

# Multi-service Security Gateway

Security gateways provide simplified internet gateway network, optimized internet experience, flexible online behavior management for various industries.



## Overview

Next-generation Unified Security Gateway is a multi-functional Security Gateway product for various industries. Equipped with high-performance multi-core MIPS hardware architecture, the SG-5110/SG-5105/SG3110 Gateway support a wide range of features such as high-performance NAT, WAN load balancing, smart flow control, online behavior management, visualized IPsec VPN, web authentication, etc. Taking advantage of integrated Hard Disk Drive (HDD), the Security Gateway can provide local storage for Internet activities logging, which is essential for National Internet Security Compliance in many countries.

## Benefits

- Smart Flow Control & AAA Integration
- Flexible Authentication
- User Online Behavior Management
- VPN & Traffic Visualization
- App Caching for Download Acceleration
- Built-in Internet Audit Log Storage
- Built-in PoE Integration (SG-3110)

## Key Features

### Smart Flow Control & AAA Integration

Smart P2P speed limit, accurate identification of P2P software, and automatic transmission of uplink source quench message to control the downlink traffic and prevent downlink bandwidth exhaustion.

Support over 120 popular application in DPI engine and enjoys FREE for life signature update.

Role-based flow control based on usernames and user groups to facilitate the allocation of bandwidths according to different departments.

Support AAA (Authentication, Authorization and Accounting) with web authentication, integration with AAA Software and simple traffic accounting feature.

### Online Behavior Management

Security gateways provide detailed online behavior management of the intranet users, blocking a variety of non-work-related websites to create a good working atmosphere and improve work efficiency.

### VPN Visualization

Security Gateways have significantly simplified the VPN configuration, which could be completed just by a few clicks, eliminating the need for professional maintenance. The gateways enable users to view and control the traffic in the VPN tunnel, establishing a visualized VPN to guarantee the security of key services using VPN.

### Traffic Analysis

Equipped with powerful DPI technology, the Security Gateways collect traffic usage statistics based on users, applications and links for report generation, providing reliable historical data for bandwidth expansion as well as user and application-based bandwidth control policies.

### Mobile App Provisioning for Green Hand

For ease of provisioning, we provide an innovative Mobile App Dummy Provisioning for SME customers. In less than 3-min, user can complete the Gateway initial setup with Internet connectivity, without any PC setup or cable installation.

### App Caching for Download Acceleration

Security gateways provide exclusive Caching technology for any media files resources and Mobile App (Google Android APK and IOS Store), the files will download from SG Cache directly without go through the Internet. The feature is exceptionally help for situation with high volume for same identical file downloading, such as Games, Mobile App, System Patches, etc. but the internet line speed is not fast sufficient or expensive.

### Built-in Internet Audit Log Storage

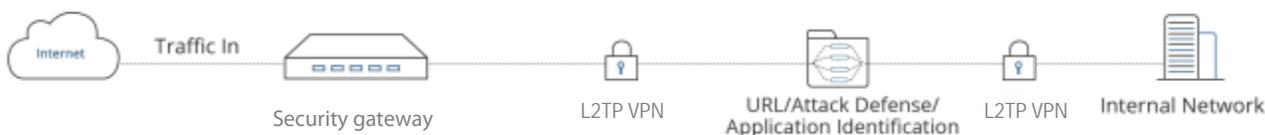
At the heart of most devices that provide protection for IT networks is an ability to log events and take actions based on those events. SG-5110 and SG-5105 security gateways support detail logging both on what has happened to the device and what is happening. A local attached 1TB harddisk provides sufficient storage to keep all the nessecary audit logging trail. It increases the higher logging retential period before it is exported to external logging server.

### Built-in Power-Over-Ethernet (PoE)

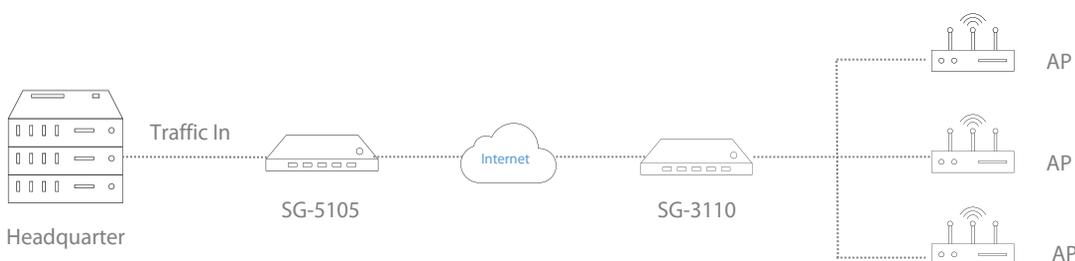
Designed for retail, small organizations and distributed enterprises with remote and branch offices, the SG-3110 integrate support for PoE devices. It come with 7 PoE out ports to provide power to and endpoint like, video cameras, security access control (card scanners), point-of-sales devices, IP phones, wireless access point and many more. It eliminates the complexity of providing extra power cabling especially the small organization or retail wireless network deployment.

## Deployment

Security gateway employ the global-leading semiconductor technologies and communication control technologies.



Security gateway is completely developed as per international standards and are similar to the mainstream breakout gateway products in the international market.



## Technical Specification

### System Specification

Items	SG-5110	SG-5105	SG-3110
<b>Ports</b>			
1000 BASE-T RJ45	8	8	8
SFP	1	1	--
SFP+	1	1	--
WAN Ports	Up to 6	Up to 6	Up to 2
Management Ports	1	1	1
Console Port	1	1	1
USB	2	2	1

### Hardware Specification

CPU	Multi-core MIPS	Multi-core MIPS	Multi-core MIPS MTK7621
Hard Disk	1TB	1TB	-
Flash	8GByte EMMC	8GByte EMMC	4GByte EMMC
SDRAM	2GB	2GB	512MB
PoE Standard	Not support	Not support	IEEE 802.3af/at
Power Budget	--	--	135W

### Performance

Performance	1035 kpps/1.035 Mpps (64 bytes)	410 kpps/0.41 Mpps (64 bytes)	103 kpps/0.1 Mpps (64 bytes)
Concurrent User	600,000	600,000	100,000
Recommended Concurrent User	1500	500	300
Portal Authentication Capacity	1000 (Max Concurrent Users)	1000 (Max Concurrent Users)	100 (Max Concurrent Users)
Portal Authentication Type	Username/Password Auth (Local, Windows-based AD/LDAP Integration)	Username/Password Auth (Local, Windows-based AD/LDAP Integration)	Username/Password Auth (Local, Windows-based AD/LDAP Integration)
Seamless Authentication (Portal)	Support	Support	Support
App Caching	Support	Support	Support
Cache Resources	Android APK & Apple IOS; Windows System Patches	Android APK & Apple IOS; Windows System Patches	Android APK & Apple IOS
Built-in Internet Audit Log Storage	Support	Support	Not support

### System Specification

Items	SG-5110	SG-5105	SG-3110
WAN Load Balancing	Support (up to 6 WAN Ports)	Support (up to 6 WAN Ports)	Support (upto 2 WAN Ports)
IPsec VPN Tunnel	1000	400	16
GRE VPN Tunnel	1000	1000	--
PPTP VPN Tunnel	1000	400	16
L2TP VPN Tunnel	1000	400	16

### Physical and Environmental

Dimensions (HxWxD)	1.72"x17.32"x7.87" (43.6x440x200mm)	1.72"x17.32"x7.87" (43.6x440x200mm)	1.72"x7.87"x7.87" (43.6x200x200mm)
Rack Height	1U	1U	1U
Weight	8.82 lbs (4kg)	8.82 lbs (4kg)	4.4 lbs (2kg)
Power Supply	100VAC-240VAC; 50-60Hz, 0.65A	100VAC-240VAC; 50-60Hz, 0.65A	100-240VAC; 50-60Hz, 3A
Max. Power Consumption	25W	25W	150W
Operating Temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Operating Humidity	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)	10% to 90% (Non-condensing)

### Warranty

Warranty	3 Years	3 Years	3 Years
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## FEATURES

### Software Features and Protocols

#### Network Protocol

- Support TCP/IP protocols, including IP, ICMP, TCP, UDP, etc.
- Support multiple routing protocols, including static routing, RIP (V1/V2) and OSPF
- Support DHCP Relay and DHCP Server
- Support PPPoE Client
- Support NAT and multiple NAT ALG including FTP, H.323, DNS, etc. Support ARP, trusted ARP, proxy ARP, etc.
- Support Ping and Traceroute fault detection

#### Application Visibility

- Support self-developed 43 types of applications/more than 120 application features, customizable protocol identification:
- P2P: BitTorrent, eMule, Thunder, EDONKEY, FlashGet & etc.
- Multimedia: YouTube, Facebook Video, WebEx Conference & etc.
- Social Media: Facebook, Twitter, LinkedIn, Pinterest & etc.
- VOIP/Chat: Skype, Viber, Google Hangout, Jabber, Facebook Messenger & etc.
- Instant Messaging/Email: Gmail, MSN, YAHOO & etc.
- Software Update: Window, McAfee, Kaspersky, ESET & etc.
- Enterprise Application: HTTP, FTP, SMTP, POP3, IMAP, Telnet,
- LOTUS-NOTES, SQL Server, Oracle, Mysql, HTTPS & etc.

#### URL Filtering

- Support custom URLs
- Support remote HTTP automatic periodic Signature database, URL database, Address database upgrade
- Local log storage (NAT log, traffic log, URL log, etc.)
- Support storage on external log server

#### Network Security

- Anti-ARP Spoofing
- Defense against malicious attacks from internal and external networks
- Support secure address binding
- Block WAN Ping
- Prevent Port Scan Attack, Fragmentation Attack, ICMP Flood Attack, Teardrop Attack, Ping of Death Attack, Land Attack, Smurf/Fraggle attack, SYN Flood Attack for SG-5110/SG-5105

#### Layer 2 Features

- Support Bridging for SG-5110/SG-5105
- Support LAN Port Aggregation for SG-5110/SG-5105

## FEATURES

Software Features and Protocols	
<b>AAA Authentication</b>	<ul style="list-style-type: none"> <li>Integrate with AAA software to support multiple authentication modes</li> </ul>
<b>Endpoint Identification</b>	<ul style="list-style-type: none"> <li>Support push advertising page</li> <li>Support multi-link load balancing</li> <li>Lifetime Free signature library upgrade</li> </ul>
<b>Stateful Inspection Firewall</b>	<ul style="list-style-type: none"> <li>Support Application Layer Protocol Filtering for SG-5110/SG-5105</li> <li>Support TCP Stateful Packet Filtering for SG-5110/SG-5105</li> <li>Support UDP Stateful Packet Filtering for SG-5110/SG-5105</li> <li>Support ICMP Stateful Packet Filtering for SG-5110/SG-5105</li> <li>Support RAW-IP Stateful Packet Filtering for SG-5110/SG-5105</li> <li>Support TCP Protocol Stateful Conversion for SG-5110/SG-5105</li> <li>Support Status Timeout Inspection for SG-5110/SG-5105</li> <li>Support IP Fragmented Packet Stateful Filtering for SG-5110/SG-5105</li> </ul>
<b>Security Domain</b>	<ul style="list-style-type: none"> <li>Support IP Address-Based Security Domain Division for SG-5110/SG-5105</li> <li>Support Logical Interface-Based Security Domain Division for SG-5110/SG-5105</li> <li>Support Attack-Prevention Domain (Global Guard Policy/Protocol Policy/Domain Policy) for SG-5110/SG-5105</li> <li>Support security audit, including attack-prevention domain log audit, security domain log audit and management log audit for SG-5110/SG-5105</li> </ul>
<b>Content Audit</b>	<ul style="list-style-type: none"> <li>Support Email content audit, including client mail and web mail</li> <li>Support IM audit and account-based whitelist/blacklist</li> <li>Support BBS content audit</li> <li>Support search engine audit for SG-5110/SG-5105</li> </ul>
<b>Wireless Controller</b>	<ul style="list-style-type: none"> <li>SG-5110 can manage 64 Wi-Fi 6 access points by default, which can be extended to 256 access points by license authorization</li> <li>SG-5105 can manage 64 Wi-Fi 6 access points by default</li> <li>SG-3110 can manage 32 Wi-Fi 6 access points by default</li> </ul>

### SG-5110/SG-5105 Gateway Accessories



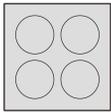
Power Code x1



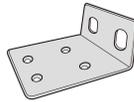
Console Cable x1



Cat5e Cable x1



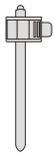
Rubber Pad x4



Mounting Bracket x2



M4 Screw x6

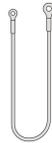


Power Code Tie x1

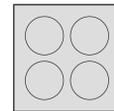
### SG-3110 Gateway Accessories



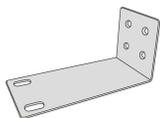
Power Code x1



Grounding Cable x1



Rubber Pad x4



Mounting Bracket x2



M4 Screw x6



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