

Mediatix[®] 4400

The Mediatix 4400 Digital ISDN BRI interface Gateways allow enterprises to lower communications costs over any IP link.

They provide an ideal solution for enterprise voice applications or for connecting to a service provider's broadband access.



Key Benefits

Voice Functionalities

- 1, 2 or 4 ISDN BRI interface ports
- Up to 8 simultaneous calls
- 2 Ethernet ports
- Secured SIP signalling and media transmission
- User programmable call handling
- Pre-Defined ISDN Settings to assist new deployments
- Deployable in SIP VoIP networks
- HTTP, SNMP, FTP and TFTP for configuration and management
- Fax over IP support, including T.38
- Multiple codec support
- Multiple LEDs for status indication at a glance
- May be synchronized via the Remote clock synchronization feature ('Master' unit required)
- Support for IPv6 Internet Protocol

Mediatix 4400 Overview

Designed specifically for enterprise applications, the Mediatix 4400 digital gateways make use of existing broadband access equipment to connect to any standards based VoIP network.

The Mediatix 4400 digital gateways meet the requirements of enterprises that want to connect their ISDN equipment, such as PBXs, through a BRI interface to an IP network or as a gateway to the PSTN.

Mediatix 4400 digital gateways provide transparent ISDN port extensions over an IP network. The remote ISDN terminals can be managed centrally and benefit from PBX services such as calling groups and voice mail.

The Mediatix 4400 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.

Applications

The Mediatix 4400 digital VoIP gateways allow any office to use an existing IP network for lower-cost voice communications.

The Mediatix units link any standard ISDN BRI connection to the IP network and deliver the clarity of toll quality voice for a comprehensive VoIP solution.

T.38 FoIP, fax bypass, and modem bypass capabilities ensure that the Mediatix 4400 digital gateways seamlessly transport voice and data services. The Mediatix 4400 digital gateways offer flexibility and scalability for VoIP network integration and low bandwidth voice.

With configurable NT/TE BRI ports, call-switching and user programmable call routing (including caller/called ID), Mediatix 4400 digital gateways integrate smoothly into existing PBX and PSTN networks.

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Mediatix 4400 BRI Digital Gateway

- 1 to 4 ISDN BRI ports software configurable as NT or TE
 - 4401 = 1 BRI port
 - 4402 = 2 BRI ports
 - 4404 = 4 BRI ports
- Up to 8 simultaneous calls
- Configurable point-to-point, point-to-multipoint and connector pinout
- Optional cut-through relay for emergency operation (bypass connection) between port 1 and 2.
- Optional Power Over Ethernet
- Optional Power Feeding Module for BRI phones

Voice Processing

- Vocoders: G.711 (A-law, μ -law), G.723.1a, G.726, G.729a/b
- G.168 echo cancellation
- 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 web pages and for exchange of Configuration File.
- 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).
- User Access Levels for units Management Observer, User and Admin user access rights, with the inclusion of flexible policies on the user password configuration.

Fax and Modem Support

- Fax over IP
- T.38 Fax relay (9.6 k, 14.4 k)
- G.711 Fax and Modem Bypass
- Clear channel (G.711) or T.38
- T.38, fax tone detection and pass-through on G.711 and G.726

IP Telephony Protocol

- SIP
- Multiple Virtual Gateways
- Multiple SIP Proxy support via DNS SRV
- Dual-Stack IPv4/IPv6 support using ANAT (RFC 4091).
- OSCP (Online Certificate Status Protocol) revocation status verification for TLS links
- ANAT grouping in the SDP.
- Media stream may now be on a different network than SIP signalling.
- Call router automatic routes may now have multiple SIP gateways for sources and destinations..

ISDN Signalling

- Euro ISDN EDSS-1 / ETSI BRI/NET3
- ETS 300 012-1 (ITU-T I.430)
- ETS 300 402-2 (ITU-T Q.921)
- ETS 300 403-1/2 (ITU-T Q.931)

- ETS 300 102-2 (ITU-T Q.931)
- ETS 300 402-1 (ITU-T Q.921)
- ETS 300 403-2 (ITU-T Q.931)
- ETS 300 102-1 (ITU-T Q.931)
- ISDN speech, audio and data (Fax Gr 4, UDI 64, RDI 64)
- ECMA-143 (QSIG-BC)

Voice Signalling

- On Hold Session Description Protocol (SDP)
- Compliant with MMTEL requirements for 3GPP specification 24.615 for Call Waiting requests
- Select Channel Range for Inbound and Outbound calls

Overall Signalling

- Automatic configuration for ISDN Physical Link for ISDN BRI:
 - Endpoint Type
 - Clock Mode
 - Port Pinout
 - Line Coding
 - Line Framing

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
- SIP Fallback on remote destinations - Redirect SIP calls to remote SIP Endpoints using the Call Router with SIP Redirect 302 Moved Temp messages.
- Support of field Remote Party ID.
- Call Router enhancement to support Privacy Header Remote-Party-ID.

QoS

- TOS/DiffSery
- IEEE 802.1p/Q

Management

- Web-based GUI
- TFTP, FTP, HTTP configuration up- and download (Auto-provisioning)
- TFTP, FTP, HTTP firmware upgrade
- SNMPv1, v2 and v3 agent (MIB II and private MIB)
- TR-069 for massive deployments (optional feature available at purchase time)
- Remote Services activation to purchase service licenses for deployed units, permitting to enable TR-069 feature in the field
- TR-104 to permit large provisioning systems to communicate with CPE on private networks
- Subscribes services for IMS: Transfer methods and real time media provisioning

Network Connection

- 2 x 10/100 BaseT Ethernet RJ-45 connectors

Operating Environment

- Operating temperature: 0°C to 40°C
- Storage temperature: -20°C to +70°C
- Humidity: up to 85%, non-condensing

Power Supply

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

Mechanical

- Desk mount (horizontal/vertical) or Wall mount

Dimensions

- Height: 4.9 cm (1.9 in.) approx.

- Width: 22 cm (8.7 in.) approx.
- Depth: 17.6 cm (6.9 in.) approx.
- Weight: 545 g (0.75 lb.) approx.

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>