



## **Webex for Cisco BroadWorks Troubleshooting Guide**

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### **Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
<http://www.cisco.com>  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883





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# CHAPTER 1

## Webex for Cisco BroadWorks Troubleshooting

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### Troubleshooting Webex for Cisco BroadWorks

This document is intended for technical people at service provider organizations who are supporting themselves and their customers. We anticipate you to have some familiarity with troubleshooting in general, reading logs, and working with subscriber cases.

The article is divided into three major sections:

- **Resources**, which is a list of tools, reading material, logs, and contacts you may need.
- **Processes**, which describes some of the actions you could take while troubleshooting a customer problem.
- **Specific Issues**, which categorizes and lists issues that have been known to occur, how to spot them, and how you could potentially resolve them.

### Change History

Date	Version	Change
July 28, 2023	1.19	Added reference to <a href="#">Webex App   Report an issue</a> (to generate logs) in <i>Retrieve User Logs from Partner Hub</i> and <i>Get Client Logs or Feedback</i> section.
June 27, 2022	1.18	Updated <i>Reading List</i> with missing link on <i>Connect (Android) Migration to Firebase Method of Procedure</i> .
June 21, 2022	1.17	Updated the <i>Reading List</i> links to point to new URLs on cisco.com. Updated <i>Calling Configuration and Registration Issues</i> by adding a link to the <i>Webex for Cisco BroadWorks Configuration Guide</i> for issues with Broadworks tags.

Date	Version	Change
April 14, 2022	1.16	Added context statements to <i>Check User Details in Help Desk</i> and to <i>View Customer Organization in Help Desk</i> in order to clarify role requirement for Help Desk.
March 16, 2022	1.15	Added new error codes to <i>Error Codes for Directory Sync</i> .
November 15, 2021	1.14	Added error codes 200013, 200014, 200025 and 300005 to <i>End User Error Codes</i> .
September 28, 2021	1.12	Added <i>Error Codes for Directory Sync</i> .
July 15, 2021	1.11	Added error message 100006 to <i>End User Error Codes</i> . Also updated <i>Users Sign In Issues</i> .
July 14, 2021	1.10	Added topic with link to <i>Known Issues and Limitations</i> article
July 02, 2021	1.9	Updated product name for Webex rebranding.
June 18, 2021	1.8	Updated Webex logo in graphics
June 08, 2021	1.7	Added Suggested Action column to <i>End User Error Codes</i> table
June 04, 2021	1.6	Correction to <i>End User Error Codes</i> table
May 19, 2021	1.5	Added <i>Domain Claim Issues</i> section
April 22, 2021	1.4	Updated <i>End User Error Codes</i> with two additional codes: 200016 and 200054
April 13, 2021	1.3	Added information on Webex Serviceability Connector
December 08, 2020	1.2	Updated document. Rebranding Webex Teams to Webex (app). Added End User Error Codes
November 03, 2020	1.1	Added Call Settings Webview
October 22, 2020	1.0	New document introduced



## CHAPTER 2

# Webex for Cisco BroadWorks Troubleshooting Resources

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## Contacts



**Note** Starting in October 2020, we are migrating BroadSoft customer support to Cisco CX support processes and tools. This means that Webex for Cisco BroadWorks partners need to move from using Xchange for case management to using Support Case Manager (SCM).

We expect the migration run for approximately 3 months and through the end of calendar year 2020. The BroadWorks/UCaaS TAC team will start supporting cases in CSOne / Lightning instead of BroadSoft Jira when you are migrated over. You may need to refer to cases in both systems during the migration period.

See [Legacy BroadSoft Support Transition](#) for details.

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## Useful Log Files

Log name	Source	Useful for troubleshooting
PSLog	Application Server	Flowthrough provisioning
tomcat access_log	XSP	Webex app login
XsiActionsLog	XSP	Webex app login interactions with Webex IDP Proxy, client interactions for device profiles query
authenticationService log	XSP	Webex app login (token validation and issuing)

XSLog	XSP?	Mobile subscriptions for push notifications Call signalling
Webex app startup log	Windows: \\Users\{username}\AppData\Local\CiscoSpark\current_log.txt Mac: /Users/{username}/Library/Logs/SparkMacDesktop/current_log Mobile: Use Send Logs	Startup (sequence) Entitlement checks for the user BWC library initialization for connecting to BroadWorks getUserProfile & Jwt token fetch logging
BroadWorks calling Webex app log	Client Windows: \\Users\{username}\AppData\Local\CiscoSpark\bwc\current_log.txt Mac: /Users/{username}/Library/Logs/SparkMacDesktop/bwc/current_log Mobile: Use Send Logs	All SIP traffic for Registration and Calls Keep Alive traffic to BWKS Backend Mid call features that require signalling (Hold/Resume, Transfer, etc.)
Media (Webex Media Engine) log	Client Windows: \\Users\{username}\AppData\Local\CiscoSpark\media\*.log Mac: /Users/{username}/Library/Logs/SparkMacDesktop/media/ Mobile: Use Send Logs	All Media logging Codecs negotiated for a call Mid Call features

## Reading List

- Webex for Cisco BroadWorks Partner Knowledge Portal: <https://help.webex.com/ld-hagbf3-WebexforBroadWorks/Webex-for-BroadWorks>.
- XSP Platform Configuration Guide (R23): [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Config/XSP/BW-XtendedServicesPlatformConfigGuide-R230.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Config/XSP/BW-XtendedServicesPlatformConfigGuide-R230.pdf)
- BroadWorks Software Management Guide (R23): [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/IandU/BW-SoftwareManagementGuide-R230.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/IandU/BW-SoftwareManagementGuide-R230.pdf)
- Cisco BroadWorks Device Management Configuration Guide (R23): [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Config/All/BW-DeviceManagementConfigGuide-R230.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Config/All/BW-DeviceManagementConfigGuide-R230.pdf)
- Broadworks Xsp Command Line Interface Administration Guide: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Config/XSP/BW-XspCLIAdminGuide-R230.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Config/XSP/BW-XspCLIAdminGuide-R230.pdf)
- Long-Lived Authentication Token Feature Description Release 23.0 [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/FD/AS/LongLivedAuthenticationTokenFD-R230.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/FD/AS/LongLivedAuthenticationTokenFD-R230.pdf)
- SAML Authentication integration guide, R22: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Design/All/BW-SAMLIntegrationSolutionGuide-R220.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Design/All/BW-SAMLIntegrationSolutionGuide-R220.pdf)

- Cisco BroadWorks SSL Support Options Guide: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Config/All/BW-SSLSupportOptionsGuide.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Config/All/BW-SSLSupportOptionsGuide.pdf)
- Cisco CI Support Feature Description: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/FD/ADP/CIAuthenticationSupportFD-R2020\\_09.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/FD/ADP/CIAuthenticationSupportFD-R2020_09.pdf)
- Notification Push Server (Feature Description): [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/FD/All/NotificationPushServerFD-R220.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/FD/All/NotificationPushServerFD-R220.pdf)
- Push Notification Support for Calls Feature Description Release 22.0: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/FD/All/PushNotificationSupportForCallsFD-R220.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/FD/All/PushNotificationSupportForCallsFD-R220.pdf)
- Connect (Android) Migration to Firebase Method of Procedure: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/UC-One/UC-One-Collaborate/Connect/Mobile/Technical/ConnectAndroidMigrationToFirebaseMOP-R3\\_9\\_x.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/UC-One/UC-One-Collaborate/Connect/Mobile/Technical/ConnectAndroidMigrationToFirebaseMOP-R3_9_x.pdf)
- Cisco BroadWorks Storage of Device Tokens for Push Notifications Feature Description Release 22.0: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/FD/All/BroadWorksStorageOfDeviceTokensForPushNotificationsFD-R220.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/FD/All/BroadWorksStorageOfDeviceTokensForPushNotificationsFD-R220.pdf)
- Cisco BroadWorks System Capacity Planner (spreadsheet): [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Technical/BW-SystemCapacityPlanner.xlsm](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Technical/BW-SystemCapacityPlanner.xlsm)
- Cisco BroadWorks Platform Dimensioning Guide: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Technical/BW-PlatformDimensioningGuide.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Technical/BW-PlatformDimensioningGuide.pdf)
- Cisco Broadworks System Engineering Guide: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/Technical/BW-SystemEngineeringGuide.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/Technical/BW-SystemEngineeringGuide.pdf)
- Communicator for Desktop (UC-One for Desktop) Configuration Guide: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/UC-One/UC-One-Collaborate/Communicator/Desktop/Config/CommunicatorConfigGuideDesktop-R22\\_9\\_24-UC-One-R3\\_9\\_24.pdf?dtid=ossdc000283](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/UC-One/UC-One-Collaborate/Communicator/Desktop/Config/CommunicatorConfigGuideDesktop-R22_9_24-UC-One-R3_9_24.pdf?dtid=ossdc000283)
- CI Authentication Support Requirements Document Version 1.0 MR-7136: [https://www.cisco.com/c/dam/en/us/td/docs/voice\\_ip\\_comm/broadworks/FD/ADP/CIAuthenticationSupportFD-R2020\\_09.pdf](https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/broadworks/FD/ADP/CIAuthenticationSupportFD-R2020_09.pdf)

## Known Issues and Limitations

The Known Issues and Limitations article contains up-to-date information about known issues that we've identified in the Webex for BroadWorks solution. For details, see the below link:

[Known Issues and Limitations](#)

## Serviceability Connector

The Webex Serviceability service increases the speed with which Cisco technical assistance staff can diagnose issues with your infrastructure. It automates the tasks of finding, retrieving and storing diagnostic logs and information into an SR case. The service also triggers analysis against diagnostic signatures so that TAC can more efficiently identify and resolve issues with your on-premises equipment.

For details on how to deploy the Serviceability Connector, go to *Deployment Guide for Cisco Webex Serviceability Connector* at [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/cloudCollaboration/spark/hybridservices/serviceability/cmgt\\_b\\_deployment-guide-spark-hybrid-service-connector.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cloudCollaboration/spark/hybridservices/serviceability/cmgt_b_deployment-guide-spark-hybrid-service-connector.html).





## CHAPTER 3

# Webex for Cisco BroadWorks Troubleshooting Processes

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## Escalating an Issue

After you have followed some of the troubleshooting guidance, you should have a reasonable idea of where the issue is rooted.

### Procedure

---

- Step 1** Collect as much information as you can from the systems related to the issue
  - Step 2** Contact the appropriate team at Cisco to open a case (see *Contacts* section)
- 

## What Client Information to Collect

If you think you need to open a case or escalate an issue, collect the following information while troubleshooting with the user:

- User identifier: CI email address or User UUID (this is the Webex identifier, but if you also get the user's BroadWorks identifier, that will help)
- Organization identifier
- Approximate time frame during which the issue was experienced
- Client platform and version
- Send or collect logs from the client
- Record the tracking ID if shown on client

## Check User Details in Help Desk

Partner administrators who have Help Desk Administrator (Basic or Advanced) role privileges can use this procedure to check user details using Help Desk view.

### Procedure

---

- Step 1** Sign in to <https://admin.webex.com/helpdesk>.
- Step 2** Search for and then click the user. This opens the user summary screen.
- Step 3** Click the user name to see the detailed user configuration.
- Useful information in this view includes the user's UUID, common identity (CI) cluster, Webex app cluster, Calling Behaviour, BroadWorks account GUID.
- Step 4** Click **Copy** if you need to use this information in another tool, or attach it to a Cisco case.
- 

## View Customer Organization in Help Desk

Partner administrators who have Help Desk Administrator (Basic or Advanced) role privileges can use this procedure to view customer organization details in Help Desk view.

### Procedure

---

- Step 1** Sign in to <https://admin.webex.com/helpdesk>.
- Step 2** Search for and then click the customer organization name.
- Step 3** Scroll down until you see **Customer Portal View** and click **View *CustomerName*** to see a read-only view of the Customer org – including users and configuration.
-

# Retrieve User Logs from Partner Hub

When troubleshooting desktop and mobile client issues it is important for Partners (and TAC) to be able to view the client logs.

## Procedure

---

- Step 1** Ask the user to Send Logs. For help, see: [Webex App | Report an issue](#).
- Step 2** Ask the user to Export the Calling Environment send you the **ced.dat** file.
- Step 3** Get the client logs from Partner Hub or Help Desk (see below).

Partner Hub option:

- a) Sign in to Partner Hub and find the user's Customer Organization.
- b) Select **Troubleshooting**.
- c) Select **Logs**.
- d) Search for the user (by email).
- e) View and download the client logs as a zip file.

Help Desk option:

- a) Sign in to Help Desk.
  - b) Search for the organization.
  - c) Click the organization (opens up the summary screen).
  - d) Scroll down to click **View customer**.
  - e) Select **Troubleshooting**.
  - f) Select **Logs**.
  - g) Search for the user (by email).
  - h) View and download the client logs as a zip file.
- 

# How to Find Client Version

## Procedure

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- Step 1** Share this link with the user: <https://help.webex.com/njpf8r5>.
- Step 2** Ask the user to send you the version number.
-

# Client Check for Calling Service

## Procedure

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- Step 1** Sign in to the Webex client.
- Step 2** Check that the Calling Options icon (a handset with a gear above it) is present on the sidebar. If the icon is not present, the user may not yet be enabled for the calling service in Control Hub.
- Step 3** Open the **Settings/Preferences** menu and go to the **Phone Services** section. You should see the status **SSO Session You're signed in**.
- (If a different phone service, such as *Webex Calling*, is shown, the user is not using Webex for Cisco BroadWorks.)
- This verification means:
- The client has successfully traversed the required Webex microservices.
  - The user has successfully authenticated.
  - The client has been issued a long-lived JSON web token by your BroadWorks system.
  - The client has retrieved its device profile and has registered to BroadWorks.
- 

## Get Client Logs or Feedback

- See the Resources section to find specific client logs on Webex desktop clients, or ask users to send logs. For help, see: [Webex App | Report an issue](#).
- Ask users of mobile clients to send logs, then you can get them via partner hub or help desk.



**Note** Send logs is silent. However, if a user sends feedback, it goes to the Webex App devops team. Be sure to record the user's feedback number if you want to follow up with Cisco. For example:

**Success! Your Cisco support case has been created. Thank you for your feedback!**

**Case Number - 00601970**

---

## Get Calling Environment Data

Webex client logs are heavily redacted to remove personally identifiable information. You should export the Calling Environment Data from the client in the same session as you notice the issue.

### Procedure

---

**Step 1** In the client, click the profile picture, then click **Help > Export Calling Environment Data**.

**Step 2** Save the resulting file **ced.dat** for troubleshooting calling issues for this user.

**Important:** Logout from or restart the client clears the internal cache. If you export **ced.dat** after that, the exported data will not correspond with any logs that were sent before the cache.

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## Reset Webex Database

### Procedure

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**Step 1** On the client click **Help > Health Checker**.

**Step 2** Select **Reset Database**.

This triggers a full reset of the client and loads the Webex app login screen.

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## Verify that Webex Should Register to BroadWorks

The Webex app checks the following information to determine whether to register to BroadWorks:

- User entitlement to **broadworks-connector**
- Calling behavior for organization and user

### Check a user's calling behavior and connector entitlement

1. Sign in to Help Desk (<https://admin.webex.com/helpdesk>) with your partner administrator credentials.
2. Search for the user.
3. Click on the user and check the Calling Behavior entry. It should be "Calling in Webex".

[← Back to search results](#)



Verification: [Send Code](#)

Account Created: July 7, 2020

Status: Active

Email: [\[Redacted\]](#)

Last Email Event: None ⓘ

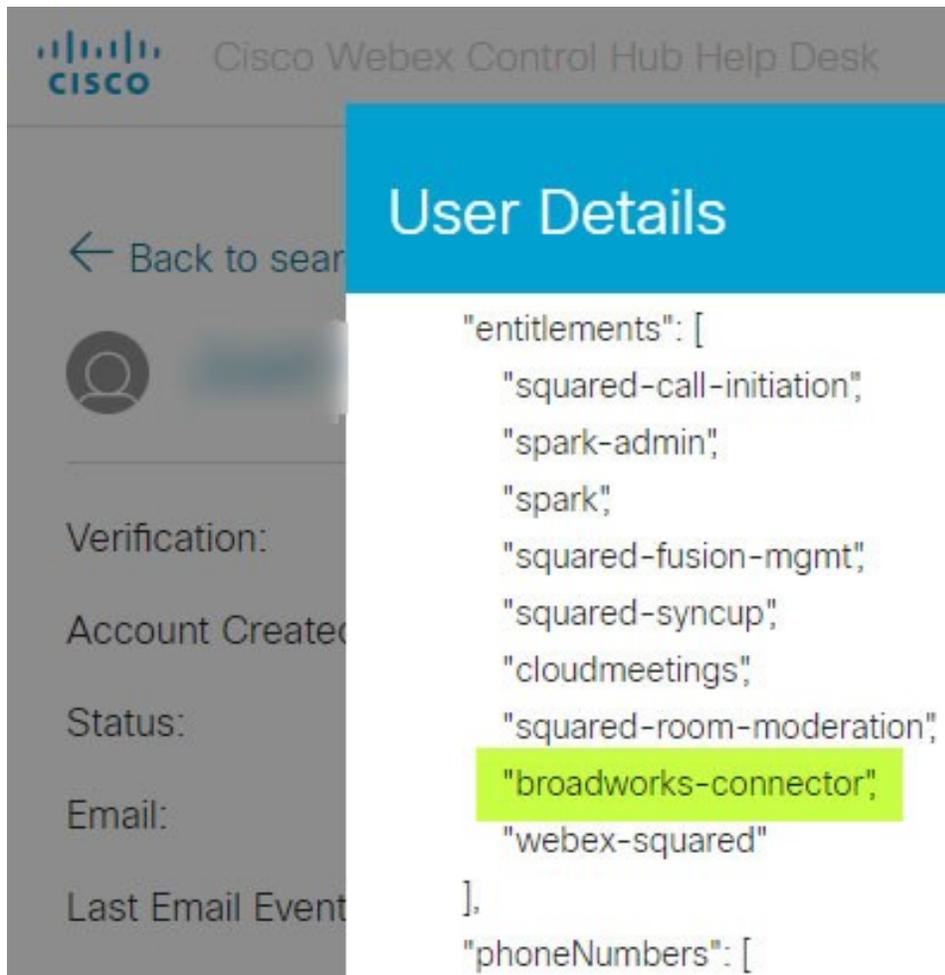
Email Suppression: None

Roles: [\[Redacted\]](#)

Calling Behavior: [Calling in Webex](#)

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4. Click the user name to open the User Details screen.
5. Scroll down to locate the `entitlements` section, and verify that `broadworks-connector` is included.



**Note** A Webex for Cisco BroadWorks user should NOT have the `bc-sp-standard` entitlement if they are intending to use Webex for Cisco BroadWorks. This is the entitlement for “Webex Calling (Broadcloud)” which is Webex app calling through a Cisco-managed cloud calling service.

### Check the organization’s calling behavior

1. Sign in to Help Desk (<https://admin.webex.com/helpdesk>) with your partner administrator credentials.
2. Search for the organization.
3. Click on the organization and check the Calling Behavior entry. It should be “Calling in Webex”.

# Analyze PSLog for User Provisioning Issues

Use the Application Server's PSLog to see the HTTP POST request to the provisioning bridge and the response from Webex.

In a correct working case, the response is 200 OK **and** after a few minutes you can see the user - and new Customer org if it is first user – has been created in Webex.

You can verify this by searching Help Desk for the email address you see in the POST.

## Before you begin

Collect a PSLog from the Application Server during a flowthrough provisioning attempt with a test user.

## Procedure

---

### Step 1

The first thing to check is the HTTP response code:

- Anything other than 200 OK is a user provisioning failure.
- 200 OK could still indicate a failure if something about the subscriber profile does not work in the Webex services upstream of the provisioning bridge.
- 400 may contain a `message` node in the response. The provisioning bridge could not process something in the `subscriberProfile`. There may be something wrong with the subscriber details, or incompatibility with a setting in the template.
- 401 means the provisioning credentials entered on the AS do not match those entered on the template in Partner Hub.
- 403 could indicate something misconfigured on Application Server. Check the target of the request. it should not be an IP address, it should be the provisioning bridge URL you can see on your template in Partner Hub.
- 409 indicates a conflict between the supplied `subscriberProfile` and existing Webex data. There may be an existing user with that email address. Check the `message` in the response.

### Step 2

You can also check the original HTTP POST for any suspect values that could cause provisioning to fail.

The POST contains a `subscriberProfile` XML structure. Inside this, useful nodes to check are:

- `bwuserid`: Use this to find the subscriber profile if you need to edit it in BroadWorks.
- `group`: If the template is in "Service Provider mode", this is lowercased and becomes the name of the Customer org you see in Partner Hub.
- `serviceProvider`: If the template is in "Enterprise mode", this is lowercased and becomes the name of the Customer org you see in Partner Hub.
- `primaryPhoneNumber`: Must exist. Provisioning fails without it.
- `email`: Becomes the user ID in Webex. Must be valid and unique to Webex, otherwise provisioning fails.

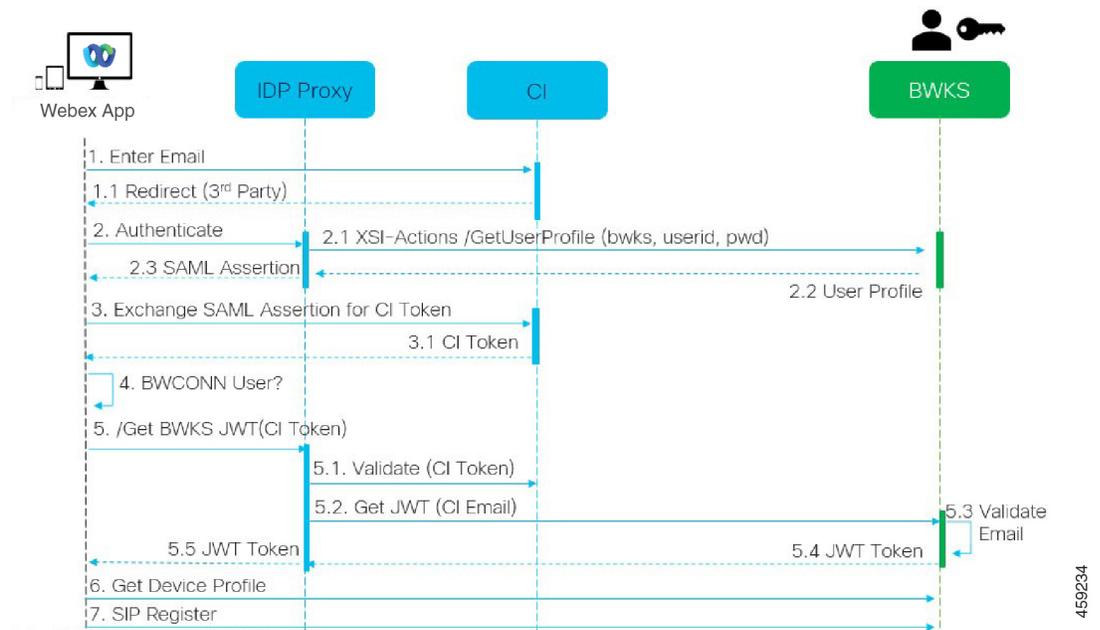
**Note** Ignore the `services` stanza: it is created by AS, and accepted but not used by Webex.

## Analyze XSP Logs to Troubleshoot Subscriber Log in

This flow describes BroadWorks Authentication mode. You can see the authentication mode on the BroadWorks Template, in Partner Hub. See *Configure your Customer Templates* in [https://help.webex.com/en-us/z9gt5j/Webex-for-BroadWorks-Solution-Guide#id\\_137726](https://help.webex.com/en-us/z9gt5j/Webex-for-BroadWorks-Solution-Guide#id_137726).

The following ladder diagram shows the interaction between the user, client, Webex services, and BroadWorks system, when the user is doing BroadWorks authentication in the Webex app. Also, the connection between Webex and the XSP is secured by MTLS.

The discussion that follows explains what you can expect to see when investigating the logs for a successful login.



### User interacts with client, client interacts with Webex services:

- The user supplies their email address to the Webex app (1 in diagram).
- CI knows to redirect this user to enter their BroadWorks password (via UAP) (2 in diagram).
- The IDP Proxy submits a get profile request to the Xsi interface on the XSP.

### In the tomcat access\_log:

- Look for the GET request for the subscriber profile, from Webex towards the Xsi-Actions interface (2.1 in diagram). It has the Webex user ID. E.g.

```
GET /com.broadsoft.xsi-actions/v2.0/user/webexuserid@example.com/profile
```

### In the XsiActionsLog:

- Look for the profile GET request from Webex (2.1 in diagram). It has the Webex user ID. E.g.

```
GET /com.broadsoft.xsi-actions/v2.0/user/webexuserid@example.com/profile
```

The headers include `authorization: Basic` and `user-agent: broadworksTeamsClient`

- The XSP then does OCI-P Basic authentication against BroadWorks (AuthenticationVerifyRequest and AuthenticationVerifyResponse, like any other application doing basic authentication via Xsi) and also a UserGetRequest and ServiceProviderGetRequest to gather the subscriber information.
- The Xsi response to Webex contains an XML `Profile` block containing the (BroadWorks) `userId` and other details (2.2 in diagram).

### Client and Webex services interactions:

- IDP proxy matches user profile received from BroadWorks and issues SAML assertion to client (2.3 in diagram)
- Client exchanges SAML assertion for a CI token (3 in diagram)
- The client checks that the signed in user has the **broadworks-connector** entitlement (4 in diagram). You can check user entitlements in Help Desk)
- Client uses CI token to request a JSON Web Token (JWT) from IDP proxy (5 in diagram)
- IDP proxy validates CI token at CI
- IDP proxy requests JWT from authentication service

### In the authenticationService log:

- Look for the token request from Webex (5.2 in the diagram), e.g.:

```
GET /authService/token
```

which has `http_bw_userid` header and others.

- The XSP does OCI-P `UserGetLoginInfoRequest`, to validate that the supplied user id corresponds to a BroadWorks user (5.3 in diagram). `AuthService` has established trust with Webex by virtue of the mTLS connection, so can issue LLT.
- Look for the response (5.4 in diagram) from `LongLivedTokenManager` - Token generated, subject: `bwksUserId@example.com`, issuer: `BroadWorks` ...  
and `Status=200` which you can associate with the original request using the `trackingid: CLIENT...` header.

### In the XsiActionsLog:

- The client is now able to present the long-lived token at Xsi-Actions interface to get its device profile (6 in diagram). E.g.:

```
GET /com.broadsoft.xsi-actions/v2.0/user/bwksUserId%40example.com/profile/device
```

With the headers `authorization: Bearer token` and `user-agent: WebexTeams (variant/version)`

- The Xsi-Actions interface POSTs the token to the authservice (configured to be on the loopback interface)  
e.g.: `127.0.0.1:80 POST http://127.0.0.1:80/authService/token`

which you can correlate with the `trackingid: CLIENT...` header in the GET and the

`X-BROADSOFT-CORRELATION-ID : CLIENT...` header in the POST.

#### In the authenticationService log:

- The receipt of the POST from Xsi (loopback)
- A `statusCode=200` back to Xsi
- And a token validation response, having a "token" JSON block in the body.
- Correlated using the `trackingid: CLIENT...`

#### In the XsiActionsLog:

- Having received 200 OK from authservice, which validated the client's token, the Xsi-Actions application now sends OCI-P request for `UserPrimaryAndSCADeviceGetListRequest`
- Receives OCI-P `UserPrimaryAndSCADeviceGetListResponse` containing the `accessDeviceTable` XML structure.
- The OCI-P response is encoded as Xsi response to client, including `AccessDevices` XML structure, which has the `deviceTypes` e.g. `Business Communicator - PC` and the urls where the client can retrieve the device configuration files.

#### Client continues as normal:

- Selects a device entry and interacts with DMS to get device profile (6 in diagram)
- Registers to BroadWorks via SBC retrieved in configuration from DMS (7 in diagram)





## CHAPTER 4

# Webex for Cisco BroadWorks Troubleshooting Specific Issues

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- [User Provisioning Issues, on page 19](#)
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## Partner Hub Issues

### Administrator Cannot see Customer Organizations

As an administrator for your Partner organization in Webex, you should have the *Full Administrator* role. That role is used for managing your partner organization, including assigning administrative privileges to yourself and others. To manage customer organizations, you need to grant yourself (or other people) the *Sales Full Administrator* role or *Sales Administrator* role. See <https://help.webex.com/fs78p5>.

## User Provisioning Issues

### Integrated IM&P Errors for Specific Enterprises / Customers

If you have a mix of enterprises using different cloud collaboration services, e.g. UC-One SaaS and Webex for Cisco BroadWorks, you may have opted to modify the provisioning adapter on a per-enterprise basis.

To check what is configured for Integrated IM&P (default for enterprises, unless a more specific setting exists), run `AS_CLI/Interface/Messaging> get`. For a specific enterprise's provisioning parameters, open the enterprise and go to **Services > Integrated IM&P**.

Check that the Integrated IM&P configuration for that enterprise matches exactly what is shown in the Customer Template in Partner Hub. The following settings must match, or provisioning fails for all users in the enterprise:

BroadWorks Enterprise Integrated IM&P setting	Partner Hub Customer Template setting
Messaging Server URL	Provisioning URL
Messaging Server Username	Provisioning Account Name
Messaging Server Password	Provisioning Account Password, Confirm Password

### Integrated IM&P Errors for Specific Users

This applies if you are using flowthrough provisioning, and assumes that provisioning is working for some/most users (so you can rule out a configuration issue).

If you are seeing Integrated IM&P errors in BroadWorks, for example, “[Error 18215] Provisioning error with Messaging server” and “[Error 18211] Communication error with Messaging server”, you should investigate the following potential causes:

- The user’s email address could already exist CI. Search for the user in Help Desk to check if their email address is already there. This is not necessarily conclusive, because the user may exist in an organization whose data you are not permitted to see in Help Desk.
- The user independently signed up to Webex, prior to being assigned the Integrated IM&P service. In this case, one option is to have the user delete their free account so that they can become a part of the Customer Organization you are provisioning. Instructions are at <https://help.webex.com/5m4i4y>.
- The user does not have a primary phone number assigned to their profile (all Webex for Cisco BroadWorks subscribers must have a primary DID). See the topic on analyzing PSLog from AS.

### User Provisioning Failures in Response from Provisioning Bridge

If users are not appearing in Control Hub, within a few minutes of assigning Integrated IM&P, have a look at the response codes from the provisioning bridge service. Run a PSLog to look at the HTTP response codes.

#### 200 OK

A 200 OK response *does not mean that the user is successfully provisioned*. It means that the provisioning service received the request and successfully submitted the corresponding user creation request to upstream services.

The provisioning transaction is asynchronous by design. The service responds 200 OK because the user creation process can take several minutes and, for performance reasons, we do not want to receive multiple requests to create the same user.

However, if the user does not eventually appear in the Customer Organization after a 200 OK response, it could indicate that the user creation failed in the Webex services upstream of the provisioning service.

**You need to escalate a provisioning failure that has a 200 OK response.**

#### 400 Bad Request

Check the HTTP response which should have more detail on potential issues that could cause this response from the provisioning service. Some examples of the `<message>` node:

- “Can not trust BroadWorks email with legacy provisioning API.”

The email address associated with the failing user provisioning request is not valid, or is mistyped, but you have asserted in the template that the email addresses can be trusted. Check the users' profiles in BroadWorks, specifically the email id.

- “Customer org is not found in database and also new org creation flag is not enabled.”

This failed provisioning request should be creating a new Customer Organization in Webex, but your template is configured to prevent new Customer Organizations to be created. If you want to allow new organizations, for email domains that do not match existing customers in Webex, then you can reconfigure your template in Partner Hub and retest the provisioning request. However, if you are not expecting a new organization to be created for this user, perhaps the email address is mistyped (specifically the domain part). Check the user's email id in BroadWorks.

### 403 Forbidden

The provisioning request has no chance of succeeding. You will need to investigate the request and response in this case. For example, if you see an IP address as the target of the provisioning request – instead of the appropriate provisioning bridge URL for your organization (see the firewall configuration topics in Solution Guide) – it could indicate that your Application Server is missing a required patch (ap373197).

Check that all required patches are applied to the Application Server, and that you completed the related configuration for successful flowthrough provisioning.

### 409 Conflict

The provisioning request cannot proceed because there is an existing user in Webex that matches the email address in the request.

### User Already in CI

Get the subscriber email out of the HTTP POST request and search for it in Help Desk.

You may not see the user if you are not permitted, but you may also see that the user is in a ‘free’ organization e.g. “Consumer”.

You can ask this user to delete their free account, or you can use a different email address to provision them. See <https://help.webex.com/ndta402>.

## Users Sign in Issues

### User Activation Portal Does Not Load

The normal Webex for Cisco BroadWorks sign in flow includes a User Activation Portal where users enter their passwords. Sometimes this portal does not load after the user has supplied their email address in the Webex app sign in screen.

This issue can be caused on client side or on the service side. On the client side, it is typically caused by the client's native browser being incompatible in some way with the service.

### Single Sign On failed

- In BroadWorks, check that the user has been assigned the device types for the Webex app (see **Device Profiles** section in [Prepare Your Environment](#) section of the Solution Guide).

- Check that the user is using the correct password. If the template that you used to provision the user's Customer Organization (in Partner Hub) is configured for BroadWorks authentication, the user should be entering their BroadWorks "Web Access" password. The user may also need to enter their BroadWorks User ID if their email address is not configured as an Alternate User ID.

Make sure the user has entered upper case and lower case characters correctly.

## Calling Configuration and Registration Issues

After a user has been provisioned in Webex and they successfully sign in to the Webex app, then the app registers to BroadWorks. The following are the expected registration sequence and the resulting signs of a healthy registration (as seen from the Webex app):

### Expected Registration Sequence

1. Client calls XSI to get a device management token and the URL to the DMS
2. Client requests its device profile from DMS by presenting the token from step 1
3. Client reads the device profile and retrieves the SIP credentials, addresses, and ports
4. Client sends a SIP REGISTER to SBC using the information from step 3
5. SBC sends the SIP REGISTER to the AS (SBC may perform a look-up in the NS to locate an AS if SBC does not already know the SIP user.)

### Expected Signs of Successful Client Registration

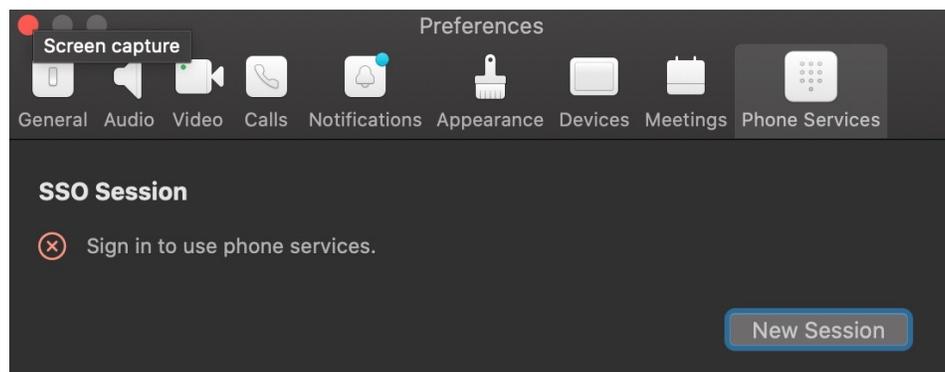
Calling Options icon appears in the Webex interface.

In the Webex app phone services tab (e.g. **Settings** > **Phone Services** on Windows, **Preferences** > **Phone Services** on Mac), the message "SSO Session: You're signed in" means the app registered successfully (to BroadWorks in this case).

### Client has no Calling Icon

Most of the time this means the user does not have the correct license / entitlements.

### Client Shows Phone Services Tab but no SSO Session



This is an unsuccessful registration. There are multiple reasons why a Webex app client would fail registration with BroadWorks:

### Multiple Calling Services Being Tested with Same Clients

This known issue can be caused by the client changing between different calling back ends. It is most likely to occur during trials of different calling services offered via (the same) Webex app clients. You can reset the client database (link) to remedy this issue.

### Misconfiguration of Authentication Service

Check the XSP(s) hosting the authentication service against the Solution Guide (see [Configure Services on your Webex for Cisco BroadWorks XSPs](#)). Specifically:

- The RSA keys (that you generate on one XSP) are copied onto all the XSPs
- The authentication service URL has been provided to the web container on all XSPs, and entered correctly in the cluster in Partner Hub
- External authentication by certificates is configured:

```
XSP_CLI/System/CommunicationUtility/DefaultSettings/ExternalAuthentication/CertificateAuthentication>get
```

```
allowUserApp = false  
allowClientApp = true
```

- When using MTLS, you must upload the Webex client certificate to the XSPs (you can get the certificate from Partner Hub, on the BroadWorks Settings page)

### Misconfiguration of BroadWorks tags

Check that you have configured the required BroadWorks tags for the Webex app. Refer to the [Webex for Cisco BroadWorks Configuration Guide](#) for information on configuration tags. Make sure that there are no conflicts or incorrect values.

Specifically, the `%SBC_ADDRESS_WXT%` tag should be the SBC towards your SIP registrar for Webex app clients.

### Desktop Client Disconnects Phone Services After Successful SSO Connection

This issue can be caused by the same user signing in to multiple clients on the same platform type. For example, if a user signs in successfully to the Webex app on Windows, and then signs in to the webex app on a different Windows machine, there is only an active SSO session on one of the machines. This is by design.

If you absolutely need to work around this issue, you can configure BroadWorks to have multiple instances of the same device type, but they must have unique SIP addresses. This configuration is outside the scope of Webex for Cisco BroadWorks.

### Desktop Device not Provisioned for User

This signature is seen in the client (`\bwc\`) log:

```
<Error> [0x70000476b000] BroadWorksConfigDownloader.cpp:106  
onAccessDeviceListSucceeded:BWC:SCF: ConfigDownload - the device profile 'Business  
Communicator - PC' is not found.
```

# Call Settings Webview Issues

## Self Care Button/Link Not Showing in Webex app

A different symptom of this issue is when the button/link is shown, but clicking it opens an external browser.

- Verify the required client configuration template is deployed and CSW tags are properly set. (See the *Call Settings Webview* section in the [Webex for Cisco BroadWorks Solution Guide](#)).
- Verify the Webex app is registered for calling in BroadWorks.
- Check that the Webex app is a recent version that supports CSWV.

## Blank Page or Error After Clicking Self Care Button/Link

Generally, this behavior in the Webex app indicates a configuration or deployment issue with the CSWV application on BroadWorks XSP.

Collect details for further investigation, including CSWV logs, access logs, config-wxt.xml repository, and template file, and then raise a case.

# Domain Claim Issues

User registration errors can occur as a result of errors that are made in claiming domains. Before you claim any domains, make sure that you understand the following:

- Service Providers should not claim the domains of customer organizations that they manage. They should claim only the domains of those users that are in the Service Provider's internal organization. Claiming the domain of users in a separate organization (even one that the Service Provider manages) can result in registration errors for the users in the customer organization as user authentication requests get routed through the Service Provider rather than the customer organization.
- If two customer organizations (Company A and Company B) share the same domain and Company A has claimed the domain, registration for Company B users may fail due to the fact that user authentication requests are routed through the organization that has the domain claimed (Company A).

If you claim any domains in error and need to remove a claim, refer to the [Manage Your Domains](#) Webex article.

# End User Error Codes

The following table outlines end user error codes that may be seen in the client user activation portal.




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**Note** This is not an exhaustive list of error codes. The table lists only existing error codes for which the Webex app does not currently provide clear direction to the user.

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Table 1: End User Error Codes

Error Code	Error Message	Suggested Action
100006	Login failed: User ID/Password is incorrect	Check that the user is using the correct password. If the template that you used to provision the user's Customer Organization (in Partner Hub) is configured for BroadWorks authentication, the user should be entering their BroadWorks "Web Access" password. The user may also need to enter their BroadWorks User ID if their email address is not configured as an Alternate User ID.  Make sure the user has entered upper case and lower case characters correctly.
200010	Failed validating credentials as BroadWorks user unauthorized	User should try a different username and password combination.  Otherwise, admin must reset password in BroadWorks.
200013	Sorry you can't join <name of SP offer> with Webex right now. Please try again in a few minutes. If the problem continues, please contact your <customer organization administrator>.	Failed to update the user information in Common Identity. Please update the user again using the user API.
200014	Please contact your <Service Provider> administrator.	Check to make sure that your configuration is accurate and that the provisioning ID is correct in the request.
200016	Failed validating credentials as session not found	User should refresh browser and retry the username/password.
200018	Failed validating credentials as user is locked out	User should wait 10 minutes and then try again.
200019	Failed validating credentials as add user failed for self activation	Admin should check self-activation settings in Control Hub
200022	Failed to send email as user is unauthenticated	User should retry onboarding and entering credentials.
200025	Sorry, you can't join Self Activation right now. Please try again in a few minutes. If the problem persists, contact your System Administrator.	Have the user try again after a few minutes. If that doesn't work, check with Cisco Support.

Error Code	Error Message	Suggested Action
200026	Failed validating email due to pre-check failure or pending user incorrect state for PartnerOrgUUID : {partnerOrgUUID} , BroadworksUUID : {broadworksUUID} , ConfigSetUUID : {configSetUUID}	Admin should inform the user that they entered the wrong email address as the email address is associated to a different organization.
200039	Failed validating email as emailId already in use in a different Org	User should try onboarding again to the same verification link, but using a different BroadWorks User ID.  Otherwise, the customer organization administrator from the different org should delete the existing user account.
200040	Failed validating email as configSet is not matching with configSet in customerConfig	Admin should compare the verification link that the user used against the link that's configured in Control Hub. The two links and configSets must match.
200041	Failed validating email as user is already entitled for another conflicting service, conflicting entitlements	User should try onboarding again to the same verification link using a different BroadWorks User ID.  Otherwise, the customer org administrator who manages the conflicting service should delete the conflicting service or entitlements.
200042	Failed validating email as email is already associated with another BroadWorks UserId	User should try again with different email address.  Otherwise, admin must delete the other user that uses this email address.
200043	Failed validating email as user customer config mapping is incorrect	User should try again with different email address.  Otherwise, admin must delete the other user that uses this email address.
200044	Failed validating email as userId is already in use on this BroadWorks cluster	User should try again with different email address.  Otherwise, the customer organization administrator who manages the existing user account that uses this email address must delete that user account.

<b>Error Code</b>	<b>Error Message</b>	<b>Suggested Action</b>
200045	Failed adding user through self activation as user is already part of a different org	User should retry onboarding, but with a different email address.  Otherwise, the customer organization administrator who administers the different org should delete the existing account.
200046	Failed adding user through self activation as multiple pending users exists with same broadworksUserId under same BroadWorks cluster	Admin should delete the pending users from Control Hub
200047	Failed adding user through self activation as userId is already in use on this BroadWorks cluster	User should try again with different email address.  Otherwise, the customer organization administrator who manages the existing user account should delete that existing user account or remove other entitlements.
200048	Failed adding user through self activation as email address was already provisioned with a different BroadWorks userId	User should try again with different email address.
200049	Failed adding user through self activation as userId is already in use on this BroadWorks cluster	User should try again with different email address.  Otherwise, the customer organization administrator who manages the existing user account should delete that existing user account or remove other entitlements..
200050	Failed adding user through self activation as provisioningID doesn't match expected provisioningID of subscriber's enterprise	The admin should compare the verification link that the user used against the link that's configured in Control Hub.  The two links and configSets must match.
200051	Failed adding user through self activation as spEnterpriseId specified in this request conflicts with a Service Provider or Enterprise already provisioned from this BroadWorks Cluster	The admin should check existing orgs in Control Hub and make sure that they are not creating an org with a name that already exists.
200054	Failed validating email as the region of the customer org and partner org mismatch	The admin should check the partner org and customer org settings in Control Hub and make sure that the regions match.

Error Code	Error Message	Suggested Action
300005	Precheck failure as the user is already in the queue and in the process of getting provisioned.	User provisioning is still in progress. Please wait for a few minutes and check again.

## Error Codes for Directory Sync

The following error codes apply to Directory Sync.

Error Code	Error Message
600000	Broadworks External Directory User Sync unexpected error.
600001	Broadworks External Directory User Sync failed.
600002	Broadworks External Directory User Sync had to be terminated before completion.
600003	Broadworks External Directory User Sync only partially succeeded. Some Customer Organizations failed to sync.
600004	Broadworks External Directory User Sync is not enabled for the ConfigSet.
600005	Broadworks External Directory User Sync is in-progress for the ConfigSet.
600006	Broadworks External Directory User Sync threads are busy or shutting down, hence will not accept more sync request, try again later.
600007	The Identity Org of the CustomerConfig is not found.
600008	The CustomerConfig is not found in the partner org.
600009	Broadworks External Directory User Sync cannot be run as the broadworks cluster associated to the CustomerConfig is busy
600010	Broadworks External Directory User Sync cannot be run as there is no broadworks cluster associated to the CustomerConfig.
600011	Broadworks External Directory User Sync is not enabled for the CustomerConfig.
600012	Broadworks External Directory User Sync cannot be run as the Hybrid Directory sync is already enabled for the CustomerConfig.
600013	Broadworks External Directory User Sync failed to add users and machine accounts to identity store.
600014	Broadworks External Directory User Sync failed while trying to connect to Broadworks cluster. Error from Broadworks - %s.
600015	Broadworks External Directory User Sync didn't find any matching user in identity store.

<b>Error Code</b>	<b>Error Message</b>
600017	BroadWorks Phone List Sync failed to sync all user and enterprise/organization contacts.
600018	BroadWorks Phone List Sync failed for users in the enterprise/organization.
600019	BroadWorks Phone List Sync failed to sync enterprise/organization contacts.
600020	BroadWorks External Directory User Sync cannot be disabled as the CustomerConfig sync is in progress.
600022	BroadWorks External Directory Single User Sync is not possible since the enterprise has no provisioned user.
600023	BroadWorks External Directory Single User Sync is not possible because the user already exists in this organization.
600024	BroadWorks External Directory Single User Sync is not possible because no matching user was found in BroadWorks.
600025	BroadWorks External Directory User Sync failed to update the user account in CI.
600026	BroadWorks External Directory User Sync failed to update the machine account in CI.
600027	BroadWorks External Directory Single User Sync is not possible because multiple users were found in BroadWorks.
600028	BroadWorks External Directory Single User Sync is not possible because at least one enterprise directory sync should have been completed.
600029	BroadWorks External Directory User Sync failed since the enterprise has no provisioned user.

