



The Mediatrix® 4104 is a high-quality and cost efficient VoIP gateway connecting small offices to an IP network, while preserving investment in analog telephones and faxes.

It allows Service Providers to deploy rapidly and economically their solutions in SOHOs and it is the ideal solution for small branch office connection to larger private networks.

Key Benefits

Voice Functionalities

- Carrier-grade voice quality
- Fax over IP support, including T.38
- PSTN bypass (emergency calls)
- Up to 4 simultaneous calls
- Battery Reversal for pay phones

Ease of configuration and management

- Automatic firmware and configuration file download
- SNMP and web management
- TFTP or HTTP auto-provisioning
- TR-069 for massive deployments (optional feature available at purchase time)

Security

- Support for SNMPv3
- Encrypted configuration files support
- HTTP Digest authentication
- Secured SIP signaling and media transmission

Network functionalities

- QoS features support
- DHCP client
- STUN Client
- 2 Ethernet ports
- Support for IPv6 Internet Protocol (Dgw v2.0 application)



Mediatrix 4104 Overview

The Mediatrix 4104 connects up to 4 analog phones and/or faxes to a broadband modem.

The Mediatrix 4104 is the new and improved version of the Mediatrix 1104.

The Mediatrix 4104 enables cost-effective VoIP deployments in small offices for both IP Centrex and private network applications.

The Mediatrix 4104 has the additional benefit of supporting high compression codecs simultaneously on each analog voice ports, thus saving valuable bandwidth.

The Mediatrix 4104 offers security features such as TLS, SRTP, certificates management, and HTTPS designed to bring enhanced security for the network management, SIP signalling and media transmission aspects.

As all other Mediatrix devices, the 4104 provides a web interface, giving users a convenient access to the unit for initial set-up. The devices can also auto-provision by fetching their encrypted configuration from a TFTP or HTTP server, making installation secure and transparent to the end-users. To further facilitate deployments, factory-loaded configurations are possible.

In addition, an intelligent PSTN bypass allows Mediatrix 4104 users to make emergency calls and maintain their phone service in the event of a power outage or network failure.

The Mediatrix 4104 also provides a second Ethernet port to connect a personal computer for Internet applications access. It supports VLAN Tagging Substitution providing different VLAN Tagging for DATA & VOICE traffic compliant with Quality of Service requirements in public networks.

Media5 Sales Department

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Technical Specifications

IP Telephony Protocol

- SIP – RFC 3261
- MGCP/NCS – RFC 3435
- IPv6 addressing. Most network-related features of the Mediatrix unit receiving and sending packets on the Internet protocol can be used on both IPv4 and IPv6.

Voice Processing

- Vocoders: G.711 (A-law, μ -law), G.723.1, G.726, G.729a/b
- G.168 echo cancellation (64 ms)
- DTMF detection and generation
- Carrier tone detection and generation
- Silence detection / suppression and Comfort Noise Generation level software adjustable
- Configurable de-jitter buffer
- Configurable tones (dial, ringing, busy)
- Configurable transmit packet length
- RTP/RTCP - RFCs 1889 / 1890 / 2833 / 3389

Enhanced Security

- HTTPS, for the exchange of Configuration File and web pages.
- SRTP with MIKEY and SDDES.
 - Supported Cypher
 - AES – 128 bits
- MIKEY key management protocol (RFC 3830 and 4567).
- SDDES key management protocol (RFC 4568).
- X.509 Certificate management.
- TLS transport method.
 - Supported Key Exchange Mechanism:
 - RSA
 - Diffie-Hellman
 - Supported Cyphers (minimum):
 - AES (128 and 256 bits)
 - 3DES (168 bits)

Ethernet Connection Enhancement

- 2nd Ethernet port for LAN access
- Static IP address support on 2nd Ethernet port for Management
- VLAN Substitution feature for DATA applications

Fax and Modem Support

- Group 3/Super G3 Fax real-time FoIP over clear channel (G.711), G.726 or T.38
- T.38 Fax relay (9.6 k, 14.4 k)
- G.711 Fax and Modem Bypass
- T.38, fax tone detection and pass-through on G.711 and G.726

Management

- Web-based GUI (SIP only)

- TFTP, HTTP configuration up- and download (Auto-provisioning)
- TFTP, HTTP firmware upgrade
- SNMPv1/v2/v3 agent (MIB II and private MIB)
- TR-069 for massive deployments (optional feature available at purchase time)

Call Routing

- Local switching
- Interface hunt groups
- Routing Criteria
 - Interface
 - Calling/called party number
 - Time of day, day of week, date
 - ISDN bearer capability
- Number manipulation functions
 - Replace numbers
 - Add/remove digits
 - Multiple remote gateways
 - PLAR
- Call properties manipulations
- SIP header manipulations

WAN Connection

- 2 x 10/100 Base T Ethernet RJ-45 connector

Analog Connection

- 4 x RJ-11 connectors, analog phone/fax (FXS) interfaces

Bypass Connection

- 1 x RJ-11 connector, PSTN bypass

QoS

- TOS/DiffServ
- IEEE 802.1p/Q

Enhanced Telephony Features

- Multiple SIP Proxy support via DNS SRV
- Call Forward / Call Transfer / Conference Call / Call Waiting support
- T.38, fax tone detection and pass-through on G.711 and G.726
- Inter-digit timer and IP dialing
- Echo Cancellation / Dynamic Jitter Buffer / Voice Activity Detection / Silence Suppression
- Message Waiting Indication, via FSK
- Flash hook event signaling
- Caller ID Generation (Name & Number) as per Bellcore DTMF or FSK
- CCNR / CCBS
- PRACK & UPDATE
- Multiple Virtual Gateways

Operating Environment

- Operating temperature: 0°C to 40°C
- Storage temperature: -20°C to 70°C

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- Humidity: up to 85%, non-condensing

Power Supply

- External 12 Vdc power supply (wall plug or desktop, based on country/area model).

Unit Dimensions and Weight

- 4.9 cm x 22.0 cm x 17.6 cm (1.9 in. x 8.7 in. x 6.9 in)
- Unit weight 545 g (1.2 lb)

Mediatrix SDK (Software Development Kit)

- Enables developers and content authors to create rich, integrated VoIP applications for their specific requirements
- Available for download free of charge at <http://mediatrixsdk.media5corp.com>

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