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Technical Bulletin 603

Hardware and Software Differences between the Mediatrix 4400 Series and the Mediatrix 1400/2400 Series

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Scope of this Document

The Mediatrix 4400 Series can be used as a replacement for SIP applications where the Mediatrix 1400/2400 Series[1] is used. The Mediatrix 4400 offers some additional feature and benefits. This document describes the differences in appearance, function, architecture, and functionality between the two models.

Hardware Appearance Differences

Case size

Mediatrix 4400: (WxHxD) 8.7x1.9x6.9 inches, 220x49x176 mm

Mediatrix 1400: (WxHxD) 8.66x1.57x6.3 inches, 220x40x160 mm

Mediatrix 2400: (WxHxD) 11.02x1.5x6.18 inches, 280x39x157 mm

Physical ports

Port type	Mediatrix 4400 Series	Mediatrix 1400 Series	Mediatrix 2400 Series
ISDN	1, 2, or 4 ports, NT or TE configurable. Fallback available (optional)	2 ports, NT or TE configurable. Fallback available	3 or 5 ports, NT or TE configurable. Fallback available
WAN	1 WAN port 10/100 Mbit/s	1 WAN port 10/100 Mbit/s	1 WAN port 10/100 Mbit/s
LAN	None	1 LAN port 10/100 Mbit/s	1 LAN port 10/100 Mbit/s
Console	None	1 Console port RJ-45	1 Console port RJ-45
Power	External 12 Vdc power supply	Standard 3 prong connector for internal power, 100-240 VAC	Standard 3 prong connector for internal power, 100-240 VAC

LED descriptions

The Mediatrix 1400/2400 has LEDs on the front panel, and additional link LEDs on the back for each physical ISDN and Ethernet port.

The Mediatrix 4400 presents all LEDs on its front panel. The LED meaning and behaviour are different; please refer to the *Mediatrix 4400 Hardware Installation Guide* for the new LED behaviour. (You will find this information available at file MTX_4400-DG-HWIG_v1-1_Rev02 on the Mediatrix Support Portal on link http://www.mediatrix.com/support.php under Mediatrix 4400 Series (Documentation) menu).

[1] The Mediatrix 4400 can also be used as a replacement for the Mediatrix 4600 series. However, the following delta document will use the Mediatrix 1400/2400 rev 2 model as references for comparison purposes.

Software Feature Differences

The Mediatrix 4400 runs a different Firmware than the 1400/2400. This is a new optimized Firmware.

New Features

The following are additional features from which you will benefit when using the Mediatrix 4400:

- Autoprovisioning for Configuration and Firmware upgrades
- Improved WEB GUI for configuration and management
- Software upgrade with HTTP, HTTPS, FTP
- Configuration file upload with HTTP, HTTPS, FTP
- Full SNMP V1,2,3 on all of the variables
- Allowed and refused DTMF maps (also called digit map or dial map).
- Quality of Service (Type-of-Service (TOS/DiffServ) and IEEE 802.1p/Q)
- Power over Ethernet

Modified Features

The following table lists the main features modified between both series:

Feature	Mediatrix 1400/2400	Mediatrix 4400
Cut-through relay for emergency operation (bypass connection)	Available	Optional
BRI Phone power feeding	Available	Optional
Industry standard CLI	Available	Currently available only through a new optimized web interface. The CLI will be available in 2007. The web interface offers all of the required variables to easily configure the Mediatrix 4400.
Tones (dial, ringing, busy, etc.)	Configurable manually	Pre-configured. Manually configurable tones will be available in 2007. For the moment, country tones can be added through service request.
SNMP Traps	Available	The first software release of the Mediatrix 4400 does not support SNMP Traps. This support will be available in 2007.
Bearer capabilities supported	Speech Unrestricted-digital Restricted-digital 3k1-audio	Speech Restricted-digital 3k1-audio

	7k-audio Video	
Modem Transmission	X-Clear-Channel Clear Channel	Clear Channel X-Clear-Channel (Available on Q1-2007)

Discontinued Features

The following features are not available on the Mediatrix 4400 series:

- H.323
- ISDN over IP
- ISDN broadcast message routing
- HPOV Integration with NNM
- The V.35/X.21 Serial PPP/Frame Relay
- RS-232 local console
- QSIG

Detailed Hardware Specifications

Mediatrix 4400

Hardware Specification	Mediatrix 4400
System	
Processor Type CPU	ADM5120 @ 400 MHz
System Memory	128 MB SDRAM
Flash Memory	64 MB
Power Supply	12V External Power supply
Power dissipation	4 W approx
Number of DSP VoIP channels	8
Voice Connectivity	
ISDN Interfaces	1, 2, or 4 (depending on model) ISDN BRI So (S/T), RJ-45, TE/NT configurable, point-point and point-multipoint configurable
ISDN Line Power	Optional
Power over Ethernet	Optional
Power-down Bypass Relay	Optional
Data Connectivity	
WAN Uplink	10/100 Mbit/s Ethernet (RJ-45)
Packaging	
Chassis	steel, rack mount, wall mount or desktop
Dimensions (W/H/D)	44.5 cm x 4.4 cm x 20.5 cm / 17.5” x 1.73” x 8.0”
Shipping Weight	Around 4.5 kg / 10 lbs
Compliance	
Safety	EN60950, CB scheme, UL60950 CSA22.2 no60950
EMC	EN55022, EN55024, FCC Part 15 Class B
Telecom	TBR4
CE compliant	Yes
Environmental Conditions	
Operating Temperature	0 to 40℃ / 32 to 104℉
Storage Temperature	-25 to +85℃ / -13 to 185℉
Relative Humidity	5 to 95%, non-condensing

Mediatrix 1400

Hardware Specification	Mediatrix 1400
System	
Processor Type CPU	Motorola MPC850 @ 50 MHz
System Memory	16 MB SDRAM
Flash Memory	4 MB
Internal Power Supply	100-240 VAC (50/60 Hz)
Power dissipation	4 W fully loaded
Number of DSP VoIP channels	2
Voice Connectivity	
ISDN Interfaces	2 ISDN BRI So (S/T), RJ-45, Both configurable as Usr (TE) or Net (NT)
Point-point and point-multipoint	Yes
ISDN Line Power	With external power supply
Power-down Bypass Relay (Life Line Support)	Yes
Data Connectivity	
On-board Ethernet	2 ETH 10 Mbit/s, RJ-45, half or full duplex
Console Port	RS-232, RJ-45
Packaging	
Chassis	Alu, desktop, wall-mount
Dimensions (W/H/D)	220/40/160 mm
Shipping Weight	1.2 kg
Compliance	
Safety	EN60950
EMC	EN55022, EN55024
CE compliant	Yes
Telecom	TBR3
Environmental Conditions	
Operating Temperature	0 – 40 ℃
Storage Temperature	-40 – 75 ℃
Relative Humidity	5 – 80 % (non condensing)

Mediatrix 2400

Hardware Specification	Mediatrix 2400
System	
Processor Type CPU	Motorola MPC875
System Memory	32 MB SDRAM
Flash Memory	4 MB
Internal Power Supply	100-240 VAC (50/60 Hz)
Power dissipation	8 W
Number of DSP VoIP channels	4 or 8 depending on model
Voice Connectivity	
ISDN Interfaces	3 or 5 (depending on model) ISDN BRI So (S/T), RJ-45, Both configurable as Usr (TE) or Net (NT)
Point-point and point-multipoint	Yes
ISDN Line Power	Built-in
Power-down Bypass Relay (Life Line Support)	Yes
Data Connectivity	
On-board Ethernet	2 ETH 10 Mbit/s, RJ-45, half or full duplex
Console Port	RJ-45
Packaging	
Chassis	Alu, desktop, wall-mount
Dimensions (W/H/D)	280/39/157 mm
Shipping Weight	1.7 kg
Compliance	
Safety	EN60950
EMC	EN55022, EN55024
CE compliant	Yes
Telecom	TBR3
Environmental Conditions	
Operating Temperature	0 – 40 ℃
Storage Temperature	-40 – 75 ℃
Relative Humidity	5 – 80 % (non condensing)

Feature Matrix Specifications

Mediatrix 4400

Feature	Description	Availability
Telephony Interfaces	SIP support as per RFC 3261	✓
	Telephony services (Automatic Call, Call on Hold, etc.)	
	FXS Interface	
	Metallic Bypass	✓
	FXO Interface (hardware ready)	
	BRI Interface	✓
	BRI Euro ISDN EDSS-1 / ETSI PRI/NET5	✓
	Digital cards software configurable NT-TE, point-to-point, point-to-multipoint	✓
	Configurable point-to-point and point-to-multipoint (BRI phones)	✓
	Configurable connector pinout	✓
	BRI Power Feeding	✓
	Frame relay, PPP over E1/T1	
Voice processing	G.168 echo cancellation	✓
	T.38 Fax relay (9.6 k, 14.4 k)	✓
	Fax/modem (Clear channel)	✓
	Vocoders: G.711 A-Law/µ-Law, G.723, G.729, G.726	✓
	Silence suppression and comfort noise	✓
	Configurable transmit packet length	✓
	DTMF detection, generation and transport	✓
	Carrier tone detection and generation	✓
	Configurable tones (dial, ringing, busy)	✓
	Caller ID	✓
Configuration and managements	SNMP v1, v2 and v3 of all variables	✓
	Industry standard CLI	Planned
	HTTP Web GUI	✓
	Upgradable Firmware (TFTP, HTTP, HTTPS, FTP)	✓
	Profiles customization	✓
	Auto provisioning via script	✓
	Scheduled scripting support	✓
	Backup and restore configuration	✓
	NTP client	✓
	Syslog client	✓
Voice Routing	Interface huntgroups	✓
	ISDN broadcast message routing	✓
	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	✓
IP Routing NAT and Firewall	Ripv1 and v2	
	Static routes	
	IP filtering	
	Port forwarding	
	NAT/Pat with standard ALG's	
	Stateful inspection	
	Protections against standard attacks	
	DHCP server	
	DHCP client	✓
	PPPoE client	✓
	Satic Addressing	✓
	VLAN support (802.1q)	✓
Qos / Traffic control	Marking Locally generated traffic	✓
	Marking Incoming traffic	
	Traffic shapping	
	Bandwidth guarantees	
	Bandwidth Limits	
	Classification by Port, Appl. (VoiP, Telnet..), Addr., TOS byte.	