



SME/enterprise solutions

HIGHLIGHTS

- Ideal for secure IP PBXs, secure IADs, wireless gateways with VoIP TAs, and enterprise VoIP phones
- Most comprehensive software platform with integrated routing and networking protocols, SIP-based VoIP Gateway, stateful inspection Firewall, IPsec VPN, wireless LAN security and management interface/graphical user interface
- Advanced enterprise-class networking features with SIP-based VoIP and IP PBX feature set
- Industry-certified to ensure interoperability and compliance with latest standards



iGateway EX SecureICP

Voice over IP (VoIP) adds a new dimension of security issues due to complexity of signaling and control protocols, requirements for converged gateway devices inevitably go beyond the requirements of traditional data and voice networks. Intoto's iGateway EX family enables Original Equipment Manufacturers (OEMs) to build next-generation enterprise gateways within significantly reduced development times, thereby allowing them to respond more quickly to market demand.

The iGateway EX SecureICP platform allows OEMs to build highly secure, reliable, and feature-rich Integrated Communication Platforms (ICPs). The platform's SIP Gateway software suite is open standards-based and inter-operates with large number of softswitches and session boarder controllers widely deployed in the market.

The VPN software is an enterprise-class VPN solution with support for IPsec, IKE v1 and advanced protocols for PKI infrastructure, while the Firewall module is a full-featured, stateful packet inspection (SPI) Firewall with NAT, application level gateways and user-based policies. The VPN module achieved certification from VPNC and ICSA Labs, and the Firewall module received certification from ICSA Labs.

Additionally, the iGateway EX architecture is agnostic to hardware platforms, operating systems and accelerators, providing the flexibility needed for customization and differentiation. Intoto has done the innovative design work to ensure its software is portable to any processor, hardware or OS and delivers industry-leading performance.

Salient Features of SIP Gateway of iGateway EX SecureICP

- Standards based, Inter-works with large number of softswitches/session boarder controllers
- Signaling Security over TLS. Inter-working between UDP/TCP and TLS for the SIP endpoints and clients in its domain
- Signaling and media security over IPsec/IKE
- SIP based presence and mobility enables server-less communication among the gateway devices behind NAT
- Each device is identified by a FQDN and built in DDNS client to update the server
- Proxy and registrar for soft clients in LAN/WAN. The external SIP clients can be part of virtual PBX.
- Media exchange feature to support signaling and media streaming of the branch office devices/SIP clients behind NAT

SME / Enterprise

Key Features

• **Integrated SIP-based VoIP Gateway**

- SIP UAC, UAS, SIP Call Processor, RTP, RTCP
- SIP Proxy and Registrar for soft clients in the LAN/WAN
- Acts as SIP application layer gateway and media exchanger for the SIP clients
- PBX services within the CPE device
 - Click to dial
 - Phone book/speed dial. Click to dial on Address Book
 - Call hold and call waiting
 - Call forwarding, unconditional, no answer, busy
 - 3-way calling (local/network mixing)
 - Callback/redial
 - Hotline--immediate, delayed
 - Outgoing call screening/Dynamic Service Restriction Control
 - Automated contact list (redirection/forking)
 - Alarm/wake up
 - Selective inward call blocking
 - Call transfer

• DSP Features on Intel IXP425/465 based hardware platforms

- Echo cancellation, EC NLP, AGC, ALC, Digital Gain Control
- G.711 μ -law, G729ab — G.729a with VAD and CNG, G.726, G.722
- Packet loss concealment (PLC) for G.711, G.726
- Multiple frames per packet and dynamic changing of frames per packet
- Dynamic/Adaptive Jitter Buffer algorithm
- Generation and receipt of FSK modem signals for caller ID/ MWI

• **DiffServ QoS/Traffic Management**

- Rule definition based on 5-tuples, DSCP and packet length
- Token bucket based ingress policing, egress shaping
- Class-based queuing

• **Networking Access Protocols**

- WAN Interface: PPP, PPPoE, DHCP client
- LAN Interface: DHCP relay, DHCP server
- Network Gateway: RIP v1/v2, UPnP

• **IPsec VPN**

- IPsec
- IKEv1 with pre-share keys and certificates
- PKI-LDAP v3 client (for CRL retrieval)--optional, SCEP (for certificate enrollment and CRL retrieval), PKCS#7 and OCSP--optional

• Other VoIP features

- Digit map configuration
- Pre-analysis and routing of speed dial codes in click to dial, 3-way calling, call forwarding, hotline, call transfer
- Caller ID/Calling Line Identification Presentation (CLIP) using FSK
- Caller line restriction (CLIR)
- Call processing tones
- Session Refresher/ Timers
- FAX/ high speed modem pass-through and G.711 auto-negotiation
- Annunciations: Dial tone timeout, inter-digit timeout/ critical timeout, WAN disconnection: physical/logical
- Out of band DTMF relay (RFC2833/ INFO)
- Calling party control/loop current denial

- Call-progress-tone generation for the United States, Japan, and China
- Audio mixer for three-way calls
- Audio player for G.711 and G.729 recorded data playing .wav file playing
- ITU-T.38 fax relay, China T.38 with Forward Error Correction

• **Stateful Packet Inspection Firewall**

- System-wide access policies
- Countering cyber attacks
- Port triggering
- Stealth mode
- Basic NAT, extensive ALGs and protocol support
- Pass-through support: IPsec, L2TP, PPTP, Multicast
- Keyword blocking/URL Filtering

• **Secure Access Point and Wireless LAN Support**

- Supports 802.11a/b/g and 802.1x

• **Easy-to-use Management Interface**

- Web, CLI, and configuration load and save
- SSL-based provisioning--optional

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