

SonicWALL VoIP Solution Brief

VOIP

SonicWALL Solution for Voice and Video over IP

Overview

The expanding adoption of digital telephony and teleconferencing in today's business has brought Voice over Internet Protocol (VoIP) technology into the IT mainstream. When working optimally, VoIP can provide businesses with simplified administration, lower telephone service bills, improved collaboration and productivity, flexible phone system deployment, and disaster preparedness. However, there are two basic obstacles confronting administrators in maintaining optimal VoIP operations: security and quality of service (QoS).

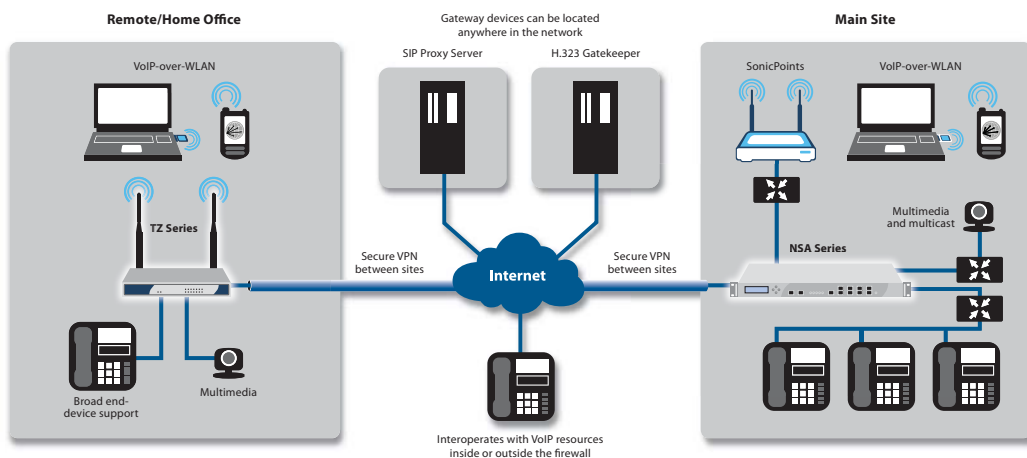
Like all IP traffic, VoIP can be prone to security threats from malicious attacks. VoIP is particularly susceptible to Denial of Service (DoS), digital eavesdropping, toll fraud and trunk hijacking, exposing businesses to revenue loss, data leakage, and fraudulent expense. Additionally, voice and video is only effective in real-time. QoS inhibitors such as latency, jitter, packet loss and echo degrade communications. These occur when there are delays or disruptions in IP packet traffic caused by network throughput bottlenecks or traffic bursts. However, the IP protocol was not designed to provide the bandwidth management or traffic prioritization features needed to counter these problems, and so requires additional networking technologies to ensure acceptable QoS levels for VoIP.

The ideal solution would deliver comprehensive protection against VoIP security threats, while providing the bandwidth and prioritization tools needed to ensure QoS.

Integrated SonicWALL solution: VoIP network security

The SonicWALL® VoIP solution seamlessly integrates third-party VoIP telephony solutions with SonicWALL network security appliances and secure remote access solutions, enhancing VoIP security without diminishing QoS. All VoIP traffic between third-party VoIP telephony devices can be easily configured to traverse SonicWALL IPsec VPN on the SonicWALL Network Security Appliance (NSA) or SSL VPN tunnels on SonicWALL Aventail E-Class Secure Remote Access (SRA) appliance, and completely secured using a SonicWALL network security appliance with Unified Threat Management features.

Combining SonicWALL's high-speed Reassembly-free Deep Packet Inspection™ (RFDPI) (U.S. Patent 7,310,815D-A) with robust Unified Threat Management (UTM) security services, SonicWALL network security appliances scan and decontaminate all VoIP traffic between VoIP telephony devices in real-time. SonicWALL's breakthrough performance is further enhanced by security-optimized multi-core processor architecture that maximizes throughput to enhance QoS. SonicWALL network security appliances provide built-in, security and bandwidth optimization, as well as support for VoIP-ready H.322 and SIP devices throughout the network. SonicWALL also facilitates full VoIP over wireless LAN (VoIP over WLAN).



Features and Benefits

The joint SonicWALL VoIP solution delivers unparalleled levels of security for the VoIP infrastructure, as well as standards-based compatibility and interoperability with industry-leading VoIP gateway and communications devices. Features and benefits include:

Support for H.323 and SIP VoIP protocol standards for sending voice (audio), video and other media using IP on the public Internet.

Prevention of DoS and DDoS attacks such as SYN Flood, Ping of Death, and LAND (IP), which are designed to disable a network or service.

SonicWALL's optional Intrusion Prevention Service (IPS) delivers full application-layer protection for VoIP protocols through a configurable, high performance scanning engine and dynamically updated database of over 3,400 attack and vulnerability signatures.

Availability and call quality through bandwidth management ensures that bandwidth remains available for time-sensitive VoIP traffic, and that VoIP devices have available bandwidth for calls (both ingress and egress).

VoIP over wireless LAN (VoIP over WLAN) security has been extended from the wired LAN to 802.11n and 802.11a/b/g wireless networks, through SonicWALL's Distributed Wireless Solution.

Full syntax validation of all VoIP signaling and media packets ensures that malformed packets are not permitted to pass through the firewall and adversely affect their intended target.

Support for dynamic set-up and tracking of media streams tracks each VoIP call from the first signaling packet requesting a call set-up to the call end. Dynamic assignment of successfully negotiated media ports thwarts attackers who may be targeting specific ports.

IP multicast support addresses the inefficiencies of broadcast traffic by enabling one-to-many traffic to be routed by multicast capable equipment, and by providing an "opt-in" model for hosts to receive the multicast traffic.

Comprehensive monitoring and reporting tools in SonicWALL's SonicOS Enhanced firmware offer extensive monitoring and troubleshooting capabilities including dynamic live reporting of active VoIP calls, audit logs of all VoIP calls, logging of abnormal packets and detailed syslog reports. SonicWALL ViewPoint provides custom reports for VoIP signaling and media streams.

Plug-and-protect support automatically handles all VoIP device adds, changes, and removals, ensuring that no VoIP device is left unprotected.

Interoperability with leading VoIP vendors enables organizations to choose between various vendor implementations of telephony and multimedia products across IP-based networks.

SonicWALL Network Security

SonicWALL® TZ, NSA and E-Class NSA appliances are engineered to reduce risk, cost and complexity by combining automated Unified Threat Management (UTM) services for gateway anti-virus, anti-spyware, intrusion prevention, enforced desktop anti-virus, content filtering and Application Firewall, with high-speed Reassembly-free Deep Packet Inspection™ (RFDPI) (U.S. Patent 7,310,815D-A) and integrated VPN features to provide comprehensive protection and maximum performance.

SonicWALL Secure Remote Access Solutions

SonicWALL SSL VPN and SonicWALL Aventail E-Class Secure Remote Access (SRA) solutions deliver easy, scalable remote access solutions to fit every organization.

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