Mediatrix® Sentinel 100 Pure SBC

The Sentinel 100 Pure SBC is a high performance Session Border Controller for SMBs targeting applications for up to 500 users.

Designed to carry out SIP normalisation, network demarcation, survivability, and security, the Sentinel 100 offers QoS monitoring, remote mass management, 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. Sentinel also features firewalls with DDoS prevention and encryption capabilities to ensure maximum protection to signaling, media, and data.

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 Normalisation
Sentinel normalises 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's and the operator's networks by hiding the topologies and credentials, and by blocking unauthorised users.

Housekeeping
Sentinel monitors the quality of service and provides enhanced remote troubleshooting tools to understand and resolve failures affecting the service.

Mediatrix® Sentinel 100

Applications

Operators

✓ Provide a demarcation point with QoS monitoring 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 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 monitoring, remote mass management, and troubleshooting tools

Service continuity in Hosted UC/PBX deployments

Robust Security

Enterprise communication encryption

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

Easy Configuration and Management

Zero-touch configuration

Intuitive Web GUI

Customisable factory settings

Networking

Multiple IP addresses and VLANs

NAT, firewall, and router capabilities

Benefits

✓ High quality built and carrier-grade validation standards contribute to the industry's most reliable platform

✓ Extensive TR-069 support for an easy management of large-scale deployments with a centralised EMS

✓ 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 – 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 1.2
Secure TLS ciphers like ECDHE with AES-256 and SHA-384

Management

Zero-touch provisioning
TR-069, TR-104, and TR-111
Web GUI
SSH and TELNET
SMNP v1, v2c, and v3
Scripts/firmware files uploaded via HTTP, HTTPS, FTP, and TFTP
Dual firmware banks
Multiple levels of management access rights
Customisable CDR
Event notifications via Syslog, SIP, log file, and SNMP traps
Remote activation of service licenses

Monitoring and Troubleshooting

Alarms and traps
Call Details Record (CDR)
Subscriber's active registration and call monitoring
Media quality statistics
System: CPU and memory usage
PCM capture
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

Physical Interfaces

5 x 10/100/1000 BaseT Ethernet RJ-45 connectors
2 x TDM sync RJ-45 connectors
1 x USB 2.0 Type-A connector

Power Supply

Internal 100-240 VAC power supply

Operating Environment

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

Dimensions

Height: 4.4 cm
Width (mounting brackets): 48.3 cm
Depth: 19.5 cm

SBC Licensing

A license is needed for each concurrent call

SBC Sessions	Up to 120 sessions
Registered Users	Up to 500
Network	5 x 10/100/1000 Base-T

This datasheet applies to model: M.

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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.

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