ShoreTel DesignCard
V1.2 for Connect 1.0 Onsite

Hardware and Network Requirements

Switch	IP	T1 / E1	SIP Max*	FXO	FXS	Conf Inc	Conf Max	HG PG	BCA	PFT	Long Loop
ST50A	50		8	4	4	6	14	24	36	yes	
ST100A	100		14	8	6	12	26	24	36	yes	
ST100DA	100	1	38	2	6	12	50	24	36	yes	
ST1D		1	30								
ST2D		2	60								
ST200	200					12	12	24	36		
ST500	500					24	24	24	36		
ST24A					24		24	24	36		yes
ST48A					48		48	24	36		yes
Virtual SW											250 / 500 / 1000
Virtual TR			<=500								100 / 200/ 500

For BRI Connections use SG90BRI(V), SG30BRI

SG swiches can be deployed but remember to trade off IP Resources and does not have ST features.
Ref Design Card version 3.5 for release 14.2 for details.

Codec	Sample Rate	Data Rate
L16/1600 (Linear Broadband)	16 KHz	256Kbps
L16/8000 (Linear)	8 KHz	128 Kbps
G.711 ?-law (PCMU)	8 KHz	64 Kbps
G.711 A-law (PCMA)	8 KHz	64 Kbps
G.722	16 KHz*	32 Kbps
G.729a	8 KHz 8 Kbps	
iLBC	8 KHz	13.33 Kbps
AAC_LC	32 KHz	
BV-32	16KHz	32 Kbps
BV-16	8KHz	16 Kbps
DV-14	8KHz	
T.38		

ShoreTel Connect Client	Bandwidth Use (These are based on V14.2 Numbers)
Essentials	TBD (.2kbps in 14.2)
Standard	TBD (.2kbps in 14.2)
Advanced	TBD (.2kbps in 14.2)
Extension Monitor	1.5 Kbps per monitored extension
Workgroup Agent	.25 Kbps
Queue Monitor	6.5 Kbps per queued call
Workgroup Supervisor	.25 Kbps
Queue Monitor	6.5 Kbps per queued call
Agent Monitor	1.5 Kbps per agent
<150ms Latency one way, <1% Packet loss.for RTP / Media traffic, Jitter <50ms	

Service Appliance	Capacity	Max Size of Conference
SA-100	50 Audio, 50 Web, 500 IM	50 Audio, 50 Web, Max 16 Conferences, Up to 400 Hours of conference data, max 5 units per system image
SA-400	200 Audio, 100 Web, 2000 IM	200 Audio, 200 Web, Max 64 Conferences, up to 1000 hours of conference data, max 5 units per system image
Virtual -SA	200 Audio, 200Web, , 2000 IM	200 Audio, 200 Web, Max 100 conferences, max 5 per system image.

ShoreTel Mobility Router	Capacity	Additional notes
2000 Series	10-100 Users	PB and UC Integration, Security Integration, App Layer Security, Policy Management, Reporting and trending.
4000 Series	10-1000 Users	All of the above plus High Availability
6000 Series	10-5000 users	All of the above plus high availability

Edge Gateway	Small	Medium	Large
RAST Sessions	100	500	2000
Active RAST calls	50	100	200
Clients	50	400	800
Concurrent audio and video calls on Connect Client	50	100	200
Hard Drive	100GB	100GB	100Gb
Processor	Intel(R) Xeon(R) CPU E5-2697 v2 @ 2.70GHz	Intel(R) Xeon(R) CPU E5-2697 v2 @ 2.70GHz	Intel(R) Xeon(R) CPU E5-2697 v2 @ 2.70GHz
Cores x Speed	2x 2.9GHz	4x 2.9GHz	8x 2.9GHz
Memory	2 GB	4 GB	8 GB
Network	100 Base-T or Gigabit Ethernet	Gigabit Ethernet	Gigabit Ethernet

Ingate Feature / Model No	21	51	56	66	95	96	97
Interfaces (10/100/1000 Mbit/s)	4	4	4	4	6	6	6
Power consumption (typical)	25 W	100 W	100 W	100 W	200 W	200 W	200 W
Max numbers of VLANs	16	32	64	128	256	256	256
SIP Connection set up (SIP + RTP) max calls/s	15	30	30	30	50	50	75
RTP data delay (10 Mbps/100 Mbps) network							
Max number of concurrent calls (20 ms voice packets)	50	150	400	1000	1800	3000	8000
Concurrent encrypted voice RTP sessions,both trans-coding SRTP and TLS. (With Enhanced Security Module)	50	150	400	700	1300	1300	4000

Size	Maximum number of users per System	Maximum number of users assigned to HQ Server	Maximum System BHCC	Maximum BHCC per server Reports run outside business hours	Maximum BHCC per server Reports run during business hours
If an upgrade from SBE	500	200	1000	Not Recommended by TAC	Not Recommended by TAC
Small	500	500	5,000	1,000	Not Recommended by TAC
Medium	2,500	1,000	25,000	5,000	1,000
Large	10,000	1,000	50,000	10,000	5,000
Very Large	20,000	1,000	100,000	10,000	10,000

Table 31 Headquater Server Capacity for an Enterprise System

Size	Processor	RAM	Network
Small	Intel Core 2 Duo E8400, Single Dual Core 3.00 GHz or Intel Core i3-540 Processor (4M Cache,3.06 GHz)	4 GB	100 Base-T
Medium	Intel Xeon 5520 Single Quad Core 2.27 GHz	8 GB	100 Base-T or Gigabit Ethernet
Large	Intel Xeon 5520 Dual Quad Core 2.27 GHz	8 GB	Gigabit Ethernet
Very Large	Intel Xeon 5680 Dual Six Core 3.33 GHz	12GB	Gigabit Ethernet

Table 32 Headquarter Server Hardware Recommendations for Enterprise System

Size	Max Users	Media Ch.	G729
UC20	200		
Small	500	50	35
Medium	1000	100	70
Large	1000	500	175
Very Large	1000	1,000	700

Table 33 Distributed Voice Server Capacity

Size	Processor	RAM	Networks
UC 20	Intel Pentium G680, DualCore 2.7 Ghz Intel Celeron E3400, DualCore 2.6 Ghz	2 GB 4 GB	100 Base-T 100 Base-T
Small	Intel® Core 2 Duo E8400, Single Dual-Core 3.00 GHz	4 GB	100 Base-T
Medium	Intel® Xeon 5520 Single QuadCore 2.27 GHz	8 GB	100 Base-T or Gigabit Ethernet
Large	Intel® Xeon 5520 Dual QuadCore 2.27 GHz	8 GB	Gigabit Ethernet
Very Large	Intel® Xeon 5520 Dual QuadCore 2.27 GHz	8 GB	Gigabit Ethernet

Table 34 DVS Server Hardware Recomendations

# Users	# Messages	Length (minutes)	Storage (hours)	Storage (GB)
100	15	1	25	0.8 GB
500	15	1	125	3.8 GB
1,000	15	1	250	7.5 GB
2,000	15	1	500	15.0 GB
3,000	15	1	750	22.5 GB
4,000	15	1	1,000	30.0 GB
5,000	15	1	1,250	37.5 GB

Table 40 Voicemail Hard Disk Space

# Calls/Day	# Calls/Month (20 days)	Storage/Month	Storage/ 3 Months
100	2,000	3 MB	9 MB
1,000	20,000	30 MB	90 MB
10,000	200,000	300 MB	900 MB
50,000	100,0000	1,500 MB	4,500 MB

Table 41 Call Detail Records

Voicemail Options	ShoreTel Application Server	Distributed Application Server	"V" Voice Appliances
Operating System	Windows Server 2008 32-bit, SP2 (Standard, Enterprise). Windows Server 2008 R2, SP1, 64-bit, (Standard, Enterprise). Windows Server 2012, 64-bit (Standard, Datacenter).		Embedded Linux
VM Port Capacity	254 media streams (ports)	254 media streams (ports)	50V – 5 90V – 9
Hours of Storage	Hard drive dependent (1 Gb per 30 hrs)	Hard drive dependent (1 Gb per 30 hrs)	50V – 22 hrs 90V – 56 hrs
Mailbox Capacities	3,000 mailboxes	3,000 mailboxes	50V – 50 mailboxes 90V – 90 mailboxes
System Capacity	Total of 1 per image	Total of 20 per image	Total of 100 per Server 500 per system
Auto Attendant	1,000 per image	1,000 per image	1,000 per image
ACD	256 Workgroups / 300 members	Distributed Workgroups	Hunt Groups / 16 members
Call Records	Yes	Yes (2 hours of History)	Yes (2 Hours)

Operating System & Voicemail Options

Type	Space Required
ShoreTel Headquarters Server	1600 MB
ShoreTel Linux DVS Server	800 MB
ShoreTel Client	600 MB

Table 39 Hard Disk Requirements

File Size	Storage (GB)
Minimum	0.5 GB
Default	4.0 GB
Maximum	30.0 GB

Table 42 Log File Hard Disk Space

Virtual Server / Appliance Requirements

Size	Maximum Users per DVS Server, Reports run during buisness hours	Maximum DVS per Server BHCC Reports run outside business hours	Maximum BHCC per Server
SBE	50	500	Not Recommended
Small	500	5,000	1000
Medium	2,500	25,000	5,000
Large	10,000	50,000	10,000

Table 36 VMWare Capacity

System Size	Users	Call Load per System	Call Load per Server (w/o Reports)	Minimum Virtual Processors per VM	RAM per VM (GB)	Storage System Throughput (MB/s)	Voice Network Throughput (Mb/s)	Disk Size per HQ VM (GB)	Disk Size per DVS VM (GB)
Small	500	5,000	1,000	2	4	0.17	16	60	40
Medium	2,500	25,000	5,000	4	8	0.83	80 1	50	80
Large 1	0,000	50,000	10,000	8	8	3.1	320	260	130

Table 38 Hyper V Recomeded Server Sizing

Size	Cores per VM	Processor	RAM	Hard Disk for HQ VMWare Server	Hard Disk Size for DVS VM-Ware Server
SBE	2	Quad-core Intel Xeon X550, 2.66 GHz	4 GB 6	60 GB	40GB
Small	2	Intel® Core 2 Duo E8400, Single DualCore 3.00 GHz	4 GB	60 GB	40 GB
Medium	4	Intel® Xeon 5520 Single QuadCore 2.27 GHz	8 GB	150 GB	80 GB
Large	8	Intel® Xeon 5520 Dual QuadCore 2.27 GHz	8 GB	260 GB	130 GB

Table 37 VMWare Hardware recomendations

No. of Phones	Up to 250	Up to 500	Up to 1000
Memory	2 GB	2 GB	2 GB
CPU * Cores	750 MHz * 1	1.5 GHz * 1	2.9GHz * 1
Disk	20 GB	20 GB	20 GB
Hypervisor	VMware vSphere ESX/ESXi 5.5		

Virtual Switch Hardware Requirements

No. of Trunks	Up to 100	Up to 200	Up to 500
Memory	2 GB	2 GB	2 GB
CPU * Cores	2.9GHz * 4	2.9GHz * 8	2.9GHz * 16
Disk	20 GB	20 GB	20 GB
Hypervisor	Vmware vSphere ESX/ESXi 5.5		

Virtual Trunk Switch Requirements

No. of Trunks	Up to 100	Up to 200	Up to 1,000
Memory	500 MB	1 GB	2 GB
CPU * Cores	2.9GHz * 1	2.9GHz * 2	2.9GHz * 4
Disk	20GB	20GB	20GB
Hypervisor	Vmware vSphere ESX/ESXi 5.5		
Delivery	ISO file		

Virtual Ingate Requirements

Audio / web / IM	50 / 50 / 500	200 / 200 / 2,000
CPU * Cores	2.4GHz * 4	2.4GHz * 16
Memory	2GB	6GB
Hard Disk (includes data storage)	100GB	500GB
Hypervisor	Vmware vSphere ESX/ESXi 5.0, 5.1 or 5.5	

Virtual Service Appliance Requirements

Specifications	SA-100	SA-400	Virtual
Per appliance			
Simultaneous audio ports	50	200	200
Simultaneous secure (HTTPS) Web conferencing ports	50	200	200
Instant Messaging ports	500	2,000	2,000
Simultaneous audio conferences	16	64	100
Simultaneous recording sessions	16	64	64
System-wide capacity			
Service appliances per system (physical, virtual or mix)	Up to 5		
Simultaneous audio ports	1,000		
Simultaneous secure (HTTPS) Web conferencing ports	1,000		
Max number of IM users	10,000		
Concurrent Instant Messaging ports	2,000		
Simultaneous audio conferences	500		

Virtual Service Appliance Capacity

Audio / web / IM	1000 Mobile Users
CPU * Cores	2.9 GHz * 4
Memory	4GB
Hard Disk (includes data storage)	100GB
Hypervisor	Vmware vSphere ESX/ESXi 5.5 2 x Network Interfaces

ShoreTel Mobility 8 Virtual Mobility Router

Component	Capacity	Notes
System		
Sites	500 Exact number varies by configuration.	
Switches	100/site 500/system 100/server	Exact number varies by configuration. Note: For Very Large deployments, systems with more than 10,000 ports, the maximum number of switches per site is 60.
Route Points	300/server	This is per server
Analog Ports	5,000	Exact number varies by configuration.
IP Phones	20,000 (max)	Exact number varies by configuration. See Server capacity table.
Simultaneous Calls	10,000 10,000 calling 10,000.	
Busy Hour Call Completion	100,000 Depending upon server configurations	
Users		
Users	20,000	
– Port Based Users	5,000	
– IP Phone Users 2	0,000	
– Virtual Users	1,000/server	
User Groups	250	
Telephony Permissions	100	
Call Permissions	100	
Voice Mail Permissions	100	
Trunks		
Trunks	10,000	
Trunk Groups	500	
Number of Trunks/TG	220	
Servers		
Number of servers	21	1 main, 20 distributed (for voice mail, autoattendant, messaging, directory, configuration services, and desktop call control). Each server is certified to support up to 1,000 users.
Number of Voicemail Box Switches (VMBs)	500/system 100/server	
Number of 3rd Party SIP Servers	20	

Component	Capacity	Notes
Media streams (G.711 per server)	254	Simultaneous voice mail sessions, for example.
Media streams (G.729 per server)	40	
Media streams (total)	9,384	21 servers x 254 media streams per server + 500VMB x 9 streams per VMB.
Voice Mail		
Mailboxes (total)	20,000	These can be distributed across the servers.
Mailboxes (per server)	3,000	
Storage	Unlimited	Restricted by the size of disk available (1 hour of voice mail per 30 MB of disk storage).
Auto-Attendant		
Menus (total)	1,000	Every server has every menu.
Hunt Groups		
Hunt groups per switch	8	
Total hunt group members per switch	16	
Workgroups		
Workgroups (total)	256/system	
Members per workgroup	300	Top down, round robin, longest idle and simultaneous distrubution patterns.
WG Agents (total per system)	300/system	If more are required it is recommended you investigate the ShoreTel Enterprise Contact Center Solution
WG Agents	16	Simultaneous ring.
Calls in Queue per Queue	254/server	Overflow is directed to the worgroup backup extension.
BHCC/system without reports during business hrs	Very Large HW=100k /Large HW = 50K / Med HW =2 5K / Small HW = 5K	See Server HW specs for size & traffic considerations
BHCC/system with reports during business hrs	Very Large HW=10k /Large HW = 5K / Med HW = 1K / Small HW = not recommended	See Server HW specs for size & traffic considerations
Max # of PCM's in WG server	300	

Component	Capacity	Notes
Paging Groups		
Paging Groups (total)	300/system	
Paging Group Members	300/system	
Max # of simultaneous pages	100/server	
Account Code		
Account Code (per system)	100,000/ system)	
Call Detail Record		
Storage	1.5 GB (MySQL has a capacity of 64TB)	500,000 workgroup calls, OR 1.5 million extension-to-extension calls, OR 1.0 million combined call records Implementing a database of this size typically requires 4.0 GB of disk space, including disk space for the main database (1.5 GB), the archive database (1.5 GB), and temporary space required to generate reports (1.0 GB).
ShoreTel Communicator		
ShoreTel Communicators (total)	10,000	
ShoreTel Communicators (per server)	1,000 Note: For Very Large deployments, systems with more than 10,000 ports, the maximum number of Communicators for web and mobile per server is 1,000. For ShoreTel Communicator for Windows, the maximum number is 500 per server.	
Personal	10,000	
Professional	10,000	
Workgroup Agent	300	
Workgroup Supervisor	128	
Workgroup Agent/server	300 per server, 300 per system	
Workgroup Supervisor/ server	128 per server, 128 per system	
Operator	200	250 monitored extensions/ each operator maximum.
ShoreTel Communicator for Mobile	1,000	Per system.

Component	Capacity	Notes
Music on Hold (MOH)		
Music on Hold (MOH)	15	One switch can provide MOH for up to 15 calls persite.
Programmable Buttons		
IP phone buttons configured for extension monitoring (per switch)	1024	Solution Architect Recomendation 250 for optimum experience.
Phones that can monitor an extension	32	
Voice Switch Capacity		
Media streams/switch (No encryption)	60	
Media streams/switch (encryption)	60	
Media streams/switch (SRTP)	40	
Media streams/switch (SRTP + authentication)	30	
G711 Limits for VMB	9	
G729 Limits for VMB	5	
BAA Simultaneous # of calls - Voice Switches	60	
Simultaneous # of calls SIP Ringing - Voice Switches -G711	60	
Simultaneous # of calls SIP Ringing - Voice Switches -G729	0	

Mobility Router	Max Users	Max Calls	Max Calls with Transcoding	Max SRV Users	Max SRV Calls
2000	100	100	50	100	20
4000	1000	500	300	500	200
6000	5000	2000	1250	2500	1000
MrVirtual	1000	500	300	500	200

ShoreTel Mobility Router System Capacity

Feature	SBE 100	EE
Sites	5	500
Switches	7	500
Users (with extensions)	100	20,000
Telephones	100	20,000
Trunks	100	10,000
Simultaneous calls, extension-to-extension	50	10,000
Busy Hour Call Completion	1,000	100,000
DVS	4	20
Integration with 3rd party PBX	No	Yes
On-net dialing	No	Yes
Voice mailboxes	120	20,000
simultaneous calls per server	25	254
AMIS	No	Yes
SMDI - External voicemail	No	Yes
SMDI - ShoreTel voicemail	No	Yes
Service Appliance 100 (SA100)	2	5
SA100 audio/web/IM ports	100/60/100	256/300/128
Service Appliance 400 (SA400)	No	Yes
Workgroups (groups, agents, supervisors)	100/100/100	256/300/128
ShoreTel Mobility clients	100	5,000

Table 35 SBE and Enterprise Edition Differences

Phones	Up to 250	Up to 500	Up to 1000
Backup Auto-Attendant Steams	10	25	50
Make-Me Conference	12	30	60
Hunt Groups	8	20	40
Total HG Users	32	80	160
Users Per HG	32	8	16
Pick-Up Groups	16	40	80
Total PUG Users	80	200	400
Users Per PUG	48	12	24
BCA	24	60	120
BCA Call Stack	48	12	24
BCA Extensions	64	16	32
Extension Monitor Buttons	1,000	2,500	5,000
BHCC	5,000	12,500	25,000

Table 55: Virtual Phone Switch Feature Capacities

Real Time Capacity features in a virtual phone switch can be run in parallel providing you keep within the above parameters

Calculating Real Time Capacity of Switch Appliances

Sum $(HG\_stacksize(n) \times HG\_Members(n)) + (monitoring\_phones(n) * BCA\_Monitoring\_LInes(n))/2 <= X$
X=80 for SG Switchs, X=160 for ST Switches
e.g. worked example:-

1 x Hunt Group with 4 Members and a Call Stack of 4
1 x Hunt Group with 8 Members and a Call Stack of 3
10 x Phones Each Monitoring 4 x BCA

HG 1   +HG 2   +BCA's   =Total
(4x4)   +(8x3)   +(10x4)/2   =60 so all ok.

License and Phone Requirements

Licence	Description
Shoreware Virtual Switch Licences	
Virtual Phone Capapcity	One required per call controlled device, including ANonymous, VPN, Mobility, Softphones. Bundles Available
Virtual SIP Trunk	One required per SIP Trunk, includes SIP Media Proxy. SIP Trunk Software Licence not required with Virtual switch.
Virtual SA	Free with AUdio and Web Licence
Virtual SMR	Required to enable Mobility in Standard and Advanced
Edge Gateway	Free with Standard and Advanced, Used for Secure connection to remote clients and phones.
Ingate SIParator Traversal License	One required per SIP trunk connected to Ingate SIPerator 21, 51, 56
Ingate Software-only SIParator Traversal License	One require per SIP trunk in a virtual Environement
Shoreware Applications Server	
Add'l Language License	One required for each additional language per system image.
SIP Trunk Software Licence	One required per SIP trunk connected to Voice appliances
SIP Device License	One required per 3rd party SIP device (Not required for 400 series)
SIP Based 3rd Party messaging integration License	Used to connect to 3rd Party Voice mail system via SIP, e.g. Microsoft Exchange.
Distributed Voice Services License	Used to allow large network design, voice mail optimisation, workgroup or data-base resiliancy. (See system capacity) or to integrate with 3rd Party Applications
Additional Site License	One required for all remote sites from HQ. Design recomendation is to have one for every site to allow HQ Server portability.
Unfied Communications	
Audio Conferencing	One required per concurrent audio conference port Works on SA-100,SA-400 and Virtual SA
Web Conferencing	One required per concurrent desktop sharing session. SA-100, SA-400 and Virtu-al SA.
Connect Profiles	
Courtesy	Ext Only, No VM, No client, No add-ons
Telephony	Ext + Mbx, Ad hoc 3-party audioconferencing, No client, No add-ons
Essential	Ext + Mbx, Pro Call Mgr, Enables IM and Collaboration (server required with Audio & Web Licences), Web & Appdialer, Mobility basic (Find Me, etc.)
Standard	Essentials + Mobility client (server required), Remote Phone(Edge GW), SFDC/other CRM
Advanced	Standard + Operator
Workgroup Agent Access	Essentials +Queue Handling, Workgroup voicemail. Log in, Log out. (No Video)
Workgrroup Supervisor Access	Workgroup+ Agent Management (No Video)

Licence Types

	SIP	MGCP
Basic	IP420 CLASS 1*	
General Purpose	IP480 CLASS 2(g)	
Executive Colour Conference	IP485 CLASS 0 (g)	IP655 CLASS 3 (g)
Operator / Key System	IP485 with BB424	
Wireless	Dock Softphone	IP930d Base Station CLASS 2

(g) indicates Gigabit Ethernet caperbility or Versions available, check with data sheet

* Indicates PoE Class

ECC Requirements Release 9

ECC Element	Maximum number or value
Max Configured Agents	2000
Max Simultaneous Agents	1000
Max DNIS Routes	1500
Number of Agent Groups	256
Number of Agent Queues	1000
Max number of groups to which an agent can belong	64
Max Skills	256
Max Wrap Up/ Release Codes	512
Max Secondary Announcements	20
Max IVR Ports per server	254
Max Calls in Queue per server	254
Max Agent Boards	256
Max Active Supervisors	100
Max Wallboards/Agentboards	256
Database Backup Periodicity	1 a day
Maximum interactions	15,000 calls (voice, email, and chat) per hour with up to 600 agents, 10,000 calls (voice, email, and chat) per hour with 601 to 1000 agents
Max IRN	1500
Max Active Supervisors tested in performance	15
Maximum number of scheduled reports in an hour	10
Wallboard API Feed Active?	Yes
Agent Board API Feed Active?	Yes
CCIR Enabled?	Yes

ECC System Capacity

PC Requirements	Supervisor PC Running CC Only	Supervisor PC with CCand Communicator	Agent PC Running CC Only	Agent PC with CC and Communicator
CPU	Pentium IV 2.0 GHz	Duel Core 1.6 Ghz	Pentium III 800 MHz	Pentium IV 2.0 GHz
Available Memory	1 G	1 G	512 MB	1 G
Hard Disk Space	2 G	2 G	1 G	1 G
CD	Optional			
First Network Adapter	10/100 Mb			
External Modem	Optional			
Vista/Windows 7/ Windows 8 Operating System				

Licence	Description
System	The node-locked system license key required for all systems.
Voice	The maximum number of agents, who log into a group that requires a license to handle incoming and outbound voice calls, that can be logged into the system concurrently.
Email	The maximum number of agents, who log into a group that requires a license to handle incoming email contacts, that can be logged on the system concurrently.
Chat	The maximum number of agents, who log into a group that requires a license to handle incoming chat contacts, that can be logged into the system concurrently.
Dial Lists	The maximum number of agents, who log into a group that requires a license to handle outbound dial lists calls, that can be logged into the system concurrently
IVR Ports	The maximum number of IVR ports the system will use. Note that you can define additional IVR ports than the number for which you are licensed. This allows you to use IVR stations to create redundant IVR stations.
Supervisor	The maximum number of supervisors that can be logged into the system concurrently. Contact Center currently supports up to 100 concurrent supervisors.
Redundancy	Enables running the Contact Center system in a redundant configuration.
Agent Activity API	The number of external applications able to connect and receive agent data.
Group Activity API	The number of external applications able to connect and receive group data.

License Requirements

Size	Processor / Server	Minimum CPU	Minimum Ram	Naetwork	Free Disk Space
<= 599 Agents	Intel Core 2 Due E8400 Single Dual Core	3.00 GHz	4 GB	100 Base-T or Gigabit Ethernet	200 GB
<= 599 Agents	Intel Core i3-540 Processor (4M Cache)	3.06 GHz	4 GB	100 Base-T or Gigabit Ethernet	200 GB
<= 599 Agents	Intel Xeon x3430 Single Quad Core	2.4 GHz	4 GB	100 Base-Tor Gigabit Ethernet	200 GB
<=1000 Agents	Intel Xeon e5520 Single Quad Core	2.27 GHz	8 GB	100 Base-T or Gigabit Ethernet	500 GB
<= 1000 Agents	Intel Xeon e5520 Dual Quad Core	2.27 GHz	8 GB	100 Base-T or Gigabit Ethernet	750 GB

System Requirements ECC Server

System Size	# of Agents	Call Load Per System	Cores Per VM RAM per VM	Disk Size for Contact Center	Server
Small	< 100	7,500	2	4 GB	200 GB
Medium	100-599	15,000	4	8 GB	500 GB
Large	600-1,000	10,000	4	8 GB	750 GB

System Requirements for Virtualised Deployment ECC Server