



Aastra MX-ONE™ Telephony System

Aastra MX-ONE is a complete IP-based communications system. Not only does MX-ONE provide excellent voice communications, it also provides the necessary applications to offer true mobility and Unified Communications. MX-ONE is based on an open software and hardware environment, using standard servers with a LINUX™ SUSE operating system.

With the latest release of MX-ONE, customers can benefit from MX-ONE Telephony Server's capacity increase, multiple gateways addressed by one server, a new CSTA V3 protocol, an expanded numbering plan and redundancy feature enhancements. The Management solution continues to be improved with its single point of entry approach, offering an efficient way of managing the system.

MX-ONE Telephony System Building Blocks

The MX-ONE Telephony System consists of two basic components: MX-ONE Telephony Server and MX-ONE Media Gateway.

MX-ONE Server Options

High-capacity Telephony Server software, running on a standard server platform, can handle up to 15,000 SIP users and 15 media gateways. Servers and media gateways can be combined to form either a complete centralized system or a large multi-server distributed system over a geographically dispersed area. Up to 124 servers can be combined in a single system with up to 500,000 users.

✦ **Turn-key server solution**, based on HP ProLiant. Both the LINUX™ operating system and Telephony Server, application software are installed and preconfigured.

Main technical characteristics:

- Intel® Xeon® 5540 Quad Core Processor, 2.40 GHz
- 6 GB RAM, 72GB HDD, redundant fans
- Redundancy options:

- > RAID hot-plug disk drives
- > Redundant power supply

✦ **A signed software image** that can be installed on an HP Procurve ONE Service zl Module.

✦ **Software-only** is available for use with general standard servers. The following options are available, depending on the specified number of users:

- Minimum server requirements (up to 15,000 users):
 - > SUSE LINUX™ Enterprise Server 10 SP2
 - > CPU, 2.4 GHz (quad-core processor)
 - > RAM, 6 GB
 - > Hard drive, 72 GB
 - > 2 LAN ports
- Minimum server requirements (up to 2,500 users):
 - > SUSE LINUX™ Enterprise Server 10 SP2
 - > CPU, 2 GHz (Core 2 Duo processor)
 - > RAM, 2 GB
 - > Hard drive, 72 GB
 - > 2 LAN ports
- Main server requirements (up to 900 users):
 - > SUSE LINUX™ Enterprise Server 10 SP2
 - > CPU, 3 GHz
 - > RAM, 2 GB
 - > Hard drive, 40 GB

✦ **Embedded Server Unit (ESU)**

Embedded Server Unit is a solution available in two versions: the first version is a blade server that is inserted into a media gateway chassis, which is mainly used to upgrade existing MD110/Telephony Switch installations. The second is a 19-inch-based 1U chassis version called MX-ONE Server Unit.

MX-ONE Server Unit can also be used to host a variety of applications, such as messaging applications or any other application you may want to install. MX-ONE Server Unit requires little space and only 20 watts of power.

- Main characteristics:
 - > Intel® Pentium-M CPU, 1.4 GHz
 - > RAM, 512 MB
 - > Hard drive, 40 GB

Available in both a board version and a 19-inch 1U chassis rack version.

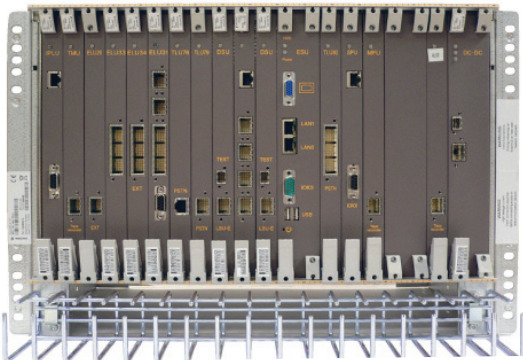
MX-ONE Media Gateways

MX-ONE Media Gateways come in different configurations and sizes, offering scalability and flexibility to meet the needs of enterprises. The new Media Gateways hardware introduced in the latest MX-ONE version, MGU (Media Gateway Unit), provides the opportunity for a multi-gateway configuration, i.e. up to 15 MGUs can be associated to one server. This is a significant change as it eliminates the previous one-to-one relationship between server and media gateways. There are two different versions of MX-ONE Media Gateways:



MX-ONE Lite

✦ MX-ONE Lite – 3U chassis, more suitable for the IP environment and branch office scenario with the space for one MGU board, one ESU plus one board, or three boards if an external server is used.



MX-ONE Classic

✦ MX-ONE Classic – 7U chassis, targeted mainly for the mixed environments with space for 16 boards.

✦ Media Gateway Unit (MGU) main characteristics:

- 8 E1 interfaces
- 256 RTP resources (concurrent calls)
- Used for MX-ONE Lite and MX-ONE Classic



MGU

MX-ONE Management Suite

Aastra MX-ONE offers a complete range of applications for administrators and end-users. From the perspective of end-user administrators, MX-ONE appears as one system. MX-ONE Manager is a complete management suite consisting of:

- ✦ MX-ONE Manager Telephony System – For configuration of system functions
- ✦ MX-ONE Manager Provisioning – For user configuration data
- ✦ MX-ONE Manager Availability – For system performance management

MX-ONE Main Functionality

Powerful range of features

- ✦ Support for full range of SIP terminals and softphones, H.323 terminals, Mobile Extension, Wi-Fi and DECT, as well as TDM (analog and digital) terminals
- ✦ 500 system and end-user features, such as different types of diversion, free seating and executive/secretary services
- ✦ Attendant services, like PC-based workstation, directory search, as well as traditional services including camp-on and busy
- ✦ Networking feature transparency with IP-based signaling or QSIG, routing and number analysis system features, such as call logging, CSTA and a wide range of applications

✦ Full support for SIP trunking with certification from many service providers worldwide

Gatekeeper/SIP Proxy database redundancy for IP users across servers

IP extension implementation in MX-ONE is designed in accordance with the HLR/VLR architecture used in mobile networks. An IP user has a “home server” that corresponds to the HLR (Home Location Register) in mobile networks. The user can be handled by any server in the system as long as the home server can be accessed.

A VLR (Visitor Location Register) is created in the visited server and part of the user data is copied from the HLR to the VLR. The Gatekeeper/SIP Proxy database redundancy feature in MX-ONE allows an IP user to register with any available server in the network and the IP user can be reached by incoming calls even if the “home server” is out of service.

UC deployments with third-party products

CSTA V3 – XML support

The latest version of MX-ONE supports CTI monitoring in accordance with Computer-Supported Telecommunications Applications 3, also called CSTA Phase 3. The CSTA Phase 3 is based on the ECMA-269 standard. The existing CSTA Phase 1/TSAPI implementation is also supported, as was the case in previous releases.

Microsoft® OCS Integration

Integration with Microsoft® OCS 2007 for RCC (CTI-based call control using ACL), dual forking and Direct SIP is supported with MX-ONE.

IBM® Lotus Sametime

MX-ONE has been verified with IBM® Lotus Sametime Unified Telephony (SUT1) middleware, offering a direct SIP integration between MX-ONE and IBM® Lotus Sametime. A further level of integration is provided through our A2P2 certification of iL-

ink's TeamCall middleware and Sametime client plug-in, offering third party call control of MX-ONE terminals with the IBM® Lotus Sametime client.

HP Procurve Alliance

The MX-ONE V.4.0 is now certified with the HP Procurve ONE Service zI Module as the first UC and mobility application for integration with HP's market-leading networking infrastructure.

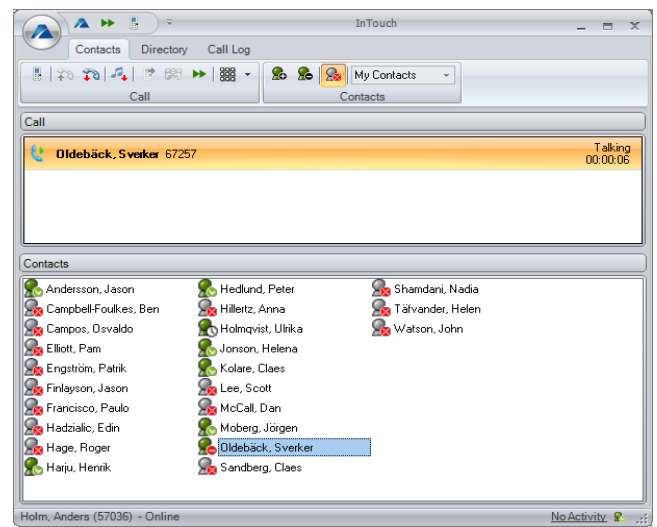
Unified Communications

MX-ONE offers a variety of end-user Unified Communications options that can be tailored to suit individual telephony needs.

The **Aastra Mobile Client (AMC)** is a mobile terminal client that creates automatic access to Aastra Mobile Extension service for mobile integration with the communications system. The optional Dynamic Mobile LCR feature minimizes mobile roaming expenses by having the call setup routed through the least costly path.

The **MX-ONE Messaging** application suite provides a total control over all end-users' messages, offering everything from basic voice mail to a comprehensive unified messaging system (voice/fax/e-mail services). It is fully compatible with Microsoft Outlook, Lotus Notes and Novell Groupwise, with a variety of integration options.

Aastra Contact Management Suite (CMG) is a user-friendly application that provides you with a wealth of tools, such as for instant messaging, corporate directories, call logs and presence profile management. CMG is integrated with Microsoft Office/Outlook, Lotus Domino/Notes and Novell/GroupWise.



Aastra InTouch active call

The **Aastra InTouch SIP softphone** provides end-users with easy and efficient use of their phones from any computer, regardless of location, as long as there is a connection to the company network. It provides call logging, presence management, instant messaging, teleconferencing, etc.

Additionally, MX-ONE Telephony System can be combined with the **Aastra Solidus eCare** Multi-Media Contact Center application suite for top-of-the-range customer care services. Solidus eCare is a suite of applications and services that offers true skills-based routing functions, agent desktop applications, as well as management applications for server-based contact centers.

User Capacity for Aastra MX-ONE / server									
Config.	SIP	H.323	DECT	Digital	Analog	Mobile	S0	CAS ext	Total
1	15,000								15,000
2	14,000	1,000							15,000
3	13,360	1,000	640						15,000
4	12,720	1,000	640	640					15,000
5	10,160	1,000	640	640	2,560				15,000
6	5,160	1,000	640	640	2,560	5,000			15,000
7	4,840	1,000	640	640	2,560	5,000	320		15,000
8	4,200	1,000	640	640	2,560	5,000	320	640	15,000

* Dependent on server and gateway capacity

System capacity:	Per Server	Per System
Servers	-	124
Media Gateway Units (MGUs)	15	1,860
PRIs	64 E1 or 87 T1	7,936 / 10,799
Users	15,000	500,000

MX-ONE V.4.0 Technical data	
Supported standards	SIP V2*
	H.323v2 and 4 ; both extension and trunk side
	IPv4
	T.38 Fax
	DHCP, HTTP, HTTPS, Telnet, TFTP, SNMP, FTP, SSH, TLS, SRTP Web Services CSTA Phase 1 and 3; XML, ANS.1, TSAPI, TAPI
Supported voice codecs	G.711 with a-law and μ -law. G.729a, G.729ab with voice activity detection G723.1 and G722 (extension side), G.168 (echo cancellation) (silence suppression & comfort noise generation).
Quality of Service	Diffserv (RFC 2474) for trunks and extensions IEEE802.1 p/Q extension-side only. Compatible with cRTP header compression algorithms
Call Accounting	CDR/SMDR records compatible with 3rd party accounting systems

* Full support for SIP V2 for both extension and trunk-side applications. Compliance with more than 40 SIP RFCs, providing interoperability with a wide variety of SIP terminals and SIP trunking service providers.

MX-ONE System Management Suite	
	MX-ONE Manager Telephony System* - central management of MX-ONE
	MX-ONE Manager Provisioning for all user data for MX-ONE, MX-ONE Messaging, CMG, AMC etc.
	MX-ONE Availability

*See MX-ONE Manager application datasheet for details on functions and features.

MX-ONE Optional Applications	
	MX-ONE Messaging
	Contact Management Product Suite - CMG
	Solidus eCare - SeC
	Aastra Mobile Client (AMC)
	Aastra Collaboration Link
	Hospitality solution

Supported Terminals	
	Analog phones: Aastra Dialog 4100 analog phones
	Digital phones: Aastra Dialog 4200 digital phones
	IP phones: Aastra Dialog 4400 IP phones and Aastra 7400 IP phones (incl. Dialog 5446 Premium)
	Aastra SIP phones: Aastra 67xxi family
	Aastra Cordless Phones: DT690, DT390, DT412, DT422, DT432
	Aastra WiFi phone: WiFi 412

*See terminal datasheets for functionality with MX-ONE Telephony System.