

# Port Utilization Guide for Cisco Unified Contact Center Solutions, Release 11.0(1)

**First Published:** 2015-08-26 **Last Modified:** 2016-01-25

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### Port Utilization in Unified CCE and Packaged CCE

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### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

### **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.

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port              | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|---|--|--------------------------------|----------------------|--|
| Router (side<br>B) (MDS)                            | Private low:                            | Router (side<br>A) (MDS)                                 |                                |                      | Private network at the central controller site   |
|   | number * 40)                            |  |                                |                      | Note UDP ports are not used if QoS is enabled on |
|   | Private medium:                         |  |                                |                      | the router private                               |
|   | • TCP 41016 + (instance<br>number * 40) |  |                                |                      | interface.                                       |
|   | Private high:                           |  |                                |                      |  |
|   | • TCP 41005 + (instance<br>number * 40) |  |                                |                      |  |
|   | State Xfer for CIC:                     |  |                                |                      |  |
|   | • TCP 41022 + (instance<br>number * 40) |  |                                |                      |  |
|   | State Xfer for HLGR:                    |  |                                |                      |  |
|   | • TCP 41021 + (instance<br>number * 40) |  |                                |                      |  |
|   | • TCP 41032 + (instance<br>number * 40) |  |                                |                      |  |
|   | State Xfer for RTR:                     |  |                                |                      |  |
|   | • TCP 41020 + (instance<br>number * 40) |  |                                |                      |  |
|   | UDP 39500 - 39999                       |  |                                |                      |  |
|   | State Xfer for DBAgent:                 |  |                                |                      |  |
|   | • TCP 41033 + (instance<br>number * 40) |  |                                |                      |  |
| Router (side  | MDS process port                        | MDS process  |                                |                      |  |
| B) (MDS)  | TCP 41000                               | client   |                                |                      |  |
| Router (side<br>B) (MDS)                            | MDS state transfer port<br>TCP 41001    | MDS process<br>client<br>(synchronized)                  |                                |                      |  |

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

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|--|--|--------------------------------|----------------------|--|
| ICM PG (side<br>B) (pgagent)                        | TCP 43006 + (instance number<br>* 40)  | ICM PG (Side<br>A) (pgagent)                             |                                |                      | Public network (test-other-side)   |
| ICM PG (side<br>B) (MDS)                            | MDS process port<br>TCP 43000  | MDS process client                                       |                                |                      |  |
| ICM PG (side<br>B) (MDS)                            | MDS state transfer port<br>TCP 43001   | MDS process<br>client<br>(synchronized)                  |                                |                      |  |
| ICM PG1 (side<br>B) (MDS)                           | <ul> <li>Private low:<br/>TCP 43004 + (instance<br/>number * 40)</li> <li>Private medium:<br/>TCP 43016 + (instance<br/>number * 40)</li> <li>Private high:<br/>TCP 43005 + (instance<br/>number * 40)</li> <li>State Xfer for OPC:<br/>TCP 43023 + (instance<br/>number * 40)</li> <li>UDP 39500 - 39999</li> </ul> | ICM PG1 (side<br>A)                                      |                                |                      | Private network         Note       UDP ports are not used if QoS is enabled on the ICM PG private interface. |

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|--|--|--------------------------------|----------------------|--|
| ICM PG2 (side<br>B) (MDS)                           | <ul> <li>Private low:<br/>TCP 45004 + (instance<br/>number * 40)</li> <li>Private medium:<br/>TCP 45016 + (instance<br/>number * 40)</li> <li>Private high:<br/>TCP 45005 + (instance<br/>number * 40)</li> <li>State Xfer for OPC:<br/>TCP 45023 + (instance<br/>number * 40)</li> <li>UDP 39500 - 39999</li> </ul> | ICM PG2 (side<br>A)                                      |                                |                      | Private network         Note       UDP ports are not used if QoS is enabled on the ICM PG private interface. |
| Router (side<br>A) (MDS)                            | MDS process port<br>TCP 40000  | MDS process client                                       |                                |                      |  |
| Router (side<br>A) (MDS)                            | MDS state transfer port<br>TCP 40001   | MDS process<br>client<br>(synchronized)                  |                                |                      |  |
| ICM PG (side<br>A) (MDS)                            | MDS process port<br>TCP 42000  | MDS process client                                       |                                |                      |  |
| ICM PG (side<br>A) (MDS)                            | MDS state transfer port<br>TCP 42001   | MDS process<br>client<br>(synchronized)                  |                                |                      |  |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol)           | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|--|--|--------------------------------|----------------------|---|
| Router (side<br>A) DMP<br>(ccagent)                 | <ul> <li>Public low:<br/>TCP 40002 + (instance<br/>number * 40)</li> <li>Public medium:<br/>TCP 40045 + (instance)</li> </ul>  | ICM PG<br>(pgagent)  |                                |                      | Public network connecting the<br>PG to the central controller<br>Router to pre-5.0 PG<br>communication.<br>Note UDP ports are not used  |
|   | TCP 40017 + (instance<br>number * 40)<br>• Public high:<br>TCP 40003 + (instance<br>number * 40)<br>UDP 39500 - 39999  |  |                                |                      | interface.  |
| Router (side<br>B) DMP<br>(ccagent)                 | <ul> <li>Public low:<br/>TCP 41002 + (Instance<br/>Number * 40)</li> <li>(instance number<br/>Public medium:<br/>TCP 41017 + (instance<br/>number * 40)</li> <li>Public high:<br/>TCP 41003 + (instance<br/>number * 40)</li> <li>UDP 39500 - 39999</li> </ul> | ICM PG<br>(pgagent)  |                                |                      | <ul> <li>Public network connecting the PG to the central controller</li> <li>Router to pre-5.0 PG communication.</li> <li>Note UDP ports are not used if QoS is enabled on the ICM PG private interface.</li> </ul> |
| Router A<br>(rtfeed)                                | TCP 40007 + (instance number<br>* 40)  | Administration<br>& Data Server                                    |                                |                      | Real time feed  |
| Router B<br>(rtfeed)                                | TCP 41007 + (instance number<br>* 40)  | Administration<br>& Data Server                                    |                                |                      | Real time feed  |
| Logger (side<br>A)                                  | TCP 40026 + (instance number<br>* 40)<br>TCP 40028 + (instance number<br>* 40)   | Administration<br>& Data Server<br>Historical Data<br>Server (HDS) |                                |                      | Replication   |

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| Listener<br>(Process or<br>Application<br>Protocol)      | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol)           | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|--|--|--|--------------------------------|----------------------|--|
| Logger (side<br>B)                                       | TCP 41026 + (instance number<br>* 40)<br>TCP 41028 + (instance number<br>* 40) | Administration<br>& Data Server<br>Historical Data<br>Server (HDS) |                                |                      | Replication  |
| Primary<br>Administration<br>& Data Server<br>(rtfeed)   | TCP 48008 + (instance number<br>* 40)  | Administration client  |                                |                      | Real time feed   |
| Secondary<br>Administration<br>& Data Server<br>(rtfeed) | TCP 49008 + (instance number<br>* 40)  | Administration<br>client   |                                |                      | Real time feed   |
| Contact<br>Sharing                                       | TCP 61616  | Active MQ for<br>Live Data   | TCP 61616                      | Bidirectional        |  |
| CICM Router<br>(side A)<br>(INCRPNIC)                    | UDP 40025 + (instance number<br>* 40)  | NAM Router<br>(CIC)  |                                |                      | Public network connecting the NAM to the CICM  |
| CICM Router<br>(side B)<br>(INCRPNIC)                    | UDP 41025 + (instance number<br>* 40)  | NAM Router<br>(CIC)  |                                |                      | Public network connecting the NAM to the CICM  |
| CSFS   | TCP 40015  | CSFS<br>duplexed peer  |                                |                      | CSFS event synchronization link  |
| Logger (side<br>A)                                       | 40013 + (instance number *40)  |  |                                |                      | Recovery   |
| Logger (side<br>B)                                       | 41013 + (instance number *40)  |  |                                |                      | Recovery   |
| Diagnostic<br>framework                                  | TCP 7890   |  |                                |                      | This serviceability component<br>is installed on major CCE<br>component servers (e.g. router,<br>logger, PG, Administration and<br>Data Servers) |

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| Table 2: Unified CCE Port Utilizatio | n: Distributor and Internet Script Editor |
|--------------------------------------|---|
|--------------------------------------|---|

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol)              | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes |
|---|----------------------------|---|--------------------------------|----------------------|-------|
| MSSQL   |                            | Logger<br>Distributor   | TCP 1433                       |                      |       |
| HTTPS   | TCP 443                    | CCE Web<br>Administration<br>and Internet<br>Script Editor<br>Clients |                                |                      |       |

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

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port  | Remote Device<br>(Process or<br>Application<br>Protocol)   | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|---|--|--------------------------------|----------------------|---|
| SIP   |   | Cisco Unified<br>Communications<br>Manager<br>Unified CM<br>(Unified CM<br>Cisco Unified<br>CallManager) | UDP 58800                      |                      | Set in the<br><b>SIPDialerPortBaseNumber</b><br>registry key.   |
| RTP for SIP   | UDP ports in a range based on<br>these formulas:<br>• RangeStart =<br>RTPPortRangeStart +<br>( <i>instNum</i> * 2000)<br>• RangeEnd = RangeStart<br>+ 2000<br>You can set RTPPortRangeStart<br>in the registry key:<br><b>RTPPortRangeStart</b> . <i>instNum</i><br>is the instance number for the<br>Dialer. | Voice gateway  |                                |                      | Receive ports for reservation<br>calls.<br>Use the following registry key<br>to select and configure UDP<br>ports: <b>RTPPortRangeStart</b> |
| TFTP  |   | TFTP server  | UDP 69                         |                      |   |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port                                 | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|--|--|--------------------------------|----------------------|---|
| TFTP file<br>transfer                               |  |  | Ephemeral                      |                      |   |
| MR PG   | TCP 38001+ (instance number)                               |  |                                |                      | The MR PG connects to the SIP Dialer using this port.                                     |
| MR PG (SIP)   | 5060 and<br>"SIPDialerPortBaseNumber +<br>instance number" |  |                                |                      | This port is used with Unified<br>Communications Manager,<br>Voice Gateway, or SIP Proxy. |

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

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol)                        | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|--|---|--------------------------------|----------------------|--|
| GED-188 (CTI<br>Server)                             | Side A<br>TCP 42027 + (instance number<br>* 40)<br>Side B<br>TCP 43027 + (instance number<br>* 40) | ARM Interface<br>CTI OS Server<br>CAD Server                                    |                                |                      |  |
| CTI OS Server                                       | TCP 42028  | CTI OS Client<br>CTI OS Server<br>Peers<br>CAD Desktop<br>Cisco Sync<br>Service |                                |                      | Applicable to first CTI OS<br>instance. Multi-instance CTI OS<br>and Cisco Unified Contact<br>Center Hosted require a custom<br>port be defined. |
| CTI OS<br>Supervisor<br>Desktop                     | UDP 39200  | CTI OS Client   |                                |                      | Desktop Silent Monitoring  |
| CTIOS Silent<br>Monitor<br>Service                  | TCP 42228  |   |                                |                      |  |
| Cisco<br>Enterprise<br>Data Store                   | TCP 42228  | Siebel server   |                                |                      | Support for screen call context  |

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#### Table 5: Unified CCE Port Utilization: Packaged CCE

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes |
|---|----------------------------|--|--------------------------------|----------------------|-------|
| Data Servers<br>and external<br>HDSs                | https 443                  | ESXi Hosts   | https 443                      |                      |       |

#### Table 6: Unified CCE Port Utilization: TDM/IP Peripherals

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol)                               | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------|--|--------------------------------|----------------------|---|
| IP Process Col                                      | nmunications               |  |                                |                      |   |
| CTI/QBE   |                            | Unified CM   | TCP 2748                       |                      | JTAPI   |
| PG, VRU PIM<br>(GED-125)                            | TCP 5000–5001              | Customer<br>Voice Portal<br>(or ISN)<br>Cisco Unified<br>IP-IVR<br>(Unified IP<br>IVR) |                                |                      | Unified ICM/IVR message<br>interface, VRU PIM |
| CCE PG  | TCP 2789                   | Unified CM   |                                |                      | JTAPI application server                      |
| MR PIM  | TCP 2000                   | Media Routing process  |                                |                      |   |

#### **TDM Process Communications**

**Note** For more information on peripheral communication, see the "ACD Supplement" user documentation for the specific switch you are using.

| Aspect PIM                             | Aspect ACD                      | TCP 8000                         | Used by real-time bridge         |
|--|---------------------------------|----------------------------------|----------------------------------|
| Aspect Contact<br>Center server<br>PIM | Aspect Contact<br>Center server | TCP 6101<br>TCP 6102<br>TCP 9001 | Application bridge<br>Event link |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes                                       |
|---|----------------------------|--|--------------------------------|----------------------|---|
| Avaya PIM   | ТСР 6060–6070              | Avaya ACD<br>CMS   | TCP 5678                       |                      | Event link                                  |
| MIS Process   | TCP 3000–3030              | VRU  |                                |                      | Connects to CTI server, listens for VRU PIM |
| Avaya Aura<br>Contact Center<br>(AACC) PIM          |                            | Avaya ACD  | TCP 3000                       |                      |   |
| UCCX<br>Gateway PIM                                 |                            | UCCX   | TCP 12028                      |                      | Port number is configurable                 |



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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 7: Unified CCE Port Utilization: Windows Authentication and Remote Administration Ports

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes |
|---|----------------------------|--|--------------------------------|----------------------|-------|
| RPC   | TCP 135                    |  |                                |                      |       |
|   | UDP 135                    |  |                                |                      |       |
| NetBIOS<br>Session                                  | TCP 139                    |  |                                |                      |       |
| NetBIOS   | TCP 137                    |  |                                |                      |       |
| Name<br>Resolution                                  | UDP 137                    |  |                                |                      |       |
| NetBIOS<br>Netlogon/                                | UDP 138                    |  |                                |                      |       |
| Browsing  |                            |  |                                |                      |       |
| SMB   | TCP 445                    |  |                                |                      |       |
|   | UDP 445 <sup>1</sup>       |  |                                |                      |       |

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes       |
|---|----------------------------|--|--------------------------------|----------------------|-------------|
| LDAP  | TCP 389                    |  |                                |                      |             |
|   | UDP 389                    |  |                                |                      |             |
| LDAP SSL  | TCP 636                    |  |                                |                      |             |
| LDAP GC   | TCP 3268                   |  |                                |                      |             |
| LDAP GC<br>SSL                                      | TCP 3269                   |  |                                |                      |             |
| DNS   | TCP 53                     |  |                                |                      |             |
|   | UDP 53                     |  |                                |                      |             |
| Kerberos  | TCP 88                     |  |                                |                      |             |
|   | UDP 88                     |  |                                |                      |             |
| NTP   | UDP 123                    |  |                                |                      |             |
| SQL Server  | TCP 1433                   |  |                                |                      | See Q287932 |
|   | UDP 1434                   |  |                                |                      |             |

<sup>1</sup> Also used for named pipes connectivity.



For more information on Windows authentication, see *Service overview and network port requirements for the Windows Server system* (Microsoft knowledge base article Q832017).

#### Table 8: Unified CCE Port Utilization: Network Management and Remote Administration

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes |
|---|----------------------------|--|--------------------------------|----------------------|-------|
| SNMP  | UDP 161                    |  |                                |                      |       |
| SNMP–Trap   | UDP 162                    |  |                                |                      |       |
| Syslog  | UDP 514                    |  |                                |                      |       |
| Telnet  | ТСР 23                     |  |                                |                      |       |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port       | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---------|
| RDP<br>(Terminal<br>Services)                       | TCP 3389                         |  |                                |                      |         |
| pcAnywhere  | TCP 5631<br>UDP 5632             |  |                                |                      |         |
| VNC   | TCP 5900<br>TCP 5800 (Java HTTP) |  |                                |                      | RealVNC |

#### Table 9: Unified CCE Port Utilization: Customer Interaction Analyzer

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes |
|---|----------------------------|--|--------------------------------|----------------------|-------|
| HTTP file<br>transfer                               | TCP 80                     | Call recording server                                    | TCP 80                         |                      |       |
| HTTP data replication                               | TCP 8080                   | Call recording server                                    | TCP 8080                       |                      |       |
| VPN/terminal services                               | TCP 3389                   | Call recording server                                    |                                |                      |       |

#### Table 10: Unified CCE Port Utilization: Live Data

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|--|--|--------------------------------|----------------------|--|
| Router (side A<br>and B) (TIP<br>Event)             | Router A: 40034 + (instance<br>number * 40)<br>Router B: 41034 + (instance<br>number * 40) | CUIC/Live<br>Data  |                                |                      | Public network Live Data<br>Events.          |
| Router (side A<br>and B) (TIP<br>TOS)               | Router A: 40035 + (instance<br>number * 40)<br>Router B: 41035 + (instance<br>number * 40) | CUIC/Live<br>Data  |                                |                      | Public network Live Data Test<br>Other Side. |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port   | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|--|--|--------------------------------|----------------------|---|
| ICM PG1 (side<br>A and B) (TIP<br>Event)            | Side A: 42034 + (instance<br>number * 40)<br>Side B: 43034 + (instance<br>number * 40) | CUIC/Live<br>Data  |                                |                      | Public network Live Data<br>Events.   |
| ICM PG2 (side<br>A and B) (TIP<br>Event)            | Side A: 44034 + (instance<br>number * 40)<br>Side B: 45034 + (instance<br>number * 40) | CUIC/Live<br>Data  |                                |                      | Public network Live Data<br>Events.   |
| ICM PG1 (side<br>A and B) (TIP<br>TOS)              | Side A: 42035 + (instance<br>number * 40)<br>Side B: 43035 + (instance<br>number * 40) | CUIC/Live<br>Data  |                                |                      | Public network Live Data Test<br>Other Side.  |
| ICM PG2 (side<br>A and B) (TIP<br>TOS)              | Side A: 44035 + (instance<br>number * 40)<br>Side B: 45035 + (instance<br>number * 40) | CUIC/Live<br>Data  |                                |                      | Public network Live Data Test<br>Other Side.  |
| Socket.IO<br>unsecured port                         | TCP 12007  | CUIC/Live<br>Data  | Socket.IO                      | Bidirectional        |   |
| Socket.IO<br>secured port                           | TCP 12008  | CUIC/Live<br>Data  | Socket.IO                      | Bidirectional        |   |
| CCE Live<br>Data<br>Cassandra<br>Service            | TCP 12000  |  |                                |                      | Live Data Cassandra TCP port<br>for commands and data   |
| CCE Live<br>Data<br>Cassandra<br>Service            | TCP 12001  |  |                                |                      | Live Data Cassandra SSL port<br>for encrypted communication.<br>(Unused unless enabled in<br>encryption_options.) |
| CCE Live<br>Data<br>Cassandra<br>Service            | TCP 9160   |  |                                |                      | Live Data Cassandra port that<br>Thrift uses to listen to clients   |
| CCE Live<br>Data Storm<br>DRPC Service              | TCP 3772   |  |                                |                      | Live Data DRPC port   |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------|--|--------------------------------|----------------------|--|
| CCE Live<br>Data Storm<br>DRPC Service              | TCP 3773                   |  |                                |                      | Live Data DRPC invocation port                           |
| CCE Live<br>Data<br>Zookeeper<br>Service            | TCP 2181                   |  |                                |                      | Live Data Reporting                                      |
| CCE Live<br>Data Web<br>Service                     | TCP 12004 – 12006          |  |                                |                      | Live Data Reporting                                      |
| CCE Live<br>Data Storm<br>Nimbus<br>Service         | TCP 6627                   |  |                                |                      | Live Data Nimbus Thrift port                             |
| CCE Live<br>Data Active<br>MQ Service               | TCP 61616                  |  |                                |                      | Live Data Active MQ Openwire<br>transport Connector port |
| CCE Live<br>Data Active<br>MQ Service               | TCP 61612                  |  |                                |                      | Live Data Active MQ Stomp<br>transport connector port    |
| OAMP  | TCP 8080                   |  |                                |                      | HTTP - OAMP  |
| Unified<br>Intelligence<br>Center                   | TCP 8081                   |  |                                |                      | HTTP - Unified Intelligence<br>Center                    |

# **Unified CCMP Port Utilization**

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Table 11: Cisco Unified Contact Center Management Portal Port Utilization

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Protocol and Port | Remote Device<br>(Process or<br>Application<br>Protocol) | Traffic<br>Direction | Notes |
|---|----------------------------------|--------------------------|--|----------------------|-------|
| Browser   |                                  |                          |  |                      |       |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Protocol and Port                         | Remote Device<br>(Process or<br>Application<br>Protocol) | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--|----------------------|---|
| НТТР  | TCP 80                           | CCMP Web server A/B                              |  |                      | Standard HTTP web client connection                                   |
| HTTPS   | TCP 443                          | CCMP Web server A/B                              |  |                      | SSL web client connection   |
| CCMP Web/A  | pplication serv                  | er A   |  |                      |   |
| SQL   | TCP 1433                         | CCMP DB server A/B                               |  |                      | Standard SQL connection   |
| LDAP  | TCP 389                          | Domain Controller                                | UDP 389  |                      | Used to read AD account<br>information for supervisor<br>provisioning |
| CCMP Web/A  | pplication serv                  | er B   | 1  | I                    |   |
| SQL   | TCP 1433                         | CCMP DB server A/B                               |  |                      | Standard SQL connection   |
| LDAP  | TCP 389                          | Domain Controller                                | UDP 389  |                      | Used to read AD account<br>information for supervisor<br>provisioning |
| CCMP Databa   | ise server A                     |  |  | I                    |   |
| SQL   | TCP 1433                         | CCMP DB server B                                 |  |                      | For SQL replication   |
|   | TCP 1433                         | CCE/CCH Administration and<br>Data server side A |  |                      | For import of CCE/CCH dimension data                                  |
|   | TCP 1433                         | CCE/CCH Administration and<br>Data server side B |  |                      | For import of CCE/CCH dimension data                                  |
| НТТР  | TCP 80                           | Unified CM                                       |  |                      | HTTP connection used for AXL provisioning requests                    |
| HTTPS   | TCP 443                          | Unified CM                                       |  |                      | HTTP connection used for AXL provisioning requests                    |
| *MSDTC  | TCP 135                          | CCMP DB sever B                                  | TCP<br>1024-5000   |                      | For the CCMP audit archive job  |
| SMB over IP   | UDP 445*                         |  | TCP 445  |                      | For CVP file upload file replication                                  |
| * Also used for                                     | named pipes co                   | nnectivity.                                      | 1  | 1                    | -   |
| CCMP Databa   | ase server B                     |  |  |                      |   |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Protocol and Port                      | Remote Device<br>(Process or<br>Application<br>Protocol) | Traffic<br>Direction | Notes  |
|---|----------------------------------|---|--|----------------------|--|
| SQL   | TCP 1433                         | CCMP DB server A                              |  |                      | For SQL replication                                |
|   | TCP 1433                         | CCE/CCH Administration &<br>Data sever side A |  |                      | For import of CCE/CCH dimension data               |
|   | TCP 1433                         | CCE/CCH Administration &<br>Data sever side B |  |                      | For import of CCE/CCH dimension data               |
| НТТР  | TCP 80                           | Unified CM(x)                                 |  |                      | HTTP connection used for AXL provisioning requests |
| HTTPS   | TCP 443                          | Unified CM(x)                                 |  |                      | HTTP connection used for AXL provisioning requests |
| *MSDTC  | TCP 135                          | CCMP DB sever A                               | TCP<br>1024-5000   |                      | For the CCMP audit archive job                     |
| SMB over IP   | UDP 445*                         |   | TCP 445  |                      | For CVP file upload file replication               |

These assume all server names are either TCP/IP addresses or DNS names (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

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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)

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# **Unified CRM Connectors Port Utilization**

#### Table 12: Cisco Unified CRM Connector for SAP

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| CRM<br>Connector for<br>SAP                         | TCP 8080                         | SAP ICI connection                                 |                                |                      | You can adjust this port through the registry. |
| CRM<br>DataStore for<br>SAP                         | TCP 42029                        | CRM Connector for SAP                              |                                |                      |  |

#### Table 13: Cisco Unified CRM Connector for Microsoft CRM, Oracle PeopleSoft, Salesforce.com

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| CRM<br>Connector<br>Server                          | TCP 80                           | .NET Adapter, Administration<br>Tool               |                                |                      | "Default Web Site" in IIS<br>Manager.   |
| MSCRM<br>Server                                     | TCP 81                           | MSCRM Client                                       |                                |                      | MSCRM only.   |
| CRM<br>Connector<br>Server                          | TCP 5666                         | CRM Adapters                                       |                                |                      | Configurable in \Program<br>Files\Cisco\CRM<br>Connector\MCIS\Config.ini                          |
| .NET Adapter  | TCP 5558                         | Agent Desktop                                      |                                |                      | Remoting Port.  |
| CRM<br>Connector<br>Server                          | TCP 42027                        | Cisco CTI Server                                   |                                |                      | Default port for side A.<br>Configurable in the Config.ini<br>file [CTIModule Setting]<br>Port_A. |
| CRM<br>Connector<br>Server                          | TCP 44027                        | Cisco CTI Server                                   |                                |                      | Default port for side B.<br>Configurable in the Config.ini<br>file [CTIModule Setting]<br>Port_B. |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| CRM<br>Connector<br>Server                          | TCP 65372                        | Server Administration Tool                         |                                |                      | Configurable under \Program<br>Files\Cisco\CRM<br>Connector\MCIS\Config.ini and<br>\Program Files\Cisco\CRM<br>Connector\ Server<br>Administration<br>Tool\WebComponent\<br>server.config |

### **Cisco Agent Desktop (CAD) Port Utilization**



Cisco Agent Desktop is deprecated for Unified CCE 11.0(1).



If an Agent Desktop client is running in a Citrix environment, the Citrix server chooses ports randomly for CAD/CTIOS clients. If Citrix is running Windows 2008, the randomly assigned port number falls within the Internet Assigned Numbers Authority (IANA) standard range of 49152-65535.

#### Table 14: Cisco Agent Desktop (CAD) Port Utilization

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic Direction | Notes |
|---|----------------------------------|--|--------------------------------|-------------------|-------|
| Cisco Agent Desktop                                 |                                  |  |                                |                   |       |
| Desktop<br>Monitor                                  | TCP 59020                        | Cisco Supervisor Desktop                           |                                |                   |       |
| FCCServer   | TCP 3002                         | Supervisor Desktop                                 | TCP 3101                       |                   |       |
| Chat  | TCP 59020                        | Cisco Desktop Base Services                        |                                |                   |       |
| CTI OS  |                                  | CTI OS Server                                      | TCP 42028                      |                   |       |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol)   | Remote<br>Protocol and<br>Port | Traffic Direction | Notes   |
|---|----------------------------------|--|--------------------------------|-------------------|---|
| SIP   | UDP/TCP<br>5060 *                | Unified CVP and Cisco<br>Unified Communications<br>Manager (including Cisco<br>Unified Communications<br>Manager IM and Presence<br>Service) | UDP/TCP<br>5060 *              |                   | CA does not support SIP<br>over TLS   |
| AXL (SOAP)  | HTTPS 443                        | Cisco Unified<br>Communications Manager<br>IM and Presence Service   |                                |                   |   |
| Cisco Superv  | isor Desktop                     | 1  |                                |                   | 1   |
| Chat  | TCP 59021                        | Cisco Desktop Base Services  |                                |                   | Chat  |
| Cisco Unified<br>Presence                           | TCP 5060                         | Cisco Desktop Base Services  |                                |                   | Unified CVP and Unified<br>Communications Manager<br>(including Cisco Unified<br>CM IM and Presence<br>Service) |
| RTP   | UDP 59010<br>UDP 59012           | Cisco Desktop VoIP Monitor<br>Service  |                                |                   | VoIP  |
| RTP   | UDP 59014<br>UDP 59016           | Cisco Desktop Recording<br>Server  |                                |                   | Playback  |
| Cisco Deskto  | p Base Service                   | S  | 1                              |                   | 1   |
| LRM   | TCP 65431<br>TCP 65432           | Cisco Agent Desktop<br>Cisco Supervisor Desktop  |                                |                   |   |
| Chat  | TCP 59000<br>TCP 37350           | Cisco Agent Desktop<br>Cisco Supervisor Desktop  |                                |                   |   |
| Enterprise  | TCP 59004                        | Cisco Agent Desktop<br>Cisco Supervisor Desktop  |                                |                   |   |
| Enterprise  | TCP 3004                         |  |                                |                   | OmniOrbUsePort (server)   |
| Rascal  | TCP 59003                        | Cisco Agent Desktop<br>Cisco Supervisor Desktop  |                                |                   |   |

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic Direction | Notes                          |
|---|----------------------------------|--|--------------------------------|-------------------|--------------------------------|
| Directory   | TCP 38983                        | Cisco Agent Desktop                                |                                |                   | LDAP                           |
|   |                                  | Cisco Supervisor Desktop                           |                                |                   |                                |
| TrueUpdate  | TCP 8088                         | Cisco Agent Desktop                                |                                |                   | Tomcat                         |
|   |                                  | Cisco Supervisor Desktop                           |                                |                   |                                |
| LRM   | TCP 65431                        | Cisco Desktop Base Services                        |                                |                   | For redundancy                 |
|   | TCP 65432                        |  |                                |                   |                                |
| MSL   | UDP 27871                        | Cisco Desktop Base Services                        |                                |                   | For redundancy                 |
| Directory   | TCP 38983                        | Cisco Desktop Base Services                        |                                |                   | For redundancy                 |
| LRM   | TCP 65431                        | Cisco Desktop VoIP Monitor<br>Service              |                                |                   |                                |
| LRM   | TCP 65432                        | License Server                                     |                                |                   |                                |
| LDAP  | TCP 38983                        | Cisco Desktop VoIP Monitor<br>Service              |                                |                   |                                |
| Chat  | TCP 3002                         |  |                                |                   | LDAP VPN client                |
| Chat  | TCP 3100                         |  |                                |                   | LDAPOmniOrbUsePort<br>(client) |
| Chat  | TCP 59000                        |  |                                |                   | LDAPOmniOrbUsePort<br>(server) |
| LRM   | TCP 65431                        | Cisco Desktop Recording                            |                                |                   |                                |
|   | TCP 65432                        | Service  |                                |                   |                                |
| LDAP  | TCP 38983                        | Cisco Desktop Recording<br>Service                 |                                |                   |                                |
| LRM   | TCP 65431                        | Cisco Desktop Administrator                        |                                |                   |                                |
|   | TCP 65432                        |  |                                |                   |                                |
| Enterprise  | TCP 59004                        | Cisco Desktop Administrator                        |                                |                   |                                |
| Directory   | TCP 38983                        | Cisco Desktop Administrator                        |                                |                   |                                |
| TAI   | TCP 59010                        | Cisco Desktop Administrator                        |                                |                   |                                |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol)                             | Remote<br>Protocol and<br>Port | Traffic Direction | Notes                    |
|---|----------------------------------|--|--------------------------------|-------------------|--------------------------|
| Sync  | TCP 59011                        | Cisco Desktop Administrator  |                                |                   |                          |
| Sync  | TCP 27872                        |  |                                |                   |                          |
| TrueUpdate  | TCP 8088                         | Cisco Desktop Administrator  |                                |                   | Tomcat                   |
| IPPA  | TCP 59012                        | Cisco Agent Desktop<br>Browser Edition   |                                |                   |                          |
| IPPA  | TCP 59010                        |  |                                |                   |                          |
| Tomcat  | TCP 8088                         | Cisco Agent Desktop<br>Browser Edition   |                                |                   |                          |
| GED-188   |                                  | CTI Server   | Side A: TCP<br>42027           |                   | Call events              |
|   |                                  |  | Side B: TCP<br>43027           |                   |                          |
| MSSQL   |                                  | Distributor  | TCP 1433                       |                   | Rascal                   |
| AXL (SOAP)  | Dynamic                          | Unified CM   | TCP 80                         |                   |                          |
| Cisco Deskto  | p VoIP Monito                    | or Server  | 1                              |                   |                          |
| Primary<br>Server                                   | TCP 59002                        | Cisco Agent Desktop<br>Cisco Supervisor Desktop<br>Cisco Desktop Base Services |                                |                   | OmniOrbUsePort (server)  |
| IP Discovery  | TCP 37606                        | Cisco Agent Desktop<br>Cisco Supervisor Desktop                                |                                |                   |                          |
| VPN Port<br>(Server)                                | TCP 37606                        |  |                                |                   |                          |
| AXL (SOAP)  | Dynamic                          | Unified CM   | TCP 80                         |                   | Phone MAC address lookup |
| Cisco Deskto  | p Recording S                    | erver  |                                |                   | 1                        |
| Primary<br>Server                                   | TCP 59005                        | Cisco Agent Desktop<br>Cisco Supervisor Desktop<br>Cisco Desktop Base Services |                                |                   | OmniOrbUsePort (server)  |

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic Direction | Notes                     |
|---|----------------------------------|--|--------------------------------|-------------------|---------------------------|
| IP Discovery  | TCP 59027                        | Cisco Supervisor Desktop                           |                                |                   |                           |
|   |                                  | Cisco Desktop Base Services                        |                                |                   |                           |
| VPN Server<br>Port                                  | TCP 59027                        |  |                                |                   |                           |
| RTP   | UDP 59500 -                      | Cisco Agent Desktop                                |                                |                   |                           |
|   | 59700                            | Cisco Desktop VoIP Monitor<br>Server               |                                |                   |                           |
|   | 59500                            |  |                                |                   | Port range start (client) |
|   | 59700                            |  |                                |                   | Port range end (client)   |
| RP server   |                                  |  |                                |                   |                           |
| Primary<br>server                                   | 59005                            |  |                                |                   |                           |
| VPN server<br>port                                  | 59027                            |  |                                |                   |                           |
| To client port                                      | 59014                            |  |                                |                   | Client                    |
| From client port                                    | 59016                            |  |                                |                   | Client                    |

# **Cisco Voice Integration to Genesys Call Center**

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| Genesys<br>System<br>Interoperability<br>Manager    | TCP 2555                         | Genesys T-Server Alcatel<br>A4400                  |                                |                      | CSTA<br>You can adjust this port through<br>the registry. |



# **Port Utilization in Unified CVP**

- Port Utilization Table Columns, page 25
- Unified CVP Port Utilization, page 26

### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

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### **Unified CVP Port Utilization**

Table 15: Cisco Unified Customer Voice Portal Port Utilization

| Listener (Process or<br>Application Protocol)   | Listener Protocol and<br>Port          | Remote Device<br>(Process or<br>Application Protocol) | Remote<br>Protocol<br>and Port | Traffic<br>Direction | Notes   |
|---|--|---|--------------------------------|----------------------|---|
| ТСР   | 2000-2002                              |   |                                |                      | Sub to phone  |
| Call Server JMX   | 2098                                   | JConsole  |                                |                      | JMX access by JConsole into Call<br>Server  |
| CVP Messaging Layer   | TCP 23000 - 28000<br>(First available) | CVP Subsystem   |                                |                      | CVP Message Bus<br>communications   |
| 7960-CUVA Video   | UDP 5445                               | 7960-CUVA   |                                |                      | Cisco 7960-CUVA Video Phone   |
| CVP SIP Subsystem,<br>SIP Proxy Server,<br>Gateway, Unified CM:<br>SIP (Session Initiation<br>Protocol) | UDP 5060<br>TCP 5060                   | SIP endpoints   |                                |                      | Listen port for incoming SIP<br>requests. Port is configurable.   |
| VXML Server: HTTP   | TCP 7000                               | IOS VXML gateways                                     |                                |                      | VXML over HTTP. Calls/sessions<br>answered on port 7000 by HTTP<br>server which relays request to<br>WAS on local system port 9080. |
| VXML Server:<br>HTTPS   | TCP 7443                               | IOS VXML gateways                                     |                                |                      | VXML over HTTPS.<br>Calls/sessions answered on port<br>7443 by HTTPS server.  |
| VXML Server with  | TCP 7005                               | Local machine   |                                |                      | Port restricted to local access only  |
| Tomeat  | TCP 7009                               |   |                                |                      | AJP/1.3 Connector   |
| VXML Server JMX   | TCP 9696                               | JConsole  |                                |                      | JMX access by JConsole into<br>VXML Server  |
| VXML Server   | TCP 10100                              | Local VXML Server<br>Administration Scripts           |                                |                      | Port restricted to local access only  |
| CVP IVR Subsystem:<br>HTTP  | TCP 8000                               | Voice Browsers  |                                |                      | VXML over HTTP  |
| CVP IVR Subsystem:<br>HTTPS   | TCP 8443                               | Voice Browsers  |                                |                      | VXML over HTTPS   |
|   |  |   |                                |                      |   |

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| Listener (Process or<br>Application Protocol)   | Listener Protocol and<br>Port          | Remote Device<br>(Process or<br>Application Protocol) | Remote<br>Protocol<br>and Port | Traffic<br>Direction | Notes  |
|---|--|---|--------------------------------|----------------------|--|
| CVP IVR Subsystem:<br>HTTP                      | TCP 8005                               | Local machine   |                                |                      |  |
| CVP IVR Subsystem:<br>HTTP Admin                | TCP 8008                               |   |                                |                      | WAS and HTTP Server<br>communicate with each other<br>through HTTP Admin on port<br>8008.  |
| CVP OPSConsole:<br>HTTP                         | TCP 9000                               | Web Browser   |                                |                      | Web based interface for<br>configuring CVP components  |
| CVP OPSConsole:<br>HTTPS                        | TCP 9443                               | Web Browser   |                                |                      | Web based interface for<br>configuring CVP components with<br>SSL  |
| CVP OPSConsole                                  | ТСР 9005                               | Local machine   |                                |                      | Port restricted to local access only   |
| CVP OPSConsole                                  | TCP 9009                               |   |                                |                      | AJP/1.3 Connector  |
| CVP OPSConsole                                  | TCP 1529                               | Local machine   |                                |                      | Port restricted to local access only   |
| CVP Resource<br>Manager FTP Server              | TCP 21                                 | Content Services<br>Switch                            |                                |                      | Only opened by Resource Manager<br>residing on the same machine as<br>the CVP OPSConsole   |
| CVP Resource<br>Manager                         | TCP 2099                               | CVP OPSConsole  |                                |                      | JMX communication from<br>OPSConsole to CVP Resource<br>Manager on remote device   |
| CVP Resource<br>Manager Java Service<br>Wrapper | TCP 32000 - 32999<br>(first available) | JVM instance<br>launched by wrapper                   |                                |                      | CVP Resource Manager Service<br>Wrapper will no longer accept<br>connections after the first JVM<br>instance is connected.   |
| MRCP V1 (RTSP)                                  | TCP 554                                | VXML gateway  |                                |                      | MRCP session between gateway<br>voice browser and MRCP server.<br>This is the signaling path; the<br>media path uses RTP.<br>Also, Helix streaming audio/<br>ASR/TTS (MRCP/RTSP) |
| MCRP V2 (SIP)                                   | TCP 5060                               | VXML gateway  |                                |                      | MRCP session between gateway<br>voice browser and MRCP server.<br>This is the signaling path; the<br>media path uses RTP.  |

| Listener (Process or<br>Application Protocol) | Listener Protocol and<br>Port  | Remote Device<br>(Process or<br>Application Protocol)     | Remote<br>Protocol<br>and Port | Traffic<br>Direction | Notes   |
|---|--|---|--------------------------------|----------------------|---|
| RTP/RTCP                                      | UDP 16384-32767  |   | UDP                            |                      | Voice Media   |
|   |  |   | 16384-32767                    |                      | RTP is typically assigned an<br>EVEN number port and the RTCP<br>is typically the next higher port<br>number. |
| CVP SNMP SubAgent                             | UDP 5517, 5519,<br>5521, 5523, 5525,<br>5527, 5529, 5531,<br>5533, 5535, 5537,<br>5539, 5541, 5543,<br>5545, 5547, 5549,<br>5551, 5553, 5555 | CVP SNMP<br>subsystem                                     |                                |                      | CVP SNMP SubAgent services<br>local requests from CVP SNMP<br>subsystem                                       |
| CVP SNMP<br>subsystem                         | UDP 5516, 5518,<br>5520, 5522, 5524,<br>5526, 5528, 5530,<br>5532, 5534, 5536,<br>5538, 5540, 5542,<br>5544, 5546, 5548,<br>5550, 5552, 5554 | CVP SNMP SubAgent   |                                |                      | CVP SNMP subsystem services<br>local requests from CVP SNMP<br>SubAgent                                       |
| CVP ICM Subsystem                             | TCP 5000   | IPCC Enterprise VRU<br>CTI (ICM/IVR<br>message interface) |                                |                      | Between CVP ICM Subsystem<br>(Call Server) and Unified<br>CCE/ICM VRU PG. Port is<br>configurable.            |
| Web Server: HTTP                              | TCP 80   | Voice Browsers  |                                |                      | Voice browsers fetches media and<br>"External VXML" files from media<br>server. Port is configurable          |
| Web Server: HTTPS                             | TCP 443  | Voice Browsers  |                                |                      | Voice browsers fetches media and<br>"External VXML" files from media<br>server. Port is configurable          |
| IBM Informix                                  | TCP 1526   | CVP Reporting<br>Subsystem                                |                                |                      | Database Connection   |
| IBM Informix Storage<br>Manager               | TCP 7939 - 7942 TCP<br>111   |   |                                |                      | IBM Informix Storage Manager<br>Services  |
| IBM WAS Console                               | TCP 9043, 9060   |   |                                |                      |   |

| Listener (Process or<br>Application Protocol) | Listener Protocol and<br>Port            | Remote Device<br>(Process or<br>Application Protocol)                | Remote<br>Protocol<br>and Port | Traffic<br>Direction | Notes  |
|---|--|--|--------------------------------|----------------------|--|
| CVP Web Services<br>Manager: HTTP             | TCP 8101, 8110, 8111<br>TCP 10001, 10002 | Unified System CLI,<br>Diagnostic Portal,<br>Custom Agent<br>Desktop |                                |                      | REST Web Services<br>The TCP 10001 and 10002 OAMP<br>ports are used for transferring data<br>related to the configuration and<br>administration of VXML Server<br>and Call Server. |

#### Table 16: Network Management and Remote Administration

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| SNMP Master<br>Agent                                | UDP 161                          | SNMP Management<br>Application                     |                                |                      | SNMP Master Agent listens for<br>requests from remote SNMP<br>management application and<br>sends responses via UDP port<br>161.  |
| SNMP Master<br>Agent                                | TCP 7161                         | Local SNMP subagents                               |                                |                      | SNMP Master Agent listens for<br>TCP connections from local<br>SNMP subagents.  |
| SNMP–Trap   | UDP 162                          | SNMP Master Agent                                  |                                |                      | SNMP Master Agent sends<br>SNMP traps to SNMP<br>management application.  |
| Syslog  | UDP 514                          |  |                                |                      | Syslog protocol provides a<br>transport to allow a machine to<br>send event notification<br>messages across IP network to<br>event message collectors. Port<br>is configurable. |
| SSH   | ТСР 22                           |  |                                |                      | Port 22 for those who use SSH instead of telnet on AIX.   |
| Telnet  | TCP 23                           |  |                                |                      |   |
| RDP<br>(TerminalServices)                           | TCP 3389                         |  |                                |                      |   |

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes |
|---|----------------------------------|--|--------------------------------|----------------------|-------|
| pcAnywhere  | TCP 5631                         |  |                                |                      |       |
|   | UDP 5632                         |  |                                |                      |       |
| VNC   | TCP 5900                         |  |                                |                      |       |
|   | TCP 5800                         |  |                                |                      |       |

#### Table 17: Windows Authentication and Remote Administration Ports

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes           |
|---|----------------------------------|--|--------------------------------|----------------------|-----------------|
| RPC   | TCP 135                          |  |                                |                      |                 |
| NetBIOS<br>Session                                  | TCP 139                          |  |                                |                      |                 |
| NetBIOS   | TCP 137                          |  |                                |                      |                 |
| Name<br>Resolution                                  | UDP 137                          |  |                                |                      |                 |
| NetBIOS   | UDP 138                          |  |                                |                      |                 |
| Netlogon/<br>Browsing                               |                                  |  |                                |                      |                 |
| SMB   | TCP 445                          |  |                                |                      | Microsoft CIFS  |
|   | UDP 445                          |  |                                |                      |                 |
| DNS   | TCP 53                           |  |                                |                      |                 |
|   | UDP 53                           |  |                                |                      |                 |
| NTP   | UDP 123                          |  |                                |                      |                 |
| optima-vnet   | TCP 1051                         |  |                                |                      | TCP Optima VNET |
| optima-vnet   | UDP 1051                         |  |                                |                      | UDP Optima VNET |



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For more information on Windows authentication and remote administration ports, see: "Service overview and network port requirements for the Windows Server system" (Microsoft Knowledge Base Article Q832017).





# **Port Utilization in Cisco VVB**

- Port Utilization Table Columns, page 33
- Cisco VVB Port Utilization, page 34

### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

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# **Cisco VVB Port Utilization**

Table 18: Cisco VVB Port Utilization

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol)  | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|---|--------------------------------|----------------------|--|
| SSH   | TCP 22                           | —   | —                              | Bidirectional        | SFTP and SSH access  |
| Tomcat  | TCP 80                           | —   | —                              | Bidirectional        | Web access   |
| System<br>Service                                   | UDP 123                          | —   | _                              | Bidirectional        | Network time sync  |
| SNMP Agent  | UDP 161                          | _   | —                              | In-bound             | Provides services for<br>SNMP-based management<br>applications   |
| Tomcat  | TCP 443                          | —   | —                              | Bidirectional        | —  |
| AON<br>Management<br>Console<br>(AMC)<br>Service    | TCP 1090                         | Intra-Cluster communication   | _                              | Bidirectional        | Provides RTMT data collecting,<br>logging, and alerting<br>functionalities (AMC RMI<br>Object Port)  |
| AON<br>Management<br>Console<br>(AMC)<br>Service    | TCP 1099                         | Intra-Cluster communication   |                                | Bidirectional        | Provides RTMT data collecting,<br>logging, and alerting<br>functionalities (AMC RMI<br>Registry Port)                                      |
| CMONINIT  | TCP 1500                         |   | _                              | Bidirectional        | This is the port where the IDS<br>engine listens for DB clients  |
| CMONINIT  | TCP 1501                         |   |                                | Bidirectional        | <ul> <li>This is an alternate port to<br/>bring up a second instance of<br/>IDS during upgrade.</li> <li>Localhost traffic only</li> </ul> |
| VBONINIT  | TCP 1504                         | External process like HRC,<br>WallBoard Client, External DB<br>clients (like Squirrel or others<br>for custom reporting) can<br>connect |                                | Bidirectional        | Cisco VVB database port  |

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| Listener<br>(Process or<br>Application<br>Protocol)                              | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|--|----------------------------------|--|--------------------------------|----------------------|---|
| Real-Time<br>Information<br>Server (RIS)<br>Data Collector<br>service<br>(RISDC) | TCP 2555                         | Intra-Cluster communication                        |                                | Bidirectional        | Connects to other RISDC<br>services in the cluster to provide<br>cluster-wide real-time info  |
| RISDC  | TCP 2556                         | Intra-Cluster communication                        | —                              | Bidirectional        | Allowed RIS client connection to retrieve real-time info  |
| Tomcat   | TCP 5001                         | —  | —                              | Bidirectional        | SOAP Monitor  |
| Tomcat   | TCP 5002                         | _  |                                | Bidirectional        | SOAP Monitor  |
| Tomcat   | TCP 5003                         | _  | _                              | Bidirectional        | SOAP Monitor  |
| Tomcat   | TCP 5004                         | _  | —                              | Bidirectional        | SOAP Monitor  |
| Tomcat   | TCP 5007                         |  | —                              | Bidirectional        | SOAP Monitor - a<br>troubleshooting tool for SOAP<br>infrastructure   |
| VVB_Engine   | TCP, UDP<br>5060                 | SIP gateway  | —                              | Bidirectional        | Communicates with SIP gateway   |
| VVB_CVD  | TCP 5900                         | CVD of other node in cluster                       | —                              | Bidirectional        | Heartbeats between CVDs in the cluster  |
| VVB_CVD  | TCP 6161                         | Internal   | 6161                           | Bidirectional        | Publishes JMS events across<br>JMS network connectors in the<br>cluster   |
| CVD  | TCP 6295                         | CVD of other node in cluster                       | —                              | Bidirectional        | Bootstrap HTTPD service port  |
| VVB_CVD  | TCP 6999                         | Engine, Tomcat, CVD, and Editor                    | _                              | Bidirectional        | RMI Port  |
| DBMON  | TCP 8001                         | Intra-Cluster communication                        | —                              | Bidirectional        | DB change notification port.  |
| Tomcat   | TCP 8080                         | Client Browser                                     |                                | Bidirectional        | -Client browser trying to access<br>any of the Administration<br>interfaces or User Options<br>interface.<br>-Web services client using<br>RTMT |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| Tomcat  | TCP 8443                         | Client Browser                                     | _                              | Bidirectional        | <ul> <li>Client browser trying to access<br/>any of the Administration<br/>interfaces or User Options<br/>interface</li> <li>Web services client using<br/>RTMT</li> </ul> |
| CLM   | TCP, UDP<br>8500                 |  | _                              | Bidirectional        | TCP - Connectivity testing<br>UDP - Cluster replication of<br>platform data (hosts) certificates<br>etc.   |
| VVB_Engine  | TCP 9080                         |  | -                              | Bidirectional        | <ul> <li>Clients trying to access HTTP triggers, documents, prompts, or grammars</li> <li>Tomcat instance used by Cisco VVB engine</li> </ul>                              |
| Cisco IP Voice<br>Media<br>Streaming<br>application | UDP 24576 ~<br>32767             |  | -                              | Bidirectional        | <ul> <li>Audio media streaming.</li> <li>Kernel streaming device driver</li> </ul>   |
| Generic Ports                                       | TCP, UDP<br>32768 ~ 61000        | -  | —                              | Bidirectional        | Generic ephemeral TCP and UDP ports  |



### **Port Utilization in Finesse**

- Port Utilization Table Columns, page 37
- Finesse Port Utilization, page 38

### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

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# **Finesse Port Utilization**

Table 19: Cisco Finesse Tomcat

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| НТТР  | TCP 80, 8082                     | Browser  |                                | Bidirectional        | Unsecure port used for Finesse<br>administration console, Finesse<br>agent and supervisor desktop,<br>Finesse Web Services, and<br>Finesse Desktop Modules<br>(gadgets) with the Finesse<br>desktop. |
| HTTPS   | TCP 443, 8445                    | Browser  |                                | Bidirectional        | Secure port used for Finesse<br>administration console, Finesse<br>agent and supervisor desktop,<br>Finesse Web Services, and<br>Finesse Desktop Modules<br>(gadgets) with the Finesse<br>desktop.   |

#### Table 20: Platform Tomcat

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| НТТР  | UDP 8080                         | Browser  |                                | Bidirectional        | Unsecure port used for access<br>to platform administration,<br>platform serviceability, and<br>Disaster Recovery System. |
| HTTPS   | UDP 8443                         | Browser  |                                | Bidirectional        | Secure port used for access to<br>platform administration,<br>platform serviceability, and<br>Disaster Recovery System.   |

#### Table 21: Platform Database

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| DBMON   | TCP 1500                         |  |                                | Bidirectional        | Informix Database Software (IDS) access and replication                                 |
| DBL RPC   | TCP 1515                         | Intra-Cluster communication                        |                                | Bidirectional        | DBL RPC, this is used during<br>installation to set up IDS<br>replication between nodes |

#### Table 22: Cisco Finesse Notification Service

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| ХМРР  | TCP 5222                         | Browser, agent desktop                             |                                | Bidirectional        | Unsecure XMPP connection<br>between the Finesse server and<br>custom applications on the<br>agent or supervisor desktops for<br>communication over HTTP. |
| XMPP  | TCP 5223                         | Browser, agent desktop                             |                                | Bidirectional        | Secure XMPP connection<br>between the Finesse server and<br>custom applications on the<br>agent or supervisor desktops for<br>communication over HTTPS.  |
| BOSH (HTTP)   | TCP 7071                         | Browser, agent desktop                             |                                | Bidirectional        | Unsecure BOSH connection<br>between the Finesse server and<br>agent and supervisor desktops<br>for communication over HTTP.                              |
| BOSH<br>(HTTPS)                                     | TCP 7443                         | Browser, agent desktop                             |                                | Bidirectional        | Secure BOSH connection<br>between the Finesse server and<br>agent and supervisor desktops<br>for communication over<br>HTTPS.                            |

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#### Table 23: Platform System Services

| Listener<br>(Process or<br>Application<br>Protocol)                         | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| SFTP  | TCP 22                           |  |                                | Bidirectional        | SFTP access for hosted<br>third-party gadget support  |
| SSH   | ТСР 22                           | SSH client   |                                | Bidirectional        | Platform CLI  |
| NTP   | UPD 123                          | NTP server   |                                | Bidirectional        | Network time synchronization  |
| Platform Alert<br>Manager and<br>Collector<br>(AMC) service                 | TCP 1090,<br>1099                | RTMT client  |                                | Bidirectional        | The platform AMC service uses<br>this connection to allow the<br>RTMT tool to retrieve and<br>display platform alerts.  |
| Real-time<br>Information<br>Service Data<br>Collector<br>(RISDC)<br>service | TCP 2555                         | RTMT client  |                                | Bidirectional        | Used by the RISDC platform<br>service. The Real-time<br>Information Server (RIS)<br>maintains real-time Cisco<br>Unified CM information such<br>as device registration status,<br>performance counter statistics,<br>critical alarms generated, and<br>so on. The Cisco RISDC service<br>provides an interface for<br>applications, such as RTMT,<br>SOAP applications, Cisco<br>Unified CM Administration and<br>AMC to retrieve the<br>information that is stored in all<br>RIS nodes in the cluster. |
| Disaster<br>Recovery<br>Framework<br>(DRF) Master<br>Agent Service          | TCP 4040                         | Platform Administration<br>webapp                  |                                | Bidirectional        | DRF service   |

| Table . | 24: | Primary | and | Seconda | ary Node | e Communication | n |
|---------|-----|---------|-----|---------|----------|-----------------|---|
|---------|-----|---------|-----|---------|----------|-----------------|---|

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

#### Table 25: Third-Party (External) Web Server

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| НТТР  |                                  |  | TCP 80, 8082                   | Bidirectional        | Gadgets hosted on a third-party<br>(external) web server are<br>fetched through the Finesse<br>server on the port exposed by<br>said web server. |
| HTTPS   |                                  |  | TCP 443, 8445                  | Bidirectional        | Gadgets hosted on a third-party<br>(external) web server are<br>fetched through the Finesse<br>server on the port exposed by<br>said web server. |

#### Table 26: Unified Contact Center Enterprise

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port      | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes   |  |  |  |
|---|---------------------------------------|--|--------------------------------|----------------------|---|--|--|--|
| Administration                                      | Administration & Data Server settings |  |                                |                      |   |  |  |  |
| JDBC (SQL)  |                                       |  | TCP 1433 <sup>1</sup>          | Bidirectional        | Connection to the AWDB for<br>authentication and authorization<br>of agents and supervisors |  |  |  |
| CTI Server sett                                     | ings (Side A and                      | l B)   | 1                              | 1                    |   |  |  |  |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port   | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--|----------------------|--|
| GED-188   |                                  |  | Side A:<br>TCP 42027 <sup>1</sup><br>Side B:<br>TCP 43027 <sup>1</sup> | Bidirectional        | Connection to the Agent PG for<br>CTI Server events (such as<br>Agents, Teams, Queues, and<br>Call events) |

<sup>1</sup>The ports listed are the default ports for these connections. You can use different ports than the ones specified in this table.



# Port Utilization in MediaSense

- Port Utilization Table Columns, page 43
- MediaSense Port Utilization, page 44

### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

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### **MediaSense Port Utilization**

#### Table 27: MediaSense Port Utilization

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol)             | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Note   |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| HTTPS   | TCP 443, 8443                    | Web browser  | Any                            |                      | Used by Administration, serviceability   |
| HTTPS   | TCP 8440                         | Client application   | Any                            |                      | Used by API access   |
| HTTPS   | TCP 9443                         | Client application   | Any                            |                      | Used by media service to redirect authenticated requests.  |
| HTTPS   | TCP 8446                         | Web browser, API client  | Any                            |                      | Used by Call control service.  |
| HTTPS   | TCP 9081                         | Client application   | Any                            |                      | Used by media service to redirect authenticated requests.  |
| НТТР  | TCP 80, 8080                     | Web browser  | Any                            |                      | Used by Administration, serviceability   |
| НТТР  | TCP 8081                         | Web browser, API client  | Any                            |                      | Used by Call control service   |
| НТТР  | TCP 8085                         | Another CMS node   | Any                            |                      | Used by Call control service   |
| НТТР  | TCP 8087                         | CMS cluster nodes only   | Any                            |                      | Used by System service   |
| НТТР  | TCP 8088                         | CMS cluster nodes only   | Any                            |                      | Used by Configuration service  |
| RTSP  | TCP 554, 8554                    | RTSP media player  | Any                            |                      | Used by SM agent   |
| RTSP  | TCP 9554                         | Client application or media player                             | Any                            |                      | Used by media service to redirect authenticated requests.  |
| SIP   | TCP 5060<br>UDP 5060             | Unified Communications<br>Manager or Unified Border<br>Element | TCP 5060<br>UDP 5060           |                      | Call control service.  |
| TCP/IP  | TCP 1543                         | CMS cluster nodes only   | Any                            |                      | Used by Informix ER to make<br>connections between primary<br>server and secondary servers.<br>Used by API service or<br>configuration service to make<br>JDBC connections with<br>Informix. |

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| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Note  |
|---|----------------------------------|--|--------------------------------|----------------------|---|
| Keep-alive<br>heartbeats                            | UDP 8091                         | CMS cluster nodes only                             | UDP 8091                       |                      | Used by a call control service<br>to detect availability of other<br>call control services. |
| JMS   | TCP 61610                        | CMS cluster nodes only                             | Any                            |                      | Used by API service   |
| JMS   | TCP 61612                        | CMS cluster nodes only                             | Any                            |                      | Used by Call control service  |
| JMS   | TCP 61616                        | CMS cluster nodes only                             | Any                            |                      | Used by SM agent  |
| Ephemeral<br>port range                             | UDP 32768 -<br>61000             | Phone or gateway that sends RTP media streams.     | Any                            |                      | Range of ports used by media service to receive RTP media streams.                          |





# Port Utilization in SocialMiner

- Port Utilization Table Columns, page 47
- SocialMiner Port Utilization, page 48

### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

# **SocialMiner Port Utilization**

#### Table 28: SocialMiner Port Utilization

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction   | Notes   |
|---|----------------------------------|--|--------------------------------|--|---|
| Email<br>notifications                              | Port 25                          |  |                                | Outward, from<br>SocialMiner to<br>the configured<br>email server. | SocialMiner communicates with<br>the configured email server<br>(that can be in the corporate<br>intranet or on the internet) to<br>send email notifications.   |
| HTTP  | Port 80                          |  |                                | Bidirectional  | <ul> <li>Used for unsecure (HTTP)<br/>traffic:</li> <li>From the SocialMiner<br/>user interface (browser)<br/>or APIs to the<br/>SocialMiner server.</li> <li>From the internet or<br/>corporate website to the<br/>SocialMiner server.<br/>SocialMiner receives<br/>incoming chat and<br/>callback requests from the<br/>internet or corporate<br/>website over HTTP.</li> </ul> |
| HTTPS   | Port 443                         |  |                                | Bidirectional  | <ul> <li>Used for secure (HTTPS)<br/>traffic:</li> <li>From the SocialMiner<br/>user interface (browser)<br/>or APIs to the<br/>SocialMiner server.</li> <li>From the internet or<br/>corporate website to the<br/>SocialMiner server.<br/>SocialMiner receives<br/>incoming chat and<br/>callback requests from the<br/>internet or corporate<br/>website over HTTPS.</li> </ul> |

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| Listener<br>(Process or<br>Application<br>Protocol)               | Listener<br>Protocol and<br>Port                                  | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction  | Notes  |
|---|---|--|--------------------------------|---|--|
| Email<br>notifications<br>SSL/TLS                                 | Port 465<br>(configurable)  |  |                                | Outward, from<br>SocialMiner to<br>the configured<br>email server.                    | SocialMiner communicates with<br>the configured email server<br>(that can be in the corporate<br>intranet or on the internet) to<br>send email notifications.  |
| Email (SMTP)  | Port 587<br>(configurable<br>in Unified<br>CCX<br>Administration) |  |                                | Outward, from<br>SocialMiner to<br>the Exchange<br>Server.                            | Used by the Email Reply API<br>to send email.<br>The Email Reply API uses<br>SMTP to send a response to a<br>customer email message.   |
| Email (secure<br>IMAP/IMAPS)                                      | Port 993<br>(configurable<br>in Unified<br>CCX<br>Administration) |  |                                | Outward, from<br>SocialMiner to<br>the Exchange<br>Server.                            | Used by email feeds to retrieve<br>email.<br>IMAPS allows email feeds to<br>fetch email from the Exchange<br>Servers and allows the Email<br>Reply API to retrieve email and<br>save draft email messages. |
| Reporting   | Port 1526   |  |                                | Inward, from<br>CUIC to the<br>SocialMiner<br>server.                                 | CUIC communicates with<br>SocialMiner to gather reporting<br>information.  |
| XMPP (IM)<br>notifications<br>using an<br>external<br>XMPP server | Port 5222<br>(configurable)                                       |  |                                | Outward, from<br>SocialMiner to<br>the configured<br>XMPP<br>Notifications<br>server. | SocialMiner communicates with<br>the configured XMPP<br>Notifications server (that can be<br>in the corporate intranet or on<br>the internet) to send XMPP<br>(IM) notifications.                          |
| Notification<br>Service<br>(XMPP<br>eventing over<br>TCP sockets) | Port 5222   |  |                                | Inward, from<br>CCX to the<br>SocialMiner<br>server.                                  | SocialMiner listens for<br>incoming TCP socket<br>connections to register and send<br>XMPP events. Unified CCX<br>uses this port to receive social<br>contact events.                                      |
| Eventing and<br>chat (BOSH)                                       | Port 7071   |  |                                | Bidirectional   | The unsecure BOSH connection<br>supports eventing and chat<br>communication between the<br>SocialMiner user interface and<br>the SocialMiner server.   |

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port   | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|--|--|--------------------------------|----------------------|--|
| Eventing and<br>chat (secure<br>BOSH)               | Port 7443 is<br>used for secure<br>BOSH<br>connections to<br>the XMPP<br>eventing<br>server. |  |                                | Bidirectional        | The secure BOSH connection<br>supports eventing and chat<br>communication between the<br>SocialMiner user interface and<br>the SocialMiner server. |



# **Port Utilization in Unified Intelligence Center**

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### **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; or listening on the remote protocol and port.

#### **Remote Protocol and 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.



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.

# **Unified Intelligence Center Port Utilization**

Table 29: Web Requests to Cisco Unified Intelligence Center and Operation Administration Maintenance and Provisioning (OAMP)

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes                                  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| Unified<br>Intelligence<br>Center                   | TCP 8081                         | Browser  |                                |                      | HTTP - Unified Intelligence<br>Center  |
|   | TCP 8444                         | Browser  |                                |                      | HTTPS - Unified Intelligence<br>Center |

#### Table 30: Intracluster Ports Between Cisco Unified Intelligence Center

| Listener<br>(Process or<br>Application<br>Protocol) | Listener<br>Protocol and<br>Port | Remote Device (Process or<br>Application Protocol) | Remote<br>Protocol and<br>Port | Traffic<br>Direction | Notes  |
|---|----------------------------------|--|--------------------------------|----------------------|--|
| Platform (DB)                                       | TCP 1500 -<br>1501               | Platform (DB)                                      |                                |                      | IDS access and replication (but not open to external access) |
| CUIC<br>Reporting<br>Process                        | UDP 54327<br>(Multicast)         | Unified Intelligence Center<br>node                |                                |                      | Hazelcast Discovery  |
| CUIC<br>Reporting<br>Process                        | TCP 57011                        | Unified Intelligence Center<br>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