

# UM Labs SIP Security Controller

## VoIP Connectivity, Security and Call Encryption

### Benefits

**Simple to Get Started.** A plug-in appliance comes pre-configured with everything you need – no add-on modules to licence and install.

**Reduce Network Complexity.** Provides automatic control of all SIP network traffic issues including NAT traversal – no need to reconfigure your firewall or add a separate voice network.

**Simplify SIP Trunk Connections.** Easily connect your IP PBX to any Internet Telephony Service Provider without complex set up work, or opening ports in your firewall.

**Easily Connect to Other Systems.** Provides interoperability between most popular IP PBXs. If that's not enough, a scripting toolset is included to add your own extensions.

**Extend Service Everywhere.** Without any additional work or VPN, users receive full VoIP service at any location: office, home, or public hotspot - on any device. Resolves all complex routing and far-end NAT traversal issues.

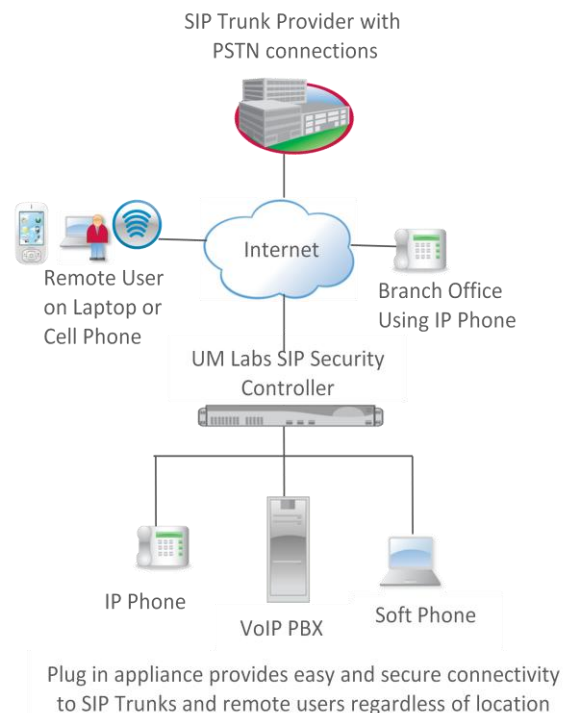
**Safeguard Your Network.** Firewalls are not designed to handle VoIP and SIP specific threats. The SIP controller provides this missing level of security without impacting quality of service.

**Protect Against Call Monitoring.** End-to-end encryption of all voice and video traffic ensures privacy on all devices, including cell phones.

**Improve Quality of Service (QoS).** UM Labs products can tag voice and signalling packets with Diffserv flags to ensure that voice traffic is prioritized.

### Extend VoIP Service...Easily and Securely

Unified Communications or Unified Messaging, including Voice over IP (VoIP), is a transformative technology, offering organizations greater flexibility, improved service and significant cost savings. However, because of technical and security challenges, many organizations limit its use to "behind the firewall". The UM Labs SIP Security Controller is a plug-in appliance designed to address these challenges and deliver on the full promise of VoIP.



### Connectivity

Firewalls and routers were not designed for VoIP traffic. Technical problems include Network Address Translation (NAT), far-end NAT Traversal, and maintaining state in a real-time VoIP conversation. In addition, although SIP is a global standard, most telephony software vendors include their own extensions, often not supported by others. This means that calls to a SIP trunk provider or remote users are usually not possible without significant effort, or at best, subject to dropped calls and audio quality problems. The UM Labs product line provides a complete solution for the problems of Network Address Translation (NAT) and far-end NAT Traversal, and includes a unique scripting capability to ensure that any IP PBX can connect to any trunk service.

## Network Security

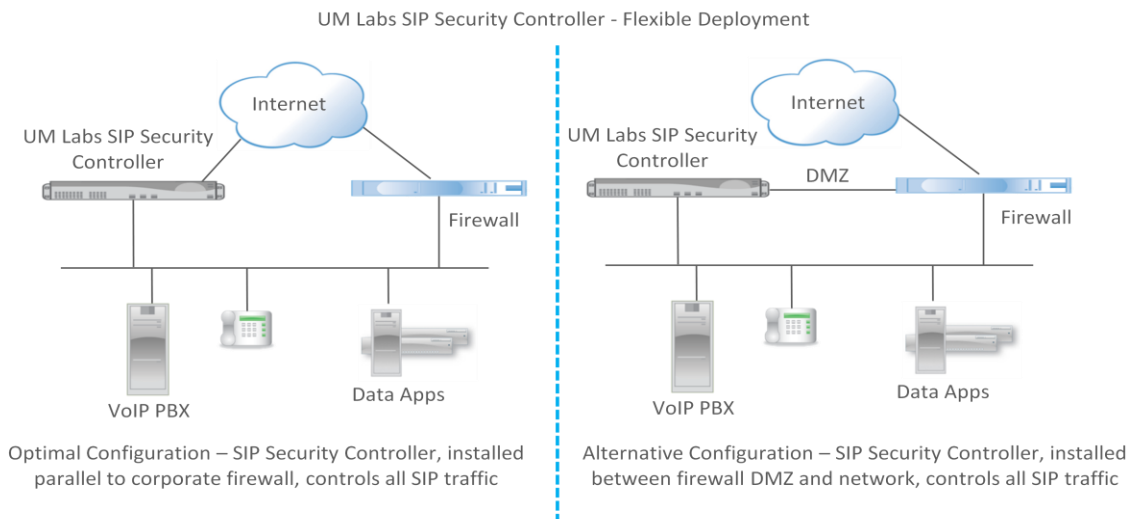
Connecting a VoIP system to the internet provides an organization with significant benefits, but also exposes it to new risks. Traditional firewalls, including SIP aware firewalls, do not adequately address well documented VoIP specific threats such as call flooding, toll fraud, call disruption, VoIP spam, and denial of service attacks. Moreover, configuring a firewall to handle VoIP requires changes to the firewall's configuration to open a number of network ports. This introduces the real risk that the firewall's ability to protect other applications from attack will be compromised. In addition, data firewalls often impact the performance of SIP traffic which leads to quality of service issues such as jitter and delay. The UM Labs SIP Security Controller delivers firewall grade IP level security optimized for SIP protocol and VoIP.

## Encryption

Unlike a dedicated PSTN line, a VoIP call over the public internet is exposed to eavesdropping and unauthorized recording. The UM Labs SIP Security Controller delivers encryption for both voice and video calls, ensuring the confidentiality of all calls made from remote devices, including suitable SIP hardware phones, soft-phones and mobile devices such as cell-phones and PDAs. These calls are protected by encrypting the voice and video streams sent to and from these devices. The UM Labs product line offers a choice of call encryption schemes, including ZRTP designed by Phil Zimmermann, creator of the widely used PGP email encryption protocol. ZRTP includes features that ensure end-to-end security, making it ideal for use on mobile networks. All encryption schemes offered deliver high grade encryption for both voice and video using the AES encryption algorithm.

## Deployment

UM Labs SIP Security Controllers are delivered as a range of fully configured hardware appliances. They are designed to scale from the branch office, handling between one and twenty concurrent calls, up to enterprise deployment, handling thousands of calls. Out of the box, the product includes all the functionality you need to easily enable and secure your VoIP network. There are no additional modules to licence and install. UM Labs technical support is available to help ensure you get the most out of our products.



**About UM Labs** UM Labs Ltd. was founded in 2008 by security software pioneers dedicated to the promotion of secure global standards for unified communications. The company has an extensive support organization and partner network, with offices in the following locations:

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