



## **Cisco Unified Contact Center Express Features Guide, Release 12.0(1)**

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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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## Change History

This table lists changes made to this guide. Most recent changes appear at the top.

Change	See	Date
Initial Release of Document for Release 12.0(1)		January 2019

## About This Guide

This guide explains features you can use in conjunction with Cisco Unified Contact Center Express. For each feature, there is a description, procedures for initial setup, and details on the functionality the feature provides.

## Audience

This guide is prepared for Contact Center administrators who configure and run the contact center, manage agents, and address operational issues.

## Related Documents

Document or Resource	Link
Cisco Unified Contact Center Express Documentation Guide	<a href="https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_documentation_roadmaps_list.html">https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_documentation_roadmaps_list.html</a>

Document or Resource	Link
Cisco Unified CCX documentation	<a href="https://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html">https://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html</a>
Cisco Unified Intelligence Center documentation	<a href="https://www.cisco.com/en/US/products/ps9755/tsd_products_support_series_home.html">https://www.cisco.com/en/US/products/ps9755/tsd_products_support_series_home.html</a>
Cisco Finesse documentation	<a href="https://www.cisco.com/en/US/products/ps11324/tsd_products_support_series_home.html">https://www.cisco.com/en/US/products/ps11324/tsd_products_support_series_home.html</a>
Cisco SocialMiner documentation <b>Note</b> From Unified CCX Release 12.5(1), CCP documents are available in the Cisco Unified CCX documentation folder.	<a href="https://www.cisco.com/c/en/us/support/customer-collaboration/socialminer/tsd-products-support-series-home.html">https://www.cisco.com/c/en/us/support/customer-collaboration/socialminer/tsd-products-support-series-home.html</a>
Cisco Unified CCX Virtualization Information	<a href="https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-contact-center-express.html">https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-contact-center-express.html</a>
Cisco Unified CCX Compatibility Information	<a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-device-support-tables-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-device-support-tables-list.html</a>

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[contactcenterproducts\\_docfeedback@cisco.com](mailto:contactcenterproducts_docfeedback@cisco.com)



# CHAPTER 1

## Contact Center Prerequisites

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This chapter details the prerequisites that are required for a contact center to be set up. The setup of a Cisco Contact Center Express requires the installation of the contact center solution and all the required optional components. The bandwidth calculations must be performed to set up the contact center for an effective functioning. The bandwidth calculations are also based on the type of supported contact center media channels.

- [Install Unified CCX, on page 1](#)
- [Contact Center Planning and Bandwidth Calculations , on page 1](#)

## Install Unified CCX

Unified CCX installation has the following installation options:

- Standard installation - This option allows you to install Unified CCX software from the installation disc.
- Unattended installation - This option allows you to use the installation disc and a preconfigured USB disk to install Unified CCX software unattended.

### Procedure

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- Step 1** Based on the installation scenarios and system requirements, ensure that the important considerations before installation are verified.
  - Step 2** Perform the preinstallation tasks as documented in the [Cisco Unified Contact Center Express Install and Upgrade Guide](#).
  - Step 3** Follow the procedure documented in the [Cisco Unified Contact Center Express Install and Upgrade Guide](#) to install Unified CCX.
- 

## Contact Center Planning and Bandwidth Calculations

The calculation of bandwidth requirements and planning of a contact center must be done based on the type of contact center. You can plan the contact center for agents accepting one or more of the following customer service channels like Voice channels or Digital channels.

- Dedicated Voice

- Blended
- Email and Chat
- Priority Voice over Email and Chat

To calculate the bandwidth requirements based on the type of customer service channels planned for, see the [Cisco Unified Contact Center Express Bandwidth Calculator](#). The bandwidth calculations are done based on various factors for the following requirements in the contact center:

- Cisco Finesse Desktop Sign in
- Cisco Finesse Features
- Cisco Finesse Live Data Report
- Email
- Chat
- External Database Services (EDBS)
- REST APIs
- Unified Intelligence Center Reporting
- Cisco Finesse IPPA
- Cisco Webex Experience Management
- Data Streaming to Cisco Webex Cloud





## CHAPTER 2

# Single Sign-On

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## Single Sign-On

Single sign-on (SSO) is an authentication process that allows users to sign in to one application and then securely access other authorized applications without needing to resupply user credentials. SSO permits Cisco supervisors or agents to sign on only once with a username and password to gain access to all of their Cisco browser-based applications and services within a single browser instance. By using SSO, Cisco administrators can manage all users from a common directory and enforce password policies for all users consistently.



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**Note**

- SSO is an optional feature.
  - The implementation requires you to use the HTTPS protocol only to access all the web applications. The HTTP access to web applications is not supported when the SSO is enabled.
  - Use Fully Qualified Domain Names and not IP addresses to access the web applications.
- 

## SAML 2.0 Authentication

SSO uses Security Assertion Markup Language (SAML) to exchange authentication details between an Identity Provider (IdP) and a service provider. The identity provider authenticates user credentials and issues SAML

assertions, which are pieces of security information transferred from the identity provider to the service provider for user authentication. Each assertion is an XML document that contains trusted statements about a subject including, for example, username and privileges. SAML assertions are usually digitally signed to ensure their authenticity.

A generic SAML authentication flow consists of:

- Client - A browser-based user client used to access a service.
- Service Provider - An application or service the user tries accessing.
- Identity Provider - An entity performing the user authentication.

The identity provider keeps actual credentials and authentication mechanism hidden. Based on the authentication process result, the identity provider issues SAML assertions.

## Elements Used in SAML 2.0

The following is the list of elements that are used in SSO SAML 2.0 authentication:

- Client (the user's client)—A browser-based client or a client that can leverage a browser instance for authentication. For example, a system administrator's browser.
- Lightweight Directory Access Protocol (LDAP) users—Users are integrated with an LDAP directory. For example, Microsoft Active Directory or OpenLDAP.
- Security Assertion Markup Language (SAML) assertion—An assertion is an XML document that contains trusted statements about a subject. For example, a username. SAML assertions are digitally signed to ensure their authenticity. It consists of pieces of security information that are transferred from Identity Providers (IdPs) to the service provider for user authentication.
- Service Provider (SP)—An application or service that trusts the SAML assertion and relies on the IdP to authenticate the users. For example, Cisco Identity Service (IdS).
- An Identity Provider (IdP) server—This is the entity that authenticates user credentials and issues SAML assertions.
- SAML Request—An authentication request that is generated by a Cisco Identity Service (IdS). To authenticate the LDAP user, IdS delegates an authentication request to the IdP.
- Circle of Trust (Co-T)—It consists of the various service providers that share and authenticate against one IdP in common.
- Metadata—An XML file generated by the Cisco IdS (for example, Cisco Identity Service Management) and an IdP. The exchange of SAML metadata builds a trust relationship between the IdP and the service provider.
- Assertion Consumer Service (ACS) URL—A URL that instructs the IdPs where to post SAML assertions.

## Cisco Identity Service (IdS)

Authentication is managed for the contact center solution by the Cisco Identity Service (Cisco IdS). When an SSO-enabled user signs in, the Cisco IdS interacts first with the customer's Identity Provider (IdP) to authenticate

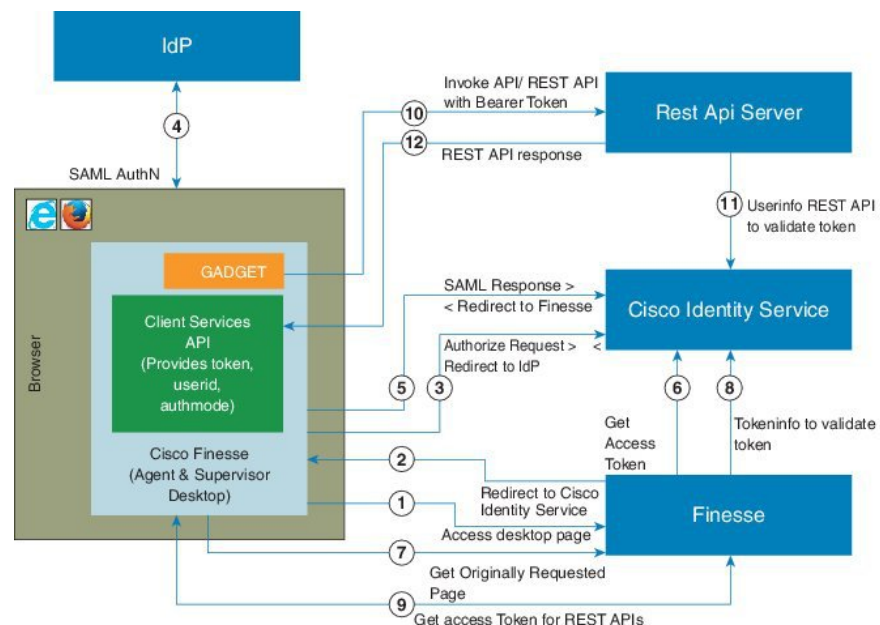
the user. The IdP stores user profiles and provides authentication services to support SSO sign-ins. When the user is authenticated, the Cisco IdS exchanges information with the Cisco service the user is attempting to access to confirm that the user is authorized for the role they are requesting. When the user is both authenticated and authorized, the IdS issues an access token that allows the user to access the application. When the access is established during a particular session, the user can switch among contact center solution applications without presenting credentials again.

## Authentication and Authorization Flow

The complete authentication and authorization flow has been simplified as:

- When you access an application with protected resources, the application will redirect you to the Cisco Identity Service for authentication. Cisco Identity Service leverages SAML and generates a SAMLRequest and redirects the browser to the Identity Provider.
- The browser authenticates directly against the Identity Provider. Applications are not involved in the authentication process and have no access to user credentials.
- The OAuth flow accesses the resource with a token which is then validated.
- Cisco Identity Service sends an authentication request through the browser to the identity provider.
- The user enters the login credentials to the identity provider for authentication. After the assertion is successful and the user attributes are read it will redirect to the original application that was accessed. Cisco Identity Service accompanied by an assertion that confirms successful authentication and includes user information and access rights for the web application.

**Figure 1: Authentication and Authorization Flow**



## Single Sign-On (SSO) Considerations

The Single Sign-on feature authenticates and authorizes users for all the contact center solution applications and services. Authentication is the process of validating the identity of a user: "you are who you say you are." Authorization is the process of confirming that an authenticated user is permitted to perform the action they are requesting: "you can do what you are asking to do." When you enable SSO in the contact center solution, users only sign in once to gain access to all of their Cisco browser-based applications and services.

To support SSO for the contact center solution, you must install and configure an Identity Provider (IdP) that is compliant with the Security Assertion Markup Language 2.0 (SAML v2) Oasis standard. For a current list of supported Identity Provider products and versions, see the Unified CCX Compatibility related information located at: <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-device-support-tables-list.html>.

Authentication and authorization are managed for the contact center solution by the Cisco Identity Service (Cisco IdS). When an SSO-enabled user signs in, the Cisco IdS interacts first with your Identity Provider (IdP) to authenticate the user. The IdP stores user profiles and provides authentication services to support SSO sign-ins. When the user is authenticated, the Cisco IdS exchanges information with the Cisco service the user is attempting to access to confirm that the user is authorized for the role they are requesting. When the user is authenticated, the Cisco IdS issues an access token that allows the user to access the application. Once access is established during a particular session, the user can switch among contact center solution applications without presenting credentials again.



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**Note** The user credentials are only presented to the IdP. The contact center solution applications and services only exchange tokens; they do not see the users' information.

---

To integrate your IdP with your contact center solution, you perform the following administrative tasks:

- Establish a trust relationship between the Cisco IdS and the Identity Provider.
- Set the SSO mode in your system to enable users for SSO.
- Register on the Single Sign-On web page to onboard the single sign-on components.
- Perform **Test SSO Setup** on the single sign-on web page to test the status of registration of each component. You will be redirected to the Identity Provider for authentication. If the **Test SSO Setup** is successful then the **Enable** option is enabled.

## SSO Message Flow

An SSO user's access token is issued by Cisco IdS to validate the users accessing the corresponding applications. When the user is found valid each application performs the authorization locally. Cisco IdS supports authorization Code Grant Flow as defined in OAuth 2.0 and in turn uses SAML v2.0 to authenticate users before issuing auth code.

When a user browses to a web page for an SSO-enabled service, the authentication request is redirected to the Cisco Identity Service. Cisco Identity Service generates a SAML authentication request and directs it to the Identity Provider. The IdP presents a sign-in page to the user at the browser to collect the user's credentials.

After the IdP authenticates the user, the IdP issues a SAML assertion to the Cisco IdS. The assertion contains trusted statements about the user, for example, username and privileges.

The assertions must have attributes. The Cisco IdS extracts **uid** and **user principal** and generates and delivers authorization code to the SSO enabled application. The application on receiving the authorization code will request IDs For Access and Refresh Tokens.

Access Tokens are used by applications to validate user information and Refresh Token are used to request new Access Tokens. These token have a validity period associated with each one of them.



**Note** A new Access token and Refresh token pair can be obtained only before the Auth code expires.

Access Tokens can be refreshed only when both the current access token and the refresh token are valid and not expired.

If the refresh tokens expire you can not refresh an access token. Thus you need to be authenticated again and the auth code need to ne requested again.

Together SAML and OAuth make it possible for a user to authenticate while only exposing user credentials to the authentication provider. The username and password are only presented to the IdP. The contact center solution applications and services do not see the user information. Only the SAML assertion and the OAuth token are exchanged.

## Single Sign-On High Availability Considerations

Every core component in the contact center solution has the Cisco Identity Service client that supports an high availability mode. Any SSO enabled application can connect to either to the local Cisco Identity Service instance or to the remote.

By default it will connect to the local instance of Cisco Identity Service. The Local Cisco Identity Service is the default and the preferred Cisco Identity Service that runs locally.

Cisco Identity Service client supports failover if the remote Cisco Identity Service is configured when the local Cisco Identity Service fails. When the local Cisco Identity Service is available again the Cisco Identity Service client fails back to the local Cisco Identity Service.

The below table provides the details of Cisco Identity Service client failover and fallback in different states of the local and remote Cisco Identity Service:

**Table 1: Failover and Failback Scenarios of Cisco Identity Service Client Based on the State of Cisco Identity Service**

Local Cisco Identity Service	Remote Cisco Identity Service	Cisco Identity Service Client Connects to
IN_SERVICE	Not Applicable	Local Cisco Identity Service
PARTIAL_SERVICE	IN_SERVICE	Remote Cisco Identity Service
PARTIAL_SERVICE	PARTIAL_SERVICE	Local Cisco Identity Service
OUT_OF_SERVICE	PARTIAL_SERVICE	Remote Cisco Identity Service
OUT_OF_SERVICE	OUT_OF_SERVICE	None

OUT_OF_SERVICE	Not Configured	None
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## Single Sign-On Design Impacts

This section details few of the design impacts of the Single Sign-On (SSO) feature. The implementation requires you to use only HTTPS protocol to access all the web applications. The HTTP access to web applications is not supported when the SSO is enabled.

### Authentication Modes in Unified CCX

You can choose from two different authentication modes when deciding about implementing SSO:

- **SSO** - Enable **all** agents, supervisors, and administrators (administrators of the Cisco Unified CCX Administration or Cisco Unified CCX Serviceability application) in the deployment for SSO.
- **Non-SSO** - Use existing Unified CM-based or local authentication.

### Applications in SSO Mode

- Cisco Unified Intelligence Center (CUIC)
- Cisco Finesse
- Cisco Finesse-hosted gadgets
- Cisco Unified CCX Administration
- Cisco Unified CCX Serviceability.




---

**Note** The Cisco Finesse IP Phone Agent is not supported in SSO enabled mode.

Single Sign-On can independently function on Unified CM and Unified CCX. It is not inter dependant on each other.

---

### Applications not SSO Enabled

The following applications are not Single Sign-On enabled:

- Cisco Finesse Administration
- Cisco Identity Service Administration
- Disaster Recovery System
- Cisco Unified OS Administration
- Cisco Unified Serviceability
- Standalone Cisco Unified Intelligence Center
- Cisco Unified CCX Editor

- Real Time Monitoring Tool
- Cisco SocialMiner
- Cisco Workforce Optimization
- Cisco Finesse Desktop Chat
- Any Third Party Application.

## Configure the Cisco Identity Service

The Cisco Identity Service (Cisco IdS) provides authorization between the Identity Provider (IdP) and applications.

When you configure the Cisco IdS, you set up a metadata exchange between the Cisco IdS and the IdP. This exchange establishes a trust relationship that then allows applications to use the Cisco IdS for single sign-on. You establish the trust relationship by downloading a metadata file from the Cisco IdS and uploading it to the IdP. You can then select settings related to security, identify clients of the Cisco IdS service, and set log levels and, if desired, enable Syslog format.

### Procedure

- 
- Step 1** In Unified CCX Administration, navigate to **System > Single Sign-On**.
- Note** Use a log in name in the format *username@FQDN* to log in to the Unified CCX Administration.
- Step 2** Click **Identity Service Management**.
- The Cisco Identity Service Management window opens:
- ```
https://<Unified CCX server address>:8553/idsadmin
```
- Step 3** Enter your user name, and then click **Next**.
- Step 4** Enter your password, and then click **Sign In**.
- The Cisco Identity Service Management page opens, showing the **Nodes**, **Settings**, and **Clients** icons in the left pane.
- Step 5** Click **Nodes**.
- The **Nodes** page opens to the overall Node level view and identifies which nodes are in service. The page also provides the **SAML Certificate Expiry** details for each node, indicating when the certificate is due to expire. The node **Status** options are **Not Configured**, **In Service**, **Partial Service**, and **Out of Service**. Click a status to see more information. The star to the right of one of the Node names identifies the node that is the primary publisher.
- Step 6** Click **Settings**.
- Step 7** Click **IdS Trust**.
- Step 8** To begin the Cisco IdS trust relationship setup between the Cisco IdS and the IdP, click **Download Metadata File** to download the file from the Cisco IdS Server.
- Step 9** Click **Next**.
- Step 10** To upload the trusted metadata file from your IdP, browse to locate the file.

The **Upload IdP Metadata** page opens and includes the path to the IdP. When the file upload finishes, you receive a notification message. The metadata exchange is now complete, and the trust relationship is in place.

- Step 11** Click **Next**.  
The **Test SSO Setup** page opens.
- Step 12** Click **Test SSO Setup**.  
A message appears telling you that the Cisco IdS configuration has succeeded.
- Step 13** Click **Settings**.
- Step 14** Click **Security**.
- Step 15** Click **Tokens**.  
Enter the duration for the following settings:
- **Refresh Token Expiry** -- The default value is 10 hours. The minimum value is 2 hours. The maximum is 24 hours.
  - **Authorization Code Expiry** -- The default value is 1 minute, which is also the minimum. The maximum is 10 minutes.
  - **Access Token Expiry** -- The default value is 60 minutes. The minimum value is 5 minutes. The maximum is 120 minutes.
- Step 16** Set the **Encrypt Token** (optional); the default setting is **On**.
- Step 17** Click **Save**.
- Step 18** Click **Keys and Certificates**.  
The **Generate Keys and SAML Certificate** page opens and allows you to:
- Regenerate the **Encryption/Signature key** by clicking **Regenerate**. A message appears to say that the Token Registration is successful and advises you to restart the system to complete the configuration.
  - Regenerate the **SAML Certificate** by clicking **Regenerate**. A message appears to say that the SAML certificate regeneration is successful.
- Step 19** Click **Save**.
- Step 20** Click **Clients**.  
The **Clients** page identifies the existing Cisco IdS clients, providing the client name, the client ID, and a redirect URL. To search for a particular client, click the Search icon above the list of names and type the client's name.
- Step 21** To add a client:
- a) Click **New**.
  - b) Enter the client's name.
  - c) Enter the Redirect URL. To add more than one URL, click the plus icon.
  - d) Click **Add** (or click **Clear** and then click the X to close the page without adding the client).
- Step 22** To edit or delete a client, highlight the client row and click the ellipses under **Actions**. Then:
- Click **Edit** to edit the client's name, ID, or redirect URL. On the **Edit Client** page, make changes and click **Save** (or click **Clear** and then click the X to close the page without saving edits).
  - Click **Delete** to delete the client.
- Step 23** Click **Settings**.
- Step 24** From the **Settings** page, click **Troubleshooting** to perform some optional troubleshooting.



- Step 25** Set the local log level by choosing from **Error**, **Warning**, **Info** (the default), **Debug**, or **Trace**.
- Step 26** To receive errors in Syslog format, enter the name of the Remote Syslog Server in the Host (Optional) field.
- Step 27** Click **Save**.

---

You can now:

- Register components with the Cisco IdS.
- Enable (or disable) SSO for the entire deployment.

## Establish Trust Relationship for Cisco IdS

To enable applications to use Cisco Identity Service (Cisco IdS) for Single Sign-On, perform the metadata exchange between the Cisco IdS and the Identity Provider (IdP).

- Download the SAML SP Metadata file, `sp.xml`, on the Cisco IdS publisher primary node.
  1. Open Identity Service Management by doing either of the following:
    - Open the Identity Service Management window: `https://<Unified CCX server address>:8553/idsadmin`.
    - In Unified CCX Administration, navigate to **System > Single Sign-On** and click **Identity Service Management**.
  2. On the **Settings > IdS Trust** tab, download the SAML SP Metadata file, `sp.xml`.
- Download the Identity Provider Metadata file, `federationmetadata.xml`, from the IdP. For example,
  1. For AD FS, download the Identity Provider Metadata file from the IdP at the location:  
`https://<ADFSServer FQDN>/federationmetadata/2007-06/federationmetadata.xml`.
  2. On the **Identity Service Management** page, upload the Identity Provider Metadata file that was downloaded in the previous step.

The SAML SSO uses trust authentication certificates to exchange authentication and authorization details between the IdP (such as AD FS) and the Cisco IdS. This secures the communication between the servers.



---

### Note

- Cisco IdS supports SAML self-signed certificates for authentication.
  - If the IdP certificates are automatically rolled-over, manually renewed, or updated by the administrator, then re-establish the trust relationship between the IdS and the IdP.
-

# Configure an Identity Provider

To support SSO for the contact center solution, configure an Identity Provider (IdP) that is compliant with the Security Assertion Markup Language 2.0 (SAML v2) Oasis standard. The IdP stores user profiles and provides authentication services to the contact center solution.

This section provides details on the qualified Identity Providers (IdPs) and the reference links to configure the IdPs.

## Qualified Identity Providers

If you use any Identity Provider (IdP) outside of the listed IdPs in the table below, Cisco IdS supports the IdP as long as the IdP is SAML 2.0 compliant and meets the following requirements described in the subsequent SAML Request and Response sections:

- SAML Request Attributes
- Expectations from SAML Response

| Qualified Identity Providers                           | Version                |
|--------------------------------------------------------|------------------------|
| Microsoft AD FS (Active Directory Federation Services) | 2.0, 2.1, 3.0, and 4.0 |
| PingFederate                                           | 8.2.2.0                |
| OpenAM                                                 | 10.0.1                 |
| Shibboleth                                             | 3.3.0                  |
| F5                                                     | 13.0                   |

To configure the qualified Identity Providers (IdPs), see the following references for:

- Microsoft AD FS (Active Directory Federation Services) - <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/unified-contact-center-express/200612-Configure-the-Identity-Provider-for-UCCX.html>
- PingFederate - <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/unified-contact-center-express/211580-Install-and-Configure-the-PingFederate-I.html>
- OpenAM - <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/unified-contact-center-express/211579-Install-and-Configure-the-OpenAM-Identit.html>
- Shibboleth - <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/unified-contact-center-express/211578-Install-and-Configure-the-Shibboleth-Ide.html>
- F5 - <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/unified-contact-center-express/212148-install-and-configure-the-f5-identity-pr.html>

## IdP Metadata Schema

When you configure IdS and exchange Metadata between Cisco Identity Service (IdS) and the Identity Provider (IdP), ensure that the IdP Metadata file should confirm to the SAML metadata schema at:

<https://docs.oasis-open.org/security/saml/v2.0/saml-schema-metadata-2.0.xsd>

## SAML Request Attributes

- SAML request supports the following SAML 2.0 bindings: **HTTP-POST** binding
- NameIDFormat in SAML request must be **urn:oasis:names:tc:SAML:2.0:nameid-format:transient**
- SAML request can be signed using **SHA-128** or **SHA-256** as per the value configured in the system.

```
<samlp:AuthnRequest xmlns:samlp="urn:oasis:names:tc:SAML:2.0:protocol"
  ID="s25f4fb66688cf429e430034f4cceac00b6124570d" Version="2.0"
  IssueInstant="2018-10-29T10:01:39Z"
  Destination="https://win-ads30-151.uccxteam.com/adfs/ls/"
  ForceAuthn="false" IsPassive="false"
  ProtocolBinding="urn:oasis:names:tc:SAML:2.0:bindings:HTTP-POST"
  AssertionConsumerServiceURL="https://ccxssodemo1.cisco.com:8553/ids/saml/response">
  <saml:Issuer
xmlns:saml="urn:oasis:names:tc:SAML:2.0:assertion">ccxssodemo1.cisco.com</saml:Issuer>
  <samlp:NameIDPolicy xmlns:samlp="urn:oasis:names:tc:SAML:2.0:protocol"
    Format="urn:oasis:names:tc:SAML:2.0:nameid-format:transient"
    SPNameQualifier="ccxssodemo1.cisco.com" AllowCreate="true"></samlp:NameIDPolicy>
</samlp:AuthnRequest>
```

## Expectations from SAML Response

The following are the expectations from SAML Response:

- The entire SAML response (message and assertion) is signed or only the message is signed but not the SAML assertion alone is signed.
- SAML Assertion must not be encrypted.
- SAML response must be signed using **SHA-128** or **SHA-256** as per the value configured in the system.
- NameIDFormat in SAML response must be **urn:oasis:names:tc:SAML:2.0:named-format:transient**.
- **uid** and **user\_principal** attributes should be present in SAML assertion in the AttributeStatement section.

The "uid" attribute value must be the user Id using which users log in to Cisco contact centre applications that are SSO enabled and the "user\_principal" attribute value must be in uid@domain format.

```
<samlp:Response xmlns:samlp="urn:oasis:names:tc:SAML:2.0:protocol"
  Consent="urn:oasis:names:tc:SAML:2.0:consent:unspecified"
  Destination="https://ids-ssp-node.cisco.com:8553/ids/saml/response"
  ID="_6a309495-d3c2-4a28-b8e3-289f8f5355bd"
  InResponseTo="s21c84ba20862f573f5daec121c305ba6aac877843"
  IssueInstant="2017-08-10T13:20:26.556Z" Version="2.0">
  <Issuer
xmlns="urn:oasis:names:tc:SAML:2.0:assertion">http://ADFSServer.cisco.com/adfs/services/trust
  </Issuer>
  <ds:Signature xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
    <ds:SignedInfo>
```

```

        <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#"
/>
        <ds:SignatureMethod Algorithm="http://www.w3.org/2000/09/xmldsig#rsa-sha1" />
        <ds:Reference URI="#_6a309495-d3c2-4a28-b8e3-289f8f5355bd">
            .....
        </ds:Reference>
    </ds:SignedInfo>
    .....
    .....
</ds:Signature>
<samlp:Status>
    <samlp:StatusCode Value="urn:oasis:names:tc:SAML:2.0:status:Success" />
</samlp:Status>
<Assertion xmlns="urn:oasis:names:tc:SAML:2.0:assertion"
ID="_df3bdbcf-a225-4e97-b00a-a199bdda3d2c"
    IssueInstant="2017-08-10T13:20:26.556Z" Version="2.0">
    <Issuer>http://ADFSserver.cisco.com/adfs/services/trust</Issuer>
    .....
    .....
    <NameID Format="urn:oasis:names:tc:SAML:2.0:nameid-format:transient"
        NameQualifier="http://ADFSserver.cisco.com/adfs/services/trust"
        SPNameQualifier="ids-ssp-node.cisco.com">CISCO\Admin121</NameID>
    <SubjectConfirmation Method="urn:oasis:names:tc:SAML:2.0:cm:bearer">
        <SubjectConfirmationData
            InResponseTo="s21c84ba20862f573f5daec121c305ba6aac877843"
            NotOnOrAfter="2017-08-10T13:25:26.556Z"
            Recipient="https://ids-ssp-node.cisco.com:8553/ids/saml/response" />
        </SubjectConfirmation>
    </Subject>
    <Conditions NotBefore="2017-08-10T13:20:26.556Z"
        NotOnOrAfter="2017-08-10T14:20:26.556Z">
        <AudienceRestriction>
            <Audience>ids-ssp-node.cisco.com</Audience>
        </AudienceRestriction>
    </Conditions>
    <AttributeStatement>
        <Attribute Name="user_principal">
            <AttributeValue>Admin121@cisco.com</AttributeValue>
        </Attribute>
        <Attribute Name="uid">
            <AttributeValue>Admin121</AttributeValue>
        </Attribute>
    </AttributeStatement>
    <AuthnStatement AuthnInstant="2017-08-10T13:18:12.086Z"
        SessionIndex="_df3bdbcf-a225-4e97-b00a-a199bdda3d2c">
        <AuthnContext>
            <AuthnContextClassRef>urn:oasis:names:tc:SAML:2.0:ac:classes>PasswordProtectedTransport</AuthnContextClassRef>
        </AuthnContext>
    </AuthnStatement>
    </Assertion>
</samlp:Response>

```



## CHAPTER 3

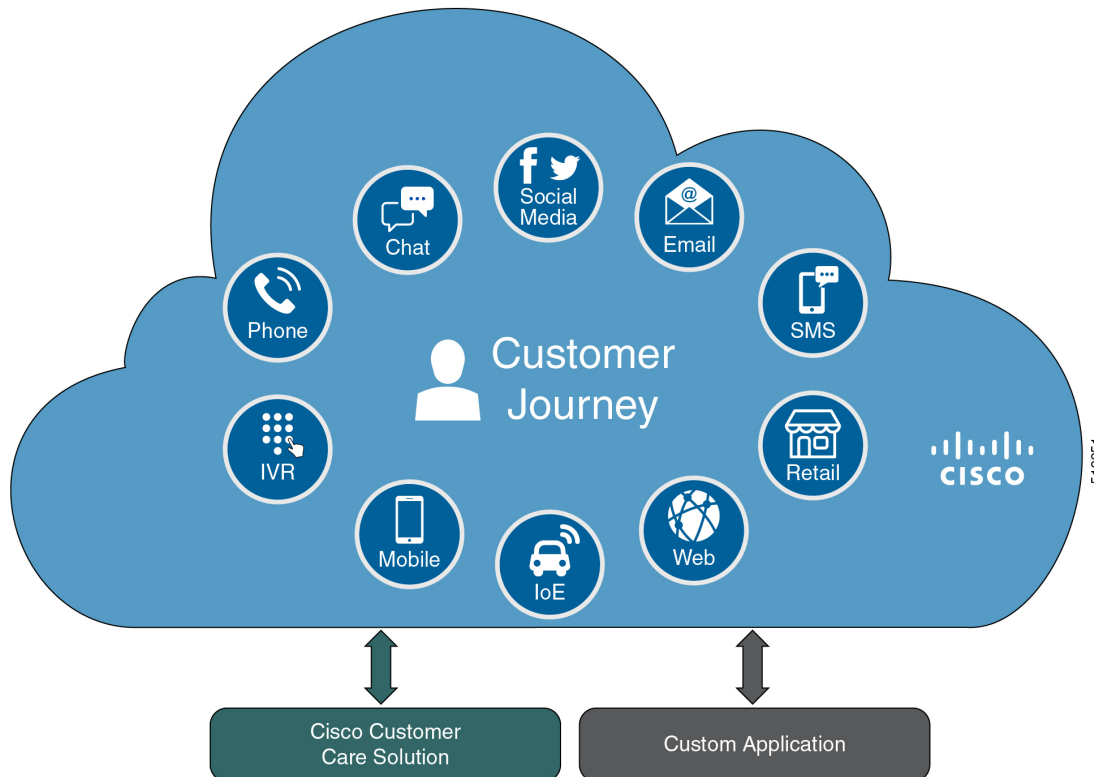
# Context Service

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- [Omnichannel Customer Journey](#), on page 17
- [Task Flow to Enable Context Service](#), on page 18
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- [Context Service Data Model, Fields, and Fieldsets](#), on page 23
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## Context Service

Cisco Context Service is a cloud-based, omnichannel solution. Context Service captures customer interaction history and provides flexible storage of the customer interaction data across all channels (including voice, chat, email, and Internet of Things).



Context Service provides an out-of-the-box integration with Unified Contact Center Express. You do not need to install any additional components. With Context Service integrated with your contact center, agents can access a customer's previous interactions with your organization. Context Service provides this information to your agents through the Customer Context gadget in the Cisco Finesse desktop.

Context Service provides a flexible data store for storing customer interaction data. You can define what data you want to store and how to store it. Cisco hosts and manages the service, eliminating the need for your organization to deploy and manage servers. Your organization owns the data, even though it's stored in the cloud. Your organization controls access to sensitive data. Cisco partners cannot access protected data unless you grant them access.

For more information about Context Service, see Cisco Context Service Help Central at <https://help.webex.com/community/context-service>.

## CCX Component Integration with Context Service

The following contact center components integrate with Context Service:

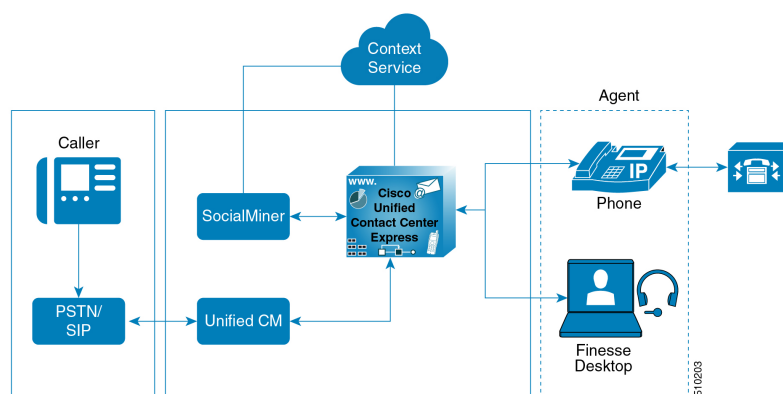
- **Cisco Finesse**—This enables an agent to view and update the POD or Activity for the tasks that they handle in a gadget.
  - **Fusion Management Connector** - This is the service that allows registration with Context Service. This runs on the primary node in the cluster.
  - **Finesse Auth** - This service is used by the Context Service gadget.

- **Cisco SocialMiner**—This creates the POD or Activity for every chat or email injected into Unified CCX.
- **Unified CCX Engine Service**—This creates the POD or Activity for all the Unified CCX handled voice calls. The Unified CCX call scripts must have the Context Service steps.

## Design Considerations

This section details the design considerations that are required to be considered while integrating the Context Service feature with the Unified Contact Center Express solution. This will inform us of the complete task flow that is involved in the integration, configuration, onboarding, enabling, and using of the feature with the contact center solution.

**Figure 2: Integration of Context Service with Unified CCX**



## Omnichannel Customer Journey

The omnichannel customer journey captures and displays a customer's complete interaction history.

A customer purchases a motorcycle from a company (Cumulus Motorcycle). The customer now has a problem with the motorcycle, so he needs to schedule an appointment with Cumulus Motorcycle for repair. He browses the Cumulus web site to locate the nearest service center and chats with a Cumulus agent to determine if the service center that he selected is open on Sundays. In the chat, he tells the agent that he will call when he is ready to schedule an appointment.

The customer calls to schedule a service appointment. The Unified CCX detects his call and sends his call to a Cumulus Motorcycle agent who is context aware. The customer agrees on a date for service. The agent confirms the appointment, and sends the appointment details to the customer. The customer brings his motorcycle into Cumulus Motorcycle for the scheduled service appointment, then picks up his repaired motorcycle.

**Table 2: Components that enable the omnichannel customer journey**

| Activity                                                                                                           | Components                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| The motorcycle dashboard indicates an error, and instructs the customer to contact Cumulus Motorcycle immediately. | The motorcycle sends diagnostic metadata to the Cumulus data center which is connected to Context Service. Cumulus Context Service account. |

| Activity                                                                                                                                                                                                                                                                                  | Components                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| The customer browses the Cumulus website to locate the nearest service center. He clicks the <b>Schedule Service Appointment</b> link to view the Cumulus Service Centers located near him. He views the nearest Cumulus Service Center and clicks the link to chat with a Cumulus agent. | SocialMiner<br>Finesse<br>The Cumulus backend server sends the IoT event data and creates an activity to show the current breadcrumbs in Context Service. |
| The customer calls to schedule a service appointment.                                                                                                                                                                                                                                     | Unified CCX<br>Finesse<br>Other components                                                                                                                |
| The customer receives the appointment details.                                                                                                                                                                                                                                            | SocialMiner (Email)                                                                                                                                       |
| The customer picks up his repaired motorcycle.                                                                                                                                                                                                                                            |                                                                                                                                                           |

## Task Flow to Enable Context Service

To enable Context Service in your contact center solution, follow this task flow:

| Sequence                                 | Task                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>On board your Organization</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 1                                        | For information on how to install and configure the contact center solution see, <a href="#">Cisco Unified Contact Center Express Install and Upgrade Guide</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 2                                        | For information on how to configure the firewall to work with Context Service see, <a href="#">Context Service Network Connectivity Requirements, on page 32</a> . If there is no connectivity with the Context Service cloud, configure the proxy parameters to access Context Service through the HTTP proxy in the Cisco Unified Contact Center Express Administration. For details on how to configure see, <a href="https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-maintenance-guides-list.html">https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-maintenance-guides-list.html</a> . |
| 3                                        | For information on how to work with your Cisco Partner to on board your organization see, <a href="#">Enable Context Service for Your Organization, on page 19</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Configure and Register Components</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 4                                        | For information on how to register Unified CCX with Context Service see, <a href="#">Register and Configure Context Service, on page 22</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Check Status of Context Service</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



| Sequence              | Task                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5                     | For information on how to check the status of Context Service for all the components of the Unified CCX solution see, <a href="#">Context Service Status, on page 33</a> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Create Scripts</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6                     | <p>For information on how to add Context Service steps to the Unified CCX scripts for the voice-based interactions only see, Cisco Unified Contact Center Express Scripting Guides at <a href="https://developer.cisco.com/site/express-scripting/documentation/">https://developer.cisco.com/site/express-scripting/documentation/</a>.</p> <p>Two of the most common used Context Service use cases are bundled in the IVR script repository. Some of the most useful use cases from Context Service such as Last Agent routing, Priority customer identification, Route based on previous call outcome, Tag call for follow up and run outbound campaign on all tagged calls.</p> |

## Context Service Setup

### Context Service Prerequisites

Before setting up Context Service, install and configure your contact center solution and any components you are integrating with Context Service (Cisco Finesse and SocialMiner ).

### Enable Context Service for Your Organization

Context Service enables you to store and access customer interaction data in the cloud, creating a flexible and seamless omnichannel customer journey experience. To use Context Service:

- Work with your Cisco account partner to enable Context Service for your organization.
- Register Context Service for your organization to use with your contact center application.
- Connect your contact center application to Context Service.



**Note** You need Java Runtime Environment (JRE) version to 1.8.0\_151 or later to use Context Service.

#### Create a Customer Organization and Enable Context Service

Your Cisco account partner can provide Context Service entitlement to your [Cisco Webex Control Hub](#) account.

This example shows how a partner adds a Context Service subscription to a customer organization. The example assumes that:

- The partner is a full administrator or sales administrator and can add trials.

- The [Cisco Webex Control Hub](#) account or the organization and accounts associated with the organization have been created.

### Example: Add a Trial Service

Context Service is not tied to the trial services, and does not expire when the trial period is complete.

1. Log in with your partner credentials to the [Cisco Webex Control Hub](#).
2. Click **Start Trial** on the Overview page. The **Start New Trial** window opens.

3. Enter details about the trial:
  - **Customer Information:** Enter the name of the customer company and an email for the administrator.
  - **Trial Services:** Select the trials to add to this customer. To enable Context, select **Message**.
  - **Licenses Quantity:** Specify the number of licenses required for this customer trial. This number is usually the number of users who use this service. This option applies only to the Trial Services. Context Service is not bound by the number of licenses specified here.
  - **Trial duration** Specify the duration the trial lasts before you must purchase the service. This option applies only to the Trial Services and not Context Service.



---

**Note** Context Service entitlement does not expire when the specified trial period ends. The organization can continue to use Context Service beyond the date of the specified Trial Duration.

---



---

**Note** You cannot change the customer name and administrator email after you create the trial. You can modify the other terms of the trial as needed.

Make sure that the email you provide is not already associated with a [Cisco Webex Control Hub](#) account.

---

4. Scroll down to the **Non Trial Services** section and select **Enable Context Service for Cisco Unified Contact Center**.
5. Click **Next**.
6. A message is displayed that asks if you want to set up the services for the customer. Click **No**.

You now have provided Context Service entitlement to the organization. The customer now receives a welcome email at the specified email address with the subject line **Welcome to Cisco Spark Service**.

Welcome to Cisco Spark

## Your trial starts today

Your 90 day trial powered by Cisco CCBU Test Partner Org has begun  
and ends on Aug 24,2017

Go to [Cisco Spark Control Hub](#) to begin using your services.

[Get Started](#)

The Cisco Spark Team



510231

The customer must click **Get Started** in the email and sign in to [Cisco Webex Control Hub](#) to begin their trial. The customer uses the credentials in the email to sign in and is prompted to create a password.

Your Cisco Context Service is ready. To use the service, connect to Cisco Contact Center with Context Service Enabled. See [Register Context Service](#) for more information.

# Component Configuration and Registration

## Register and Configure Context Service

Registering applications with Context Service is easy if your Cisco Webex Control Hub account has been entitled for Context Service.

For Cisco Context Center on-premise applications, simply use the built-in registration process. A browser window displays and prompts you to log in to Cisco Webex Control Hub. Log in and follow the on-screen instructions to authorize the application to connect to Context Service.

Use the Context Service Management gadget to register Unified CCX with the Context Service.

### Before you begin

Ensure that your web browser allows popups.

When your organization is entitled for Cisco Context Service, you must have received an email requesting a sign-in and a password change. Sign in using the registration email, and change the password. Now your organization is entitled to use Context Service.

If the browser requires a proxy to connect to internet, configure the browser to use proxy. See the browser documentation about configuring proxy.

### Procedure

---

- Step 1** Verify the Context Service parameters as specified on the **System Parameters Configuration Web Page**. If Unified CCX server has to access Context Service via HTTP proxy, configure the proxy parameters and select proxy type as HTTP .
- Step 2** If you are not already signed in, sign in to the **Cisco Finesse Administration** console.
- Step 3** To register Unified CCX with the Context Service, in the **Context Service Management** gadget, click **Register**. For more information about Context Service registration, see <https://help.webex.com/community/context-service>.
- Note** If the Unified CCX FQDN is not added as an exception in the blocked popup window settings of the browser, the opened registration and deregistration popup windows do not close automatically. You must manually close the popup windows.
- Step 4** You are prompted to log in and enter your Cisco Webex Control Hub admin credentials to complete the registration.
- Note** If you encounter any issues with the Context Service connectivity and would want to reregister or troubleshoot the issue, click **Deregister**.

During the Registration process, at any time if you wish to cancel the registration, click **Cancel**. If registration fails or context service cannot be reached, you can reregister by clicking the **Register** button.

In case of Context Service failures, you will receive RTMT alerts.

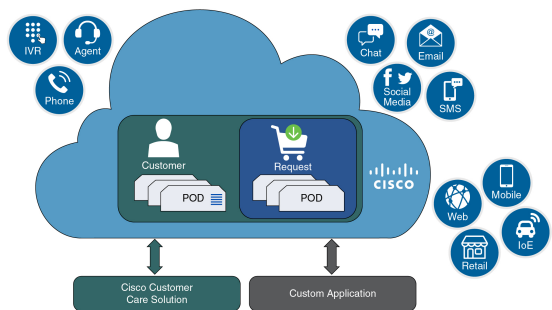
- Note** If using Firefox, enable the **dom.allow\_scripts\_to\_close\_windows** config to ensure that any additional tabs opened for context service registration close as expected. To do this:
- Enter `about:config` in the Firefox browser.
  - Click **I accept the risk**.
  - Search for `dom.allow_scripts_to_close_windows` config.
  - Double click to change the value field to `True`.
  - Restart your browser.

### What to do next

If context service registration is done by enabling the proxy setting option, configure the browser proxy with the URL specified in the Context Service Management gadget.

## Context Service Data Model, Fields, and Fieldsets

Context Service is a flexible and secure data store in the cloud that connects the customer journey across different media channels. These media channels include voice, email, chat, mobile, and web. Information from different media channels often exists across multiple applications without an effective way to bring it together. Context Service enables you to better understand disparate data by creating a map of customer interactions. Context Service helps your agents follow the customer journey and provide relevant and immediate assistance, enhancing both the customer and the agent experience. Context Service enables Cisco Contact Center customers to deliver a seamless omnichannel experience through an out-of-the-box integration with Cisco Customer Care products and with APIs for third-party integrations.



### Context Service Objects

- **Customer data**—Describes who a specific customer is. For example, this includes information such as name, address, and phone number. The customer object type provides a way of linking personally identifiable information (PII) with a customer ID.
- **Activity data**—Describes a specific customer interaction. Activities are also known as PODs. Each activity reflects one step in the customer journey as the customer seeks to fulfill a request. For example, an activity occurs when a customer interacts with your organization by:

- Browsing your organization's website.
- Emailing your organization.
- Calling your organization and using an IVR menu.
- Chatting with an agent.

You can associate activities with a customer or a request.

- **Request data**—Describes what the customer wants. Requests are also used to group activities together that are related to a specific customer issue. For example:

A customer goes online to make a credit card payment. The customer runs into an issue making the payment online, and makes a phone call instead. Attempting to make the payment online and making a phone call are two separate activities. These two activities belong to the same request, making a credit card payment.

You must associate each request with a customer.

- **Detail data**—Provides additional information on another object type. For example:
  - Notes made by an agent during an activity.
  - Feedback from the customer about an activity.

You must associate each detail with a request or an activity.

### Context Service Fields and Fieldsets

Fields allow you to define the structure of the context data that is stored in Context Service objects. Fieldsets are logical grouping of fields based on your business needs. For example, you can create a shopping basket fieldset with four fields:

- Items in the cart.
- Items in a wish list.
- Total price.
- Estimated shipping costs.

You can use the Context Service fields and fieldsets to create a flexible data model. You can:

- Use the Cisco base fields and fieldsets or create your own custom fields and fieldsets.
- Add a field to multiple fieldsets.
- Associate multiple fieldsets with a single Context Service object.
- Associate the Cisco base fieldsets and your own custom fieldsets with the same Context Service object.
- Add or remove fields from a fieldset without changing any of the objects that are associated with that fieldset.



**Note** Each Context Service object must have at least one fieldset assigned to it.

For example, you could use different fields for an activity for incoming calls and an activity for Mobile App shopping:

| Field Type        | Activity for Incoming Calls                                                                        | Activity for Mobile App Shopping                                                           |
|-------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Cisco base fields | <ul style="list-style-type: none"> <li>Context_Notes</li> <li>Context_POD_Activity_Link</li> </ul> |                                                                                            |
| Custom fields     | <ul style="list-style-type: none"> <li>IVR Menu Selected</li> <li>Caller Authenticated</li> </ul>  | <ul style="list-style-type: none"> <li>Browsing Information</li> <li>Cart Items</li> </ul> |

Each individual Context Service data object is limited to 256 KB.

**Table 3: Context Service Object Properties**

| Object Property                                                                                                                                       | Customer | Request                                                     | Activity                                                     | Detail                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>id</b> : Unique object identifier.                                                                                                                 | ✓        | ✓                                                           | ✓                                                            | ✓                                                                               |
| <b>parentId</b> : Unique identifier representing a parent Context Object.                                                                             | N/A      | N/A                                                         | ✓ Optional property that links the activity with a request.  | ✓ Required property that links the detail with either a request or an activity. |
| <b>customerId</b> : Unique identifier representing a customer.                                                                                        | N/A      | ✓ Required property that links the request with a customer. | ✓ Optional property that links the activity with a customer. | N/A                                                                             |
| <b>created</b> : Object creation time stamp.                                                                                                          | ✓        | ✓                                                           | ✓                                                            | ✓                                                                               |
| <b>lastUpdated</b> : Time stamp of when the object was last modified.                                                                                 | ✓        | ✓                                                           | ✓                                                            | ✓                                                                               |
| <b>state</b> : Indicates if the object is active or closed. For more information, see <a href="#">Object State in the Context Service SDK Guide</a> . | ✓        | ✓                                                           | ✓                                                            | ✓                                                                               |

| Object Property                                                                                                                                                                                                                                                                  | Customer | Request | Activity | Detail |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------|--------|
| <b>contributors:</b> Users or Machine accounts that created or updated an object.                                                                                                                                                                                                | ✓        | ✓       | ✓        | ✓      |
| <b>mediaType:</b> Indicates the type of media in activity. There are eight possible media types: <ul style="list-style-type: none"> <li>• Voice</li> <li>• Video</li> <li>• Chat</li> <li>• Email</li> <li>• Mobile</li> <li>• Social</li> <li>• Web</li> <li>• Event</li> </ul> | N/A      | N/A     | ✓        | N/A    |
| <b>fieldsets:</b> The fieldsets assigned to the object. Object must have at least one fieldset assigned. Fieldsets define which fields apply to the object.                                                                                                                      | ✓        | ✓       | ✓        | ✓      |
| <b>tags:</b> List of tags for the activity.                                                                                                                                                                                                                                      | N/A      | N/A     | ✓        | N/A    |

The object properties `id`, `created`, `lastUpdated`, `contributors`, and `state` are automatically populated when you create an object.

For a complete list of Cisco base fields and information on creating custom fields, see [Fields and Fieldsets in the Context Service SDK Guide](#).

### Which Data Should Be Stored in Context Service Objects?

Context Service provides a way for you to collect siloed information and creates breadcrumbs that allow you to follow a customer journey. You can design the data stored in the Context Service objects based on your business requirements and workflows. Before you decide about what data to store, consider these questions:



- Which kind of data do you need to help you solve your specific use case?
- Where is the information you need currently stored?
- Who needs access the information to solve your specific use case?

Examine the journey that your customer follows. This helps to not only answer these questions, but also to find the best way of bringing the disparate pieces of information together. For example, the customer starts on online on a website and follows up with a phone call. Does your IVR or agent know about the previous website visit? Can your IVR identify a repeat caller and offer different options? Use these observations to identify application silos or organizational silos in the user journey. Identify the gaps in the information and build a Context Service data model to provide the breadcrumbs required to fill the gaps. For example, an online retail organization who wants to see if customers added items to their cart and did not buy them. The organization also wants to offer alternate suggestions based on the product customers are looking for. The object, an activity here, must have two fields. One that records the items in the customer's cart and one that lists all the products browsed. The data model design is also dynamic, that is, you can choose to add new fieldsets any time. The online retail organization decides after few months, that survey score information adds value. They can then add a survey score field to the design, without impacting existing Context data.

### Context Service Data Privacy Model

Each field is defined by a data type and a security classification.

Context Service provides endpoint encryption so that sensitive data is not stored or transported in plain text. When you define a field, you specify how the field classifies data. You can classify data as:

- **Personally Identifiable Information (PII)**—Information associated with an individual who contacts your support center. PII is stored and transported in an encrypted format and requires a key to access the data. With endpoint encryption, PII can only be decrypted at the client.
- **Non-PII Encrypted**—Information that is not associated with an individual, but is considered confidential. Encrypted data is stored and transported in an encrypted format. Encrypted at endpoint, this data can only be decrypted at the client.
- **Unencrypted**—Information that is not PII and is not confidential. Unencrypted data is stored as plain text, but transported over an encrypted layer (HTTPS).

For example, name, email, and phone-number are personally identifiable. Therefore, the default fields that hold these types of data classified as PII, and are endpoint encrypted. Rewards card balances may not be PII. You can store them as Unencrypted. Non-PII Encrypted fields may be fields such as "Context Title", the title of an activity.



---

**Note** Context Service does not prevent you from entering PII or confidential information in unencrypted fields. Ensure that your data is stored in the appropriate field with the correct classification.

---

You can also define additional boundaries for your data by using lab mode and production mode. For more information, see [Context Service Modes](#).

## Context Service Modes

You can set the mode when you create the Context Service client connection or register with Context Service. The two modes are Lab and Production.

- **Lab mode:** Use this mode to test, develop, and debug Context Service. Lab mode contains nonproduction data and allows you to delete objects and flush all data. You can continue to test and develop in the Lab mode after you deploy a version to Production mode. You cannot access data created in Production mode while in Lab mode.
- **Production mode:** Use this mode when you deploy Context Service in your application. You cannot delete objects in this mode. Make sure you test Context Service using the Lab mode before you deploy the service in your application. You cannot access data created in Lab mode while in Production mode.

If multiple applications in your organization are using Context Service, make sure all the applications are using the same mode. Data created in one mode cannot be accessed in another mode.



### Note

Context Service creates strict security boundaries between data created in Production and Lab modes by using separate accounts per workgroup per machine. This model enables you to isolate data between the two modes. When you register your application, both modes are enabled on the registered machine with the same connection data.

## Default Fields and Fieldsets as Templates

Cisco provides a few base fields in base fieldsets as template. You can add more fields or fieldsets to a POD or Activity via a Unified CCX script. The model is to create custom fields, add them to a fieldset, and set the fieldset on the POD or Activity or Customer object. The table below reflects the `cisco.ccx.pod`, `cisco.SocialMiner.pod`, and `cisco.base.pod`, which are template fieldsets from Cisco.

| Fieldset      | Field    | Data Type | Description                                                                                                                                    |
|---------------|----------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|
| cisco.ccx.pod | Agent_ID | string    | Unified CCX scripts use this for setting the ID of the agent to whom the call is routed so that it could be used for making routing decisions. |

| Fieldset              | Field                        | Data Type | Description                                                                                                                       |
|-----------------------|------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------|
| cisco.ccx.pod         | CCX_CSQ                      | string    | Unified CCX scripts use this for setting the CSQ where the call is sent to so that it could be used for making routing decisions. |
| cisco.SocialMiner.pod | SM_SocialContact_Author      | string    | This is required for SocialMiner to auto populate the information for integration.                                                |
| cisco.SocialMiner.pod | SM_SocialContact_Subject     | string    | This is required for SocialMiner to auto populate the information for integration.                                                |
| cisco.SocialMiner.pod | SM_SocialContact_Description | string    | This is required for SocialMiner to auto populate the information for integration.                                                |
| cisco.SocialMiner.pod | SM_SocialContact_RefURL      | string    | This is required for SocialMiner to auto populate the information for integration.                                                |
| cisco.base.pod        | Context_Notes                | string    | Finesse Context Service gadget adds this fieldset if not found since it is needed for the user interface.                         |

| Fieldset       | Field                        | Data Type | Description                                                                                                                                                                                                                                                                             |
|----------------|------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cisco.base.pod | Context_POD_Source_Cust_Name | string    | This is hidden in the gadget. This helps to keep track of the source field if different from the one associated with the customer object. This helps the gadget to pre-fill the customer portion of the user interface for an unknown caller.                                           |
| cisco.base.pod | Context_POD_Source_Email     | string    | This is hidden in the gadget. This is a Tracking field for Auto Create. This helps the gadget to pre-fill the customer portion of the user interface for an unknown caller. This helps to keep track of the source field if different from the one associated with the customer object. |
| cisco.base.pod | Context_POD_Source_Phone     | string    | This is hidden in the gadget. This is a Tracking field for Auto Create. This helps the gadget to pre-fill the customer portion of the user interface for an unknown caller. This helps to keep track of the source field if different from the one associated with the customer object. |

| Fieldset          | Field                     | Data Type | Description                                                                                         |
|-------------------|---------------------------|-----------|-----------------------------------------------------------------------------------------------------|
| cisco.base.pod    | Context_POD_Activity_Link | string    | Finesse Context Service gadget adds this fieldset if not found since its needed for user interface. |
| cisco.base.rating | cccRatingPoints           | string    | This field helps to capture the chat rating in an Activity (POD) in Context Service.                |

The customers can be looked up based on the following fields in the **cisco.base.customer** fieldset.

| Fieldset            | Field                        | Data Type | Description                                     |
|---------------------|------------------------------|-----------|-------------------------------------------------|
| cisco.base.customer | Context_First_Name           | string    | First name of the contact.                      |
| cisco.base.customer | Context_Last_Name            | string    | Last name of the contact.                       |
| cisco.base.customer | Context_Street_Address_1     | string    | Street address of the contact.                  |
| cisco.base.customer | Context_Street_Address_2     | string    | Street address of the contact.                  |
| cisco.base.customer | Context_City                 | string    | City name of the contact.                       |
| cisco.base.customer | Context_State                | string    | State name of the contact.                      |
| cisco.base.customer | Context_ZIP                  | string    | Zip details of the contact.                     |
| cisco.base.customer | Context_Country              | string    | Country name of the contact.                    |
| cisco.base.customer | Context_Home_Phone           | string    | Home phone number of the contact.               |
| cisco.base.customer | Context_Mobile_Phone         | string    | Mobile phone number of the contact.             |
| cisco.base.customer | Context_Home_Email           | string    | Home email address of the contact.              |
| cisco.base.customer | Context_Work_Email           | string    | Work email address of the contact.              |
| cisco.base.customer | Context_Customer_External_ID | string    | External identification details of the contact. |

# Get Started with Context Service

This section describes the high-level tasks required to get started with Context Service. These tasks are detailed in the following sections of the guide.

1. Ask your Cisco Partner to create your organization account and enable Context Service.
2. Cisco Partner gets access to Cisco Spark Control Hub portal.
3. Partners enable Context Service for customers through the Cisco Spark Control Hub by starting a New Trial.

## Context Service Network Connectivity Requirements

Context Service is a cloud-based service and requires that call center components using Context Service to be able to connect to the public Internet.

Context Service uses port 443 (HTTPS).

The following URLs must be whitelisted in your firewall so that your contact center components can connect to, and receive data from Context Service.

- \*.webex.com
- \*.wbx2.com
- \*.ciscocontextservice.com



---

**Note** Use wildcard URLs in your allowed list because Context Service is accessed through multiple subdomains. Context Service subdomain names can dynamically change.

---

If you register Context Service by enabling the proxy setting option, configure the browser proxy with the URL specified in the Context Service Management Gadget.

## Solution Serviceability

This section details the various serviceability requirements that are available for this feature. This involves the logs, alerts, and Context Service Status page that are available for the Context Service feature that can be used for any troubleshooting-related purposes.

### Logs

The Cisco Unified CCX components such as Finesse, SocialMiner, and Unified CCX monitor their individual connectivity with Context Service and log the statistics info for every component. These logs are helpful for troubleshooting purposes. The logs of the following components can be located at:

- Unified CCX- MIVR Logs

- Fusion Management Connector - /opt/cisco/ccbu/logs/fusion-mgmt-connector directory
- Cisco Finesse - /opt/cisco/desktop/logs/finesse-auth
- Cisco SocialMiner - /opt/cisco/mmca/logs/runtime

## Alerts

Unified CCX generates alert messages to notify the administrator when a predefined condition is met. The system sends alerts as email or displays alerts as a popup message on Real Time Monitoring Tool (RTMT). The following are some of the scenarios when the system send alerts with preconfigured messages:

- When an activated service fails to start.
- When the connection with Context Service fails.
- When the SocialMiner fails to connect to Context Service.
- When there is an issue in the execution of the Context Service Steps.

## Context Service Status

The **Context Service Status** web page from the **Tools** menu in the Cisco Unified CCX Serviceability displays the status of Context Service for all the listed components of the Unified CCX solution.

The Context Service parameters for all the components like, Finesse, SocialMiner, Unified CCX, and Fusion Management Connector (FMC) are displayed.

The following parameters are displayed with their respective values for a particular **Component:Host Name**.

**Table 4: Context Service Parameters**

| Parameter Name        | Description                                                                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State                 | The state of the component is displayed. The state can be, <b>Registered</b> or <b>Not Registered</b> or <b>Unknown</b> or <b>Stopped</b> for Context Service.                              |
| Status                | The status of the component is displayed. The status can be, <b>Online</b> or <b>Offline</b> or <b>Unknown</b> or <b>No Connectivity</b> or <b>Ready to Register</b> .                      |
| Mode                  | This displays whether the component is connected to the Context Service in Lab mode or in Production mode.<br><b>Note</b> This parameter is not applicable for Fusion Management Connector. |
| Last Fetched At       | The time stamp when the last connectivity status is identified.                                                                                                                             |
| Action                | This provides an option, <b>Initialize</b> , to reinitialize the Context Service connector of Unified CCX component that is in <b>Stopped</b> state.                                        |
| Static SDK Version    | The static SDK library version used by the component to connect to the Context Service is displayed.                                                                                        |
| Extension SDK Version | The dynamic SDK library version used by the component to connect to the Context Service is displayed.                                                                                       |

| Parameter Name | Description                                                                                     |
|----------------|-------------------------------------------------------------------------------------------------|
| Proxy          | This displays the HTTP proxy configured in Unified CCX for the connectivity to Context Service. |

The possible scenarios for the parameter values are:

- When the state of the component is **Registered** the status can be **Online**, **Offline**, or **No Connectivity**.
- When the state of the component is **Not Registered** the status can be **Offline**, **Ready to Register**, or **No Connectivity**.
- When the state of the component is **Unknown** the status also is **Unknown**.



**Note** When the status is **Online** it indicates that the connectivity of the component with Context Service is successful. When the status is **Offline** it indicates that one or more critical services of Context Service is not working or there is an issue with network connectivity.

For troubleshooting purpose, you may click **Export** to download the data required for troubleshooting that can be shared with Cisco Support.

## Troubleshooting Context Service Registration Process

This section lists the issues and the possible solutions during registration of the components with the Context Service Cloud.

### Context Service Registration Incomplete

When registering or de-registering Context Service with Finesse, the process stops responding and continues to display one of the following messages:

Registration is in progress

**OR**

Deregistration is in progress

These messages could occur for the following reasons:

- The proxy is invalid or not reachable. Make sure that the proxy URL is correct and reachable from Finesse.
- The browser pop-up is disabled. Ensure the browser pop-up is enabled.
- The Context Service Cloud services may not be reachable. For more information, see the Fusion Management Connector (FMC) logs located at:  
`/opt/cisco/ccbu/logs/fusion-mgmt-connector` directory.
- Fusion Management Connector (FMC) is still in the loading state.

### Unable to Onboard Context Service

Unable to onboard Context Service and the **Registration** button is not available with the error message.



```
"Unable to determine the registration status of the system. Please refresh the page."
```

Restart the Platform Tomcat (Fusion Management Connector web application), if the Platform Tomcat is down.

## Incorrect Email Address or Password Error Message is Shown When Trying to Register Unified CCX to Context Service

When you try to register Unified CCX to Context Service with incorrect credentials, the following error is shown.

```
You've entered an incorrect email address or password.
```

Check to see if you have obtained the correct credentials for your organization and use those credentials to register Unified CCX to Context Service.

## Context Service Registration Status Invalid

Registering Context Service with Finesse clients can fail with this error:

```
The Context service registration status is invalid. Check the Settings and try again.
```

This error could occur for the following reasons:

- An invalid client setting update results in an invalid registration state. To ensure that the update keeps the connector in registered state, perform the following:
  1. Correct the client settings.
  2. Save and refresh the page.

If the update is unsuccessful, try restarting the Cisco Tomcat service. If the issue still persists, re-register Context Service.

- Connection data is invalid. Restart Cisco Tomcat service. If that doesn't help, contact Cisco Support.

## Unable to Determine Context Service Registration Status or Client Settings

Context Service Management displays the following error messages in Cisco Finesse Administration:

- Unable to determine registration status from system
- Error while retrieving Context Service client settings from Database

These errors occur when the Fusion Management web application, deployed on the Platform Tomcat is down, or the Cisco Tomcat service is down in Cisco Finesse.

When this occurs:

- Verify that the Cisco Tomcat service is up and running. The service may not respond with an XML in some error scenarios.
- Restart Platform Tomcat and try again.
- Check the logs under: `/opt/cisco/ccbu/logs/fusion-mgmt-connector` for more information.

## Registration Is Shown as Successful in Finesse Gadget, but RTMT Sends an Alert

### Registration Is Shown as Successful in Finesse Gadget, but RTMT Alert "ContextServiceInitializationFailed" is Shown. Fusion Management Connector Logs Show an Error "Attempt to Connect Failed. Context Service Steps Will Fail"

Registration is shown as successful in the Finesse gadget, but the Real Time Monitoring Tool (RTMT) Alert `ContextServiceInitializationFailed` is shown. The Fusion Management Connector logs shows the error `Attempt to connect failed`. Context Service steps will fail.

RTMT Alert: Alert Name = `ContextServiceInitializationFailed`. Alert Description = "Context Service failed to initialize."

Sample MIVR Logs: 25179: Jul 27 16:15:03.990 IST  
 %MIVR-CONTEXT\_SERVICE-1-CONTEXT\_SERVICE\_INITIALIZATION\_FAILED:Context Service Initialization Failed:

Sample ManagementConnector-fusion-mgmt-connector logs: Error on CREATE: `https://hercules-a.wbx2.com/v1/connectors` Jul 28 2016 16:13:02.298 +0530: CS\_LOG [sdk\_log\_level=ERROR]: Error: try #1: Exception trying to connect=`com.sun.jersey.api.client.ClientHandlerException: connect=com.sun.jersey.api.client.ClientHandlerException: java.net.UnknownHostException: hercules-a.wbx2.com: Name or service not known` Jul 28 2016 16:13:02.298 +0530: CS\_LOG [sdk\_log\_level=ERROR]: Attempt to connect failed: `java.net.UnknownHostException: hercules-a.wbx2.com: Name or service not known`

Context Service Registration is tried with the below scenarios:

1. Connectivity to Context Service (CS) cloud is not available.
2. Proxy is used to access Context Service cloud, but with one of the following issues:
  - a. An Invalid proxy is entered
  - b. The Correct proxy is configured, but proxy type is not selected as HTTP

Check if the network connectivity to the Context Service cloud is up. If the proxy is used to access Context Service cloud, enter the valid proxy values and select HTTP as the Proxy Type. If the preceding does not resolve the issue, deregister and register again.

## Context Service Registration or Steps Fail with Timeout Error

Context Service Registration (or) Steps fail with a Timeout Error. Sample error message in MIVR logs:

Task: 123456789 failed with exception `java.util.concurrent.TimeoutException`  
 OR Task: 123456789 failed with exception `com.cisco.thunderhead.errors.ApiException Reason='Timeout Request'`

If context Service is irresponsive to the requests sent by Unified CCX, then:

- Update the Request Timeout parameter under the **System Parameters** tab in the **appadmin** for Context Service. or
- Update the `requestTimeoutMillis` in `contextserviceconfiguration` REST API URI : `http://<server>/adminapi/contextserviceconfiguration`

```
Timeout = 2 * RequestTimeout (This will be retried once after 1 try)
```

## Context Service Registration Incomplete Due to Pop-Up Window

As part of Context Service registration process, a pop-up window is displayed for Cisco Spark login. After the registration is complete, the popup window does not close automatically and the following error message is displayed:

```
Please wait while Finesse completes the Context Service registration.  
CAUTION: Do not close this window, otherwise the registration may fail.  
This window will close automatically when the registration is complete.
```

When this error message occurs:

Check the registration status in the Finesse Administration page. If the registration is complete, the pop-up window closes automatically.



---

**Note** If you are using Firefox, enable the `dom.allow_scripts_to_close_windows` config to ensure that any additional tabs opened for context service registration close as expected.

---

## Context Service Registration Incomplete Due to Page Refresh

As part of Context Service registration process, do not refresh the pop up page while the registration or deregistration process is in progress. This may result in an **Undefined** state for that respective component.

## Hostname Cannot be Empty Error Message is Seen in REST API

This error message is seen in REST API (URL: `http://<uccx-server>/adminapi/proxyconfig`).

```
HostName cannot be empty as it is currently being used by Context Service.
```

The hostname is empty in the **proxyConfig** and **proxyType** is **HTTP** in `contextServiceConfiguration`.

Do not set the hostname as empty in the **proxyConfig** if the **proxyType** is selected as **HTTP** in `contextServiceConfiguration`.

## HTTP Proxy Related Error Message Shown in AppAdmin Or in REST API.

```
Http proxy not set error message is shown in the AppAdmin Or the Http proxy is not  
configured error message is shown in REST API.
```

The GUI error is shown in the AppAdmin System Parameters page: `Http proxy is not set.` The REST API error is shown: `HTTP proxy is not configured.` (URL: `http://<uccx-server>/adminapi/contextserviceconfiguration`).

HTTP is selected as the Proxy Type without entering HTTP proxy parameters. Enter HTTP proxy parameters if HTTP is selected as the Proxy Type.

## Troubleshooting Context Service Connectivity Process

This section describes the various connectivity related issues that are encountered and the troubleshooting that can be performed for a possible solution.

## Context Service Connection Data Not Published

The connection data is published to Unified CCX Engine, SocialMiner, and Finesse in the following scenarios:

- De-registering or cancelling Context Service.
- Registering with Context Service.
- Updating connection data when Context Services sends a notification.

This issue can occur when there is a change in the connection data in the cloud. Also, check for the following log statements in the fusion-management-connector logs at

`/opt/cisco/ccbu/logs/fusion-mgmt-connector/:`

- `Error occurred while fetching runtime connector information from DB`
- `There are no runtime connectors registered in system currently`
- `Exception occurred while fetching connection data`
- `Exception occurred while publishing connection data`

If the issue persists, contact Cisco Support.

## Context Service Initialization Fails for Unified CCX

Unified CCX Context Service Initialization fails and the Real Time Monitoring Tool (RTMT) alert `ContextServiceInitializationFailed` is shown with the following messages.

RTMT Alert: Alert Name = `ContextServiceInitializationFailed`. Alert Description = "Context Service failed to initialize."

When the error occurs, the Context Service step fails. Check the MIVR logs. The sample logs are:

```
Sample MIVR Logs: 25179: Jul 27 16:15:03.990 IST
%MIVR-CONTEXT_SERVICE-1-CONTEXT_SERVICE_INITIALIZATION_FAILED:Context
Service Initialization Failed: Reason=TickleHandler.call() - Unexpected
exception occurred while notifying Context Service registration
status,Exception=ApiError with errorType: unknownError, errorData:
/discovery/apps/v1, errorMessage: Connect to
discovery.rciad.ciscoccservice.com:443
[discovery.rciad.ciscoccservice.com/10.232.38.58] failed: Connection
refused
```

Context Service initialization in engine is tried with the following scenarios:

- Connectivity to Context Service cloud is not available.
- The proxy is used to access Context Service cloud, but with one of the following issues:
  - Invalid proxy is entered.
  - Correct proxy is configured, but the proxy type is not selected as HTTP.

Check if the network connectivity to the Context Service cloud is up. If the proxy is used to access Context Service cloud, enter the valid Proxy values and select HTTP as the Proxy Type. If the above does not resolve the issue, Deregister and Register again.

## Enable Trace Settings for Issues Related to Context Service

All logs related to Context Service and Context Service Step Failures are in Debug Level. Context Service SDK logs are captured in Unified CCX using LIB\_TPL subfacility of MIVR logging. STEP\_CONTEXT\_SERVICE, CONTEXT\_SERVICE, and LIB\_TPL are by default Debug enabled for Context Service.

Enable the following logs for more information:

STEP\_CONTEXT\_SERVICE - XDebug : For each Step's input level details.

CONTEXT\_SERVICE - XDebug1 : For each Step execution's begin and end status.

LIB\_TPL - XDebug1 : For enabling detailed Context Service SDK logging.

If your issue is still unresolved, contact Cisco Support.

## Periodic Logging of Context Service SDK Connector Status

- Context Service status information is logged periodically into the respective log files.
- The periodic interval is 30 minutes, and this is synchronized to the wall clock time. The log should appear at 1100hrs, 1130hrs, 1200hrs and so on.
- The status message lists the overall status, services used by the connector, information on whether it is reachable, latency and so on.
- Fusion Management Connector logs are located at `/opt/cisco/ccbu/logs/fusion-mgmt-connector`
- Finesse Auth logs are located at: `/opt/cisco/desktop/logs/finesse-auth`.
- SocialMiner logs are located at: `/opt/cisco/mmca/logs/runtime`.
- Unified CCX logs are logged in the MIVR logs.

## Periodic Logging of Context Service JMX Counters

The JMX statistics information is logged into the logs located at `/opt/cisco/desktop/logs/finesse-auth` directory" with the text "CS\_SDK\_STATS\_SUMMARY".



---

**Note** This statistics information is not logged into the Fusion Management Connector logs.

---

## Troubleshooting Context Service Runtime Process

This section describes the runtime related issues that are encountered during the runtime connection with the Context Service Cloud. The troubleshooting tips and the possible solution for each are presented.

## Activity Not Created for Incoming Chat/Email Contact in Agent Desktop

**The agent is unable to see any activity in the Agent Desktop while on Chat or Email.**

Finesse administration shows Context Service as registered, but the registration was not successful in SocialMiner .

- Verify if SocialMiner was configured with Context Service from Unified CCX. If there is no configuration, then register Context Service again from Unified CCX or Contact TAC.

## Unable to Access Customer Context Information

In the Cisco Finesse desktop gadget, there may be instances where the customer's context information is not accessible and the following error message is displayed:

```
Experiencing issues with accessing customer's context information
```

This error message could occur due to the following reasons:

- Invalid client settings. Check and correct the client settings.
- Due to connectivity issues. Check if the Context Service connectivity is accessible from Cisco Finesse.
- Cisco Finesse is not registered with Context Service. Check your Context Service registration. If Context Services is not registered, try again

## Logs for Successful Create POD (Activity) Step

Check for the below logs to track a successful Create POD (Activity) Step:

```
99056: Jul 27 12:55:47.760 IST
%MIVR-CONTEXT_SERVICE-7-UNK:ContextServiceClientWrapper.createPOD() ThreadID:25269
Context Service createPOD() started.systemInLabMode:false 99057: Jul 27
12:55:48.015 IST
%MIVR-CONTEXT_SERVICE-7-UNK:ContextServiceClientWrapper.createPOD()
ThreadID:25269 Context Service createPOD() completed 99058: Jul 27
12:55:48.016 IST %MIVR-CONTEXT_SERVICE-7-UNK:Successfully Created POD :
POD [PODId=56aa0bb0-53cb-11e6-a01b-9f8b9c5b2fea,
customerid:64913110-3de9-11e6-a364-4746c80d8064, #PODData=2,
CreateDate=null, LastModifiedDate=Wed Jul 27 12:55:47 IST 2016,
MediaType=voice, Contributors=[F1-UCCX1(machine)], Tags=[Tag1, Tag2]]
```

## LookupCustomer Could Not Find the Customer Though the Customer was Created

Customer was created in the Lab mode and the LookupCustomer is done in the Production mode or conversely.

Do the LookupCustomer in the same mode in which the customer was created or create the customer in the mode in which LookupCustomer is done.

## Context Service Steps Fail with the Fieldset Error Message

The Context Service steps fail with the following fieldset error message.

```
MIVR-STEP_CONTEXT_SERVICE-7-UNK:Exception Occured while Creating POD : :
Exception=ApiError with errorType:notFound, errorData: id,
errorMessage:Fieldset entry abc.xyz.123 not found.
```

The Dictionary fieldsets are not used, as specified by the organization.

Update the Editor Script with the correct fieldset names.

## Context Service Steps Failing with the Field Error Message

The Context Service steps fail with the following field error message.

```
MIVR-STEP_CONTEXT_SERVICE-7-UNK:Exception Occured while Creating POD : :
Exception=ApiError with errorType: invalidData, errorData: dataElements,
errorMessage: Non-existing field specified in data elements set.
```

The Dictionary fields are either not used or incorrect, as specified by the organization. This could be because the field is preceding or trailing a white space.

Update the Editor Script with the correct field names.

## Create POD Is Successful but POD Data Not Displayed in Gadget

Create POD is successful, but the POD data not displayed in Gadget. This could be due to PODID not set in POD.ID ECC variable.

Set the PODID in the POD.ID ECC variable through the **Set Enterprise CallInfo** step in the Editor.

If your issue is still unresolved, contact Cisco Support.

## Context Service Steps Failing with the ArrayIndexOutOfBounds Exception

The Context Service steps fail with the following ArrayIndexOutOfBounds Exception.

```
MIVR-STEP_CONTEXT_SERVICE-7-EXCEPTION:com.cisco.expression.ExpressionArrayIndexOutOfBoundsException:
null;
```

LookupCustomers step and RetrievePOD step will be successful for no customers found and no activities retrieved respectively. The Success Exit state indicates the cloud operation status.

Do a length check for the result array of LookupCustomers step and RetrievePOD step before you do any operations on the object. For example, `if (lookupResult.length>0) then do GetCustomerInfo()`

# Deregister a Component with Context Service

After registering a server, you can deregister it if you decide to stop using Context Service with that server.

### Before you begin

Ensure that your web browser allows popups.

## Procedure

---

- Step 1** Launch the **Context Service Management** page for the server.
- Step 2** Click **Deregister**.  
Your browser displays the Cisco Spark sign-in page.
- Step 3** Sign in with your [Cisco Webex Control Hub](#) admin credentials and confirm the removal of your Hybrid Services cluster.  
You are redirected to the application page for the completion of the deregistration process. The browser window closes automatically after a successful deregistration. Avoid making any changes to the client settings until the deregistration is completed successfully.
-





## CHAPTER 4

# Digital Channels

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## Task Flow to Enable Digital Channels

To enable digital channels in your contact center solution, follow this task flow:

### License Requirements

The digital channel features of Cisco SocialMiner are available in the Premium license version of Cisco Unified Contact Center Express. The feature availability in Unified CCX is based on the type of license for Cisco Unified Contact Center Express.

### Install Cisco SocialMiner

SocialMiner is installed as an appliance using the Cisco Unified Operating System (Unified OS). The operating system and the SocialMiner application are installed together using a similar installation process as other Unified OS products such as Cisco Unified Communications Manager and Cisco Unified Intelligence Center.

SocialMiner operates on a VMware Virtual Machine (VM) on hardware that is running a VMware Host Server. SocialMiner currently supports installation of only a single node (as opposed to a duplexed or redundant system).

Perform the following steps to install SocialMiner:

#### Procedure

---

##### Step 1

Create a virtual machine using a VMware Open Virtual Format template.

- Step 2** Use the latest OVA template for the fresh installation of SocialMiner release. Go to <https://software.cisco.com/download/home/270569179> and download this template.
- Step 3** When deploying the template, select either a large or a small deployment from the drop-down list.
- Step 4** Mount the SocialMiner DVD or ISO file to the virtual machine and set the virtual machine to boot from the SocialMiner DVD. The installation wizard opens. Use Tab to navigate between elements and then press the space bar or the Enter key to select the element and proceed.
- Step 5** Perform the media check when prompted.
- Step 6** Follow the instructions on the screen and select Yes or Continue.
- Step 7** Use the arrow keys to highlight the correct time zone and then use **Tab** to navigate to the **OK** button. Press **Enter** to proceed.
- Step 8** Provide the network information for SocialMiner . You must provide valid hostname with matching IP address. The system confirms that the hostname matches the IP address later in the installation process.
- Step 9** Select **Yes** to provide DNS Client Settings for SocialMiner . Provide DNS servers and the domain. Select **OK**. DNS configuration is mandatory.
- Step 10** Provide an Administrator ID and password. This credential is for platform (Unified OS) administration.
- Step 11** Provide information about your organization. This information generates the security (SSL) certificates for this server.
- Step 12** You must provide at least one NTP Server. Enter the NTP host address and select **OK**.
- Step 13** Provide a security password.
- Step 14** Provide a username and password for the SocialMiner administrator. You can import additional SocialMiner users from Active Directory after the SocialMiner installation is complete.
- Step 15** The confirmation window opens. You can select **Back** to change settings or **OK** to complete the installation. Installation can take up to 2 hours. The server may reboot to complete the installation steps. If you install from an ISO file and see the virtual machine message, to "Disconnect anyway (and override the lock)?", select **Yes**. A sign-in prompt appears on the server console.
- Step 16** After the installation is complete, perform the one-time setup tasks like:
- If your system is installed behind a firewall, set up an HTTP proxy so that feeds can access sites on the Internet.
  - Configure Active Directory so that more users can sign in.
  - If you want to use Cisco Unified Intelligence Center, set up the reporting user so that the reporting tool can access the reporting database.

## Configure SocialMiner in Unified CCX

### SocialMiner Configuration

Use the **SocialMiner Configuration** web page to configure Cisco SocialMiner . You must configure information only on this web page to enable the chat and email features.

Cisco Unified CCX does not support custom configuration changes on the chat and email campaigns or feeds from the SocialMiner administration page.

This option is available only with the Unified CCX Premium license package. The email feature support for Unified CCX depends on the SocialMiner version. For information about feature compatibility, see the Unified

CCX Compatibility related information, located at: <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-device-support-tables-list.html>.

Any configuration change using SocialMiner Administration interface is not supported.



**Note** On a high availability setup, after the **Add to Cluster** operation is successful, the following message is displayed:

In case of HA, configure the SocialMiner on secondary node after adding to cluster in the secondary node.

Every time you navigate to this page, the state of feeds, campaigns, and notifications rules are validated for chat and email, the connectivity to the email server is checked, and the web page shows the appropriate status. Icons are used as visual indicators to display the status of each service. Hover the cursor over the icon to display a tool tip that explains the reason for the current state. As part of validation, Unified CCX checks the following:

- **SocialMiner XMPP Service**

Unified CCX checks the connectivity with the SocialMiner XMPP service. If the XMPP service is down, the following message is displayed:

```
SocialMiner XMPP service is not accessible. Check the logs for more details.
```

- **SocialMiner Runtime Service**

Unified CCX checks the connectivity with the SocialMiner runtime service. If the runtime service is down, the following message is displayed:

```
SocialMiner runtime service is not accessible. Check the logs for more details.
```

- **SocialMiner Tomcat Service**




Unified CCX checks the connectivity with the SocialMiner Tomcat service. If the Tomcat service is down, the following message is displayed:

```
Unable to communicate to the SocialMiner on the IP address(Hostname) provided. Please verify whether SocialMiner is running on this IP address(Hostname) or check the network connection and make sure that SocialMiner is reachable from CCX.
```

- **SocialMiner Status**




- **Feeds**

Unified CCX validates the status of the intended chat and email feeds in SocialMiner .

- —All the feeds are operating normally in SocialMiner .
- —One or more feeds mismatches with SocialMiner .
- —All the feeds are missing in SocialMiner .




- **Campaigns**

Unified CCX validates the status of the intended chat and email campaigns in SocialMiner .

- —All the campaigns are operating normally in SocialMiner .
- —One or more campaigns mismatches with SocialMiner .
- —All the campaigns are missing in SocialMiner .



#### • Notifications

Unified CCX validates the status of the intended chat and email notifications in SocialMiner .

- —All the notifications are operating normally in SocialMiner .
- —One or more notifications mismatches with SocialMiner . This status icon also appears after configuration, when no chat and email contact is injected yet. The status will change to normal after successful injection of chat and email contact.
- —All the notifications are missing in SocialMiner .



#### • Email Cache

Unified CCX checks and alerts the user about the email cache.

- —Email cache is operating normally.
- —Unable to cache emails. No new emails will be fetched.
- **Not Applicable**—SocialMiner version is not compatible.


#### • Email Server


Unified CCX checks the connectivity with the email server.

- —Email server is operating normally.
- **Not Configured**—Channel provider is not configured.
- **Not Applicable**—The following are the reasons for the current state:
  - Cisco Finesse is not active.
  - Email CSQ is not configured.
  - SocialMiner version is incompatible with the Email feature.
- —Unable to reach the email server.

#### • SocialMiner Chat Gateway

This indicates the status of the SocialMiner Chat Gateway and the Channel that is integrated.

- **SocialMiner Chat Gateway**
  -  — The gateway is operating normally and is configured with a channel.

-  — The gateway is not in an operating state as it is either Unreachable or configurations are incorrect.
- **Not Configured** — The gateway is not configured and no channels are configured.
- **Not Applicable**—The following are the reasons for the current state:
  - Cisco Finesse is not active.
  - SocialMiner version is incompatible or is not configured.
- **Facebook Messenger Integration** — This indicates whether the channel is enabled. It also indicates the last failure recorded in the channel. This helps to determine any intermittent or permanent errors.

## Procedure

**Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat > CCP Configuration OR Subsystems > Chat and Email > SocialMiner Configuration** as applicable.

The **Configuration** web page appears.

**Step 2** Complete or modify the following fields for SocialMiner :

| Field                  | Description                                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------------------|
| IP Address / Host Name | IP address or fully qualified domain name of the SocialMiner server. For example, 192.168.1.5 or host.example.com. |
| User Name              | Username of the SocialMiner administrator.                                                                         |
| Password               | Password of the SocialMiner administrator.                                                                         |

**Note** When the SocialMiner application password is reset, ensure that the new password is first updated in Unified CCX and then reset the password in SocialMiner . This prevents the account getting locked due to the authentication attempts from Unified CCX with old password.

**Step 3** Click **Save** to save the changes.

**Note**

- 
- If you see an error message, click **Save** to re-create feeds, campaigns, and notifications for chat and email in SocialMiner.
- When Unified CCX hostname is changed or when a new Unified CCX node is added, the SocialMiner Configurations must be saved again. This enables the change to take effect to re-create all the notifications for email and chat in SocialMiner .

## Mail Server Configuration

Use the **Mail Server Configuration** web page to configure the mail server. This web page is available on the Unified CCX node with a premium license.

### Before you begin

- Execute the commands **set-service msExchangeIMAP4 -startuptype automatic**, and **start-service msExchangeIMAP4** on Microsoft Exchange to set the Microsoft Exchange IMAP4 service to start automatically.
- Execute the command **set-service msExchangeIMAP4BE -startuptype automatic**, and execute **start-service msExchangeIMAP4BE** (for Microsoft Exchange 2013) on Microsoft Exchange to set the Microsoft Exchange IMAP4 Back End service to start automatically.

These commands are specific to the local Exchange server.

- Create accounts and email addresses to be used for CSQ creation.

### Procedure

**Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat and Email > Mail Server Configuration**.

The **Mail Server Configuration** web page opens.

**Step 2** Complete or modify the following fields for the mail server:

| Field                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mail Server Settings   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Mail Server            | <p>Choose the mail server that is required to be configured from the listed options:</p> <ul style="list-style-type: none"> <li>• MS Exchange Server / Office 365</li> <li>• Gmail</li> </ul> <p><b>Note</b> You must not perform any automatic or manual operations on the emails from the mail server. For example, create rules, move the emails manually to a different location, delete emails from the mail server, and so on.</p> <p>The Unified CCX must be connected to a dedicated mail server and ensure that the server is not shared.</p> |
| IMAP Folder Structure  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Sent Items Folder Name | <p>The name of the sent items folder of the respective mail sever that is configured.</p> <p><b>Note</b> All the listed mail servers have the default folder names pre-populated for all the IMAP folders in English locale. These folder names can be edited and can have custom values.</p>                                                                                                                                                                                                                                                          |
| Incoming (Secure IMAP) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Field                  | Description                                                                                                                                                                                                                                                                             |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host Name              | Fully qualified domain name (FQDN) of the incoming (IMAP) server. Do not enter the IP address.                                                                                                                                                                                          |
| Port Number            | Port number that is used to connect to the IMAP server.<br>The default port number is 993.                                                                                                                                                                                              |
| Outgoing (Secure SMTP) |                                                                                                                                                                                                                                                                                         |
| Host Name              | FQDN of the outgoing (SMTP) server. Do not enter the IP address.                                                                                                                                                                                                                        |
| Port Number            | Port number that is used to connect to the SMTP server.<br>The default port number is 587.                                                                                                                                                                                              |
| Proxy Settings         |                                                                                                                                                                                                                                                                                         |
| SOCKS                  | Choose the <b>Enable</b> or <b>Disable</b> radio button to use socks proxy for Mail Server connectivity. By default the <b>Disable</b> option is selected and <b>Enable</b> option is disabled. To enable <b>SOCKS</b> , configure <b>SOCKS Proxy</b> in <b>System Parameters</b> page. |
| Description            | Description of the mail server.                                                                                                                                                                                                                                                         |

**Step 3** Click **Update** to save the changes.

## Contact Service Queues

### Before you begin

- You must create a skill before creating a CSQ. For information about creating a skill, see *Skill Configuration* section in the [Cisco Unified Contact Center Express Administration and Operations Guide](#).
- Before creating an email CSQ, you must have configured the mail server.

### Procedure

- Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat > Contact Service Queues** or **Subsystems > Chat and Email > Contact Service Queues** as applicable.
- The Contact Service Queues (CSQs) web page opens and displays the information for existing chat and email CSQs if any.
- Step 2** To add a new chat or email CSQ, click the **Add New** icon that appears in the toolbar in the upper left corner of the window or the **Add New** button that appears at the bottom of the window.
- The Contact Service Queue Configuration web page opens.
- Step 3** Specify the following fields:

| Field Name                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSQ Name                    | Name for the CSQ.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Resource Selection Criteria | <p>Resource selection criteria chosen for the chat CSQ.</p> <ul style="list-style-type: none"> <li>• <b>Longest Available</b>—Selects the agent who has been in the Available state for the longest amount of time.</li> <li>• <b>Most Skilled</b>—Used for expert agent chat distribution. Selects the agent with the highest total competency level. The total competency level is determined by adding the agent's competency levels for each assigned skill that is also assigned to the CSQ. <ul style="list-style-type: none"> <li>• Example 1: If Agent1 is assigned Skill1(5), Skill2(6), and Skill3(7) and CSQ1 specifies Skill1(min=1) and Skill3(min=1), the total competency level for Agent1 for CSQ1 is 12.</li> <li>• Example 2: If Agent1 is assigned Skill1(5) and Skill2(6), and Skill3(7) and CSQ1 specifies Skill1(min=1), only, the total competency level for Agent1 for CSQ1 is 5.</li> </ul> </li> </ul> <p><b>Note</b> If two agents score equal in the primary selection criteria, the agent who was updated first is assigned to the incoming chat.</p> |

Table 5: CSQ Type—Chat

| Field Name | Description  |
|------------|--------------|
| CSQ Type   | Choose Chat. |

Table 6: CSQ Type—Email

| Field Name     | Description                                                                                                                                                                                                                                       |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSQ Type       | <p>Choose Email.</p> <p><b>Note</b> You can create up to 100 email CSQs. If you exceed the limit, the following error is displayed:</p> <pre>Cisco Unified CCX supports a maximum of 100 Email CSQs. Exceeded maximum limit for Email CSQs.</pre> |
| Mail Server    | Fully Qualified Domain Name (FQDN) of email server. This field displays the mail server that you configured.                                                                                                                                      |
| Email username | The email address to which emails are sent or retrieved.                                                                                                                                                                                          |
| Email password | Password for the email account.                                                                                                                                                                                                                   |



| Field Name              | Description                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inbox Folder Name       | The folder from which emails will be fetched and queued for the Contact Service Queue.<br>Default value = Inbox folder of the selected mail server type<br><b>Note</b> If you change the Inbox folder name already in use, then the emails, downloaded and cached by SocialMiner are made available to agents. The remaining emails in the folder are ignored.              |
| Sent Items Folder Name  | The folder to which SocialMiner will move the response email to, when it is sent.                                                                                                                                                                                                                                                                                           |
| Test Configuration      | This checks the following: <ul style="list-style-type: none"> <li>• Connectivity from SocialMiner to the configured mail server using the user credentials specific in the Contact Service Queue (CSQ) configuration</li> <li>• Presence of and permissions to the Inbox, Drafts, Outbox, and Sent Items folder for the user, specific in the CSQ configuration.</li> </ul> |
| Poll Interval (Seconds) | Frequency in seconds to fetch emails from the server.<br>Default value = 180, Range = 60 to 3600                                                                                                                                                                                                                                                                            |
| Snapshot Age (Minutes)  | Specify the time in minutes from when the emails are to be fetched.<br>Default value = 120, Range = 60 to 43200<br>For example, if you specify 120 minutes, this field fetches the emails from the last two hours.                                                                                                                                                          |

**Step 4** Click **Next**.

The Skill Association for CSQ area opens with the newly assigned CSQ name.

**Note** You can create up to 100 email CSQs. If you exceed the limit, the following error is displayed:

```
Cisco Unified CCX supports a maximum of 100 Email CSQs. Exceeded maximum limit for Email CSQs.
```

**Step 5** From the Available Skills list, choose the skill that you want to associate with the CSQ by clicking it. To choose more than one skill, press the **Ctrl** key and click the skills that you want to associate with the CSQ.

**Step 6** Click **Add**.

The chosen skill and the minimum competence level for that skill are displayed in the right pane under the heading **Selected**.

**Note** To delete the skill from the Skills Required list, click the **Delete** icon next to **Minimum Competence**.

**Step 7** Specify a minimum competence level for the skill assigned to the CSQ.

**Step 8** To view the associated resources, click **Show Resources**.

**Step 9** Click **Save** to save the changes for the CSQ.

The newly added CSQ appears in the **List of CSQs**.

**Note** You can create up to 100 email CSQs. If you exceed the limit, the following error is displayed:

```
Cisco Unified CCX supports a maximum of 100 Email CSQs. Exceeded maximum
limit for Email CSQs.
```

You can sort the CSQs by title by clicking the **CSQ Name** header and by type by clicking the **CSQ Type** header.

#### Step 10

To view the printable report and associated resources, click the CSQ for which you want to view the report and the associated resources and then click **Open Printable Report**.

**Note** To delete a CSQ, click the CSQ that you want to delete and then click **Delete**. A warning dialog box appears, asking you to confirm the deletion. To delete, click **OK**.

**Caution** Deletion of the chat CSQ affects the associated chat web forms. After deleting, modify the corresponding chat web form configurations and generate the HTML code.

## Predefined Responses

To access the predefined responses, choose **Subsystems > Chat > Predefined Responses** OR **Subsystems > Chat and Email > Predefined Responses** as applicable.

Use the **Predefined Responses** page to configure and manage chat and email predefined responses. You can add a maximum of 500 chat and email predefined responses in total. These predefined responses are available in the Manage Chat and Email gadget on the Finesse Agent Desktop.

You can configure the responses to be available either to all the agents or only to the agents that are associated with specific CSQs.



**Note** Predefined responses are not available in the Cisco Agent Desktop. They are only available with the Finesse Agent Desktop.

## Predefined Responses

Using this web page, you can add, modify, and delete predefined responses.

You can add a maximum of 500 chat and email predefined responses in total.



**Note** To modify an existing predefined response, click the Title header for the predefined response that you want to modify. To delete an existing predefined response, click the **Delete** icon for the predefined response that you want to delete.

## Procedure

**Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat > Predefined Responses OR Subsystems > Chat and Email > Predefined Responses** as applicable.

The **Predefined Responses web page** opens, displaying the information for existing responses, if any.

**Step 2** Click the **Add New** icon that is displayed in the toolbar in the upper left corner of the window or the **Add New** button that is displayed at the bottom of the window to create a new response.

The **Predefined Response Configuration web page** opens.

**Step 3** Specify the following information:

| Field                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Title                | <p>Unique identifier of the predefined response.</p> <p><b>Note</b> The special characters angle brackets (&lt;&gt;), parentheses ( ( ) ), double quotation marks ( " " ), and pipe symbol (   ) are not allowed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Type                 | Types of media.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Response Description | <p>Description for the predefined response.</p> <ul style="list-style-type: none"> <li>Rich Text Editor is available to create an HTML-based email predefined response.</li> <li>Use the supported tags as provided in the Rich Text Editor for formatting purpose.</li> <li>Plain Text Editor is available to create a chat predefined response.</li> </ul> <p><b>Note</b> The special characters angle brackets (&lt;&gt;), parentheses ( ( ) ), double quotation marks ( " " ), and pipe symbol (   ) are not allowed in Plain Text Editor for Chat Predefines Response.</p> <p>The maximum characters limit for predefined response for chat and email is 1500.</p> <p>In case of email, rich text is supported and includes the HTML tag characters for representing rich text.</p> |
| Tags                 | <p>Choose a tag for the predefined response.</p> <ul style="list-style-type: none"> <li><b>Global for all CSQs:</b> The predefined response is available to all the agents that are associated with all the CSQs.</li> <li><b>Customize (Maximum 10 CSQs):</b> The predefined response is available only to the agents that are associated with the selected CSQs.</li> </ul> <p>If you choose this option, select the CSQs from the <b>Available CSQs</b> pane, and then click the left arrow to assign them.</p> <p><b>Note</b> Predefined responses can be used only for emails sent in HTML format and not plain text.</p>                                                                                                                                                           |

**Step 4** Click **Save**.

The newly added predefined response appears with the assigned tags in the **List of Predefined Responses**. You can sort the predefined responses by title by clicking the Title header and by type by clicking the Type header.

## Wrap-Up Reasons

To access the Wrap-Up Reasons, choose **Subsystems > Chat and Email > Wrap-Up Reasons**.

Use the **Wrap-Up Reasons** page to configure and manage Wrap-Up categories and reasons for chat and email Contact Service Queues (CSQs). Use the Ellipsis (...) to view all the Wrap-Up Reasons that are added for each Wrap-Up category.

## Wrap-Up Reasons

Using this web page, you can add, modify, and delete the Wrap-Up Reasons.

You can add a maximum of 25 Wrap-Up categories. If you exceed the maximum number of categories, the **Add New** button is disabled.

### Procedure

**Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat and Email > Wrap-Up Reasons**.

The **Wrap-Up Reasons** web page opens, displaying the information for existing Wrap-Up Reasons, if any.

**Step 2** Click the **Add New** icon or the **Add New** button that is displayed in the toolbar in the upper left corner of the window.

The **Wrap-Up Reasons** web page opens.

**Step 3** Specify the following information:

| Field           | Description                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Category        | Specify the name for the Wrap-Up category. Allows up to 40 characters.                                                                                           |
| Wrap-Up Reasons | Enter the Wrap-Up Reasons for the specified category. Allows up to 40 characters. Click the <b>Add</b> button to add up to 25 Wrap-Up Reasons for each category. |

| Field | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tags  | <p>Choose a tag for the Wrap-Up category.</p> <ul style="list-style-type: none"> <li>• <b>Global for all CSQs:</b> The Wrap-Up reason is available to all the agents that are associated with all the CSQs.</li> <li>• <b>Customize :</b> The Wrap-Up reason is available only to the agents that are associated with the selected CSQs.</li> </ul> <p>If you choose this option, select the CSQs from the <b>Available CSQs</b> pane, and then click the left arrow to assign them.</p> <p><b>Note</b> You can associate a maximum of 10 Wrap-Up categories to a CSQ.</p> |

**Step 4** Click **Save**.

The newly added Wrap-Up category appears with the assigned tags in the **List of Wrap-Up Reasons**.

**Note** When you reskill or modify a category, the logged in agents can apply Wrap-Up Reasons from the updated list of categories for the new non-voice contacts only.

## Email Signatures

To access the email signatures, choose **Subsystems > Chat and Email > Email Signatures**.

### Email Signature Configuration

Using this web page, you can add, modify, and delete email signatures.



**Note** To modify an existing email signature, click the Title header for the email signature that you want to modify. To delete an existing email signature, click the **Delete** icon for the email signature that you want to delete.

#### Procedure

- Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat and Email > Email Signatures**. The **Email Signature web page** opens, displaying the list of existing email signatures that are configured, if any.
- Step 2** Click the **Add New** icon that is displayed in the toolbar in the upper left corner of the window or the **Add New** button that is displayed at the bottom of the window to create a new email signature. The **Email Signature Configuration web page** opens.
- Step 3** Specify the following information:

| Field   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name    | <p>Unique name of the email signature.</p> <p><b>Note</b> The name can have a maximum of 100 characters.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Content | <p>The email signature content.</p> <p><b>Note</b> The email signature can have a maximum of 1500 characters. You may format the text of the email signature content, add images, add URL to the email signature, and add the Agent alias information.</p> <p>The Agent alias variable appears by default when any new email signature is created. If it is removed from the email signature it can be reinserted at the cursor location in the email signature by clicking on the Agent alias variable icon.</p> <p>When there is no alias configured for an agent, the Agent ID is presented in the email signature by default.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Tags    | <p>Choose a tag for the email signature.</p> <ul style="list-style-type: none"> <li>• <b>Global for all CSQs:</b> The email signature is available to all the agents that are associated with all the CSQs.</li> <li>• <b>Customize (Maximum 10 CSQs):</b> The email signature is available only to the agents that are associated with the selected CSQs.</li> </ul> <p>If you choose this option, select the CSQs from the <b>Available CSQs</b> pane, and then click the left arrow to assign them.</p> <p><b>Note</b> Only one (1) email signature can be tagged as Global for all CSQs. A CSQ can be tagged with only one (1) email signature.</p> <p>When an email is responded by an agent of a particular CSQ, the system will check if there is any email signature tagged for that CSQ. The different scenarios are:</p> <ul style="list-style-type: none"> <li>• If there is an email signature tagged to a CSQ, that will be appended in the email response.</li> <li>• If there is no CSQ specific email signature, the global signature is appended in the email response.</li> <li>• If there is no global email signature and no customized email signature tagged to the CSQ then there will be no email signature appended in the email response.</li> </ul> |

**Step 4** Click **Save**.

The newly added email signature appears with the assigned tags in the **List of Email Signatures**.

You can sort the email signatures by title by clicking the Title header and by type by clicking the Type header.

## Channel Parameters

Use the Channel Parameters web page to configure channel parameters.

### Procedure

**Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat > Channel Parameters** OR **Subsystems > Chat and Email > Channel Parameters** as applicable.

The Channel Parameters Configuration web page opens.

**Step 2** Use this web page to specify or modify the following fields for channel parameters:

| Field                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Answer Timeout (Seconds)           | <p>The time for an agent to respond to the chat request after which, the chat request is routed back to the chat queue and for the chat toaster to fade out.</p> <p>This is applicable for the Group Chat request also. However when the chat is not accepted, the chat request is not routed back to the chat queue.</p> <p><b>Note</b> When you use Chrome or Firefox, the browser overrides the chat toaster notification to fade out in 20 seconds, even if it is configured to a higher value.</p>                                                                                                                                                                                                                    |
| Join Timeout (Minutes)                | <p>The time after which the customer initiates a chat and, if an agent is not joined, the customer gets a message as per the configuration in the <b>Chat Web Form Configuration</b> page. But an agent can still join the chat after this timeout. The default timeout is one minute and the maximum timeout value allowed is 60 minutes.</p>                                                                                                                                                                                                                                                                                                                                                                             |
| Inactivity Timeout (Minutes)          | <p>The customer inactivity time after which, the system ends the chat. This timeout is on the customer side only.</p> <p>The agent gets a message "<b>You are alone in the chat room. Click End to close the chat interface.</b>".</p> <p>The customer gets a message "<b>Warning: the server connection was lost due to an inactivity timeout or connection failure.</b>".</p> <p>Inactivity timeout may also apply to contacts in queue that have not yet been accepted by agents. This scenario occurs only when the Join Timeout value is greater than the Inactivity Timeout value.</p> <p>The customer then gets a message "<b>Sorry, the chat service is currently not available. Please try again later.</b>".</p> |
| Offer Chat Contact When On Voice Call | <p>Click Yes if agents are allowed to handle a chat session during a voice call.</p> <p><b>Note</b> This setting takes effect when the agent ends the current voice call.</p> <p>Chats are presented to agents even when they go off-hook or busy in a Non ICD call.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Field                                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Offer Voice Call When On Chat              | <p>Click Yes if agents are allowed to handle a voice call during a chat session.</p> <p><b>Note</b> This setting takes effect when the agent receives a new incoming chat.</p> <p>Direct/Consult Transfer to an IPCC extension is an exception. Even if agents are busy on a chat they would still get calls that are transferred to their extension directly.</p>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Maximum Number Of Chat Sessions Per Agent  | <p>Number of chat sessions (ranging from 1 to 5) that an agent is allowed to handle. This includes the group chat sessions also.</p> <p><b>Note</b> This option is available only if Finesse service is activated. For Cisco Agent Desktop, the value is set to 1.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Maximum Number Of Email Sessions Per Agent | <p>Number of Email sessions (ranging from 1 to 5) that an agent is allowed to handle.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Sticky Email Timeout (Hours)               | <p>Specify the amount of time for which an email message waits in a specific agent CSQ.</p> <p>Sticky email routing (Last-agent email routing) is a mechanism to route an email message to the agent who handled the last leg of the email conversation.</p> <p>When an email message, which is part of an ongoing conversation, comes in and the agent who handled the last leg of the conversation is not available, then the email does not wait indefinitely in that agent queue. After the configured time expires, the email message is placed on the intended CSQ to be handled by any available agent.</p> <p><b>Note</b> Last-agent email routing is not available if the customer changes the subject line of the email message.</p> <p>Default = 4 hours, Range = 1 to 120 hours.</p> |

**Step 3** Click **Save** to save the changes for the channel parameters.

**Note** If any of the above parameters are changed during the call center operation, the updated values are not applied to the existing contacts in the system. The changed parameters will affect only the new contacts coming into the system.

## Chat Widgets

Use the **Chat Widgets** section to configure the Bubble Chat widget and generate HTML code snippet that can be hosted on the customer website.

To access the **Chat Widgets** page, choose **Subsystems > Chat and Email > Chat Widgets**.



## Chat Widgets Page

The **Chat Widgets** page lists the following information and options for each chat widget:

| Field            | Description                                                                                                                 |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Name             | Name of the chat widget.                                                                                                    |
| Description      | A brief description.                                                                                                        |
| Post Chat Rating | Whether post chat rating is available for the chat.<br><b>Note</b> Post chat rating can be configured for only bubble chat. |
| Code             | Option to generate the web form code for the configured chat widget.                                                        |
| Delete           | Option to delete the chat widget.                                                                                           |

## Chat Widget Configuration

You can add, modify, and delete chat widgets. You can schedule business hours in the chat widget for week days, custom business days, and holidays. You can also configure an off hours message.



### Note

- To modify an existing chat widget, click the chat widget name.
- To delete an existing chat widget, click the delete icon. Ensure that the widget is removed from the customer website before deleting the widget.

You can configure or modify the Bubble Chat widget.

## Classic Chat Widget

To configure a Classic Chat widget, complete the following steps:

### Procedure

- Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat and Email > Chat Widgets**. The **Chat Widgets** web page opens, displaying information for existing chat widgets and widget type, if any.  
**Note** You can preview the Classic Chat and Bubble Chat widgets from the **Chat Widgets** web page.
- Step 2** Click the **Add New** icon or the **Add New** button. The **Add New Chat Widget** web page opens.
- Step 3** Select **Classic Chat** and click **Next**. The **Chat Web Form Configuration** web page opens.
- Step 4** In the **Widget Details** area, specify the following information:

| Field                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                      | Unique name of the chat widget.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Description               | Chat widget description.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Context Service Fieldsets | <p>Valid field sets that the Admin enters while configuring the chat widgets.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Fieldsets are comma separated strings in the format fieldset1, fieldset2 (for example: cisco.base.pod,cisco.ccx.pod). A maximum number of 10 fieldsets can be entered.</li> <li>All the Selected User Form Fields except Name and Email must be part of the Fieldsets specified, otherwise Context Service operations for chat would fail.</li> <li>To perform Context Service Lookup Customer for chat, the Email field is mandatory in the chat form.</li> </ul> |
| Logo URL                  | <p>Location of the logo file that appears in the widget.</p> <p><b>Note</b> The custom logo size is resized to 300 x 300 pixel by default.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Widget Wait Message       | <p>Message that appears to the customer when the customer starts a chat session.</p> <p>Default message: “Welcome. Please wait while we connect you to a customer care representative.”</p>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Join Time-out Message     | <p>Message that appears to the customer when a chat request is not handled within the set time.</p> <p>Default message: “All customer care representatives are busy. Please wait or try again later.”</p>                                                                                                                                                                                                                                                                                                                                                                                                      |
| Error Message             | <p>Message that appears to the customer when Unified CCX or chat service is not available to handle chat requests.</p> <p>Default message: “Sorry, the chat service is currently not available. Please try again later.”</p>                                                                                                                                                                                                                                                                                                                                                                                   |

**Step 5** In the **User Form Fields** area, select the desired field from the **Available Fields** and move it to the **Selected Fields**.

To create new field(s) in addition to the list of available fields, click **Add Custom Field**, enter the name of the new custom field in the pop-up window and click **OK**. The new custom field appears in the list of **Selected Fields**.

**Step 6** Click **Next**.

The **Add problem Statement CSQ mapping** area opens.

**Step 7** Enter the problem statement for the Chat Web Form and map the same with an existing chat CSQ from the **CSQ List** drop-down list.

To add more problem statements and associate these statements with the Chat CSQs, click **Add More**. Click the delete icon beside the **CSQ List** drop down to delete the newly created problem statement.

**Step 8** Click **Next**.

**Step 9** In the **Schedule Business Hours** area, select one of the following options to configure the Business Days:

- 24 hours x 7 days
- Custom Business Hours

**Note**

- The **Chat Schedule Configuration** is based on the Unified CCX server time zone.
- Ensure that the moment.js library is accessible in the client environment. If this is not accessible, reference to the correct location where the moment.js is available.
- During an upgrade to Unified CCX 11.6(1), by default the **24 hours x 7 days** is selected as the **Business Days**.

**Step 10** In the **Schedule Holidays** area, configure holidays.

a) To add more holidays, click **Add More**. Click the delete icon to delete a configured holiday.

**Step 11** In the **Schedule Custom Business Days** area, configure business hours for a custom business day.

**Note** Scheduling business hours for a custom business day overrides any previous schedule that was configured in **Custom Business Hours** for the same day.

a) To add more custom business days, click **Add More**. Click the delete icon to delete a custom business day.

**Step 12** In the **Off Hours Details** area, enter a message in the **Off Hours Message** text box.

**Step 13** Click **Next**.

The Web Form Preview area displays a preview of the Chat Web Form as per the configured schedule. It displays all the fields that you had selected for the user form and problem statements along with CSQ mapping.

**Step 14** Click **Finish** to generate the web form code.

The code for the Chat Web Form is generated and appears onscreen.

**Note** The Chat Web Form that is generated uses JavaScript. You must access this web page where it is loaded using a JavaScript enabled browser. The default Chat Web Form displays a warning message to the user if JavaScript is not enabled on the browser where it is loaded.

**Step 15** Click **Save Code to File** to save the generated code. To go to the main **Chat Widgets** page, click **Back to Chat Widgets**.

**Note** You can also generate the code from the main **Chat Widgets** page by clicking on the **Code** icon against the chat widget name. The generated code appears in a pop-up window. To save this code, click **Save Code to File**.

## Bubble Chat Widget

To configure a Bubble Chat widget, complete the following steps:

### Procedure

**Step 1** From the Unified CCX Administration menu bar, choose **Subsystems > Chat and Email > Chat Widgets**.

The **Chat Widgets** web page opens, displaying the information for existing chat widgets.

**Note** During the widget configuration, live preview of the widget is possible.

**Step 2** Click the **Add New** icon or the **Add New** button.

The **Bubble Chat Configuration** web page opens. The administrator can configure the messages and labels in any language.

**Step 3** In the **Widget Details** area, specify the following information:

| Field       | Description                     |
|-------------|---------------------------------|
| Name        | Unique name of the chat widget. |
| Description | Chat widget description.        |

**Step 4** Click **Next**.

The **Attributes - Branding and Identity** area appears.

**Step 5** Specify the following information:

| Section       | Field         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Font Family   | Typeface      | Font family used for the text in the Chat Web Form and chat window.<br><br><b>Note</b> The default font family is Helvetica. You can change the font family by either selecting from the drop-down or entering a new name. If the selected font family is not available in the system where from the AppAdmin page is accessed, it will display an alert message. When you enter a new name, ensure that the correct spelling (case sensitive) is used. The system does not indicate if you enter an invalid name. Ensure that you use commonly available fonts so as to make it easy for the customers to view the information. Before proceeding, the administrator should ensure that the selected font family is applied on the Chat Web Form preview. |
| Chat Title    | Text          | Title text displayed on the Chat Web Form and Chat Bubble.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|               | Text Color    | Color of the title text.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Button        | Text          | Text displayed on the button of the Chat Web Form.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|               | Color         | Color of the button.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|               | Text Color    | Color of the text displayed on the button.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Agent Message | Message Color | Background color of the agent message in the chat window.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|               | Text Color    | Color of the agent message text.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**Note** As you specify the attributes, the **Preview** area dynamically displays the preview of the Chat Web Form and chat window based on your specifications.

**Step 6** Click **Next**.  
The **Attributes - Post Chat Rating** areas open.

**Step 7** Specify the following information:

| Field                   | Description                                                                                                                                                                                                     |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Enable Post Chat Rating | If this checkbox is checked, post-chat rating will be available for the chat.<br>The <b>Post Chat Rating</b> column in the <b>Chat Widgets</b> page indicates whether post chat rating is available for a chat. |
| Label                   | Text asking the user to rate the chat experience.                                                                                                                                                               |
| Button Text             | Text displayed on the button that is used to submit the rating.                                                                                                                                                 |

**Note** The **Preview** area dynamically displays the preview of the rating window based on the information specified.

**Step 8** Click **Next**.  
The **User Form Fields** and **Problem Statements and CSQ Mapping** areas open.

**Step 9** In the **User Form Fields** area, specify the following information:

a. In **Context Service Fieldsets**, enter valid fieldsets for configuring the chat widgets.

- Note**
- Fieldsets are comma separated strings in the format fieldset1, fieldset2 (for example: cisco.base.pod,cisco.ccx.pod). You can enter a maximum number of 10 fieldsets.
  - All the selected User Form Fields except Name and Email must be part of the fieldsets specified, otherwise Context Service operations for chat would fail.
  - To perform Context Service Lookup Customer for chat, the Email field is mandatory in the chat form.

b. From **Available Fields**, select the desired fields and move it to **Selected Fields**.

To create new fields in addition to the list of available fields, click **Add Custom Field**, enter the name of the new custom field in the pop-up window and click **OK**. The new custom field appears in the list of **Selected Fields**.

**Step 10** In the **Add problem Statement CSQ mapping** area, specify the following information:

- a. In **Problem Statement Caption**, enter the label for the problem statement field.
- b. Enter the problem statement for the Chat Web Form and map the problem statement with an existing chat CSQ from the **CSQ List** drop-down list.

To add more problem statements and associate them with a chat CSQ, click **Add More**. Click the delete icon for a problem statement to delete that problem statement.

**Step 11** Click **Next**. The **Chat Messages** area appears.

**Step 12** Specify the following information:

| Section                 | Field                                                          | Description                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Initialization Messages | Widget Wait Message                                            | Message displayed to the customer when the customer submits the chat form and waits for an agent to join.                                                                                                                                                                                                                                         |
|                         | Join Time-out Message                                          | Message displayed on the chat window to inform the customer that no agent is available currently.                                                                                                                                                                                                                                                 |
| In Progress Messages    | Text for Text Typing Box                                       | Text directing the customer to enter a message. This text appears in the text box of the chat window where the customer enters messages to be sent.                                                                                                                                                                                               |
|                         | Agent Joined Message                                           | Message displayed on the chat window to inform the customer that an agent has joined. This message has the Agent Alias or Agent ID. Two text boxes are available to enter text to be displayed before and after the Agent Alias or Agent ID.                                                                                                      |
|                         | Agent Left Message                                             | Message displayed on the chat window to inform the customer that the agent has left. This message will have the Agent Alias or Agent ID. Two text boxes are available to enter text to be displayed before and after the Agent Alias or Agent ID.                                                                                                 |
| End Messages            | Close Chat Confirmation Pop-up message                         | Message displayed on the pop-up window to confirm if the customer wants to close the chat.<br><br>In the <b>Negative Response</b> and <b>Positive Response</b> text boxes, enter the text to be displayed on the pop-up window buttons that allows the user to either accept or reject the chat closure.                                          |
|                         | Close Chat and Download Transcript Confirmation Pop-up Message | Message displayed on the pop-up window to inform the customer that the chat has ended and the chat transcript is ready for download.<br><br>In the <b>Negative Response</b> and <b>Positive Response</b> text boxes, enter the text appears on the pop-up window buttons that allows the user to either accept or reject the transcript download. |
| Error Messages          | System Error Message                                           | Message displayed to the customer when the chat service is not available to handle chat requests.                                                                                                                                                                                                                                                 |
|                         | Connectivity Error Message                                     | Message displayed to the customer when the chat is disconnected due to inactivity timeout or connection failure.                                                                                                                                                                                                                                  |

**Step 13** Click **Next**. The **Service Hours** page appears.

**Step 14** In **Service Hours** area, select one of the following options to configure the business hours.

- **Default (24 hours x 7 days)**- Select this option if the contact center works 24 hours and 7 days in a week.
- **Select Calendar**- Select this option to configure the business hours. Calendar drop-down is enabled for this selection.

**Step 15** Select the desired calendar from the drop-down list and click the **View** link to preview the calendar details such as **Business Hours**, **Custom Business Days**, and **Holidays**.

**Step 16** In the **Messages** area, specify the following:

| Field     | Description                                                                                             |
|-----------|---------------------------------------------------------------------------------------------------------|
| Holiday   | Message displayed on the bubble chat widget to inform the customer during a holiday.                    |
| Off Hours | Message displayed on the bubble chat widget to inform the customer during non-working hours.            |
| Label     | Heading text displayed on the bubble chat widget to inform the customer for the business hours details. |

**Step 17** In the **Label for Days of Week** area, specify a label for each day of the week.

**Step 18** Click **Finish**.

The code for the Chat Web Form is generated and appears onscreen.

**Note** The Chat Web Form that is generated uses JavaScript. You must access this Chat Web Form from a JavaScript enabled browser.

**Step 19** Click **Save Code to File** to save the generated code. Click **Back to Chat Widgets** to go to the main **Chat Widgets** page.

**Note** You can also generate the code from the main **Chat Widgets** page by clicking on the **Code** icon against the chat widget name. The generated code appears on a pop-up window. To save this code, click **Save Code to File**.

## Teams

Choose **Subsystems > Chat > Teams** OR **Subsystems > Chat and Email > Teams** as applicable from the Unified CCX Administration menu bar to access this configuration area.



**Note** The team configuration for chat is the same as it is for voice.

## Change the Desktop Layout

The default desktop layout xml must be modified to enable the digital channel gadgets on the Finesse desktop. You must contact the contact center Administrator to make changes to the desktop layout xml.

### Procedure

**Step 1** Sign in to **Cisco Finesse Administration Console**.

**Step 2** In the **Desktop Layout** tab, you can define the layout of the Finesse desktop .

**Step 3** In the Finesse Layout XML area, make changes to the XML as required to include the new gadgets.

**Step 4** Click **Save**. Finesse validates the XML file to ensure that it is a valid XML syntax and confirms to the Finesse schema.

**Note** For more details on managing the Finesse desktop layout see, **Manage Desktop Layout** section in [Cisco Unified Contact Center Express Administration and Operations Guide](#).

---

## Configuration of Proxy Based on Deployment of SocialMiner

Proxy settings must be configured for Cisco SocialMiner based on the deployment type.

### Procedure

**Step 1** Sign in to **Cisco Unified Contact Center Express Administration**.

**Step 2** Navigate to **System Menu > System Parameters** to modify the fields in Proxy Parameters.

**Note** For more details on the System Parameters see, **System Parameters** section in [Cisco Unified Contact Center Express Administration and Operations Guide](#).

---

## Certificate Management

The digital channel gadgets to load on the web browsers in the Unified CCX system must have the self-signed and certificate authority (CA) signed certificates. The same signing authority must sign the certificates of SocialMiner and Unified CCX. For more information on how to trust the self-signed certificates and to obtain and upload CA certificates see, [Cisco Unified Contact Center Express Administration and Operations Guide](#).

### Procedure

**Step 1** Sign in to **Cisco Unified OS Administration** using your administrator password.

**Step 2** Navigate to **Security > Certificate Management** menu.

**Step 3** You can use the Find controls to filter the certificate list.

**Step 4** Click the file name of the certificate. The **Certificate Configuration** window appears and perform the necessary actions.

---

## Unified CCX Agent Email

As part of the Unified CCX Premium license, Unified CCX supports agent email with Finesse.

Administrators should edit the Cisco Finesse Desktop Layout to enable the gadgets to appear on the agent desktop.

As part of the Premium license, Unified CCX agents can service customer email requests using the Agent Email gadget in Cisco Finesse



For more information, see “Cisco Finesse” section in the *Cisco Unified Contact Center Express Administration and Operations Guide* at :

<https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-maintenance-guides-list.html>.

The Agent Email feature requires the deployment of Cisco SocialMiner to handle the email and relay the contact requests from a mail server. One SocialMiner deployment can serve only one Unified CCX deployment (single-node or high-availability deployment), and vice versa.

The Agent Email feature requires the use of an external mail server (Microsoft Exchange 2010, 2013, 2016, Office 365, and Gmail are supported ). This mail server is not provided, installed, or configured as part of the Unified CCX installation. To communicate with the Exchange Server, SocialMiner uses secure IMAPS (for message retrieval) and secure SMTP (for message sending). On the Exchange Server, enable IMAPS (SMTP is enabled by default).

For more information about enabling IMAPS, see section “Mail Server Configuration” in *Cisco Unified Contact Center Express Administration and Operations Guide* at:

<https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-maintenance-guides-list.html>.

For details on the integration of Unified CCX with SocialMiner for Agent Email see, <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/socialminer/200892-Integrate-UCCX-with-SocialMiner-for-Agen.html>.

For details on the unsupported configurations in integration of Unified CCX with SocialMiner see, <https://www.cisco.com/c/en/us/support/docs/customer-collaboration/unified-contact-center-express/211530-Unsupported-configurations-for-UCCX-and.html>.

**Figure 3: Customer Web Site in DMZ**

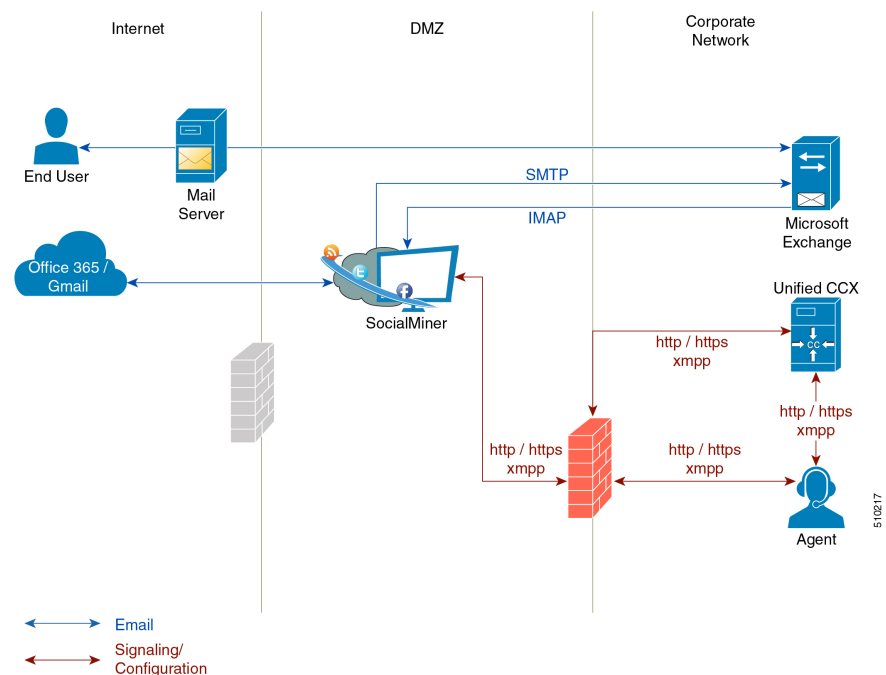
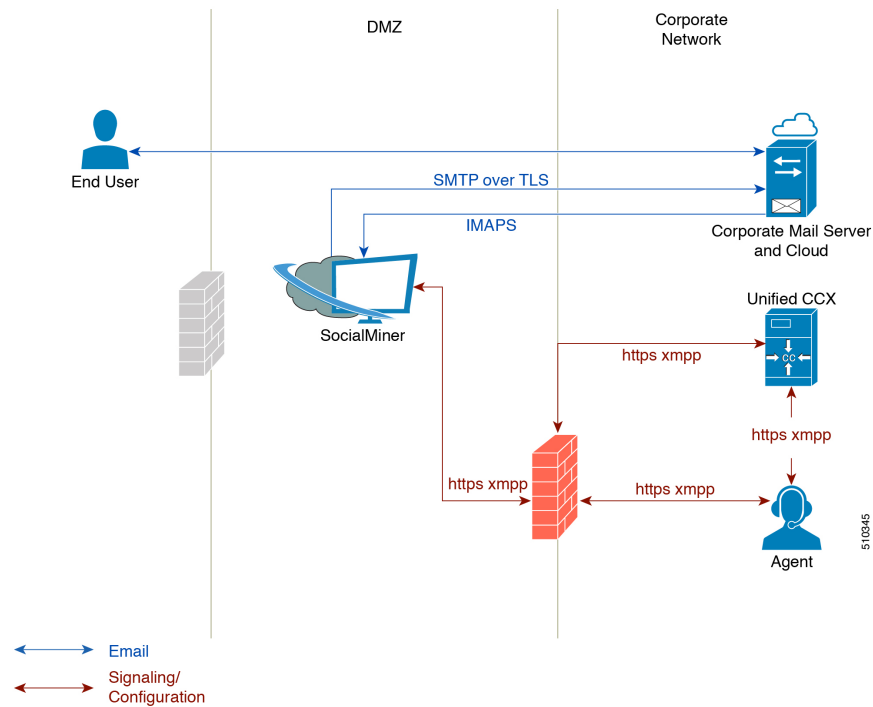


Figure 4: Customer Web Site in DMZ



Unified CCX allows email contacts to be routed to agents based on the email addresses to which they are sent by the customers. Cisco Finesse Agent Email feature uses skill-based routing and last-agent email routing.

Separate CSQs are required for Email. You must associate each Email CSQ with a separate email account on the mail server. This account must be dedicated to the Email CSQ feature and must not be used for other purposes. Agent association with Email CSQs is configured in the same manner as Voice CSQs by assigning skills and competency levels to the CSQ.

Cisco Finesse provides a common chat and email state, separate from voice state. Blending ensures that agents can handle voice, email, and chat contacts from the same desktop.

When an agent replies to a customer's email, the reply email is always in HTML format. The email address depends on the information in the customer's email. If the customer's email contains the Reply-to header field, the agent's reply email is sent to the email address in the Reply-to header. If the Reply-to header is missing in the customer's email, the agent's reply email is sent to the From address in the customer's email. The sender address of agent's email is the email account associated with the Email CSQ from which the reply is being sent. Upon requeue, Unified CCX ensures that the response is sent with the email address of the requeued CSQ as the From address.

## Agent Email Features

The following table describes the email features that are available with the premium package.

Finesse Email is available with Microsoft Exchange, Office 365, and Gmail with a Cisco SocialMiner configured within Unified CCX.

Table 7: Agent Email Features Available with Premium Package

| Feature                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Fully integrated with Cisco Finesse agent desktop.</b>                                                                                                                                                                                                                                                                                                                         |
| <b>Visible alert.</b> Email alert along with pending email count.                                                                                                                                                                                                                                                                                                                 |
| <b>Toaster Notification.</b> Toaster Notification. Agent receives a notification when a new email is received when the Cisco Finesse Desktop is not active.                                                                                                                                                                                                                       |
| <b>Auto accept email.</b> Incoming emails are automatically presented to the agent without any explicit accept (button click).                                                                                                                                                                                                                                                    |
| <b>Email contact handling</b> Agents can be configured to handle up to five email contacts.                                                                                                                                                                                                                                                                                       |
| <b>Requeue email.</b> Agent can re-queue an email to another CSQ.                                                                                                                                                                                                                                                                                                                 |
| <b>Reply To Header.</b> If the Reply To header is present, the agent's response is sent to that address. Otherwise, it uses the From address of that email to respond.                                                                                                                                                                                                            |
| <b>Reply To, Reply All, Cc, Bcc, Forward</b> Agent can respond to the from email address, edit the <b>To</b> field, can add email addresses in the <b>Cc</b> and <b>Bcc</b> fields to mark copy or blind copy to other contacts, do a <b>Reply All</b> to all the email addresses existing in the email, and <b>Forward</b> the email to any other email address.                 |
| <b>Save drafts.</b> The system periodically saves the email drafts.                                                                                                                                                                                                                                                                                                               |
| <b>Discard email.</b> Discards email from the agent desktop, but mails are not deleted from the server.                                                                                                                                                                                                                                                                           |
| <b>Rich Text.</b> Rich text is available for the email body, predefined response and email signature.                                                                                                                                                                                                                                                                             |
| <b>Predefined Responses.</b> Administrator can configure up to 500 Predefined Responses across chat and email. These Predefined Responses can be tagged Global or with up to 10 CSQ tags.                                                                                                                                                                                         |
| <b>Email Signatures</b> Administrator can configure email signatures for the Global CSQs and Multiple CSQs. The email signatures can be tagged Global or Custom to upto 10 CSQs.                                                                                                                                                                                                  |
| <b>Wrap-Up Reasons.</b> Agents can select Wrap-Up Reasons for the emails handled by them. A maximum number of five (5) Wrap-Up Reasons can be selected. Wrap-Up Reasons are available only after the Administrator has configured the same for the CSQs.                                                                                                                          |
| <b>Attachments.</b> Supported.                                                                                                                                                                                                                                                                                                                                                    |
| <b>Attachment size limit</b><br>The total attachment file size limit in an agent's reply is 20MB.<br>The size limit of a single file attachment is 10 MB.<br>The total size limit of attachments in the incoming email from the customer is 20 MB.                                                                                                                                |
| <b>Note</b> The email attachment size limit must be configured on the mail server.                                                                                                                                                                                                                                                                                                |
| <b>Historical Reports.</b> See the <i>Cisco Unified CCX Reporting Guide</i> for more details on the reports at, <a href="http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-user-guide-list.html">http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-user-guide-list.html</a> . |

| Feature                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Email Live Data Reports.</b> See the <i>Cisco Unified CCX Reporting Guide</i> for more details on the reports at <a href="http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-user-guide-list.html">http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-user-guide-list.html</a> .      |
| <b>Microsoft Exchange.</b> Supported email service.<br>This must be purchased separately by customer.                                                                                                                                                                                                                                                                                      |
| <b>Office 365.</b> Supported email service.<br>This must be purchased separately by customer.                                                                                                                                                                                                                                                                                              |
| <b>Gmail.</b> Supported email service.<br>This must be purchased separately by customer.                                                                                                                                                                                                                                                                                                   |
| <b>Context Service Integration for Chat and Email.</b> Integrates the Context Service with chat and email to store Cisco Contact Center customer data with rich contextual information about interactions, thus resulting in a seamless omni channel experience.                                                                                                                           |
| <b>Dedicated or Blended email agents.</b> Agents can be configured to handle emails only or both, email and chat.                                                                                                                                                                                                                                                                          |
| <b>Email Routing.</b> <ul style="list-style-type: none"> <li>• Last Agent Email Routing where an attempt is made to route an email to the last agent who handled the email last.</li> <li>• Skill and competency based routing that applies to new emails or when Last Agent Email Routing expires.</li> <li>• The longest available or most skilled agent selection algorithm.</li> </ul> |
| <b>Dynamic reskilling.</b> Changes to CSQ skills and competencies and agent skills and competencies are applied immediately. Emails that are currently being worked by the agents are not affected.                                                                                                                                                                                        |
| <b>High Availability (HA) failover.</b> HA is supported in Unified CCX. Upon Unified CCX failover, all emails in the system are automatically requeued and rerouted. Emails are presented to the agents after the failover.                                                                                                                                                                |
| <b>Keyboard shortcuts.</b> Use the keyboard shortcuts for easy access to the Cisco Finesse agent and supervisor desktop features. The keyboard shortcuts are available for both agent and supervisor.                                                                                                                                                                                      |

## Email Enhancements

Few of the email enhancements that are available with the Cisco Finesse Email feature:

- The agent can add and modify the To, Cc, and Bcc recipients in the email reply and forward.
- The agent has an option to click Reply All to send the email response to all the recipients that were initially included in the email
- The agent has an option to forward the email to any other recipient.
- The agent can send and receive email messages with attachments of maximum size upto 20 MB.

- An administrator can create, modify, delete and view email signatures.

The email signature gets automatically appended to the email response that is sent by the agent.

In the email signature, the agent details are automatically inserted based on the Agent Alias system variable value. If the Agent Alias value is available, the alias name is inserted. If the alias name is not available, then the Agent ID is inserted in the signature.

The email signatures are configured and tagged as Global for all CSQs or Customize for selected CSQs. Following are the important criteria while tagging an email signature to CSQs:

- A CSQ can be tagged with only one email signature.
- Only one email signature can be tagged as Global for all CSQs.
- If there are no email signatures configured for a CSQ, there will not be any email signature that gets appended to the email sent by the contact center agent.

## Unified CCX Web Chat

As part of the Premium license, Unified CCX agents can service customer chat requests using the Agent Web Chat gadget in Cisco Finesse.

This feature requires a SocialMiner deployment to accept and relay the contact requests from a customer website. One SocialMiner deployment can serve only one Unified CCX deployment (single node or high availability deployment). SocialMiner does not support redundancy.



**Note** The Chat Web Form that is generated uses JavaScript. The web page where this is loaded must be accessed using a JavaScript enabled browser. The default Chat Web Form displays a message to the user if JavaScript is not enabled on the browser where it is loaded.

An audio alert is played when the agent receives a new chat request or when there is a new message on an inactive chat session tab. With multiple chat session tabs, the selected chat session tab is considered as active. All other chat session tabs are considered as inactive.

## Web Chat Features

The following table describes the web chat features in addition to the chat features that are available in premium package.



**Note** The Web Chat (or Classic Chat) is deprecated from the next release of Unified CCX.

**Table 8: Web Chat Features Available in Premium Package**

| Feature                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Agent Alias.</b> During a chat session, the customer sees the alias that has been configured for the agent by the administrator. The Agent Alias now supports the character, Space. |

| Feature                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Typing Indicator.</b> The agent or customer can see when the customer or agent is typing a message.                                                                                                   |
| <b>Chat Transcript.</b> Chat transcripts can be downloaded by the customer after the chat session. Administrators can login to SocialMiner to retrieve chat transcripts.                                 |
| <b>Visual Customization of the Chat Form.</b> A customizable customer chat form.                                                                                                                         |
| <b>Business Hours Setting.</b> The Administrator can configure a schedule for the chat web form based on the business days, working hours, and holidays.<br>This is available for the Classic Chat only. |
| <b>Chat Widgets -</b> There are two types of chat widgets available, Classic Chat and Bubble Chat.                                                                                                       |
| <b>Post Chat Rating</b> The customers can rate the chat experience after chat is ended.                                                                                                                  |

## Group Chat

The group chat feature is used when the agent would like to involve another agent in an ongoing chat session to support the customer. This can be used for seeking further information or support for the ongoing chat. A group chat enables an agent to:

- Send a chat invite to an available agent of the selected CSQ.
- Enter the summary of the ongoing chat for the other agent. This helps the agent to understand the background of the ongoing chat.
- Accept or decline the incoming group chat invitation.

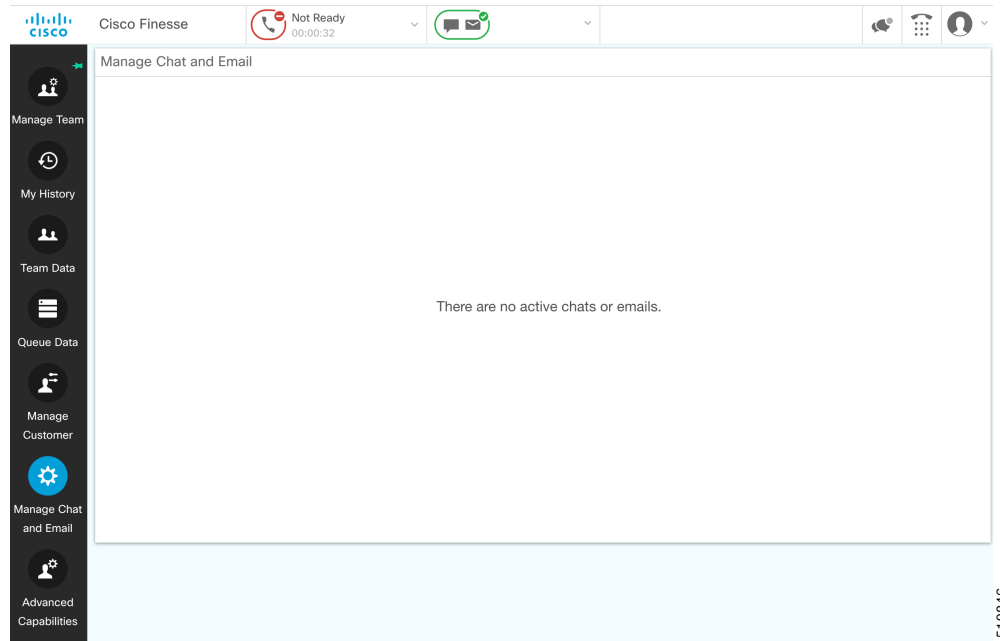
Few reporting considerations for the Group Chat feature are:

- The Historical reports, **Chat Agent Details Report** and **Chat Agent Summary Report** reflect the chat session information handled by the agents only after the contact is ended.
- In Chat Agent Details Historical report (in the case of group chat):
  - **Chat Routed CSQ** column will show the name of the csq to which the chat contact was initially injected to the agents.
  - **Chat Type** column will show as 'group chat' for the agents whoever is involved in a group chat.
- Contacts Abandoned count will now also include the Group Chat contacts which the customer ends while it is being offered to the second Agent.

## Manage Digital Channels

### Manage Chat and Email Gadget

The following figure shows the Cisco Finesse Manage Chat and Email gadget for agents.



The Manage Chat and Email gadget allows you to manage chat and email contacts. Chat and email contacts that are assigned to you appear in tabs on the left. You can click each individual tab to view and reply to the contact.

Chat contacts are denoted by a chat icon. The following information appears on each chat contact tab:

- Customer name
- Total chat time: Indicates the duration of the chat session.
- New message indicator: If you receive a message on a chat contact that is not your current contact, the tab flashes for a few seconds. A number appears on the tab that indicates how many messages the customer sent since you last replied.

Email contacts are denoted by an envelope icon. When you begin typing a reply to the email contact, a pencil icon appears on the envelope icon.

The following information appears on each email contact tab:

- Customer information: Customer email address, customer name (if available).
- Email timestamp: Indicates the time that the system received the email contact.
- Email subject: Hovering the mouse over the email tab, displays the subject of the email in a tool tip.



**Note** When you accept a chat request, Finesse automatically switches to the Manage Chat and Email tab and the chat becomes the active contact. When you are assigned an email contact, Finesse does not switch tabs and the contact does not become the active contact. An orange icon appears on the envelope icon in the Chat and Email Control gadget.

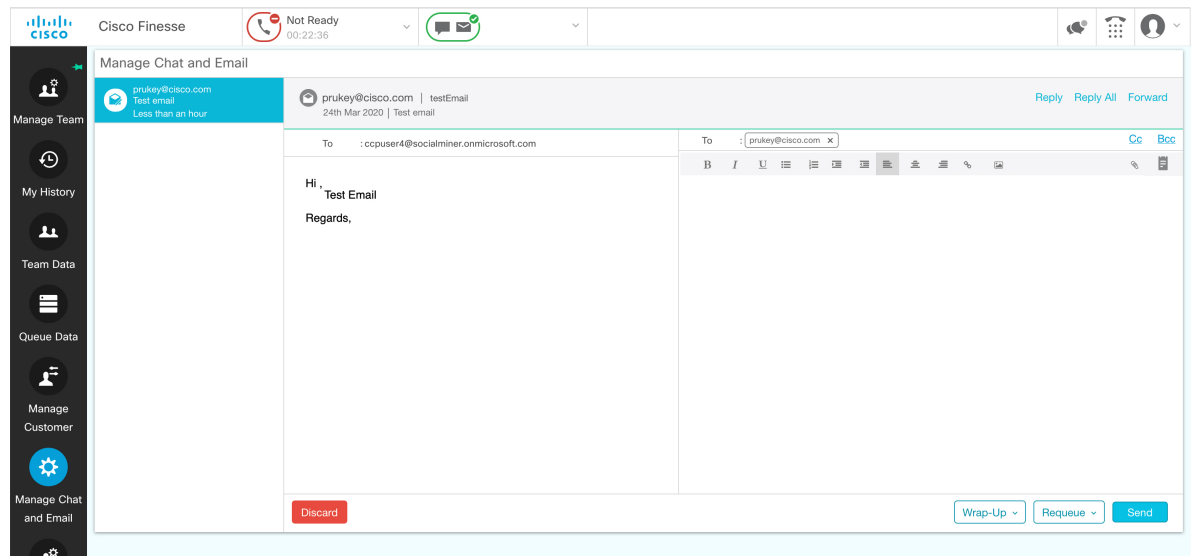
# Email Features

Let us see how we can now use the available email features. You can also see the [Cisco Finesse Agent and Supervisor Desktop User Guide for Cisco Unified Contact Center Express](#) for more information.

## Email Reply Panel

The following figure shows the Email Reply panel of the Manage Chat and Email gadget.

**Figure 5: Email Reply panel**



The customer email appears on the left. The area where you type the response appears on the right. After you begin your reply, Finesse automatically saves a draft of your message every 3 minutes.





















### Note

Do not close or reload the browser when you reply to an email or when the email loads on the desktop.

The Email Reply panel provides the following functionality:

| Button | Name      | Description                                                                                                          |
|--------|-----------|----------------------------------------------------------------------------------------------------------------------|
|        | Requeue   | Requeues an email contact to a new CSQ.                                                                              |
|        | Discard   | Discards an email.                                                                                                   |
|        | Reply     | Sends a reply to the email address of the customer.                                                                  |
|        | Reply All | Sends a reply to the customer and to all other email addresses that the customer had included in the original email. |



| Button                                                                              | Name                | Description                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | Cc                  | Allows to include other email addresses to send a copy of the email to them.                                                                                                                                        |
|    | Bcc                 | Allows to include other email addresses to send a blind copy of the email to them.                                                                                                                                  |
|    | Forward             | Forwards an email to other email addresses.                                                                                                                                                                         |
|    | Bold                | Applies bold to the selected text.                                                                                                                                                                                  |
|    | Italic              | Applies italics to the selected text.                                                                                                                                                                               |
|    | Underline           | Underlines the selected text.                                                                                                                                                                                       |
|    | Bulleted List       | Inserts a bulleted list.                                                                                                                                                                                            |
|    | Numbered List       | Inserts a numbered list.                                                                                                                                                                                            |
|   | Increase Indent     | Increases the space between the left margin and the content.                                                                                                                                                        |
|  | Decrease Indent     | Decreases the space between the left margin and the content.                                                                                                                                                        |
|  | Align Left          | Aligns the content to the left margin.                                                                                                                                                                              |
|  | Align Center        | Aligns the content to the center.                                                                                                                                                                                   |
|  | Align Right         | Aligns the content to the right margin.                                                                                                                                                                             |
|  | Add/Edit Link       | Creates or modifies a hyperlink of the selected text to the specified URL.                                                                                                                                          |
|  | Add Image           | Adds a specified image to your reply.                                                                                                                                                                               |
|  | Attach a file       | Attaches a specified file to the email reply.                                                                                                                                                                       |
|  | Predefined Response | <p>Inserts a predefined response into your reply.</p> <p><b>Note</b> If a Predefined Response is not configured, this button is disabled.</p> <p>If the email is in Plain text format, this button is disabled.</p> |
|  | Send                | Sends your reply to the customer.                                                                                                                                                                                   |

## Accept an Email

You must be in Ready state to receive an email contact. When an email contact arrives on your desktop, it is automatically accepted and you would be notified by a pop-over notification.

To view the contact, you must click the **Manage Chat and Email** tab to go to the Manage Chat and Email gadget. If you have more than one contact assigned to you, in the left panel, click the tab for the email contact that you want to view.

## Reply to an Email Contact

### Procedure

---

- Step 1** On the Manage Chat and Email gadget, click the email contact that you want to reply to.
- Step 2** Click **Reply/Reply All** to reply to the email address of the customer or to any other email addresses copied by the customer. You may modify or add email addresses in the **To** field. You may also include **Cc** and **Bcc** to include more email addresses by clicking the respective fields.
- The maximum number of recipients allowed per field (**To**, **Cc**, and **Bcc**) is 20.
- Step 3** In the Email Response area, enter your response to the customer.  
You can use a predefined response or type your own response.
- Note** If you select a predefined response, the existing content of the reply is overwritten by the predefined response text.
- If **Email Signature** is configured, it gets appended at the end of the email before sending. The Email Signature is not visible to the sender.
- Step 4** When you are finished, click **Send**.
- 

## Forward an Email

### Procedure

---

- Step 1** On the Manage Chat and Email gadget, click the email contact that you want to reply to.
- Step 2** Click **Forward** to forward an email to add any other email addresses that you may want to send the email to. You may modify or add email addresses in the **To** field. You may also include **Cc** and **Bcc** to include more email addresses by clicking the respective fields.

- Note**
- The maximum number of recipients allowed per field (**To**, **Cc**, and **Bcc**) is 20.
  - No further attachments can be attached to the outgoing emails.
  - The **Reply To** field is modified appropriately such that the recipient of the forwarded email can reply to the original sender of the email directly and not send it back to the Contact Center.
  - The **Requeue** is disabled if you have initiated to forward the email. You must cancel **Forward** and click **Reply/Reply All** to requeue the email.

**Step 3** In the Email Response area, enter your response.

You can use a predefined response or type your own response.

**Note** If you select a predefined response, the existing content of the reply is overwritten by the predefined response text.

If **Email Signature** is configured, it gets appended at the end of the email before sending. The Email Signature is not visible to the sender.

**Step 4** When you are finished, click **Send**.

---

## Download Customer Attachments

If a customer includes attachments in an email, the attachment file names appear under the subject of the email. Finesse imposes the following limitations on customer email attachments:

- The total file size limit in an agent's reply has been increased to 20 MB.



---

**Note** Images within the body of the email are counted as attachments.

---

- The size limit of a single file attachment has been increased to 10 MB.
- The total size limit of attachments in the incoming email from the customer has been increased to 20 MB.

### Procedure

---

**Step 1** Click the filename of the attachment you want to open or download.  
You are prompted to open or save the file.

**Step 2** Choose whether to open the file or save the file to your computer.

**Step 3** Repeat Step 1 and Step 2 for each attachment that you want to open or download.

---

## Add a Hyperlink to an Email

### Procedure

---

- Step 1** In your email reply, select the text that you want to turn into a hyperlink.
- Step 2** Click the **Add/Edit Link** button.  
A dialog box opens where you can enter the URL for the link.
- Step 3** In the **Please enter a URL to insert** box, enter the URL for the link.
- Step 4** Click **OK**.
- 

## Add an Image to an Email

### Procedure

---

- Step 1** Place your cursor where you want the image to appear.
- Step 2** Click the **Add Image** button.  
A dialog box opens where you can enter a URL for the image.
- Step 3** In the **Please enter a URL for the image** box, enter the URL.
- Step 4** Click **OK**.  
The image appears inline in the email response.  
You can also copy and paste an image into the email response.
- 

## Add an Attachment to an Email

You can add up to 10 attachments to an email reply to a customer. The following limitations apply:

- The size of a single attachment must not exceed 10 MB.
- The total size of all attachments must not exceed 20MB.

### Procedure

---

- Step 1** Click the **Attach a file** button.
- Step 2** Navigate to the file that you want to send attach to the email.
- Step 3** Click **Open**.  
The file appears below the reply panel.
- Step 4** Repeat Step 1 and Step 2 for each file that you want to attach (up to 10).

If you want to remove an attachment, click the **X** to the right of the attachment filename.

---

## Requeue an Email Contact

You can transfer an email contact either to the same Contact Service Queue (CSQ) or to any other CSQ. After you initiate the transfer from the agent desktop, the contacts are requeued to a CSQ.

Last-agent email routing is a mechanism to route an email message to the agent who handled the last leg of the email conversation. When you requeue an email, the email will be routed to the intended CSQ to be handled by any available agent, and last-agent email routing is not considered.



**Note** The requeued contact is not requeued to the same agent even if the agent is part of the requeued CSQ and is available to handle more contacts.

---

When you sign out or refresh your browser, any contacts that you were handling are disassociated from you and requeued to the same CSQ.

### Procedure

---

- Step 1** Select the email that you want to requeue.
  - Step 2** Click the **Requeue** button.  
The list of CSQs is displayed with a search option.
  - Step 3** Type the CSQ name into the **Search** box to bring up the desired CSQ or select the CSQ from the list.  
A confirmation dialog appears.
  - Step 4** Click **Yes** to confirm.
- 

The email is removed from the multiple email sessions panel and requeued to the selected CSQ.

## Discard an Email Message

### Procedure

---

- Step 1** On the **Manage Chat and Email** gadget, select the email message that you want to discard.
- Step 2** Click the **Discard** button on the Email Reply panel.  
You are prompted to discard the selected email message.
- Step 3** Click **Yes** to confirm.  
The email message is discarded.

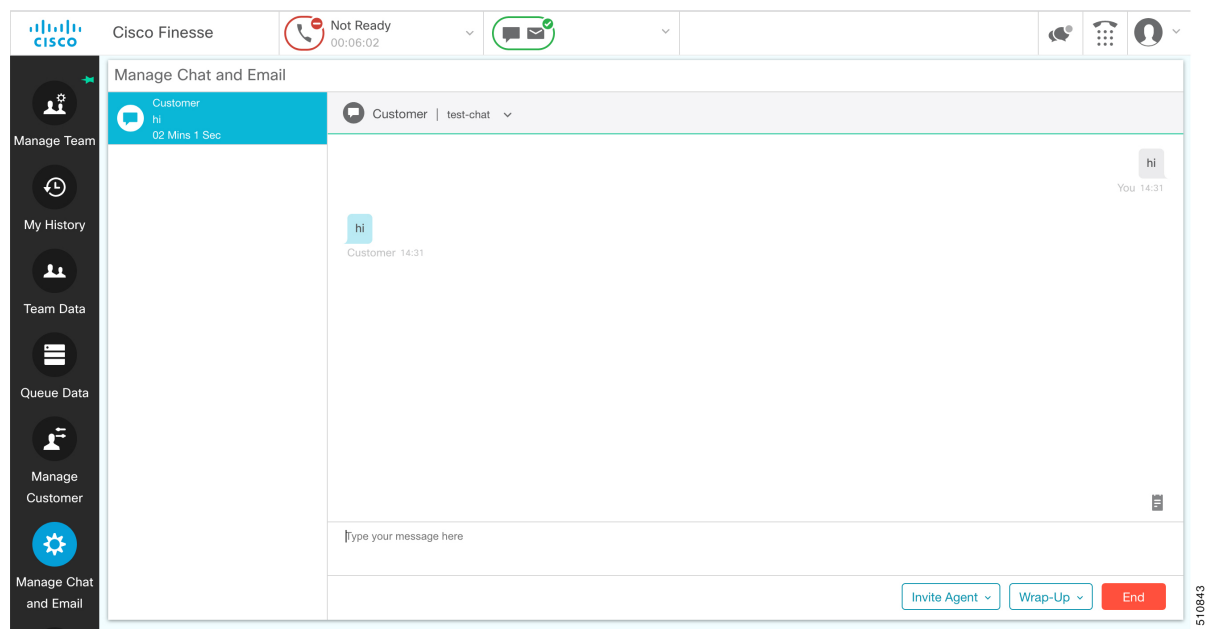
When you discard an unsent reply that has attachments, the draft of the reply from the agent and the attachments are deleted. The original email message sent by the email contact remains in the Exchange mailbox.

## Chat Features


### Chat Interaction Panel

The following figure shows the Chat Interaction panel of the Manage Chat and Email gadget.

**Figure 6: Chat Interaction Panel**



The Chat Interaction panel provides the following functionality:

- Typing area: Type your message in the typing area. Right-click to perform basic clipboard operations, and to check spelling.
- The typing awareness indicator shows when the other participant is typing.
- Group Chat icon: Allow you to initiate a group chat with another agent or supervisor.
- Group Chat invite appears for the agent to accept or decline the invite.
- In Group Chat, an agent can click **Leave** to leave the group chat whenever required.
- Predefined responses: Click  to select a predefined response from the list. When you insert a predefined response, it is placed at the position of your cursor.
- End chat session: Click **End** to end a chat session.

- Customer details area: Click the drop-down arrow next to the customer details to minimize or maximize this area.

## Accept a Chat

When a customer initiates a chat session from a website, Unified CCX Web Chat:

- Sends incoming chat to an available agent.
- Plays an audio alert (For a, new chat request and new message on an inactive chat).



---

**Note** With multiple chat session tabs, the selected chat session tab is considered as active. All other chat session tabs are considered as inactive.

---

- Displays contact details of the customer.

When a customer initiates a chat from Facebook Messenger, Unified CCX Web Chat:

- Prompts agent to accept chat before the time counter expires.
- Sends incoming chat from Facebook Messenger to an available agent with a distinct icon that differentiates Facebook Messenger chat from a regular chat.
  - Only agents can end Facebook Messenger chats. Customers can't end chat.
  - Agents cannot see typing indicator from Facebook users. However, Facebook users can see typing indicator from agents.
  - Facebook users see the business entity name in the chat. Agent name is not displayed to Facebook users.
  - Group chat is supported in Facebook Messenger chat, however Facebook users continue to see the business entity name.

You are presented with incoming chats until you reach the maximum active chat sessions that are set by administrator.



---

**Note** The maximum length of a chat message from the agent is 1500 unicode characters.

---

### Procedure

---

- Step 1** Click **Accept** in the incoming chat pop-over notification box within the specified time to accept the chat. The Manage Chat and Email gadget opens, chat session starts, and you are connected to the customer.

**Note** Repeat Step 1 when you are presented with a new incoming chat.

A new tab opens for the chat session and new chat session becomes the current session.

**Step 2** To end the chat session, click **End**.

When an Agent does not accept the chat, state of the digital channels changes to Not Ready. When the chat is timed out, the state automatically changes to Not Ready with a warning badge as **Chat Not Accepted**.

### What to do next



**Note** Customer can rate the chat experience. The chat rating is updated in an Activity (POD) in Context Service. The prerequisite is that the organization must be registered for Context Service.

## Initiate a Group Chat

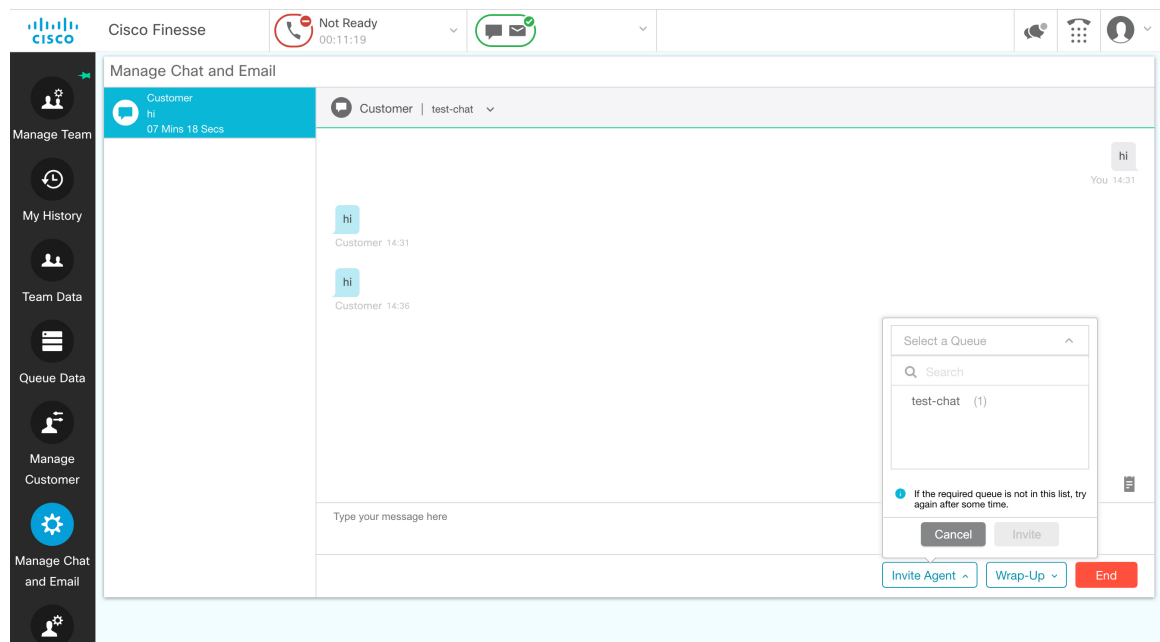
You can initiate a Group Chat when you wish to involve another agent in an ongoing chat session to support the customer. This can be used for seeking further information or support for the ongoing chat. A group chat enables you to:

- Send a chat invite to an available agent of the selected CSQ.

The CSQ names are displayed with the number of available agents in that CSQ.

- Enter the summary of the ongoing chat for the invited agent. This helps the invited agent to understand the context of the ongoing chat.

**Figure 7: Initiate Group Chat Invite Interface**



510845



## Procedure

- Step 1** Click **Group Chat** icon to initiate a group chat with another agent or supervisor.
- Step 2** Select a **Queue** from the list to invite any available agent to join the chat session.
- Step 3** You may enter a summary of the chat in the **Enter Notes** text box. This helps the invited agent to know the context of the chat. This is optional.

**Note** The summary notes are visible only when the first agent enters the notes when the chat session was initiated.

The notes entered by the invitee is displayed only to the invited agent.

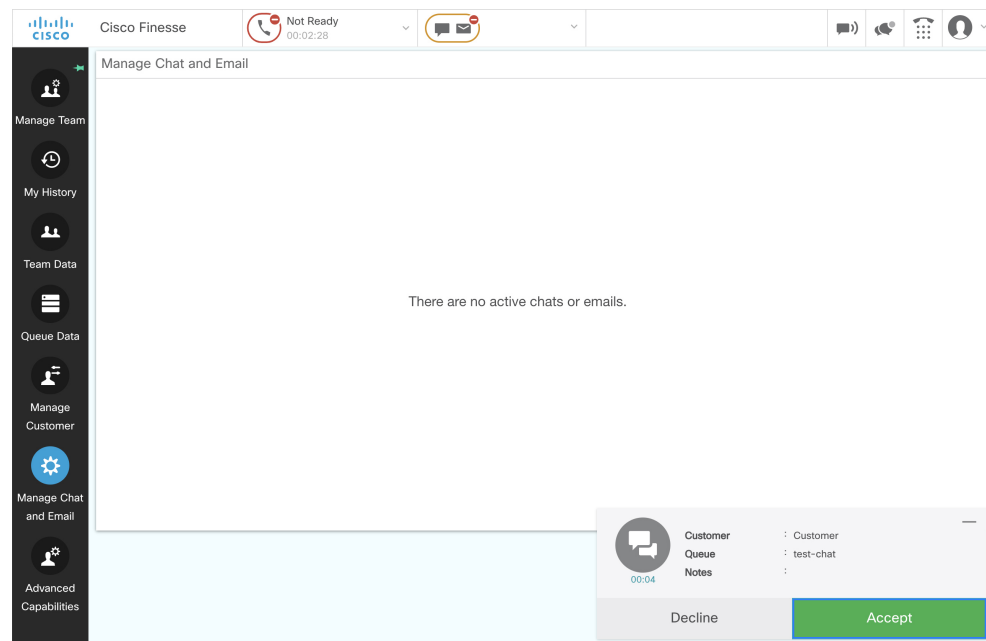
- Step 4** Click **Invite**.  
The available agent gets a notification to **Accept** or **Decline** the chat. When an available agent accepts the group chat, the three participants (the two agents and the customer) may exchange information in the chat window.

- Step 5** To leave the chat session, click **Leave**.

When there is only one agent and the customer in the chat session, the chat can be ended by the Customer or the Agent by clicking **End**.

## Accept a Group Chat

You will receive an incoming group chat notification on the Finesse desktop. You may see the notes of the ongoing chat along with the invite. This helps you to understand the issue for which the group chat was initiated by the inviting agent.



### Procedure

---

**Step 1** Click **Accept** when you see the new group chat notification to join the chat session.

The agent can see chat history upto 100 messages after joining the group chat.

**Step 2** You may now exchange information with the other two participants (inviting agent and the customer).

- Note**
- The **Group Chat** icon is disabled till the time there are two agents in the ongoing chat. Only when one agent chooses to leave the chat session, the **Group Chat** icon will be enabled again. The agent who wishes to leave the chat session may choose to click **Leave**. The agent who is still active in the group chat session can initiate another group chat by following the steps detailed in the **Initiate a Group Chat** section.
  - The maximum number of participants in a Group Chat including the customer is three (3).
  - The notes are not persisted for any subsequent chat sessions with the same customer.
- 

## Decline a Group Chat

You will receive an incoming group chat notification on the Finesse desktop. You may also see a summary of the ongoing chat along with the invite. This will help you to know the issue for which the group chat was initiated by the inviting agent.

### Procedure

---

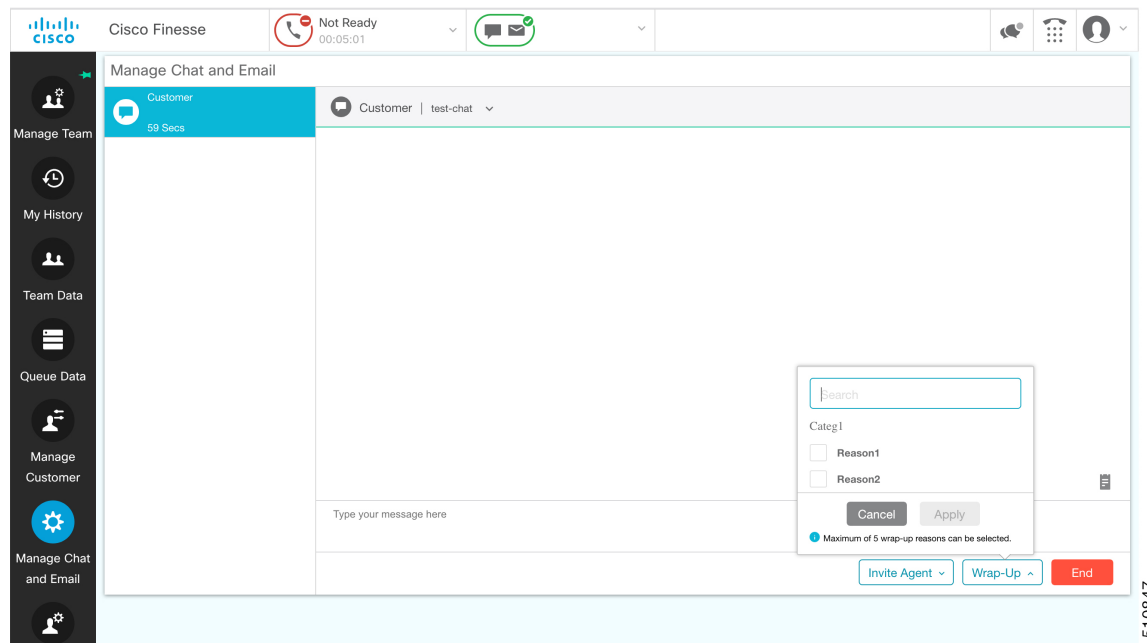
Click **Decline** when you see the new group chat notification to decline the chat invite.

- Note** The agent who declined the group chat invite is not offered any successive group chat invites for the same chat session till another agent accepts a group chat invite for the same chat session.
- 

## Apply Wrap-Up Reasons for Chat and Email

Wrap-Up Reasons are the logical explanations that you can apply when you wrap up the chats and emails handled by you. If your administrator has assigned Wrap-Up Reasons for you, the Wrap-Up Reasons appear in the drop-down list that can be selected. If there are no Wrap-Up Reasons configured by the administrator, it appears blank.

Wrap-Up Reasons that your administrator modifies is available only to the new contacts and not for the contacts that you are currently handling.



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## Procedure

**Step 1** Click **Wrap-Up Reasons(0)**.

In a chat interaction panel you see the **Wrap-Up Reasons(0)** beside the **End** and in a group chat interaction panel beside the **Leave**. In an email reply panel, this is found beside the **Send**. The number in brackets indicates the count of Wrap-Up Reasons selected. This dynamically changes based on your selection.

**Step 2** Select the appropriate Wrap-Up Reasons from the drop-down list.

**Step 3** Click **OK** to close the Wrap-Up Reasons selection pane.

You can change your selection at any time. Click **Wrap-Up Reasons(0)**; to open the Wrap-Up Reasons selection pane. You can select a maximum number of five (5) Wrap-Up Reasons.

## Digital Channel Reports

There are multiple historical and live data reports that provide information on the digital channels. The reports provide agent detail, agent summary, CSQ activity, CSQ agent summary in context to the digital channels.

All the historical and live data reports are available at the following location, <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-user-guide-list.html>.





## CHAPTER 5

# Desktop Chat

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## Desktop Chat

Desktop Chat is a XMPP browser based chat, which is powered by Cisco Instant Messaging and Presence (IM&P) service. Desktop Chat allows agents, supervisors, and Subject Matter Experts (SMEs) within the organization to chat with each other.

For more details see, <https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-implementation-design-guides-list.html>.

Instant Messaging and Presence (IM&P) provides presence and chat capabilities within the Unified CM platform. The Desktop Chat interface is hosted by the Finesse Agent desktop and requires a separate log in to the IM&P service.

Desktop Chat feature provides basic chat functionalities required for agents to chat with each other or with other SMEs in the enterprise.



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**Note** Desktop Chat does not support Cisco Mobile Remote Agent /VPN based access to the IM&P server. Desktop Chat requires direct access to the IM&P server to connect to the chat service.

---

## Cisco Instant Messaging and Presence (IM&P)

IM&P incorporates the Jabber platform and supports XMPP protocol and can track the user's presence via multiple devices. IM&P pulls its user list from users who have been enabled for chat capabilities, from Unified

CM (or LDAP if LDAP integration is enabled). Only Unified CM users enabled for chat capability can login to IM&P.

### Identity, Presence, Jabber

A User is identified in the IM&P service with a unique identity which is in the form of `username@FQDN.com`.

The UCCX login ID can be same as Desktop login ID. This is possible if, the Unified CM configured for IM&P is the same as the Unified CM cluster configured with Unified CCX solution.

A user is described in terms of the identity of the user, presence status, (available, unavailable, or busy) and the presence capabilities of the user.

The presence status of the user is not related to the Agent Status and has to be managed independently by the user post login.

Cisco IM&P service combines the presence status of user across multiple devices and publishes them for subscribers who have added the contact in their contact list.

IM&P supports a composed presence for the users, which is derived from the state matrix of all the devices that the agent is logged into. Cisco IM&P takes sources of presence from the XMPP client for the user, on-hook and off-hook status from CUCM, and in a meeting status from Microsoft Exchange to generate the users overall composed presence. Desktop Chat displays the composed presence of the user. For details about how to arrive at the composed presence, refer to the *Cisco IM&P User Guide* at: <https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-user-guide-list.html>.

Irrespective of the deployment type, the Desktop Chat requires an explicit login using the IM&P identity of the user after logging into the Finesse Desktop.

SSO is not supported with Desktop Chat and thus an explicit login is required in SSO mode.

Desktop Chat presence indicates the availability of users to communicate across the configured devices.

Desktop Chat availability will also be reflected in the combined IM&P presence of the user.

Logging into Desktop Chat, by default sets the users state as available.

An agent logging into Desktop Chat can thus be seen as available in Jabber or other XMPP platforms connected with IM&P and can communicate with these users.



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**Note** File transfer is supported only for users communicating using Desktop Chat. For more information on the supported file types and the maximum size of file attachments see, *Desktop Properties CLIs* section in the [Cisco Unified Contact Center Express Administration and Operations Guide](#).

---

### Example for Desktop Chat availability:

A Desktop Chat user can be logged into the Desktop Chat and Jabber at the same time. Incoming chats will be relayed to all the logged in clients including Desktop Chat. However, Desktop Chat does not support Multi-Device-Messaging. So messages being sent from other XMPP clients like Jabber will not be displayed within the Desktop Chat. Once alternate clients are used to respond to incoming chats, further messages are not shown in Desktop Chat until the user starts responding using the Desktop Chat.

For more information on network designs, refer to the *Solution Reference Network Design* guide <https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-implementation-design-guides-list.html>.

## Cisco IM&P Deployment Considerations

Finesse is configured to the primary and secondary IM&P chat servers through the Cisco Finesse Administration interface.

Desktop Chat automatically discovers the appropriate IM&P node, configured for the user, by connecting to the configured servers and connects to the appropriate nodes in IM&P. This resolution is only performed for the first time chat is loaded and subsequently uses the same nodes, until the browser cache is cleared by the user.



---

**Note** Desktop Chat does not use DNS\_SRV\* records unlike Jabber and cannot automatically configure itself based on the network configurations. The explicit chat URI configuration from Administrative pages is required for chat server discovery.

---

For details on Cisco IM&P deployment, see Unified CM Solution Reference Network Design guide at [https://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/cucm/srnd/collab12/collab12/presence.html](https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/srnd/collab12/collab12/presence.html).

See [Configuration and Administration of the IM and Presence Service on Cisco Unified Communications Manager](#) guide for details about the following:

- How to install and configure IM&P services.
- How to configure IM&P to enable chat services for end users.
- How to configure clusters and high availability deployment.
- How to configure IM&P Federation.

Unified CCX connects to Cisco IM&P servers over port 5280 for Desktop Chat, from the browser that hosts the Finesse Agent desktop. Thus, the IM&P server visibility and port accessibility must be ensured to use this feature.

## Cisco IM&P Design Considerations

Finesse browser makes a separate connection to Cisco IM&P over HTTPS, after it retrieves the chat server URI from the Finesse server. This requires separate certificates to be accepted if self-signed certificates are employed, in an HTTPS deployment.

The chat interaction happens over XMPP protocol, on the HTTP connection with long polling or BOSH established with Cisco IM&P.

There are no other interactions between Finesse server and browser for chat related capabilities, except for retrieving the Cisco IM&P server configurations.

Chat log persistence is available with the browser for the duration of the desktop session.

User search capabilities require Unified CM LDAP integration. In its absence, remote contacts have to be manually added by the user.

If the user is an existing Jabber user, the same contacts are shared between the Desktop Chat and Jabber which are also persisted across sessions.

There are no limits on the number of ongoing chats or the contacts in Desktop Chat apart from the restrictions or guidelines advised by Cisco IM&P. For the limit on the number of ongoing chats or the contacts and how to configure the Cisco IM&P server for chat, see the [IM&P Solution Reference Networking Guide](#).

## Bandwidth and Latency Considerations for Cisco IM&P

Cisco IM&P service is closely integrated with Unified CM and it depends on Unified CM for user management and service enabling and authentication.

Cisco IM&P can be deployed as a cluster to guarantee availability and the users must be pre-configured to specific node pairs within the cluster. Details of Cisco IM&P installation and cluster deployment can be found here <https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-installation-guides-list.html>.

For more details on the latency requirements for IM&P server refer, Unified CM SRND at <https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-implementation-design-guides-list.html>.

The maximum latency supported between Finesse and IM&P nodes is 200 ms.

## Cisco IM&P High Availability Considerations

Failover is supported for Desktop Chat and any Cisco IM&P node failure results in automatic connection to the node pair peer, as configured for the user.

### Desktop Chat Failover

The following table lists the Desktop Chat Failover scenarios:

| Failover Type                 | Desktop Chat Behavior                                                       |
|-------------------------------|-----------------------------------------------------------------------------|
| Cisco IM&P server failover    | The Desktop Chat Status is retained, and all active chat sessions are lost. |
| Cisco Finesse server failover | The Desktop Chat Status is retained, and all active chat sessions are lost. |
| Unified CCX server failover   | The Desktop Chat Status and all chat sessions are retained.                 |

See the [Cisco Finesse Administration Guide](#) for failover details with Desktop Chat.



## Desktop Chat Server Settings

Desktop Chat is an XMPP browser based chat, which is powered by Cisco Instant Messaging and Presence (IM&P) service. It provides presence and chat capabilities within the Unified CM platform. For more details, see *Configuration and Administration of the IM and Presence Service* at <https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-installation-and-configuration-guides-list.html>.

Desktop Chat connects to Cisco IM&P servers over port 5280 from the browser hosting the agent desktop. IM&P server visibility and port accessibility needs to be ensured if clients intend to use this feature. The Desktop Chat gadget configures the IM&P host BOSH URL's used by the desktop to communicate with the IM&P server over BOSH HTTP.

IM&P has a clustered design, where users are distributed across multiple nodes in the cluster. The Desktop Chat initially discovers the IM&P nodes that a user has configured, caches this information and communicates with the actual server for subsequent login, until the browser cache is cleared. To spread the initial discovery load, it is advisable to configure the nodes in a round robin fashion if the deployment has more than one Finesse cluster. For example, if there are 5 IM&P nodes configure Finesse cluster A with node 1 & 2, Finesse cluster B with nodes 3 & 4, and so on.

Node availability should be considered while configuring the IM&P URL. The secondary node will be available for discovery in scenarios where the first node is not reachable. The secondary node will be connected for discovery only if the primary node is unreachable.

For the URL to be configured, refer Cisco Unified Presence Administration service, in *System, Service Parameters*. Choose the required IM&P server, select Cisco XCP Web Connection Manager. The URL binding path is listed against the field *HTTP Binding Path*. The full URL to be configured in Finesse is `https://<hostname>:5280/URL-binding-path`.

For more information on the Desktop Chat design, refer to the *Solution Design Guide for Cisco Unified Contact Center Express, Release 12.0*.

Use the Desktop Chat Server Settings to configure chat settings for the Finesse desktop. The following table describes the fields on the Desktop Chat Server Settings gadget.

| Field                 | Explanation                                          |
|-----------------------|------------------------------------------------------|
| Primary Chat Server   | Enter the IM&P primary server URL of Desktop Chat.   |
| Secondary Chat Server | Enter the IM&P secondary server URL of Desktop Chat. |

### Actions on the Desktop Chat Server gadget:

- **Save:** Saves your configuration changes
- **Revert:** Retrieves the most recently saved server settings



---

**Important** For Desktop Chat to work without any issues, ensure the following services are running on IM&P:

- Cisco Presence Engine
  - Cisco XCP Text Conference Manager
  - Cisco XCP Web Connection Manager
  - Cisco XCP Connection Manager
  - Cisco XCP Directory Service
  - Cisco XCP Authentication Service
  - Cisco XCP File Transfer Manager
- 



**Note** Desktop Chat is not supported with the unrestricted versions of IM&P.

---

## Use Desktop Chat

The Desktop Chat allows agents or supervisors to chat internally with other users on the Finesse desktop and with users outside the contact center. The agent state on the Desktop Chat is different from the Voice or Digital Channels state.

For more details on how to sign in to Desktop Chat, managing contacts, groups, the chat window, how to change state for Desktop Chat, and how to sign out of Desktop Chat see, Finesse Agent and Supervisor Desktop User Guide for Unified CCX.

## Sign In to Desktop Chat

### Procedure

---

- Step 1** In the Finesse desktop, click the Desktop Chat icon ().
- Step 2** Enter your username and password in the appropriate fields and click **Sign In**.
- Step 3** **Note** If you are using self signed certificates, you get the certificate acceptance window.

Click the certificate link. A new browser tab opens for the certificate you need to accept. A certificate error appears in the address bar.

To accept the certificates in Internet Explorer, refer to the section *Accept Security Certificates > Step 2 > Substep d* onwards.

To accept the certificates in Edge, refer to the section *Accept Security Certificates > Step 3 > Substep d* onwards.

To accept the certificates in Firefox, refer to the section *Accept Security Certificates > Step 4* onwards.

To accept the certificates in Chrome, refer to the section *Accept Security Certificates > Step 5* onwards.




---

## Add Contact

If you have Cisco Jabber on your desktop, then the first time you sign in to Desktop Chat, you will see your Cisco Jabber contact list in the Desktop Chat window. If you do not have Cisco Jabber, your contact list will be empty.

### Procedure

---


- Step 1** To add a contact:
- In the empty contact list, enter the agent name or ID in the **Search** field.
    - Note** When you enter the text to search, the Search field pre populates relevant results in a drop-down. From the results list, hover over the required contact and click the  icon.
  - In the existing contact list, click the  icon at the end of the group and click **Add**.
  - From the **Recent Chats** group, click the  icon at the end of the required chat and click **Add**.
- Step 2** In the **Add Contact** window, you can choose to change the display name.
- Step 3** From the **Add to Group** drop-down, either choose an existing group or create a new group to add the contact.
- Step 4** Click **Add**.  
The contact is added to your existing or newly created group.
- 

## Edit Contact

Use this option to change the contact name or contact group.

### Procedure

---

- Step 1** In the Contact list, click the  icon at the end of the required contact.
- Step 2** From the drop-down, click **Edit**.
- Step 3** In the **Edit Contact** window, modify the display name or the group.  
While modifying the group for the contact, you can either add the contact to existing groups or create a new group.
- Step 4** Click **Save**.
-

## Move Contact

Use this option to move a contact to a different group.

### Procedure

---

- Step 1** To move a single Contact:
- Click the ●●● icon at the end of the required contact.
  - From the drop-down, click **Move**.
  - In the **Select Destination** window, select an existing group or create a new group.
  - Click **Move**.
- Step 2** To move multiple contacts:
- Press and hold the **Ctrl** key and select the required contacts.
  - On the Contact list header, click **Move**.
  - In the **Select Destination** window, select existing groups or create a new group.
  - Click **Move**.
- 

## Delete Contact

Use this option to delete a contact. If the contact is part of multiple groups, it is removed only from that group and not from the other groups.

### Procedure

---

- Step 1** To delete a single contact:
- In the Contact list, click the ●●● icon at the end of the required contact.
  - From the drop-down, click **Delete**.
  - In the confirmation prompt, click **Delete** to remove the contact from that group.
- Step 2** To delete multiple contacts:
- Press and hold the **Ctrl** key and select the required contacts.
  - On the Contact list header, click **Delete**.
  - In the confirmation prompt, click **Delete** to remove the contact from that group.
- 

## Edit Group

Use this option to change the group name.

### Procedure

---

- Step 1** In the contact list, click the ●●● icon at the end of the required group.
- Step 2** From the drop-down list, click **Edit**.
- Step 3** In the **Group** window, modify the group name.
- Step 4** Click **Save**.
- 

## Delete Group

Use this option to delete a group.

### Procedure

---

- Step 1** In the Contact list, click the ●●● icon at the end of the required group.
- Step 2** From the drop-down, click **Delete**.
- Step 3** In the confirmation prompt, click **Delete**.  
The group is removed with all the contacts in it.
- 

## Chat Window

When you receive an incoming chat request, a chat window pops up with the display name of the agent in the chat window header. If the Finesse desktop window or tab is inactive, Finesse displays a notification with the chat details. Click the toaster notification to restore the Finesse desktop.

You can move the chat window to any location on the screen but cannot maximize it to the full screen.





**Note** You can chat with agents who are logged into the Desktop Chat. You cannot send messages to the signed out agents.

---

The Desktop Chat window provides the following functionalities:

- Typing area: Type your message in the typing area. Right-click to perform basic clipboard operations.
- The typing awareness indicator shows when the other participant is typing.
- Multiple chats:
  - All agents are displayed in the chat tabs at the bottom of the chat window.
  - The chat tab area displays up to three active chats. To view more than three active chats, click the >> icon.
  - For each chat tab, the unread chat notification is shown in a badge next to the display name. The badge disappears when that chat tab is active.

- When you hover over the status on any chat tab next to the display name, you get the option to close that chat tab.
- Click the chat window header to minimize or maximize the chat window.
  - When minimized, the chat window header shows the total number of chats that have unread messages.
  - Click **X** on the chat window header and confirm to close all chats.
- Chat history: The Desktop Chat window stores the chat history only for a particular session. If you sign out or the browser is refreshed or closed, the chat history is lost.
- Resize chat window: Click the  button on the chat window header to increase the chat window frame size and the  button to restore the frame size.
- Attachments:




---

**Note** The administrator should have enabled attachment support for you to send and receive attachments.

---

- To send an attachment:
  1. Click the **Send a file** button and navigate to the file you want to send.
  2. Click **OK**.
- When you receive an attachment, you are prompted to Accept and Decline the attachment. Click **Accept** to download the attachment or click **Decline** to reject it.
  - The file name and file size are displayed in the attachment header.
  - The attachments are downloaded in the downloads folder of the browser.
  - You cannot open the attachment from the chat window.
  - The supported file types and maximum attachment size are configured by your administrator.




---

**Note** You can send or receive attachments only from the users using Desktop Chat.

---

## Change Your Desktop Chat State

When you sign in to the Desktop Chat, your state is set to Available by default. To change your state:

### Procedure

---

- Step 1** Click the drop-down arrow beside your current state in the Desktop Chat window.

**Step 2** Choose the appropriate state from the list.

---



**Note** If your status is set to Do Not Disturb and you receive a chat message, the message is displayed only if your chat window is active. If the chat window is closed or minimized, the Desktop Chat icon blinks and you will only see the minimized chat window header with the number of chat tabs that have unread messages.

---

## Sign Out of Desktop Chat

When you sign out of the Desktop Chat, you will only be signed out from the Desktop Chat and not the Voice or Digital channels. Your Voice and Digital Channels state remains the same. To sign out:

### Procedure

---

**Step 1** Click the drop-down arrow beside your current state in the Desktop Chat window

**Step 2** From the displayed list, click **Sign Out**.

---







## CHAPTER 6

# Team Message

- [Overview, on page 99](#)
- [Use Team Message, on page 100](#)

## Overview

Team Message is introduced in Finesse for enabling quick communication within the organization. It enables supervisors to broadcast short messages, which are displayed on agents desktop.



**Note** Customers who upgrade with existing layouts, need to add this component manually from the Default Desktop Layout.

### Key Features

Key features of Team Message are as follows:

| Role          | Features                                                                                                                                                                                                                                                                                                  |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Administrator | Enable/Disable Team Message on supervisor desktop.                                                                                                                                                                                                                                                        |
| Supervisor    | <ul style="list-style-type: none"><li>• Send messages to a single team, multiple teams or all the teams that they manage.</li><li>• View and delete broadcasted messages.</li><li>• Set a time frame for a message to be displayed. After expiry of the set time, the message is not displayed.</li></ul> |
| Agent         | <ul style="list-style-type: none"><li>• View Team Message banner in real time to stay up-to-date with the latest broadcasts.</li><li>• Scroll through the list of broadcasted messages.</li></ul>                                                                                                         |



---

**Note** During failover, team message and failover banners are displayed together.

---

## Use Team Message

### Send Team Message

The Team Message feature allows you to create and send a broadcast message to one or multiple teams. The message appears as a banner across the Finesse desktop and agents can view these messages in real-time. Team Message will be available on your Finesse desktop only if the administrator has configured this feature for you.

#### Procedure

---

- Step 1** In the Finesse desktop, click the **Team Message** icon.
- Step 2** In the **Compose Message** box, enter the broadcast message (maximum number of characters allowed is 255).
- Step 3** Select the team or teams to send the message by checking the check box next to the team name.

**Note** You can send multiple messages to a single team, multiple teams, or all teams.

- Step 4** From the drop-down, you can set an expiry time for the composed messages: starting at 5 minutes and ending at 23:55 hours. The time is displayed in hours and minutes. However, this time frame can be edited.
- Step 5** Click **Send**.

You can view the latest messages sent by clicking **Show recent messages**. If you wish to delete any or all messages, check the check box next to the message. Click **Delete** and confirm the deletion.

The message is removed from active display and the previous non-expired team message will become the active message for the agent.

**Note** Administrator or supervisor who creates a Team Message can delete the created Team Message through TeamMessage API. For more information on deleting a TeamMessage, see <https://developer.cisco.com/docs/finesse/#teammessagedelete-a-team-message>.

---



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**Note** The rate at which messages (create/delete) are published to the teams involved, is capped at 100 per hour and the maximum number of active messages allowed is 1600. If the limit of active messages is reached, supervisors will not be able to broadcast new messages until an existing team message is deleted or it expires.

As there are no individual limitations on supervisors, either one or all supervisors can broadcast messages up to the maximum active messages limit.

---

## View Team Message

On logging in to the Finesse desktop, you can view the Team Message banner which broadcasts the active team updates sent by your supervisor in real-time. The total number of active messages sent by your supervisor is displayed in the banner. By clicking the number, you can view the latest message with the name of the supervisor and the timestamp being displayed against each message.

You can toggle between the active messages (note that messages expire after a time frame, as set by the Supervisor).

If the Finesse desktop is inactive, a toaster notification appears when a new team message is sent by the Supervisor. You can click the notification to view the message.



---

**Note** During failover, the team message banner and the failover banner will be displayed together.

---

