

 **Note:** The information for Unified IP-IVR is the same as Unified CCX.

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## Updates to this Page

The following is a list of significant updates to this page:

Date	Update
April 2013	Clarified Disable LRO requirement.
September 2012	Added Section - New Identity Support for UCCX 9.0.2
July 2012	Added WFO 9.0 virtualization
June 2012	Virtualization support for Release 9.0(1).
July 2011	<ul style="list-style-type: none"> <li>• Removed the <i>Virtualization Support for Cisco Unified Workforce Optimization (WFO) in Unified CCX 8.5</i> section.</li> <li>• Added the <i>Virtualization Support for Cisco Unified Workforce Optimization (WFO) 8.5.2 in Unified CCX 8.5</i> section.</li> <li>• Added the <i>Virtualization Support for Cisco Unified Workforce Optimization (WFO) 8.5.1 in Unified CCX 8.5</i> section.</li> </ul>
May 2011	<ul style="list-style-type: none"> <li>• Updated the <i>Unified CCX-Specific Information for OVA Templates</i> section.</li> <li>• Added the <i>Resource Reservation</i> section.</li> </ul>
March 2011	Updated the <i>Unified CCX-Specific Information for OVA Templates</i> section.
January 2011	<ul style="list-style-type: none"> <li>• Updated the <i>Unified CCX-Specific Information for OVA Templates</i> section.</li> <li>• Updated Virtualization support for Release 8.5(1) and 8.0(x). Replaced table with text.</li> </ul>
December	Virtualization support for Release 8.5(1).

2010


April 2010      Virtualization support for Release 8.0(2).

## Information for Partners about Unified CCX or IPIVR Deployments

See [High-level Checklist for Design and Implementation](#).

### Unified CCX OVA Support for Different Hardware

Unified CCX 8.5(1) and 9.0(1) supports 3 OVAs:

- 100-agent OVA. See [Unified Communications Virtualization Supported Applications](#) for supported server models.  
 **Note:** On the C200M2, CCX supports up to four CCX VMs using 100-agent OVA
- 300-agent OVA. See [Unified Communications Virtualization Supported Applications](#) for supported server models.
- 400-agent OVA. See [Unified Communications Virtualization Supported Applications](#) for supported server models.


Co-residency guidelines for CCX are described on [UC Virtualization Sizing Guidelines](#).

## Unified CCX or IPIVR-Specific Details for VMWare Requirements

See [Hypervisor Support for Virtualized UC \(Vendors, Products, Versions, Editions\)](#).

## Virtual Machine(VM)-Specific Unified CCX or IPIVR Hardware Requirements

The following Unified Communications System Hardware are the newly added servers for Unified CCX 8.5(1) and later:

 **Note:** These servers are also supported for Unified CCX 9.0(1).

- Unified Computing System B200 M1 TRC #2 and B200 M2 TRC #2 servers
- Unified Computing System B230 M2 and B440 M2 Blade Server
- Unified Computing System C200 M2 Server
- Unified Computing System C210 M2 Server
- Unified Computing System C260 M2 Server

See [Unified Computing System Hardware](#) for detailed information on these hardware models as well as [Unified Communications Virtualization Supported Applications](#) for the full server hardware models supported by Unified CCX.

## Virtual Machine(VM)-Specific Unified CCX or IPIVR Software Requirements

See [VMware Infrastructure Feature Support](#) .



Note: Span based Silent Monitoring on UCS B-series is not supported

## Resource Reservation

The Resource Reservation has been enabled for all the three Unified CCX Profiles wherein any one of the Unified CCX Profile can be deployed through the single OVA. The Unified CCX 8.5(1) and 9.0(1) has been successfully qualified with vCPU reservations at 900 MHz per vCPU.

Resource reservation helps us to achieve the most optimum levels of utilization of underlying physical resources of ESXi 4.1 and ESXi 5.0 qualified Cisco/HP/IBM servers either when Unified CCX VM has been deployed with multiple instances of other Unified CCX VM or co-resident with any other Unified Communications application VMs on the same server.

The resource reservation helps the user to confine the VMs to respective resources and also helps to achieve the highest possible level of utilization of underlying physical resources as long as the sum of all the VM resources are not oversubscribed.

## Unified CCX or IPIVR-Specific Information for OVA Templates

Any of the three Unified CCX profiles 100, 300, or 400 can be deployed using a single OVA template.

Click [here](#) to download the latest OVA Templates Information for Unified CCX.

The support for VMware vSphere ESXi 5.0 as hypervisor on Cisco Servers and boot from SAN have been enabled for Unified CCX 9.0(1).

As support for VMware vSphere ESXi 4.1 as hypervisor on Cisco Servers and boot from SAN have been enabled for Unified CCX 8.0(2) SU2, Unified CCX 8.5(1), and Unified CCX 9.0(1); you can host Unified CCX 8.0(2) SU2, 8.5(1), and 9.0(1) Virtual Machine (VM) on ESXi 4.1.

**Follow the procedure mentioned below if you are using Unified CCX 8.0(2) currently:**

- Upgrade to Unified CCX 8.0(2) SU2 or higher
- Disable the LRO (Large Receive Offload)
- Download the appropriate OVA version 2 files from [OVA Templates Information for Unified CCX](#) depending on the sizing guidelines and requirements mentioned at [Unified CCX OVA Support for Different Hardware](#)
- Upgrade VMware tools using the cop file *ciscocm.vmtoolsUpgrade4.1-8.3.2-257589-v14.cop.sgn*

**Follow the procedure mentioned below if you are using Unified CCX 8.5(1) currently:**

- Disable the LRO (Large Receive Offload)
- Download the appropriate OVA version 2 files from [OVA Templates Information for Unified CCX](#) depending on the sizing guidelines and requirements mentioned at [Unified CCX OVA Support for Different Hardware](#)

- Upgrade VMware tools using the following CLI commands in Unified CCX 8.5(1) or higher:
  - ◆ *"utils vmware upgrade?*
  - ◆ *?utils vmware status?*

**Follow the procedure mentioned below if you are using Unified CCX 9.0(1) currently:**

- LRO is not required to be disabled. See [Disable LRO](#) for further information.
- Download the appropriate OVA version 3 files from [OVA Templates Information for Unified CCX](#) depending on the sizing guidelines and requirements mentioned at [Unified CCX OVA Support for Different Hardware](#)
- Upgrade VMware tools using the following CLI commands in Unified CCX 9.0(1):
  - ◆ *"utils vmware upgrade?*
  - ◆ *?utils vmware status?*

## Unified CCX or IPIVR-Specific Information for Sizing Guidelines

See [OVA Templates Information for Unified CCX](#) for detailed information on sizing guidelines for Unified CCX.

## UCS Network Configuration

See [Unified Communications Virtualization Downloads \(including OVA/OVF Templates\)](#).

## Performance Requirements

See [Datasheet for Cisco Unified Contact Center Express 8.5](#) for detailed information on performance requirements.

## Unified CCX or IPIVR-Specific VM Installation Information

### Migrating to Unified CCX Release 8.5(1) or 9.0(1) from Physical to Virtual Server

To migrate to Unified CCX Release 8.5(1) or 9.0(1) from a physical server to a virtual server, follow the steps in the table below.

Task	Reference
Perform a complete backup of Unified CCX 8.5(1) or 9.0(1) on bare metal server and store the backup TAR file at a safe SFTP network location. Shutdown the server.	Refer to the <a href="#">Managing Backup Devices</a> section in the Disaster Recovery System Administration Guide for Cisco Unified CCX and Cisco Unified IP IVR.
Install ESXi on any one of the Unified CCX Supported Hardware for Virtualization as mentioned above.	Refer to the VMware documentation to install VMware ESXi.
See <a href="#">ESXi Support for Contact Center Applications</a> for ESXi version support information.	See <a href="#">ESXi Support for Contact Center Applications</a> for ESXi version support information.

## Virtualization\_for\_Unified\_CCX

Deploy VMs from the templates mentioned above.	Refer to the Readme with the <a href="#">Unified CCX virtual machine template</a> .
Perform fresh installation of Unified CCX 8.5(1) or 9.0(1) on the VM with the same network and platform settings of the baremetal server.	Refer to the <a href="#">Installation Guide</a> for Cisco Unified CCX and Cisco Unified IP IVR.
Log in to the Disaster Recovery System with Platform Administrator credentials and perform the restore using the backup TAR archived in the first task.	Refer to the <a href="#">Restore Scenarios</a> section in the Disaster Recovery System Administration Guide for Cisco Unified CCX and Cisco Unified IP IVR.

**Note:** For detailed information on *Supported Virtualization Upgrade Paths to Unified CCX*, see [Software and Hardware Compatibility Guide for Cisco Unified CCX and Cisco Unified IP IVR](#).

## Virtualization Support for Cisco Unified Workforce Optimization (WFO) 9.0 in Unified CCX 9.0 & 8.5

Cisco WorkForce Management (WFM) and Compliance Recording (CR)/ Quality Manager (QM)/ Advanced Quality Managers (AQM) version 9.0 for Unified CCX 9.0 & 8.5 are certified to run on any Cisco UCS server with resources available to support this template. As such it can be co resident on the UCS platform with any number of other virtual machines running any other applications.

Cisco WFO Services supported for virtualization include:

? Cisco WFM 9.0 ? Complete system on one virtual server

? Cisco QM 9.0 Base Server ? All QM services except recording

? Cisco QM 9.0 Recording Server ? Recording services for QM Network (BIB) or Server (SPAN) recording

Note: Virtualizing the QM Monitor server for Server (SPAN) recording is not supported.

## Virtualization Support for Cisco Unified Workforce Optimization (WFO) 8.5.2 in Unified CCX 8.5

Cisco WorkForce Management (WFM) and Compliance Recording (CR)/ Quality Manager (QM)/ Advanced Quality Managers (AQM) version 8.5.2 in Unified CCX 8.5 are certified to run on any Cisco UCS server with resources available to support this template. As such it can be co-resident on the UCS platform with any number of other virtual machines running any other applications.

Cisco WFO Services supported for virtualization include the following:

- Cisco WFM 8.5.2 ? Complete system on one virtual server
- Cisco QM 8.5.2 Base Server ? All QM services except recording
- Cisco QM 8.5.2 Recording Server ? Recording services for QM Network (BIB) or Server (SPAN) recording



**Note:**

- No recording server is required for Desktop recording since recording is done by a service on each recorded user's PC therefore only the Base server is required.
- Network(BIB) or Server (SPAN) recording must be on separate virtual or physical servers as the option for running these services co-resident on the Base server for a small number of these users is not supported on the UCS platform.
- Virtualizing the Monitor server for Server (SPAN) recording is not supported on the UCS

platform.

## Virtualization Support for Cisco Unified Workforce Optimization (WFO) 8.5.1 in Unified CCX 8.5

Cisco WorkForce Management (WFM) and Compliance Recording (CR)/ Quality Manager (QM)/ Advanced Quality Managers (AQM) version 8.5.1 in Unified CCX 8.5 are certified to run on the Cisco UCS C210M1 or M2 platform, either as a standalone or in a co-residence configuration.

The following combination of VMs are supported for Cisco Unified Workforce Optimization (WFO) 8.5.1 in a co-residence deployment with Unified CCX 8.5 only:

- Unified CCX and Compliance Recording (CR)/ Quality Manager (QM)/ Advanced Quality Managers (AQM)
- Unified CCX and Cisco WorkForce Management (WFM)
- QM and WFM
- Unified CCX, QM, and WFM

## New Identity Support for Unified CCX or IPIVR 9.0(2)

Use this feature to quickly deploy new instances of Unified CCX.

In the current version, using this procedure you can deploy Publisher Node/First Node of a Unified CCX cluster only. Install the Subscriber Node/Second Node using the standard installation procedure.

Perform the following procedure to create the new identity:

1. Use the correct OVA to create a new VM for the Unified CCX virtual machine.
2. Use the standard installation process to install the Unified CCX product.
3. After the installation, do not perform any configuration. Convert the VM into a template.
4. Use that template to create a new virtual machine instance.
5. Power on the VM.
6. Use the Answer File Generator tool ([http://www.cisco.com/web/cuc\\_afg/index.html](http://www.cisco.com/web/cuc_afg/index.html)) to create a platformConfig.xml file.
7. Insert the XML file into a virtual floppy instance (for directions, see [http://kb.vmware.com/selfservice/microsites/search.do?language=en\\_US&cmd=displayKC&externalId=1739](http://kb.vmware.com/selfservice/microsites/search.do?language=en_US&cmd=displayKC&externalId=1739)).
8. Mount the .flp file in the floppy drive of the new VM.
9. Log in to the CLI of the VM (using the console or SSH) and run the command **?utils import config?**. The system reboots and restarts with the new identity.

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