Port Utilization in CVP

Unified CVP Port Utilization

Table 1: Cisco Unified Customer Voice Portal Port Utilization

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
TCP	2000-2002			Bi-directional	Call Manager and gateway interface communication
Call Server JMX	2098	JConsole	Random	Bi-directional	JMX access by JConsole into Call Server
Call Server JMX RMI port	2097	JConsole	Random	Bi-directional	JMX access by JConsole into Call Server
WSM JMX	TCP 10002	JConsole	Random	Bi-directional	JMX access by JConsole into WSM
WSM JMX RMI	TCP 10003	JConsole	Random	Bi-directional	JMX access by JConsole into WSM
OAMP JMX	TCP 10001	JConsole	Random	Bi-directional	JMX access by JConsole into OAMP
OAMP JMX RMI	TCP 10000	JConsole	Random	Bi-directional	JMX access by JConsole into OAMP
CVP Messaging Layer	TCP 23000 - 28000 (First available)	CVP Subsystem		Bi-directional	CVP Message Bus communications

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
7960-CUVA Video	UDP 5445	7960-CUVA		Bi-directional	Cisco 7960-CUVA Video Phone
CVP SIP Subsystem, SIP Proxy Server, Gateway, Unified CM: SIP (Session Initiation Protocol)	UDP 5060 TCP 5060 TLS 5061	SIP endpoints	Local / Remote between CVP components	Bi-directional	Listen port for incoming SIP requests. Port is configurable.
SIP Heartbeat Local Listen Port	UDP 5067 TCP 5067 **Note** This port must be different from the default SIP port which is 5060/5061 (see aforementioned row).	SIP endpoints	Random	Bi-directional	Listen port for incoming Heartbeat.
VXML Server: HTTP	TCP 7000	IOS VXML gateways/VVB	Random	Bi-directional	VXML over HTTP. Calls/sessions answered on port 7000 by HTTP server which relays request to WAS on local system port 9080.
VXML Server: HTTPS	TCP 7443	IOS VXML gateways/VVB	Random	Bi-directional	VXML over HTTPS. Calls/sessions answered on port 7443 by HTTPS server.
VXML Server with Tomcat	TCP 7005	Local machine		Bi-directional	Port restricted to local access only
	TCP 7009			Bi-directional	AJP/1.3 Connector
VXML Server JMX	TCP 9696	JConsole		Bi-directional	JMX access by JConsole into VXML Server
VXML Server JMX RMI port	TCP 9697	JConsole	Random	Bi-directional	JMX access by JConsole into VXML Server

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
VXML Server	TCP 10100	Local VXML Server Administration Scripts		Bi-directional	Port restricted to local access only
CVP Call Server Tomcat: HTTP	TCP 8000	Browser	Random	Bi-directional	HTTP
CVP Call Server Tomcat: HTTPS	TCP 8443	Browser	Local / Remote Random	Bi-directional	HTTPS
CVP IVR Server	TCP 8002	VXML Server		Bi-directional	Message over TCP
CVP Call Server: HTTP	TCP 8005			Bi-directional	Port restricted to local access only
CVP OPSConsole: HTTP	TCP 9000	Web Browser	Random	Bi-directional	Web-based interface for configuring CVP components
CVP OPSConsole: HTTPS	TCP 9443	Web Browser	Random	Bi-directional	Web based interface for configuring CVP components with SSL
CVP OPSConsole	TCP 9005	Local machine		Bi-directional	Port restricted to local access only
CVP OPSConsole	TCP 9009			Bi-directional	AJP/1.3 Connector
CVP OPSConsole	TCP 1529	Local machine		Bi-directional	Port restricted to local access only
CVP Resource Manager FTP Server	TCP 21	Content Services Switch	Random	Bi-directional	Only opened by Resource Manager residing on the same machine as the CVP OPSConsole
CVP Resource Manager	TCP 2099	CVP OPSConsole	Random	Bi-directional	JMX communication from OPSConsole to CVP Resource Manager on remote device

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
CVP Resource Manager RMI Port	TCP 3000	CVP OPSConsole	Random	Bi-directional	JMX communication from OPSConsole to CVP Resource Manager on remote device
CVP Resource Manager Java Service Wrapper	TCP 32000 - 32999 (first available)	JVM instance launched by wrapper	Random	Bi-directional	CVP Resource Manager Service Wrapper will no longer accept connections after the first JVM instance is connected.
MRCP V1 (RTSP)	TCP 554	VXML gateway			MRCP session between gateway voice browser and MRCP server. This is the signaling path; the media path uses RTP. Also, Helix streaming audio/ ASR/TTS (MRCP/RTSP)
MCRP V2 (SIP)	TCP 5060	VXML gateway			MRCP session between gateway voice browser and MRCP server. This is the signaling path; the media path uses RTP.
CVP SNMP SubAgent	UDP 5517, 5519, 5521, 5523, 5525, 5527, 5529, 5531, 5533, 5535, 5537, 5539, 5541, 5543, 5545, 5547, 5549, 5551, 5553, 5555	CVP SNMP subsystem		Bi-directional	CVP SNMP SubAgent services local requests from CVP SNMP subsystem
CVP SNMP subsystem	UDP 5516, 5518, 5520, 5522, 5524, 5526, 5528, 5530, 5532, 5534, 5536, 5538, 5540, 5542, 5544, 5546, 5548, 5550, 5552, 5554	CVP SNMP SubAgent		Bi-directional	CVP SNMP subsystem services local requests from CVP SNMP SubAgent

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
CVP ICM Subsystem	TCP 5000	IPCC Enterprise VRU CTI (ICM/IVR message interface)	Random	Bi-directional	Between CVP ICM Subsystem (Call Server) and Unified CCE/ICM VRU PG. Port is configurable.
Web Server: HTTP	TCP 80	Voice Browsers	Random	Bi- directional	Voice browsers fetches media and "External VXML" files from media server. This port is configurable.
Web Server: HTTPS	TCP 443	Voice Browsers	Random	Bi- directional	Voice browsers fetches media and "External VXML" files from media server. This port is configurable.
IBM Informix	TCP 1526	CVP Reporting Subsystem	Random	Bi-directional	Database Connection
IBM Informix Storage Manager	TCP 7939 - 7942 TCP 111	IBM Informix		Bi-directional	IBM Informix Storage Manager Services
IBM WAS Console	TCP 9043, 9060	IBM Informix	Random for remote desktop	Bi-directional	
CVP Web Services Manager: HTTP/HTTPS	TCP 8101, 8110, 8111 TCP 10000, 10001, 10002, 10003	Unified System CLI, Diagnostic Portal, Custom Agent Desktop	Random	Bi-directional	REST Web Services TCP 10000, 10001, 10002, 10003 OAMP ports are used for transferring data related to the configuration and administration of VXML Server and Call Server.

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
CVP OPSConsole	TCP 443	Hybrid Services on Cloud	Random	Bidirectional	Following URLs must be included in the allowed list of network : *.wbx2.com *.ciscoccservice.com

Table 2: Network Management and Remote Administration

Listener (Process or Application Protocol)	Listener Protocol and Port	Remote Device (Process or Application Protocol)	Remote Port	Traffic Direction	Notes
SNMP Primary Agent	TCP 7161	Local SNMP subagents		Bi-directional	SNMP Primary Agent listens for TCP connections from local SNMP subagents.
SNMP–Trap	UDP 162	SNMP Primary Agent	Random	Bi-directional	SNMP Primary Agent sends SNMP traps to SNMP management application.
Syslog	UDP 514		Random	Bi-directional	Syslog protocol provides a transport to allow a machine to send event notification messages across IP network to event message collectors. Port is configurable.
Telnet	TCP 23				
RDP (Terminal Services)	TCP 3389		Random	Bi-directional	
pcAnywhere	TCP 5631 UDP 5632				
VNC	TCP 5900 TCP 5800				

Table 3: Windows Authentication and Remote Administration Ports

Listener (Process or Application Protocol)	Listener Protocol and Port	Notes
RPC	TCP 135	
NetBIOS Session	TCP 139	
NetBIOS NameResolution	TCP 137 UDP 137	
NetBIOS Netlogon/Browsing	UDP 138	
SMB	TCP 445 UDP 445	Microsoft CIFS
DNS	TCP 53 UDP 53	
optima-vnet	TCP 1051	TCP Optima VNET
optima-vnet	UDP 1051	UDP Optima VNET

Note

- Ephemeral loopback client ports may be opened locally for CVP services to talk to port 1529 for communications with Derby database.

- Similarly, ephemeral loopback client/server ports may be opened locally by CVP services for internal calls.

- Ephemeral loopback client ports may also be opened by local subagents for talking to the SNMP primary agent running on port 7161.

The above ports are closed when the services concerned are shut down.

From a security perspective, it is recommended to review the ports opened by the underlying Windows operating system or other services running on a machine and close all ports except those required for system operation.

Note

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