

# MX-ONE™ Telephony System 1.0

Telephony Server 1.0, Media Gateway



The MX-ONE™ Telephony System is a server based IP-PBX, which is based on the Linux operating system - an open source (unlicensed) operating system - optimized to run real-time applications such as telephony. This first version is designed as a node in MD110 PBX networks, whereas future versions may be deployed as standalone systems. The MX-ONE™ Telephony System supports IP terminals (phones and clients) and offers digital trunk interfaces to the public network (PSTN) as well as IP networking or circuit-switched QSIG connectivity (WAN) to the remaining MD110 voice network. It is managed centrally by the existing MD110 management tools (DNA), and makes use of centralized operator functionality and centralized communication

applications, thus reducing your investments to a minimum. The MX-ONE™ Telephony System consists of two parts: the Telephony Server 1.0 and the Media Gateway.

Typical deployment scenarios include expanding your voice network with new (Greenfield) sites, or replacing (forklift) older PBXs in the network, or when you chose to standardize your communication equipment with a server based solution.

The MX-ONE™ Telephony System is pre-packaged for 50 users. Extra user licenses can be added in increments of 1 user up to a maximum of 500 users per node in this software release.



### Telephony Server 1.0

The Telephony Server 1.0 application takes care of the call control logic of the telephony application, such as dialing plans, number conversions, call set-up and tear down, with the same business class telephony services currently available on the MD110. The server appliance hardware on which the Telephony Server application is running, is a pre-configured HP ProLiant rack-mountable server with the following minimum configuration: Intel® Xeon processor running at 3.06 GHz, 1024MB RAM, 36GB HDD, with redundancy options for RAID hot-plug disk drives, redundant fans and duplicated power supply. The Linux operating system as well as the Telephony server 1.0 application software will be installed and pre-configured in this release.

### Benefits

The MX-ONE™ Telephony System enables customers having MD110 PBXs in their voice networks to smoothly migrate towards a converged IP and Mobile infrastructure. Adding a new IP-PBX node in the network is a future-proof investment allowing cost reductions and seamless integration between sites using voice-over-IP (VoIP). This approach offers a variety of cost efficient functions when using IP phones (lower administration costs for moves) and Mobile Extensions (control of mobile phone costs and added telephony functionality for mobile workers). Ask your Ericsson certified vendor for a return on investment calculation.

### Media Gateway

The Media Gateway 1.0 offers the necessary telephony interfaces to the packet data network (LAN) as well as to the public (PSTN/PLMN) and private (via QSIG) circuit-switched networks. It offers digital signal processors (DSP) to convert non-IP voice signals to IP and vice versa (Codecs), as well as DTMF tone generators and receivers. The Media Gateway offers a total of 8 E1 network interfaces and 4 POTS analog terminal interfaces to connect G3 fax machines or emergency phones.



## Technical Data

Dimensions	
Telephony Server	19" x 1 U
Media Gateway	19" x 1 U
Power	
Telephony Server	100-240 VAC, 460W
Media Gateway	100-240 VAC, 400W
Capacity	
IP Extensions	500 (telephones or soft clients)
Analog Extensions	4 (G3 fax or analog phones (POTS))
Public Trunks	1-8 ISDN PRI (30B+D) to PSTN and/or PLMN
Gateway capacity per node	TDM: 1-8 QSIG PRI (30B+D)
Interfaces (Media Gateway)	
LAN/WAN	Fast Ethernet 10/100 Mbps (for IP Extensions and Trunks)
Intrasystem	Fast Ethernet 10/100 Mbps (for connection Telephony Server-Media GW))
PSTN/PLMN	Primary Rate Access ISDN 30B+D ETSI
Analog terminals	POTS
IP Telephony	
Supported standards	H.323v2 and 4 IPv4 DHCP Fax over IP
Supported Voice Codecs	G.711 a and $\mu$ law G.729a/b with voice activity detection (silence suppression & comfort noise generation) G.723.1
Quality of Service	Diffserv (RFC 2474) for trunks and extensions IEEE802.1 p/Q extension-side only Call Admission Control (codec aware) Compatible with cRTP header compression algorithms
Survivability	Automatic fallback to PSTN on WAN failure
Functionality (Telephony Server Software 1.0)	
General	IP extension user functionality equivalent to MD110 BC12.1
Operator	Uses the centralized Operator functionality of the MD110 network
Applications	Uses central voice, - fax and unified messaging (OneBox) in the MD110 network. Uses central D.N.A. corporate database and end-user applications (ECC, ECA)
Call Accounting	Compatible CIL/SMDR records with MD110
Terminals	Dialog 4422 Office IP phone* Dialog 4425 Vision IP phone* Ericsson Communication Client 1.2 (softphone)* Digital Residential Gateway 22 (IP/Analog terminal adapter)* *See terminal datasheets for functionality with MX-ONE Telephony System 1.0
Compatibility	Full interoperability with MD110 BC12.1 via IP networking or QSIG++ networking
System Management (Telephony System Release 1.0)	The Telephony System is managed centrally by an existing D.N.A. 5.2 Extension Manager

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