



# Mediatrix<sup>®</sup> 4102S

The Mediatrix 4102S is a VoIP Analog Adaptor that interconnects analog telephones, faxes, and modems into SIP based systems. This ATA allows operators to shorten deployment time and ensure a highly secure environment to enable cloud telephony services into branch offices and SMBs.

Mediatrix platforms are fully interoperable with the major IP-Phone manufacturers, softswitches, and Cloud Communications services across the globe.



## **Interconnect any device to SIP**

The Mediatrix 4102S links any analog connection to an IP network and delivers a rich feature set for a comprehensive VoIP solution.

## **Legacy PBX system gateway**

With FXS ports, local call switching, and user-defined call properties, the Mediatrix 4102S smoothly integrates into legacy PBXs.

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

With T.38 and clear channel fax and modem pass-through capabilities, the Mediatrix 4102S ensures seamless transport of voice and data services over IP networks.

## **Advanced Mass Management**

Featuring advanced provisioning capabilities for a smooth integration into mass management systems, ensuring service and reducing 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 analog signaling to SIP for Hosted Unified Communications and IP-Centrex
- ✓ Fully certified with BroadWorks UC platform

### System Integrators

- ✓ Integrate Unified Communications with legacy systems
- ✓ Keep existing telephony equipment in SIP migrations
- ✓ Inter-connect branch offices to headquarters
- ✓ Support high compression codecs saving valuable bandwidth

## Key Features

### Carrier-Grade Voice Quality

T.38 and clear channel fax over IP  
High performance processing of up to 4 voice channels  
Battery reversal for pay phones

### Robust Security

Encrypted media and signaling  
TLS encrypted provisioning

### Easy Configuration and Management

Zero-touch configuration  
Intuitive Web GUI  
Customizable factory settings

### Networking

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

## Benefits

- ✓ High quality build and carrier-grade validation standards contribute to the industry's most reliable platform
- ✓ Extensive TR-069 support for easy management of large-scale deployments with a centralized EMS
- ✓ Superior call routing and manipulation capabilities for the implementation of complex deployment scenarios

# Technical Specifications

## Media Processing

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

## IP Telephony

SIP 2.0 (RFC 3261, 3GPP)  
UDP, TCP, and TLS transport  
RTP/RTCP (RFC 3550)  
SDP (RFC 4566)  
DTMF: InBand, OutOfBand (RFC 2833), SIP INFO  
Multi-part body support  
Redundancy support via DNS SRV  
Multiple trunk support  
IPv4 and IPv6 dual stack

## Analog Telephony

Call forward, call transfer  
Call waiting, call hold  
3-way conference call  
On-hook/off-hook Caller ID  
Country tones presets  
Customizable tones and ring patterns  
Distinctive ringing  
Message Waiting Indication (MWI)  
Music on Hold (MoH)  
Echo cancellation  
Answer and disconnect signaling

## Fax and Modem Support

RealtimeT.38 fax  
Clear channel (G.711) fax and modem pass-through

## Quality of Service (QoS)

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

## Management

Zero-touch provisioning  
TR-069, TR-104, and TR-111  
Auto provisioning (FTP, TFTP, HTTP, HTTPS)  
Web GUI, SSH and TELNET  
SNMP v1, v2c, and v3  
Multiple levels of management access rights  
Event notifications via Syslog, SIP, log file, and SNMP traps  
Remote activation of service licenses

## 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

## 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

## Enhanced Security

Denial of Service (DoS) protection  
SIP over TLS  
SRTP with AES cipher – 128 bits  
MIKEY key management protocol (RFC 3830 and 4567)  
SDS key management protocol (RFC 4568)  
TLS-encrypted configuration and management  
X.509 certificate management  
OCSP (Online Certificate Status Protocol) revocation status verification  
TLS Version 1.3  
Secure TLS ciphers like ECDHE with AES-256 and SHA-384

## Networking

IPv4 – IPv6  
Multiple IP addresses per link or VLAN  
Multiple VLANs per link  
DHCP client  
DHCP Server  
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 blacklisting  
Static routing  
NAPT

## Power Supply

External 100-240 VAC power supply

## Physical Interfaces

2 x 10/100 Base-T Ethernet RJ-45 connectors  
2 x RJ-11 FXS connectors

## Operating Environment

Operating temperature: 0°C to 45°C  
Storage temperature: -20°C to 70°C  
Humidity: up to 85%, non-condensing

## Dimensions

Height: 3.1 cm  
Width: 12.7 cm  
Depth: 9.9 cm  
Weight: 170 g



## A Trusted Partner

M5 Technologies 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.

[m5technologies.ca](http://m5technologies.ca) | [sales@media5corp.com](mailto:sales@media5corp.com)