

# New Rock Technologies VoIP Gateways

MX100-AG

## VoIP Access Gateway



- The ideal gateway for IP-PBX and residential VoIP application
- High voice quality
- Highly compact yet truly reliable
- User-friendly provision tools
- Featuring fashion ringing tones, auto dialing, dual phone numbers, and RADIUS billing interface
- Advanced VoIP technologies including SIP/MGCP protocols, iLBC, and voice encryption
- In-house R&D

MX100-AG VoIP Gateway is one product of VoIP MX series by New Rock Technologies. It is a carrier class VoIP gateway. Carriers and enterprises can use it to provide regular phone, fax, and IP Centrex services through broadband networks. MX100-AG guarantees a smooth transition to NGN (Next Generation Network), therefore protects your long-term investments. When fully configured, one MX100-AG system supports up to 48 FXS lines.

MX100-AG is designed to meet the VoIP demands of telecommunications carriers, value-added service providers, and mid- to -large -sized enterprises. Installed in a highly compact 1U chassis, MX100-AG is equipped with one control module, two card slots (for two FXS cards with 24 ports each), and two power feeds (so end-users have the options to use one or two 70W power supply to protect system from power surge and to provide redundancy).

### Intelligent and Rich in Features

MX100-AG adopts embedded Linux operating system. Equipped with powerful hardware configuration and controlled by sophisticated software, the system supports multiple functions and provides solutions to a variety of application demands. In addition to supplementary functions like fashion ringing tones, Caller ID, Call Forwarding, and Call Waiting, it also supports features like Calling/Called Number Mapping, Routing, RADIUS Billing Interface, Broadcasting Second-stage Dialing, and Auto Dialing. MX100-AG supports SIP and MGCP protocols, and is the ideal gateway for VoIP connection and IP-PBX application.

### Easy to Operate and Maintain

Like other gateway products by New Rock, MX100-AG supports configuration using web based user interface or text commands. In addition, through New Rock's EMS system, the user can remotely upgrade software, change configuration, download LOG files, collect performance data, and send out alarms.

### High Interoperability

MX100-AG has passed compatibility and interoperability tests with above twenty most popular soft switch and gateway suppliers that are currently on the market.

### Investment Protection

When selecting the new generation of VoIP telecommunication equipments, users face the challenge of cost reduction and investment protection. MX100-AG not only has obvious pricing advantage, it also supports the most advanced VoIP technologies and standards. Through software upgrades, MX100-AG users can always benefit from the development of VoIP technology.

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### System Specification

Functions	
Configuration	24 analog FXS ports; 48 analog FXS ports
Voice processing	Voice codec: G.711, G.729A, G.723.1, GSM, and iLBC Echo cancellation: G.168; Tail Length: 8/16/32ms Dynamic Jitter buffer; Voice Activity Detection (VAD); and Comfort Noise Generator (CNG)
Call control	Calling/Called Number Mapping; Line Hunt
End user features	Caller ID; Call Forwarding; Call Waiting; Hotline; Prefix Dialing; and Do Not Disturb
Fax processing	T.30, T.38 fax relay
Billing	RADIUS Interface; Polarity reverse
Configuration methods	Web based user Interface; Text based configuration
Remote provisioning	Through HTTP/WEB mode; New Rock EMS remote configuration; remote software upgrade, alarm, and data collection
Signaling	
End user off hook detection	FXS loop start and DDI (Hong Kong)
VoIP protocols	SIP (RFC3261) and MGCP (RFC2705)
DTMF	DTMF Digits Transmit: RFC2833, INFO (SIP)
Other Features	
Auto dialing	DTMF mode
Dual phone numbers	One FXS line can have two phone numbers (for example, one PSTN number and one extension number)
Alternating soft switch	Can use multiple soft switch applications
Fashion ringing tones	Can download and store more than 20 fashion ring-back tones
Hardware	
Max Line Length	3000 meters
REN Equivalence	5 for short loop (300 meters), 3 for medium loop (1500 meters)
Ringing Voltage	60V
FXS port connector	Champ 50
Ethernet port connector	RJ-45 or 10/100 Base-T, with auto sensing
Internal memory	128MB
Flash memory	8MB
CPU	Motorola PowerPC 8250
DSP	TI C5509
Input voltage	110~240 AC; 50~60Hz; input current 1AMP max
Power consumption	70 W (max)
Dimension (H x W x D)	4.4 x 44 x 44 cm; 1U in height; 19" chassis
Weight	Net weight: 7 kg; gross weight: 9 kg
Environment requirement	
Operation environment	Between 0~40°C and humidity between 5%~95% (none condensing)
Non operation environment	-10~60°C
Other Specificatios	
Telecommunication standard	FCC Part 15

### MX Product Series

- MX8 VoIP Gateway: 4/8 FXS/FXO
- MX50 VoIP Gateway: 8/24 FXS/FXO
- MX100-TG Trunking Gateway: 1/4 E1/T1
- SIP Operation Platform
- Billing System
- Element Management System

### About New Rock Technologies

Newrock Technologies, Inc. is an innovative provider of IP-based voice communications equipments. Our customers range from service providers, enterprises, system integrators, to independent software vendors. We also have OEM partners worldwide. Headquartered in the Greater Boston area in the United States. We have expanded our Research and Development, marketing and sales, and manufacturing operations to Shanghai, China. We are fully founded by IDG Technology Venture Investment, Inc and other investors. New Rock Technologies offers a full line of VoIP products from voice access gateway, to digital trunking gateway, gateway management system, billing system, and application software platform.

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