

Mitel MiVoice Business Controllers



Purpose Built Hardware Designed to Address a Variety of Business Needs

Key Features

- Robust multi-service platform
- Flexible architecture
- Survivability – service continuity
- Maximum 150 (SMB) and 500 (EX) user capacity (3 devices per user)
- Embedded virtualized environment for call server and/or applications
- Easy configuration and management



When it comes to your business communications, you need a platform that's reliable, secure, and has the features that your employees need to maximize productivity. MiVoice Business is a leading Voice over IP (VoIP) solution that is flexible enough to be deployed on industry standard servers, hypervisors, and Mitel Controllers to give you the power to deploy your business communications, your way.

More than the latest VoIP technologies

To be successful in today's world, companies need more than just the latest VoIP technologies. They need to be able to bridge their existing mission critical communications technology with the latest in IP telephony. For instance, they need their communications platform to support analog trunks for emergency purposes, analog fax machines and telephones, or legacy types of trunks such as Primary Rate ISDN or R2 CAS.

Mitel Controllers are hardware appliances that are specifically designed for the MiVoice Business VoIP communications platform that incorporate gateway functionality for non IP telephony technologies.

MiVoice Business

The MiVoice Business application running on the Mitel Controller provides your business with a complete communications solution that provides voice communications, unified messaging, auto-attendant, digital and analog trunking, as well as support for analog devices, such as fax machines - all in a single package.

Mitel Controllers

Mitel Controllers can be deployed as a dedicated media gateway, providing your business with a “gateway” to productivity enhancing solutions like unified messaging and mobile integration - all without having to remove your existing communications system.

Mitel Controllers are available in two variants - EX and SMB - each offering unique capabilities to address a wide range of business needs.

And, if your requirements exceed the specifications of a single controller, then another controller (of any variant) can be added and clustered together to create a larger feature transparent solution.

Mitel Controller Comparison

The following table compares the capacities and capabilities of the Mitel SMB and EX Controllers.

Specification	SMB Controller	EX Controller
Recommended maximum number of users (average of 3 devices per user)	150	500
Maximum number of devices (including softphones and Contact Center agents) ¹	600	1,500
Maximum number of 6900 phones ¹	300	1,400
Maximum number of SIP devices / users	300	1,000
Maximum ACD Agents ¹	30	100
Maximum MiVoice Business Consoles	24	24
Maximum Number of Analog devices	22	28
Main Software Storage Media	38 GB eMMC	60 GB or 120 GB integrated SSD
Installed RAM	8 GB	4 GB or 16 GB
Available Module Slots	4	8
Module Slots for	2-port FXO 4-port FXO 4-port FXS	4-port FXS 4-port FXO DSP card T1/E1 PRI/R2

Mitel Controller comparison continued...

Specification	SMB Controller	EX Controller
10/100/1000 MB Ethernet ports	3 x 10/100/1000	5 x 10/100/1000
Maximum DSP Modules	3	1
Maximum Echo Canceller Channels	96	240
Maximum G.729a compression channels	64	240
Maximum T.38 channels	n/a	Non-blocking
Maximum number of digital links	n/a	8
Analog Line card slots	4	7 (with DSP module fitted in slot 8)
Maximum Internal Analog Line Support	22 (6 built-in)	28
Maximum Internal Analog Trunk Support	16	28
Tone generators	21	128
Tone detector circuits	20	32
Gateway Channels (E2T)	50 (G.711 only) 30 (if G.729)	64 (PRI/Analog Interfaces are non-blocking)
DTMF Receivers	18	48
IP Networking – max IP trunks between MiVoice Business systems	2000	2000
SIP Trunking – total maximum SIP trunks	2000	2000
SIP Trunking – max SIP trunks between peers	2000	2000
Maximum controllers in a cluster ²	999	999

Voice Mail Specifications

Specification	SMB Controller	EX Controller
Embedded Voice Mail ports	16	24
Maximum mailboxes ³	350	1500
Storage hours	450 (130 with backup)	450 (130 with backup)
Maximum messages per mailbox	100	100

¹ Engineering rules apply.

² Up to 999 controllers can be clustered as a single system to support over 100,000 IP ports. Mitel's MiVoice Business System Data Synchronization technology is used to enable feature transparency across a cluster of controllers.

³ Mailboxes can be used for users or multi-level auto attendant. Two mailboxes are reserved for Administration. Numbers shown are for a Hospitality scenario.

Digital Trunk Connectivity

The SMB Controller doesn't support digital trunking. The EX Controller supports T1/D4 E&M trunks, PRI trunks, and R2 trunks. The EX Controller does not support QSIG, DASS II, or DPNSS.

Dimensions

Specification	SMB Controller	EX Controller
Height	2.5 in (65 mm) (1.5 U)	1.75 in. (44 mm.) (1 U)
Width	14.2 inches (360 mm) (wall-mounted) 19 inches (483 mm) (rack-mounted)	19 in. (483 mm.) with mounting ears
Depth	11.6 inches (294 mm)	14.4 in (365 mm.)
Weight	6.4 lbs. (2.9 kg)	11.9 lbs. (5.4 kg) – Single Power Supply 12.9 lbs. (5.85 kg) – Dual Power Supply

Operational Environment

Specification	SMB Controller	EX Controller
Operating Temperature	41° to 113°F (5° to 45°C)	32° to 104°F (0° to 40°C)
Relative Humidity	Up to 85%, non-condensing	Up to 85%, non-condensing
Max Heat Dissipation (Fully Loaded)	120 BTUs per hour	280 BTUs per hour

Conversion factors: One watt is equal to 3.412 BTUs per hour. One ton of refrigeration is equal to 12,000 BTUs per hour or 3.516 Kilowatts, and 0.75 kilowatt-hour is equal to one ton of refrigeration.

System Input Requirements

Specification	SMB Controller	EX Controller
Input / Disconnect	IEC320-C7 Class 2 AC Receptacle to power brick, barrel connector to SMBC faceplate	IEC320-C14 Class 1 AC Receptacle
Input Voltage / Frequency Rating	100 – 240 VAC 50 / 60 Hz	100 – 240 VAC 50 / 60 Hz
Input Power	75 W	90 W

Regulatory Compliance

Area	SMB Controller	EX Controller
Safety	EN 62368-1:2014 CSA/UL certification (NRTL)	EN 62368-1:2014/A11:2017
Electromagnetic Compatibility	EN 55035:2017; EN 55032:2015; EN 61000-3-2:2014; EN61000-3-3:2013	EN 55035:2017; EN 55032:2015; EN 61000-3-2:2006 + A1:2009 + A2:2009; EN 61000-3-3:2008
RoHS	EN IEC 63000: 2018	EN IEC 63000

Reliability

SMB Controller Mitel Part #	Description	MTBF (years) at 40C	Average Failure Rate (%/year)
50008381	SMB Controller 8/38G	20.6	4.8%
20351208	System module 2 DSPX	486	0.2%
20350436	Expansion interface card 4 x a/b (4 FXS)	167	0.6%
50008254	SMB Controller Trunk card 2FXO	151	0.7%
50008255	SMB Controller Trunk card 4FXO	93	1.1%

EX Controller Mitel Part #	Description	MTBF (years) at 25C	Average Failure Rate (%/year)
50008229	EX Controller 4/60G	15.5	6%
50008375	EX Controller 16/120G Dual PS	15.9	6%
50008231	4 port FXS for EX Cont.	87	1.1%
50008232	4 port FXO for EX Cont.	151	0.7%
50008233	1 port PRI for EX Cont.	83	1.2%
50008234	DSP card for EX Cont.	83	1.2%

Glossary

ACD	Automatic Call Distribution
BTU	British Thermal Unit
CAS	Channel Associated Signaling
CLASS	Custom Local Access Signaling Services
CCS	Common Channel Signaling
DASS II	Digital Access Signaling System #2
DPNSS	Digital Private Network Signaling System
DSP	Digital Signal Processor
DTMF	Dual Tone Multi-Frequency
eMMC	Embedded MultiMedia Card
FXO	Foreign Exchange Office
FXS	Foreign Exchange Subscriber
IP	Internet Protocol
ISDN	Integrated Services Digital Network
MOH	Music on Hold
MTBF	Mean Time Between Failure
PRI	Primary Rate Interface, ISDN
QSIG	Q-Signaling Protocol
SIP	Session Initiation Protocol
SMB	Small Medium Business
SSD	Solid-State Drive
T.38	ITU protocol to send FAX transmission across IP Networks
VM	Voice Mail
TRUNKING GATEWAY	A Controller used specifically to land PSTN trunks and route them onto a User Gateway
USER GATEWAY	A Controller / Server used specifically to manage and control Telephones. External traffic is routed via a Trunking Gateway
CONTROLLER	Mitel's telephony platform that runs Mitel MiVoice Business