Mediatrix® Sentinel 100

The Sentinel 100 bundles the capabilities of a Session Border Controller and a Media Gateway in a robust multi-service business platform, conceived to address complex requirements for small and medium enterprises. The Sentinel 100 supports up to 120 simultaneous voice calls for up to 500 users.

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.

Legacy PBX system gateway

With configurable E1/T1 PRI, ISDN BRI, FXS, and FXO ports, local call switching, and user-defined call properties, the Mediatrix G7 Series smoothly integrates into legacy PBXs and incumbent PSTN networks.

Mass Management

Featuring advanced provisioning capabilities for a smooth integration into mass management systems, ensuring service and reducing operational costs.

Remote Users

Sentinel solves far-end NAT traversal problems and supports SIP manipulations, providing communication service access to branch offices, home workers, or travelers as if they were on the same site.

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Applications

Operators

- ✓ Provide a demarcation point with QoS and remote troubleshooting for 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.
- ✓ Facilitate TDM replacement projects, fully migrating to SIP or integrating the current legacy equipment.

System Integrators

- ✓ Safely connect multiple trunks, branch offices, and mobile workers to the enterprise IP-PBX or UC system.
- ✓ Perform SIP normalization 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.
- ✓ Create a shield of confidentiality between the enterprise and the public network.
- ✓ 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

Robust Security

Enterprise communication encryption

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

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

5 ports Gigabit Ethernet

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

Session Border Controller

Back-to-Back user agent
SIP header manipulation
SIP registrar
SIP authentication
IP 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 – 128 bits
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 1.3
Secure TLS ciphers like ECDHE with AES-256 and SHA-384

Management

Web GUI
SSH and TELNET
SMNP 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 VLANMultiple 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 blacklisting
Static routing
NAPT
DHCP Server

SBC Sessions

Up to 120 sessions
Up to 500 registered users
A license is needed for each concurrent call

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

Dimensions

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

Technical Specifications

Internal 100-240 VAC power supply
5 x 1 Gbps Ethernet ports

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 representativesin North and Latin America, Europe, and the Middle East.

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