

## SECURITY



## The impact of VoIP encryption

By Patrick Salg, Director of International Sales, ASC

The growth of VoIP transmissions represents one of the most important trends in the communications industry today. Unfortunately, this technology may be abused by people searching for con-

fidential information. VoIP vendors quickly recognized this side of an otherwise beneficial technology.

They responded to the threat by encrypting VoIP traffic transmitted through their networks, a step demanded by financial institutions and other businesses exchanging

sensitive information. Encryption technologies enable secure IP phone conversations and protect participant privacy. Today, most major vendors are offering encryption as a security option.

This trend affects manufacturers of add-on applications for VoIP systems, especial-

ly recording solutions. Previously, almost anyone with rudimentary programming skills could create software to sniff network traffic for RTP packages, even though IT administrators tried to stop it. Since encryption tries to prevent sniffing, manufacturers of VoIP recording applications need more innovative techniques.

VoIP vendors keep their encryption keys confidential or they would be rendered useless. Therefore, providers of recording applications for VoIP must either find alternative recording methods or add encryption support to their own solutions.

Active recording solutions provide one way to support encryption keys used by IP vendors. This method makes the solution like a softphone, and the recording process may be compared to a third party in a conference call. Previously, most conference bridges were unable to support decryption

See *IMPACT OF ENCRYPTION*, page 31

### is-phone certifications

**iscoord**, developer of integrated soft-phone technology, announced is-phone certifications of compatibility by Avaya (SIP Enablement Services Server), Nortel (CS 1000 E/S/M version 4.5 and 5), Siemens (HiPath 3000/4000/5000/8000) and 3Com (VCX platform) for full interoperability with the IP-PBX solutions offered by these manufacturers. They are looking to finalize further certifications including Cisco (Unified Communications Manager 6).

It now features SRTP (Secure Real-time Transport Protocol) and TLS (Transport Layer Security) support and allows the user to start multipoint video conferences with up to four participants. These features offer an advantage and added-value for companies who like to integrate proven IP telephony into their existing infrastructure without additional servers.

is-phone is available for and integrated with IBM Lotus Notes 6/7/8, Sametime 7.5.1/8, Microsoft Outlook 2003/2005 and Live Messenger.

"We support the entire IBM collaboration platform range as well as Microsoft communication solutions," explained Markus Sieger, CEO and president. "We listened to customers and focused our development efforts to offer a fully client-based and integrated softphone. In the Professional Version is-phone meets high security standards whereby the Enterprise Version takes functionality one step beyond by offering multipoint video conferencing. This software-based approach gives our clients significant added-value as there is no need for additional server investments and there is independence in selecting the UC platform and PBX environment. They enjoy full flexibility and can integrate our interoperable IP telephony technology with their existing or planned hard- and software environment which guarantees a low TCO and a high ROI." □

For more visit [iscoord.com](http://iscoord.com).

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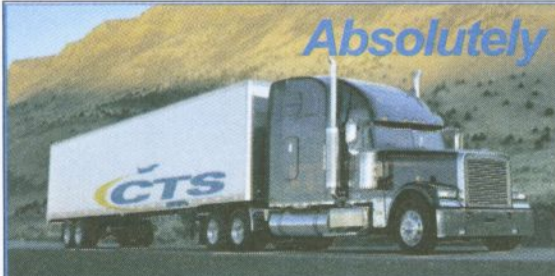
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## IMPACT OF ENCRYPTION

Continued from page 25

for active recording applications. In addition, this method consumed vast amounts of conferencing resources to support all the recording channels.

Another approach implements encryption support for passive VoIP recording. It requires close cooperation between the provider of the application and vendor because encryption keys are secret and vendor-specific. This solution, however, provides the highest network security without limiting network load. The CPU resources required for the decryption process are easily met by today's server hardware.

Cisco provides an example of this process. In an environment with Unified Communications Manager, the recording solution can obtain the encryption keys from the system by CTI after the process is

enabled by the administrator. This arrangement provides two-fold security against abuse. Cisco supports the vendor with the encryption keys, and the system administrator allows recording only in a specific customer environment.

Decryption of VoIP traffic may be accomplished in two separate ways. Real-time decryption decodes the transmission while it is being recorded. This method is preferred because the second way, decrypting during replay, requires extended loading time and additional storage capacity for archiving.

VoIP encryption affects other third-party applications in addition to recording. In today's security-oriented world, users of VoIP systems demand the same safety they have come to expect for their data network. This imperative will challenge many vendors who develop compatible technology. ☐

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## ECKMAN

Continued from page 17

As for features and functions, the most successful transitions to SIP Trunking introduce the company to those that can immediately enhance operations without disrupting business processes. They can deploy trunking quickly and then gradually add features such as load balancing between data and voice to minimize bandwidth requirements, quality of service which mimics that of TDM networks, and a Service Level Agreement (SLA) which brings assurance that the purchase is not the end of a newly-developed business relationship.

Technology is the final factor to be considered. SMBs are seldom early adopters but want equipment and connectivity that offers the opportunity to take advantage of converged services, improved bandwidth and pending advances. Their approach is

more conservative, looking to enterprises to provide direction on making decisions about choosing products offering evolution and scalability, thus providing an added level of investment protection. The fact that SIP Trunking has been in use now for several years gives assurance it is stable, secure and here to stay, addressing concerns they may have about reliability or longevity. ☐

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## ACME PACKET AND CBeyond

Continued from page 9

data applications designed to meet communications needs of small businesses. Using SIPconnect, customers have the option of connecting their IP-PBX with Cbeyond's VoIP network using SIP trunking, which results in an end-to-end IP service.

Both Cbeyond's BeyondVoice with SIPconnect service and Acme Packet's Net-Net SBCs are compliant with SIPconnect, a SIP Forum initiative that builds on existing IETF standards to define a method for seamless IP interconnection between IP-PBXs and VoIP service provider networks by specifying reference architectures, required protocols and features and implementation rules. The SBCs control the IP network borders in compliance with SIPconnect to ensure interoperability and deliver secure, high-quality service.

"Our goal is to offer our small business customers the same technology and premium services available to large enterprises," said Chris Gatch, CTO at Cbeyond. "Acme Packet helps us achieve this by providing the session border control solutions necessary to offer an interoperable SIP trunking service while securing our network and reducing costs."

"The SIPconnect program not only promotes the widespread adoption of the standard, it also connects like-minded, quality-driven service providers and equipment vendors," explained Seamus Hourihan, vice president of marketing and product management at Acme Packet. ☐

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## e911

### RedSky and Nortel

**R**edSky Technologies, a provider of E911 location information management solutions, announced it has achieved the status of Nortel Developer Partner. The companies will now work more closely to identify, deliver and promote solutions for mutual customers.

Also, their E911 Manager version 5.4.1 was verified with Communication Server 2100 release SE10. It provides automated end-to-end E911 location management and call routing and uses Nortel APIs to establish real-time communication between the platforms. The solution tracks IP phone movement in real-time and provides the CS 2100 with updated 911 call routing and emergency number information while delivering complete location record management and automated updates to local ALI databases. It also supports real-time notification of 911 calls to enterprise administrators.

Nicholas Maier, RedSky senior vice president, said, "Whether users are mobile or static, IP or digital, branch office or main office, E911 Manager automates this across the enterprise." ☐

For more visit [redskyE911.com](http://redskyE911.com).