MX100G SIP-ISDN Trunking Gateway

The MX100G SIP-ISDN trunking gateway (hereinafter referred to as the MX100G) is one of VoIP product series developed by New Rock Technologies Inc. It uses the SIP and T1/E1 interfaces for the inter-conversion of IP packets and PCM signals, allowing the interworking of the IP-based new-generation voice network to legacy PSTN, and the PBX of an enterprise.

As a carrier-class VoIP gateway, the MX100G is designed under the requirements of telecom operators, integrators, value-added service providers as well as large and medium-sized enterprises for VoIP services. The MX100G has distinctive advantages over other similar products in terms of performance, system reliability, compatibility and cost performance.

MX100G

T1/E1 interface: 1/2/4

Max. concurrent calls: 120

Features

- Up to 500 routing rules
- Toll voice quality
- PSTN termination for IP Phones, IPPBX and PBX access
- Digit translation, voice announcement, 2nd-stage dialing and RADIUS billing interface
- Advanced technology including SIP protocol, frequency domain echo cancellation, iLBC codec and TR-069 remote management
- Auto dialing
- DTMF detection and progress tone detection
- Early cut through
- Play ring-back tone
- G.711 and T.38
- RTP proxy for NAT traversal

High Performance

The DSP chip with powerful voice processing used by the MX100G is developed by the TI Company. Its DSP daughter card ensures a 6000 MIPS processing capability for each gateway, enabling the MX100G to provide functions of voice signal processing (G.711, G.729A, and G.723.1), echo cancellation, and fax relay (T.38) under full load conditions (120 calls).

High Security

The network security of the MX100G has been confirmed by NSFOCUS, a proven global leader in providing enterprise-level network security solutions and services. To ensure a better security, the MX100G supports SSH and HTTPS, and provides functions including signalling and media stream encryption, automatic password strength test, password change notification, password anti-crack, ciphertext data storage, external network access control, blacklist/whitelist, and system log backup.

High Reliability and Maintainability

To meet the requirements of telecom operators on the gateway reliability, the hardware design of the MX100G, from architecture to component selection, takes full consideration of improving the mean time between failures (MTBF), including features such as redundant power supply option and dual Ethernet ports. In addition, the MX100G uses a web-based graphical management interface to facilitate user configuration and routine maintenance.

MX100G SIP-ISDN Trunking Gateway

Specification

Functions	
Voice Processing	G.711, G.729A, G.723.1, GSM, iLBC Echo Cancellation: G.168 Dynamic Jitter Buffering, VAD, CNG
Voice Processing	RTP proxy, Firewall traversal, Local/remote user NAT traversal
Security	SSH/HTTPS, Signalling and media stream encryption, Automatic password strength test, Password change notification, Password anti-crack, Ciphertext data storage, External network access control, Blacklist/whitelist, System log backup
Route	Number Transformation, 500 routing rules
Fax	G.711 pass-through, T.38 fax relay
Billing	RADIUS interface
Redundancy	ETH1 and ETH2 share the same IP address for allowing access to the external network
ISDN Maintenance	BERT, Near and loop back, ISDN-D & ISDN-B channel
Gateway Management	HTTP/HTTPS, TR-069, Auto provisioning, Software upgrade, Visit history, Online terminal list, Call traces
Registration & Authentication	Support registration and authentication of SIP terminals

Signaling	
PSTN Access	E1 ISDN PRI (30 B+D): Chinese standard T1 ISDN PRI (23 B+D): ANSI NI-2
SIP	Switch type: 5ESS Series, DMS Series RFC3261, RFC2976, RFC3515, RFC3581
DTMF	DTMF Detection DTMF Relay: RFC2833, INFO (SIP), Transparent

High Availability	
Redundancy	Primary-Standby, Active-Standby, Load balancing
Failover	PSTN failover upon power or network failure

Hardware

Ethernet	RJ45, 4×10/100/1000Base-T, self-adaptive
T1/E1 Interface	1/2/4
SD Interface	1
CON Interface	RJ45
System Memory	256 MB
System Flash	32 MB
Processor	TI AM3352
DSP	TI C5509
Single/Dual AC power supplies	100 - 240 VAC, 50/60 Hz, 1A maximum
Single/Dual DC power supplies	-36 to -72 VDC, 2.5A
Power Consumption	18 W (Max)
Size (H×W×D)	44×440×300 mm (1U)
Weight	net weight: 3 kg gross weight (with box): 5 kg

Environment Requirements

Operating Environment	0 to 40°C, Non-Condensing Humidity 10% to 95%
Storage Environment	-10 to 60°C, Non-Condensing Humidity 10% to 95%

CE FC RoHS SGS NSFOCUS

New Rock Technologies, Inc. is a leading provider of Voice over IP products in China, offering 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, system integrators, distributors, resellers, independent software vendors, as well as OEM partners.