Session Initiation Protocol (SIP) Trunk Solutions for Service Providers

Increased Markets reach with Ingate products

The award-winning Ingate Firewall® and Ingate SIParator® deliver a high quality, reliable SIP trunk connection between the customer's IP-PBX and the service provider network, and solve interoperabi lity issues to simplify deployments and support for remote diagnosis of reported issues. Placed at the customer network edge, the Ingate device provides a demarcation point or the service, solves the Network Address Translation (NAT) and firewall traversal issues, assures SIP interoperability and protects the integrity of the networks, Ingate's all in one product significantly increases the customer base that can be addressed by a SIP trunking service, whether over a managed connection or over the public Internet.

Interfacing with all IP-PBXs: With an Ingate product at the customer network edge, Internet Telephony Service Provider (ITSP) can interface with any SIP-enabled IP-PBX, eliminating the need to achieve interoperability with every IP-PBX vendor and address the widest number of customers. Ingate Firewalls and SIParators serve as a "normalization engine" between the IP-PBX and ITSP, paving the way for a successful SIP trunk roll-out.

Ingate products have proven seamless interoperability with the leading IP-PBX vendors, ensuring that SIP trunks are deployed quickly and with a minimum of effort.

Ingate's SIP proxy integrated with its NAT and firewall provides advanced routing capabilities for deploying SIP trunks. Combined with the optional Back-to-Back User Agent functionality, all service provider requirements for authentication and signaling from any IP-PBX can be supported.

NAT and firewall traversal: Since ordinary firewalls are unaware of SIP, SIP communication does not work between the Local Area network (LAN) and the outside world. For SIP trunking, this issue has to be resolved so the SIP trunk can reach the PBX system. Ingate's security products handle these issues generally, permitting SIP traffic to enter the network while preventing unauthorized access.

With a SIP trunking service delivered over the Internet, the Ingate edge device enables robust connection of modern SIP IP-PBXs (where only the signaling is handled by the IP-PBX, while the voice goes the shortest way between the endpoints). Even with a managed SIP trunking service, where the service provider uses a central Session Border Controller (SBC) to do the NAT translation, the Ingate edge device gives valuable benefits by assuring network integrity and allowing remote users.

Demarcation point: Many service providers want a clear hand-off point between their network service and the end customer. The Ingate Firewall and SIParator serve this important function, not only delivering health and quality statistics to the service provider, but also establishing a security boundary between the provider network and the customer. The Ingate units can report Mean Opinion Score (MOS) and R values either to a service provider management system, or to the Ingate Element Management System.

SIP connect® COMPLIANT

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Unified Communications: Ingate Firewalls and SIParators® enable today's needed convergence of the enterprises internal networks to benefits from using soft clients, self-management of their IP-PBX account and allowing remote workers. For ITSPs providing a managed service that today connects to a separate Voice over Internet Protocol (VoIP) network at the enterprise, an Ingate product can unify the Data and VoIP LAN to a single multimedia LAN, while maintaining the optimal Quality of Service (QoS).

Advanced Security: In addition to inspecting SIP signaling and controlling the media ports, Ingate Firewalls and SIParators® can be configured to provide Intrusion Detection and Prevention and to encrypt the signaling and the media (using TLS and SRTP) which may be an important consideration for the legal, financial or healthcare verticals, when connecting branch offices and for any business where security and privacy are priorities.

Secure signalling via Transport Layer Security (TLS) is a requirement in the SIPconnect standard, even though yet rarely used. The Ingate products automatically transcode between UDP, TCP and TLS, so when using an Ingate edge device, a service provider can move over to secure TLS signalling, without upgrading the customer side.

Proven IP-PBX Interoperability

Asterisk	One Interface		LG-Nortel	IPLDK-20
3Com	VCX		Microsoft	OCS 2007
3Com	VCX Connect		Mitel	3300 ICP
Aastra	Intelligate 300		Nec/Sphere	Sphericall
Aastra	DeTeWe OpenCom 130		Nortel	BCM 50
Aastra	Ericsson MD Evolution		Nortel	SCS 500
Aastra	Ericsson Business Phone		Objectworld	UC Server
Avaya	CM/SES		Panasonic	KX-TDA30
Avaya	One-X Quick Edition		Panasonic	KX-TDA15
Avaya	IP Office		Pingtel	SIPxchange
Cisco	UCM		Samsung	OS7200
Clear Access	EG30WV		SER	Express Router
Ericsson Aastra	MXOne		ShoreTel	Shoregear
Innovaphone	IP series		Vertical	Wave IP-2500
Iwatsu	ECS			

Ingate SIParator®: The Ingate SIParator® is a powerful tool that offers enterprises a controlled and secured migration to VoIP (Voice over IP) and other live communications, based on Session Initiation Protocol (SIP). With the SIParator, even the largest of businesses, with branch offices around the world and remote workers, can easily harness the productivity and cost-saving benefits of VoIP and other IP-based communications while maintaining current investments in security technology.

Available only from Ingate® Systems, the SIParator works seamlessly with your existing firewall to allow the flow of SIP traffic to reach the user in the enterprise, no matter where he or she is located, as long as there is an Internet connection

Ingate Firewall®: For enterprises of all sizes, the Ingate Systems® Firewalls offers all the features of a robust data firewall, plus complete support for Session Initiation Protocol (SIP) to enable enterprises to adopt VoIP safely and securely. The firewalls offer secure, complete support for live IP communications, including VoIP, IM, video and other SIP based applications. SIP-based live person-to-person communications do not traverse common NATs and firewalls, as they are not specifically designed to accept the SIP protocol. Ingate SIP-capable Firewalls address this issue and enable SIP communication to traverse the NAT/firewall and reach users while maintaining control over the enterprise network. Ingate Firewalls also solve far-end NAT traversal to extend the SIP capabilities within the corporate network to remote workers.