ZyXEL

- **SMB gateway with integrated communication and security services**
- **Easy and secure deployments utilizing Ethernet**
- **Firewall and VPN protection on data as well as voice**
- **Rich, high-quality communication features with mobility assurance**
- **Flexible platform to value-added services and unified communications**

Voice is Secured

The ZyXEL ISG50 Series is a multi-function integrated service gateway designed to support small and medium businesses and even remote offices of enterprises with IP telephony, Firewall, VPN and routing services within one single appliance. With innovative integration of security and communications features, IT managers are relieved from worrying about configurations and interoperability among various devices. The ISG50 Series also overcomes the challenges of telephony network extensions and builds value-added services on the IP network. ZyXEL's core competence — field-proven, trusted Firewall and VPN technologies — always protects data and voice communications across the company networks and prevents leakage of confidential information in advance. With rich features, easy deployment and flexibility, the ISG50 Series is not only an ideal choice to fit different SMB networking communication needs, but also an extensible platform for businesses to build their communication networks.

Benefits

Flexible adaptation to various SMB networks

With integrated routing, IP telephony, voice and data security features, the ZyXEL ISG50 Series can adapt itself to different network environments by playing either single or multiple roles. As most SMBs have limited IT resources on hand, the ISG50 Series provides a unified console for installation, configuration and management to achieve better operating simplicity. The ISG50 Series can work in harmony with the existing equipment as a multi-role device, or exert its full functionalities on the network independently to protect the investments for business owners.

Secure data and voice convergence

Emerging telephone attacks such as tapping, faking and illegal call attempts could reveal confidential messages and thus severe business loss. The ZyXEL ISG50 Series incorporates ICSA-certified Firewall and VPN to protect data as well as voice communications from the evolving threats. As IP telephony gains popularity, more and more attacks aiming at VoIP protocols are emerging. Taking advantage of ZyXEL's core technologies, the ISG50 Series is capable of coping with the attacks to guarantee a safe and sound communication infrastructure for businesses without sacrificing networking performance and voice quality.

ISG50-ISDN
ISG50-PSTN
Integrated Service Gateway

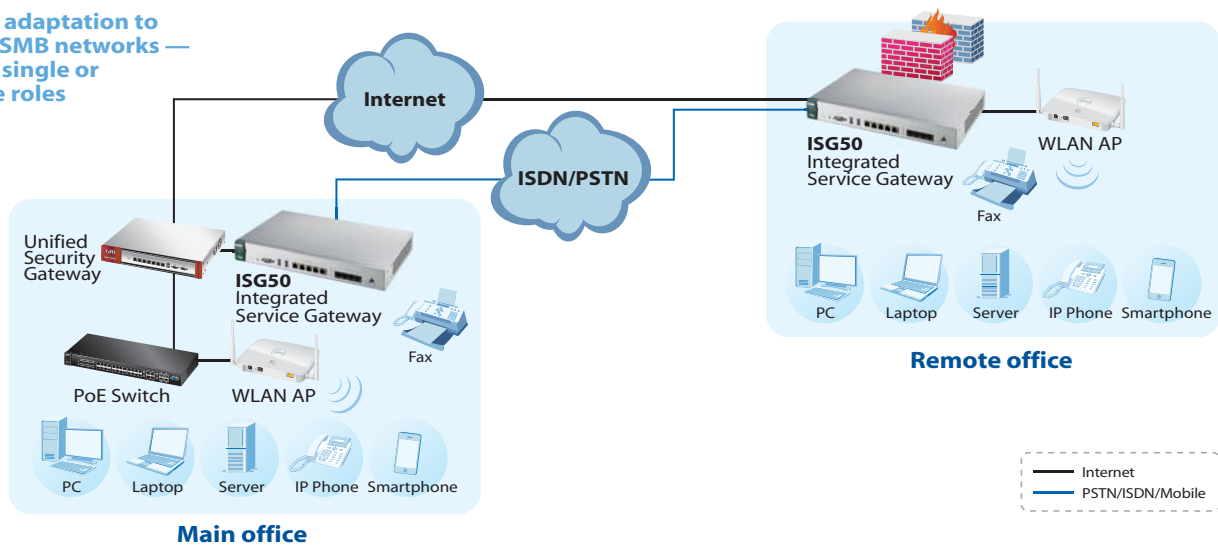## Improve business efficiency and productivity anytime, anywhere

According to an IDC research, the population of worldwide mobile workers has been expected to increase from 919.4 million in 2008, or 29% of the global workforce, to 1.19 billion in 2013, or 34.9%. As mobility continues to play a key role in changing the communication and business landscape, businesses need to get prepared to achieve greater productivity. Designed to fulfill the communication and collaboration needs of businesses, the ZyXEL ISG50 Series supports all kinds of voice applications such as conferencing, voice mail and call recording. In addition, the ISG50 Series also enables communications across various platforms including smart phones for efficiency enhancements. Furthermore, the ISG50 Series integrates contact management and workflow applications to facilitate business collaborations. The ZyXEL ISG50 Series is indeed one of the best future-proven communication platforms.

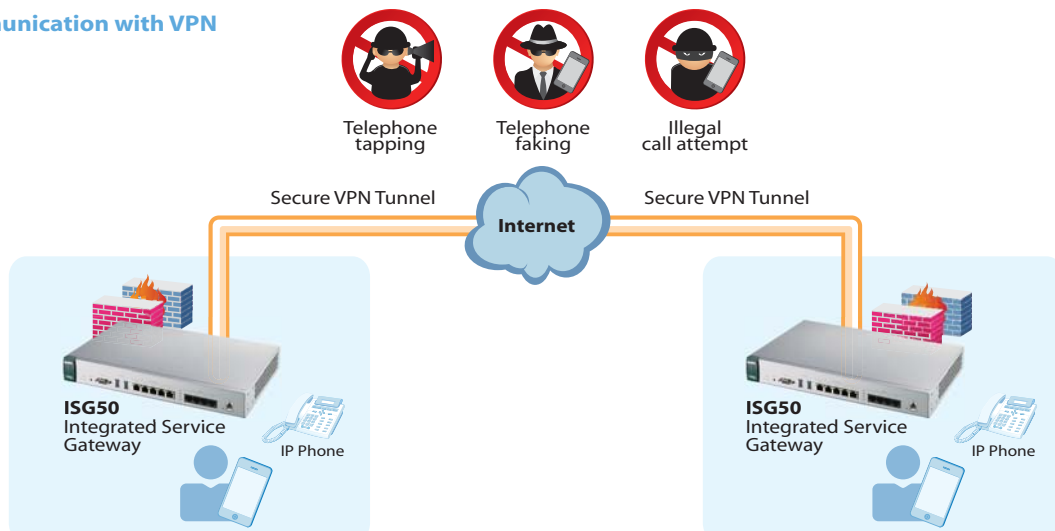## Optimizing businesses operations with minimized overheads

The ZyXEL ISG50 Series employs sophisticated role-based management in IP telephony to relieve business owners from the complicated configuration chores of traditional PBX systems. Voice communication policies and privileges can be enforced on a per-user basis as well as data flows. Aside from logging data communication and user activities, the history, content and even quality of voice can be recorded for further service adjustments or business auditing, while customizable reports can also be generated and exported according to administrator needs. With the considerate design, the ISG50 Series is a multi-function, extensible business gateway for advanced communications and smooth business collaborations.

Key Applications

Flexible adaptation to various SMB networks — work as single or multiple roles

Main office

Remote office

Legend:
- Internet
- PSTN/ISDN/Mobile

Secure communication with VPN

- Telephone tapping
- Telephone faking
- Illegal call attempt
- Secure VPN Tunnel
- Internet
- Secure VPN Tunnel

Specifications

Model	ISG50-ISDN	ISG50-PSTN
Product Name	Integrated Service Gateway	Integrated Service Gateway
Hardware		
10/100/1000 WAN Interfaces (RJ-45)	2	2
10/100/1000 LAN Interfaces (RJ-45)	3	3
ISDN-BRI Interfaces	4	0
FXO Interfaces	0	4
FXS Interfaces	1	1
USB Interfaces	2	2
DB9 port, for console configuration	1	1
System Performance		
Firewall Throughput (Mbps)	250	250
VPN Throughput, AES (Mbps)	90	90
Max. Concurrent Sessions	40,000	40,000
New Session Rate (sessions/sec)	1,000	1,000
Max. Concurrent IPSec VPN Tunnels	100	100
SIP extensions (default/maximum)	25/50	25/50
Max. simultaneous calls	50	50
Max. conference (seats)	15	15
Call recording (calls)	4	4
Physical Specifications		
Dimensions (WxDxH)(mm/in.)	350 x 205 x 44 /13.78 x 8.07 x 1.73	
Weight (kg/lb.)	2.4/5.29	
Environmental Specifications		
Operating Environment	Temperature: 0°C to 45°C/32°F to 113°F Humidity: 10% to 95% (Non-condensing)	
Storage Environment	Temperature: -40°C to 70°C/-40°F to 158°F Humidity: 10% to 95% (Non-condensing)	
Certification		
EMC	FCC Part 15 Class B FCC Part 68 CE-EMC Class B C-Tick Class B	
Safety	CAN/CSA-C22.2 No 60950-1-07 ANSI/UL Std No 60950-1, 2nd Ed. CSA 60950-1-07/UL 60950-1, 2nd Edition (Binational standard) IEC/EN 60950-1, 2nd Edition	
Others	EU RoHS Compliant	BSMI: EMI (CNS 13438), Safety (CNS 14336) EU RoHS Compliant

Features

Model		ISG50-ISDN	ISG50-PSTN
Security and Networking			
Stateful Packet Inspection Firewall		Yes	Yes
DoS/DDoS protection		Yes	Yes
Traffic anomaly protocol anomaly		Yes	Yes
Zone-based access control and custom security zone		Yes	Yes
IPSec VPN		Yes	Yes
SIP and web portal brute force protection		Yes	Yes
Dual WAN failover and load balancing		Yes	Yes
Quality of Service (QoS)		Yes	Yes
IP Telephony			
Protocol		SIP v2 (RFC 3261), SDP (RFC 2327), RTP (RFC 1889) and Session Timer (RFC4028)	
Basic Call Service	Call Forward and Call Pickup	Yes	Yes
	Call Transfer and Call Waiting	Yes	Yes
	Call Hold and Call Park	Yes	Yes
	Do Not Disturb (DND)	Yes	Yes
	Call Detail Record (CDR)	Yes	Yes
	Message Waiting Indication (MWI)	Yes	Yes
	Music-On-Hold (MOH)	Yes	Yes
	Phonebook	Yes	Yes
	Codec	G.711 a/µ, G.729a/b, G.726, G.723.1 and G.722	
	DTMF Detection and Generation	In-Band, RFC 2833 and SIP info	
	Fax over IP (T.30 and T.38)	Yes	Yes
	Video codec pass-through	H.264, MPEG-4 SP/ASP	
	Dynamic Jitter Butter	Yes	Yes
	G.168 echo cancellation	Yes	Yes
	Silence Suppression	Yes	Yes
	Voice Activity Detection (VAD)	Yes	Yes
Outbound call handling	Least Cost Route (LCR)	Yes	Yes
Inbound call handling	Hunt group	Yes	Yes
	Direct inward dialing	Yes	Yes
	Night service	Yes	Yes
	Meet Me Conference	Yes	Yes
Voice mail and AA	Voice Mail	Yes	Yes
	Auto Attendant (AA)	Yes	Yes
Advanced features	Auto Call Back	Yes	Yes
	Basic Automatic Call Distribution (ACD)	Yes	Yes
	Call Recording	Yes	Yes
	Click to Dial	Yes	Yes
	Personal Web Phone	Yes	Yes
	Paging	Yes	Yes
	Mobility Extension	Yes	Yes
	Smartphone application (iPhone and Android)	Yes	Yes
Management	Auto provisioning for snom IP phone 3xx and 8xx series	Yes	Yes
	Smart Dashboard	Yes	Yes
	CDR management with voice quality history	Yes	Yes
	Call recording management	Yes	Yes

ISG Licenses

Model Name	Description
ISG50-CR	Enable call recording on ISG50 when connecting an external USB storage.
ISG50-SP5	Increase 5 smartphone licenses on ISG50, default is 0 and maximum is 50.
ISG50-SX25	Expand SIP extension from 25 to 50 on ISG.

For more product information, visit us on the web at www.ZyXEL.com