

# HUAWEI USG6305/6310S/6320

## Next-Generation Firewalls

---Best-in-Class Access Security for Small Businesses



Huawei USG6305/6310S/6320 next-generation firewalls are desktop-mounted security gateways designed for small businesses, branch offices, and chain stores. The firewalls integrate multiple security capabilities, such as intrusion prevention and antivirus, and support multiple routing protocols for both IPv4 and IPv6. They provide wired and wireless access and are best suited for networks with up to 100 users. The firewalls in this series are small, light, and cost-effective, reduce management costs, and ensure secure and efficient access for users.

### Highlights

#### **Comprehensive protection**

- Multiple security functions, including firewall, VPN, intrusion prevention, and online behavior management, for complete versatility
- Refined bandwidth management based on application and website category to prioritize bandwidth for mission-critical services
- Access to a URL category database of over 120 million URLs, used to prevent access to malicious and illegitimate websites and allow/block access to whitelisted/blacklisted websites

#### **Simple management, fast deployment**

- Zero-configuration deployment using USB disks to improve deployment efficiency
- Web-based configuration and centralized management through the eSight network management system

#### **Flexible bandwidth management, improving Internet access experience**

- Differentiated user bandwidth and quota management for fair and prioritized bandwidth usage
- Application-based bandwidth management to prioritize bandwidth for mission-critical applications
- Modification of URL category priority



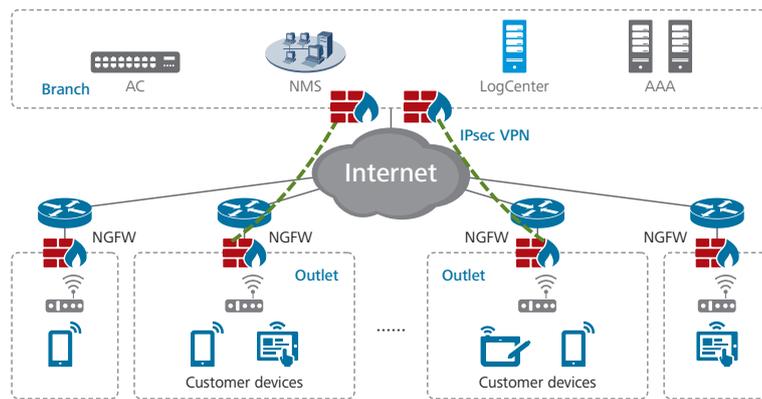
## Targeted marketing

- Push of ads and questionnaires for marketing
- Customization of the authentication portal page to provide marketing information or apps that are specific to local business offices

## Deployment

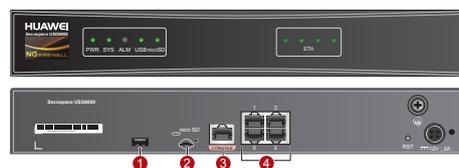
### Comprehensive and integrated protection for small businesses

- NGFWs are deployed on egresses to provide GE and Wi-Fi interfaces in the downlink, GE interfaces in the uplink, and 3G/4G LTE backup uplinks. 4G LTE backup VPN tunnels or two LTE uplinks can be created for redundancy.
- NGFWs can be deployed with the Agile Controller to form a branch access security solution that provides unified authentication of wired and wireless users and portal customization. Centralized service management eases the difficulty of managing branch offices while still allowing for platform customization for branches to perform targeted marketing.
- Refined bandwidth management based on application and website category can prioritize bandwidth for mission-critical services.



## Hardware

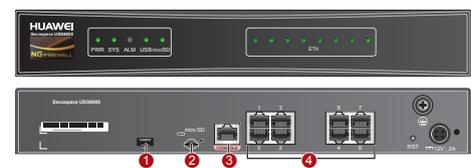
### USG6305



#### Interfaces

1. USB Port
2. Micro-SD Card Slot
3. Console Port
4. 4 x GE (RJ45) Ports

### USG6310S



#### Interfaces

1. USB Port
2. Micro-SD Card Slot
3. Console Port
4. 8 x GE (RJ45) Ports

### USG6305-W



#### Interfaces

1. USB Port
2. Micro-SD Card Slot
3. Console Port
4. 4 x GE (RJ45) Ports
5. 2 x Wi-Fi Antenna Jacks

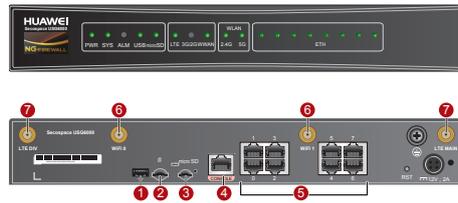
### USG6310S-W



#### Interfaces

1. USB Port
2. Micro-SD Card Slot
3. Console Port
4. 8 x GE (RJ45) Ports
5. 2 x Wi-Fi Antenna Jacks

## USG6310S-WL-OVS



### Interfaces

1. USB Port
2. SIM Card Slot
3. Micro-SD Card Slot
4. Console Port
5. 8 x GE (RJ45) Ports
6. 2 x Wi-Fi Antenna Jacks
7. 2 x LTE Antenna Jacks

## USG6320



### Interfaces

1. USB Port
2. Console Port
3. 8 x GE (RJ45) Ports

## Software Features

Function	Description
Integrated Protection	Integrates firewall, VPN, intrusion prevention, antivirus, data leak prevention, bandwidth management, and URL filtering functions, and provides a global configuration view and integrated policy management.
Application Identification and Control	Identifies common applications, supports application-specific access control, and combines application identification with intrusion prevention, antivirus, and data filtering to improve detection performance and accuracy.
Intrusion Prevention and Web Protection	Obtains the latest threat information in a timely manner for accurate detection and prevention of vulnerability exploits and web attacks, such as cross-site scripting and SQL injection attacks.
Data Leak Prevention	Inspects files to identify the file type, such as WORD, EXCEL, POWERPOINT, and PDF, based on file contents, and filters sensitive content.
Bandwidth Management	Manages per-user and per-IP bandwidth in addition to identifying service applications to prioritize mission-critical services and users through methods such as peak bandwidth and committed bandwidth, policy-based routing (PBR), and application forwarding priority adjustment.
URL Filtering	Can access a URL category database of over 120 million URLs to manage access by URL category, such as blocking malicious URLs and accelerating access to specified categories.
Behavior and Content Audit	Audits and traces the sources of URL access based on the user IP address and requested content.
Intelligent Uplink Selection	Supports service-specific PBR and intelligent uplink selection based on multiple load balancing algorithms (for example, based on bandwidth ratio and link health status) in multi-homing scenarios.
VPN Encryption	Supports multiple highly reliable VPN features, such as IPsec VPN, SSL VPN, L2TP VPN, and GRE. Supports IPsec intelligent link selection and dynamic IPsec tunnel switchover to improve link availability.

Function	Description
SSL Encrypted Traffic Detection	Serves as a proxy to detect and defend against threats in SSL-encrypted traffic using application-layer protection methods such as intrusion prevention, antivirus, data filtering, and URL filtering.
User Authentication	Supports multiple user authentication methods, including local, RADIUS, HWTACACS, SecurID, AD, CA, LDAP, and Endpoint Security.
Security Virtualization	Allows users to create and manage virtual security services, including firewall, intrusion prevention, and antivirus services, on the same physical device.
Policy Management	Provides predefined common-scenario defense templates to facilitate security policy deployment. Automatically evaluates risks in security policies and provides tuning suggestions. Detects redundant and conflicting policies to remove unnecessary and incorrect policies.
	Provides the firewall policy management solution in partnership with FireMon to reduce O&M costs and potential faults.*
Diversified Reports	Provides visualized and multi-dimensional reports by user, application, content, time, traffic, threat, and URL. <sup>1</sup>
	Generates network security analysis reports on the Huawei security center platform to evaluate the current network security status and provide optimization suggestions.*
Routing	Supports IPv4 static routes, policy-based routing, routing policies, multicast, RIP, OSPF, BGP, and IS-IS. Supports IPv6 static routes, policy-based routing, routing policies, RIPng, OSPFv3, BGP4+, and IPv6 IS-IS.
Working Mode	Transparent, routing, and hybrid working modes.
Device Management Capability	Built-in Web UI: Provides abundant device management and maintenance functions, including log report, configuration, and troubleshooting.
	eSight network management: Manages the performance, alarms, resources, configurations, and topology of the entire network.
	Agile Controller: Implements application- and user-specific security policy control in the Huawei SDN Agile Network Solution.*
	LogCenter security event management system: Provides functions such as security posture awareness, report management, log audit, and centralized alarm management.
	API: Supports both NETCONF* and RESTCONF northbound APIs to enable users to centrally configure and maintain firewalls via an upper-level controller to simplify the O&M.
	Agile Cloud Management Platform*: The Huawei Agile Cloud Network Solution consists of a cloud management platform and a series of cloud-based network devices. Customers can purchase the cloud management license for firewall management and maintenance services instead of buying network management software and hiring network administrators. For firewall functions supported in cloud network management mode, see <i>HUAWEI USG6300 Series Cloud Management Firewall Datasheet</i> .

1: The USG6305 and USG6310S series support log storage in SD cards. If no SD card is inserted, you can view and export system and service logs. By inserting an SD card, you can also view, export, customize, and subscribe to reports. The USG6320 supports the query and export of system and service logs but does not support report query, export, customization, or subscription.

Functions marked with \* are supported only in USG V500R001 and later versions.

## Specifications \*

### System Performance and Capacity

Model	USG6305	USG6305-W	USG6310S	USG6310S-W	USG6310S-WL-OVS	USG6320
IPv4 Firewall Throughput <sup>1</sup> (1518/512/64-byte, UDP)	0.8/0.8/0.12 Gbit/s	0.8/0.8/0.12 Gbit/s	1.2/1/0.12 Gbit/s	1.2/1/0.12 Gbit/s	1.2/1/0.12 Gbit/s	2/2/0.4 Gbit/s
IPv6 Firewall Throughput <sup>1</sup> (1518/512/84-byte, UDP)	0.8/0.8/0.15 Gbit/s	0.8/0.8/0.15 Gbit/s	1.2/1/0.15 Gbit/s	1.2/1/0.15 Gbit/s	1.2/1/0.15 Gbit/s	2/2/0.4 Gbit/s
Firewall Throughput (Packets Per Second)	0.18 Mpps	0.18 Mpps	0.18 Mpps	0.18 Mpps	0.18 Mpps	0.6 Mpps
Firewall Latency (64-byte, UDP)	100 µs	100 µs	100 µs	100 µs	100 µs	35 µs
FW + SA* Throughput <sup>2</sup>	300 Mbit/s	300 Mbit/s	400 Mbit/s	400 Mbit/s	400 Mbit/s	1.2 Gbit/s
FW + SA + IPS Throughput <sup>2</sup>	150 Mbit/s	150 Mbit/s	200 Mbit/s	200 Mbit/s	200 Mbit/s	700 Mbit/s
FW + SA + Antivirus Throughput <sup>2</sup>	100 Mbit/s	100 Mbit/s	150 Mbit/s	150 Mbit/s	150 Mbit/s	700 Mbit/s
FW + SA + IPS + Antivirus + URL Throughput <sup>2</sup>	100 Mbit/s	100 Mbit/s	150 Mbit/s	150 Mbit/s	150 Mbit/s	500 Mbit/s
FW+SA+IPS+Antivirus Throughput (Realworld) <sup>3</sup>	80 Mbit/s	80 Mbit/s	100 Mbit/s	100 Mbit/s	100 Mbit/s	400 Mbit/s
Concurrent Sessions (HTTP1.1) <sup>1</sup>	200,000	200,000	250,000	250,000	250,000	500,000
New Sessions/Second (HTTP1.1) <sup>1</sup>	4,000	4,000	6,000	6,000	6,000	20,000
IPsec VPN Throughput <sup>1</sup> (AES-128+SHA1, 1420-byte)	300 Mbit/s	300 Mbit/s	400 Mbit/s	400 Mbit/s	400 Mbit/s	600 Mbit/s
Maximum IPsec VPN Tunnels (GW to GW)	500	500	1,000	1,000	1,000	2,000
Maximum IPsec VPN Tunnels (Client to GW)	500	500	1,000	1,000	1,000	2,000
SSL Inspection Throughput <sup>4</sup>	13 Mbit/s	13 Mbit/s	16 Mbit/s	16 Mbit/s	16 Mbit/s	16 Mbit/s
SSL VPN Throughput <sup>5</sup>	20 Mbit/s	20 Mbit/s	25 Mbit/s	25 Mbit/s	25 Mbit/s	40 Mbit/s
Concurrent SSL VPN Users (Default/Maximum)	100/100	100/100	100/100	100/100	100/100	100/200
Security Policies (Maximum)	1,000	1,000	1,000	1,000	1,000	3,000
Virtual Firewalls (Default/Maximum)	10/10	10/10	10/10	10/10	10/10	10/20
High Availability Configurations	NA					Active/Active, Active/Standby
URL Filtering: Categories	More than 130					

Model	USG6305	USG6305-W	USG6310S	USG6310S-W	USG6310S-WL-OVS	USG6320
URL Filtering: URLs	Can access a database of over 120 million URLs in the cloud					
Automated Threat Feed and IPS Signature Updates	Yes, an industry-leading security center from Huawei ( <a href="http://sec.huawei.com/sec/web/index.do">http://sec.huawei.com/sec/web/index.do</a> )					
Third-Party and Open-Source Ecosystem <sup>6</sup>	Open APIs for integration with third-party products through RESTCONF and NETCONF interfaces Other third-party management software based on SNMP, SSH, and syslog Collaboration with third-party tools, such as FireMon					
Centralized Management	Centralized configuration, logging, monitoring, and reporting is performed by Huawei eSight and LogCenter					
VLANs (maximum)	4,094					
VLANIF Interfaces (Maximum)	256					1,024

1. Performance is tested under ideal conditions based on RFC 2544 and RFC 3511. The actual result may vary with deployment environments.

2. Antivirus, IPS, and SA performances are measured using 100 KB of HTTP files.

3. Throughput is measured with the Enterprise Traffic Model.

4. SSL inspection throughput is measured with IPS-enabled and HTTPS traffic using TLS v1.2 with AES256-SHA.

5. SSL VPN throughput is measured using TLS v1.2 with AES128-SHA.

6. USG6000 V100R001 supports only the RESTCONF interface and cannot interwork with third-party tools.

\* SA indicates Service Awareness.

\* This content is applicable only to regions outside mainland China. Huawei reserves the right to interpret this content.

## Hardware Specifications

Model	USG6305	USG6305-W	USG6310S	USG6310S-W	USG6310S-WL-OVS	USG6320
Dimensions (H x W x D) mm	44 x 300 x 220	44 x 300 x 220	44 x 300 x 220	44 x 300 x 220	44 x 300 x 220	44.5 x 300 x 220
Form Factor/Height	Desktop	Desktop	Desktop	Desktop	Desktop	Desktop
Fixed Interfaces	4 x GE (RJ45)	4 x GE (RJ45)	8 x GE (RJ45)	8 x GE (RJ45)	8 x GE (RJ45)	8 x GE (RJ45)
USB 2.0 Port	Supported	Supported	Supported	Supported	Supported	Supported
Wi-Fi	-	Supports 2.4G + 5G dual-frequency (802.11a/b/g/n/ac).	-	Supports 2.4G + 5G dual-frequency (802.11a/b/g/n/ac).	Supports 2.4G + 5G dual-frequency (802.11a/b/g/n/ac).	-
4G LTE	The USB port houses a 4G LTE data card.	The USB port houses a 4G LTE data card.	The USB port houses a 4G LTE data card.	The USB port houses a 4G LTE data card.	The slot supports standards such as 4G LTE, 3G UMTS, and 2G GSM. The USB port houses a 4G LTE data card <sup>1</sup> .	The USB port houses a 4G LTE data card.



Model	USG6305	USG6305-W	USG6310S	USG6310S-W	USG6310S-WL-OVS	USG6320
MTBF	14.08 years	13.8 years	14.08 years	13.8 years	12.75 years	19.06 years
Weight (Full Configuration)	1.55 kg	1.6 kg	1.55 kg	1.6 kg	1.65 kg	1.58 kg
Power Consumption (Average/Maximum)	7.5W/11.8W	10.7W/15.1W	8.8W/13.1W	12.3W/16.1W	15W/19.5W	23.2W/28.5W
Heat Dissipation	40 BTU/h	51 BTU/h	45 BTU/h	55 BTU/h	66 BTU/h	97 BTU/h
Local Storage	Optional 64 GB micro-SD card for expansion					-
Noise	-					48 dBA
Power Supplies	External Power Adapter, 24W					External Power Adapter, 36W
AC Power Supply	100V to 240V, 50/60Hz					
Operating Environment (Temperature/ Humidity)	Temperature: 0°C to 45°C Humidity: 5% to 95%, non-condensing					
Non-operating Environment	Temperature: -40°C to +70°C Humidity: 5% to 95%, non-condensing					
Operating Altitude (maximum)	5,000 meters					
Non-operating Altitude (maximum)	5,000 meters					

1. The following bands are supported: FDD BAND 1, 2, 3, 4, 5, 7, 8, and 20

## Certifications

Certifications	
Software	ICSA Labs: Firewall, IPS, IPsec, SSL VPN CC: EAL4+
Hardware	CB, CCC, CE-SDOC, ROHS, REACH&WEEE(EU), RCM, ETL, FCC&iC, VCCI, BSMI (USG6320)

## Regulatory, Safety, and EMC Compliance

Certifications	
Regulatory Compliance	Products comply with CE markings per directives 2014/30/EU and 2014/35/EU.
Safety	<ul style="list-style-type: none"> <li>• UL 60950-1</li> <li>• CSA-C22.2 No. 60950-1</li> <li>• EN 60950-1</li> <li>• IEC 60950-1</li> <li>• GB4943.1</li> </ul>
EMC: Emissions	<ul style="list-style-type: none"> <li>• AS/NZS CISPR 22</li> <li>• CISPR 22 Class B</li> <li>• EN 55022 Class B</li> <li>• ETSI EN 300 386</li> <li>• ETSI EN 301 489 (USG6305-W/63105-W/63105-WL-OVS)</li> <li>• IEC 61000-6-3/EN 61000-6-3</li> <li>• IEC 61000-6-4/EN 61000-6-4</li> <li>• IEC 61000-3-2/EN 61000-3-2</li> <li>• IEC 61000-3-3/EN 61000-3-3</li> <li>• FCC CFR47 Part 15 Subpart B Class B</li> <li>• ICES-003 Class B</li> <li>• VCCI V-3 Class B</li> <li>• CNS 13438 Class B (USG6320)</li> <li>• GB9254 Class B</li> </ul>
EMC: Immunity	<ul style="list-style-type: none"> <li>• EN 55024</li> <li>• CISPR 24</li> <li>• ETSI EN 300 386</li> <li>• ETSI EN 301 489 (USG6305-W/63105-W/63105-WL-OVS)</li> <li>• IEC 61000-6-1/EN 61000-6-1</li> <li>• IEC 61000-6-2/EN 61000-6-2</li> <li>• CNS 13438 Class B (USG6320)</li> <li>• YD/T993</li> </ul>

## Ordering Guide

Product	Model	Description
USG6305	USG6305-AC	USG6305 AC Host (4GE(RJ45), 1GB Memory)
USG6305-W	USG6305-W-AC	USG6305-W AC Host (4GE(RJ45), 1GB Memory)
USG6310S	USG6310S-AC	USG6310S AC Host (8GE(RJ45), 1GB Memory)
USG6310S-W	USG6310S-W-AC	USG6310S-W AC Host (8GE(RJ45), 1GB Memory)
USG6310S-WL-OVS	USG6310S-WL-OVS-AC	USG6310S-WL-OVS AC Host (8GE(RJ45), 1GB Memory)
USG6320	USG6320-AC	USG6320 AC Host (8GE(RJ45), 2GB Memory)
USG6320	USG6320-BDL-AC	USG6320 AC Host (8GE(RJ45), 2GB Memory, with IPS-AV-URL Function Group Update Service Subscribe 12 Months)

### Storage

Micro SD 64GB	SDSDQAE-064G	Micro SD 64GB (SDXC Class 10, MLC NAND Flash)
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Product	Model	Description
Function License		
SSL VPN Users	LIC-SSL-100-USG6000	Quantity of SSL VPN Concurrent Users (100 Users)
Virtual Firewall	LIC-VSYS-10-USG6000	Quantity of Virtual Firewall (10 Vsys)
NGFW License		
USG6305/USG6305-W License	LIC-IPSAVURL-12-USG6305	Resource-USG6305-IPS-AV-URL Function Group Subscribe 12 Months, (Applies to USG6305)
	LIC-IPSAVURL-36-USG6305	Resource-USG6305-IPS-AV-URL Function Group Subscribe 36 Months, (Applies to USG6305)
USG6310S/6310S-W/6310S-WL-OVS License	LIC-IPSAVURL-12-USG6310S	Resource-USG6310S-IPS-AV-URL Function Group Subscribe 12 Months, (Applies to USG6310S)
	LIC-IPSAVURL-36-USG6310S	Resource-USG6310S-IPS-AV-URL Function Group Subscribe 36 Months, (Applies to USG6310S)
USG6320 License	LIC-IPS-12-USG6300-01	IPS Update Service Subscribe 12 Months (Applies to USG6310/20)
	LIC-IPS-36-USG6300-01	IPS Update Service Subscribe 36 Months (Applies to USG6310/20)
	LIC-URL-12-USG6300-01	URL Filtering Update Service Subscribe 12 Months (Applies to USG6310/20)
	LIC-URL-36-USG6300-01	URL Filtering Update Service Subscribe 36 Months (Applies to USG6310/20)
	LIC-AV-12-USG6300-01	Anti-Virus Update Service Subscribe 12 Months, With HW General Security Platform Software (Applies to USG6310/20)
	LIC-AV-36-USG6300-01	Anti-Virus Update Service Subscribe 36 Months (Applies to USG6310/20)
	LIC-IPSAVURL-12-USG6300-01	IPS-AV-URL Function Group Subscribe 12 Months (Applies to USG6310/20)
	LIC-IPSAVURL-36-USG6300-01	IPS-AV-URL Function Group Subscribe 36 Months (Applies to USG6310/20)
Basic License		
Content Filtering	LIC-CONTENT	Content Filtering Function

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