



# Mediatrix<sup>®</sup> Sentinel Mini



The world's smallest Session Border Controller! The Sentinel Mini is our latest addition to the Mediatrix Sentinel series. Featuring the same Microsoft Teams certified DGW software available on our Sentinel SBC line of products.

Designed to carry out SIP normalization, network demarcation, survivability, and security, the Sentinel Mini offers QoS and troubleshooting tools for a cost-effective network maintenance and customer service. It is the greatest solution to connect multiple trunks, branch offices, and mobile workers to the enterprise IP-PBX and UC systems.

The Sentinel series is Microsoft Teams certified for Direct Routing and takes full advantage of the current security features, such as the firewall with DDoS prevention and signaling, media and data encryption capabilities.



## **Survivability**

Sentinel ensures service continuity by establishing external calls through a secondary trunk and by routing internal calls when the primary network is temporarily unavailable.

## **SIP Normalization**

Sentinel normalizes major vendor SIP signaling protocols into a single well-defined interface that can be adapted to any specific IMS or Softswitch implementation.

## **Network Demarcation**

Create a clear separation between the enterprise and the operator networks by hiding the topologies and credentials, and by blocking unauthorized users.

## **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

- ✓ Provide a demarcation point with QoS and remote troubleshooting for a cost-effective network management and customer service.
- ✓ Provide service continuity in Hosted Unified Communications/PBX deployments with phone survivability, failover to geo-redundant core servers, and QoS traffic shaping.
- ✓ Secure communications inside or outside on both the operator and customer networks.

### System Integrators

- ✓ Safely connect multiple trunks, branch offices, and mobile workers to the enterprise IP-PBX or UC system.
- ✓ Perform SIP normalisation by translating any vendor implementation into a single well-defined SIP interface.
- ✓ Protect the IP network of the Enterprise by controlling all incoming and outgoing media, signaling, and data.

## Key Features

### Carrier-Grade Features

QoS, mass management integration and troubleshooting tools

Service continuity in Hosted UC/PBX deployments

### Robust Security

Enterprise communication encryption

SIP-enabled firewall inspects and authorizes communications and prevents DoS attacks

### Easy Configuration and Management

Intuitive Web GUI

Customizable Default settings

### Networking

Multiple IP addresses and VLANs

NAT, firewall, and router capabilities

## Benefits

- ✓ High quality and carrier-grade validation standards contribute to the industry's most reliable platform
- ✓ Microsoft Teams Certified for Direct Routing
- ✓ Superior rule-based SBC with dynamic routing and manipulations for solving complex deployment scenarios

# Technical Specifications

## Session Border Controller

Back-to-Back user agent  
SIP header manipulation  
SIP registrar  
SIP authentication  
SIP failover  
Registration throttling/caching  
Call forking  
Advanced, rule-based, call routing  
Dynamic call routing based on:

- Peer monitoring state
- Registration cache

Call Admission Control (CAC), per trunk, based on:

- Call volume
- Bandwidth usage
- Concurrent calls

Near and far-end NAT traversal  
Audio and video media relay  
Codec filtering  
SIP and media encryption  
UDP/TCP/TLS interworking  
DTMF interworking

## Enhanced Security

Signaling and media topology hiding  
Denial of Service (DoS) protection of core and enterprise networks  
Call rate limitation  
SIP over TLS  
SRTP with AES cipher  
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

## Management

Web GUI, SSH and TELNET  
SNMP v1, v2c, and v3  
Scripts/firmware files uploaded via HTTP, HTTPS, FTP, and TFTP  
Multiple levels of management access rights  
Event notifications via Syslog, SIP, log file, and SNMP traps  
Remote activation of service licenses

## Monitoring and Troubleshooting

Alarms and traps  
Event Log  
Subscriber's active registration and call monitoring  
System: CPU and memory usage  
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

## Networking

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 authenticationLLDP-  
med (ANSI/TIA-1057)  
QoS traffic shaping  
Firewall with stateful inspection, rate-  
limitation, andautomatic black-listing  
Static routing  
NAPT  
DHCP Server

## SBC Sessions

Up to 400 sessions  
Up to 1200 registered users  
A license is needed for each concurrent call

## Power Requirements

USB-C 5V, 3 A  
PSU not included

## Media and Codecs

SRTP and RTP interworking  
Codec enforcement and re-prioritization  
Codec whitelist and blacklist  
Voice codecs: G711, G722, G723, G726, G729, AMR, GSM,  
iLBC, OPUS, SILK, and others \*  
Video codecs: H261, H263, H264, VP8, and others \*  
*\* Supported codecs are dependent on the IP-PBX and  
VoIP endpoints technical specifications*

## Operating Environment

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

## Technical Specifications

Quad-Core ARM Cortex-A55 @2.0 Ghz  
2GB DDR4 RAM  
8 GB eMMC flash  
2 x 2.5 Gbps Ethernet ports

## Dimensions

84mm x 76mm x 33mm

*This datasheet applies to model: Mini*



## 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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