



# Mediatrix<sup>®</sup> G7 Series

The Mediatrix G7 Series is a reliable and secure Media Gateway with VoIP Analog Adaptor capabilities for SMBs. Featuring E1/T1 PRI, ISDN BRI, FXS, and FXO interfaces; the Mediatrix G7 Series provides the best solution to connect legacy equipment to cloud telephony services and IP PBX systems to PSTN landlines.

Widely interoperable with SIP softswitch and IMS vendors, the Mediatrix G7 Series enable transparent integration of legacy PBX systems for SIP Trunking and PSTN replacement applications.



## **Interconnects any device to SIP**

The Mediatrix G7 Series links any analog or digital connection to an IP network and delivers a rich feature set for a comprehensive VoIP solution.

## **PSTN access and legacy PBX system gateway**

With configurable E1/T1 PRI, ISDN BRI, FXS, and FXO ports, local call switching, and user-defined call properties (including caller/calling ID), Mediatrix G7 Series gateways smoothly integrate into legacy PBXs and incumbent PSTN networks.

## **Highly reliable Fax and Modem Transmissions over IP**

With T.38 and clear channel fax and modem pass-through capabilities, the Mediatrix G7 Series ensures seamless transport of voice and data services over IP networks.

## **Advanced Mass Management**

Our advanced provisioning capabilities deliver remarkable benefits to Mediatrix customers. Mediatrix enables centralised CPE management, a definite advantage to monitor the network, ensure service, and reduce operational costs.

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## Applications

### Operators

- ✓ Connect legacy equipment in PSTN replacement/TDM replacement projects
- ✓ Provide SIP termination for cloud telephony services
- ✓ Convert ISDN signaling to SIP for SIP trunking
- ✓ Convert analog signaling to SIP for Hosted Unified Communications and IP-Centrex

### System Integrators

- ✓ Integrate Unified Communications with legacy systems
- ✓ Connect Skype for Business with IP/TDM trunks and legacy telephony equipment
- ✓ Keep existing telephony equipment in SIP migrations
- ✓ Inter-connect branch offices to headquarters
- ✓ Survivability for branch offices in case of WAN failure

## Key Features

### Carrier-Grade Voice Quality

T.38 and clear channel fax over IP  
High performance processing of up to 120 voice channels  
Survivability for IP-Phones in Hosted UC/PBX deployments  
Battery reversal for pay phones

### Robust Security

Encrypted media, signaling, and management  
Deep packet inspection firewall with DoS protection

### Easy Configuration and Management

Zero-touch configuration  
Intuitive Web GUI  
Customisable factory settings

### Networking

Dual-stack IPv6 and IPv4  
Multiple IP addresses and VLANs  
NAT, firewall, and router capabilities

## Benefits

- ✓ High quality built and carrier-grade validation standards contribute to the industry's most reliable platform.
- ✓ Extensive TR-069 support for an easy management of large-scale deployments with a centralised EMS.
- ✓ Superior call routing and manipulation allow greater flexibility in the implementation of complex deployment scenarios.

# Technical Specifications

## Media Processing

G.711 (A-law and  $\mu$ -law), G.722, G.726, and G.729a/b;  
G.168 echo cancellation  
DTMF detection and generation  
Carrier tone detection and generation  
Silence detection/suppression and comfort noise  
Configurable de-jitter buffer and packet length  
Packet loss concealment

## Enhanced Security

Denial of Service (DoS) protection  
SIP over TLS  
SRTP with AES cipher – 128 bits  
MIKEY key management protocol (RFC 3830 and 4567)  
SDES key management protocol (RFC 4568)  
TLS-encrypted configuration and management  
X.509 certificate management  
OCSP (Online Certificate Status Protocol) revocation status verification  
TLS Version 1.2  
Secure TLS ciphers like ECDHE with AES-256 and SHA-384

## Management

Zero-touch provisioning  
TR-069, TR-104, and TR-111  
Web GUI  
SSH and TELNET  
SNMP v1, v2c, and v3  
Scripts/firmware files uploaded via HTTP, HTTPS, FTP, and TFTP  
Dual firmware banks  
Multiple levels of management access rights  
Customisable CDR  
Event notifications via Syslog, SIP, log file, and SNMP traps  
Remote activation of service licenses

## Monitoring and Troubleshooting

Alarms and traps  
Call quality reporting (eMOS) (RTCP-XR as per RFC 6035)  
Call Details Record (CDR)  
Media quality statistics  
System: CPU and memory usage  
PCM capture  
IP network capture  
Diagnostic traces

## Quality of Service (QoS)

Bandwidth limitation and traffic shaping  
TOS/DiffServ  
IEEE 802.1p/Q

## IP Telephony Protocol

SIP (RFC 3261) over UDP, TCP, and TLS  
IMS (3GPP TS 24.229)  
RTP (RFC 3550)  
SDP (RFC 4566)  
Multi-part body support  
Redundancy support via DNS SRV  
Multiple trunk support  
Survivability for IP-Phones  
IPv4 and IPv6 dual stack signaling and media

## Digital Telephony

Euro ISDN EDSS-1/ETSI PRI/NET5 BRI/NET3  
ISDN NI-2 (US T1 PRI)  
ISDN DMS100 (US T1 PRI)  
ISDN 5ESS (US T1 PRI)  
ISDN speech, audio, and data (Fax Gr 4, UDI 64, and RDI 64)  
ECMA-143 (QSIG-BC)  
E1 R2 digital line signaling (ITU-T Q.421)  
E1 R2 MFC interregister signaling (ITU-T Q.441)  
Presets for: Brazil, Argentina, Mexico, Saudi Arabia, Venezuela, Philippines, and ITU-T  
T1/E1 E&M (Immediate, Wink-Start, Feature Group-B, and Feature Group-D), MF-R1, DTMF  
Advice of Charge AOC-D and AOC-E (ETS 300 182)

## Analog Telephony

Support for call forward, call transfer, conference call, call waiting, CCNR, and CCBS  
Multiple country presets  
Customisable tones and ring patterns  
Echo cancellation  
Message Waiting Indication (MWI), via FSK and voltage (80v)  
Caller ID detection (name & number) as per Bell-core FSK  
On-hook/off-hook caller ID generation (name & number) as per Bell-core DTMF or FSK and Telebras BINA  
Answer and disconnect signaling

## Call Routing

Local switching  
Call filtering and blocking  
Calling/called number manipulation using regular expressions  
Routing Criteria:

- Interface
- Calling/called party number
- Calling/called URI
- Time of day, day of week, and date
- Many others

Mapping and transformation of call properties to/from SIP headers  
Hunt groups

### Fax and Modem Support

Group 3/super G3 fax real-time fax over IP  
T.38 fax relay (9.6 k and 14.4 k)  
Clear channel (G.711) fax and modem pass-through

### Networking

IPv4 – IPv6  
Multiple IP addresses per link or VLAN  
Multiple VLANs per link  
DHCP client  
PPPoE (RFC 2516)  
IEEE 802.1q + DSCP QoS tagging (media, signaling, and mgmt)  
IEEE 802.1x wired authentication  
LLDP-med (ANSI/TIA-1057)  
QoS traffic shaping  
Firewall with stateful inspection, rate-limitation, and automatic black-listing  
Static routing  
NAPT  
DHCP Server

### Physical Interfaces

5 x 10/100/1000 Base-T Ethernet RJ-45 connectors  
2 x TDM sync RJ-45 connectors  
1 to 4 x RJ-48 E1/T1 connectors\*  
4, 8, 12, 16, 20, or 24 x RJ-48 BRI S/T connectors\*  
4, 8, 12, 16, 20, or 24 x RJ-11 FXS connectors\*

4, 8, 12, 16, 20, or 24 x RJ-11 FXO connectors\*

(\*Depending on configuration)

### Power Supply

Internal 100-240 VAC power supply

### Dimensions

Height: 4.4 cm  
Width (mounting brackets): 48.5 cm  
Depth: 19.5 cm  
Weight: 3Kg

### Operating Environment

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

Digital Ports	Up to 4 E1/T1 Up to 24 BRI
Analog Ports	Up to 24 FXS Up to 24 FXO
Mounting	Rack
Network	5 x 10/100/1000 Base-T
Survivability	✓



This datasheet applies to model: M.

## media5 corporation A Trusted Partner

Media5 Corporation is a global supplier of multimedia communication solutions, offering a complete set of IP-based products and technologies.

With a focus on innovation and excellence in customer support, we deliver highly adaptive hardware and ready-to-market software components. This allows our customers and partners to take advantage of secure, reliable, and comprehensive communication solutions.

Present in more than one hundred countries, Media5 has its headquarters in Canada and local representatives in North and Latin America, Europe, and the Middle East.

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For additional information, contact your Media5 representative.

[media5corp.com](http://media5corp.com) | [sales@media5corp.com](mailto:sales@media5corp.com)