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Version 10.5

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<u>Component & Capacity Point</u>	<u>Preloaded with Business Edition?</u>	<u>VM Configuration Requirements</u> <u>click to download OVA file for this version</u>				<u>Supported Hardware (Latest)</u>							<u>Sup</u>		
		<u>vCPU</u>	<u>vRAM</u>	<u>vDisk</u>	<u>vNIC</u>	<u>UCS Tested Reference Configurations</u> S is same as BE6000 MD S+ is same as BE6000 HD M includes BE7000						<u>UCS or 3rd-party Specs-based on Intel Xeon</u>		<u>UC 3rd-Party Sp bas Intel</u>	
						<u>S</u>	<u>S+</u>	<u>M</u>	<u>L</u>	<u>XL</u>	<u>2XL</u>	<u>Full UC Perf. CPU</u>	<u>Restricted UC Perf. CPU</u>	<u>S</u>	<u>M</u>

- Co-residency support = Full
- Supported Versions of VMware vSphere ESXi = 4.0, 4.1, 5.0, 5.1, 5.5 and later
- Click for "IOPS"

WFM 2vCPU See Notes	No	2	4 GB	1x60GB 1x50GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WFM 4vCPU See Notes	No	4	4 GB	1x60GB 1x100GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WFM 8vCPU See Notes	No	8	8 GB	1x60GB 1x100GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
QM Base Server 2vCPU (CR/QM/AQM) See Notes	No	2	4 GB	1x40GB 1x146GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
QM Base Server	No	4	4 GB	1x40GB 1x146GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

4vCPU (CR/QM/AQM) <u>See Notes</u>	No	6	6 GB	1x40GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
QM Base Server				1x146GB													
6vCPU (CR/QM/AQM) <u>See Notes</u>																	
QM Record Server	No	4	4 GB	1x40GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4vCPU (CR/QM/AQM) <u>See Notes</u>				1x146GB													
QM Record Server	No	6	6 GB	1x40GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6vCPU (CR/QM/AQM) <u>See Notes</u>				1x146GB													
QM Record Server																	

Version 10.0

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<u>Component & Capacity Point</u>	<u>Preloaded with Business Edition?</u>	<u>VM Configuration Requirements</u> click to download OVA file for this version				<u>Supported Hardware (Latest)</u>										
		<u>vCPU</u>	<u>vRAM</u>	<u>vDisk</u>	<u>vNIC</u>	<u>UCS Tested Reference Configurations</u> S is same as BE6000 MD S+ is same as BE6000 HD M includes BE7000						<u>UCS or 3rd-party Specs-based on Intel Xeon</u>		<u>UC 3rd-party Specs-based on Xeon</u>		
						<u>S</u>	<u>S+</u>	<u>M</u>	<u>L</u>	<u>XL</u>	<u>2XL</u>	<u>Full UC Perf. CPU</u>	<u>Restricted UC Perf. CPU</u>	<u>S</u>	<u>M</u>	<u>Sup</u>

- Co-residency support = Full
- Supported Versions of VMware vSphere ESXi = 4.0, 4.1, 5.0, 5.1
- Click for "IOPS"

WFM <u>See Notes</u>	No	2	8 GB	1x40GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
QM Base Server (CR/QM/AQM) <u>See Notes</u>				1x146GB													
QM Recording Server				1x40GB													
QM Base Server (CR/QM/AQM) <u>See Notes</u>	No	4	4 GB	1x146 GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
QM Recording Server				1x40GB													

(CR/QM/AQM)
See Notes

1x146
GB

Version 9.0

[Click here for a Legend](#)

<u>Component & Capacity Point</u>	<u>Preloaded with Business Edition?</u>	<u>VM Configuration Requirements</u> click to download OVA file for this version				<u>Supported Hardware (Latest)</u>							<u>Supp</u>		
		<u>vCPU</u>	<u>vRAM</u>	<u>vDisk</u>	<u>vNIC</u>	<u>UCS Tested Reference Configurations</u> S is same as BE6000 MD S+ is same as BE6000 HD M includes BE7000								<u>UCS or 3rd-party Specs-based on Intel Xeon</u>	<u>UCS 3rd-p Specs- on I Xe</u>
						<u>S</u>	<u>S+</u>	<u>M</u>	<u>L</u>	<u>XL</u>	<u>2XL</u>	<u>Full UC Perf. CPU</u>	<u>Restricted UC Perf. CPU</u>	<u>S</u>	<u>M</u>

- Co-residency support = Full
- Supported Versions of VMware vSphere ESXi = 4.0, 4.1, 5.0, 5.1
- Click for "IOPS"

WFM See Notes	No	2	4 GB	Optional 2nd vDisk - see notes	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
QM Base Server (CR/QM/AQM) See Notes	No	2	4 GB	1x40GB 1x146 GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
QM Recording Server (CR/QM/AQM) See Notes	No	4	4 GB	1x40GB 1x146 GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes

Version 8.5(2)

[Click here for a Legend](#)

<u>Component & Capacity Point</u>	<u>Preloaded with Business Edition?</u>	<u>VM Configuration Requirements</u> click to download OVA file for this version				<u>Supported Hardware (Latest)</u>							<u>Supp</u>
		<u>vCPU</u>	<u>vRAM</u>	<u>vDisk</u>	<u>vNIC</u>	<u>UCS Tested Reference Configurations</u>							

S is same as BE6000 MD
 S+ is same as BE6000 HD
 M includes BE7000

Specs-based on Intel Xeon

Specs-based on Intel Xeon

Full UC Perf. CPU

Restricted UC Perf. CPU

S M

- Co-residency support = Full
- Supported Versions of VMware vSphere ESXi = 4.0, 4.1, 5.0
- Click for "IOPS"

Component & Capacity Point	Preloaded with BE 6000?	vCPU	vRAM	vDisk	vNIC	S	S+	M	L	XL	2XL	Full UC Perf. CPU	Restricted UC Perf. CPU	S	M
WFM <u>See Notes</u>	No	2	4 GB	1x40GB Optional 2nd vDisk - see notes	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
QM Base Server (CR/QM/AQM) <u>See Notes</u>	No	2	4 GB	1x40GB 1x146 GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
QM Recording Server (CR/QM/AQM) <u>See Notes</u>	No	4	4 GB	1x40GB 1x146 GB	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes

Version 8.5(1)

[Click here for a Legend](#)

VM Configuration Requirements
[click to download OVA file for this version](#)

Supported Hardware (Latest)

Support

Component & Capacity Point	Preloaded with BE 6000?	vCPU	vRAM	vDisk	vNIC	UCS Tested Reference Configurations	UCS or 3rd-party Specs-based on Intel Xeon	UCS or 3rd-party Specs-based on Intel Xeon		
	No	2	2 GB		1	S is same as BE6000 MD S+ is same as BE6000 HD M includes BE7000	Full UC Perf. CPU	Restricted UC Perf. CPU	S	M
	No	2	2 GB		1	No	No	No	No	No

- Co-residency support = UC with UC only
- Supported Versions of VMware vSphere ESXi = 4.0 only
- Click for "IOPS"

WFM
[See Notes](#)

1x146
GB

Optional
2nd
vDisk
146 GB
- see
notes

QM Base Server
(CR/QM/AQM)
[See Notes](#)

No 2

2 GB

2x146 1
GB

No No No No No No No No No

Only:
C210;M2
TRC1,2
C210 M1
TRC1,2,3

Notes on WFM 10.5 VM Configuration

2 vCPU WFM 10.5 Server (WFM & SQL) VM Configuration

100 maximum concurrent users

300 maximum configured users

Multiple vDisks are used as follows:

- vDisk 1 = 60 GB minimum operating system, Cisco Unified Contact Center Express WFO WFM binaries
- vDisk 2 = 50 GB minimum SQL Server, SQL Server data files (recommended)

2 GB memory dedicated to SQL Server

Optional iCalendar Service can be installed

Total storage: WFM/SQL Server = 110 GB minimum

4 vCPU WFM 10.5 Server (WFM & SQL) VM Configuration

200 maximum concurrent users

600 maximum configured users

Multiple vDisks are used as follows:

- vDisk 1 = 60 GB minimum operating system, Cisco Unified Contact Center Express WFO WFM binaries
- vDisk 2 = 100 GB minimum SQL Server, SQL Server data files (recommended)

2 GB memory dedicated to SQL Server

Optional iCalendar Service can be installed

Total storage: WFM/SQL Server = 160 GB minimum

8 vCPU WFM 10.5 Server (WFM & SQL) VM Configuration

400 maximum concurrent users

1200 maximum configured users

Multiple vDisks are used as follows:

- vDisk 1 = 60 GB minimum operating system, Cisco Unified Contact Center Express WFO WFM binaries
- vDisk 2 = 200 GB minimum SQL Server, SQL Server data files (recommended)

4 GB memory dedicated to SQL Server

Optional iCalendar Service can be installed

Total storage: WFM/SQL Server = 260 GB minimum

Notes on WFM Pre-10.5 VM Configurations

Capacities for WFM 8.5(2), 9.x, and 10.0:

- 900 named users
- 300 concurrent users

Capacities for WFM 8.5(1):

- 300 named users
- 150 concurrent users

Multiple vDisks are used as follows:

- vDisk 1 (mandatory) = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO WFM binaries, SQL Server binaries (optional)
- vDisk 2 (optional) = It is recommended to install SQL Server binaries and to be used to hold SQL Server data files (mdf, ldf, temp_db)

Notes on QM 10.0 and 10.5 Base Server + Recording VM Configuration

Note: Screen recording no longer affects overall capacities since the resources are used solely on the user's PC and no longer on the servers.

2 vCPU QM Base Server VM Configuration

Notes on WFM 10.5 VM Configuration

500 named users for voice and screen recording

125 maximum concurrent user recordings (up to 25 can be using Record server)

25 maximum number of concurrent users (voice only: no screen option) using Mediasense, Server Recording, Network Recording or Gateway Recording)

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM binaries, SQL Server SQL Server data files
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recordings (size may vary depending upon usage), SQL Server, SQL Server data files (recommended)

4 vCPU QM Base Server VM Configuration

1000 named users for voice and screen recording

250 maximum concurrent user recordings (up to 100 can be using Record server)

100 maximum number of concurrent users (voice only) using Mediasense, Server Recording, Network Recording or Gateway Recording)

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM binaries, SQL Server SQL Server data files
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recordings (size may vary depending upon usage), SQL Server, SQL Server data files (recommended)

6 vCPU QM Base Server VM Configuration

2000 named users for voice and screen recording

500 maximum concurrent user recordings (up to 300 can be using Record server)

300 maximum number of concurrent users (voice only) using Mediasense, Server Recording, Network Recording or Gateway Recording)

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM binaries, SQL Server SQL Server data files
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recordings (size may vary depending upon usage), SQL Server, SQL Server data files (recommended)

Notes on QM Pre-10.0 Base Server + Recording VM Configurations

1000 named users for voice and screen recording

250 maximum concurrent agent recordings through subscription service

60 maximum number of concurrent agents (voice only) using MediaSense, Server Recording, Network Recording, or Gateway Recording

Capacities for 8.5(2) and 9.x

- 3600 named users
- 1200 concurrent users

Capacities for 8.5(1)

- 300 named users
- 150 concurrent users

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM binaries, SQL Server, and SQL Server data files
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recordings (size may vary depending on usage), SQL Server, and SQL Server data files (recommended)

Note: In versions 8.x and 9.x, Network Recording requires a separate Network Record Server. In 10.0 and later, Network Recording can be installed in a single server solution. Note the network recording capacities for a single server solution above.

Notes on QM 10.0 and 10.5 Recording Server VM Configuration

4 vCPU Recording Server VM Configuration

125 concurrent voice recording sessions for Server (SPAN), Network, Mediasense, and Gateway Recording

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

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM Recording service binaries
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recordings storage

6 vCPU Recording Server VM Configuration

300 concurrent voice recording sessions for Server (SPAN), Network, Mediasense, and Gateway Recording

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

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM Recording service binaries
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recordings storage

Notes on QM Pre-10.0 Recording Server VM Configurations

Capacities for 8.x and 9.x:

- 300 concurrent voice recordings for Server (SPAN) and Network Recording
- 150 concurrent voice and screen recordings for Server (SPAN) and Network Recording

Multiple vDisks are used as follows:

- vDisk 1 = 40 GB minimum operating system, Cisco Unified Contact Center Express WFO QM Recording service binaries
- vDisk 2 = 146 GB Cisco Unified Contact Center Express WFO QM recording storage

IOPS and Storage System Performance Requirements

The minimum IOPS for WFM and QM 9.x and later is 143.

The following table lists the IOPS numbers for WFO 8.5(2).

WFO Component	IOPS (Read)	IOPS (Write)	Operating Conditions
QM Base Server	4	2	Idle
	4	12	Recording 300 concurrent calls
	11	38	During recording upload
QM Recording Server or WFM	1	2	Idle
	74	187	Recording 300 concurrent calls
	102	71	During recording upload