

Acme Packet

Delivering Secure, High Quality Interactive Communications Across IP Networks

How can large enterprises, contact centers and service providers satisfy security, service reach and other crucial requirements for their interactive IP communications?

Acme Packet, a Platinum-level member in the Avaya DevConnect Program, meets this need with its Net-Net session border controllers (SBCs). Acme Packet Net-Net SBCs help secure both the access and interconnect edge of Avaya Aura™ IP telephony and contact center solutions. As enterprises and contact centers connect their “VoIP islands” via Session Initiation Protocol (SIP) to service provider IP networks and intra- and inter-enterprise locations and users, Acme Packet SBCs provide the necessary control and security to maintain high quality, reliable applications and services.

Acme Packet Net-Net SBCs work with the following Avaya products:

- **Avaya Aura™ Communication Manager** – An open, scalable, and highly reliable telephony solution, Communication Manager provides centralized call control for a resilient, distributed network of media gateways and a wide range of analog, digital and IP-based communication devices.
- **Avaya Aura™ SIP Enablement Services (SES)** – Providing connectivity, integration and a smooth migration path to SIP-based communications, the SES application helps deliver a highly scalable, highly reliable SIP communications network for telephony, instant messaging, conferencing and collaboration.
- **Avaya Aura™ Session Manager** – An integral part of Avaya’s next generation communications offers, Session Manager SIP-based routing enables a distributed system featuring multi-vendor integration, centralized dial plans and user profiles, easier centralized SIP trunking, easier “on-net” call routing, and enhanced scalability and security.

Security

In IP networks, critical resources can be exposed to external parties, elevating the risks of denial of service (DoS), eavesdropping and other malicious attacks. To protect critical service elements, such as IP PBXs, unified communications and application servers in the core network, Acme Packet’s unique Net-SAFE security architecture helps organizations build trusted and secure borders. The following security features protect user and corporate privacy and maintain network availability:

- **SBC DoS/DDoS prevention** – protect SBC from attack while maintaining access for valid sessions
- **Access control** – authenticate/authorize users and sessions and apply filters (trusted/untrusted) and policies
- **Topology hiding and privacy** – hide core infrastructure from attack and privatize user information
- **Virus, worm and SPIT protection** – protect from malicious attachments, malformed messages and unsolicited calls
- **Infrastructure DoS/DDoS protection** – protect upstream devices from attack and signaling overload
- **Fraud prevention** – validate signaling and media and enforce service level contracts
- **Monitoring and reporting** – provide alarms for attacks and overloads, audit trails for attack response and fraud investigation

Application Reach Maximization

IP networks can use different transport or signaling protocols, codecs or overlapping IP address spaces. To allow calls to cross from one Voice over IP (VoIP) network to another, Acme Packet SBCs mediate between heterogeneous networks and deliver maximum application reach, allowing organizations to increase their addressable user base and accelerate deployment. Features include:

- Interworking signaling (SIP, H.323), encryption (none, TLS, IPSec) and transport (TCP, UDP, SCTP) protocols
- Protocol normalization and repair
- NAT traversal for remote users
- Overlapping IP address and VPN bridging
- Number normalization, header and response code translations
- Overlapping IP address domain mediation and virtual private network (VPN) bridging
- Filtering and transcoding wireline and wireless codecs

Service Level Agreement (SLA) Assurance

With growing call volumes, VoIP networks can become oversubscribed and burdened, impacting customers and users. Acme Packet’s SBCs provide call admission control, load balancing and quality of service (QoS) marking and reporting features that deliver assured service quality and network availability during abnormal busy periods or network events. Features include:



Net-Net 3800



Net-Net 4500

- Session admission control – policies defined by session agent constraints, bandwidth, QoS metrics
- Upstream traffic load balancing, device failure detection and reroute, and geographic redundancy
- Layer 2 and layer 3 QoS marking (802.1 p&q, ToS, DiffServ, MPLS)
- Quality reporting – measurement and reporting on media QoS and Answer Seizure Ratio (ASR)

Revenue and Cost Optimization

VoIP and other IP interactive communication services are designed to reduce expenses for enterprises. Yet inefficient network utilization and fraud can ruin cash flow savings. Acme Packet's SBCs deliver call routing, bandwidth policing and accounting features to help ensure the most cost effective usage of an organization's network. These features can also be used to create a unified dial plan to seamlessly integrate all sites and users and reduce costs by keeping calls and transfers on-net. Features include:

- Flexible routing policies such as least cost routing, ASR-based, codec-based and carrier code
- Local route table and ENUM
- Accounting via call detail records (CDRs) or RADIUS
- Bandwidth policing and session timers

Regulatory Compliance

Public safety and law enforcement regulations for traditional phone networks are being applied to VoIP networks and services around the world. Acme Packet's SBCs deliver VoIP call routing and replication features for regulatory compliance. Features include:

- **Emergency session handling** – identification, breakout routing and admission control exemption for priority calls
- **Call recording** – interfaces for external provisioning and post call processing systems for call replication

High Availability

VoIP networks are only as resilient as their elements. Acme Packet's Net-Net SBCs operate in high availability pairs with checkpointing for media, signaling and configuration state, helping ensure no calls are lost during failover between SBCs.

Applications

- Unified communications security
- SIP trunking for IP PBXs
- Remote user hosted NAT traversal and security
- IP contact center
- Fixed mobile convergence

ABOUT DEVCONNECT

The Avaya DevConnect Program provides a wide range of developer resources, including access to APIs and SDKs for Avaya products, developer tools, technical support options and training materials. Registered membership is free to anyone interested in designing Avaya-compatible solutions. Enhanced Membership options offer increased levels of technical support, compliance testing, and co-marketing of innovative solutions compatible with standards-based Avaya solutions. To learn more, or register for membership, please visit www.avaya.com/devconnect.

System Requirements

Acme Packet Net-Net SBCs can be used with or without Avaya SES. Acme Packet is certified with Communication Manager 4.0 for direct SIP trunking without SES.

Learn More

For more information on how Avaya Intelligent Communications can take your enterprise from where it is to where it needs to be, contact your Avaya Account Manager or a member of the Avaya Connect channel partner program, or access other collaterals by clicking on **Resource Library** at www.avaya.com.

ABOUT ACME PACKET

Acme Packet (NASDAQ: APKT), the leader in session border control solutions, enables the delivery of trusted, first-class interactive communications – voice, video and multimedia sessions – and data services across IP network borders. Its Net-Net family of session border controllers, multiservice security gateways and session routing proxies supports multiple applications in service provider, enterprise and contact center networks – from VoIP trunking to hosted enterprise and residential services to fixed-mobile convergence. Acme Packet solutions satisfy critical security, service assurance and regulatory requirements in wireline, cable and wireless networks; and support multiple protocols – SIP, H.323, MGCP/NCS, H.248 and RTSP – and multiple border points – service provider access and interconnect, and enterprise access and trunking.

Over 10,000 Acme Packet systems have been deployed by more than 1,035 customers in over 105 countries. They include 91 of the top 100 service providers in the world; and 11 of the Fortune 25.

For more information, visit www.acmepacket.com.

ABOUT AVAYA

Avaya is a global leader in enterprise communications systems. The company provides unified communications, contact centers, and related services directly and through its channel partners to leading businesses and organizations around the world. Enterprises of all sizes depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, customer service and competitiveness.

For more information please visit www.avaya.com.