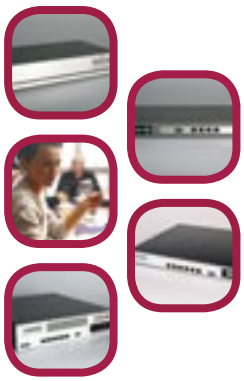
Ingate Firewall®



For enterprises of all sizes, the Ingate® Systems Firewalls offer 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. They offer secure, complete support for live IP communications, including VoIP, IM and video. 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. The Ingate Firewalls also solve far-end NAT traversal to extend the SIP capabilities within the corporate network to remote workers.

Ingate Firewall

Maintaining the highest level of VoIP security, Ingate's SIP proxy-based Firewalls deliver maximum control over SIP signaling, traffic and network security, creating one truly converged network for both data and VoIP. With Ingate products, enterprises can use VoIP and other live communications on the LAN and globally over the Internet or private IP networks. Ingate Firewalls are available in five different models; 1190, 1500, 1550, 1650 and 1900.

All Ingate Firewalls are fully featured, supporting stateful inspection and packet filtering with rules defined and maintained by the network security administrator utilizing the GUI. Ingate Firewalls include an encrypted Virtual Private Network (VPN) termination module. In addition to complete SIP support, Ingate Firewalls have a proxy for all standard protocols, including TCP, UDP, FTP and DHCP.

Trusted Network Security for VoIP

Ingate's SIP proxy architecture grants fully secure traversal of the SIP traffic. The ports for the media streams are only opened between the specific parties of a call and only for the duration of the call. The SIP proxy inspects the SIP packets before sending them on. TLS and SRTP encryption ensures privacy, making call eavesdropping, call hijacking and call spoofing harder to do. Ingate also supports authentication of users and servers.

Support for SIP Trunking

More and more Internet Service Providers offer a SIP trunk – a combined Internet and voice connection. For enterprises using an IP-PBX, SIP trunks are an ideal cost-saving solution as they no longer need local PSTN gateways or costly PRIs/BRIs. The service provider provides the PSTN connection. However, in order for SIP trunks to be successful, SIP traffic (as well as all other data traffic) must be able to traverse the enterprise firewall. Ingate's SIP Trunking software module, available for Ingate Firewalls, enables firewall and NAT traversal using the built-in SIP proxy, allowing the enterprise to connect to the SIP trunk.

In addition, Ingate Firewalls and the Ingate SIP proxy deliver advanced security for all SIP communications, including those via a SIP trunk. Ingate products also help ease compatibility issues between the IP-PBX and Internet telephony service provider.

Choose the Right Features for Your Network

Ingate offers several other add-on software modules that allow you to tailor the Firewall to meet the specific demands of your business. Ingate Quality of Service (QoS) sets priorities to different kinds of data and allocates bandwidth for varied purposes – for instance, giving priority to VoIP.

Ingate Remote SIP Connectivity extends the SIP capabilities of the enterprise to employees working remotely (home office workers, road warriors, etc.). Remote SIP Connectivity manages the traversal of the remote NAT from the central Ingate Firewall and also includes a STUN server.

Ingate VoIP Survival adds a whole new dimension to hosted VoIP service by securing full redundancy in a SIP-based hosted IP-PBX environment all the way out to the customer premises. It serves as a backup to enhance the reliability and availability of a VoIP application platform. Ingate Advanced SIP Routing provides the ability to fully control and route SIP traffic in an advanced and flexible manner. The module can handle least cost routing, enabling enterprises to make calls globally for local fees.

Global VoIP Connectivity for your IP-PBX

Ingate Firewalls open up a world of possibilities and cost savings when used with a SIP-based IP-PBX. Businesses can not only connect to a SIP trunk, but also route telephone calls via IP, between branch offices, home workers, offices and others using SIP-based VoIP. With an Ingate Firewall, the enterprise is no longer limited to voice; communication can also include video, instant messaging, presence and more. .

Free Software Upgrades for the First Year

The Ingate Firewalls have no data user restrictions. Software upgrades are free for the first year. Thereafter, an annual licensing fee will apply. New software versions can be downloaded quickly and easily online from the Ingate website.

For more information, visit us at www. ingate.com or write to info@ingate.com.

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www.ingate.com

Ingate Systems AB · Phone + 46 8 600 77 50 · Ingate Systems Inc · Phone: 1-603-883-6569
info@ingate.com · www.ingate.com

Technical Specifications Ingate Firewalls

Features	Ingate Firewall 1190	Ingate Firewall 1500	Ingate Firewall 1550	Ingate Firewall 1650	Ingate Firewall 1900
Interfaces (10/100 Mbit/s)	3	0	0	0	0
Interfaces (10/100/1000 Mbit/s)	0	4	4	4	6
Interfaces SPF (mini Gbic)	0	0	0	0	2
Redundant power supply	No	No	No	No	Yes
Flash disk for system operation	Yes	No	No	No	Yes
Dimensions WxDxH (cm)	228x146x44	430x369x44	430x369x44	430x369x44	430x485x88
Certifications	CE, FCC, UL	CE, FCC, UL	CE, FCC, UL	CE, FCC, UL	CE, FCC, UL
Performance					
Throughput (Mbit/s) (1500 byte packets)	50	330	380	385	2200
Packets per sekund (46 byte packets)	4500	28500	75000	125000	230000
VPN tunnels	25	100	200	400	800
3DES (168-bit) (Mbit/s) (1438 byte packets)	10	45	55	65	110
AES (128-bit) (Mbit/s) (1438 byte packets)	15	60	80	85	190
SIP connection set up (SIP+RTP)	0.15 s	0.15 s	0.15 s	0.15 s	<015 s
RTP data delay (10 Mbit/s/100 Mbit/s)	0.19/0.08 ms	0.19/0.08 ms	0.19/0.08 ms	0.19/0.08 ms	0.19/0.08 ms
Number of concurrent RTP sessions (voice sessions G.711)	40	150	300	650	1500
Concurrent encrypted RTP sessions (both SRTP and TLS)	20	75	150	330	750
Busy hour call attempt	36000	72000	79200	79200	234000
Administration					
Automatic check for new releases	Yes	Yes	Yes	Yes	Yes
Configuration options: Web GUI (HTTP, HTTPS) and CLI (SSH, serial cable)	Yes	Yes	Yes	Yes	Yes
DHCP client and PPPoE	Yes	Yes	Yes	Yes	Yes
DHCP server	Yes	Yes	Yes	Yes	Yes
SNMP	Yes	Yes	Yes	Yes	Yes
Max number of VLANs (802.1q compliant)	16	32	64	128	256
Internal log to HD	No	Yes	Yes	Yes	Yes
Logging to PCAP file	Yes	Yes	Yes	Yes	Yes
Syslog	Yes	Yes	Yes	Yes	Yes
E-mail events	Yes	Yes	Yes	Yes	Yes
Support for failover multiple ISPs	Yes	Yes	Yes	Yes	Yes
External RADIUS server authentication for IPsec, GUI and SIP	Yes	Yes	Yes	Yes	Yes
Unlimited data users	Yes	Yes	Yes	Yes	Yes
Free software upgrades	First year	First year	First year	First year	First year
Firewall functionality					
Stateful inspection	Yes	Yes	Yes	Yes	Yes
Packet filtering	Yes	Yes	Yes	Yes	Yes
DHCP proxy	Yes	Yes	Yes	Yes	Yes
Proxies for TCP, UDP and FTP	Yes	Yes	Yes	Yes	Yes
Flexibel NAT and PAT	Yes	Yes	Yes	Yes	Yes
VPN functionality					
X.509 certificate or shared secret	Yes	Yes	Yes	Yes	Yes
Generating of X.509 certificates for clients	Yes	Yes	Yes	Yes	Yes
PPTP server	Yes	Yes	Yes	Yes	Yes
IPsec (3DES, AES, NULL, MD5 and SHA1)	Yes	Yes	Yes	Yes	Yes
SIP functionality					
SIP proxy	Yes	Yes	Yes	Yes	Yes
SIP registrar	Yes	Yes	Yes	Yes	Yes
SIP traffic to private IP adresses (NAT/PAT)	Yes	Yes	Yes	Yes	Yes
TLS encryption	Yes	Yes	Yes	Yes	Yes
SRTP (sdescriptions) and Microsoft encrypted RTP	Yes	Yes	Yes	Yes	Yes
Billing and authentication for SIP users from external RADIUS server	Yes	Yes	Yes	Yes	Yes
SIPconnect compliance	Yes	Yes	Yes	Yes	Yes
Add-on modules					
SIP Trunking (connecting an IP-PBX to an ITSPs SIP-trunk)	Yes	Yes	Yes	Yes	Yes
Remote SIP Connectivity (Far-end NAT-passering incl STUN-server)	Yes	Yes	Yes	Yes	Yes
QoS (bandwidth limitation and prioritization	Yes	Yes	Yes	Yes	Yes
Advanced SIP Routing (flexible routing for SIP traffic)	Yes	Yes	Yes	Yes	Yes
VoIP Survival (VoIP redundance if Internet connection fails)	Yes	Yes	Yes	Yes	Yes

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