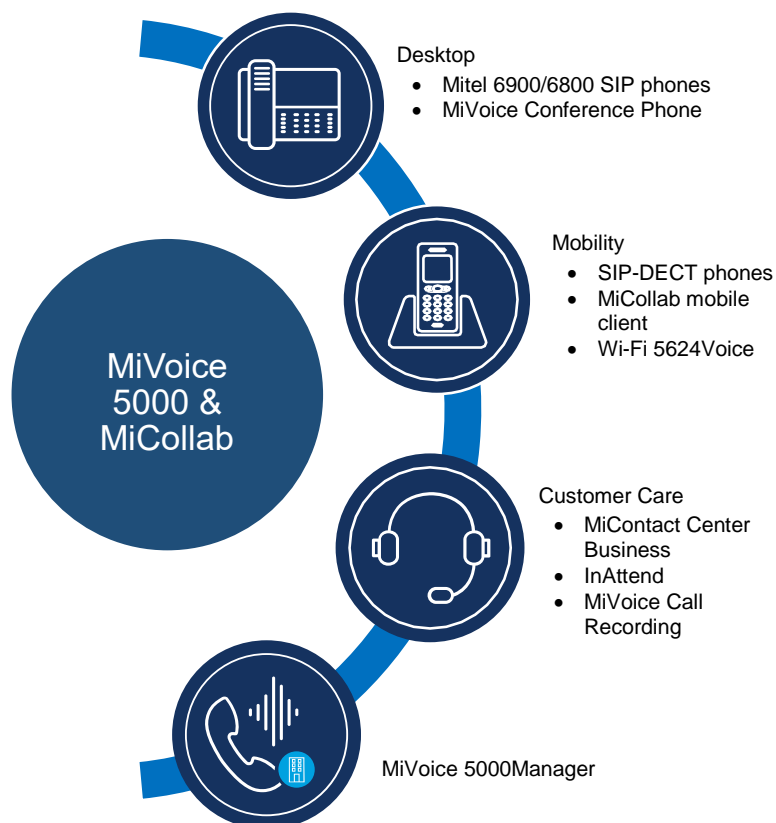# MiVoice 5000 Solution

A Complete Communication Solution

Key Features

- Seamless Unified Communications with integrated mobility
- Highly customized deployment options
- Broad end-point portfolio
- Open standards-based solution
- CAPEX or OPEX
- Fully integrated with Mitel value add applications:
  - Mitel Dialer
  - MiCollab (UC application suite)
  - MiContact Center Business
  - InAttend (attendant console)
  - MiVoice Call Recording
  - VT PRO billing

MiVoice 5000 & MiCollab

Desktop
- Mitel 6900/6800 SIP phones
- MiVoice Conference Phone

Mobility
- SIP-DECT phones
- MiCollab mobile client
- Wi-Fi 5624Voice

Customer Care
- MiContact Center Business
- InAttend
- MiVoice Call Recording

MiVoice 5000Manager

For Professional Business Communication

MiVoice 5000 is well-recognized as a proven technology communications solution for both the Medium and Large Enterprise market segment. Delivering secure and future-ready business communications in the form of feature-rich, real-time workgroup collaboration and contact-center capabilities, MiVoice 5000 can be deployed as an on-site solution or in private cloud environments. MiVoice 5000 provides a great variety of options to address different system sizes, geographic dispearsion and different resiliency options.

Solution Benefits

- *A large scale, versatile and secure Unified Communication Solution for medium and large enterprises - centralized or distributed, redundant and survivable, up to 100,000+ users*

- *A broad choice of value-added applications - Unified Communications and Collaborations, contact center, attendant console, call recording, billing etc.*

- *Open standards-based system providing full integration with third party products and high customization potential for end customers*

- *Fully integrated internal and external mobility solution based on SIP DECT, WLAN phones, mobile phones and applications*

- *All SIP and software-based solution that fits to many deployment options, including different options of private cloud variants*

◁⊳ Mitel®
Powering connections

MiVoice 5000 Solution Applications Overview

MiVoice 5000 is a tailor-made solution that can be adopted to all kind of customers in different business verticals, focusin on customers' needs and their requests.

COLLABORATION

With Mitel MiCollab, MiVoice 5000 brings together voice, video, chat, messaging, web conferencing and team collaboration tools into one single solution making it easier for employees to connect with others.

CONTACT CENTER

MiContact Center Business Multimedia empowers customers to interact with their business in the medium of their choice, whether it's voice, email, fax, social media, web chat, self-service, or non-traditional media like WebRTC, IoT alarming, or social media messaging*. This positive, convenient experience turns customers into word-of-mouth marketers and monetizes social media.

ATTENDANT CONSOLE

With powerful SIP-based call and queue handling, contact search options, calendar integration, MiCollab presence information, Microsoft Skype for Business IM & presence, line state and activity status, Mitel's InAttend offers a broad range of integrated functions for achieving high-quality attendant performance.

CALL RECORDING

MiVoice Call Recording empowers managers, supervisors and employees with a variety of workforce tools to help monitor, analyze and enhance individual and group performance. Organizations benefit from a powerful real-time and historical perspective on the interactions occurring within your business.

BILLING

The MiVoice 5000 Solution includes a billing and traffic analysis server (VT PRO) that provides following functionality:

- Voice calls costs and billing reporting based on metering tickets generated by the MiVoice 5000
- Traffic analysis for internal and external communications
- Quality of Service supervision on SIP trunks

MiVoice 5000 Solution Management

MiVoice 5000 Manager is a powerful tool based on a client/server architecture, which enables administrators to manage one or more Mitel 5000 systems of any kind. Those systems can be standalone, multi-site and clusters solutions. The Manager also provides value-added services like directory integrations, fault management, automated updates, backup collection, etc.

FAULT MANAGEMENT

- Managing MiVoice 5000 system alarms, data equipment and application servers
- Monitoring MiVoice 5000 system, data equipment and application servers through SNMP map
- Sending SNMP traps and site statuses to an external SNMP supervision application
- Sending alarms by e-mail
- Managing the logbooks of MiVoice 5000 systems

CONFIGURATION MANAGEMENT

- Accessing the numbering plan of MiVoice 5000 devices
- Managing telephony parameters
- Managing abbreviated numbers
- Managing users, their keys, forwarding operations, voicemail accounts
- Simplified managing users by profiles
- Managing hunt groups
- Managing user/device connections
- Operation log
- Managing inventories
- Managing the directory
- Collecting call tickets and remote internal directories
- Access to local WebAdmin of MiVoice 5000 systems

MAINTENANCE SERVICES

- Backing up MiVoice 5000 devices
- Restoring MiVoice 5000 devices
- Upgrading software
- Cancelling the upgrade of a MiVoice 5000 and restoring the previous MiVoice 5000 release
- Managing MiVoice 5000 terminals: software, configuration files

SECURITY MANAGEMENT

- Managing user rights
- Managing MiVoice 5000 certificates

SIP-DECT and Mobility

MiVoice 5000 meets even the toughest requirements and, thanks to specifically developed SIP-DECT solution as well as applications, it is used successfully in countless projects in the health care, hospitality, industry and other sectors with high mobility and strict security requirements.

Mitel SIP-DECT maintains a high quality of speech no matter the environment – even in high-rise stores, near large metal services, or in machine halls where radio signals are often disrupted. As traffic load rises, businesses can increase capacities with additional base stations to remain independent and flexible.

High Security and Redundancy

The system can be easily tailor-made and fully adapted to meet customer needs, from high security and redundancy to customer preferred deployment as traditional or private cloud.

Remote System Administration using a simple web browser is standards-based: https for secure access, LDAP for the integrated directory which can be synchronized with a company directory, SNMP for system supervision, etc.

The security is guaranteed at different steps: for critical subscribers, the software allows call encryption (voice and signaling), without additional hardware. The server is protected through space duplication (using a second local or remote server), with automatic switchover in the case of outages, without interrupting calls.

Different Delivery Options

MIVOICE 5000 COMPACT – ALL-IN-ONE SIP

Mitel Compact

MiVoice 5000 Compact is an entry level platform for up to 300 users (500 users in case of dual homing) with pre-installed MiVoice 5000 Server software. It addresses small sites, whether as single- or multi-site installation or as a cluster deployment for security purposes (dual homing). It can be extended by a Mitel GX gateway to connect FXS ports.

MiVoice 5000 Compact integrates a SIP Trunk SBC and can be combined with all MiVoice 5000 compatible applications to offer complete communication and collaboration solution.

**MITEL EX - SIP APPLIANCE WITH INTEGRATED TDM PORTS**

Mitel EX

The **Mitel EX Controller** delivers a multi-service business controller capable of running MiVoice 5000. The Mitel EX controller provides up to a capacity of 1,500 IP users and offers local survivability, PRI and FXO PSTN access as well as for analog ports. It can also be extended by a Mitel GX gateway to connect FXS ports.
The EX Controller has processor and memory capacity to run a virtualized MiVoice 5000 Server in the box. The MiVoice 5000 can be set up as a remote server or as a remote networked standalone system node handling SIP and analog end-points as well as local trunks (including hop-off). Based on the latest technology, Mitel EX is a perfect solution for a smooth migration to the cloud providing a high level of investment protection for the customers.

MIVOICE 5000 SERVER (SOFTWARE-ONLY) – FOR PURE SIP APPLIANCE

MiVoice 5000 Server is a software-only option for medium and large deployments, completely SIP-based. The solution can be extended using Mitel GX gateway to connect FXS ports.

MiVoice 5000 Server software can be deployed on different hardware platforms: appliance chassis, server-agnostic or virtual environment KVM, VMWare or Hyper-V.

This MiVoice 5000 delivery option stands out through its high level of service, with intrinsic functions, its extendibility (from 10 to 100,000+ users) as well as its high availability options.
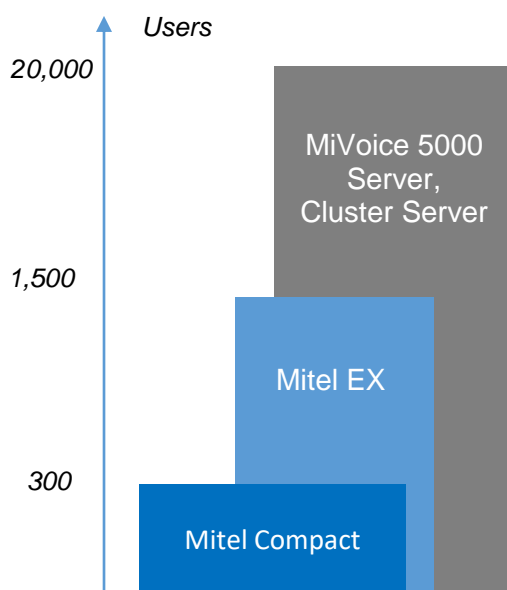
MiVoice 5000 SIP Dimensioning

MULTI-SITE AND CLUSTER DEPLOYMENTS

MULTI-SITE ARCHITECTURE

Multi-site networking consists of connection of several Mitel 5000 Call managers or gateways, offering a common enterprise communication service transparency.

Each of these devices can manage a set of network accesses and subscribers and has its own processing capacities for the related subscribers.

Multi-site offers many mobility advantages such as Free Seating or the possibility to relocate without changing your number. Backup between call managers is possible with the Dual Homing function.

The MiVoice 5000 multi-site network may be built of different types on call controllers, as Mitel Compact, Mitel EX, MiVoice 5000 Server and even Mitel 5000 Gateways.

MIVOICE 5000 CLUSTER ARCHITECTURE

The MiVoice 5000 Cluster Server centralises all the subscribers (up to 20,000 subscribers) and all licenses with a centralized configuration of the common Cluster functions. The MiVoice 5000 Cluster Server is a network with a set of slave nodes (up to 230): MiVoice 5000 Compact, Mitel EX, MiVoice 5000 Server, Mitel 5000 Gateways. These nodes can connect some analog or digital subscribers as well as some operator/carrier accesses. The nodes can always back up some subscribers in Dual Homing mode, but in normal operation mode all the IP, SIP, analog and digital subscribers are managed from the Cluster Server. All the devices on a Cluster are managed by MiVoice 5000 Manager.

In a MiVoice 5000 Cluster deployment, the Cluster server and nodes are seen as a single site in the MOVACS logic. It can also be extended by up to 250 Mitel GX gateways to connect FXS ports directly to the Cluster Master. Therefore, it may be part of a multi-site network (XXL architecture).

Standard Interfaces

Sets
- SIP, SIP TLS

Mobility
- SIP-DECT
- Wi-Fi

Security
- SIP TLS
- Security SBC (DOS, DDOS Attack)
- Single Sign On

Quality of Service
- G.711, G.729A, G.723.1, G.722, H.264
- BTIP encoding law
- VLAN, 802.1p/q prioritization
- DiffServ prioritization

Network
- SIP Trunk
- ISDN
- QSIG

Info System
- IMAP4/POP3 messaging system
- LDAP directory
- DHCP configuration
- FTP/TFTP update
- NTP time setting
- SNMP MIB and traps

CTI and Voice Application
- XML
- CSTA
- SIP

MiVoice 5000 Capacity (per Server)	Compact	Mitel EX	Server	Cluster Server
Nodes	-	-	-	230
Max. no. of Mitel GX	9	9	250	250
Users	300	1.500	20.000	20.000
Dual Homing users	300	1.500	20.000	20.000
Duplex option	-	-	YES	YES
IP terminals	300	1.500	30.000	30.000
Video- and e-voicemail channels	30	60	250	250
SIP Trunk channels	30	180	3.000	3.000
Simultaneous calls	50	180	2.400	2.400
Calls per hour	500	5.400	57.000	57.000
IVRs (channels)	15 (30)	15 (120)	15 (250)	15 (250)
Size of directory (in no. of records)	100.000	100.000	300.000	300.000
Media Server access (channels)	60	200	1.000	1.000
FXS ports on EX/GX	216 on GX	244 on EX and GX	6000 on GX	6000 on GX + on each EX/XS/XL/XD node
PRI	-	8	-	On EX/XS/XL/XD nodes only
FXO	-	28	-	On EX/XS/XL/XD nodes only

MiVoice 5000 Supported End Points

Type	End-point	
SIP phones	Mitel 6900 series Mitel 6800 series	
SIP DECT	Mitel 600 series	
WLAN phone	Mitel 5624	
Conf. phones	MiVoice Conf phone	
Analog phones	Mitel 6710 and 6730	
Softphone	MiCollab softphone	
Digital phones	Mitel 5300	
Third party phones	SIP phones* Analog phones*	

* (features may vary based on compatibility