MX120G VoIP Gateway

MX120G

Max. FXS/FXO ports: 96

Max. concurrent calls: 96

Features

- SIP/MGCP protocols
- 500 routing and number manipulation rules
- Fax over IP using T.38 fax relay and automatic switching between voice/fax
- Hot-swappable FXS/FXO interface card
- Dual redundant gigabit Ethernet ports
- Dual AC/DC power supplies available
- PSTN failover
- Auto provisioning
- Remote access via New Rock Cloud
- Management with New Rock or third-party Network Management System (TR-069, SNMP)
- Interoperability with popular SIP servers, such as Cisco CallManager, Broadsoft, Microsoft Skype for Business (Lync), Huawei IMS, and Asterisk/Elastix
- Class I lightning protection

The MX120G series is a cost-effective, high-performance VoIP gateway with up to 96 FXS and FXO ports, targeting multi-tenant, large contact center and enterprise telephone communication applications, in which reliability and easy maintenance are critical.

Powered by innovative VoIP technology from New Rock, the MX120G allows users to apply it as an N-to-1 system capable of connecting analog phone, fax and POS machine, IP telephony, and PSTN.

Comprehensive Feature Set

As an intelligent gateway running on embedded Linux operating system, the MX120G supports an advanced feature set such as call forward, call transfer, 3-way calling, caller ID, DND, color ringback, call forking, automatic routing, Digitmap and much more, to provide a complete and highly reliable VoIP solution applicable to most scenarios.

Carrier-class Reliability

MX120G supports high availability configuration including SIP registration failover, load balance as well as PSTN failover, with reliable 1+1 redundancy of gigabit Ethernet ports and power supplies (optional), ensuring no loss of service and minimizing the communications downtime.

Easy Remote Management

Embedded with New Rock Cloud client, the device located behind enterprise NAT or firewall can be easily accessed for maintenance and troubleshooting purpose or by far-end applications. Real time monitoring, alarm notification, remote packet capture and software upgrading can be performed with New Rock Network Management System, or third-party device management system connecting over TR-069 or SNMP protocol.

Investment Protection

Investment protection is a significant part of New Rock VoIP product development focus, providing better returns for the customers who invest in VoIP products by maintaining compatibility with newest VoIP technologies via software upgrading, avoiding repeated investments.

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Specification

Protocol	
Call control	SIP/UDP and SIP/TCP (RFC3261), IMS (3GPP), MGCP (RFC3435)
Network	Telnet, SSH, HTTP, HTTPS, DHCP/PPPoE client, Radius, DNS (A/SRV record), STUN
Media processing	
Caller ID	Bellcore Type 1&2, ETSI, BT, NTT, and DTMF-based CID
Codec	G.711 (a/μ), G.729a, G.723.1, GSM, iLBC
DTMF	In-band audio, RFC2833, SIP-INFO
Hook-flash	Local processing, RFC2833, SIP-INFO
Fax over IP	Auto-switch to T.38 from G.711 Fax pass-through, Fax data pump V.21/V.27ter/V.29 for T.38 compliant Fax Relay up to 9.6 kbps.
Disconnect modes	Polarity reversal, Busy tone detection, Loop current
Voice quality enhancement	Echo cancellation (G.168-2004), Jitter buffer, Silence suppression (VAD, CNG), PLC
Voice	
Call transfer	Blind transfer, Consultative transfer
Call forward	Call forward all, Call forward no answer, Call forward busy
Call recording storage	Remote recording server for storage
Call settings	Routing based on the caller or callee number, Digitmap, 3-way calling, Speed dialing, Do not disturb, Call forking, Color ringback tone, Hunt group, Ring cadence, Message Waiting Indicator (MWI)
Security	
User-defined ports	SIP port, RTP port, HTTP/HTTPS port to access the Web GUI
Access list	IP addresses allowed to access HTTP/HTTPS/ Telnet/SSH service
VoIP	SIP-allowed IP addresses
Encryption	Encrypted password/PIN
Intrusion prevention	Ping blocking
QoS	
QoS	DiffServ、TOS、802.1P/Q VLAN
High Availability	
Redundancy	Primary-Standby, Active-Standby, Load balancing
Failover	PSTN failover upon power or network failure

Provisioning, administration and maintenance	
Device management	New Rock Network Management System, TR-069 management (TR-069, TR-104, and TR-106), SNMP
Remote access over TCP	New Rock Cloud
Auto provisioning	Download configuration file via TFTP/FTP/ HTTP/HTTPS, Obtaining ACS address via DHCP option 66 or redirection
Log management	8-level logs, Syslog
Data capture	Port capture, Packet capture
Status and statistic	Call status and history, Device status monitoring and statistics collection
Upgrade	Firmware upgrade via Web GUI
Add-on Tools	
Finder	A tool to assist discovery of a devices IP address
Telegreeting	A tool to format the uploaded IVR audio files
Recording Agent	A windows-based application to collect recording files on remote storage servers and converting PCM audio into MP3 format

Hardware

CPU	1 GHz
Voice DSP module	200 MHz, 3 to 12 modules
RAM	256 MB，DDR3
FLASH	32 MB
H×W×D	3.35 ×17.32 ×11.81 in. (85 × 440 × 300 mm)
Weight (net)	13.93 lb (6.32 kg) maximum
Single/Dual AC power supplies	100 to 240 VAC, 50/60 Hz, 2A maximum
Single/Dual DC power supplies	-36 to -72 VDC, 4A
Mounting	Rack
Operating	Temperature: 32 to 104°F (0 to 40°C), Humidity: 10 to 90% RH (non-condensing)
Storage	Temperature: -40 to 158°F (-40 to 70°C), Humidity: 5 to 90% RH (non-condensing)

Product Models

With its modular design, the capacity of MX120G can be flexibly expanded by mixing up to 4 FXS/FXO interface cards, as listed below.

Interface cards：24S, 24FXO, 8S/8, 16S/8, 12S/12

CE FC RoHS