Solution Value Proposition.

An on-site business phone system with the perfect union of communication and collaboration tools presented in one easy-to-use interface with a low total cost of ownership.

Key Value Statements

Exceptional User Experience

- Easy to use.
- Intuitive User Interface.
- MAC or PC Client.
- Unified Teleworking Options.
- Distributed administration (Browser based).
- Consistent User experiences across all devices.
- Highly Available (99.999%).

Complete UC&C Solution

- Feature rich UC Capability.
- Telephony, IM, Collaboration, Video.
- Integrated Mobility Solution (FMC).
- Advanced Integrations:-
  - Google
  - SFDC
  - 13 CRM Plug ins
- In built VPN.
- Flexible Contact Centre Options.

Low Total Cost of Ownership

- Easy to Implement and maintain.
- Simple Administration.
- Highly reliable distributed architecture.
- Simple Licensing model.
- Simple path to the cloud.
- Flexible deployment options. Onsite, Hybrid, Cloud (With MiCloud Connect).
- Small Business System Options (SBE).

Key Components

Key Components	
ST Voice Switches	A range of fixed configuration call control devices supporting, IP, Analog, PSTN and SIP connectivity. The correct switch is selected by capacity and connection requirements.
SG Voice Switches	Legacy call control appliances. Including BRI Options.
Virtual Phone Switch	Virtualized Call control supporting IP Phones and 3rd party SIP phones.
Virtual Trunk Switch	Virtualized call control for SIP Trunking.
Service Appliance	Enables Collaboration, IM and presence.
Mobility Router	Fixed Mobile Convergence (FMC) enabling device, integrating Connect for Mobile into the user profile.
Edge Gateway	Virtualized only gateway enabling teleworking for clients, IP400 series handsets and MiVoice Connect Contact Centre agents.
Ingate SIParator	Session Border Control for SIP Trunks.
HQ Server	Main control server, publishes web-services for browser based management, stores CDR and System Database, provides system authentication and voicemail / auto attendant.
Distributed Voice Server (DVS)	Enables system scalability, distributed voice mail, auto attendant, voice switch and desktop client control.
Device Support	6900, 6970, IP400, Analog, Mitel SIP DECT, 3rd Party SIP device
Virtualisation	All appliances can be virtualized with VMWare or Hyper V except those with ISDN, or Analog connections
Application Support	Mitel Performance Analytics (MPA), Mitel Interaction Recording, Mitel Revolution, MICC Business SIP, Connect CX. MiCloud Connect (Hybrid).

For BRI Connections use SG90BRI(V), SG30BRI

SG switches can be deployed with Connect but remember to trade off IP Resources and does not have some ST features or performance. Note:- UDP and IP Headers will increase overall bandwidth. i.e. G711 increases 64 KBps to 87.2 KB/s. SG switches have been EOL, but there may still be some stock. Check your representative for details.

This Design Card is largely based on the Planning and Installation Guide release 19.2. Information changes please verify.
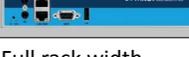
Switch	IP	T1 / E1	SIP Max*	FXO	FXS	Conf Inc	Conf Max	HG PG	BCA	PFT	BHCC	Long Loop	
ST50A	50		8	4	4	6	14	24	36	yes	450		
ST100A	100		14	8	6	12	26	24	36	yes	1,800		
ST100DA	100	1	38	2	6	12	50	24	36	yes	1,800		
ST1D		1	30								7,200		
ST2D		2	60								14,400		
ST200	200					12	12	24	36		3,600		
ST500	500					24	24	24	36		7,200		
ST24A					24		24	24	36		3,600	yes	Full rack width (1 x RJ21)
ST48A					48		48	24	36		7,200	yes	Full rack width (2 x RJ21)
Virtual SW	1000					60*		40*	120*		25,000*		<=1000*
Virtual TR			1,000										1,000, Without advanced Features

Table 70 * These are maximums depending on VMware/HyperV Specifications

Switch	IP	Built in	PRI	SIP MP*	BRI	FXO	FXS	MB	MB	
SG30BRI**	30	10			1		2			
SG90BRI**	90	30			4		4			
SG90BRIV**	90	30			4		4	90	9	

Table 71 Legacy Switches still available on CPQ

Switch	IP	Built in	PRI	SIP MP*	BRI	FXO	FXS	MB	MB	
SG30	30	10				2	2			
SG50	50	20				4	2			
SG50V	50	20				4	2	50	5	
SG90	90	30				8	4			
SG90V	90	30				8	4	90	9	
SG220T1	220	100	T1	20						
SG220T1A	220	70	T1	20		2	4			
SG220E1	220	70	E1	20						
SGT1K	0	0	T1	20						
SGE1K	0	0	E1	20						
SG24A	0	0					24			Full rack width (1x RJ21)
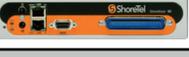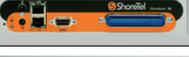
Table 71 Legacy Switches EoS but maybe installed already

Licence	Description
Virtual Switch Licences	
Virtual Phone	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 Service Appliance	Free for IM. Requires Audio and Web license purchase for conferencing.
Virtual SMR	Required to enable Connect for Mobility in UC Profiles, free with virtual deployments.
Edge Gateway	Free with Standard & Advanced Profiles, Used for Secure connection to remote clients and phones.
Ingate SIParator Traversal License	One required per SIP trunk connected to Ingate SIParator 22, 42 or older models.
Ingate Software-only SIParator Traversal License	One required per SIP trunk in a virtual Environment
HQ Applications Server	
Add 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 or 6900 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 (DVS) License	Used to allow large network design, voice mail optimisation, workgroup or database resiliency. (See system capacity) or to integrate with 3rd Party Applications
Additional Site License	One required for all remote sites from HQ. Design recommendation is to have one for every site to allow HQ Server portability.
Unified Communications	
Audio Conferencing	One required per concurrent audio conference port Works with SA-100,SA-400 and Virtual SA
Web Conferencing	One required per concurrent desktop sharing session. Works with SA-100, SA-400 and Virtual SA.
License, Remote Phone for Edge Gateway	Used to enable internet audio connectivity for users on a conference without a Connect Client..
MiVoice Connect Profiles	
Courtesy	Ext Only, No VM, No client, No add-ons
Telephony	Ext + Mbx, Ad hoc 3-party audio-conferencing, No client, No add-ons
Essentials	Ext + Mbx, Pro Call Mgr, Enables IM and Collaboration (server required with Audio & Web Licences), Web & App-dialer, Connect for Mobility (Server required), Connect for Chrome, Telephony for Microsoft
Standard	Essentials + Remote Phone(Requires Edge GW), SFDC/other CRM,
Advanced	Standard + Operator, Workgroup Supervisor = Agent Management (No Video) = Queue Handling, Workgroup voice-mail. Log in, Log out. (No Video)

Licence Types

IP 400

IP420

CLASS 1
Mono Screen
2 Program Keys
6 Feature Keys
10573 - IP420
10574 - IP420G

IP480

CLASS 2
HD Audio
Mono Screen
8 Program Keys
6 Feature Keys
HD AUdio
10576 - IP480
10577 - IP480G

6970

CLASS 3
Colour Screen
HD Audio
Generic SIP only
2 USB Ports
50008271 - 6970
50008272 - Ext Mics. (x2)

IP485G

CLASS 2
Colour Screen
HD Audio
8 Program Keys
6 Feature Keys
USB Port for BB424
10578 - IP485G

IP485 with BB424

Colour Screen
24 Tricolour LED
4 Page (96 max)
with ext PSU
10575 - BB424
10532 - BB424 PSU

6900

6910

CLASS 2
Mono Screen
8 Program Keys
(Paper Label)
HD Audio
USB Port
50006766 - 6910

6920

CLASS 2/3
8.9cm Colour Screen
6 Program Keys
HD Audio
USB Port (Headset)
Bluetooth 4.1 Via USB dongle
Supports PKM Module
50008311 - 6920

6930

CLASS 2/3
10.9cm Colour Screen
12 Program Keys
HD Audio
USB Port (Headset)
Bluetooth 4.1 built in
Bluetooth Handset (optional)
Integrated DECT Headset
Supports PKM Module
50008312- 6930

6940

CLASS 2/3
17.8cm Colour touch Screen
16 Program Keys
HD Audio
USB Port (Headset)
Bluetooth 4.1 built in
Bluetooth Handset (standard)
Integrated DECT Headset
Supports PKM Module
50008313- 6940

6920-40 With PKM

Colour Screen
28 Program Keys
3 Page (84 total)
Connects to expansion port
50006874 - M695PKM

Accessories

Integrated DECT Headset

100m Range
8 Hour Talk Time
HD AUdio
Noise Cancelling Mic
Integrated Call Controls
Powered by Phone
51305334 - Headset (EU)
51305335 - Headset (FRU)

Wireless Bluetooth Handset

10m Range
6 Hour Talk Time
HD AUdio
Noise Cancelling Mic
Integrated Call Controls
Powered by Phone
Bluetooth 4.1
Supported 6930 (optional)
and 6940 (standard)
51305334 - Headset (EU)
51305335 - Headset (FRU)

S720 Bluetooth Speakerphone

HD Audio
Rechargeable
battery via USB
Can link two together
Supported on 6930 and 6940
51306580 - BT Speakerphone

WLAN Adapter

802.11 dual band connectivity
Provides PoE to phone
PC Port
300m/bs connectivity
802.1x security
Management Programme
51305106 - WLAN Adapter

	IP 400	6900	Accessories
Standard / Entry Level	IP420	6910	Integrated DECT Headset
Value	IP480	6920	Wireless Bluetooth Handset
Conference/ Performance	6970	6930	S720 Bluetooth Speakerphone
Executive	IP485G	6940	WLAN Adapter
Operator / Key System	IP485 with BB424	6920-40 With PKM	

DECT

IP930d single cell

Available Globally
4 Handsets / Base Station
Full Connect Call Control
Acts as a IP230 Handset
IP930D Starter Kit
(Base Station + 1 Phone)
10384 - US,CA,MX
10385 - EU, ANZ
10449 - Repeater
10389 - IP930D Handset

Mitel SIP-DECT multi cell (Available EU, UK and ANZ)

Colour display (2" / 5 cm)
3 softkeys (2 programmable) /
2 sidekeys (+/-)
Caller list for 30 entries
Redial list for 20 entries
200 entry phone book
Headset Socket

612

Colour display (2" / 5 cm)
1 hotkey
3 sidekeys (programmable)
3 softkeys (2 programmable)
2 programmable navigation keys
Caller list for 50 entries
Redial list for 30 entries
200 entry phone book
Headset Socket
Bluetooth
Mini USB connection
microSD-Card Interface

622

Colour display (2" / 5 cm)
1 Hot-key
3 Side-keys (programmable)
3 Soft-keys (2 programmable)
2 Programmable navigation keys
1 Emergency call key (SOS)
Caller list for 50 entries
Redial list for 30 entries
200 Entry phone book
Sensor for Man-down,
No-movement alarm,
Escape alarm
Headset Socket
Bluetooth
Mini USB connection
MicroSD-Card Interface
IP65 Protection

632

RFP44 - | Indoor 4 Channel - | 50006973
RFP45 - | Indoor 8 Channel - | 50006972
RFP47 - | Indoor 8 Channel ext Ant. - | 50006975
RFP 47 DRC - | Indoor / Outdoor,
| 8 Channel / Directional Ant. - | 50006975
RFP48 - | Indoor, DECT + Wireless LAN - | 50006976

Wi-Fi

Connect Client
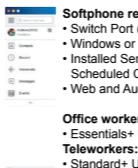
Softphone requires:-
• Switch Port (only when not assigned to handset)
• Windows or MAC
• Installed Service Appliance for IM and presence, Scheduled Conferencing
• Web and Audio Licences per conference port.

Office workers:-
• Essentials+ User Profile
Teleworkers:-
• Standard+ User Profile
• Installed Edge Gateway

Connect for Mobile

Connect for Mobile requires:-
• Switch Port
• SIP Trunk port (1 per 4 to 5 users)
• IoS or Android Mobile (Please check release notes for latest model support.)
• Essentials+ User Profile
• Installed Mobility Router
• Installed Service Appliance for IM and presence, Scheduled Conferencing
• Web and Audio Licences per conference port

Size	Maximum number of endpoints 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
UC 30 (SBE)*	100	100	5,000	2,500	Not Recommended
UC 75 (SBE)*	100	100	5,000	2,500	Not Recommended
Small	100	100	5,000	2,500	Not Recommended
Medium	500	500	5,000	2,500	Not Recommended
Large**	2,500	1,000	25,000	5,000	1,000

Table 84 Headquarters Server Capacity Requirements (New / Existing Servers)

# 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
2,500	15	1	625	18.8 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 77 Voice-mail Hard Disk Space

Size	Processor	RAM	Disk.	Network
UC 30 (SBE)*	Intel Xeon E3-1225 v5 3.3 GHz Quad Core	8 GB	500GB	100 Base-T or Gigabit
UC 75 (SBE)*	Intel Xeon E3-1275 v6 3.8 GHz Quad Core	16GB	500GB	100 Base-T or Gigabit
Small	Intel Xeon E3-1225 v5 3.3 GHz	8 GB	500 GB	100 Base-T or Gigabit
Medium	Intel Xeon E5-2620 v3 2.4 GHz	8 GB	500 GB	100 Base-T or Gigabit
Large**	Intel Xeon E5-2640 v3 2.6 GHz	12 GB	500 GB	Gigabit Ethernet

Table 84 Headquarters Server Hardware Requirements (New / existing server)

# 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 78 Call Detail Records

Size	Max Users per system	Maximum Number of Users per Server (Phones Managed by Switches Managed by Server)	Maximum System BHCC	Maximum BHCC per server Reports run outside business hours	Maximum BHCC per server Reports run during business hours
UC30* (SBE)	100 / 500*	100 / 500*	5,000	2,500	Run on HQ
UC 75* (SBE)	100 / 500*	100 / 500*	5,000	2,500	Run on HQ
Small	100	100	5,000	2,500	Run on HQ
Medium	500	500	25,000	5,000	Run on HQ
Large**	2,500	1,000	50,000	10,000	Run on HQ

Table 85 Distributed Voice Server (DVS) Capacity Requirements (New Servers / Existing Server)

Voice-mail Options	HQ Application Server	Distributed Application Server	"V" Voice Appliances
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)

Table 79 Voice-mail Options

Size	Processor	RAM	Networks
UC 30 (SBE)*	Intel Xeon E3-1225 v5 3.3 GHz	8 GB	100 Base-T or Gigabit
UC 75 (SBE)*	Intel Xeon E3-1275 V6 3.8Ghz	16 GB	100 Base-T or Gigabit
Small	Intel Xeon E3-1225 v5 3.3 GHz	8 GB	100 Base-T or Gigabit
Medium	Intel Xeon E3-1275 v5 3.6 GHz	8 GB	100 Base-T or Gigabit
Large	Intel Xeon E3-1275 v5 3.6 GHz	8 GB	Gigabit Ethernet

Table 85 Distributed Voice Server (DVS) Hardware Recommendations (New / Existing Servers)

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

Table 80 Hard Disk Requirements minimum requirements For applications

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

Table 81 Log File Hard Disk Space

All table numbers correspond to those in the Planning and Installation Guide. Recommended min disk space of 500GB.
* UC30 and UC75 are now end of sale but you may find customers who wish to re-purpose them.
**Larger system configurations are possible but require sign off from SE and PLM
.

Server Size	Max endpoints per system	Max endpoints per server (phones managed by switches managed by server)	Max system BHCC	BHCC per server Reports run outside of business hours	Maximum BHCC per server Reports run during business hours	Virtual Cores	RAM per VM	Disc Space	Network
Small + SBE	100	100	5,000	1,000	Not recommended	4	4GB	200GB	100 Base-T Or Gig.
Processor	Intel Xeon E3-1275 v5 3.60 GHz								
Medium	500	500	5,000	2,500	1,000	4	8 GB	200GB	100 Base-T Or Gig.
Large**	2,500	1,000	25,000	5,000	1,000	8	8 GB	300GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*								

Table 87 HQ Server Virtual Requirements for VMWare and Hyper V

Server Size	Max endpoints per system	Max endpoints per server (phones managed by switches managed by server)	Max system BHCC	BHCC per server Reports run outside of business hours	Maximum BHCC per server Reports run during business hours	Virtual Cores	RAM per VM	Disk space	Network
Windows Virtual DVS									
Small + SBE	100	100	5,000	1,000	Run on HQ	2	4GB	200Gb	100 Base-T Or Gig.
Processor	Intel Xeon E3-1275 v5 3.60 GHz								
Medium	500	500	5,000	2,500	Run on HQ	4	8 GB	200GB	100 Base-T Or Gig.
Large**	2,500	1,000	25,000	5,000	Run on HQ	8	8 GB	200GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*								
Linux Virtual DVS									
Small + SBE	100	100)	5,000	1,000	Run on HQ	2	4 GB	200 GB	100 Base-T Or Gig.
Processor	Intel Xeon E3-1275 v5 3.60 GHz								
Medium	500	500	5,000	2,500	Run on HQ	4	8 GB	200 GB	100 Base-T Or Gig.
Large**	2,500	1,000	25,000	5,000	Run on HQ	8	8 GB	200 GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*								

Table 88 & 89 Windows and Linux DVS Virtual Requirements

Server Size	Max endpoints per system	Max endpoints per server (phones managed by switches managed by server)	Max system BHCC	BHCC per server Reports run outside of business hours	Maximum BHCC per server Reports run during business hours	Virtual Cores	RAM per VM	Disc Space	Network
With SBE Licence	100	100	5,000	2,500	Not recommended	12	16GB	1 TB	100 Base-T Or Gig
With Enterprise Licence	500	500	5,000	2,500	Not recommended	12	16GB	1 TB	. 100 Base-T Or Gig
Processor	Intel Xeon E3-1275 v5 3.60 GHz								

Table 90 UC75 Server Capabilities for Deploying Several Applications (using VMware or Hyper-V)

Max Number of Users	Maximum Number of local Wi-Fi clients	Maximum Number of local Wi-Fi calls (not bridged through SMR)	Maximum Number of Remote Tunnels	Maximum Number Secure Remote Voice Calls using default encryption	Maximum Number Remote calls that require transcoding	Virtual Cores	RAM per VM	Disk space	Networks	Network interfaces
100	100	100	100	100	50	2	2GB	100GB	100 Base-T or Gig.	2
1000	1,000	1,000	1000	300	150	4	4GB	100GB	100 Base-T or Gig.	2
Processor	Intel Xeon CPU E5-2630v5@3.6Ghz*									

Mitel Virtual Mobility Router

Max SIP trunks managed by switch without advanced features	Total number of streams	Virtual Cores	RAM per VM	Disk space	Networks
50	100	1	2GB	20GB	100 Base-T or Gig.
100	200	2	2GB	20GB	100 Base-T or Gig.
200	400	4	2GB	20GB	Gigabit Ethernet
400	800	7	2GB	20GB	Gigabit Ethernet
600	1200	10	2GB	20GB	Gigabit Ethernet
1000	2000	16	2GB	20GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*				

Table 38: Virtual SIP Trunk switch (G.711 signalling)

Max SIP trunks managed by switch without advanced features	Total number of streams	Virtual Cores	RAM per VM	Disk space	Networks
25	50	1	2GB	20GB	100 Base-T or Gigabit Ethernet
50	100	2	2GB	20GB	100 Base-T or Gigabit Ethernet
Processor	Intel Xeon CPU E3-1275v5 @3.6Ghz*				
100	200	4	2GB	20GB	100 Base-T or Gigabit Ethernet
200	400	7	2GB	20GB	Gigabit Ethernet
300	600	10	2GB	20GB	Gigabit Ethernet
500	1000	16	2GB	20GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*				

Table 97: Virtual SIP Trunk switch (G.729 signalling)

Max phones managed by switch	RAM per VM	Disk space	Networks
1000	2GB	20GB	100 Base-T or Gig.
Processor	Intel Xeon CPU E5-2630v5@3.60Ghz*		

Table 98 Virtual Phone Switch

No. of Trunks	Up to 100	Up to 200	Up to 1,000
Memory	500 MB	1 GB	2 GB
Cores	1	2	4
Disk	20GB	20GB	20GB
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*		

Table 94 Virtual Ingate Requirements

* CPU must have similar or better performance based on single threaded rating found on www.CPUBenchmark.net, Minimum Supported VMware Version 6.0.
** Larger system configurations are possible but require sign off from SE and PLM

Size	RAST Connections	Active RAST Calls	Clients	Concurrent Clients voice calls	Virtual Cores	RAM per VM	Disk space	Networks
Small	100	50	50	50	2	2GB	100GB	100 Base-T or Gig.
Processor	Intel Xeon CPU E3-1275v5@3.60Ghz*							
Medium	500	100	400	100	4	4GB	100GB	Gigabit Ethernet
Large	2,000	200	800	200	8	8GB	100GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4@2.2Ghz*							

Table 99 Edge Gateway

Server Size	G711	G722	G729	Secure WEB sessions	IM	Virtual Cores	RAM per VM	Disk space	Networks
Small	50	15	50	50	500	4	2GB	100GB	100 Base-T or Gig.
IM-only	0	0	0	0	2,000	2	2GB	20GB	Gigabit Ethernet
Processor	Intel Xeon CPU E3-1275v5 @3.6Ghz								
Large	200	60	200	200	2,000	8*	6GB	100GB	Gigabit Ethernet
Processor	Intel Xeon CPU E5-2630v4 @3.6Ghz*								

Table 91 VMware or Hyper V Capacity and Server Requirements for Virtual Service Appliance
*This number is the recommended guideline. You can allocate fewer virtual processor cores, but monitor the performance load to ensure that CPU utilization is less than 75 percent.

Feature	Small VSA	Large VSA	SA-100	SA-400
Audio with SRTP				
Max G711	50	200	50	200
Max G.729	50	200	50	200
Max G.722	15	60	15	15
Max audio conferences	25	250	16	64
Web with HTTPS				
Max number of web (HTTPS) users	50	200	30	100
Max attendees per conference	50	200	50	200
IM with TLS				
Max number of IM users	500	2000	500	2000

Table 61: Service Appliance Feature Capacities

Service Appliance	Capacity G711/G729 (G722)	Max Size of Conference
SA-100	50 (15 G722) 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 (60 G722) Audio, 200 Web, 2000 IM	200 Audio, 200 Web, Max 64 Conferences, up to 1000 hours of conference data, max 5 units per system image (EOS)
Small VSA	50 (15 G722) Audio, 50 Web, 500 IM	Max 25 Conferences
Large Virtual -SA	200 (60 G722) Audio, 200Web, 2000 IM	200 Audio, 200 Web, Max 100 conferences, max 5 per system image.

Table 92 Hardware / Network Requirements for Service Appliance

Mitel 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 / Virtual Series	10-1000 Users	All of the above plus High Availability

Table 73 Hardware / Network Requirements for Mobility Router

Codec	Sample Rate	Data Rate
L16/1600 (Linear Broadband)	16 KHz	256Kbps
L16/8000 (Linear)	8 KHz	128 Kbps
G.711 µ-law (PCMU)	8 KHz	64 Kbps
G.711 A-law (PCMA)	8 KHz	64 Kbps
G.722	16 KHz*	32 Kbps
G.729a	8KHz	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		

Table 74: Supported Codecs

MiVoice Connect Client	Bandwidth Use
Phone Only	.2kbps
Connect Client	.2kbps
Operator Extension Monitor	.2kbps +1.5 Kbps 1.5 Kbps per monitored ext.
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 between packets	

Table 75: Typical Bandwidth Use for MiVoice Connect Client

Ingate Feature / Model No	S21	S52	S95	S97	S98
Interfaces (10/100/1000 Mbit/s)	4	6	6, 2 Gbps opt	6, 2 Gbps opt	6, 2 Gbps opt
Power consumption (typical)	25 W	100 W	180 W	200 W	250 W
Max numbers of VLANs (802.1q)	32	128	512	512	512
SIP Connection set up, max calls/s	40	60	80	100	100
RTP data delay (10 Mbps/100 Mbps) network	0.19/ 0.08 ms	0.19/ 0.08 ms	0.19/ 0.08 ms	0.19/ 0.08 ms	0.19/ 0.08 ms
Max number of concurrent calls (20 ms G.711 voice packets)	400	2,000	4,000	8,000	20,000
Secure VoIP sessions (TLS+SRTP)	300	1,500	2,500	3,000	8,000

Table 76. Requires firmware 5.0.6 or greater.

Application	Version
Mitel Main and Distributed Servers (Standalone, VM-ware and Hyper-V)	• Windows Server 2019 (Standard or Datacenter Editions only) • Windows Server 2016 (Standard or Datacenter Editions only) • Windows Server 2012 R2 (Standard, Datacenter Editions only, 64-bit) • Windows Server 2008 R2 (Standard and Enterprise Editions only) with SP1 (64-bit version) Note: 19.1 SP2 will be the last MiVoice Connect release to support Windows Server 2008.
	• Microsoft Hyper-V Gen 1 and 2 on Microsoft Windows 2012R2 Support for HQ, WDVS, LDVS, vSwitch, and Virtual Service Appliance • Microsoft Hyper-V Gen 1 on Microsoft Windows 2016 - HQ Server, WDVS, LDVS, vSwitch, and Virtual Service Appliance
	• VMware 6.0, 6.5 and 6.7 – Support for HQ, WDVS, LDVS, vSwitch, Virtual Service Appliance, vMobility, Virtual Edge Gateway
Mitel supplied SBE / Distributed Servers	• UC25 - Windows Server 2012 Standard R2 • UC30 – Windows Server 2016 / 2019 Standard • UC75 – Windows Server 2016 Standard
Mitel Connect Client for Windows	• Microsoft Windows 7 Professional & Enterprise, 32 & 64 bit • Microsoft Windows 8 Professional & Enterprise, 32 & 64-bit • Microsoft Windows 8.1 Prof and Enterprise, 32 and 64 bit • Microsoft Windows 10 Prof. and Enterprise, 32 and 64-bit • WTS (30 Clients) • Citrix XenApp 7.15 LTSR • Citrix XenApp 7.6 LTSR (30 Clients) • Citrix XenDesktop Support
Mitel Connect Client for macOS X	• Apple OS X 10.11.x • Apple OS X 10.12.x • Apple OS X 10.13.x • Apple OS X 10.14.x • Apple macOS 10.15.x • Safari 12.0.2 • Mojave 10.14.2
VMware	VMware – Support for Mitel HQ WDVS, LDVS, vSwitch, Virtual Service Appliance and vMobility, Virtual Edge Gateway and Connect Contact Center is as follows (this includes support for High Availability and VMotion): • VMware ESXi 6.0, 6.5 and 6.7 • VMXNet3 Virtual adapter (not the E1000) The following two VMware features are not supported: 1. Fault tolerance is not supported. 2. Snapshots not supported except during service shutdown periods. These can consume significant CPU and memory resources impacting system operation. Note: Unless specifically in Mitel documentation or Mitel App Notes, third party solutions are not supported on Mitel virtual machines. Please check with the third-party solution vendor for their compatibility in a virtual environment and their level of support with virtual machines. Also consult the Planning and Installation Guide and Connect Migration Guide before deploying.
Hyper-V	• Microsoft Hyper-V Gen 1 and 2 on Microsoft Windows 2012 R2 – Support for HQ, WDVS, LDVS, vSwitch, vSA and Virtual Service Appliance • Microsoft Hyper-V Gen 1 on Microsoft Windows 2016 – HQ Server, WDVS, LDVS, vSwitch, vEGW, vMMR and vSA. *Note: Hyper-V Replica or Snapshots can only be performed during service shutdown periods. The following Hyper-V features are not supported: 1. Double Take Note: Unless specifically in Mitel documentation or Mitel App Notes, third party solutions are not supported on Mitel virtual machines. Please check with the third-party solution vendor for their compatibility in a virtual environment and their level of support with virtual machines. Also consult the Planning and Installation Guide and Connect Migration Guide before deploying.

Application	Version
Internet Browsers for Director	• Internet Explorer 11 • MS Edge 44.17763.831.0 • Firefox 72.1.2 • Google Chrome 79.0.3945.130 • Safari 13.0.4
Mitel 6900 Headsets	Tested 3rd Party Headsets: • USB Wired Headset • Plantronics Blackwire C725 (firmware v.135) • BT Headsets • Plantronics Voyageur Legend (Firmware v.107) • Jabra Pro 935 (Firmware v.1.4.6) • Jabra Evolve 65 UC (Firmware1.5.8) • Jabra Motion UC (Firmware 3.72) Jabra Pro 9460 (Firmware 1.4.6) • Analog • Plantronics CS540 (with APS -11 EHS accessory cable) • Jabra 2300 Duo (with LINK 14201-10 accessory cable) • GN Netcom 2100 series Important Notes: Please see headset vendor sites for compatibility of headsets and required accessory cables with Mitel 6900 SIP phones It is very likely analog EHS headsets integrated with the IP400 phone require a different EHS cable to function correctly. Please see headset vendor site for details
Mitel 6900 MobileLink Supported Mobile phone OS's	iOS 10.x,11.x,12.x,13.x Android 7.0,8.1,9.0,10.0
Mitel SoftPhone Headsets	The SoftPhone feature is compatible with most USB-based headsets that use standard Windows USB driver. Mitel does not support Bluetooth headsets that connect directly to the PC's Bluetooth port. The user experience with Bluetooth headsets has proven to be disappointing in office environments because of interferences from corporate WiFi networks. However, the Mitel SoftPhone is compatible with headsets such as the Plantronics Voyager Bluetooth system that connects the Bluetooth headset to the PC via a USB base. Softphone support for Jabra: • Jabra Evolve 30 (Mono 7 Stereo) • Jabra Evolve 65 Stereo UC & Link 370 • Jabra Engage 75 • Jabra Engage 65
Microsoft Office	• Microsoft Exchange Server 2010, 2013 and 2016 • Microsoft Outlook 2010, 2013, 2016 and Office 365

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	254/server	This is per server
Analogue Ports	5,000	Exact number varies by configuration.
IP Phones	2,500 recommended	Exact number varies by configuration. See Server capacity table.
Simultaneous Calls	1,500.	1,500 calling 1,500
Busy Hour Call Completion	25,000	Depending upon server configurations
Users		
Endpoints	2,500 recommended.	*Note: While the maximum capacity for a single image system is 2,500 endpoints, larger deployment sizes are possible with prior approval from Mitel. Larger system designs must be reviewed by Sales Engineering and approved by Product Management and TAC. Consult with your Mitel sales representative to initiate this process if required.
– Port Based Users	500	
– IP Phone Users	2,000	
– Virtual Users	1,000/server	
User Groups	250	
Telephony Permissions	100	
Call Permissions	100	
Voice Mail Permissions	100	
Trunks		
Trunks	1,500	
Trunk Groups	500	
Number of Trunks/TG	500	
Servers		
Number of servers	21	1 main, 20 distributed (for voice mail, auto-attendant, messaging, directory, configuration services, and desktop call control). Each server is certified to support up to 1,000 users.

Component	Capacity	Notes
Number of Voice-mail Box Switches (VMBs)	500/system 100/server	
Number of 3rd Party SIP Servers	20	
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)	2,500 recommended	These can be distributed across the servers.
Mailboxes (per server)	1,000	
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 (SG)	8	
Total hunt group members per hunt group SG Switches	16	
Hunt groups per switch (ST)	24	
Total hunt group members per switch (ST)	24	
Total hunt group members per hunt group on virtual switches.	16	
Workgroups		
Workgroups (total)	256/system	
Members per workgroup	300	Top down, round robin, longest idle and simultaneous distribution patterns.
WG Agents (total per system)	300/system	If more are required it is recommended you investigate the Mitel Connect Contact Center Solution
WG Agents	16	Simultaneous ring.
Calls in Queue per Queue	254/server	Overflow is directed to the workgroup backup extension.
BHCC/system without reports during business hrs	Large HW = 10K Med HW =5K Small HW = 2.5k	See Server HW specs for size & traffic considerations

Table 100 System Capacities from the Planning and Installation Guide

Component	Capacity	Notes
BHCC/system with reports during business hrs	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	
Paging Groups		
Paging Groups (total)	300/system	
Paging Group Members	300/system	
Max # of simultaneous pages	100/server	
Account Codes		
Account Codes (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).
MiVoice Connect Client		
MiVoice Connect Client	2,000 / system 1,000 / server	
Softphone endpoints	2,000/system 250 on Headquarters server 400/Linux DVS 250/Windows DVS	If softphones are used with resource intensive features (such as workgroups, hunt groups, route points, simultaneous ring, and BCA/SCAs), the maximum number of supported softphone endpoints per Headquarters server, Linux DVS, and Windows DVS would be 30 percent lower.
Phone Only	2,000	Number of phones that can be managed using the Connect Client
Workgroup Agent	300 per server, 300 per system	
Workgroup Supervisor	128 per server, 128 per system	
Workgroup Agent/server	300 per server, 300 per system	
Operator	200	Up to 500 monitored extensions per operator, depending on the value of the Max buddies per user field on the Telephony Features Permission page in Mitel Connect Director.

Component	Capacity	Notes
Music on Hold (MOH)		
File-based music on hold	255 calls per server	.
Jack based music on hold	36 calls	One switch can provide up to 36 MOH streams
Programmable Buttons		
IP phone buttons configured for extension monitoring (per switch)	1024	Solution Architect Recommendation 250 for optimum experience.
Phones that can monitor an extension	32	
Voice Switch Capacity		
Media streams/switch (No encryption)	60	
Music on Hold (MOH)		
File-based music on hold	255 calls per server	
Jack based music on hold	36 calls	One switch can provide up to 36 MOH streams
Programmable Buttons		
IP phone buttons configured for extension monitoring (per switch)	1024	Solution Architect Recommendation 250 for optimum experience.
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	

Table 100 System Capacity from Planning & Installation Guide

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
Virtual SMR	1000	500	300	500	200

Mitel Mobility Router System Capacity

Feature	SBE 100	Enterprise Edition Recommended Capacities	System Max (See Note)**
Sites	5	500	500
Switches	7	500	500
Users (with extensions)	100 (SBE System Key) 200 (Enterprise System Key)	2,500	20,000
Telephones	100	2,500	20,000
Trunks	100	1,500	10,000
Simultaneous calls, extension-to-extension	50	1,500	10,000
Busy Hour Call Completion	1,000	25,000	100,000
DVS	4	20	20
Integration with 3rd party PBX	No	Yes	Yes
On-net dialling	No	Yes	Yes
Voice mailboxes	120	500 / System 100 / Server	20,000
Simultaneous calls per server	25	254	254
AMIS	No	Yes	Yes
SMDI - External voice-mail	No	Yes	Yes
SMDI - MiVoice Connect voice-mail	No	Yes	Yes
Service Appliance 100 (SA100)	2	5	5
SA100 MAX audio/web/IM ports	100/50/100	256/ 300/ 128	1,000/1,000/10,000
Service Appliance 400 (SA400)	No	Yes	Yes
Workgroups (groups, agents, supervisors)	100/100/100	256/300/128	256/300/128
Mitel Mobility clients	100	5,000	5,000
Distributed features: workgroups, database, paging, account codes	No	Yes	Yes

Table 101 SBE and Enterprise Edition Differences

	Hunt Group	Bridged Call Appearance	Pick Up Groups	P Pones
Extension	SG:8 ST:24	SG:24 ST:36	SG:16 ST:24	SG:120
Members / Extensions	See Total Members Below	SG:32 ST:44 Phones monitoring the same extension	SG:24 ST:24	N/A
Stack Size / Extensions	SG:16 ST:24	SG:24 ST:36	N/A	SG:24
Total members on all extensions	SG:16 ST:16	N/A	SG:80 ST:80	N/A

Table 102 Feature Capacity General Guidelines

Phones	Up to 1000
Backup Auto-Attendant Steams	50
Make-Me Conference	60
Extension Monitor Buttons	5,000
BHCC	25,000
Hunt Groups	24
Total hunt-group endpoints	160
Endpoint Per HG	16
Pick-Up Groups	80
Total PUG Users	400
Users Per PUG	24*
BCA	120
BCA Call Stack	24
BCA Extensions	32

Table 103 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

*The number of users per hunt group on a virtual switch is variable depending on the size and configuration of the virtual system. Watch the Diagnostics & Monitoring system (Maintenance menu) in Director closely to ensure that the virtual system is not overloaded.

Calculating Specific Real Time Capacity of Switch Appliances

$$\text{Sum } (HG\_stacksize(n) \times HG\_Members(n)) + (monitoring\_phones(n) * BCA\_Monitoring\_LInes(n))/2 <= X$$

X=80 for SG Switchs, X=120 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.

Other worked examples can be found in the MiVoice Connect Partner Selling Guide

** While the maximum capacity for a single image system is 2,500 endpoints, larger deployment sizes are possible with prior approval from Mitel. Larger system designs must be reviewed by Sales Engineering and approved by Product Management and TAC. Consult with your Mitel sales representative to initiate this process if required.

All table numbers correspond to those in the Planning and Installation Guide

CC 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/Agent-boards	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

CC System Capacity

PC Requirements	Supervisor PC Running CC Only	Supervisor PC with CC and Communicator	Agent PC Running CC Only	Agent PC with CC and Communicator
CPU	Pentium IV 2.0 GHz	Dual 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 Types

Size	ACD Agents per System	Max ACD BHCA	Processor / Server	Minimum Ram	Network	Free Disk Space
Small	<300	7,500	Intel Core 2 Duo E8400, Single DualCore 3.00 Ghz Intel Core i3-540 Processor (4M Cache, 3.06 Ghz)r Intel Xeon 3430 Single QuadCore 2.4 Ghz	4 GB	100 Base-T or Gigabit Ethernet	200 GB
Medium	300-600	15,000	Intel Xeon 5520 Single QuadCore 2.27 Ghz	8 GB	100 Base-T or Gigabit Ethernet	200 GB
Medium	600-1000	10,000	Intel Xeon 5520 Dual Quad-Core 2.27 Ghz	8 GB	100 Base-Tor Gigabit Ethernet	200 GB
IVR Server	250 ports per server		Same as "small"	4 GB	100 Base-T or Gigabit Ethernet	500 GB

System Requirements CC 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 Virtualized Deployment CC Server

ECC to MICC Licence Conversion

Mitel — Powering connections

ECC		MiContact Center Business	
SKU	**Description**	**Part**	**Description**
30156	ECC Base 10 Package for Connect Contact Center - Includes server-based software for contact center. Includes 10 Agent licenses (inbound voice / callbacks), 30 IVR Port,1 Supervisor, 2 group/agent feed licenses. Only one Base Package needed per server.	54010520	Migration to CC SIP Starter Pack, includes 5 Agent licenses, unlimited supervisors, and 2 administrators. Allows for installation on 2x servers (primary and backup/development system).
		54010521	Also order 5x 54010521 Migration to CC SIP Agent
		54010336	Also order 20x 54010336 MiVoice Connect NC SIP Trunk License x1 or 54010337 MiVoice Connect NC Virtual SIP Trunk x1 to account for agent SIP trunk requirements
30122	Contact Center Inbound Voice license bundle. Can be used with Connect Contact Center or ECC 7-9. Add-on one agent and one IVR port (concurrent) license. These are incremental licenses over the Base 10 bundle.	54010521	Migration to CC SIP Agent
		54010336 54010337	Also order 2x 54010336 MiVoice Connect NC SIP Trunk License x1 or MiVoice Connect NC Virtual SIP Trunk x1 for each agent license to account for agent SIP trunk requirements.
30127	Contact Center Supervisor license. Can be used with Connect Contact Center or ECC 7-9. One concurrent license includes capability to access Agent Manager, Director, Reports, GCCS and Wallboard Editor	N/A	Supervisors are free and unlimited in MiContact Center Business. If additional administrators are required, order 52003556 Migration to CC System Admin x1.
30108	Contact Center Agent Activity Event Feed license. Can be used with Connect Contact Center or ECC 7-9. One license to activate one agent activity event feed. Two event feed licenses are included in the Base 10 package.	N/A	No equivalent license in MiContact Center Business. Agent activity reporting is included in the core product and APIs are available out of the box.
30126	Contact Center IVR license for one concurrent IVR port. Can be used with Connect Contact Center or ECC 7-9. These are incremental licenses over the Base 10 package.	52003557	Migration to CC IVR Port x1
		54010336 54010337	Also order 1x 54010336 MiVoice Connect NC SIP Trunk License x1 or 54010337 MiVoice Connect NC Virtual SIP Trunk x1 for each agent license to account for agent SIP trunk requirements.
30128	Contact Center Redundant Server license for the warm standby server. Can be used with Connect Contact Center or ECC 7-9. Will be configured with the same licenses as the primary server. Includes a TAPI license.	N/A	No equivalent license in MiContact Center Business. MiContact Center Business includes the ability to install the server on 2x machines, one for active/primary and a second for test/development but aside from VMware tools, there is no built-in redundancy at this time (slated for a future release). Optionally, Connect Workgroups can be used as a failover option in the event of unforeseen downtime.
30123	Contact Center Outbound Campaign license. Can be used with Connect Contact Center or ECC 7-9. One concurrent license add-on to Inbound Voice. One consumed every time an agent logs into a group with dial list feature enabled.	N/A	No equivalent licenses in MiContact Center Business. MiContact Center Business progressive/preview dialing, and campaign management is optionally available through Mitel Professional Services at cost.
30124	Contact Center Email license. Can be used with Connect Contact Center or ECC 7-9. One concurrent license add-on to Inbound Voice for handling emails. One consumed every time an agent logs into a group that has email feature enabled.	54006789	Multimedia Agent License x1 This is not a migration part and is at cost due to the vast differences between MiContact Center Business's email implementation and the full breadth of omnichannel capabilities unlocked in the MiContact Center Business Mulitmedia license.
30125	Contact Center Web license. Can be used with Connect Contact Center or ECC 7-9. One concurrent license add-on to Inbound Voice for handling web chat. One consumed every time an agent logs into a group that has chat feature enabled.	54006789	As above
18018	Contact Center Agent Dashboard Base Package for 5 concurrent users. Web-based agent dashboard providing real-time agent & queue statistics. Except for very small-scale deployments, must be run on separate server from CC server.	N/A	No equivalent MiContact Center Business license. Several Web-based and client-based dashboards are available out of the box, with optional ability for customers/partners to build their own custom dashboards using the MiCCSDK (included in all base licenses).
18019	Contact Center Agent Dashboard Add On for 1 concurrent user. Combine with Base Package incrementally for increased concurrent user capacity.	N/A	As above
18020 18021	Contact Center Interaction Viewer Base Packageor Add on for 1 concurrent user. Web based viewer for end to end call interaction details with links to call recordings & CDRs. Includes required CCIR Transform Service. Runs on separate server from ECC.	N/A	As above
18022	CCIR Transform Service (No CC Interaction Viewer Web Application). Re-factors CCIR data into a database that is call oriented. Included in the CCIV Base license. Requires separate server from CC server.	N/A	No equivalent MiContact Center Business license. This functionality will be lost on upgrade.
18023	Contact Center Real-time Monitoring Bundle (includes 1 CC Interaction Viewer, 1 CCIR Transform Service & 5 CC Agent Dashboard). Must be installed on separate server from CC server.	N/A	No equivalent MiContact Center Business license.
18046	Contact Center Agent Alert. Notifies an agent via visual desktop alert when they are in a state where he cannot receive ACD calls.	N/A	No equivalent MiContact Center Business license. Agents have easy access to see if they are in an unavailable state from the various Web-based and desktop-based clients.

ECC to MICC Licence Conversion

Please refer to MiContact Center Business for SIP Release 9.3 System Engineering Guide, for more detailed specifications

Please refer to the following documents for MICC on Connect
Migrating from Enterprise Contact Center (ECC) or MiVoice Connect Contact Center (MiCCC) to MiContact Center Business (MiCCB) PRODUCT COMPARISON AND MIGRATION GUIDE MiCONTACT CENTER BUSINESS FOR SIP PLATFORM Release 9.3 System Engineering Guide

Hardware	Tier 1	Tier 2	Agent PC Running CC Only	Agent PC with CC and Communicator
CPU	MICC Server 6 cores @ 2.0Ghz	MICC Server 8 cores @2.0Ghz	Pentium III 800 MHz	Pentium IV 2.0 GHz
Memory	12GB	16GB		
Available Memory			512MB	1G
Hard Disk Space	200GB	200GB	1G	1G
Criteria Definition				
Conversations per hour limit	Less than 2700	Up to 5400		
Active Agents Limit	Less than 100	Up to 375		

Description	Specification
VMWare ESXi	VMware ESXi 6.0 , and 6.5 .
Microsoft Hyper-V	Windows Server 2012, 2012 R2, 2016, or 2019. For multi-host clustered environments, an additional server capable of running the Microsoft System Center Virtual Machine Manager is required
Licensing	
Contact Center	Contact Center is the licensing level of choice for businesses with more than 100 concurrent agents, who require more than 10 IVR endpoints. With Contact Center, the end customer's site configuration controls implementation size. When the customer wants to expand the site capability, the Mitel licensing requirement only considers the number of employees being tracked across the enterprise. All other issues, such as the number of concurrent network users, contact center traffic levels, and Internet connectivity, are addressed by augmenting hardware and Microsoft component licensing.
Workgroup	Workgroup is geared toward contact centers with fewer than 100 concurrent agents, requiring a maximum of 10 IVR endpoints. Contact center reporting and real-time monitoring, client desktops, and IVR Routing capabilities are included in a single starter pack with available options for customization.
IVR Routing	IVR Routing is an all-in-one, scalable voice processing solution that works in conjunction with MiContact Center Business.
Messaging and Routing	Messaging and Routing is included in Contact Center and is an add-on option for Workgroup. Messaging and Routing ports cannot be mixed with IVR Routing ports in the same enterprise.
Multimedia Agent	Not included in ECC Migration programmes so needs to be purchased.
Ignite Preview dialler	MiContact Center Business' Preview Dialler (54010076 Ignite Preview Dialler Agent x1) is an optional application that works with the Web Ignite agent user interface to provide outbound progressive and preview dialling, outbound campaign management, and outbound campaign reporting. Anyone wishing to leverage this functionality will need to purchase the licensing separately, including 3 days of mandatory Professional Services for implementation and training (consult Mitel Professional Services for a quote).
CRM Integration	MiContact Center Business' workflow routing engine, driven by the drag-and-drop YourSite Explorer interface, provides out of the box routing queries and decision making, read/write capabilities, and screen pop. If customers are looking to leverage Web Ignite functionality embedded in a CRM (for example, Salesforce.com), Mitel offers a Ignite CRM Connector for purchase, including 2 days of mandatory Professional Services for implementation and training.

Description	Capacity on MiVoice Connect
Total Agents	<375
Total Voice IVR	<90
Resilience	No Active/Active High Availability. only built-in to VMware, or fail over to Connect Workgroup
Server Operating System	- Windows Server 2012 64-bit - Windows Server 2016
Support Client Platforms	Supervisors and Agents: - Windows 7 SP1 - Windows 8, 8.1 - Windows 10 - VMware Horizon View 7.4 - Citrix XenApp 7.18 - Microsoft Remote Desktop Services - Internet Explorer (Version 11.345.17134.0) - Google Chrome (Version 70.0.3538.77) - Safari (Version 12.0.1) - Mozilla Firefox (Version 63.0.1, 64-bit) - Microsoft Edge (Version 42.17134.1.0)
Georedundancy	only built-in to VMware, or failover to Connect Workgroup
Maximum Live Agent Positions	375
Maximum Configured Agents	2,000
Number of Agent Groups Supported	999 Queues
Maximum Number of Agents per Group	375 active agents
Maximum Number of Groups to Which Agents Can Belong	60
Maximum IVR Ports / Server	90
Maximum Calls in Queue / Server	254
Maximum Simultaneous Email Interactions per Agent	10 – customized with workload
Maximum Simultaneous Web Chat Interactions per Agent	10 – customized with workload
Maximum Number of Concurrent Interactions per Agent	1 voice; 10 per multimedia channel

Connect Notes:-
• You need 2 x SIP Trunks per agent these will need switch resources.
• Agent licence includes 2 x virtual switch port still needs to be ordered but zero price.
• Each IVR port comes with a Virtual SIP Trunk.
• If appliance based SIP resources will be needed on the ST Switches.
•Ignite does not come with Softphone you will need to order appropriate User Profile for functionality required. i.e. Essentials for Softphone, Standard for teleworker etc.
• Migration packages are available from ECC.
• MICC can be installed in parallel with ECC for project cut over purposes.
• Migration packages do not include web chat and email as the functionality is significantly increased in Multi-media agent licensing in MICC. These will have to be purchased. Same for Ignite Preview Dialler and CRM Integration.
• You must install the BlueStar server on MiVoice Connect WIndows DVS Server and not on the HQ Server. The BlueStar server needs to the connect to the Connect Server using TAPI and not CSTA. You can NOT install it on the MICC Business Server.