

# Ingate Firewall® 1900



*Designed for large enterprises, the Ingate Firewall® 1900 from Ingate® Systems is a full-featured VoIP-enabling firewall with full support for SIP (Session Initiation Protocol) - that offers large corporations secure, complete support for IP live communications, including VoIP, IM and video applications. It is the largest Firewall in the Ingate line of award-winning SIP-capable products.*



*SIP-based live person-to-person communication does not traverse common NATs and firewalls, as they are not specifically designed to accept the SIP protocol. The Ingate SIP-capable Firewall addresses this issue and enables SIP-based communication to traverse the NAT/firewall and reach users while maintaining control over the enterprise network. The Firewall 1900 also solves far-end NAT traversal to extend the SIP capabilities within the corporate network to remote workers.*

Maintaining the highest level of VoIP security, Ingate's SIP proxy-based Firewall delivers 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 Firewall 1900

The Ingate Firewall 1900 has eight interfaces, two of which are mini Gbic, that can be used for fiber optic interfaces for greater flexibility and offers a total of 2600 Mbit/s throughput. The Firewall 1900 is capable of handling 1500 concurrent VoIP calls (e.g. RTP sessions), making it ideal for large enterprises.

Included with the Ingate Firewall 1900 are 50 SIP user licenses that can be used for the registration of SIP users on the built-in SIP registrar. 25 SIP traversal licenses are also included, allowing up to 25 calls to traverse the Firewall simultaneously. Additional SIP user and traversal licenses can be purchased at any time.

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 Security for VoIP, IP Applications

The Ingate Firewall'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 of traffic (both signaling and media) secures privacy when communicating, making call eavesdropping, call hijacking and call spoofing harder to do. Ingate also supports authentication of users and servers.

## Choose the Right Features for Your Network

Ingate offers several add-on software modules that allow you to tailor the firewalls 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 a central firewall and also includes a STUN server.

Ingate VoIP Survival adds a whole new dimension to the 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 global calls for local fees.

Ingate SIP Trunking module allows enterprises to connect their IP-PBXs to a service providers SIP Trunk.

## Support for SIP Trunking

More and more Internet Service Providers offer a SIP trunk - a combined Internet and voice connection. For enterprises with an IP-PBX this is an ideal cost-saving solution as they no longer need local PSTN gateways or costly PRIs/BRIs. However, the SIP traffic, as all other data traffic, needs to traverse the enterprise firewall. Ingate Firewall 1900 handles the firewall and NAT traversal using the built-in SIP proxy.

## Add Global VoIP Connectivity to your IP-PBX

The Firewall 1900 opens up a world of possibilities and cost savings when used with a SIP based IP-PBX. Businesses can route telephone calls via IP, not only between branch offices and home workers, but also to offices and other users using SIP-based Internet telephony. No longer limited to telephony voice, communication can also include video, instant messaging, presence and more.

In addition, the Firewall 1900 makes it possible for home workers, road warriors and even branch offices to belong the same central IP-PBX -- with the highest level of security. The 1900 also affords the possibility to set up a private VoIP network, if preferred. Advanced IP-PBX functions are supported, including such as call transfer, call hold, and voicemail.

## Do More with Microsoft LCS 2005

Adding value to Microsoft Live Communications Server (LCS) 2005, Ingate Firewalls allow voice and video applications to work outside the LAN. In addition, Ingate makes LCS available to mobile users through Remote SIP Connectivity. The Firewall also has support for Microsoft encrypted media/ Microsoft RTP (Realtime Transport Protocol).

## Free Software Upgrades for the First Year

The Ingate Firewall 1900 has 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](http://www.ingate.com) or write to [info@ingate.com](mailto:info@ingate.com).

**inGate®**

[www.ingate.com](http://www.ingate.com)

To learn more about our SIP Firewall and VoIP range **freecall 1800 817 807** or visit [www.voip.alloy.com.au](http://www.voip.alloy.com.au)

## 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
<b>Performance</b>					
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
<b>Administration</b>					
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
<b>Firewall functionality</b>					
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
<b>VPN functionality</b>					
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
<b>SIP functionality</b>					
SIP proxy	Yes	Yes	Yes	Yes	Yes
SIP registrar	Yes	Yes	Yes	Yes	Yes
SIP traffic to private IP addresses (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
<b>Add-on modules</b>					
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