MX120   VoIP Gateways

MX120 VoIP Getaway is the newest family in Newrock's MX series gateway products. It offers maximum capacity of 96 FXS lines and/or FXO lines[1], suitable for carrier and medium enterprise VoIP deployment.

MX120 bridges legacy telecom terminal equipments, such as telephone, FAX machine, enterprise PBX, etc, into IP based voice network that constructed by the carrier or enterprise itself. When placed at network side connecting with PSTN switch, MX120 can be use to bring remote VoIP user into PSTN network. For IP based Call Center solution, MX120 is the idea remote access gateway for the operators. MX120 adopts modular design, can flexible configure FXS/FXO line capacity and DSP resource to gain best performance to cost ratio.

MX120 designed with 1U (up to 48 analog lines) or 2U (up to 96 analog lines) high and 19'' wide compact chassis. Full capacity system consumes maximum 125W power, and can be either 110-240V AC or -48V DC[2] input.

Intelligent and Rich in Features

MX120 adopts embedded linux operating system, supports SIP and MGCP. Work as IP-Centrex access terminal, MX120 offers rich features, such as call transfer, call pick-up, conference, caller ID, fashion ring, fork ring, FAX[3], Radius call record, 500 routing rule, number translation, PSTN line fail-over on power failure or network interruption, etc. This makes MX120 suitable for variety application requirement.

Easy to Operate and Maintain

MX120 provides Web-based management GUI, allowing user to configure parameters, upgrade firmware, import and export configuration data, monitor status, and etc. MX120 also supports remote management standards, such as Auto-provisioning, Telnet, TFTP, SNMPv2, TR069, TR104 and TR106.

High Interoperability

MX120 has performed the interoperability tests with many softswitch and IPPBX from worldwide vendors, including IP-PBX from Microsoft (OCS), Cisco (CallManager), Nortel (CS1000), and softswitch from Huawei, ZTE, Ericson, and etc.

Investment Protection

When choosing next generation communication equipment for IP network, cost reduction and investment protection are the main challenges. MX120 offers best performance to cost ratio. Through software upgrade, new VoIP function and standard can be continuously delivered to customers. The innovative design in MX120 supports smooth capacity upgrade from 48 lines to 96 lines. This saves customer initial investment, at the same time support feature business grows.

- Application: Carrier IP voice service (e.g. IP-Centrex), Enterprise long distance By-pass, IPPBX, PBX tie-trunk, Call Center
- Flexible configuration of FXS/FXO ports
- FXO Feature: Dial tone or voice prompt for 2nd stage dialing, Busy tone detection, Caller ID detection, Polarity reversal detection
- Support Fax (T.30/T.38), POS machine and modem
- Busy tone detection and polarity reversal of FXO ports
- 500 routing rule capacity
- PSTN failover on power failure or network interruption
- IP filter, encryption for security
- Support 110~220VAC or -48V DC Power Input[2]
- Support 3GPP IMS
- Support TR069/TR104/TR106 for remote management
- Compatible with unified communication solutions, such as CallManager, OCS, and Asterisk

Note：
[1,2]：None standard, need special order
[3]：Some functions need soft switch support

New Rock Technologies VoIP Gateways

MX120

System Specification

System Feature	
Hardware Configuration	24-96 ports per system. Flexible configure FXO or FXS line combination in 4-line incremental
Voice Processing	Voice codec: G.711, G.729A, G.723.1, GSM, iLBC Echo cancellation: G.168, 64ms echo tail Dynamic jitter buffer, Voice activity detection (VAD), Packet loss compensation QoS: IP TOS

Call Feature	
Calling type	Voice/Fax/Data
IVR voice prompt	FXO port 2-stage dialing
Encryption	RC4 and other encryption scheme for signaling and/or voice
Call handling	Configurable dialing plan, up to 500 routing rules
Fax Processing	T.30, T.38 fax relay
DTMF	RFC 2833, SIP INFO, Transparent audio
Billing	RADIUS Interface; Polarity Reverse
User Feature	Caller ID, Call forward, Call transfer, Call fork, Hot line, Fashion ring, No disturbing, Speed dialing

Network Function	
Security	IP filter, port number changing
NAT	Static, Dynamic, STUN
Protocol	PPPoE, DHCP, DNS, DDNS, 802.1p, TFTP, Telnet

Configuration/Management	
WEB GUI	Configuration, firmware upgrade, status monitoring, log downloading
EMS	TR069/TR104/TR106、SNMPv2、Telnet、TFTP、HTTP
Auto Provisioning	Auto configure/upgrade, Provision server discover, TFTP, FTP, HTTP

Protocol and Standard	
Protocol	RFC3261 & supplementary, RFC3435, 3GPP TS 24.228, TS 24.229
标准	Caller ID (FSK/DTMF), Call progress tone plan (embed 19 countries tone plans, support under defined tone plan)

Hardware	
Central Processor	FREESCALE PowerQUICC MPC8247
Digital Signal Processor	TI TMS320VC5509A
System memory	64MB/128MB
Flash Memory	8MB/16MB
LED	Power, System status, Network status, Line status
Ethernet Connector	RJ-45, 10/100 Base-T, Automatic cross-over
FXO/FXS Connector	RJ-45 (4 line pairs follow T568B scheme)
Max. User Line Length	1500 meters
Ring Equivalent Value	5 REN (short distance)
Power supply	100～240V AC, 50/60 Hz, 1A max
Power Consumption	125W max
Dimension (H x W x D)	44 x 440 x 300 mm (1U) 88 x 440 x 300 mm (2U)
Weight (1U)	Net weight: 4.0Kg; Gross weight (include package): 6.4Kg *
Weight (2U)	Net weight: 6.1Kg; Gross weight (include package): 9.8Kg *

Environment Requirement	
Operating	Temperature: 0～40 ℃; Humidity: 10%～90% (non conducing)
Non Operating	Temperature: -10～60 ℃; Humidity: 5%～90% (non conducing)

* The value is measured under standard hardware configuration, may vary under different hardware configurations

Product Series

- MX VoIP Gateway Series
- MX100-TG Trunking Gateway
- OM IP-PBX
- OX Hybrid Office Telephone System
- Element Management System

New Rock Technologies, Inc. is a China based innovation company, focusing on the developing and manufacturing of VoIP equipments. We offer wide range of VoIP products including all-in-one IP-PBX, hybrid IP-PBX, media gateway, session boarder controller, and related application software. We work with service providers, enterprises, system integrators, resellers, independent software vendors, as well as OEM partners.
New Rock is fully funded by IDG Technology Venture Investment, Inc and other investors.

Building 11, No.777 Longwu Road Shanghai 200232, P.R.China
Tel: +86 21-61202700
Fax: +86 21-61202704
Email: sales@newrocktech.com
Web: http://www.newrocktech.com