



Collaboration Sizing Tool Solution Report

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Customer Name: ipcafe.net

11/3/2018 23:23

Solution Name: collaboration

Unified Communications Manager

Software Release

Unified CM 12.0(1)

Deployment Model

Unified CM Trace Level	Detailed
Trace Compression	On
Database Complexity	Simple
Number of Regions	1
Number of Locations / Branches	2
Number of Device Pools	2
CDR	On
CMR	Off
Internet Protocol version	IPv 4

Endpoints

Number of SIP Non Secure Audio Phones with en-bloc dialing	500
Number of SIP Secure Audio/Video Phones with en-bloc dialing	50
Number of Mobile Client Devices - Audio	100
Total Number of Devices	650
Total Number of Busy Hour Users	100
Total Number of System Users	120

Traffic Mix

Average Busy Hour Call Attempts (BHCA) per User Excluding Scheduled Conference Calls and	2.00
Total Non Transit BHCA	200
Average Call Holding Time (ACHT) per User Excluding Scheduled Conference Calls and Unified CCE	3.00
BHCA Incoming from the PSTN	65%
BHCA Outgoing to the PSTN	25%
Total PSTN BHCA	180
Percentage of Total PSTN BHCA through H.323 Trunks (GK Controlled)	0%
Percentage of Total PSTN BHCA through H.323 Trunks (Non-GK Controlled)	0%
Percentage of Total PSTN BHCA through MGCP Trunks	0%
Percentage of the PSTN BHCA through SIP Trunks	100%
Percentage of PSTN H.323 and SIP Trunks BHCA through Unified Border Element (IP-IP GW)	0%
BHCA Incoming from Other Enterprises	0%
BHCA Outgoing to Other Enterprises	0%
Total Expressway B2B BHCA	0
BHCA Incoming from Other Clusters	0%
BHCA Outgoing to Other Clusters	0%
Total Intercluster BHCA	0
Percentage of Intracluster BHCA	10%
Total Intracluster BHCA	20
Percentage of Total Intracluster BHCA IP to IP	100%
Percentage of Total Intracluster BHCA IP to PSTN to IP (VoPSTN)	0%

Dial Plan

Directory Numbers (DNs) and Shared Lines

Total Number of DN's	650
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Number of DN's Shared Across Additional Endpoints	0
Partitions	
Number of Partitions	10
Number of Calling Search Spaces	5
Number of Translation Patterns	30
Routes	
Number of Route Patterns	8
Number of Route Lists	2
Number of Route Groups	2
Service Advertisement Framework / Call Control Discovery	
Number of Advertised DN Patterns	0
Number of Learned DN Patterns	0
Global Dial Plan Replication (GDPR)	
<i>DN Specific Data</i>	
Alternate Numbers Added to Local Digit Analysis	0
Alternate Numbers Not Added to Local Digit Analysis	0
Number of Provisioned URIs	0
<i>Imported Catalogs</i>	
Imported Patterns	0
Imported URIs	0
<i>Learning</i>	
Alternate Numbers	0
URIs without URI Specific PSTN Failover	0
URIs with URI Specific PSTN Failover	0
Patterns	0
Hunt Pilot	
Number of Hunt Pilots	30
Number of Hunt Lists	30
Total Number of Circular/Sequential Line Groups	30
Average Number of Members in a Circular Line Group	5
Total Number of Broadcast Line Groups	0
Applications	
The Number of Extension Mobility Users Using the Extension Mobility Cross Cluster Feature	0
Total Number of Extension Mobility Users	0
Total Number of Mobility Users	100
Average Number of Remote Destinations or Mobility Identities per User	1.0
Average BHCA for Two Stage Dialing (Mobile Voice Access, Enterprise Feature Access)	0.00
Total Number of Unified CM Assistants	0
Total Number of Unified CM Managers	0
Number of Lines or DNS on Unified CM Manager Assistant CTI Route Point	0.0
Total Number of Web Dialer Users	0
Total Number of Attendant Console Servers Deployed	0
Number of CTI Route Points	10
Average Number of Lines or DNS per CTI Route Points	1.0
Average BHCA per CTI Route Point	100.00
Number of CTI Ports	120
Average Number of Lines or DNS per CTI Port	1.0
Average BHCA per CTI Port	8.00
Product of Number of Applications and 3rd Party CTI Controlled End Points	0.0
Average Number of Lines or DNS per 3rd Party CTI Controlled End Point	1
Total number of DNS Being Monitored	0
Percentage of Mobile Clients with Deskphone Call Log Integration	0%
Average BHCA per Mobile Client User for Dial-via-Office	0.00
Average Number of Applications per CTI Controlled Device	1

Media

Percentage of Users Simultaneously Receiving Unicast MoH Streams	10%
Number of Audio Sources Designated for Multicast MoH	0
Percentage of IP to IP Intracluster calls through RSVP Agents/Off-box HW or SW MTPs and Transcoders	0%
Percentage of IP to IP Intercluster calls through RSVP Agents/HW MTPs/Transcoders	0%
Total Number of RSVP Agents/Off-box HW or SW MTPs and Transcoders	0
Percentage of Calls Being Conferenced (Unscheduled Conferences)	0.1%
Total Number of Conferencing Resources	1

Unified Communications Manager: Output

Unified Communication Manager Platform	1,000 users
IM & Presence Service Platform	1,000 users
Max Unified CM Call Processing Server Pairs per Cluster	2 server pairs
Unified CCX Deployment	Mixed Users and Agents

Capacity Utilization per Call Processing Server

Call Processing Capacity Utilized per Call Processing VM	4.48%
Memory Capacity Utilized per Call Processing VM	3.31%
Endpoints Capacity Utilized per Call Processing VM	89.00%
CTI Capacity Utilized per Call Processing VM	15.80%

Minimal System Requirements

Estimated Min Number of Clusters	1
Publisher/TFTP/Backup Call Processing VMs	1
Number of Unified CM Call Processing VMs	1
Minimal Number of IM & Presence Service VM Pairs	1
Total Number of VMs (minimal)	4

	VMs	vCPU	RAM (GB)	vDisk (GB)	vNIC
Total Unified CM VM Resources	4	6	20	320	4

IM & Presence Service

Software Release

IM and Presence Service 12.0(1)

High Availability Deployment	Yes
Number of Unified Presence Users	100
Average Number of Audio / Video Endpoints used by each Presence Enabled User	1
Percentage of Users using XMPP Client (Remaining Users Using SIP Client)	0.00%
Percentage of XMPP Clients over BOSH (CAXL)	0.00%
Average Active Contact List Size per User	75
Inter-cluster Deployment	No
Federation Deployment	No
Percentage of Users with Exchange Connection	50.00%
Exchange Connection Version	WEBDAV
Percentage of Above Users with Exchange Connection in a Meeting	5.00%
Number of IMs per User during Busy Hour	25
Type of Chat Enabled	None
Average Number of Call Related of State Changes per User during Busy Hour	8
Average Number of User Initiated State Changes per User during Busy Hour	0.5
Presence Web Service	No
Compliance Enabled (No/Yes)	No

Cisco Expressway

Software Release

Expressway X8.10

Percentage of SIP Endpoints and Desktop Clients Registered Through Expressway	5%
Percentage of Mobile Clients Registered Through Expressway	100%

HideMe	5%
HideMe	5%

Traffic Summary

Total Number of Devices Registered Through Expressway (5% of 550 SIP Endpoints/Desktops + 100% of 100 Mobile)	128
Total Number of Concurrent Hybrid Services Calls	0
Total Number of Concurrent MRA Calls	9
Total Number of Concurrent B2B Video Calls Through Expressway	0
Total Number of Concurrent B2B Audio Calls Through Expressway	0

Platform Selection

Mobile and Remote Access Platform Type	Large
Mobile and Remote Access High Availability Deployment	Yes
Separate Expressway Cluster for B2B Traffic	No

Output

	VMs	vCPU	RAM (GB)	vDisk (GB)	vNIC
Total Expressway VM Resources	4	32	32	528	8

Voice Messaging

Voice Messaging System

Unity Connection Release

Unity Connection

Unity Connection 12.0(1)

Total of 1 Site Type Specified

Number of Type 1 Sites

1

Unity Connection Configuration	Unified Messaging / Integrated Messaging
VoiceMail Integration Type	SCCP
Number of Voice Messaging Users per Location	0
Number of Voice Messaging Users with Jabber Client per Site	0
Secure Jabber (SSL) Enabled	No
Percentage of Office 365 Users	0%
Percentage of Incoming Calls Redirected to VoiceMail System during Busy Hour	20%
Average Message Length	1.00
Percentage of Users Checking Voice Messages During the Peak Voice Messaging System Usage	10%
Peak Voice Messaging System Usage Interval (min)	10.00
Average Messages Retrieval Session Length (min)	3.00
Blocking Probability	1%
Unity Connection Web Inbox Users	Yes
IMAP Non-IDLE Clients	No
IMAP IDLE Clients	Yes
System Level Recording Format	G.711
On the Line Codec	G.711
Any Voice Recognition Sessions?	Yes
Any Text to Speech Sessions?	Yes
Platform	20,000 users (10GB RAM & larger vDisk)
VMWare ESXi 5.5+ Latency Sensitivity Option Set to High	No
High Availability Deployment	Yes
Suggested Number of VMs Needed per each Type 1 Site	0
Maximum Voice Recognition Sessions (ASR) per VMs Allowed	250
Maximum Text to Speech Sessions (TTS) per VMs Allowed	250
Ports per VMs	250

Cisco Meeting Server

Software Release

Conference Type	Cisco Meeting Server 2.2
Conference Quality	Scheduled
Average Meeting Size	HD (720p30/720p5)
Number of Simultaneous Meetings	5
Server Platform	0
Number of Concurrent Recording Sessions	CMS 1000
Number of Concurrent Streaming Sessions	0
Redundancy Requirement	0
	100%

Total CMS Equipment

Number of CMS 1000 Servers Needed (Including Redundancy Requirement)	0
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Cisco Meeting Management

Software Release	CMM 1.0
Number of Concurrent Cisco Meeting Management Operators	0
High Availability Deployment	Yes

Total CMM Equipment

Server Platform: None	0
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TelePresence Management Suite

Software Release	TMS 15.5
Estimated Number of Concurrent Scheduled Conferences	0
Estimated Number of Participants in Concurrent Scheduled Conferences	0
Estimated Number of Controlled Devices	0
Number of Controlled Systems Endpoints	0
Number of Endpoints Bookable in Microsoft Exchange	0
HideMe	0
TMS System:	Regular TMS

Total TMS Equipment**Cisco Webex Meetings Server****Software Release**

Number of Knowledge Users	WebEx Meetings Server 2.8
	0

System Usage

Minutes per Month (thousands)	0
Knowledge Users Conference Usage	Average
Actual Peak Usage (concurrent users)	0

Video Usage

Percentage of Conferences with HQ Video	0%
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Traffic Description

Required Top of the Hour Dialin Duration (min)	5
Percentage of Users that Join Conferences from Within the Enterprise	75%
Gateway/Intercluster/Inter-Enterprise Trunks	SIP

Deployment Requirements

vCenter co-resident (50-user or 250-user systems)	No
External Access	Yes
NIC allowed in DMZ	No
High Availability	Single Data Center
Disaster Recovery	No
High Availability for Disaster Recovery Site	No

Minimal System Requirements

System Size: 50-User

	VMs	vCPU	RAM (GB)	vDisk (GB)	vNIC
50P - Admin VM Only	1	6	24	1024	3
50P - IRP VM Only	1	6	12	300	3

	VMs	vCPU	RAM (GB)	vDisk (GB)	vNIC
Total WebEx Meetings VM Resources Needed	2	12	36	1324	6

Gateways

GW Group 1

Percentage of PSTN TDM-IP IPT Load to Gateway Group 1	100%
Gateway Platform	Cisco 2911
IOS Release	15.6(3)M
Gateway Type	Dedicated Voice Gateway
Blocking Probability	1%
Physical Locations	1
GW Used as Unified SRST or Unified CME	No
Gateway Voice Security	No Encryption
PSTN Integration	T1
Gateways Group 1 Needed	1
DS0s per GW Group 1 Needed	48
T1s per GW Group 1 Needed	2
GW Group 1 DS0 Utilization	33.33%
GW Group 1 Resource Capacity Utilization	12.72%

Unified Contact Center Express

Software Release

Unified CCX 11.6(1)

Inbound Traffic

Service Level Goal (SLG)	90%
Target Answer Time (seconds)	30
Percentage of Incoming calls through Unified Border Element (IP-IP GW)	0%

Self Service

Average Call Treatment Time (sec)	60
Inbound BHCA	0

Traffic Mix

Call Type 1 Answered by Agents

Percentage of Total Calls	100%
Average Talk Time (sec)	180
Average Wrapup Time (sec)	60
Average Call Treatment Time -VRU (sec)	60
Wait Before Abandon - Tolerance (sec)	150
Percentage of Calls Transferred	10%
Percentage of Calls Conferenced	5%

Direct Preview Outbound Traffic

Average Busy Hour Call Holding Time per Agent (sec)	180
Average Number of Outbound Calls per Agent during Busy Hour	0

Options

Package Type	Premium
High Availability Deployment	No
Total Number of Concurrent Agents Handling Inbound Calls	10
Of the Total, Number of Concurrent Agents Handling Preview Outbound Calls	0
Of the Total, Number of Concurrent Agents Handling Predictive /Progressive Outbound Calls	0
Of the Total, Number of Concurrent Agents Handling Emails	0
Number of Supervisors	10
Maximum Number of Customer Service Queues (CSQs) Required	0
Do you want to add any of the following products: CR or AQM?	No
Do you want to add a Workforce Management Server?	No
Number of Configured Workforce Management (WFM) Users	0
Total Number of Concurrent Workforce Management (WFM) Users	0
Codec for Unified CCX Based Recording and Playback Sessions	G.711
Number of Unified CCX Based Simultaneous Recording and Playback Sessions	0
Number of Simultaneous Silent Monitoring Sessions	0
Number of Simultaneous Remote Monitoring Sessions	0
Number of Simultaneous Finesse Workflow Based Recording Sessions	0
Number of Simultaneous Agent Chat Sessions	0
Number of Simultaneous Historical Reporting Sessions	0
Number of Simultaneous Skills Manager Sessions	0
Number of Inbound IVR Ports	0
Number of Outbound IVR Ports	0
Number of VXML Ports	0
Simple or Complex Grammar for ASR Ports	Simple
Number of ASR Ports	0
Number of TTS Ports	0
Do you want to add an IPCC Gateway PG?	No
Percentage of Unified CCX Calls being Recorded	0%

Output

BHCC Values	97
Inbound	0
Outbound	
Unified CCX Servers	
Selected Unified CCX Package Type	Premium
Primary Platform	100 Agents
Standby Platform	None
Unified CCX Server Available Capacity	0%
Workforce Management Server	
WFM Server	None
WFM Server Available Capacity	0%

VM Requirements

Total VM Resources	1 VMs, 2 vCPUs, 10 RAM, 146 vDisk, 1 vNICs
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Licenses & UC on UCS Servers

License Type	
Unified Workspace License Meeting	120
UCL Contact Center Express Agent + Supervisor licenses	20
Expressway Business to Business Video or Audio Sessions	100
Personal Multiparty Licenses (included with CUWL Meeting)	120