



# Requirements

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## System Requirements



**Important**

Each of the components listed in the following table must meet the requirements. Use of unsupported components can result in a nonfunctional deployment.

Component	Requirements
Microsoft Windows-based thin client hardware	<ul style="list-style-type: none"><li>• Installed RAM 2 GB</li><li>• Free Physical Memory 128 MB</li><li>• Free Disk Space 256 MB</li><li>• CPU Mobile AMD Sempron Processor 3600+, 2-GHz Intel Core 2 CPU, or T7400 2.16 GHz</li><li>• DirectX 11 compatible GPU</li><li>• USB 2.0 for USB camera and audio devices</li></ul>

Component	Requirements
Microsoft Windows-based thin client OS	<ul style="list-style-type: none"> <li>• Microsoft Windows 7 32 bit</li> <li>• Microsoft Windows 7 64 bit</li> <li>• Microsoft Windows 8 32 bit</li> <li>• Microsoft Windows 8 64 bit</li> <li>• Microsoft Windows 8.1 32 bit</li> <li>• Microsoft Windows 8.1 64 bit</li> <li>• Microsoft Windows 10 32 bit</li> <li>• Microsoft Windows 10 64 bit</li> <li>• Windows Thin PC 32 bit</li> </ul> <p><b>Note</b> Cisco Virtualization Experience Media Edition (VXME) for Windows does not require the Microsoft .NET Framework or any Java modules.</p>
Windows Embedded Standard-based thin client hardware	<ul style="list-style-type: none"> <li>• Installed RAM 2 GB</li> <li>• Free Physical Memory 128 MB</li> <li>• Free Disk Space 256 MB</li> <li>• CPU performance affects the maximum video resolution. With Windows Embedded Standard thin clients, the expected resolution depends on the CPU: <ul style="list-style-type: none"> <li>◦ Up to 720p with quad-core AMD GX-420CA SOC 2 GHz or similar</li> <li>◦ Up to 240p with dual-core AMD G-T56N 1.65 GHz or similar</li> <li>◦ Audio-only support with dual-core VIA Eden X2 U4200 1 GHz or similar CPU</li> </ul> </li> </ul> <p><b>Note</b> These hardware specifications are only guidelines for the expected resolutions. Other factors can affect video resolution.</p> <ul style="list-style-type: none"> <li>• DirectX 11 compatible GPU</li> <li>• USB 2.0 for USB camera and audio devices</li> </ul>

Component	Requirements
Windows Embedded Standard-based thin client OS	<ul style="list-style-type: none"> <li>• Windows Embedded Standard 7 32 bit</li> <li>• Windows Embedded Standard 7 64 bit</li> <li>• Windows Embedded Standard 8 64 bit</li> </ul> <p><b>Note</b> Cisco Virtualization Experience Media Edition (VXME) for Windows does not require the Microsoft .NET Framework or any Java modules.</p>
Hosted virtual desktop OS (server-side)	<ul style="list-style-type: none"> <li>• Microsoft Windows 7 32 bit</li> <li>• Microsoft Windows 7 64 bit</li> <li>• Microsoft Windows 8 32 bit</li> <li>• Microsoft Windows 8 64 bit</li> <li>• Microsoft Windows 8.1 32 bit</li> <li>• Microsoft Windows 8.1 64 bit</li> <li>• Microsoft Windows 10 32 bit</li> <li>• Microsoft Windows 10 64 bit</li> </ul>
Connection broker for the hosted virtual desktop	<ul style="list-style-type: none"> <li>• Citrix XenDesktop 7.1, 7.5, or 7.6</li> <li>• Citrix Xenapp 6.5, 7.5 or 7.6—Published desktops only</li> <li>• VMware Horizon View 5.3—Published desktops only</li> <li>• VMware Horizon 6.0 (with View)—Published desktops only</li> <li>• VMware Horizon 6 version 6.1.0—Published desktops only</li> </ul>
Receiver or client (on the thin client)	<p>Citrix Receiver (ICA) for Windows (Receiver Version and Installer Version): 4.3.100/14.3.100</p> <p>VMware Horizon Client for Windows (32 or 64 bit): 3.5.2</p> <p><b>Important</b> Before you install Cisco VXME Client, install the Citrix Receiver or VMware Horizon Client on the thin client.</p> <p>If you upgrade your Citrix or VMware product, or change from a Citrix environment to a VMware environment, reinstall the Cisco VXME Client.</p>

Component	Requirements
Cisco Unified Communications client on the hosted virtual desktop: <ul style="list-style-type: none"> <li>• Cisco Jabber for Windows</li> </ul>	Cisco Jabber for Windows 11.5 running on the hosted virtual desktop (HVD). Cisco VXME is compatible with all future 11.5(X) Cisco Jabber for Windows versions. For complete information about virtual environment compatibility, see the <i>Virtual Environments</i> section in the <i>Installation and Configuration Guide for Cisco Jabber for Windows</i> for your release.
Windows Server (Required for Citrix XenApp)	<b>Citrix Xenapp 6.5</b> <ul style="list-style-type: none"> <li>• Microsoft Windows Server 2008 R2</li> <li>• Windows Server 2008 R2 SP1</li> </ul> (Standard, Enterprise, Datacenter, and Foundation) <b>Citrix Xenapp 7.5 or 7.6</b> <ul style="list-style-type: none"> <li>• Microsoft Windows Server 2008 R2 (Standard and Datacenter Editions)</li> <li>• Windows Server 2008 R2 SP1 (Standard, Enterprise, and Datacenter Editions)</li> <li>• Microsoft Windows Server 2012 (Standard and Datacenter Editions)</li> </ul>
Cisco Unified Communications Manager	Cisco Unified Communications Manager version 9.x or later
Accessories	For a complete listing of supported audio and video accessories, see <i>Unified Communications Endpoint and Client Accessories</i> , at <a href="http://www.cisco.com/c/en/us/products/unified-communications/uc_endpoints_accessories.html">http://www.cisco.com/c/en/us/products/unified-communications/uc_endpoints_accessories.html</a> . <b>Important</b> Ensure that all Jabra devices are running the latest firmware. You can use the Jabra Direct to update the firmware. For more information visit: <a href="http://www.jabra.com">http://www.jabra.com</a> .

## Port Requirements



### Note

The Cisco VXME Client installer does not add firewall rules. You may need to disable the Windows Firewall on the endpoints, or add an exception to allow Cisco VXME Client.

The following table lists the ports or port ranges used by Cisco Virtualization Experience Media Edition for Windows.

**Table 1: Port Usage**

Port	Description
69 and Ephemeral	<p>UDP Outbound traffic for TFTP</p> <p><b>Note</b> An ephemeral port is a short-lived transport protocol port for IP communications. IP software can allocate ephemeral ports automatically from a predefined range. The following protocols can use an ephemeral port assignment for the client end of a communication, to a well-known port on a server.</p> <ul style="list-style-type: none"> <li>• Stream Control Transmission Protocol (SCTP)</li> <li>• Transmission Control Protocol (TCP)</li> <li>• User Datagram Protocol (UDP)</li> </ul> <p>A well-known port is a port reserved by the Internet Corporation for Assigned Names and Numbers (ICANN) for assignment for specific applications.</p>
5060	TCP (default) or UDP Outbound traffic for Session Initiation Protocol (SIP) call signaling
5061	TCP Outbound traffic for Secure SIP call signaling
6970	TCP Outbound traffic for HTTP
16384–32767	<p>UDP Inbound and outbound traffic for RTP (audio and video streams)</p> <p>You can configure the Cisco Unified Communications Manager to reduce this port range. Change the <b>Start/Stop Media Port</b> setting in the SIP Profile, which is associated with the CSF device.</p>

**Important**

Cisco Virtualization Experience Media Edition uses the computer-telephony integration (CTI) protocol. Cisco Jabber for Windows on a hosted virtual desktop uses outbound TCP port 2748 to connect to the CTI gateway. The CTI gateway is the CTI Manager component of Cisco Unified Communications Manager.

For a complete listing of ports required by Cisco Jabber for Windows, see the planning guide for your release of Cisco Jabber.

## Supported Codecs

**Table 2: Supported Audio and Video Codecs**

Audio Codec	Video Codec
G.722	H.264/AVC

Audio Codec	Video Codec
G.722.1 (24 and 32k) G.722.1 is supported on Cisco Unified Communications Manager 8.6.1 or later.	
G.711 A-law	
G.711 u-law	
G.729a	
Opus Opus is supported on Cisco Unified Communications Manager 11.0 or later.	