

SESSION BORDER CONTROLLER

Sentinel 100

120 sessions / 500 registered users

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



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 Sentinel 100 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.

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

TECHNICAL SPECIFICATIONS

Sentinel 100

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; 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 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: 0°C to 45°C; Storage temperature: -20°C to 70°C; 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, M5 Technologies has its headquarters in Canada and local representatives in North and Latin America, Europe, and the Middle East.

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