



Port Utilization in Contact Center Enterprise

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Unified CCE and Packaged CCE Port Utilization

This table includes information for Unified CCE and CTI OS.

Some port definitions use a formula. For example:

`TCP 40007 + (Instance Number * 40)`

In this example, instance 0 uses port 40007, instance 1 uses port 40047, instance 2 uses port 40087, and so on.



Note In the following table, PG1, PG2, and PG3 are not specific PG numbers or DMP IDs. They are the order in which the PGs get installed.



Note This document does not include the Enterprise Chat and Email (ECE) port details. For more information on ECE ports, see the ECE documentation at: <https://www.cisco.com/c/en/us/support/customer-collaboration/cisco-enterprise-chat-email/tsd-products-support-series-home.html>.

Table 1: Unified CCE Port Utilization: Routers, PGs, Administration & Data Servers, and Loggers

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Router (side B) (MDS)	<p>Private low:</p> <ul style="list-style-type: none"> • TCP 41004 + (instance number * 40) <p>Private medium:</p> <ul style="list-style-type: none"> • TCP 41016 + (instance number * 40) <p>Private high:</p> <ul style="list-style-type: none"> • TCP 41005 + (instance number * 40) <p>State Xfer for CIC:</p> <ul style="list-style-type: none"> • TCP 41022 + (instance number * 40) <p>State Xfer for HLGR:</p> <ul style="list-style-type: none"> • TCP 41021 + (instance number * 40) • TCP 41032 + (instance number * 40) <p>State Xfer for RTR:</p> <ul style="list-style-type: none"> • TCP 41020 + (instance number * 40) <p>UDP 39500–39999</p> <p>State Xfer for DBAgent:</p> <ul style="list-style-type: none"> • TCP 41033 + (instance number * 40) 	Router (side A) (MDS)		Bi-directional	<p>Private network at the central controller site</p> <p>Note UDP ports are not used, if QoS is enabled on the router private interface.</p>
Router (side B) (MDS)	MDS process port TCP 41000	MDS process client		Bi-directional	
Router (side B) (MDS)	MDS state transfer port TCP 41001	MDS process client (synchronized)		Bi-directional	

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Router (side A and B) (DB Worker)	DB Worker process port UDP 445	DB Worker process client		Bi-directional	
ICM PG1 (side A and B) (pgagent)	TCP 43006 + (instance number * 40)	ICM PG1 (Opposite Side: A or B) (pgagent)		Bi-directional	Public network (test-other-side)
ICM PG2 (side A and B) (pgagent)	TCP 45006 + (instance number * 40)	ICM PG2 (Opposite Side: A or B) (pgagent)		Bi-directional	Public network (test-other-side)
ICM PG3 (side A and B) (pgagent)	TCP 47506 + (instance number * 40)	ICM PG3 (Opposite Side: A or B) (pgagent)		Bi-directional	Public network (test-other-side)
ICM PG1 (side A and B) (MDS)	<ul style="list-style-type: none"> • Private low: TCP 43004 + (instance number * 40) • Private medium: TCP 43016 + (instance number * 40) • Private high: TCP 43005 + (instance number * 40) • State Xfer for OPC: TCP 43023 + (instance number * 40) UDP 39500–39999	ICM PG1 (Opposite Side: A or B)		Bi-directional	Private network Note UDP ports are not used, if QoS is enabled on the ICM PG private interface.

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
ICM PG2 (side A and B) (MDS)	<ul style="list-style-type: none"> • Private low: TCP 45004 + (instance number * 40) • Private medium: TCP 45016 + (instance number * 40) • Private high: TCP 45005 + (instance number * 40) • State Xfer for OPC: TCP 45023 + (instance number * 40) UDP 39500–39999	ICM PG2 (Opposite Side: A or B)		Bi-directional	Private network Note UDP ports are not used if QoS is enabled on the ICM PG private interface.
ICM PG3 (side A and B) (MDS)	<ul style="list-style-type: none"> • Private low: TCP 47504 + (instance number * 40) • Private medium: TCP 47516 + (instance number * 40) • Private high: TCP 47505 + (instance number * 40) • State Xfer for OPC: TCP 47523 + (instance number * 40) UDP 39500–39999	ICM PG3 (Opposite Side: A or B)		Bi-directional	Private network Note UDP ports are not used if QoS is enabled on the ICM PG private interface.
ICM PG1 (side B) (MDS)	MDS process port TCP 43000	MDS process client		Bi-directional	
ICM PG1 (side B) (MDS)	MDS state transfer port TCP 43001	MDS process client (synchronized)		Bi-directional	

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
ICM PG2 (side B) (MDS)	MDS process port TCP 45000	MDS process client		Bi-directional	
ICM PG2 (side B) (MDS)	MDS state transfer port TCP 45001	MDS process client (synchronized)		Bi-directional	
ICM PG3 (side B) (MDS)	MDS process port TCP 47500	MDS process client		Bi-directional	
ICM PG3 (side B) (MDS)	MDS state transfer port TCP 47501	MDS process client (synchronized)		Bi-directional	

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Router (side A) (MDS)	<p>Private low:</p> <ul style="list-style-type: none"> • TCP 41004 + (instance number * 40) <p>Private medium:</p> <ul style="list-style-type: none"> • TCP 41016 + (instance number * 40) <p>Private high:</p> <ul style="list-style-type: none"> • TCP 41005 + (instance number * 40) <p>State Xfer for CIC:</p> <ul style="list-style-type: none"> • TCP 41022 + (instance number * 40) <p>State Xfer for HLGR:</p> <ul style="list-style-type: none"> • TCP 41021 + (instance number * 40) • TCP 41032 + (instance number * 40) <p>State Xfer for RTR:</p> <ul style="list-style-type: none"> • TCP 41020 + (instance number * 40) <p>UDP 39500–39999</p> <p>State Xfer for DBAgent:</p> <ul style="list-style-type: none"> • TCP 41033 + (instance number * 40) 	Router (side B) (MDS)		Bi-directional	<p>Private network at the central controller site</p> <p>Note UDP ports are not used if QoS is enabled on the router private interface.</p>
Router (side A) (MDS)	MDS process port TCP 40000	MDS process client		Bi-directional	
Router (side A) (MDS)	MDS state transfer port TCP 40001	MDS process client (synchronized)		Bi-directional	
ICM PG1 (side A) (MDS)	MDS process port TCP 42000	MDS process client		Bi-directional	

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
ICM PG1 (side A) (MDS)	MDS state transfer port TCP 42001	MDS process client (synchronized)		Bi-directional	
ICM PG2 (side A) (MDS)	MDS process port TCP 44000	MDS process client		Bi-directional	
ICM PG2 (side A) (MDS)	MDS state transfer port TCP 44001	MDS process client (synchronized)		Bi-directional	
ICM PG3 (side A) (MDS)	MDS process port TCP 46000	MDS process client		Bi-directional	
ICM PG3 (side A) (MDS)	MDS state transfer port TCP 46001	MDS process client (synchronized)		Bi-directional	
Router (side A) DMP (ccagent)	<ul style="list-style-type: none"> • Public low: TCP 40002 + (instance number * 40) • Public medium: TCP 40017 + (instance number * 40) • Public high: TCP 40003 + (instance number * 40) UDP 39500–39999	ICM PG (pgagent)		Bi-directional	Public network connecting the PG to the central controller Router to pre-5.0 PG communication. Note UDP ports are not used if QoS is enabled on the ICM PG private interface.

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Router (side B) DMP (ccagent)	<ul style="list-style-type: none"> Public low: TCP 41002 + (Instance Number * 40) (instance number Public medium: TCP 41017 + (instance number * 40) Public high: TCP 41003 + (instance number * 40) UDP 39500–39999	ICM PG (pgagent)		Bi-directional	Public network connecting the PG to the central controller Router to pre-5.0 PG communication. Note UDP ports are not used if QoS is enabled on the ICM PG private interface.
Router A (rtfeed)	TCP 40007 + (instance number * 40)	Administration & Data Server		Bi-directional	Real-time feed
Router B (rtfeed)	TCP 41007 + (instance number * 40)	Administration & Data Server		Bi-directional	Real-time feed
Logger (side A)	TCP 40026 + (instance number * 40) TCP 40028 + (instance number * 40)	Administration & Data Server Historical Data Server (HDS)		Bi-directional	Replication
Logger (side A)	TCP 40032 + (instance number * 40)	Dialer and Import		Bi-directional	Campaign Manager EMT port to Dialer
Logger (side B)	TCP 41026 + (instance number * 40) TCP 41028 + (instance number * 40)	Administration & Data Server Historical Data Server (HDS)		Bi-directional	Replication
Logger (side B)	TCP 41036 + (instance number * 40)	Dialer and Import		Bi-directional	Campaign Manager EMT port to Dialer
Primary Administration & Data Server (rtfeed)	TCP 48008 + (instance number * 40)	Administration client		Bi-directional	Real-time feed
Secondary Administration & Data Server (rtfeed)	TCP 49008 + (instance number * 40)	Administration client		Bi-directional	Real-time feed

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Contact Sharing	TCP 61616	Active MQ for Live Data	TCP 61616	Bidirectional	
CICM Router (side A) (INCRPNIC)	UDP 40025 + (instance number * 40)	NAM Router (CIC)		Bi-directional	Public network connecting the NAM to the CICM
CICM Router (side B) (INCRPNIC)	UDP 41025 + (instance number * 40)	NAM Router (CIC)		Bi-directional	Public network connecting the NAM to the CICM
CSFS	TCP 40015	CSFS duplexed peer		Bi-directional	CSFS event synchronization link
Logger Recovery Process (side A)	41013 + (instance number *40)			Bi-directional	
Logger Recovery Process (side B)	40013 + (instance number *40)			Bi-directional	
Diagnostic framework	TCP 7890	Any client that is requesting information from the diagnostic service.		Bi-directional	This serviceability component is installed on major CCE component servers (e.g. router, logger, PG, and Administration and Data Servers)

Table 2: Unified CCE Port Utilization: Distributor and Internet Script Editor

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
MSSQL	TCP 1433	Logger Distributor		Bi-directional	

Table 3: Unified CCE Port Utilization: CCE Outbound Option Dialer

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Dialer	58800 + instNum <i>instNum</i> is the instance number for the Dialer.	Voice Gateway	UDP 58800	Bi-directional	Set in the SIPDialerPortBaseNumber registry key.
RTP for SIP	UDP ports in a range based on these formulas: <ul style="list-style-type: none"> • RangeStart = RTPPortRangeStart + (<i>instNum</i> * 2000) • RangeEnd = RangeStart + 2000 You can set RTPPortRangeStart in the registry key: RTPPortRangeStart .	Voice gateway		Bi-directional	Receive ports for reservation calls. Use the following registry key to select and configure UDP ports: RTPPortRangeStart
MR PG	TCP 38001+ (instance number)	Dialer		Bi-directional	The MR PG connects to the SIP Dialer using this port.
Dialer (SIP)	5060 and "SIPDialerPortBaseNumber + instance number"	Voice Gateway or SIP Proxy		Bi-directional	Set in the SIPServerPortNumber registry key.

Table 4: Unified CCE Port Utilization: CTI and CTI Object Server

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
GED-188 (CTI Server) unsecured	Side A TCP 42027 + (instance number * 40) Side B TCP 43027 + (instance number * 40)	Finesse Cisco Outbound Dialer ARM Interface CTI OS Server		Bi-directional	CTI OS is only supported for TDM and System PG.

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
GED-188 (CTI Server) secured	Side A TCP 42030 + (instance number * 40) Side B TCP 43030 + (instance number * 40)	Finesse Cisco Outbound Dialer ARM Interface CTI OS Server		Bi-directional	CTI OS is only supported for TDM and System PG.
CTI OS Server	TCP 42028	CTI OS Client CTI OS Server Peers CAD Desktop Cisco Sync Service		Bi-directional	Applicable to first CTI OS instance. Multi-instance CTI OS require a custom port be defined.
CTI OS Server	TCP 42028	CTI OS Client CTI OS Server Peers Cisco Sync Service		Bi-directional	CTI OS is only supported for TDM and System PG. Applicable to first CTI OS instance. Multi-instance CTI OS require a custom port be defined.
CTI OS Supervisor Desktop	UDP 39200	CTI OS Client		Bi-directional	Desktop Silent Monitoring CTI OS Supervisor Desktop is only supported for System PG.
CTI OS Silent Monitor Service	TCP 42228	CTI OS Client		Bi-directional	CTI OS Silent Monitor Service is only supported for System PG.

Table 5: Unified CCE Port Utilization: TDM/IP Peripherals

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
IP Process Communications					
CTI/QBE			TCP 2748	Bi-directional	JTAPI

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
Customer Voice Portal — Call Server Cisco Unified IP-IVR		PG, VRU PIM (GED-125)	TCP 5000–5001	Bi-directional	Unified ICM/IVR message interface, VRU PIM
CCE PG	TCP 2789	Unified CM		Bi-directional	JTAPI application server
Media Routing process		MR PIM	TCP 38001	Bi-directional	
TDM Process Communications					
Note For more information on peripheral communication, see the “ACD Supplement” user documentation for the specific switch you are using.					
Avaya ACD CMS	TCP 6060–6070	Avaya PIM	TCP 5678	Bi-directional	Event link
UCCE System PG / CTI Server	TCP 42027	UCCE Gateway PIM		Bi-directional	Port number is configurable



Note For port utilization information about Network Interface Controllers (NICs), refer to the TCP/IP-based NIC System Management Guide Supplements and setup parameters of the NIC or SCP connections.

Table 6: Unified CCE Port Utilization: Windows Authentication and Remote Administration Ports

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
RPC	TCP 135 UDP 135			Bi-directional	
NetBIOS Session	TCP 139			Bi-directional	
NetBIOS Name Resolution	TCP 137 UDP 137			Bi-directional	

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
NetBIOS Netlogon/ Browsing	UDP 138			Bi-directional	
SMB	TCP 445 UDP 445 ¹			Bi-directional	
LDAP	TCP 389 UDP 389			Bi-directional	
LDAP SSL	TCP 636			Bi-directional	
LDAP GC	TCP 3268			Bi-directional	
LDAP GC SSL	TCP 3269			Bi-directional	
Active Directory Web Services	TCP 9389 UDP 9389			Bi-directional	Powershell uses this port.
DNS	TCP 53 UDP 53			Bi-directional	
Kerberos	TCP 88 UDP 88			Bi-directional	
SQL Server	TCP 1433 UDP 1434			Bi-directional	For more information, see Configure the Windows Firewall to Allow SQL Server Access in Microsoft documentation.

¹ DB Worker uses UDP 445. This port is also used for named pipes connectivity.



Note For more information on Windows authentication, see Service overview and network port requirements for the Windows in Microsoft documentation.

Table 7: Unified CCE Port Utilization: Network Management and Remote Administration

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
SNMP-Trap	UDP 162			Bi-directional	
Syslog	UDP 514			Bi-directional	
Telnet	TCP 23			Bi-directional	
RDP (Terminal Services)	TCP 3389			Bi-directional	
pcAnywhere	TCP 5631 UDP 5632			Bi-directional	
VNC	TCP 5900 TCP 5800 (Java HTTP)			Bi-directional	RealVNC

Table 8: Unified CCE Port Utilization: Live Data

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
Router (side A and B) (TIP Event)	Router A: 40034 + (instance number * 40) Router B: 41034 + (instance number * 40)	CUIC/Live Data		Bi-directional	Public network Live Data Events.
Router (side A and B) (TIP TOS)	Router A: 40035 + (instance number * 40) Router B: 41035 + (instance number * 40)	CUIC/Live Data		Bi-directional	Public network Live Data Test Other Side.
ICM PG1 (side A and B) (TIP Event) ²	Side A: 42034 + (instance number * 40) Side B: 43034 + (instance number * 40)	CUIC/Live Data		Bi-directional	Public network Live Data Events.
ICM PG2 (side A and B) (TIP Event)	Side A: 44034 + (instance number * 40) Side B: 45034 + (instance number * 40)	CUIC/Live Data		Bi-directional	Public network Live Data Events.

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
ICM PG1 (side A and B) (TIP TOS)	Side A: 42035 + (instance number * 40) Side B: 43035 + (instance number * 40)	CUIC/Live Data		Bi-directional	Public network Live Data Test Other Side.
ICM PG2 (side A and B) (TIP TOS)	Side A: 44035 + (instance number * 40) Side B: 45035 + (instance number * 40)	CUIC/Live Data		Bi-directional	Public network Live Data Test Other Side.

² The ports for TIP/TOS connections are assigned based on the order in which the PG pair (side A/B) is installed on the same server. For example, the first PG pair (PG1 Side A/B) installed, is assigned TIP base ports 42034 and 43034 respectively. The second PG pair (PG2 Side A/B) installed, is assigned ports 44034 and 45034 respectively. The same assignment is applicable to TOS ports as well.

Table 9: Unified CCE Port Utilization: External Connections

Process or Application Protocol	Protocol and Port	Remote Device	Remote Port	Traffic Direction	Notes
AW Tomcat	—	Hybrid Services on cloud	443	Bi-directional	Following URLs must be included in the allowed list of network: *.wbx2.com *.ciscocccservice.com

Unified CCMP Port Utilization

Table 10: Cisco Unified Contact Center Management Portal Port Utilization

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
CCMP Web/Application server A/B					
SQL	TCP 1433	CCMP DB server A/B			Standard SQL connection

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
LDAP (Domain Controller)	UDP 389 TCP 389	Integrated Configuration Environment (ICE)			Used to read AD account information for supervisor provisioning
CCMP Database server A/B					
SQL	TCP 1433	CCMP DB server A/B			Standard SQL Connection and for SQL replication
	TCP 1433	CCE/CCH Administration and Data server side A/B			For import of CCE/CCH dimension data
*MSDTC	TCP 135	CCMP DB sever A/B	TCP 1024-5000		For the CCMP audit archive job
SMB over IP (CVP Media Server)	UDP 445* TCP 445	Integrated Configuration Environment			For CVP file upload file replication
* Also used for named pipes connectivity.					

These assume the Server Name field in ICE is configured with either a TCP/IP address or DNS name (hence no NETBIOS port requirements).

Ports are also required to access all Unified Contact Center Management Portal servers for support reasons (either pcAnywhere or terminal services).



Note This list does not include standard Windows ports such as DNS and Kerberos.

* MSDTC response ports by default use a dynamically allocated port in the range of 1024 to 5000. You can configure this range creating the HKEY_LOCAL_MACHINE\Software\Microsoft\Rpc\Internet location registry key and adding the following registry values:

- Ports (REG_MULTI_SZ) - specify one port range per line, for example, 3000-3005
- PortsInternetAvailable (REG_SZ) - always set this value to "Y" (do not include the quotes)
- UseInternetPorts (REG_SZ) - always set this value to "Y" (do not include the quotes)

Unified CRM Connectors Port Utilization

Table 11: Cisco Unified CRM Connector for SAP

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
CRM DataStore for SAP	TCP 42029	CRM Connector for SAP			

Table 12: Cisco Unified CRM Connector for Microsoft CRM, Oracle PeopleSoft, Salesforce.com

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Protocol and Port	Traffic Direction	Notes
MSCRM Server	TCP 81	MSCRM Client			MSCRM only.
CRM Connector Server	TCP 5666	CRM Adapters			Configurable in \Program Files\Cisco\CRM Connector\MCIS\Config.ini
.NET Adapter	TCP 5558	Agent Desktop			Remoting Port.
CRM Connector Server	TCP 42027	Cisco CTI Server			Default port for side A. Configurable in the Config.ini file [CTIModule Setting] Port_A.
CRM Connector Server	TCP 44027	Cisco CTI Server			Default port for side B. Configurable in the Config.ini file [CTIModule Setting] Port_B.
CRM Connector Server	TCP 65372	Server Administration Tool			Configurable under \Program Files\Cisco\CRM Connector\MCIS\Config.ini and \Program Files\Cisco\CRM Connector\ Server Administration Tool\WebComponent\ server.config

