

Acme Packet 3900 Enterprise Session Border Controller (E-SBC)



APPLICATIONS

- Medium-sized business enterprise-session border controller
- E911 Call Center
- SIP trunk demarcation device
- Hosted communication services

KEY FEATURES

- Enterprise Operations Monitor connections: probe & data
- Transmitted bytes packet for media sessions
- Turn-key, 1U form factor
- Hardware-assisted transcoding for optimal performance
- Per session QoS measurement
- 4 Port T1/E1 TDM card for dial-out/dial-in survivability
- Redundant HA configurations
- Supports up to 8,000 signaled sessions and 80,000 registered devices

KEY BENEFITS

- Cost savings with uncompromised functionality
- Straightforward deployment and operation
- High service quality and reliability
- Supports centralized, distributed or hybrid SIP trunking deployment models

The Acme Packet 3900 E-SBC is an enterprise-session border controller designed to ensure voice network security while delivering high quality service and availability. Telephony Denial of Service (TDoS) and Fraud can severely impact an organization and its customers. The Acme Packet 3900 E-SBC is designed to help the medium to large enterprise deliver a consistent and secure experience across Internet Protocol (IP) network borders.

Overview

The Acme Packet 3900 E-SBC is specifically designed to meet the price-performance and manageability requirements of medium to large-sized enterprise. Ideal for large site border control and Session Initiation Protocol (SIP) trunking service termination applications, the Acme Packet 3900 delivers Oracle's industry-leading E-SBC capabilities in a 1U form-factor. With support for high availability (HA) configurations, quad port T1/E1 TDM fallback, dual AC or DC power supplies, hardware-assisted transcoding and Quality of Service (QoS) measurement, the Acme Packet 3900 E-SBC is a natural choice when uncompromising reliability and performance are needed.

With models designed for the smallest branch office to the largest data center, the Acme Packet E-SBC product family supports distributed, centralized, or hybrid SIP trunking topologies.

Features

Acme Packet 3900 addresses the unique connectivity, security, and control challenges enterprises often encounter when managing real-time voice, video, and UC sessions. It also helps enterprises contain voice transport costs and overcome the unique regulatory compliance challenges associated with IP telephony.

TDM fallback capabilities ensure continuous dial-in/dial-out service at remote sites in the event of WAN or SIP trunk failures. Stateful high availability configurations protect against link and hardware failures. An embedded browser-based graphical user interface (GUI) simplifies set-up and administration.

Capabilities

ACME PACKET 3900 E-SBC FEATURES AND CAPABILITIES

Feature	Capabilities
Security	<ul style="list-style-type: none"> • Granular access control • IP address and SIP signaling concealment • Layer three through five topology hiding and signaling overload controls • IP telephony spam protection • Stateful deep packet inspection • Signaling and media encryption
Interoperability	<ul style="list-style-type: none"> • SIP message normalization • Response code translation • Session Description Protocol (SDP) and Dual Tone Multi-Frequency (DTMF) manipulation • Number and uniform resource identifier (URI) manipulation • Signaling message header manipulation • Signaling interworking (SIP, H.323) • Protocol interworking: Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Stream Control Transmission Protocol (SCTP) • Encryption interworking: Transport Layer Security (TLS), Mutual TLS, Secure Real-time Transport Protocol (SRTP) • Network address translation (NAT) and firewall traversal • IP address translation: private/public • Transcoding • Support for Microsoft ELIN Gateway and Avaya Personal Profile Manager proxy • Session routing based on Microsoft Active Directory query
Reliability	<ul style="list-style-type: none"> • Standby SIP registrar with caching for remote site survivability • Stateful signaling and media failover • Quality of service (QoS) marking, virtual local area network (VLAN) mapping, access control • Registration storm avoidance • Call rate limit enforcement • Trunk load balancing • Stateful session routing • QoS-based routing
Regulatory Compliance	<ul style="list-style-type: none"> • Session prioritization for emergency services • Internet Engineering Task Force (IETF) standard SIP Recording (SIPREC) interface • Call detail records (CDRs) with local or remote storage via RADIUS
Cost Management	<ul style="list-style-type: none"> • Least cost routing • Codec Negotiation
Management	<ul style="list-style-type: none"> • Browser-based GUI • SIP monitoring and tracing tool • SNMP, Syslog, SFTP, RADIUS interfaces

System Capacity, Performance, and Availability

Acme Packet 3900 supports up to 8,000 sessions, offers high availability (HA) operation for nonstop service, and supports hardware-assisted transcoding and quality of service (QoS) measurement.

ACME PACKET 3900 E-SBC SYSTEM CAPACITY, PERFORMANCE, AND AVAILABILITY

Capability	Description
Session capacity	<ul style="list-style-type: none"> Up to 8,000 simultaneous signaled sessions 4,000 SIPREC Sessions Up to 96 T1 or 120 E1 connections
Subscriber capacity	<ul style="list-style-type: none"> Up to 80,000 registered subscribers(UDP/TCP/TLS)
HA configuration	<ul style="list-style-type: none"> Active/standby systems (1-to-1 redundancy) with checkpointing of signaling, media, and configuration state for no loss of service
SRTP capacity	<ul style="list-style-type: none"> Up to 4,000 call legs
Transcoding capacity	<ul style="list-style-type: none"> Up to 6,250 transcoded sessions
Storage	<ul style="list-style-type: none"> Standard 120GB SSD for call detail record storage, log files, other permanent file storage

NETWORK SESSION DELIVERY AND CONTROL INFRASTRUCTURE

Oracle's network session delivery and control infrastructure enables enterprises and service providers to manage the many challenges in the delivery of IP voice, video, and data services and applications.

Distributed enterprises leverage Acme Packet 3900 as a cost-effective, reliable, feature-rich remote office E-SBC that is easy to install and administer.

Service providers leverage Acme Packet 3900 as customer premise equipment (CPE) to enable SIP trunking and hosted communications services. It serves as a flexible and resilient service demarcation point that can be easily managed from the service provider Network Operations Center (NOC).

Hardware

Acme Packet 3900 provides the system throughput and redundancy features typically found in higher-end systems. It combines best in class hardware and software to provide organizations with the protection they need against a variety of attacks. It can be mounted in a 19" or 23" rack.

Hardware Options

Transcoding Module

Up to five factory installed transcoding modules are supported. These modules will support up to 6,250 transcoded sessions. OPUS and SILK transcoding is also supported.

Quad Port T1/E1 TDM Module

The Acme Packet 3900 supports an optional quad span T1 or quad span E1 interface module for TDM fallback. In centralized SIP trunking topologies the module preserves voice services in the event of a corporate WAN connectivity failure. In distributed SIP trunking topologies the module preserves voice services in the event of a local SIP trunk interface failure. The four port TDM module supports dial out and dial in calls.

Acme Packet 3900 Specifications

Details of the Acme Packet 3900 system's physical properties, power specifications, and regulatory compliance are listed in the table below:

Physical Properties	Details
Dimensions (not including mounting hardware)	<ul style="list-style-type: none"> Height: 43.7 mm (1.72 in) Width: 434.3 mm (17.10 in) Depth: 405.0 mm (15.94 in)
Weight	<ul style="list-style-type: none"> 6.4 kg (14.2 lbs)
Temperature	<ul style="list-style-type: none"> Operating: 32°F to 104°F, 0°C to +40°C Storage: -4°F to 149°F, -20°C to +65°C
Relative humidity	<ul style="list-style-type: none"> 10% to 85%, under non-condensing operating conditions
Airflow	<ul style="list-style-type: none"> 40 CFM (max) front to back
Power Dissipation	<ul style="list-style-type: none"> 160W typical, 220W maximum
Chassis	<ul style="list-style-type: none"> Chassis 1RU, rackmount Four 1 Gbps Ethernet interfaces (SFP) for signaling and media Two 10/100/1000 Mbps Ethernet interfaces (RJ-45) for HA One 10/100/1000 Mbps Ethernet interface (RJ-45) for management One RS-232 serial console interface (RJ-45) One alarm port (RJ-45)
Power Specifications	Details
Power supply	<ul style="list-style-type: none"> Dual power supplies: Redundant, load sharing, 495W maximum
AC power option	<ul style="list-style-type: none"> Voltage: Auto-ranging 100 VAC to 240 VAC wide input with power factor correction Frequency: 50/60 Hz Current: 5A x 2 rating
DC power option	<ul style="list-style-type: none"> Voltage: -48 VDC (+/-10%) nominal in North America (maximum range: -40 VDC to -72 VDC) Current: 10A x 2 rating Cable: 14 AWG recommended minimum, with at least three conductors rated for at least 140°F (60°C)
Hardware Options	Details
Onboard transcoding module	<ul style="list-style-type: none"> Up to 5 onboard transcoding DSP modules Supported codecs: <ul style="list-style-type: none"> Wireline – G.711 10, G.711 20, G.722, G.723.1, G.726, G.729A/B, iLBC, Opus, SILK Wireless – AMR-NB, AMR-WB, GSM-FR, EVRC, EVRC-B T.38 fax interworking
Quad span T1/E1 module	<ul style="list-style-type: none"> Four T1/E1 interfaces (RJ48), provides TDM dial out and dial in Uses same SBC configuration as single SPAN card Configuration of SPAN 1 is duplicated to other SPANs SPANs cannot be configured individually Channel mapping is fixed
Regulatory	Details
Certifications ^{1,2}	<ul style="list-style-type: none"> NRTL TUV (US/Canada) CE (European Union) ANATEL (Brazil) BIS (India) BSMI (Taiwan) EAC (Russia, Belarus, Kazakhstan) KCC (South Korea) RCM (Australia / New Zealand) VCCI (Japan)

Safety ²	<ul style="list-style-type: none"> • EN 60950-1 • IEC 60950-1 CB scheme with all country differences • UL 60950-1 • CSA 22.2 No. 60950-1
EMC Emissions Standards ²	<ul style="list-style-type: none"> • ICES-003 Class A • EN55022 Class A • EN55032 Class A • ETSI EN 300 386 for Telecommunications Centers and for Other Than Telecommunications Centers • VCCI Class A limits • KN32 Class A • CNS13438 Class A • 47CFR15 Subpart B (FCC) Class A
EMC Immunity Standards ²	<ul style="list-style-type: none"> • EN55024 • EN61000-3-2 • EN61000-3-3 • ETSI EN 300 386 for Telecommunications Centers and for Other Than Telecommunications Centers
Other ²	<ul style="list-style-type: none"> • 1 TR 9 • 2014/35/EU Low Voltage Directive • 2014/30/EU EMC Directive • 2011/65/EU RoHS Directive • 2012/19/EU WEEE Directive

1. Other country regulations/certifications may apply




2. All standards and certifications referenced are to the latest official version. For additional detail, please contact your sales representative.

CONTACT US

For more information about the Acme Packet 3900, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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