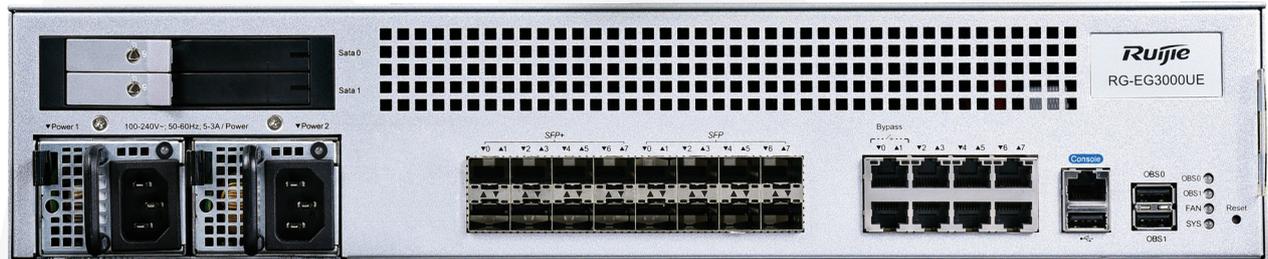


# Next-Generation Integrated Gateway Series

## RG-EG3000UE/XE Datasheet



Ruijie Networks Co., Ltd.

For further information, please visit our website <https://www.ruijienetworks.com>

# Product Overview

Ruijie RG-EG3000UE/XE next-generation highperformance integrated gateway is a high-end gateway product tailored for medium to large-scale network scenarios such as universities, Education Bureau, medium to large enterprises and wireless cities. RG-EG3000UE/XE employs the multi-core MIPS hardware architecture combined with Ruijie's self-developed fast forwarding technology to provide high-speed NAT forwarding performance. The RGEG3000UE/XE next-generation high-performance integrated gateway supports a variety of features including multi-link load balancing, smart DNS, application/user-based routing technologies, smart flow control, AAA (authentication, authorization, and accounting) gateway, online behavior management and visualized IPsec VPN<sup>1</sup>. With its smart scheduling and behavior management technologies for network traffic, RG-EG3000UE/XE can effectively optimize the gateway network, improve service performance, manage online behavior and meet the demands of large-scale network gateway for a wide variety of industries.

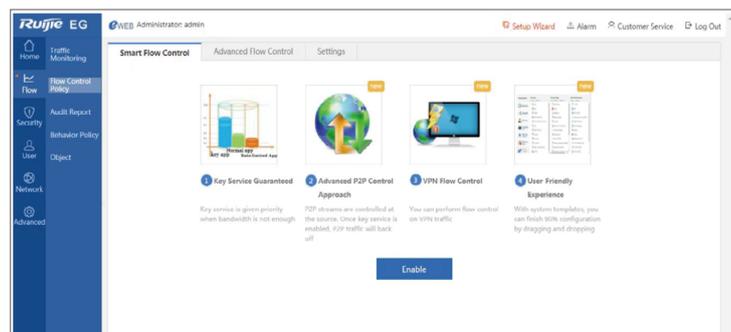
## Highlights

- Smart Flow Control & AAA Integration
- Online Behavior Management
- Integrated IPsec VPN Firewall
- Traffic Analysis
- Centralized Cloud Management
- Intuitive Mobile App
- Integrated Internet Audit Log Storage



# Product 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

Note:

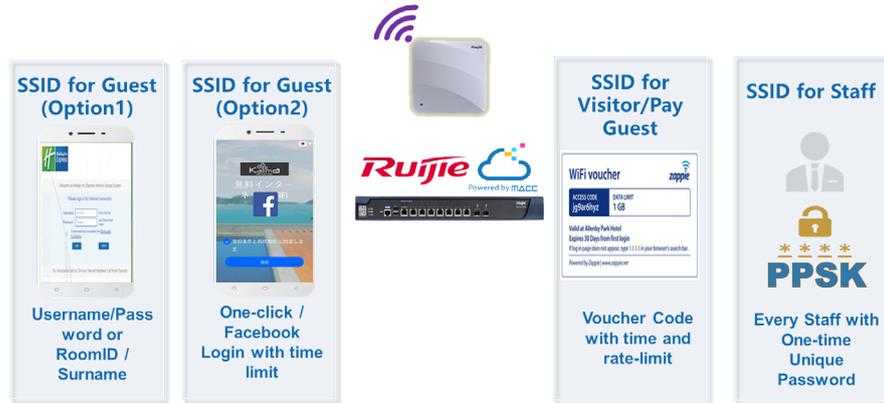
<sup>1</sup>The VPN feature is not available for Russia regions

- 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

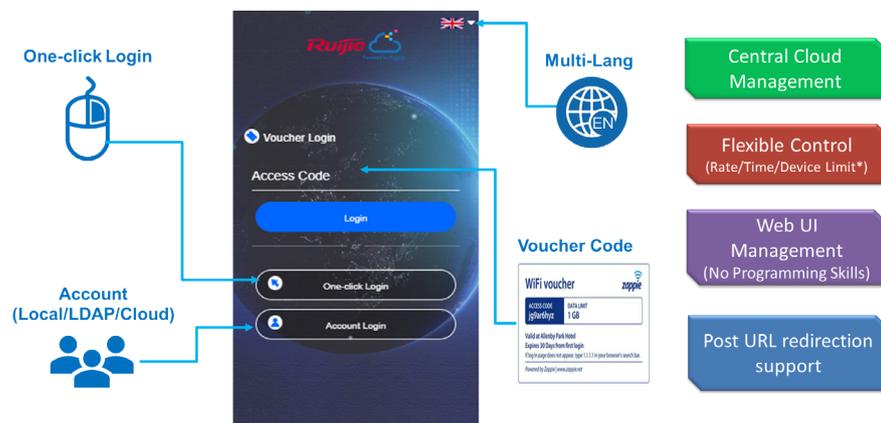
## Flexible Authentication<sup>2</sup>

With integration with Ruijie Cloud Service (<https://www.ruijienetworks.com/products/smb/cloud-service/>), the Ruijie EG Security Gateway provide the easy, secure and flexible authentication experience for various business scenarios.

All account or portal management can be managed at Ruijie Cloud centrally, but all authentication<sup>3</sup> are processed locally at EG Gateway, which guarantee for authentication performance and the highest availability, such that any connectivity error with Ruijie Cloud service will not bring any service interruptions to the user authentication service.



Ruijie EG provide rich access security policy for guest and staff



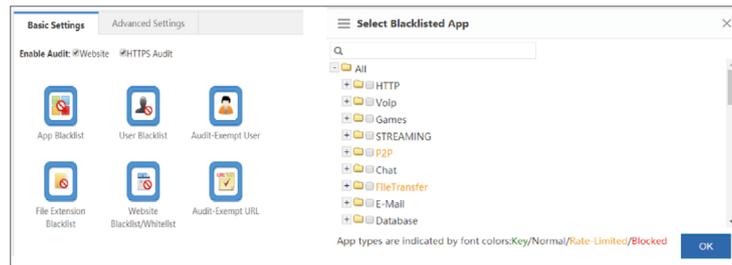
Multiple Logins at same portal - allow for multiple guest access policy simultaneously

Note:

<sup>2</sup> Ruijie Cloud integration required

<sup>3</sup> In exception with Facebook login and PPSK, of which authentication processing will be at Ruijie Cloud

## Online Behavior Management



Ruijie EG Next-generation Unified Security Gateway provides 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<sup>4</sup>



Ruijie SME Security Gateway has significantly simplified the VPN configuration, which could be completed just by a few clicks, eliminating the need for professional maintenance. The gateway enables users to view and control the traffic in the VPN tunnel, establishing a visualized VPN to guarantee the security of key services using VPN.

Note:

<sup>4</sup>The VPN feature is not available for Russia regions

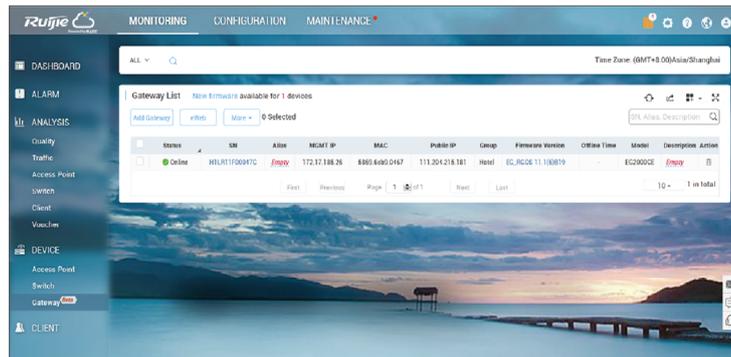
## Traffic Analysis

Equipped with powerful DPI technology, the Ruijie SME Security Gateway collects 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.

App Group Name	Selected App	Action
Key App	DNS,Chat,Voip,E-Mail,Vpn-app,OA_office,Video_conferencing	Edit
Web Page	InstantMessaging_MOBILE,HTTP,Web_MOBILE,HTTPS	Edit
Online Video	HTTP-VIDEO,Video_MOBILE	Edit
P2P Video Streaming	STREAMING	Edit
Download	HTTP-DOWNLOAD,FTP,FTP/ANNTP,DDA,SVN,SMR,Download,Lock_MORBI_F,OnlineStorage	Edit
P2P Download	P2P/SoftwareUpdate	Edit
App Update		Edit
Upload	HTTP-UPLOAD	Edit
Rate-Limited App	Games	Edit
Blocked	DNS-ILLEGAL	Edit
Normal App	File Transfer,Database,NetworkManagement,Protocol,Routing,Security,RTMP,RTSP,PROXIED,CDN,OnlineBank,Game_MORBI_F,Social,Online_MORBI_F,OnlinePayment,Bank_MORBI_F,RFK,CMP,DF-LAI,IP-RAW/IP-PROXIED,IGMP,HTTP-BROWSE-DETAIL,Online_Shopping	The default group cannot be edited

## Centralized Cloud Management

Couple with Ruijie Cloud services, the Ruijie EG Security Gateway is now able to be monitored & managed from the centralized cloud services. Ruijie Cloud is the free cloudbased management platform for all the Security Gateway series. No hardware or servers required to be installed on customer premise. Device monitoring, configuration changes & firmware management can be performed easily in anytime, anywhere & anyway.



Ruijie Cloud Management Platform



Device Status & Traffic Monitoring

Top 10 Applications by Traffic			Top 10 Users by Traffic		
No.	Application	Traffic = Downlink = Uplink	No.	User	Traffic = Downlink = Uplink
1	HTTP-Single-Threaded	490.83 KB 11.61 KB	1	10.10.12.12	490.83 KB 11.61 KB
2	OtherHTTPS	17.06 KB 22.62 KB	2	10.10.12.16	17.89 KB 26.13 KB
3	HTTP-BROWSE	2.41 KB 11.58 KB	3	10.10.12.13	1.95 KB 8.34 KB
4	UDP-COMMUTE	944.00 B 668.00 B	4	10.10.11.79	629.00 B 1.46 KB
5	analyzing_app	616.00 B 1.47 KB	5	10.10.12.11	571.00 B 949.00 B
6	P2P-DOWNLOAD-FLOW	537.00 B 449.00 B	6	10.10.12.20	537.00 B 449.00 B
7	SYN_LACK	530.00 B 1022.00 B	7	10.10.11.74	90.00 B 83.00 B
8	DNS	126.00 B 108.00 B	8	10.10.11.113	90.00 B 83.00 B
9	LOOKMYPC	83.00 B 167.00 B	9	10.10.12.14	90.00 B 83.00 B
10	QQ_Mobile	0.00 B 0.00 B	10	10.10.11.112	90.00 B 83.00 B

Top N Traffic Analysis

## Intuitive Mobile App

The mobile app interface is divided into several sections:

- Network Status:** Shows a hierarchical view of the network including Internet, Cloud\_Voucher, EG2000CE, XS-S1960..., and AP520(W2). Network quality is indicated as 'Good'.
- Top 10 Clients:** A table showing the top 10 clients with their IP addresses and traffic statistics (Downlink and Uplink).
- Device Log:** A log of device events, including version updates, connection status changes, and offline events.
- Rate Summary:** A line graph showing the average rate (Mbps) over the last 24 hours, with separate lines for Uplink and Downlink.
- Top 10 Applications:** A table showing the top 10 applications with their traffic statistics (Downlink and Uplink).



Apart from the accessing cloud management dashboard from workstation, Ruijie offer an alternative to manage Security Gateway from your fingertips, a tailor-made Mobile App you can download from Google Play and Apple Appstore. You can now access to Security Gateway even you're away from your PC.

## 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. Ruijie EG3000UE/XE Security Gateway supports detail logging both on what has happened to the device and what is happening. A local attached 1TB harddisk (purchase separately) provides sufficient storage to keep all the necessary audit logging trail. It increases the higher logging retention period before it is exported to external logging server.

User(IP)	Website	Website Type	Access on	Action
/192.168.2.6(192.168.2.6)	http://online.kugou.com/pull?ver=9068&c...	UNKNOWN CLASS	2019-01-31 17:46:18	Allow
/192.168.2.6(192.168.2.6)	https://avsec.com	UNKNOWN CLASS	2019-01-31 17:45:59	Allow
/192.168.2.6(192.168.2.6)	https://www.baidu.com	Blocked	2019-01-31 17:45:59	Blocked
/192.168.2.6(192.168.2.6)	https://baidu.com	Blocked	2019-01-31 17:45:59	Blocked
/192.168.2.6(192.168.2.6)	http://14.215.177.39/	UNKNOWN CLASS	2019-01-31 17:45:49	Allow
/192.168.2.6(192.168.2.6)	http://14.215.177.38/	UNKNOWN CLASS	2019-01-31 17:45:49	Allow
/192.168.2.6(192.168.2.6)	https://jpush.cn	UNKNOWN CLASS	2019-01-31 17:45:28	Allow
/192.168.2.6(192.168.2.6)	https://ruijienetworks.com	UNKNOWN CLASS	2019-01-31 17:42:25	Allow
/192.168.2.6(192.168.2.6)	https://cloud.tencent.com	UNKNOWN CLASS	2019-01-31 17:39:34	Allow
/192.168.2.6(192.168.2.6)	https://vivo.com.cn	UNKNOWN CLASS	2019-01-31 17:36:07	Allow

Top N Traffic Analysis

## Technical Specifications

Model	RG-EG3000UE	RG-EG3000XE
<b>Basic Features</b>		
CPU	Multi-core MIPS	
Fixed Ports	8 GE combo ports 8 10G SFP+ ports	8 GE combo ports 8 10G SFP+ ports 2 40G QSFP+ ports
Hard Disk	1 hard disk slots (hard disks sold separately)	1 hard disk slots (hard disks sold separately)
Power Slots	2 (Power Supply Unit Included)	
Power Redundancy	Yes (Hot Swappable)	
Memory	32G	
Copper Bypass	1 pair (2 ports)	
Fiber Bypass	2	
Management Ports	1 console port 1 USB 2.0 port	

Model	RG-EG3000UE	RG-EG3000XE
Dimensions (W x D x H) (mm)	440*550*88.1	
Rack Height	2U	
Weight	14.3KG	
Power Supply	AC input: Rated voltage range: 100V to 240V AC Maximum voltage range: 90V to 264V AC Frequency: 50Hz to 60Hz	
Power Consumption	<150W	
Performance & Feature		
Performance	42 Gbps (1518 bytes) 30 Gbps (512bytes) 8 Gbps (64 bytes)	60 Gbps (1518 bytes) 40 Gbps (512bytes) 11 Gbps (64 bytes)
Concurrent Session	8 Mils	16 Mils
Recommended Concurrent User <sup>5</sup>	10K	20K
Portal Authentication Capacity	5K (Max Concurrent Users)	10K (Max Concurrent Users)
Portal Authentication Type	Username/Password Auth (Local, Windows-based AD/LDAP Integration) One-click Authentication; Guest Voucher (Ruijie Cloud required)	
Seamless Authentication (Portal)	Support	
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 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 Support QoS (PQ, CQ, FIFO, WFQ, CBWFQ, etc.)	
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, QQ, YAHOO & etc. Software Update: Window, McAfee, Kaspersky, ESET & etc. Cloud-based File Collaboration: GoogleDrive, Dropbox, OneDrive, iCloud & etc. Enterprise Application: HTTP, FTP, SMTP, POP3, IMAP, Telnet, LOTUS-NOTES, SQL Server, Oracle, Mysql, HTTPS & etc.	
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 Prevent Fragmentation Attack	

Note:

<sup>5</sup>Each user approx. 300 concurrent sessions with 1Mbps internet traffic

Model	RG-EG3000UE	RG-EG3000XE
Network Security	Prevent ICMP Flood Attack Prevent Teardrop Attack Prevent Ping of Death Attack Prevent Land Attack Prevent Smurf / Fraggle attack Prevent SYN Flood Attack	
URL Filtering	Support custom URLs Support remote HTTP automatic URL library upgrade Local log storage (NAT log, traffic log, URL log, etc.) Support storage on external log server	
IPsec VPN Tunnel <sup>6</sup>	4000	
Layer 2 Features	Support Bridging Support LAN Port Aggregation	
Ruijie Cloud Integration Feature	Support device health monitoring status Support centralized configuration change management & backup Support Top 10 Application/User traffic visualization Support device firmware management Support event-based alarm notification	
Other Features	Support web authentication Support push advertising page Support IPsec VPN Support smart DNS Support multi-link load balancing Support remote HTTP online upgrade for signature library, software version, etc.	
Service and Support	Support multi-link load balancing Support remote HTTP online upgrade for signature library, software version, etc. Lifetime Free signature library upgrade	

Note:

<sup>6</sup>The VPN feature is not available for Russia regions

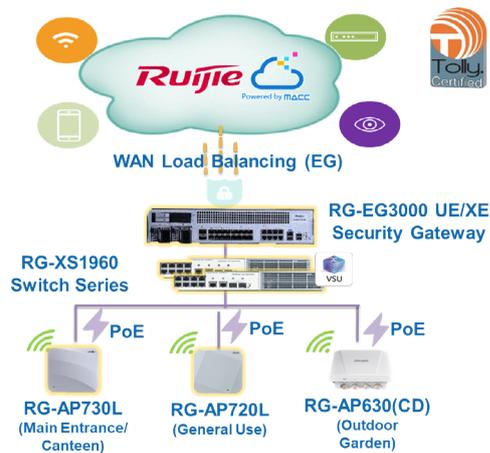
# | Typical Application

Ruijie RG-EG3000UE/XE next-generation high-performance integrated gateway is a high-end gateway product tailored for medium to large-scale network scenarios such as Universities, Shopping Centre, International Conference/Event/Festival, Smart Cities and E-government Internet.

## Integrated Authentication, Flow Control and Traffic Analysis for Universities

### University/Shopping Centre

### Ultrafast Login & App Download Acceleration



**Challenges:**

- × Slow portal authentication
- × Difficulty on Wi-Fi optimization
- × Lack of budget for Enterprise big band

#### Our Solutions:

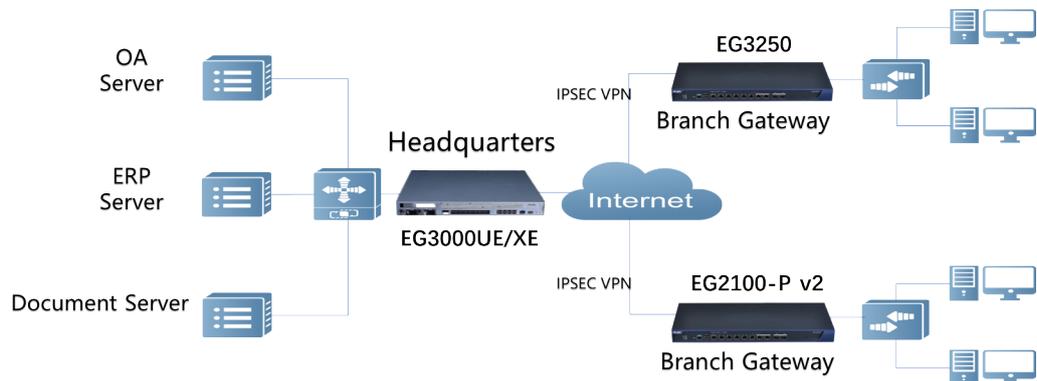
 10K+ High-density Wi-Fi	 Flexible Authentication
 Internet Prioritization (L7 DPI)	 Internet Compliance Audit (Integrated HDD)

Integrated Gateway for Authentication, Flow Control and Traffic Analysis in Universities

#### Application Features:

- Multi-link load balancing makes full use of the limited network bandwidth by efficient traffic allocation based on bandwidth/load
- RG-EG3000UE/XE can be deployed as authentication gateway and integrate with Ruijie Cloud service to achieve easy, secure and flexible unified campus network authentication management
- With application-based routing, designated applications are allocated with specified routes (for example, hightraffic P2P applications are allocated to routes of cheaper bandwidth) for more efficient traffic allocation and saving bandwidth cost
- With build-in HDD storage, NAT/URL internet activities are stored for future internet compliance log purpose

## Enterprise Headquarters & Branches



Enterprise site-to-site VPN networks for Headquarters and Branches

Application Features:

- Multi-link load balancing makes full use of the limited network bandwidth by efficient traffic allocation based on bandwidth/load
- Equipped with powerful DPI technology, the Ruijie SME Security Gateway collects 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.
- All VPN traffic and site topology or VPN tunnel status easily be visualized by built-in VPN Web GUI module

## Ordering Information

Model	Description
RG-EG3000UE	All-in-one Unified Security Gateway, 8 GE combo ports, 8 SFP+ ports, 1 Hard disk slots (HDD sold separately), 2 Power Slots (Hot Swappable, 2 Power Supply Unit included), 2U RMU (Free lifetime L7 DPI signature update)
RG-EG3000XE	All-in-one Unified Security Gateway, 8 GE combo ports, 8 SFP+ ports, 2 QSFP+ ports, 1 Hard disk slots (HDD sold separately), 2 Power Slots (Hot Swappable, 2 Power Supply Unit included), 2U RMU (Free lifetime L7 DPI signature update)
RG-Gateway-HDD-1T	1T Hard Disk Drive for EG RG-EG3000UE/XE

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