



Port Utilization Guide for Cisco Unified Contact Center Express Solution, Release 12.5(1)

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CONTENTS

PREFACE

Preface v

Change History v

About this Guide vi

Audience vi

Conventions vi

Related Documents viii

Documentation and Support viii

Documentation Feedback ix

Field Notice ix

CHAPTER 1

Port Utilization in Unified CCX 1

Port Utilization Table Columns 1

System Services Port Utilization 2

Unified CCX and IP IVR Port Utilization 5

Finesse Port Utilization 9

Unified Intelligence Center Port Utilization 11

Port Utilization in Cisco Cloud Connect 12

CHAPTER 2

Port Utilization in Customer Collaboration Platform 15

Port Utilization Table Columns 15

Customer Collaboration Platform Port Utilization 16



Preface

- [Change History, on page v](#)
- [About this Guide, on page vi](#)
- [Audience, on page vi](#)
- [Conventions, on page vi](#)
- [Related Documents, on page viii](#)
- [Documentation and Support, on page viii](#)
- [Documentation Feedback, on page ix](#)
- [Field Notice, on page ix](#)

Change History

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

| Change | See | Date |
|---|---|------|
| January 2020 | | |
| Initial Release of Document for Release 12.5(1) | | |
| Cisco SocialMiner (SM) has been renamed as Customer Collaboration Platform (CCP). | Port Utilization in Customer Collaboration Platform >> Customer Collaboration Platform Port Utilization | |
| Introduced Cloud Connect. | Port Utilization in Unified CCX >> Cloud Connect Port Utilization | |
| Unified CCX and IP IVR Port related information has been updated. | Port Utilization in Unified CCX >> Unified CCX and IP IVR Port Utilization | |
| Updated notes for TCP 7071 and 5222. | Port Utilization in Unified CCX >> Finesse Port Utilization | |

| Change | See | Date |
|----------------------|---|------|
| January 2020 | | |
| Added the port 8447. | Port Utilization in Unified CCX >> Unified CCX and IP IVR Port Utilization Port Utilization in Unified CCX >> Unified Intelligence Center Port Utilization | |

About this Guide

This document provides a list of the TCP and UDP ports that Cisco Unified Contact Center products use. You use this information to configure Quality of Service (QoS) and Firewall/VPN solutions. Proper configuration is important on a network with an Architecture for Voice, Video, and Integrated Data (AVVID) solution.

Audience

This document is intended primarily for network administrators.

Conventions

This manual uses the following conventions.

| Convention | Description |
|----------------------|---|
| boldface font | Boldface font is used to indicate commands, such as user entries, keys, buttons, and folder and submenu names. For example: <ul style="list-style-type: none"> • Choose Edit > Find • Click Finish. |

| Convention | Description |
|--------------------|--|
| <i>italic font</i> | <p>Italic font is used to indicate the following:</p> <ul style="list-style-type: none"> • To introduce a new term. Example: A <i>skill group</i> is a collection of agents who share similar skills. • For emphasis. Example: <i>Do not</i> use the numerical naming convention. • An argument for which you must supply values. Example: IF (<i>condition, true-value, false-value</i>) • A book title. Example: See the <i>Cisco Unified Contact Center Express Installation Guide</i>. |
| window font | <p>Window font, such as Courier, is used for the following:</p> <ul style="list-style-type: none"> • Text as it appears in code or information that the system displays. Example: <code><html><title> Cisco Systems, Inc. </title></html></code> • File names. Example: <code>tserver.properties.</code> • Directory paths. Example: <code>C:\Program Files\Adobe</code> |
| string | Nonquoted sets of characters (strings) appear in regular font. Do not use quotation marks around a string or the string will include the quotation marks. |
| [] | Optional elements appear in square brackets. |
| { x y z } | Alternative keywords are grouped in braces and separated by vertical bars. |
| [x y z] | Optional alternative keywords are grouped in brackets and separated by vertical bars. |
| < > | <p>Angle brackets are used to indicate the following:</p> <ul style="list-style-type: none"> • For arguments where the context does not allow italic, such as ASCII output. • A character string that the user enters but that does not appear on the window such as a password. |

| Convention | Description |
|------------|--|
| ^ | The key labeled Control is represented in screen displays by the symbol ^. For example, the screen instruction to hold down the Control key while you press the D key appears as ^D. |

Related Documents

| Document or Resource | Link |
|--|---|
| Cisco Unified Contact Center Express Documentation Guide | https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_documentation_roadmaps_list.html |
| Cisco Unified CCX documentation | https://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html |
| Cisco Unified Intelligence Center documentation | https://www.cisco.com/en/US/products/ps9755/tsd_products_support_series_home.html |
| Cisco Finesse documentation | https://www.cisco.com/en/US/products/ps11324/tsd_products_support_series_home.html |
| Cisco Customer Collaboration Platform documentation Note From Unified CCX Release 12.5(1), CCP documents are available in the Cisco Unified CCX documentation folder. | https://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html |
| Cisco Unified CCX Virtualization Information | https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-contact-center-express.html |
| Cisco Unified CCX Compatibility Information | https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-device-support-tables-list.html |

Documentation and Support

To download documentation, submit a service request, and find additional information, see *What's New in Cisco Product Documentation* at <https://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

Documentation Feedback

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Field Notice

Cisco publishes Field Notices to notify customers and partners about significant issues in Cisco products that typically require an upgrade, workaround, or other user action. For more information, see *Product Field Notice Summary* at <https://www.cisco.com/c/en/us/support/web/tsd-products-field-notice-summary.html>.

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- End-of-Sale or Support Announcements
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- Updates to Known Bugs

For more information on creating custom subscriptions, see *My Notifications* at <https://cway.cisco.com/mynotifications>.



CHAPTER 1

Port Utilization in Unified CCX

- [Port Utilization Table Columns, on page 1](#)
- [System Services Port Utilization, on page 2](#)
- [Unified CCX and IP IVR Port Utilization, on page 5](#)
- [Finesse Port Utilization, on page 9](#)
- [Unified Intelligence Center Port Utilization, on page 11](#)
- [Port Utilization in Cisco Cloud Connect, on page 12](#)

Port Utilization Table Columns

The columns in the port utilization tables in this document describe the following:

Listener (Process or Application Protocol)

A value representing the server or application and where applicable, the open or proprietary application protocol.

Listener Protocol and Port

An identifier for the TCP or UDP port that the server or application is listening on, along with the IP address for incoming connection requests when acting as a server.

Remote Device (Process or Application Protocol)

The remote application or device making a connection to the server or service specified by the protocol.

Remote Port

The identifier for the TCP or UDP port that the remote service or application is listening on, along with the IP address for incoming connection requests when acting as the server.

Traffic Direction

The direction that traffic flows through the port: Inbound, Bidirectional, Outbound.

**Note**

- The operating system dynamically assigns the source port that the local application or service uses to connect to the destination port of a remote device. In most cases, this port is assigned randomly above TCP/UDP 1024.
- For security reasons, keep open only the ports mentioned in this guide and those required by your application. Keep the rest of the ports blocked.

System Services Port Utilization

Table 1: System Services Port Utilization

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic direction | Purpose |
|--|----------------------------|---|-------------|-------------------|---|
| System Service | TCP 7 | Editor | — | Bidirectional | - Echo for Editor - ICM Controller |
| System Service | TCP 22 | — | — | Bidirectional | SFTP and SSH access |
| Tomcat (HTTP) | TCP 80 | — | — | Bidirectional | - Web access |
| System Service | UDP 123 | — | — | Bidirectional | NTP, network time sync |
| SNMP Agent | UDP 161 | — | — | Bidirectional | Provide services for SNMP-based management applications |
| Tomcat (HTTPS) | TCP 443 | — | — | Bidirectional | This port is used for communication between the subscriber and publisher during COP file installation in the subscriber node. |
| AON Management Console (AMC) Service | TCP 1090 | Intracuster communication | — | Bidirectional | Provide RTMT data collecting, logging and alerting functionalities (AMC RMI Object Port) |
| AON Management Console (AMC) Service | TCP 1099 | Intracuster communication | — | Bidirectional | Provide RTMT data collecting, logging and alerting functionalities (AMC RMI Registry Port) |
| DBMON | TCP 1500 | — | — | Bidirectional | This is the port where the IDS engine listens for DB clients |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic direction | Purpose |
|---|----------------------------------|--|-------------|----------------------|--|
| DBMON | TCP 1501 | — | — | Bidirectional | - This is an alternate port to bring up a second instance of IDS during upgrade. - Localhost traffic only |
| DBL RPC | TCP 1515 | Intracluster communication | — | Bidirectional | DBL RPC, this is used during installation to set up IDS replication between nodes |
| Real-Time Information Server (RIS) Data Collector service (RISDC) | TCP 2555 | Intracluster communication | — | Bidirectional | Used by the RISDC platform service. The Real-time Information Server (RIS) maintains real-time Cisco Unified CM information such as device registration status, performance counter statistics, critical alarms generated, and so on. The Cisco RISDC service provides an interface for applications, such as RTMT, SOAP applications, Cisco Unified CM Administration and AMC to retrieve the information that is stored in all RIS nodes in the cluster. |
| RISDC | TCP 2556 | Intracluster communication | — | Bidirectional | Allowed RIS client connection to retrieve real-time information |
| Disaster Recovery System (DRS) | TCP 4040 | — | — | Bidirectional | Real-time service |
| Real-time service | TCP 5001 | — | — | Bidirectional | SOAP Monitor Used by SOAP to monitor the Real Time Monitoring Service and fetch the Server information for selection of specific CM devices and other such activities. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic direction | Purpose |
|---|----------------------------------|--|--|----------------------|--|
| Perfmon service | TCP 5002 | — | — | Bidirectional | SOAP Monitor Used by SOAP to monitor the Performance Monitor Service for opening and closing sessions, collecting session data and fetching various other data. |
| Control center service | TCP 5003 | — | — | Bidirectional | SOAP Monitor Used by SOAP to monitor the Control Center Service for activities like getting the Service Status and performing service deployment. |
| Log Collection Service | TCP 5004 | — | — | Bidirectional | SOAP Monitor |
| System Service | TCP 5007 | — | — | Bidirectional | SOAP Monitor - a troubleshooting tool for SOAP infrastructure |
| Cisco Identity Service Data Grid | TCP 5702 | Intra-cluster communication | 5702 Note: The Cisco IdS server node in the cluster connects to this port. | Bidirectional | Data or Service grid to manage Cisco IdS cluster nodes. |
| DBMON (CN) | TCP 8001 | Intracluster communication | — | Bidirectional | DB change notification port. |
| Tomcat | TCP 8005 | — | — | — | Used for receiving shutdown requests, which would halt all applications within Tomcat |
| Tomcat (HTTP) | TCP 8080 | Client Browser | — | Bidirectional | - Client browser trying to access any of the Administration interfaces or User Options interface. - Web services client using RTMT. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic direction | Purpose |
|--|----------------------------|---|-------------|-------------------|--|
| Tomcat (HTTPS) | TCP 8443 | Client Browser | — | Bidirectional | <ul style="list-style-type: none"> - Client browser trying to access any of the Administration interfaces or User Options interface. - Web services client using RTMT. - DB access via SOAP; Tomcat forwards the SOAP request to AXL. |
| IPSec Manager daemon | TCP 8500 | — | — | Bidirectional | Connectivity testing. Uses a proprietary protocol. |
| IPSec Manager daemon | UDP 8500 | — | — | Bidirectional | Cluster replication of platform data (hosts) certificates etc. Uses a proprietary protocol. |
| Cisco Identity Service (Cisco IdS) | TCP 8553 | — | — | — | HTTPS for Cisco IdS |

Unified CCX and IP IVR Port Utilization

Table 2: Unified CCX Port Utilization

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic direction | Purpose |
|--|----------------------------|---|--------------------------|-------------------|--|
| Cisco Unified CCX Socket.IO Service | TCP 12014 | — | — | Bidirectional | This is the port where live-data reporting clients can connect to the socket.IO server. |
| Cisco Unified CCX Socket.IO Service | TCP 12015 | — | — | Bidirectional | This is the secure port where live-data reporting clients can connect to socket.IO server. |
| Unified CCX Engine | TCP 12499 | — | — | Bidirectional | Unified CCX and Socket I/O service management port. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic direction | Purpose |
|---|----------------------------|---|--|-------------------|--|
| Informix Dynamic Server (IDS) | TCP 1504 | External process like CUIC, WallBoard Client, external clients such as Squirrel or custom reporting can connect | — | Bidirectional | Unified CCX database port. |
| Informix Dynamic Server (IDS) | TCP 9089 | External process like CUIC, WallBoard Client, external clients such as Squirrel or custom reporting can connect | — | Bidirectional | This is the secured Unified CCX database port. |
| Informix Dynamic Server (IDS) | TCP 1516 | — | — | Bidirectional | Intra-cluster communication. |
| JTAPI Client (QBE) | TCP 2789 | Unified CM | 2748 | Bidirectional | Provide services to CTI applications. |
| Unified CCX Engine | UDP 5065 and TCP 5065 | SIP gateway and MRCP server | — | Bidirectional | Used to communicate with SIP gateway and MRCP server. |
| Cisco Identity Service Data Grid | TCP 5702 | Intra-cluster communication | 5702 Note: The Cisco IdS server node in the cluster connects to this port. | Bidirectional | Data or Service grid to manage Cisco IdS cluster nodes. |
| CVD | TCP 5900 | CVD of other node in cluster | — | Bidirectional | Heartbeats between CVDs in the cluster. |
| CVD ActiveMQ | TCP 6161 | Internal | 6161 | Bidirectional | Publish JMS events across JMS network connectors in the cluster. |
| CVD | TCP 6999 | Unified CCX Engine, Tomcat, CVD, and Editor | — | Bidirectional | RMI Port. |
| Cisco Unified Intelligence Center Tomcat (HTTP) | TCP 8081 | Client Browsers | — | Bidirectional | Client browser trying to access the Cisco Unified Intelligence Center web interface. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic direction | Purpose |
|---|----------------------------|---|--------------------------|-------------------|--|
| Cisco Unified Intelligence Center Tomcat (HTTPS) | TCP 8444 | Client Browsers | — | Bidirectional | Client browser trying to access the Cisco Unified Intelligence Center web interface. |
| | TCP 8447 | Browsers | — | — | HTTPS - Unified Intelligence Center Online Help. |
| Cisco Identity Service Tomcat (HTTPS) | TCP 8553 | — | — | Bidirectional | Client browser trying to access the Cisco Identity Service Management web interface. Single Sign-On (SSO) components access this interface to know the operating status of Cisco IdS. |
| Unified CCX Engine | TCP 9080 | — | — | Bidirectional | - Tomcat instance used by Unified CCX Engine. - Clients trying to access HTTP triggers or documents / prompts / grammars / live data. |
| Unified CCX Engine | TCP 9443 | — | — | Bidirectional | Secure port used by the Unified CCX Engine to: - Respond to clients trying to access HTTPS triggers. - Authenticate the live data clients. |
| Unified CCX Engine | TCP 12028 | — | — | Bidirectional | CTI Server. |
| Cisco IP Voice Media Streaming application (RTP RTCP) | UDP 24576 ~ 32767 | — | — | Bidirectional | - Audio media streaming - Kernel streaming device driver. |
| | TCP 32768 ~ 61000 | — | — | Bidirectional | Generic ephemeral TCP ports (see table note). |
| | UDP 32768 ~ 61000 | — | — | Bidirectional | Generic ephemeral UDP ports (see table note). |
| Notification Service ActiveMQ | TCP 61616 | Chat applications | — | Bidirectional | Notification Service—ActiveMQ OpenWire transport connector. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic direction | Purpose |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| Unified CCX | TCP 1994 | — | — | Bidirectional | — |
| Unified IP IVR Cluster View Daemon (CVD) | TCP 1994 | — | — | Bidirectional | — |
| Unified IP IVR Engine | TCP 5000 | Unified ICM | — | Bidirectional | Using this port Unified ICM Subsystem listens to GED-125Clients. This port is modifiable. |

Table Notes

1. Intra-cluster communication in the table represents communication between Unified CCX/IP-IVR servers in a cluster.
2. TCP Ephemeral ports are used to accept connections during Java RMI communication. Java RMI clients know which port it must connect, because RMI first connects to RMI Registry (well-known port - 6999) and get the information which ephemeral port client must connect to Unified CCX Administration page, Unified CCX Engine and CVD use RMI communication in CCX/IP-IVR, so TCP ephemeral port range is opened up for intra-cluster communication between these processes.
3. UDP Ephemeral ports are used to receive audio/video RTP streams; so UDP Ephemeral port range is opened for incoming connections for streaming RTP media from CTI ports.
4. Port 38983 is open only on Unified CCX systems that were upgraded from versions earlier than 9.0(1).

Finesse Port Utilization

Table 3: Cisco Finesse Server

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|--|----------------------------|---|-------------|-------------------|---|
| Cisco Unified Web Proxy Service (HTTPS) | TCP 8445 | Browser and third-party REST clients | — | Bidirectional | Secure port used for Finesse administration console, Finesse agent and supervisor desktop, Finesse Desktop Modules (gadgets) with the Finesse desktop and Finesse IP Phone Agent. Secure port used to communicate between Unified CCX Publisher and Subscriber for synchronizing configurations. |



Note

Finesse desktop uses specific ports for communication between Finesse servers for intra-cluster traffic. For the complete list of the ports that are used, see *System Services Port Utilization*.

The Manage Digital Channel gadget uses HTTPS Port 443 to access the internet. The URI used will vary depending on the region. For more information on region-specific URI, see Manage Digital Channels gadget section in *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-installation-guides-list.html>.

Table 4: Cisco Finesse Notification Service

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|--|----------------------------|---|-------------|-------------------|--|
| XMPP | TCP 5223 | Browser and agent desktop | — | Bidirectional | Secure XMPP connection between the Finesse server and custom third-party applications. Secure XMPP connection between Unified CCX Publisher and Subscriber. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|--|----------------------------|---|-------------|-------------------|---|
| BOSH (HTTPS) | TCP 7443 | Browser and agent desktop | — | Bidirectional | Secure BOSH connection between the Finesse server and agent and supervisor desktops for communication over HTTPS. |

**Note**

Finesse desktop uses specific ports on CUIC and Live Data to render Live Data gadgets and reports. For the complete list of the ports that can be used, see *Unified Intelligence Center Port Utilization*.

Table 5: Primary and Secondary Node Communication

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|--|----------------------------|---|-------------|-------------------|--|
| XMPP | TCP 5222 | — | — | Bidirectional | The primary and secondary Finesse servers use this XMPP connection to communicate with each other to monitor connectivity. |

Third-Party (External) Web Server

**Note**

Gadgets hosted on a third-party (external) web server are fetched through the Finesse server on the port exposed by said web server.

Unified Intelligence Center Port Utilization

Table 6: Web Requests to Cisco Unified Intelligence Center

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic Direction | Notes |
|--|----------------------------|---|--------------------------|-------------------|---|
| Unified Intelligence Center | TCP 8081 | Browser | — | — | HTTP - Unified Intelligence Center |
| | TCP 8444 | Browser | — | — | HTTPS - Unified Intelligence Center |
| | TCP 8447 | Browser | — | — | HTTPS - Unified Intelligence Center Online Help |

Table 7: Intracluster Ports Between Cisco Unified Intelligence Center

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic Direction | Notes |
|--|----------------------------|---|--------------------------|-------------------|---------------------|
| CUIC Reporting Process | UDP 54327 (Multicast) | Unified Intelligence Center Node | — | — | Hazelcast Discovery |
| CUIC Reporting Process | TCP 57011 | Unified Intelligence Center Node | — | — | Hazelcast |

For more information on other port usages, see: <http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-maintenance-guides-list.html>

Port Utilization in Cisco Cloud Connect

Table 8: Cisco Unified Web Proxy

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|--|----------------------------|---|-------------|---|-------|
| Cisco Unified Web Proxy Service (HTTPS) | TCP 8445 | Applications | — | Inward from applications to Cloud Connect Services. | |

Table 9: Cloud Connect Services

| Listener (Process or Application Protocol) | Listener Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|--|----------------------------|--|-------------|-------------------|---|
| CherryPoint Service | TCP 3551 | CherryPoint Service on the other node in the same cluster. | | Bidirectional | CherryPoint services use this port for secure cluster management. |
| EvaPoint Service | TCP 4551 | EvaPoint Service on the other node in the same cluster. | | Bidirectional | EvaPoint services use this port for secure cluster management. |
| Certificate Management Service | UDP 6389 TCP 7237 | — | — | Bidirectional | Ports are used for replicating data. |

Cloud Connect External Connections



Note When using a proxy for Cloud Connect integration, ensure the domains and URLs listed in the table below are added to the proxy allowlist.

Table 10: Cloud Connect External Connections

| (Process or Application Protocol) | Protocol and Port | Remote Device (Process or Application Protocol) | Remote Port | Traffic Direction | Notes |
|-----------------------------------|-------------------|--|-------------|-------------------|--|
| CloudConnectMgmt | | Fusion Management Service https://hercules-a.wbx2.com , https://hercules-k.wbx2.com , https://hercules-r.wbx2.com | TCP 443 | | |
| CloudConnectMgmt | | WxCC Services https://*.ciscoservice.com | TCP 443 | | |
| CloudConnectMgmt | | Webex Identity https://idbroker.webex.com | TCP 443 | | |
| CherryPoint | | Webex Experience Management | TCP 443 | | Get remote host address from the Webex Experience Management |



CHAPTER 2

Port Utilization in Customer Collaboration Platform

- [Port Utilization Table Columns, on page 15](#)
- [Customer Collaboration Platform Port Utilization, on page 16](#)

Port Utilization Table Columns

The columns in the port utilization tables in this document describe the following:

Listener (Process or Application Protocol)

A value representing the server or application and where applicable, the open or proprietary application protocol.

Listener Protocol and Port

An identifier for the TCP or UDP port that the server or application is listening on, along with the IP address for incoming connection requests when acting as a server.

Remote Device (Process or Application Protocol)

The remote application or device making a connection to the server or service specified by the protocol.

Remote Port

The identifier for the TCP or UDP port that the remote service or application is listening on, along with the IP address for incoming connection requests when acting as the server.

Traffic Direction

The direction that traffic flows through the port: Inbound, Bidirectional, Outbound.



Note

- The operating system dynamically assigns the source port that the local application or service uses to connect to the destination port of a remote device. In most cases, this port is assigned randomly above TCP/UDP 1024.
 - For security reasons, keep open only the ports mentioned in this guide and those required by your application. Keep the rest of the ports blocked.
-

Customer Collaboration Platform Port Utilization

Table 11: Customer Collaboration Platform Port Utilization

| Listener (Process or Application Protocol) | Listener Protocol and Port | Destination Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic Direction | Purpose |
|--|----------------------------|------------------|---|--------------------------|---|---|
| Email notifications | 25 | — | — | — | Outward, from Customer Collaboration Platform to the configured email server. | Customer Collaboration Platform communicates with the configured email server (that can be in the corporate intranet or on the internet) to send email notifications. |
| HTTP | 80 | — | — | — | Bidirectional | <p>Used for unsecure (HTTP) traffic:</p> <ul style="list-style-type: none"> • From the Customer Collaboration Platform user interface (browser) or APIs to the Customer Collaboration Platform server. • From the Customer Collaboration Platform server to the internet. Customer Collaboration Platform communicates outward to the internet to fetch social contact information (such as Facebook posts and tweets) over HTTP. • From the internet or corporate website to the Customer Collaboration Platform server. Customer Collaboration Platform receives incoming chat and callback requests from the internet or corporate website over HTTP. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Destination Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic Direction | Purpose |
|--|----------------------------|------------------|---|--------------------------|---|---|
| HTTPS | Port 443 | — | — | — | Bidirectional | <p>Used for secure (HTTPS) traffic</p> <ul style="list-style-type: none"> • From the Customer Collaboration Platform user interface (browser) or APIs to the Customer Collaboration Platform server. • From the Customer Collaboration Platform server to the internet. Customer Collaboration Platform communicates outward to the internet to fetch social contact information (such as Facebook posts and tweets) over HTTPS. • From the internet or corporate website to the Customer Collaboration Platform server. Customer Collaboration Platform receives incoming chat and callback requests from the internet or corporate website over HTTPS. |
| Email notifications SSL/TLS | Port 465 (configurable) | — | — | — | Outward, from Customer Collaboration Platform to the configured email server. | Customer Collaboration Platform communicates with the configured email server (that can be in the corporate intranet or on the internet) to send email notifications. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Destination Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic Direction | Purpose |
|--|--|------------------|---|--------------------------|---|--|
| Email (SMTP) | Port 587 (configurable in Unified CCX Administration) | | — | — | Outward, from Customer Collaboration Platform to the Exchange Server. | Used by the Email Reply API to send email. The Email Reply API uses SMTP to send a response to a customer email message. |
| Email (secure IMAP/IMAPS) | Port 993 (configurable in Unified CCX Administration) | | — | — | Outward, from Customer Collaboration Platform to the Exchange Server. | Used by email feeds to retrieve email. IMAPS allows email feeds to fetch email from the Exchange Servers and allows the Email Reply API to retrieve email and save draft email messages. |
| Customer Collaboration Platform Chat Gateway webhook interface (HTTPS) | Port 10443 | | — | — | Unidirectional, Inward from the Internet to Cisco Customer Collaboration Platform server. | This TCP port is enabled for public access to the Customer Collaboration Platform Chat Gateway webhook interface. |
| XMPP (IM) notifications using an external XMPP server | Port 5222 (configurable) | | — | — | Bidirectional | Customer Collaboration Platform communicates with the configured XMPP Notifications server (that can be in the corporate intranet or on the internet) to send XMPP (IM) notifications. Outward, from Customer Collaboration Platform to the configured XMPP Notifications server. |

| Listener (Process or Application Protocol) | Listener Protocol and Port | Destination Port | Remote Device (Process or Application Protocol) | Remote Protocol and Port | Traffic Direction | Purpose |
|---|--|------------------|---|--------------------------|-------------------|---|
| Notification Service (XMPP eventing over TCP sockets) | Port 5222 | | — | — | Bidirectional | Customer Collaboration Platform listens for incoming TCP socket connections to register and send XMPP events. Unified CCX uses this port to receive social contact events. Inward, from CCX to the Customer Collaboration Platform server. |
| Eventing and chat (BOSH) | Port 7071 | | — | — | Bidirectional | The unsecure BOSH connection supports eventing and chat communication between the Customer Collaboration Platform user interface and the Customer Collaboration Platform server. |
| Eventing and chat (secure BOSH) | Port 7443 is used for secure BOSH connections to the XMPP eventing server. | — | — | — | Bidirectional | The secure BOSH connection supports eventing and chat communication between the Customer Collaboration Platform user interface and the Customer Collaboration Platform server. |

