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Solutions - READ FIRST

If you are deploying virtualized Cisco Collaboration as part of one of the following solution offers, you must visit the link for that solution first before reading further.

- ◇ [Cisco Business Edition 6000 \(BE6000\)](#)
- ◇ [Cisco Business Edition 7000 \(BE7000\)](#)
- ◇ [Cisco Hosted Collaboration Solution \(HCS\)](#)
- ◇ [Cisco Packaged Contact Center Enterprise \(PCCE\)](#)

Hardware and Virtualization Software Requirements

The following are requirements common to all applications. See each application's page for additional requirements or restrictions.

Details on Supported / Required **Hardware** [can be found here.](#)

Details on Supported / Required **Virtualization Software** [can be found here.](#)

How To...

[How to Design](#)

[How to Buy](#)

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At a Glance - Cisco Collaboration Virtualization Support

The table below is for convenience and is a **snapshot summary only**. When in doubt or if there is a conflict, **check the product details page** by clicking on the product name.

For a given application, this table only summarizes the indicated version (which is usually the latest version in a Unified Communications System Release Set).

For **older versions or unlisted versions**, **check the product details page** by clicking on the product name.

 **Caution: Virtualized deployments of Cisco Collaboration must align with the criteria described in this wiki space to be TAC-supported. For other TAC support details, see [the TAC Tech Notes on this page \(click here\)](#) .**

Cisco Collaboration Application (click for product details page and older versions)	Latest Version Summarized Here	Preloaded with Business Edition?	Latest Supported Version of Virtualization Software	Co-residency Policy	Supported Hardware (L	
					UC on UCS Tested Reference Configurations (TRCs)	"Full" Performance CPUs UC on Specs-b or 3rd-p Specs-b
Click here for a Legend						
Unified Communications						
Cisco Unified Communications Manager (CUCM)	10.5(2)	Yes	5.5	Full	All	All
Cisco Paging Server	9.1(1)	Yes	5.5	Full	All	All
Cisco Unified Communications Manager = Session Management Edition (SME)	10.5(2)	No	5.5	Full	Some - see details page	All
Cisco Unified Communications Manager = IM & Presence (CUCM IM&P)	10.5(2)	Yes	5.5	Full	All	All
Cisco Unity Connection (CUC)	10.5(2)	Yes	5.5	Full	All	All but GHz var see detail
Cisco Emergency Responder (CER)	10.5(1)	Yes	5.5	Full	All	All
Cisco Unified Attendant Consoles	10.5	Yes	5.5	Full	All	All

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(CUxAC)						
<u>Cisco Expressway</u> (Expressway-C, Expressway-E)	X8.5	Yes	5.5	Full	All Small/Medium	All
<u>Cisco Jabber Guest Server</u>	10.0	No	5.5	Full	Most - see details page	All
Conferencing						
<u>Cisco TelePresence</u> <u>Server</u> Virtual Machine (vTS)	4.1	Yes	5.5	Full	Some - see details page	Some - details p
<u>Cisco TelePresence Video</u> <u>Communication Server</u> (VCS-C and VCS-E)	X8.5	Yes	5.5	Full	All for Small/Medium	All
<u>Cisco TelePresence</u> <u>Conductor</u>	XC3.0	Yes	5.5	Full	All	All
<u>Cisco TelePresence</u> <u>Management Suite</u> (TMS)	TMS 14.6 TMSXE 4.1 TMSPE 1.4	Yes	5.5	Full	All	Most - details p
<u>Cisco TelePresence</u> <u>Content Server</u> (TCS)	6.2	BE6000 only	5.5	None	Some - see details page	Most - details p
<u>Cisco WebEx Meetings</u> <u>Server</u> (CWMS)	2.5	No	5.5	Limited - see details page	Some - see details page	All (UCS har only)
Customer Collaboration						
<u>Cisco Unified Contact</u> <u>Center Express</u> (CUCCX)	10.6	Yes	5.5	Full	All	All
<u>Cisco Unified Work Force</u> <u>Optimization Suite</u> for CUCCX (WFO for CUCCX)	10.5	No	5.5	Full	All	All
<u>Cisco Unified IP IVR</u> (IP IVR)	10.6	Yes	5.5	Full	All	All
<u>Cisco Unified Contact</u> <u>Center Enterprise</u> (CUCCE)	10.5	No	5.5	Limited - see details page	Depends on component and deployment model - see details page	All
<u>Cisco Unified Intelligence</u> <u>Center</u> (CUIC)	10.5	No	5.5	Full	Most - see details page	All
<u>Cisco Unified Contact</u> <u>Center Management</u> <u>Portal</u> (CCMP)	10.5	No	5.5	Full	Most - see details page	All
<u>Cisco Unified Customer</u> <u>Voice Portal</u> (CUCVP)	10.5	No	5.5	Full	Most - see details page	All

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<u>Cisco MediaSense</u>	10.5	No	5.5	Full	All	All
<u>Cisco SocialMiner</u>	10.6	No	5.5	Full	Most - see details page	All
<u>Cisco Finesse</u>	10.5	No	5.5	Full	Most - see details page	All
<u>Cisco Unified Email Interaction Manager - Web Interaction Manager</u>	9.0	No	5.5	Full	Most - see details page	All
System Management						
<u>Cisco Prime Collaboration Provisioning (PCP)</u>	10.6	Yes	5.5	Full	All	All
<u>Cisco Prime Collaboration Assurance (PCA)</u>	10.6	No	5.5	Full	Most - see details page	Most - details p
<u>Cisco Prime Collaboration Deployment (PCD)</u>	10.5(2)	No	5.5	Full	All	All
<u>Cisco Prime License Manager (PLM)</u>	10.5(2)	No	5.5	Full	All	All
Older Products						
<u>Cisco Unified Presence (CUP)</u>	8.6(4)	BE6000 8.x only	5.1	Full	All	All
<u>Cisco Intercompany Media Engine (IME)</u>	9.0	No	5.5	Full	All except TRCs of size "Small"	All
<u>Cisco Unity</u>	7.0(2)+	No	5.1	Full (but requires CPU Affinity)	All except TRCs of size "Small"	All
<u>Cisco Unified Communications Management Suite (CUOM, CUPM, CUSM, CUSSM)</u>	8.7	No	5.0	Full	Most - see details page	Most - details p
<u>Cisco Prime Unified Communications Management Suite (Prime UOM, UPM, USM)</u>	1.2	No	5.0	Full	Most - see details page	Most - details p
<u>Cisco TelePresence Manager (CTS-Man)</u>	1.9.0	No	5.0	Limited - see details page	None (some older TRCs only)	Some details p
<u>Cisco TelePresence Multi-point Switch (CTMS)</u>	1.9.0	No	5.0	Limited - see details page	None (some older TRCs only)	Some details p
<u>Cisco TelePresence Management Server</u>	n/a (hardware product)		n/a - virtualization not supported (hardware product)			

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(TMS prior to TelePresence Management Suite)

Cisco TelePresence Exchange (CTX)

1.2

No

5.0

None

See Release Notes for supported hardware

Not supp

Cisco Unified MeetingPlace (CUMP)

8.5

No

5.0

None

Some - see details page

Not supp

Change Tracking and Comments

To be **notified when changes are made to this page**:

1. Log in.
2. Click the **watch** tab at the top of the page.

To **ask a question, post a comment, or discuss an issue** regarding content on this wiki space:

1. Log in.
2. Navigate to the wiki article/page in question.
3. Click the **Leave a Comment** tab at the top of the page
4. Edit the Leave a Comment page as described above under Editing
5. To start a different thread under a new subheading on the Leave a Comment page, click the **+** tab at the top of the page instead of the Edit tab.

To **communicate with Cisco or your peers** on Cisco Collaboration support for virtualization, OS and servers:

- Participate in the Cisco Collaboration Community at <http://www.cisco.com/go/joinconversation>.

How to Design

Use the following as a "workflow" to arrive at a design.

- Start with sizing the UC apps by using the following links. This will determine which Collaboration apps you need, compatible versions and for each app how many UC virtual machines are needed and which virtual machine configurations to use.

- ◇ [Cisco Unified Communications System Releases](#)
- ◇ [Cisco Unified Communications Design Guide](#)
- ◇ [Cisco Unified Communications Sizing Tool \(UCST\)](#)

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◇ [Netformx DesignXpert](#) (including UC Advisor and UCS Advisor)

- Next, determine your virtual machine placement by using the following links. This will determine how many physical servers you need and which VMs will go on which physical servers.

◇ For a "wizard" approach, use the [Cisco Collaboration Virtual Machine Placement Tool](#) (remember to read the caveats of what this tool does NOT do for you).

◇ For a "manual" approach, use the following links:

- [Unified Communications Virtualization Sizing Guidelines](#)

◇ Allowed co-residency policies of applications that you want to share a physical server

◇ Virtual-to-Physical sizing rules for each app

- Support policies in the product details pages (see At a Glance table at the top of this page).

◇ Correct application versions for virtualization support

◇ Supported virtualization software (vendors, products, versions)

◇ [Supported hardware options](#), and which virtual machine configurations are supported for different hardware options



Note: Mixed deployments of virtual, nonvirtual, Cisco-provided, and customer-provided servers are supported provided you follow all design guide rules, sizing tool rules and support policy rules on this site.

- Next, pick the virtualization software (vendor, product, version, license option) using the following links.

◇ [Unified Communications VMware Requirements](#)

◇ Remember to verify all UC app VMs sharing a physical server can support the same version.

- Next, use the following links to see if you have any network considerations for LAN, QoS or storage access, or any DAS/NAS/SAN storage hardware design considerations.

◇ [LAN and QoS Design](#)

◇ [Storage System Design and IOPS](#)

How to Buy

Cisco Channel Partners with appropriate certifications can consult [the ordering guides](#) for Collaboration applications, virtualization software and packaged offers like Business Edition 6000 and Business Edition 7000.

How to Deploy

Use the following if deploying a packaged collaboration solution:

- [Cisco Business Edition 6000 Install and Upgrade Guides](#)
- [Cisco Business Edition 7000 Install and Upgrade Guides](#)

Unified_Communications_in_a_Virtualized_Environment

Use the following if you are deploying a UC on UCS Tested Reference Configuration:

- [Hardware Setup for UC on UCS Tested Reference Configurations](#) (supplement to Cisco UCS server hardware documentation)

Use the following for general considerations for any virtualized deployment:

- [General Considerations for Implementing Virtualized Cisco Collaboration](#)
- [License Activation for OEM Virtualization Software vs. Cisco Collaboration apps](#) (see also documentation for Cisco Enterprise License Manager 9.x or Cisco Prime License Manager 10.x)

How to Operate

- [Ongoing Virtualization Operations and Maintenance](#)

How to Troubleshoot

- [Troubleshooting and Performance Monitoring Virtualized Environments](#)
 - ◆ Considerations for Cisco TAC support may be found in these Troubleshooting TechNotes:
 - ◇ [Document ID #113520](#) (3rd-party application co-residency)
 - ◇ [Document ID #115955](#) (hardware support and application performance)

Links to Older Support Information

Some older products and releases have their information in the links below.

General policies: (check these first, then see product-specific links following this list for exceptions)

- ◇ VM configuration options and download links at [Virtual Machine OVA Templates for UC apps](#)
- ◇ Supported Hardware options by App Version at [Supported Apps and Versions](#)
- ◇ Support VMware versions at [Supported VMware products, versions and features](#)
- ◇ Co-residency support at [Application Co-residency and Virtual/Physical Sizing](#)
- ◇ Network requirements and Storage IO requirements at [LAN and QoS Design](#) and [Storage System Design and IOPS](#)

Application-specific exceptions to general policies above:

- [Cisco Unified MeetingPlace\[1\]](#)