SESSION BORDER CONTROLLER

Sentinel SBC

Appliance or virtual deployment

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

Sentinel product family

The Mediatrix Sentinel is a reliable and secure Session Border Controller, to be deployed as a one box solution or into a virtual environment. It features the same DGW firmware available on the Mediatrix product line. Designed to carry out SIP normalization, network demarcation, survivability, and security, the Sentinel SBC 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 now 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.

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 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.

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

TECHNICAL SPECIFICATIONS

Sentinel SBC

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

SBC Licensing

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

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, M5 Technologies has its headquarters in Canada and local representatives in North and Latin America, Europe, and the Middle East.

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