MiVoice MX-ONE

Driving the Mobile Enterprise

The MX-ONE is a complete SIP-based communications system scalable from 100 to 500,000 users with a fully distributed architecture for deployment flexibility. The integration of voice, video and data with mobile capabilities provide increased efficiency and operation flexibility. The same wide range of services and features are available for both on-premises or in the cloud deployments of the MX-ONE solution for improved total cost of ownership (TCO).

Building Blocks

MiVoice MX-ONE consists of three basic components:

- *MiVoice MX-ONE Service Node*
- *MiVoice MX-ONE Media Gateway / Media Server (hardware/software-based)*
- *MiVoice MX-ONE Manager Suite*

MIVOICE MX-ONE SERVICE NODE OPTIONS

The high-capacity MX-ONE Service Node call server software—either virtualized or running on a standard server platform—can handle up to 15,000 SIP users and 15 media gateways in a single server configuration. Multiple MX-ONE Service Nodes and media gateways can be combined to form a single logical system and deployed either as a large centralized system or as a distributed system with many servers and media gateways spread over a geographically dispersed area.

MX-ONE SERVICE NODE AS A "SOFTWARE-ONLY"

The MiVoice MX-ONE Service Node can be delivered as a "software only" option with media kits for standard Intel© servers or as virtual appliance for VMware environments.

TURN-KEY SERVER SOLUTION

The MiVoice MX-ONE Service Node and MX-ONE Media Server software can be delivered in a turn-key server solution based on Dell PowerEdge R320/330 servers.

APPLICATION SERVER UNIT (ASU)

The ASU, an Intel-based server board, can be delivered as a part of MX-ONE Lite or MX-ONE Classic media gateway chassis, or separately as a 1U appliance. It is primarily used to host the MiVoice MX-ONE Service Node and MX-ONE Media Server software, but can also be used for other applications.

ASU LITE

An optional server model for remote MX-ONE sites with a single media gateway chassis (e.g. remote offices with an MX-ONE Lite or MX-ONE Classic configuration). It is also the preferred choice for single site MX-ONE deployments with up to 1,000 users. Furthermore, the ASU Lite server is included with the Survivable Branch Node (SBN) bundles, offering survivability and local hop-off for branch offices equipped with IP/SIP phones.

Highlights

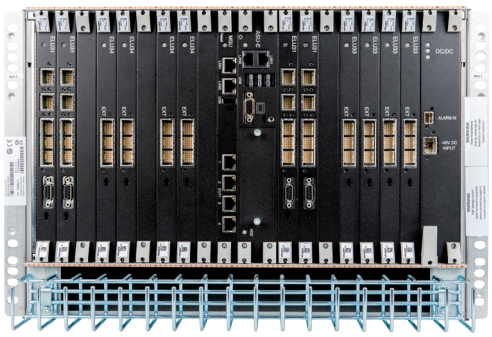
- SIP-based multimedia platform
- Scalable from 100 to 500,000 users
- Flexible licensing: A la carte or feature-based
- On-premises or cloud-based deployment options
- 64-bit architecture with native support for IPv6
- Complete range of fixed and mobile end-user devices
- Single point of entry for system management
- Powerful redundancy options and high security
- Tailor-made solutions

MX-ONE MEDIA GATEWAYS

CHASSIS WITH EMBEDDED MEDIA GATEWAY UNIT

MX-ONE 1U

MX-ONE Lite



MX-ONE Classic

Mitel

MX-ONE 1U chassis is the choice for pure IP environments. There is also room for one additional extension board and one MGU2 board in case of ISDN connection.

MX-ONE Lite – 3U chassis, more suitable for IP environments and branch office scenarios with the space for one MGU2 board, one ASU, plus three or five TDM boards, depending on whether an external server is used or not.

MX-ONE Classic – 7U chassis, fitted with an MGU2 board, targets mainly mixed environments with space for up to 16 legacy boards.

MEDIA GATEWAY UNIT (MGU)

The Media Gateway Unit version 2 (MGU2) is a compact media gateway board that is inserted in an MX-ONE chassis, providing DSP resources and access to the traditional PSTN network. Its primary function is to perform the transcoding between TDM and IP/SIP-based endpoints in an MX-ONE network. Additionally, it provides the switching fabric for legacy subscriber endpoints located in the MX-ONE chassis. Like the MX-ONE Media Server, the MGU2 also handles media services, such as conferencing, tone detection/sending and RVA.

MX-ONE MEDIA SERVER

The MX-ONE Media Server is a software-based media gateway that provides the Service Node with RTP media resources and manages protocol conversion between IP-based endpoints, using different protocols (e.g. H.323 and SIP). It resides either in the Service Node server or in a separate Linux server. In an IP/SIP deployment, it handles media services such as conferences, tone detection/generation and RVA. With the software-based media gateway, SIP trunks are used for access to the PSTN.

MX-ONE MANAGER SUITE

MX-ONE Manager Suite offers a complete range of applications for administrators and end-users. MiVoice MX-ONE appears as one single system regardless of the number of servers and media gateways (MGW).

Virtualization

It is possible to run the MiVoice MX-ONE Service Node, MX-ONE Media Server and Mitel's Unified Communications and Collaboration (UCC) applications as virtual machines in a customer VMware environment. This enables IT departments to integrate their real-time communications-as-a-service in the cloud. Based on virtualization, cloud services or Software-as-a-Service eliminate the need for organizations to build or buy the IT infrastructure themselves. The consolidation of server hardware through virtualization reduces the server footprint, offering lower power consumption and cooling requirements as well as decreased physical space requirements. Virtualization also enables high availability options that can provide increased resiliency for real time applications.
Currently, MiVoice MX-ONE uses VMware software as part of its virtualization solution. Mitel has verified complete solutions, including MX-ONE Service Node software, MX-ONE Media Server, as well as Mitel UCC applications (e.g. MiCollab UCC suite, MiContact Center Solidus, MiCollab Advanced Messaging) running as virtual machines.

SERVER OPTIONS

PROCESSOR OPTIONS	COMMON CHARACTERISTICS
ASU- Intel Quad Core Processor 2.4 GHz with 16 GB RAM ASU-L - D525-1.8 GHz Intel ATOM dual core with 4 GB RAM	1 or 2 SATA HDD with minimum 160 GB, optional RAID 1 for ASU Alternatively, 1 or 2 SSD, minimum 120 GB 2 LAN ports (100 or 1000 MB/s); 1 VGA port; 4 USB 2.0 ports
Dell PowerEdge R330 - Intel Xeon E3-1220 v5 3.0 GHz, 8M cache, 4C/4T, turbo (80 W), 8GB RAM, 2133 (DDR4)	2 x 300 GB SAS HDD (RAID 1) 2 LAN ports (100 or 1000 MB/s); Internal DVD reader Redundant power supply

MEDIA GATEWAY UNIT (MGU)

PLATFORM	TECHNICAL CHARACTERISTICS
MGU2 board - Linux-based OS with Mindspeed processor for DSP services	4 E1/T1 PRI interfaces 2 LAN ports (10/100/1000 M GB) LAN ports 128 RTP resources (concurrent gateway calls) DTMF reception/detection, tone generation, conference, echo cancelling Manages RVA and TDM legacy boards (in the chassis) in the MGW

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