward to email
address",
                                            "email_notification": "Email Notification",
                                            "email_carbon_copy": "Email Carbon Copy",
                                            "set_email_address": "Set email address",
                                            "press_0_to_transfer": "Press '0' to transfer",
                                            "email_address_required": "Email address
required.",
                                            "phone_number_required": "Phone number
required.",
                                            "invalid_phone_number_msg": "Invalid phone
number.",
                                            "invalid_email_address_msg": "Invalid email
address.",
                                            "none": "None"
                                    },
                                "callcenter": {
                                        "name": "Call Center Queues",
                                        "status": "Status",
                                        "unavailable_codes": "Unavailable codes",
                                        "sign_in": "Signed In",
                                        "sign_out": "Signed Out",
                                        "available": "Available",
                                        "unavailable": "Unavailable",
                                        "wrap_up": "Wrapping Up",
                                        "callcenter_id": "Call Center ID's",
                                        "extension": "ext.",
                                        "none": "None"
                                },
                            "broadWorks_mobility": {
                                        "name": "BroadWorks Mobility",
                                        "text": "Configuring alerting options for
incoming and outgoing calls per number.",
                                        "primary_number": "Primary Number",
                                        "ring_fixed_devices": "Ring fixed devices",
                                        "shared_call_appearance": "Shared call
appearance",
                                        "broadWorks_anywhere": "BroadWorks Anywhere",
                                        "executive_assistant": "Executive assistant",
                                        "ring_mobile_devices": "Ring mobile devices",
                                        "mobile_number": "Mobile Number",
                                        "enable_alerting": "Enable alerting",
                                        "general_settings": "General settings",
                                        "all_settings": "All settings",
                                        "alert_agent_calls": "Alert agent calls",
                                        "alert_click_to_dial_calls": "Alert click to
dial calls",
                                        "alert_group_paging_calls": "Alert group paging
calls",
                                        "answer_confirmation": "Answer confirmation",
                                        "call_control_services": "Call control
services",
                                        "enable_diversion_inhibitor": "Enable diversion
inhibitor",
```

```
                                "use_mobility_calling_line_id": "Use Mobility
calling line ID",
                                "dont_forward_calls": "Do Not Forward Calls",
                                "caller_id": "Caller ID",
                                "server_err_text": "Unable to update data. Try
again or contact the administrator.",
"rng_mobile_dev_validation_msg": "The BW Mobility Alerting Policy set to Ring
Mobile Devices only. However, no mobile number to alert.",
"devices_to_ring_checkbox_validation": "The BW Mobility Alerting Policy not set.
The Alerting Policy must be set to Ring Fixed Devices or Ring Mobile Devices or
ring both fixed and mobile devices.",
"none": "None"

                            },
                        "broadWorks_anywhere":{
                                "name": "BroadWorks Anywhere",
                                "off_location_not_configured": "OFF - Location
not configured",
                                "off_location_not_enabled": "OFF - Location not
enabled",
                                "text": "Use your selected phones as an
extension of your business phone number and dial plan.",
                                "alert_all_locations": "Alert All Locations",
                                "ring_numbers": "Ring Numbers",
                                "set_description": "Set description",
                                "do_not_forward": "Do not forward",
                                "answer_confirmation": "Answer confirmation",
                                "call_control": "Call control",
                                "phone_number_required": "Phone number is
required to activate BroadWorks Anywhere.",
                                "phone_number_exists": "Phone number already
exists."
                            }
                    },
        "it_IT":{...},
        "es":{...},
        "es_ES":{...},
        "ko_KO":{...},
        "ja_JA":{...},
        "de_DE":{...},
        "fr_CA":{...},
        "fr_FR":{...},
        "nl_NL":{...},
        "zh_CN":{...},

    }
}
```

The following table defines the JSON data (for the preceding example) to be set in the *callsettings.json* file, under the service provider's domain folder.

Property Key	Parent Node	Definition and Possible Values
services	root element	Type: json object, given as {} This is the root element of the *callsettings.json* file under the json object, that is, {}. This can contain at most 11 locales as child elements.

Property Key	Parent Node	Definition and Possible Values
[locale]	services	Type: json object, given as {} There can be one or all of the following locale elements: • en_US (English) • zh_CN (Chinese) • nl_NL (Dutch) • fr_FR (French) • fr_CA (French Canadian) • de_DE (German) • it_IT (Italian) • ja_JA (Japanese) • ko_KO (Korean) • es_ES (Spanish European) • es (Spanish CALA) • pt_PT (Portuguese) The Call Settings Web View application supports customization in the preceding eleven languages only. Each locale contains the group and service names as child elements.
[Group and Service names]	[locale]	Type: json object, given as {} Service names from any of the following: • *incoming_calls* • *outgoing_calls* • *voice_mail* • *call_control* • *service_on* • *set_number* • *do_not_disturb* • *call_forwarding* • *broadworks_mobility* • *simultaneous_ring* • *block_caller_id* • *remote_office* • *rings_before_greeting* • *anonymous_call_rejection* • *automatic_callback* • *call_waiting* • *broadworks_anywhere* • *voice_management* • *personal_assistant* • *queues* • *sequential_ring*

The following table represents the key and text for *English(US)* locale that represents a group, service, or service attribute's name and error text, as shown in the JSON file (*callsettings.json*). The same set of key-value pair comes under each of the customized locales, wherein the key is the same but the value is customized for the corresponding locale by the service provider.

Key	Text
incoming_calls	Incoming Calls
outgoing_calls	Outgoing Calls

Key	Text
voice_mail	Voicemail
call_control	Call Control
service_on	ON
set_number	Set number
none	None
error.numberexist	Phone number already exists.
error.updatefailed	Unable to update data. Try again or contact the administrator.
error.unabletofetch	Settings unavailable. Try again or contact the administrator.
error.networkerror	Your network is offline.
error.code	Code
error.noservice	Settings unavailable. Try again or contact the administrator.
do_not_disturb.name	Do Not Disturb
call_forwarding.name	Call Forwarding
call_forwarding.ring_splash	Ring Splash
call_forwarding.number_of_rings	Number of rings
call_forwarding.number_required	Phone number required.
call_forwarding.off_text	OFF − Call options not configured
call_forwarding.on_text	ON
call_forwarding.err_msg	Data unavailable. Try again or contact the administrator.
call_forwarding_always.name	Always
call_forwarding_always.err_text	Phone number required.
call_forwarding_always.ring_splash	Ring Splash
call_forwarding_always.server_err_text	Unable to update data. Try again or contact the administrator.
call_forwarding_always.invalid_phone_number_msg	Invalid phone number.
call_forwarding_busy.name	When Busy
call_forwarding_busy.err_text	Phone number required.
call_forwarding_busy.server_err_text	Unable to update data. Try again or contact the administrator.
call_forwarding_busy.invalid_phone_number_msg	Invalid phone number.
call_forwarding_no_answer.name	When No Answer
call_forwarding_no_answer.no_of_rings	Number of rings
call_forwarding_no_answer.err_text	Phone number required.

Key	Text
call_forwarding_no_answer.server_err_text	Unable to update data. Try again or contact the administrator.
call_forwarding_no_answer.invalid_phone_number_msg	Invalid phone number.
call_forwarding_not_reachable.name	When Not Reachable
call_forwarding_not_reachable.err_text	Phone number required.
call_forwarding_not_reachable.server_err_text	Unable to update data. Try again or contact the administrator.
call_forwarding_not_reachable.invalid_phone_number_msg	Invalid phone number.
simultaneous_ring.name	Simultaneous Ring
simultaneous_ring.off_text	OFF - Ring number not configured
simultaneous_ring.text	Ring multiple devices at the same time for incoming calls
simultaneous_ring.phone_number_required	Phone number required.
simultaneous_ring.donot_ring_when_oncall	Do Not Ring When On a Call
simultaneous_ring.ring_numbers	Ring Numbers
simultaneous_ring.answer_confirmation_required	Answer confirmation required
simultaneous_ring.when_to_ring	When to Ring
simultaneous_ring.error_duplicateNumber	Phone number exists.
block_caller_id.name	Block My Caller ID
remote_office.name	Remote Office
remote_office.text	Make calls from a remote phone and have it appear from your business line. In addition, any incoming calls to your business line will ring on this remote phone.
remote_office.remote_phone_number	Remote phone number
remote_office.phone_number_required	Phone number required.
remote_office.invalid_phone_number_msg	Invalid Phone number
anonymous_call_rejection.name	Anonymous Call Rejection
automatic_callback.name	Automatic Callback
call_waiting.name	Call Waiting
voice_management.name	Voicemail Service
voice_management.send_calls_to_voice_mail	Send Calls to Voicemail
voice_management.settings	Settings
voice_management.all_settings	All settings
voice_management.always	Always
voice_management.when_busy	When busy
voice_management.when_unanswered	When no answer

Key	Text
voice_management.number_of_rings	Number of rings
voice_management.when_message_arrives	When a message arrives
voice_management.use_unified_messaging	Use unified messaging.
voice_management.message_waiting_indicator	Message waiting indicator
voice_management.forward_to_email_address	Forward to email address.
voice_management.email_notification	Email Notification
voice_management.email_carbon_copy	Email Carbon Copy
voice_management.set_email_address	Set email address.
voice_management.press_0_to_transfer	Press '0' to transfer.
voice_management.email_address_required	Email address required.
voice_management.phone_number_required	Phone number required.
voice_management.invalid_phone_number_msg	Invalid phone number.
voice_management.invalid_email_address_msg	Invalid email address.
voice_management.none	None
broadworks_mobility.name	BroadWorks Mobility
broadworks_mobility.text	Configuring alerting options for incoming and outgoing calls per number.
broadworks_mobility.primary_number	Primary Number
broadworks_mobility.ring_fixed_devices	Ring fixed devices.
broadworks_mobility.shared_call_appearance	Shared call appearance
broadworks_mobility.broadworks_anywhere	BroadWorks Anywhere
broadworks_mobility.executive_assistant	Executive Assistant
broadworks_mobility.ring_mobile_devices	Ring mobile devices.
broadworks_mobility.mobile_number	Mobile Number
broadworks_mobility.enable_alerting	Enable alerting.
broadworks_mobility.general_settings	General settings
broadworks_mobility.all_settings	All settings
broadworks_mobility.alert_agent_calls	Alert agent calls.
broadworks_mobility.alert_click_to_dial_calls	Alert click to dial calls.
broadworks_mobility.alert_group_paging_calls	Alert group paging calls.
broadworks_mobility.answer_confirmation	Answer confirmation
broadworks_mobility.call_control_services	Call control services
broadworks_mobility.enable_diversion_inhibitor	Enable diversion inhibitor.
broadworks_mobility.use_mobility_calling_line_id	Use Mobility calling line ID.
broadworks_mobility.dont_forward_calls	Do Not Forward Calls.

Key	Text
broadworks_mobility.caller_id	Caller ID
broadworks_mobility.server_err_text	Unable to update data. Try again or contact the administrator.
broadworks_mobility.rng_mobile_dev_validation _msg	The BW Mobility Alerting Policy set to Ring Mobile Devices only. However, no mobile number to alert.
broadworks_mobility.devices_to_ring_checkbox_ validation	The BW Mobility Alerting Policy not set. The Alerting Policy must be set to Ring Fixed Devices or Ring Mobile Devices or ring both fixed and mobile devices.
broadworks_mobility.none	None
error.invalid_number	Invalid phone number.
out_of_office.name	Out of Office
out_of_office.off_text	OFF− Availability not specified
out_of_office.on_text	ON
out_of_office.text	Generate an auto-response message that includes your availability, when you will return, and the option to transfer the call to an alternate number.
out_of_office.availability	Availability
out_of_office.until	Until
out_of_office.transfer	Transfer
out_of_office.ring_splash	Ring Splash
out_of_office.business_trip	Business Trip
out_of_office.gone_for_the_day	Gone for the Day
out_of_office.lunch	Lunch
out_of_office.meeting	Meeting
out_of_office.out_of_office	Out Of Office
out_of_office.temporarily_out	Temporarily Out
out_of_office.training	Training
out_of_office.unavailable	Unavailable
out_of_office.vacation	Vacation
out_of_office.forever	Forever
out_of_office.one_day	1 day
out_of_office.one_hour	1 hour
out_of_office.none	None
out_of_office.expire_time_err	Invalid Expiration date time.
out_of_office.date_time_require	Expiration date time required.
sequential_ring.name	Sequential Ring
sequential_ring.off_text	OFF − When to Ring option not selected.

Key	Text
sequential_ring.text	Ring multiple devices one after the other for incoming calls.
sequential_ring.ring_base_location	Ring Base Location First.
sequential_ring.number_of_rings	Number of rings
sequential_ring.continue_if_busy	Continue if busy.
sequential_ring.caller_may_cancel	Caller May Cancel
sequential_ring.ring_numbers	Ring Numbers
sequential_ring.answer_confirmation_required	Answer confirmation required.
sequential_ring.when_to_ring	When to ring
sequential_ring.criteria_activation_required	At least one option must be selected to activate Sequential Ring.
sequential_ring.criteria_required	Criteria must be added to activate Sequential Ring.
sequential_ring.invalid_phone_number_msg	Invalid phone number.
callcenter.name	Call Center Queues
callcenter.status	Status
callcenter.unavailable_codes	Unavailable codes
callcenter.sign_in	Signed In
callcenter.sign_out	Signed Out
callcenter.available	Available
callcenter.unavailable	Unavailable
callcenter.wrap_up	Wrapping Up
callcenter.callcenter_id	Call Center ID's
callcenter.extension	ext.
callcenter.none	None
broadWorks_anywhere.name	BroadWorks Anywhere
broadWorks_anywhere.off_location_not_configured	OFF − Location not configured.
broadWorks_anywhere.off_location_not_enabled	OFF − Location not enabled.
broadWorks_anywhere.text	Use your selected phones as an extension of your business phone number and dial plan.
broadWorks_anywhere.alert_all_locations	Alert All Locations.
broadWorks_anywhere.ring_numbers	Ring Numbers.
broadWorks_anywhere.set_description	Set description.
broadWorks_anywhere.do_not_forward	Do not forward.
broadWorks_anywhere.answer_confirmation	Answer confirmation
broadWorks_anywhere.call_control	Call control

Key	Text
broadWorks_anywhere.phone_number_required	Phone number is required to activate BroadWorks Anywhere.
broadWorks_anywhere.phone_number_exists	Phone Number already exists.

The text provided for a language in the domain-specific folder (if present) overrides the values in the default folder. Otherwise, the values in the main configuration folder are taken as default values for the text for that language.

When a service provider has customized a few of the languages but not all, and the missing language is sent by the UC-One/Webex application, the text for the "en_US" language is displayed by the application. When a language is customized, all the text of the application is to be provided inside the JSON structure for that language.

5.6.2   Icons

The icons displayed in the Call Settings Web View application are customized by being placed in the domain-specific folder for a service provider.

The following table lists the icons that the application reads from the service provider's domain-specific folder.

Icon File Name	Size (In Pixels)	Icon Displayed At
incomingcalls.png	34 x 34	Incoming Calls Header
outgoingcalls.png	34 x 30	Outgoing Calls Header
call_control.png	30 x 31	Call Control Header
voicemail.png	32 x 27	Voicemail Header
chevron_header_open.png	34 x 21	Expanded section header icon − To Collapse
chevron_header_closed.png	34 x 21	Collapsed section header icon − To Expand
chevron _content_open.png	34 x 21	Expanded internal services section icon – To Collapse
chevron_content_closed.png	34 x 21	Collapsed internal services section icon – To Expand
arrow-down.png	8 x 5	Arrow in the drop-down list
checkbox_empty.png	26 x 26	
settings.png	335 x 335	Settings unavailable icon – When no settings is to be shown

5.7   Branding

5.7.1   Fonts and Colors

The colors used in the Call Settings Web view are pulled from the Control Hub Branding of the application, these populated values are passed and sent in a json file to CSWV when the user logs in to the app. Sample Json file sent is as shown in the figure 30 (*Please refer 'Webex for Broadworks solution Guide' Branding Section.*)

The following table lists the font sizes as expected by the Call Settings Web View application and their default values if not set.

Font Category	Used For	Default Value	
RestrictiveButtonStyle	Header text, service names	iOS_Mob iOS_Tab android_Mob android_Tab win_DT mac_DT	− 16 − 16 − 16 − 16 − 14 − 14
RestrictiveLabelStyle	Inner text under the services, field names	iOS_Mob iOS_Tab android_Mob android_Tab win_DT mac_DT	− 14 − 14 − 14 − 14 − 12 − 12
RestrictiveSmallLabelStyle	Validation errors, service on and off status text	iOS_Mob iOS_Tab android_Mob android_Tab win_DT mac_DT	− 13 − 13 − 13 − 13 − 10 − 10

The following table lists the colors as expected by the Call Settings Web View application and their default values, if not set. How the Color Category lists are used are shown in the Figure below

Color Category	Used For	Default Value
PrimaryButton	Check box selected. Heads on switch indicators (ON). Line on the switch indicators (ON) (30% opacity).	#2DBD9B
PrimaryButtonText	Text color of the primary button.	PrimaryText
ContentBackground	Background for the service name headers. Header separators. Section separators.	#FFFFFF
ControlBackground	Background for the section headers and contents with sections nested under them.	#F8F8F8
PrimaryBackground	Background for the headers.	#2DBD9B
PrimaryText	Text for the headers.	#FFFFFF
PrimaryContentText	Service names.	#323232
DimmedText	Status text below the service names. Placeholder text. Line for input text fields that have empty values. Heads on switch indicators (OFF). Line on the switch indicators (OFF) (30% opacity),	#b4b4b4
Separators	Separator lines between the services.	#F0F0F0

Color Category	Used For	Default Value
SymbolicGreen	Line for input text fields when the user is typing a value.	#2DBD9B
SymbolicRed	Validation error messages. Line for input text fields that have the validation error. Indicator message text to complete enabling a service.	#FF3347

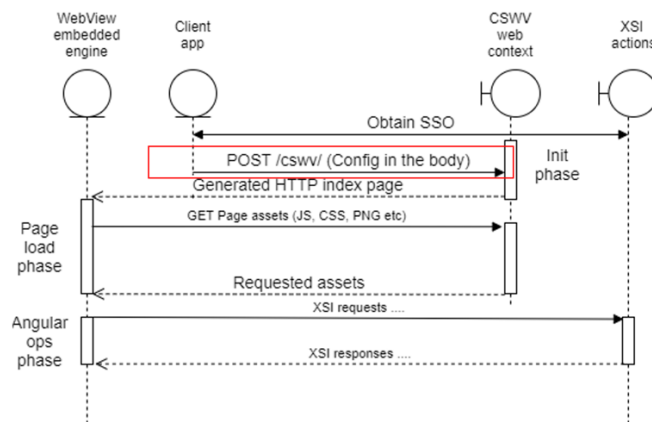# When the vars are applied?

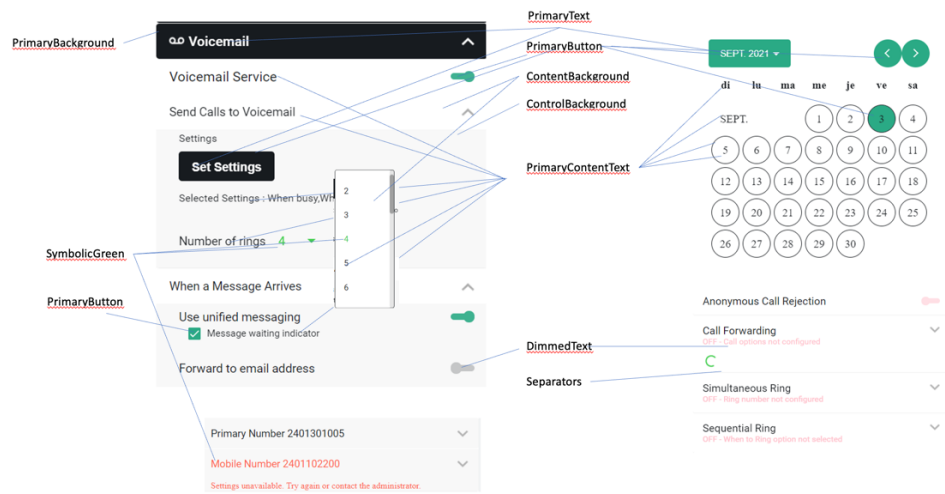Figure 27 : When the Variables are applied

Figure 28 : Color Categories explained -1
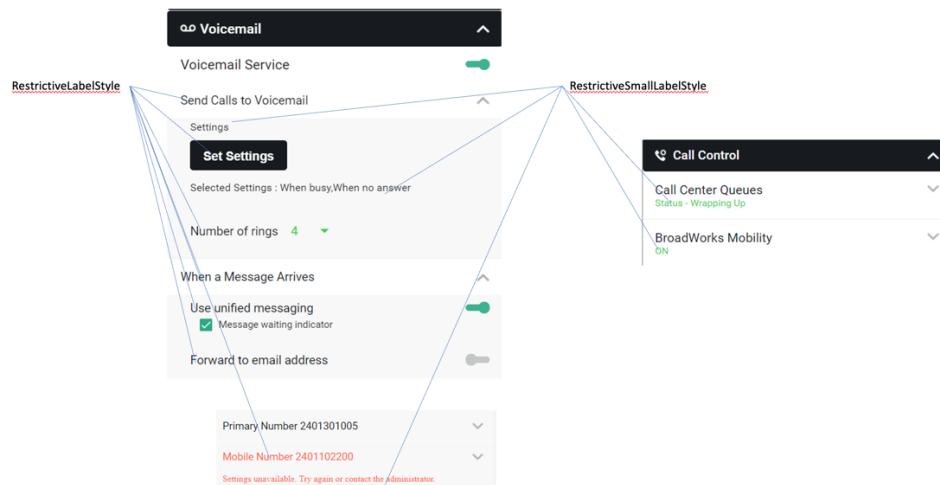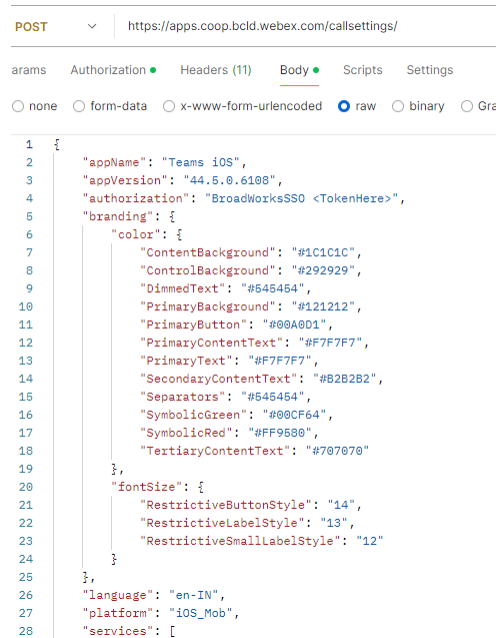
Figure 29 : Color Categories explained -2

Passing Colors to CSWV

The Colors are passed to CSWV from the Client during the initial POST request sent. The branding of the Colors is set by the Client Settings only.
(*Please refer 'Webex for Broadworks solution Guide' Branding Section.*)

```
POST     ⌄    https://apps.coop.bcld.webex.com/callsettings/

arams   Authorization ●   Headers (11)   Body ●   Scripts   Settings

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   ○ Gra

 1   {
 2       "appName": "Teams iOS",
 3       "appVersion": "44.5.0.6108",
 4       "authorization": "BroadWorksSSO <TokenHere>",
 5       "branding": {
 6           "color": {
 7               "ContentBackground": "#1C1C1C",
 8               "ControlBackground": "#292929",
 9               "DimmedText": "#545454",
10               "PrimaryBackground": "#121212",
11               "PrimaryButton": "#00A0D1",
12               "PrimaryContentText": "#F7F7F7",
13               "PrimaryText": "#F7F7F7",
14               "SecondaryContentText": "#B2B2B2",
15               "Separators": "#545454",
16               "SymbolicGreen": "#00CF64",
17               "SymbolicRed": "#FF9580",
18               "TertiaryContentText": "#707070"
19           },
20           "fontSize": {
21               "RestrictiveButtonStyle": "14",
22               "RestrictiveLabelStyle": "13",
23               "RestrictiveSmallLabelStyle": "12"
24           }
25       },
26       "language": "en-IN",
27       "platform": "iOS_Mob",
28       "services": [
```

Figure 30 : Sample of Colors sent to CSWV from Initial Post

5.8   Communication with Xsi-Actions

The Call Settings Web View application makes HTTP calls to the Xsi-Actions application to get the values for the settings of all the services. The URL or the context path to invoke the Xsi-Actions application is configured from the *xsiContextPathOrUrl* CLI setting as mentioned in section *11.2.2 Add "General" Context*. If a (complete) URL is configured, then the value is used as such. If only a context path (or a partial URL) is configured, the host part is used as the same from which the Call Settings Web View application is accessed.

The remaining URI of the URL to access the Xsi-Actions, depends upon the service that is "get" or "set".

For example, if only the context path is set for the *xsiContextPathOrUrl* CLI setting, and if Call Settings Web View application is accessed with https://xsp1.broadsoft.com/csw/, where https://xsp1.broadsoft.com is the scheme and domain of Call Settings Web View , then Xsi-Actions is accessed with https://xsp1.broadsoft.com/[xsi-actions context]/.

The Xsi-Actions must be configured to support cross-origin resource sharing (CORS) requests if the *xsiContextPathOrUri* is set to a complete URL whose domain or host is different from the domain or host of the URL with which the Call Settings Web View application is accessed.

Therefore, if a complete URL is set for the *xsiContextPathOrUrl* CLI setting, https://internalnode.broadsoft.com/com.broadsoft.xsi-actions, and if Call Settings Web View application is accessed with https://xsp1.broadsoft.com/csw/, then Xsi-Actions is always accessed with https://internalnode.broadsoft.com/[xsi-actions context]/.

In this case, Xsi-Actions must be configured to accept a CORS request from the xsp1.broadsoft.com.

The default value of *xsiContextPathOrUrl* is set to a partial URL as */com.broadsoft.xsi-actions*.

6 User Accessibility

6.1 Keyboard Navigation Support

The application provides support for keyboard navigation when used in desktop clients. The user can navigate all the components in the application. In addition, the user can change the settings and values for all the components in the application using the keyboard alone.

The user can navigate throughout the components in the application using TAB key. The values for the settings can be toggled by pressing the ENTER key. The user can change the value for a setting by entering the new value that accepts inputs and by pressing ENTER key. The different values in a drop-down list that has multiple selections can be selected or deselected by pressing the SPACE key. The options in a drop-down list that has multiple selections are hidden when you press the ESCAPE key.

6.2 Screen Reader Support

The application provides support to the screen readers installed on the user's devices. The different texts and components in the application are read out to the users when the control is placed over a text or component.

6.3 Dictation Support

The application supports the dictation of texts or numbers for the fields that accept inputs from the user using dictation. Support for dictation is provided for the android and iOS devices.

7   Service Interactions

There are no impacts.

8 System Management

8.1 Accounting

There is no impact.

8.2 Monitoring and Troubleshooting

8.2.1 Alarms and PMs

There is no impact.

8.2.2 Commands and Utilities

There is no impact.

8.3 Device Management

There is no impact.

9   Restrictions and Limitations

9.1   Functional Limitations

The following are the functional limitations:

- The performance of the application in enabling or disabling the services depends upon the Xsi-Actions application deployed on the Xtended Services Platform.

- The settings data in the application is not real time. It fetches the latest data only on refresh or when the user re-opens a group.

- The UC-One/Webex application that uses the Call Settings Web View application, should support cookies in the Web View for the application to work.

- The native UI components such as date picker, select option, and multi-select options, which are part of the application are based on the OS and/or the device, and their display cannot be controlled by the application.

9.2   Upgrade/Rollback Limitations

There is no impact.

9.3   Enterprise Migration Restrictions

There is no impact.

10 Service Patch Information

The application works on Xtended Services Platforms from Release 21.0 and above.

10.1　Functional Differences

10.1.1 Provisioning Differences

There are no differences.

10.1.2 Feature Operational Differences

There are no differences.

10.1.3 Service Interaction Differences

There are no differences.

10.1.4 System Management Differences

There are no differences.

10.2　Feature Activation Impacts

10.2.1 Method of Activation

There is no impact.

10.2.2 Activatable Feature ID and Dependencies

There is no impact.

11 Provisioning Interface Impacts

11.1 Centralized Configuration Data

11.1.1 Data Types

There is no impact.

11.2 CLI Impacts

11.2.1 Summary

```
.XSP_CLI
…Applications
…..BWCallSettingsWeb_<version>

………….General
…………………xsiActionsContextOrURL [ get delete set ]


………….Branding
…………………customPath [ get delete set ]
```

Figure 22 CLI Hierarchy Changes

11.2.2 Add "General" Context

Location
XSP_CLI/Applications/BWCallSettingsWeb_<version>/General

Description
This level is used to view and modify the general settings for the Call Settings Webview application.

11.2.2.1 Command set

Location
XSP_CLI/Applications/BWCallSettingsWeb_<version>/General

Description
This command is used to modify the general settings for the Call Settings Webview application.

Syntax

```
set
    <attribute>, Multiple Choice = {xsiActionsContextOrURL,
displayCriteriaOrScheduleName, applicationMode}
        <applicationMode>, String {1 to 5 characters}
        <displayCriteriaOrScheduleName>, String {1 to 255 characters}
        <xsiActionsContextOrURL>, String {1 to 255 characters}
```

Parameters

```
attribute          : The name of an attribute to modify.
applicationMode : Application mode switch (Production or Development).
Respective options are : [prod , dev]. Default: prod
displayCriteriaOrScheduleName : This parameter can be set to display the
sequential and simultaneous rings with respect to criteria name or schedule
name. Respective options are : [criteria , schedule] Default: criteria
xsiActionsContextOrURL : This parameter can be set as context path of Xsi-
Actions or a URL till the context path of Xsi-Actions, where the FQDN of the URL
should be a clustered host name. If the parameter is set to partial URL i.e. the
contextPath, then the FQDN of the URL shall be formed from the host of the
incoming request.
```

Example

```
XSP_CLI/Applications/BWCallSettingsWeb_<version>/General> set
xsiActionsContextOrURL /com.serviceprovider.xsi-actions
…Done
*** Warning: BroadWorks needs to be restarted for the changes to take effect ***
```

11.2.2.2 Command get

Location

XSP_CLI/Applications/BWCallSettingsWeb_<version>/General

Description

This command is used to view the general settings for the Call Settings Webview application.

Syntax

```
get
get takes no parameter
```

Parameters

Example

```
XSP_CLI/Applications/BWCallSettingsWeb_<version>/General> get
xsiActionsContextOrURL=/com.serviceprovider.xsi-actions [default]
displayCriteriaOrScheduleName=criteria [default]
applicationMode=prod [default]
```

11.2.2.3 Command clear

Location

XSP_CLI/Applications/BWCallSettingsWeb_<version>/General

Description

This command is used to clear the general settings for the Call Settings Webview application.

Syntax

```
clear
    <attribute>, Multiple Choice = {xsiActionsContextOrURL}
```

Parameters

attribute   : The name of an attribute to clear.

Example

```
XSP_CLI/Applications/BWCallSettingsWeb_<version>/General> clear
xsiActionsContextOrURL
*** Warning: BroadWorks needs to be restarted for the changes to take effect ***
```

11.2.3 Add "Branding" Context

Location

XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding

Description

This level is used to view and modify the branding related attributes for the Call Settings Webview application.

11.2.3.1 Command set

Location
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding

Description
This command is used to modify the branding related attributes for the Call Settings Webview application.

Syntax
set   <attribute>, Multiple Choice = {customPath}   <customPath>, String {1 to 255 characters}

Parameters
attribute   : The name of an attribute to modify. customPath: This parameter specifies the location where the custom branding files are stored on disk in this XSP.

Example
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding> set customPath /var/broadworks/BWCallSettingsWeb …Done *** Warning: BroadWorks needs to be restarted for the changes to take effect ***

11.2.3.2 Command get

Location
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding

Description
This command is used to view the branding related attributes for the Call Settings Webview application.

Syntax
get get takes no parameter

Parameters

Example
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding> get customPath=/var/broadworks/BWCallSettingsWeb

11.2.3.3 Command clear

Location
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding

Description
This command is used to clear the branding related attributes for the Call Settings Webview application.

Syntax
clear   <attribute>, Multiple Choice = {customPath}

Parameters
attribute   : The name of an attribute to modify.

Example
XSP_CLI/Applications/BWCallSettingsWeb_<version>/Branding> clear customPath / *** Warning: BroadWorks needs to be restarted for the changes to take effect ***

11.3   Open Client Interface-Provisioning Impact

11.3.1   Summary

There is no impact.

11.3.2   Command Impacts

There is no impact.

11.3.3   Deprecated Commands

There is no impact.

11.3.4   Reporting Impacts

There is no impact.

11.4   External Authentication Impacts

There is no impact.

11.5   Application Server Portal API Impacts

There is no impact.

11.6   Network Server Location API Impacts

There is no impact.

11.7   NSSync API Impacts

There is no impact.

11.8   Application Server Dump Impacts

There is no impact.

11.9   BroadCloud Dump Impacts

There is no impact.

11.10   Service License Reporting Impact

There is no impact.

11.11   Treatments

There is no impact.

11.12   Media Announcements (Audio and Video)

There is no impact.

11.13   BroadWorks Common Communication Transport Impacts

There is no impact.

11.14 Device Management Impacts

There is no impact.

12 Accounting Impacts

12.1 Summary of Changes

There is no impact.

12.2 Generation of Accounting Records

There is no impact.

12.3 Impact to Accounting Fields (CDR)

There is no impact.

12.4 Original Called Reason and Redirection Reason

There is no impact.

12.5 Related Call ID

There is no impact.

13 System Management Impacts

13.1 Performance Management Impacts

There is no impact.

13.2 Fault Management Impacts

There is no impact.

13.3 Scripts and Tools

There is no impact.

13.4 EMS Integration Impacts

There is no impact.

14 Execution/Call Processing Impacts

14.1 Xtended Services Interface Impact

There is no impact.

14.2 SIP/MGCP Interface Impact

14.2.1 Summary

There is no impact.

14.2.2 SIP Header/MGCP Command

There is no impact.

14.2.3 SIP Parameter/MGCP Signal/Event

There is no impact.

14.2.4 Message Example

There is no impact.

15 Client Application Impacts

15.1 OCI-P Impacts

There is no impact.

15.2 Call Control Impacts

There is no impact.

15.3 Window Impacts

15.3.1 Configuration Dialog Impacts

There is no impact.

15.3.2 Supplemental Interface Impacts

There is no impact.

16 Deployment/Operational Impacts

16.1 Configuration File Impacts

16.2 Security Impacts

The Call Settings Web View application is hosted on the Xtended Services Platform and any request from it to Xsi-Actions is authenticated by the platform using the *BWRealm* filter.

To initiate an application client session with the Call Settings Web View application, clients such as UC-One must validate their Cisco BroadWorks credentials in the HTTP POST request body. It is recommended that this application is accessed over HTTPS only.

The Call Settings Web View application does not depend upon the UC-One clients to provide details such as a password, the Xsi-Actions URL, or the Xtended Services Platform address.

Furthermore, the overload access of the application that accesses Xsi-Actions is controlled by the overload control in the Xsi-Actions only and it does not allow a large number of requests to pass through and reach the Cisco BroadWorks platform at the same time.

16.2.1 Security Toolkit Impact

There is no impact.

16.2.2 Application Server Default Hardening Impact

There is no impact.

16.3 Scheduled Tasks

There is no impact.

16.4 Third-Party Software

There is no impact.

16.5 Server Logging Impacts

There is no impact.

16.6 Client Application Impacts

16.6.1 Deployment Studio Impacts

There is no impact.

16.6.2 Configuration Impacts

There is no impact.

16.6.3 Host Application Impacts

There is no impact.

16.6.4 Third-Party Integration Impacts

There is no impact.

17 System Engineering Impacts

17.1 Processing Impacts

The Call Settings Web View (CSWV) consists of two components:

- Call Settings Web View Server (CSWV-Server) – this is the web app application hosted on Xtended Services Platform (Xsp), similar to Xsi-Actions.

- Call Wettings Web View Client (CSWV-Client) – this is the HTML page and java script code loaded by a client app (like UC-One Connect) in a Web View inside the client.

When the CSWV-Server application is invoked from the client (for example, from UC-One Connect), there is one Tomcat thread spawned on the server to be consumed by the CSWV-Server application that loads up the initial layout of the application. This thread exists only until the initial layout of the HTML page is loaded.

Once the HTML page is loaded for the CSWV-Client application of the UC-One client, the CSW-Client application makes direct HTTP calls to the Xsi-Actions application to get or set the settings for the services, which generates one Tomcat thread per HTTP call to be consumed by the Xsi-Actions. These HTTP calls do not engage the CSWV-Server application.

17.1.1 New Time-Outs

There is no impact.

17.2 Memory Impacts

There is no impact.

17.3 Disk Usage Impacts

There is no impact.

17.4 Port Usage Impacts

There is no impact.

17.5 Hardware Impacts

There is no impact.

17.6 Client Application Messaging Impacts

When the user opens the Call Settings menu in the UC-One/Webex application – the CSW-Client sends a POST request to the CSW-Server application to load the HTML page in the Web View of the UC-One client.

Once the HTML page is rendered for the CSW-Client application of the UC-One client, the CSW-Client application makes direct HTTP requests to the Xsi-Actions. All these request responses are asynchronous in nature.

The CSW-Client makes an HTTP GET call to get the list of services assigned to the user. The Cisco BroadWorks credentials are also validated by including it in this request, which is the first request from the application.

> **NOTE**: The services to be displayed by the application are those that are on the list of assigned services and whose visibility is **not** set to "false" in the HTTP POST JSON body from the UC-One/Webex application. For more information about configuring the visibility of services to the end user, see section *5 Feature Operation*.

For each of the services to be displayed, the HTTP GET call for that service is invoked from the CSW-Client in the application to Xsi-Actions. Whenever a user makes any changes to the service settings, the corresponding HTTP PUT call for that service is invoked by the CSW-Client sending the modified data in the HTTP PUT body. The HTTP PUT body is included in XML format to the Xsi-Actions API.

> **NOTE**: Requests for getting and setting services are always invoked from the CSW-Client application directly to Xsi-Actions. These are the same type of requests that are executed by the client applications that do not use Call Settings Web View , like Communicator Desktop or Communicator Mobile.

Peak Scenario

There is no impact identified during the peak scenario by the Call Settings Web View application (CSW-Client and CSW-Server). It does not contribute to the client start-up or login phase.

Typical Scenario

1) Initialization

    The Call Settings Web View application session is initialized when the user clicks the Call Settings link in the client application (for example, in UC-One Connect). This opens the CSW-Client Web View where the HTML page retrieved from the CSW-Server is rendered and then gets the list of services from Xsi-Actions.

    This results in one Tomcat thread (to be consumed by Xsi-Actions) that generates the login credentials with the platform and another Tomcat thread (to be consumed by the CSW-Server application) that loads the initial layout of the application. Once the application is loaded, there is the third Tomcat thread (as a result of the HTTP request from the CSW-Client) that is initiated to the Xsi-Actions application, to get the list of services assigned for the user.
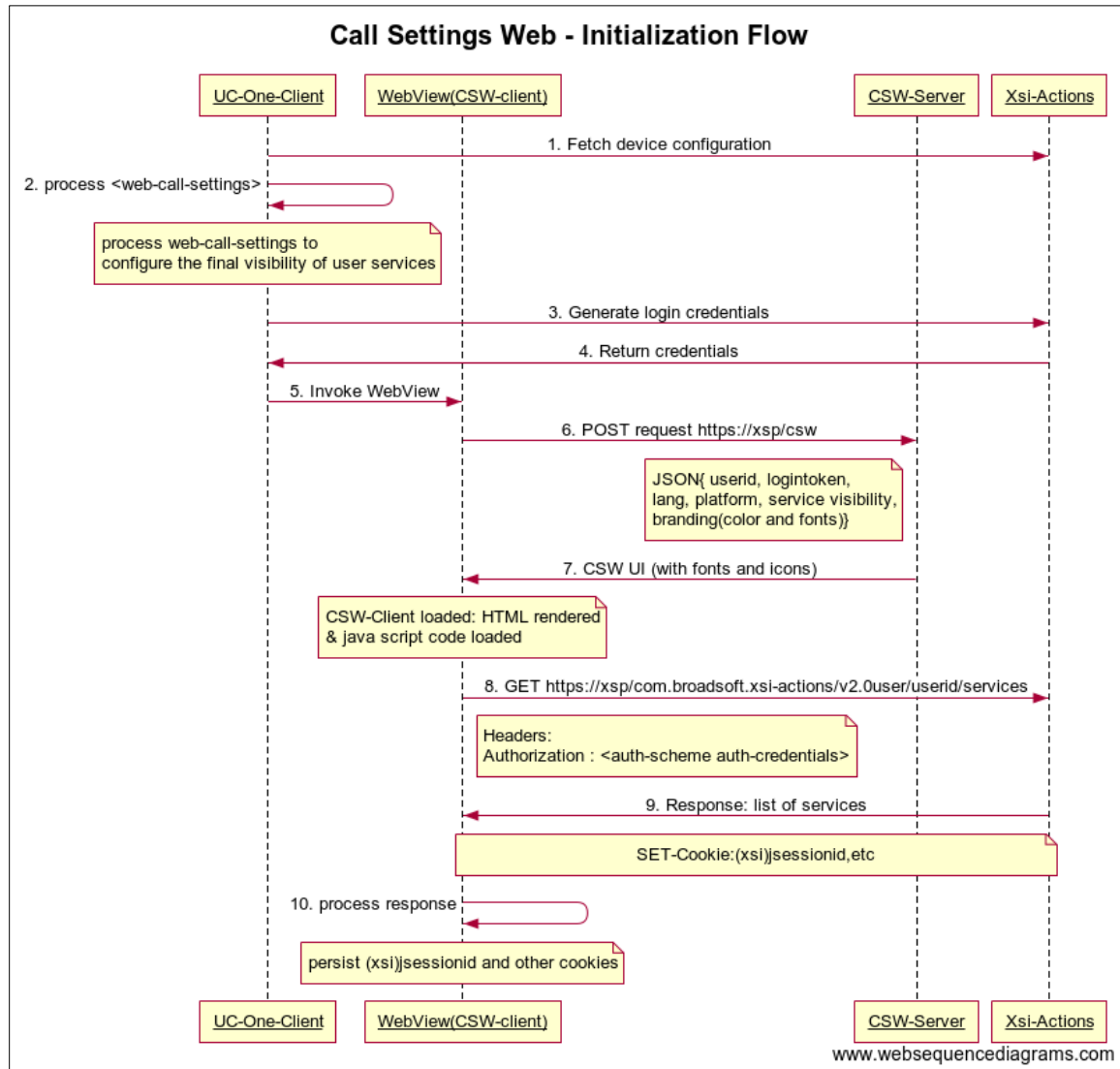
Figure 23 Call Settings Application Authentication Flow

2) Post Initialization

Post initialize each call to retrieve or update the service configuration from the Call Settings Web View application results in one HTTP request to Xsi-Actions and one Open Client Interface (OCI) request to Cisco BroadWorks from Xsi-Actions as shown in the following figure.
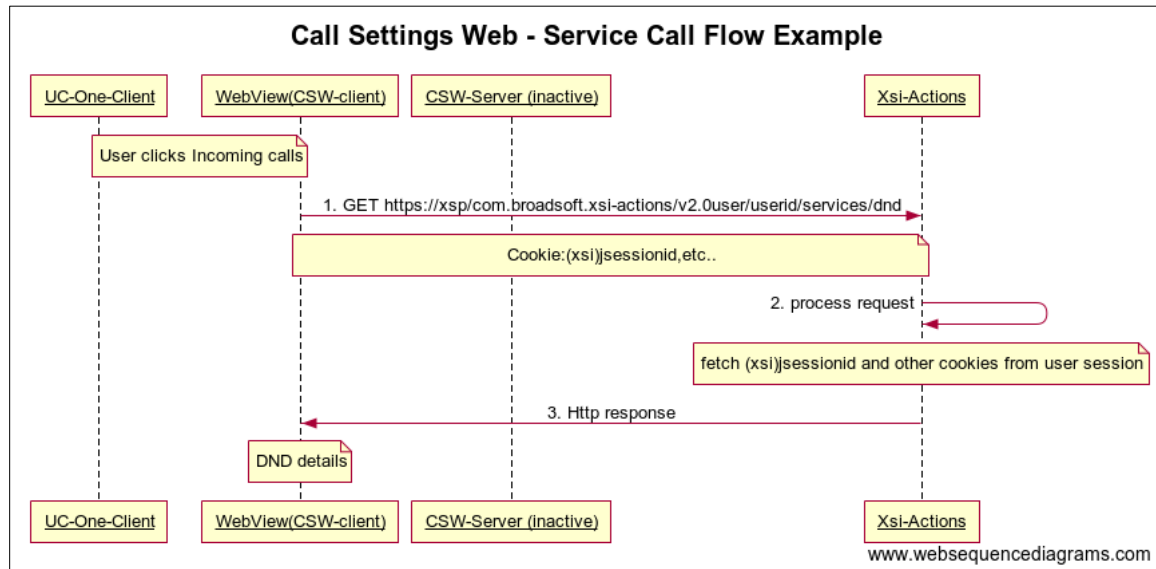
Figure 24 Call Settings Example Service Call Flow

3) Incoming Calls

When the user clicks the Incoming Calls group, it fires at most nine HTTP calls to the Xsi-Actions application to retrieve information for the services, such as the following: Do Not Disturb, Anonymous Call Rejection, Call Forwarding Always, Call Forwarding Busy, Call Forwarding No Answer, Call Forwarding Not Reachable, Sequential Ring, Simultaneous Ring, Remote Office, Call Waiting, and Personal Assistant.

In total, this means nine HTTP calls (Tomcat thread) to Xsi-Actions and nine OCI calls to Cisco BroadWorks.

4) Outgoing Calls

When the user clicks the Outgoing Calls group, it fires at most two HTTP calls to the Xsi-Actions application to retrieve information for services such as Block My Caller ID and Automatic Callback.

In total, this means two HTTP calls (Tomcat thread) to Xsi-Actions and two OCI calls to Cisco BroadWorks.

5) Voicemail

When the user clicks Voicemail, it fires at most two HTTP calls to the Xsi-Actions application to retrieve information for services such as Voice Management and the data for number of rings.

In total, this means two HTTP calls (Tomcat thread) to Xsi-Actions and two OCI calls to Cisco BroadWorks.

6) Call Control

When the user clicks Call Control group, it sends at least four additional HTTP calls (with respect to the present HTTP calls made) to the Xsi-Actions application to retrieve information for the following:

− Call Center

− BroadWorks Anywhere service

− Information for unavailable codes

− Call Center names

The user profile is fetched whenever the user clicks on Call Control. There may be additional HTTP GET calls for the BroadWorks Anywhere service depending on the number of locations configured for the service.

In total, this means four additional HTTP calls (Tomcat thread) to Xsi-Actions and four OCI calls to Cisco BroadWorks.

In addition to the preceding information in this section, an HTTP GET call to the Xsi-Actions is sent to retrieve the latest information for that service when the user clicks on a service. This means one HTTP call (Tomcat thread) to Xsi-Actions and one OCI call to Cisco BroadWorks.

The following table shows the other Xsi-Actions call made by the Call Settings Web View application in different scenarios.

Serial Number	Type	Outgoing	Incoming	When
		When Incoming Calls group is clicked		
1	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/personalassistant Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/json;charset=ISO-8859-1 {"PersonalAssistant":{"@xmlns":{"$": "http:\/\/schema.broadsoft.com\/xsi"}, "presence":{"$":"None"},"enableExpirationTime":{"$":"false"},"enableTransferToAttendant":{"$":"false"},"ringSplash":{"$":"false"}}}	Invoked: i) When the user expands the *Incoming Calls* section ii) When the user collapses and expands the *Out of Office* service section. Get the service status and configuration for the Personal Assistant service if the service is assigned to a user.

Serial Number	Type	Outgoing	Incoming	When
2	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/sequentialring Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/json;charset=ISO-8859-1 {"SequentialRing":{"@xmlns":{"$":"http:\/\/schema.broadsoft.com\/xsi"},"ringBaseLocationFirst":{"$":"true"},"baseLocationNumberOfRings":{"$":"3"},"continueIfBaseLocationIsBusy":{"$":"true"},"callerMayStopSearch":{"$":"true"},"location1":{"numberOfRings":{"$":"3"},"answerConfirmationRequired":{"$":"false"}},"location2":{"numberOfRings":{"$":"3"},"answerConfirmationRequired":{"$":"false"}},"location3":{"numberOfRings":{"$":"3"},"answerConfirmationRequired":{"$":"false"}},"location4":{"numberOfRings":{"$":"3"},"answerConfirmationRequired":{"$":"false"}},"location5":{"numberOfRings":{"$":"3"},"answerConfirmationRequired":{"$":"false"}},"criteriaActivationList":{}}}	Invoked: i) When the user expands the _Incoming Calls_ section. ii) When the user collapses and expands the _Sequential Ring_ service section. Get the service status and configuration for the Simultaneous Ring Personal service if the service is assigned to a user.
		When Call Control group is clicked		
3	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/callcenter Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/json;charset=ISO-8859-1 {"CallCenter":{"@xmlns":{"$":"http:\/\/schema.broadsoft.com\/xsi"},"agentACDState":{"$":"Sign-Out"},"useDefaultGuardTimer":{"$":"true"},"enableGuardTimer":{"$":"false"},"guardTimerSeconds":{"$":"5"},"useSystemDefaultUnavailableSettings":{"$":"true"},"forceAgentUnavailableOnDNDActivation":{"$":"false"},"forceUnavailableOnPersonalCalls":{"$":"false"},"forceAgentUnavailableOnBouncedCallLimit":{"$":"false"},"numberConsecutiveBouncedCallsToForceAgentUnavailable":{"$":"3"},"makeOutgoingCallsAsCallCenter":{"$":"false"},"callCenterList":{"callCenterDetails":{"serviceUserId":{"$":"CCBasic1@dev.com"},"available":{"$":"true"},"isLogOffAllowed":{"$":"false"}}}}}	Invoked: i) When the user expands the _Call Control_ section. ii) When the user collapses and expands the _Call Center Queues_ service section. Get the service status and configuration for the call center if any of the call center-related services is assigned to a user.

Serial Number	Type	Outgoing	Incoming	When
4	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/callcenter/<callcenterId>/profile Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/json;charset=ISO-8859-1 {"ACDProfile":{"@xmlns":{"$":"http:\/\/schema.broadsoft.com\/xsi"},"serviceInstanceProfile":{"name":{"$":"CCBasic1"},"callingLineIdLastName":{"$":"CallCenter"},"callingLineIdFirstName":{"$":"Basic1"},"hiraganaLastName":{"$":"Call Center"},"language":{"$":"English"},"timeZone":{"$":"Asia\/Kolkata"},"timeZoneDisplayName":{"$":"(GMT+05:30) Asia\/Kolkata"}},"type":{"$":"Basic"},"policy":{"$":"Regular"},"enableVideo":{"$":"false"},"queueLength":{"$":"0"},"allowCallerToDialEscapeDigit":{"$":"true"},"escapeDigit":{"$":"0"},"allowAgentLogoff":{"$":"false"},"allowCallWaitingForAgents":{"$":"false"},"overrideAgentWrapUpTime":{"$":"false"},"forceDeliveryOfCalls":{"$":"false"},"externalPreferredAudioCodec":{"$":"None"},"internalPreferredAudioCodec":{"$":"None"},"playRingingWhenOfferingCall":{"$":"true"},"externalReporting":{"$":"false"}}}	Invoked when the user expands the *Call Center Queues* service section. Get the detail for each of the call center IDs to which the user is assigned.
5	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/group/<groupid>/services/callcenter/unavailablecodes?serviceProviderId=<serviceProviderId> http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/group/<groupid>/services/callcenter/unavailablecodes?enterpriseId=<enterpriseId> Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/json;charset=ISO-8859-1 {"ACDAgentUnavailableCodes":{"@xmlns":{"$":"http:\/\/schema.broadsoft.com\/xsi"},"enableAgentUnavailableCodes":{"$":"true"},"defaultAgentUnavailableCodeOnDND":{"$":"DND"},"defaultAgentUnavailableCodeOnPersonalCalls":{"$":"Pers"},"defaultAgentUnavailableCodeOnConsecutiveBounces":{"$":"bounce"},"forceUseOfAgentUnavailableCodes":{"$":"false"},"unavailableCodes":{"unavailableCodeDetail":[{"active":{"$":"true"},"code":{"$":"DND"},"description":{"$":"do not disturb"}},{"active":{"$":"true"},"code":{"$":"Pers"},"description":{"$":"personal call"}},{"active":{"$":"false"},"code":{"$":"bounce"},"description":{"$":"bounced calls"}},{"active":{"$":"false"},"code":{"$":"test1"},"description":{"$":"test code1"}}]}}}	Invoked when the user expands the *Call Center Queues* service section. Get the list of unavailable codes assigned for the group under a service provider or enterprise.

Serial Number	Type	Outgoing	Incoming	When
6	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/profile/ Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/json;charset=ISO-8859-1 {"Profile":{"@xmlns":{"$":"http:VVschema.broadsoft.comVxsi"},"details":{"userId":{"$":"btbcuser30@broadsoft.com"},"firstName":{"$":"Nathan"},"lastName":{"$":"Muir"},"hiraganaLastName":{"$":"Muir"},"hiraganaFirstName":{"$":"Nathan"},"groupId":{"$":"SOF_BTBC"},"serviceProvider":{"@isEnterprise":"true","$":"BroadSoft"},"number":{"$":"2407200939"},"extension":{"$":"00939"}},"additionalDetails":{"location":{"$":"700"},"impId":{"$":"btbcuser30@broadsoft.com"}},"passwordExpiresDays":{"$":"2147483647"},"fac":{"$":"Vv2.0VuserVbtbcuser30@broadsoft.comVprofileVFac"},"registrations":{"$":"Vv2.0VuserVbtbcuser30@broadsoft.comVprofileVRegistrations"},"scheduleList":{"$":"Vv2.0VuserVbtbcuser30@broadsoft.comVprofileVSchedule"},"portalPasswordChange":{"$":"Vv2.0VuserVbtbcuser30@broadsoft.comVprofileVPasswordVPortal"},"countryCode":{"$":"1"}}}	Invoked: i) When the user expands the *Call Control* section. ii) When the user collapses and expands the *Call Center* service section. iii) When the user collapses and expands the *BroadWorks Mobility* service section. Get the fixed line number assigned to the user to appear in the phone number persona on the BroadWorks Mobility page if the BroadWorks Mobility service is assigned to the user.
7	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/broadWorksanywhere Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1 {"BroadWorksAnywhere":{"@xmlns":{"$":"http:VVschema.broadsoft.comVxsi"},"alertAllLocationsForClickToDialCalls":{"$":"true"},"alertAllLocationsForGroupPagingCalls":{"$":"false"},"locations":{"location":[{"locationUri":{"$":"Vv2.0VuserVbtbcuser161@broadsoft.comVservicesVbroadWorksanywhereVlocationV2453609611"},"phoneNumber":{"$":"2453609611"},"active":{"$":"true"},"description":{"$":"test5"}},{"locationUri":{"$":"Vv2.0VuserVbtbcuser161@broadsoft.comVservicesVbroadWorksanywhereVlocationV237"},"phoneNumber":{"$":"237"},"active":{"$":"true"},"description":{"$":"something"}},{"locationUri":{"$":"Vv2.0VuserVbtbcuser161@broadsoft.comVservicesVbroadWorksanywhereVlocationV2453609617"},"phoneNumber":{"$":"2453609617"},"active":{"$":"true"},"description":{"$":"new53534"}}]}}}	Invoked: i) When the user expands the *Call Control* section. ii) When the user collapses and expands the *BroadWorks Anywhere* service section. Get the service status and configuration for the BroadWorks Anywhere service if the service is assigned to a user.

Serial Number	Type	Outgoing	Incoming	When
8	HTTP GET	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/broadWorksanywhere/location/<phoneNumber> Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1 {"BroadWorksAnywhereLocation":{"@xmlns":{"$":"http:\/\/schema.broadsoft.com\/xsi"},"phoneNumber":{"$":"2453609611"},"description":{"$":"test5"},"active":{"$":"true"},"broadWorksCallControl":{"$":"false"},"useDiversionInhibitor":{"$":"false"},"answerConfirmationRequired":{"$":"false"}}}	Invoked: i) When the user expands the *Call Control* section. ii) When the user collapses and expands the *BroadWorks Anywhere* service section. Get the configuration for each of the phone numbers configured under the BroadWorks Anywhere service for the user.
center: **When services are modified by the user under Incoming Calls section**				
9	HTTP PUT	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/personalassistant Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="ISO-8859-1"?><PersonalAssistantxmlns="http://schema.broadsoft.com/xsi"><presence>BusinessTrip</presence><enableExpirationTime>true</enableExpirationTime><expirationTime>2017-07-20T23:59:59.000+05:30</expirationTime></PersonalAssistant>	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to set the service status and configuration for the Personal Assistant service if the user changes the settings for the service.
10	HTTP PUT	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/sequentialring Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to set the service status and configuration for the Sequential Ring service if the user changes the settings for the service.

Serial Number	Type	Outgoing	Incoming	When
		X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=\<SessionId\>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="ISO-8859-1"?> <SequentialRing xmlns="http://schema.broadsoft.com/xsi"><location1><address>2342342323</address><numberOfRings>3</numberOfRings><answerConfirmationRequired>false</answerConfirmationRequired></location1><location2><address>23</address><numberOfRings>6</numberOfRings><answerConfirmationRequired>true</answerConfirmationRequired></location2><location3><address xs:nil="true" xmlns:xs="http://www.w3.org/2001/XMLSchema-instance"/><numberOfRings>3</numberOfRings><answerConfirmationRequired>false</answerConfirmationRequired></location3><location4><address xs:nil="true" xmlns:xs="http://www.w3.org/2001/XMLSchema-instance"/><numberOfRings>3</numberOfRings><answerConfirmationRequired>false</answerConfirmationRequired></location4><location5><address xs:nil="true" xmlns:xs="http://www.w3.org/2001/XMLSchema-instance"/><numberOfRings>3</numberOfRings><answerConfirmationRequired>false</answerConfirmationRequired></location5></SequentialRing>		

Serial Number	Type	Outgoing	Incoming	When
		When services are modified by user under Call Control section		
11	HTTP PUT	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/callcenter Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="UTF-8"?><CallCenter xmlns="http://schema.broadsoft.com/xsi"><agentACDState>Available</agentACDState></CallCenter>	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to set the service status and configuration for the Call Center service if the user changes the settings for the service.
12	HTTP PUT	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/broadWorksanywhere Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="ISO-8859-1"?><BroadWorksAnywherexmlns="http://schema.broadsoft.com/xsi"><alertAllLocationsForClickToDialCalls>true</alertAllLocationsForClickToDialCalls></BroadWorksAnywhere>	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to set the service status and configuration for the BroadWorks Anywhere service if the user changes the settings for the service.

Serial Number	Type	Outgoing	Incoming	When
13	HTTP POST	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/broadWorksanywhere/location Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="UTF-8"?><BroadWorksAnywhereLocation xmlns="http://schema.broadsoft.com/xsi"><phoneNumber>2342342234</phoneNumber><active>true</active></BroadWorksAnywhereLocation>	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to add a new number for the BroadWorks Anywhere service for the user. This API is also used when the user modifies the number itself, the existing number is deleted, and this API is used to the add the new number.
14	HTTP PUT	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/broadWorksanywhere/location/<location_number> Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="ISO-8859-1"?><BroadWorksAnywhereLocation xmlns="http://schema.broadsoft.com/xsi"><answerConfirmationRequired>true</answerConfirmationRequired></BroadWorksAnywhereLocation>	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to modify the configurations for a number (and not the number itself) added for the BroadWorks Anywhere service for the user.

Serial Number	Type	Outgoing	Incoming	When
15	HTTP DELETE	URL: http(s)://<hostaddress:port>/com.broadsoft.xsi-actions/v2.0/user/<userid>/services/broadWorksanywhere/location/<phoneNumber> Headers: Authorization: BroadWorksSSO <SSOToken> Content-type: application/json;charset=UTF-8 X-BroadWorks-Protocol-Version: 1.0 Set-Cookie:JSESSIONID=<SessionId>; X-BroadWorks-No-AuthChallenge: true Sample Request Body: <?xml version="1.0" encoding="ISO-8859-1"?><BroadWorksAnywhereLocationxmlns="http://schema.broadsoft.com/xsi"><phoneNumber>2342342234</phoneNumber><active>false</active></BroadWorksAnywhereLocation>	Response: Status: 200 Content-Type: application/xml;charset=ISO-8859-1	This is to delete an existing number for the BroadWorks Anywhere service for the user. This API is also used when the user modifies the number itself, this API is used to delete the existing number, and the modified number is added.

18 Service Patch Interface Impacts

18.1   Service Patch Interface Differences

18.1.1   Provisioning Differences

There are no differences.

18.1.2   Accounting Differences

There are no differences.

18.1.3   System Management Differences

There are no differences.

18.1.4   Execution/Call Processing Differences

There are no differences.

18.1.5   Client Application Differences

There are no differences.

18.1.6   Deployment/Operational Differences

There are no differences.

18.1.7   System Engineering Differences

There are no differences.

18.1.8   Upgrade and Rollback Differences

There are no differences.

18.2   Feature Activation Impacts

18.2.1   Behavior Impacts upon Activation

There is no impact.

18.2.2   Provisioned Data Impacts on Activation

There is no impact.

18.2.3   Provisioned Data Impacts on Deactivation

There is no impact.

18.2.4   OCI Command Behavior Prior to Activation

There is no impact.

19 Common Deployment Issues

The section contains well known deployment issues and their resolution scenarios.

19.1 CSWV Deployment Configuration Not Set Properly on Xsp Release 21.0

This issue is specific for new CSWV deployments on Xsp Release 21.0. In this case, General configuration parameters are not initialized. By this reason, all CSWV versions prior to 1.7.6 show a blank page on load.

```
XSP_CLI> App; BWCallSettin;General; get

xsiActionsContextOrURL=<not defined, webapp using internal default>
displayCriteriaOrScheduleName=<not defined, webapp using internal default>
applicationMode=<not defined, webapp using internal default>
```

19.1.1 Symptoms

Blank page. Error in the error/catalina log with Null Pointer Exception.

19.1.2 Resolution

19.1.2.1 Update to CSWV 1.7.6 or Later

In this version, values of *displayCriteriaOrScheduleName* internal default is set to "criteria" and *applicationMode* internal default is set to "prod".

> **NOTE**: XSP_CLI will still show these values as "not defined"; however, they are internally initialized.

19.1.2.2 Initialize Parameters Manually

Set General config parameters manually. The get command should look as follows.

```
XSP_CLI> App; BWCallSettin;General; get

xsiActionsContextOrURL=/com.broadsoft.xsi-actions
displayCriteriaOrScheduleName=criteria
applicationMode=prod
```

19.2 Xsp Deployment Returns HTTP 302 Redirect

The problem here is when the Xsp returns 302 redirect on the initial request POST /<cswv context>. Most browsers read the Location header and re-request the new location BUT with GET /<cswv context> request. Because GET is not allowed in production mode (because of the missing initialization body content), the result is a blank page.

19.2.1 Symptoms

Blank page or "page is unavailable" message. The client sends POST /<cswv context>/ request. The access log shows subsequent GET /<cswv context>/ request.

19.2.2 Resolution

Avoid configuration which implies HTTP 302 redirect response. For example, add a proper server alias in */Interface/Http/HttpAlias*.

19.3 iOS Mobile Client Does Not Accept Unsupported/Compromised Cipher Suites

On Xsp Release 21.0 deployments, ensure that the following patches are installed and activated. For example, missing Apache support for App Transport Security (ATS) will prevent CSWV load on iOS devices.

19.3.1 Symptoms

Blank page. The client sends POST /<context>/ request. The response is a proper HTML page, but no more requests are recorded in the access log.

19.3.2 Resolution

Check if these patches are installed and install them if they are not.

```
AP.xsp.21.sp1.551.ap338964 - Allow for configurable SSL Cipher Suites
AP.xsp.21.sp1.551.ap338965 - Allow for configurable SSL Enabled Protocols
for Apache
AP.xsp.21.sp1.551.ap352340 - Apache version switch from 2.2.24 to 2.2.31
but must be done manually (transition is well described in the patch
summary)
```

The general rule is to forbid known compromised ciphers and TLS < 1.2.

```
XSP_CLI> main; containeroptions
add platform bw.apache.sslenabledprotocols "-ALL +TLSv1.2"
add platform bw.apache.sslciphersuite ECDHE-RSA-AES256-SHA384:AES256-
SHA256:!RC4:HIGH:!MD5:!aNULL:!EDH:!AESGCM:!3DES:!DES:!eNULL:!PSK
```

19.4 Xsp Rate Limiter Drops CSWV Initiated Xsi Requests

Xsp rate limiter is a mechanism to prevent and monitor some types of DoS attacks. If the request rate from an entity reaches the pre-defined threshold, the Xsp will drop further requests from it for a specified time interval.

19.4.1 Symptoms

Sometimes Xsi requests (and menus opening) failed with no obvious reason. Strange non-repeatable connection errors occur on different places in the CSWV interface.

In *snmptraps.log* (/var/broadworks/logs/xsp), a similar message appears.

```
<241383,1596015712470,"High",0,
"bwWebContainerUserTransactionLimitExceeded",
"qa-xsp-21-srv-02.c.bsft-cloud-collab.internal",
"Xtendedservicesplatform",
"Webcontainer",
"The number of incoming requests from admin@gcpqa21.12bar.net for
/com.broadsoft.xsi-events reached 21 for the last 1000 milliseconds."
```

19.4.2 Resolution

Try to identify if this is expected activity first. If yes, consider increasing the Xsp rate limiter threshold value for *userTransactionLimit*.

```
XSP_CLI/System/CommunicationUtility/DefaultSettings> get
NS:
locationServiceURL=http://10.242.144.33:80
asOCIPort=2220
asOCISecurePort=2320
asOCICPort=2221
asOCICSecurePort=2321
locationApiTimeoutSecs=8
provisionOnSecondary=false
reconnectionTimerSecs=30
responseTimeoutSecs=10
activityTimeoutSecs=60
connectTimeoutSecs=60
userTransactionLimit=2     <----- Try increasing
transactionLimitPeriodSecs=1
useSecureBCCT=false
```

19.5   Usage of CSWV Deployed Behind Misconfigured Reverse Proxy

When using reverse proxy in front of more than one Xsp can cause different issues with CSWV operations related to:

- SSO authentication mechanism
- CORS policies applied by the web view component
- Xsp session tracking procedures

19.5.1 Symptoms

Blank page on load, pictures issues, unexpected CSWV reinitialization, operations outages, and so on.

19.5.2 Resolution

- Ensure that the specific CSWV session is always served by a specific Xsp endpoint. For example, stickie session by source IP on CSWV load. CSWV should operate only with the Xsp endpoint from which is initially loaded.
- Ensure that all CSWV-aware Xsp are with the same version of CSWV activated.

19.6   Frequent CSWV Re-initialization

Xsp XSI-Actions have a predefined session timeout of 180 seconds. The user should complete CSWV usage in this interval; otherwise, the Xsp will invalidate the session.

19.6.1 Symptoms

Frequent CSWV re-initialization.

19.6.2 Resolution

Increase XSI-Actions timeout interval to, for example, 3600 seconds.

```
XSP_CLI/Applications/WebContainer/Tomcat/SessionManagement/Webapps> get
        Name   Session Timeout
==============================
  Xsi-Actions            30
```

```
1 entry found.


XSP_CLI/Applications/WebContainer/Tomcat/SessionManagement/Webapps> set Xsi-Actions
sessionTimeout 3600
```

19.7 Usage of CSWV Deployed in Clustered Environment

When using CSWV in a Clustered Xsp deployment, you can face different issues with CSWV operations related to:

- SSO authentication mechanism

- CORS policies applied by the web view component

- Xsp session tracking procedures

CSWV session lifecycle starts with an initializing POST request followed by GET requests for various resources. During operations you can see different requests to the XSI-Actions interface.

19.7.1 Symptoms

Blank page on load with unusual redirects recorded in Tomcat access logs.

19.7.2 Resolution

Ensure that the specific CSWV session is always served by a specific Xsp endpoint. CSWV MUST operate only with the Xsp endpoint from which it is initially loaded.

20 Layout Changes

20.1   Release 1.8.1 – Improved Combo Box (select) Component

Starting with CSWV Release 1.8.1, all native combo box (select) components were removed in favor of a theme used as a more compatible component.
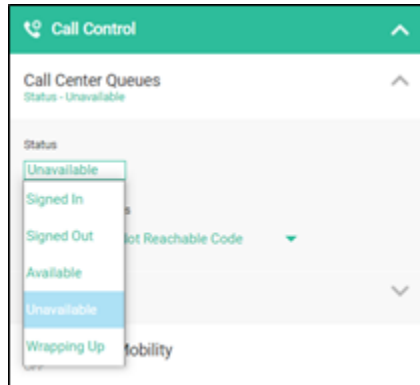

Figure 25 Behavior Prior to Release 1.8.1
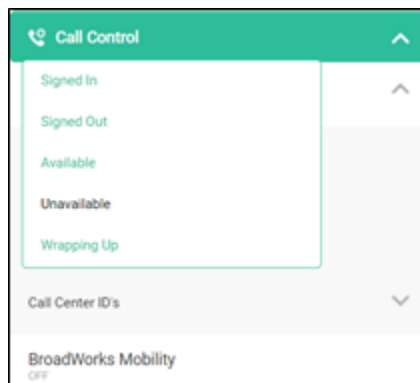
Figure 26 Behavior in Release 1.8.1

There are several reasons for this change. Most notable are:

■   Old component is non-brandable. Colors and layout are hardcoded in the rendering engine and cannot be changed by the branding toolkit.

■   Old component looks different on different platforms (iOS, Android, Desktop) and violates UX uniqueness.

■   New approach behaves better on mobile and desktop devices in the context of responsibility.

■   New approach better fits on screen size of the different devices.

Acronyms and Abbreviations

This section lists the acronyms and abbreviations found in this document. The acronyms and abbreviations are listed in alphabetical order along with their meanings.

ACD	Automatic Call Distribution
Admin	Administrator
API	Application Programming Interface
AS	Application Server
ATS	App Transport Security
BCCT	BroadWorks Common Communication Transport
BW	BroadWorks
CDR	Call Detail Record
CLI	Command Line Interface
CORS	Cross-Origin Resource Sharing
CSCF	Call Session Control Function
CSV	Comma-Separated Value
CSWV	Call Settings Web View
DM	Device Management
DN	Directory Number
DND	Do Not Disturb
DoS	Denial of Service
FAC	Feature Access Code
FD	Feature Description
FQDN	Fully Qualified Domain Name
FR	Feature Request
FS	Functional Specification
FTP	File Transfer Protocol
HCB	Hierarchical Communication Barring
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
Hz	Hertz
ICP	Incoming Calling Plan
IMAP	Internet Message Access Protocol
IMS	IP Multimedia Subsystem
IP	Internet Protocol
IVR	Interactive Voice Response

JSON	JavaScript Object Notation
LLT	Long Live Token
MGCP	Media Gateway Control Protocol
MIB	Management Information Base
MR	Market Request
MS	Media Server
NCOS	Network Class of Service
NE	Network Element
NFM	Network Function Manager
NS	Network Server
NSSync	Network Server Synchronization
OAM&P	Operations, Administration, Management, and Provisioning
OCI	Open Client Interface
OCI-C	Open Client Interface-Call Control
OCI-P	Open Client Interface-Provisioning
OCI-R	Open Client Interface-Reporting
OCP	Outgoing Calling Plan
OCS	Open Client Server
ODP	Outgoing Digit Plan
OID	Object Identifier
OOTB	Out-of-the-Blue
OS	Operating System
OSS	Operations Support System
PBX	Private Branch Exchange
PCV	P-Charging-Vector
PDF	Portable Document Format
PM	Performance Measurement
PSI	Public Service Identity
PSTN	Public Switched Telephone Network
PTT	Push To Talk
RAM	Random Access Memory
RFC	Request for Comments
RTP	Real-Time Transport Protocol
SAC	Session Admission Control
SBC	Session Border Controller
SCA	Shared Call Appearance

SIP	Session Initiation Protocol
SMPP	Short Message Peer-to-Peer Protocol
SNMP	Simple Network Management Protocol
SP	Service Patch
SSH	Secure Shell
SSL	Secure Sockets Layer
SSO	Single Sign-On
TCP/IP	Transmission Control Protocol/Internet Protocol
TLS	Transport Layer Security
UC	Unified Communications
UI	User Interface
UMS	Messaging Server
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
VoIP	Voice Over Internet Protocol
XML	eXtensible Markup Language
Xsi	Xtended Services Interface
Xsp	Xtended Services Platform

References

[1] Cisco Systems, Inc. 2020. *Personal Assistant Service, Release 21.0*. Available from Cisco [here](#).

[2] Cisco Systems, Inc. 2022. *Cisco BroadWorks Device Management Configuration Guide*. Available from Cisco [here](#).