



# The Facts about SIP

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After years of refinement, the international SIP standard continues to become more integral to the movement toward converged voice and data communications. Unfortunately, some legacy vendors are still questioning various aspects of the open SIP standard. Here are a few of the more common objections going around, and the Interactive Intelligence responses to them.

**Note** that this document is for informational purposes only.

**MYTH: SIP offers only basic functionality and needs further development before companies deploy it.**

**FACT:** This objection represents a fundamental misunderstanding of SIP and its role in communications. As its name makes clear, Session Initiation Protocol is simply a *protocol*, not an application. Interactive Intelligence products are mature application suites that have been developed and enhanced since 1996. They make use of SIP for a very circumscribed part of their operation — establishing audio and video sessions between various IP end points, such as IP phones. SIP provides everything needed for this function.

In fact, SIP provides everything that legacy protocols such as ISDN provided, but in a much simpler, text-based formulation that is well designed for IP networks. As software applications, Interactive Intelligence products including the *Customer Interaction Center*<sup>®</sup> (CIC), *Enterprise Interaction Center*<sup>®</sup> (EIC), and *Communité*<sup>™</sup> provide rich application functionality for automatic call distribution, multimedia queuing, unified communications, and other advanced interaction management features.

Sources voicing this “further development” objection likely have viewed immature products designed exclusively for SIP, and incorrectly blame functional limitations on the protocol rather than the application.

**MYTH: SIP lacks interoperability.**

**FACT:** This is an odd claim to make when vendors such as Interactive Intelligence are installing heterogeneous systems combining SIP phones from Cisco<sup>®</sup> and Polycom<sup>®</sup> along with SIP gateways from AudioCodes<sup>®</sup>, Cisco, etc. Interactive Intelligence has tested its SIP-based communications system with SIP voice trunks from MCI<sup>®</sup> and SIP proxy servers from companies including Microsoft<sup>®</sup> and Cisco.

Trade shows such as VON also regularly feature various interoperability demonstrations. Because of its relative simplicity, interoperability is much easier with SIP than with many older protocols such as ISDN that are infamous for compatibility problems.

Perhaps this misguided claim arises in reaction to product offerings from Cisco, Avaya, and others in which vendors insist that customers install only vendor-provided components. Such a situation represents an attempt by vendors to lock customers in, and is certainly not an inherent fault in the SIP protocol.



**MYTH: SIP introduces new demands on networks and raises security concerns.**

**FACT:** Actually, it is voice over IP (VoIP) itself that places new demands on data networks and introduces new security concerns. Such issues stem from routing a new type of traffic (voice) over the network and connecting new end point devices (phones) to the network. These same issues must be faced regardless of whether the protocol used to set up VoIP calls is H.323, SIP, or something else.

Increasingly, however, network equipment is taking account of the momentum of SIP. Almost all newer routers and switches support quality of service for prioritization of voice traffic. With QoS and a well-designed switched network, any LAN can be used to reliably handle VoIP.

SIP also has added mechanisms for authentication and encryption to greatly improve security. Interactive Intelligence fully supports the RFCs dealing with security, and the products from Interactive Intelligence have recently passed with flying colors the DOS (denial of service) attack tests performed by Miercom. SIP authentication prevents hijacking, redirection, and man-in-the-middle attacks. Encryption is mainly being done at the transport layer with industry standards such as IPsec and TLS (transport layer security – successor to SSL). Such encryption prevents eavesdropping, tampering, and message forgery.

With properly implemented security, SIP-based VoIP is actually more secure than traditional telephony, where anyone with a butt set could listen to calls!

**THE INTERACTIVE INTELLIGENCE OPINION**

In short, SIP is being increasingly regarded as a well-designed and mature foundation for voice over IP. This is why it has been adopted by every major vendor including Microsoft, Siemens and many others, and why SIP is recognized as an international standard. With mature, feature-rich interaction management products such as those from Interactive Intelligence, SIP is indeed ready for prime-time.

