

Mediatrix® 4100 Series

The Mediatrix® 4100 Series access devices are high-quality and cost efficient VoIP gateways connecting larger branch offices and multi-tenant buildings to an IP network, while preserving investment in analog telephones and faxes.

The Mediatrix 4100 Series access devices allow Service Providers to deploy rapidly and economically their solutions in medium-size premises and they are the ideal solution for branch office connectivity to larger private networks.

Key Benefits

Voice Functionalities

- Carrier-grade voice quality
- Fax over IP support, including T.38
- PSTN bypass available on models 4108/4116/4124, optional on 4104
- Up to 24 simultaneous calls

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
- Compliant with multiple enhanced security protocols offering a rich feature set including: SIP, MIKEY, TLS, SRTP, certificates management, and HTTPS.

Network functionalities

- QoS features support
- DHCP client
- STUN Client



Mediatrix 4100 Series Overview

The Mediatrix 4100 connects up to 24 analog phones and/or faxes to a broadband modem or LAN.

The Mediatrix 4100 enables cost-effective VoIP deployments in medium-size branch offices and multi-tenant applications.

The Mediatrix 4100 has the additional benefit of supporting high compression codec's simultaneously on each analog voice ports, thus saving valuable bandwidth.

As all other Mediatrix devices, the 4100 Series provides 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.

The Mediatrix 4100 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. In addition, an intelligent PSTN bypass allows Mediatrix 4100 users to make emergency calls and maintain their phone service in the event of a power outage or network failure.

Technical Specifications

Models

- Mediatrix 4102 : 4 analog FXS ports
- Mediatrix 4104 : 4 analog FXS ports
- Mediatrix 4108 : 8 analog FXS ports
- Mediatrix 4116: 16 analog FXS ports
- Mediatrix 4124: 24 analog FXS ports

IP Telephony Protocol

- SIP – RFC3261
- MGCP/NCS

Voice Processing

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

Enhanced Security

- HTTPS, for the exchange of Configuration File and web pages.
- SRTP with MIKEY and SDES.
 - Supported Cypher
 - AES – 128 bits
- MIKEY key management protocol (RFC 3830 and 4567).
- SDES 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)

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

- TFTP, HTTP configuration up- and download (Auto-provisioning)
- TFTP, HTTP firmware upgrade
- SNMPv1, v2 and 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

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

Analog Connection

- Mediatrix 4124: 1 x RJ-21X TELCO 25 pairs connector, analog phone/fax (FXS) interface.
- Mediatrix 4116: 16 x RJ-11 connectors, analog phone/fax (FXS) interfaces.
- Mediatrix 4108: 8 x RJ-11 connectors, analog phone/fax (FXS) interfaces.
- Mediatrix 4104: 4 x RJ-11 connectors, analog phone/fax (FXS) interfaces.
- Mediatrix 4102: 2 x RJ-11 connectors

QoS

- TOS/DiffSery
- 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
- Humidity: up to 85%, non-condensing

Power Supply

- AC: Standard power cord receptacle (IEC 320-C14) for universal AC input internal SMPS

Unit Dimensions and Weight

- Mediatrix 4102:
 - 3.1 cm x 12.7 cm x 9.9 cm – 1.2 in. x 5 in. x 3.9 in. (approx.)
 - 170 g (0.37 lb)
- Mediatrix 4104:
 - 4.9 cm x 22.0 cm x 17.6 cm – (1.9 in. x 8.7 in. x 6.9 in. (approx.))
 - 545 g (1.2 lb)
- Mediatrix 4108/4116/4124:
 - 4.4 cm x 43 cm x 21 cm - 1.74 in. x 17.19 in. x 8.4 in. (approx.)
 - 1.7 kg (3.7 lbs) approx.

