

Ruijie EasyGate Unified Security Gateway

RG-EG3250/ RG-EG2100-P V2



Ruijie Networks Co., Ltd.

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

Product Overview

Ruijie EasyGate (EG) Next-generation Unified Security Gateway is a multi-functional Cloud Managed Security Gateway product for various industries. Equipped with high-performance multi-core MIPS hardware architecture, the EG Gateway supports a wide range of features such as high-performance NAT, WAN load balancing, smart flow control, online behavior management, visualized IPsec VPN¹, web authentication, etc.

Taking advantage of integrated Hard Disk Drive² (HDD), the EG Security Gateway can provide local storage for Internet activities logging, which is essential for National Internet Security Compliance in many countries.

Ruijie EG Next-generation Unified Security Gateway is also supported by Ruijie Cloud, altogether with switches and wireless access points, Ruijie Cloud can provide a comprehensive secure networking platform for centralized management allowing for device monitoring, configuration as well as firmware management.

For ease of provisioning, Ruijie provide an innovative Mobile App Dummy Provisioning³ 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.

There are two models available for Security Gateway, RG-EG3250 & RG-EG2100-P v2.

Feature highlights of Ruijie EG Next-generation Security Gateway Series:



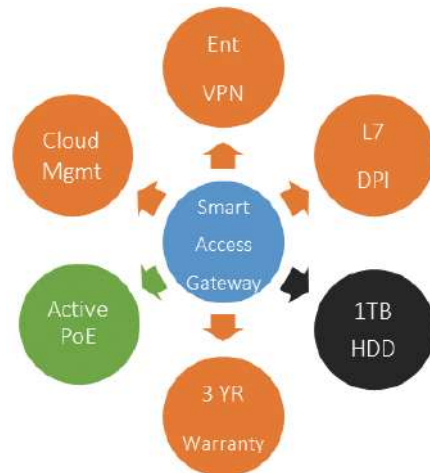
RG-EG2100-P v2



RG-EG3250

Highlights

- Smart Flow Control & AAA Integration
- User Online Behavior Management
- VPN & Traffic Visualization
- FREE Cloud Management
- App Caching for Download Acceleration
- Built-in Internet Audit Log Storage (EG3250)
- Built-in Power-Over-Ethernet Integration (EG-2100-P v2)
- Mobile App Dummy Provisioning (EG-2100-P v2)



Note:

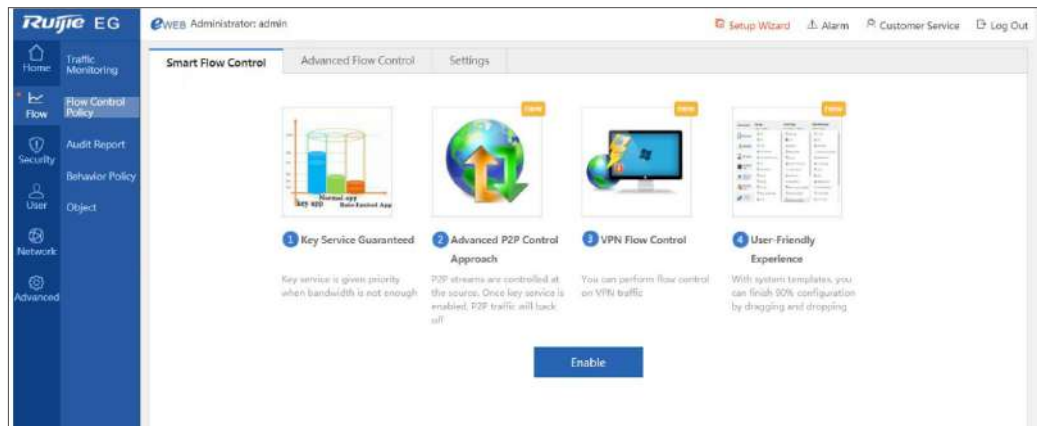
¹ The VPN feature is not available for Russia regions

² Available for RG-EG3250 model

³ Available for RG-EG3250 model, and at least one Ruijie Wireless Access Point is required

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
- 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 Authentication⁴

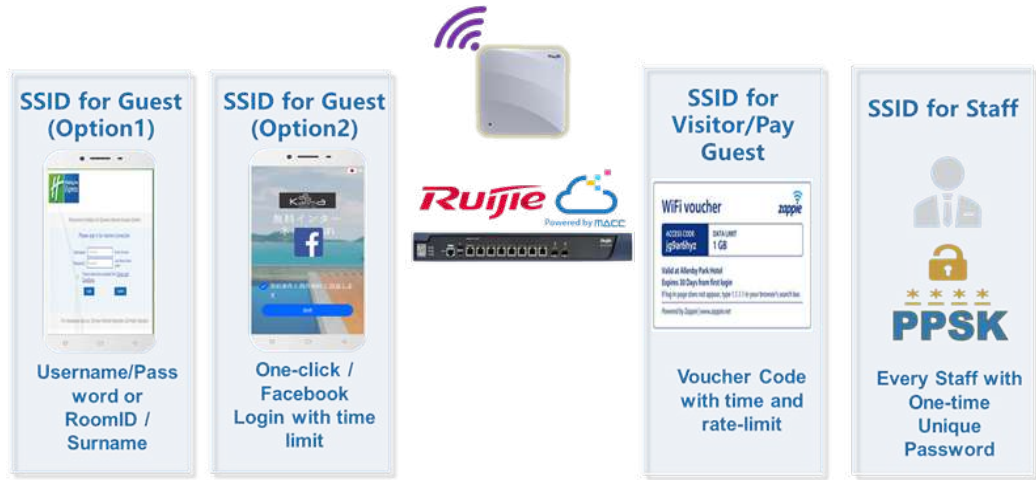
With integration with Ruijie Cloud Service (<https://www.ruijienetworks.com/products/smb/cloud-service/>), the Ruijie EG Security Gateway provide the easy, secure and flexible authentication experience for various business scenarios.

All account or portal management can be managed at Ruijie Cloud centrally, but all authentication⁵ 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.

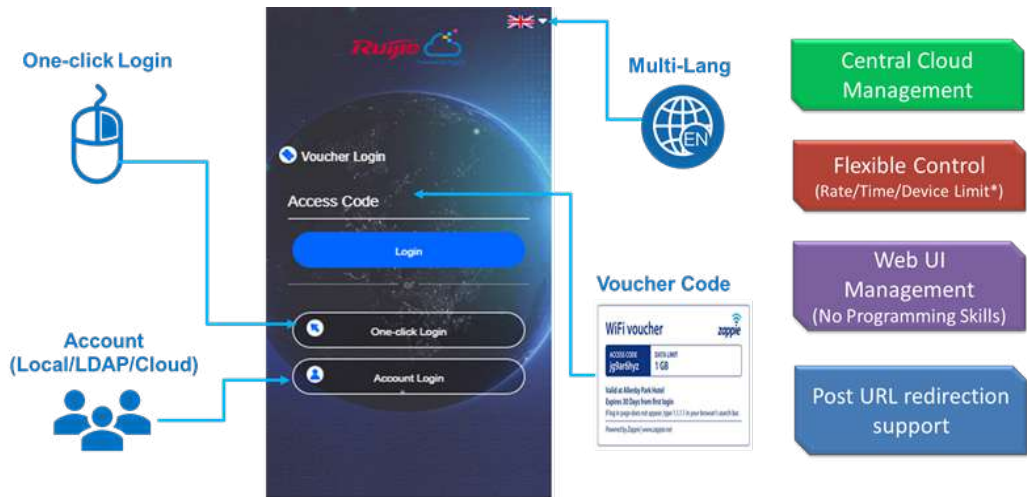
Note:

⁴Ruijie Cloud integration required

⁵In exception with Facebook login and PPSK, of which authentication processing will be at Ruijie Cloud

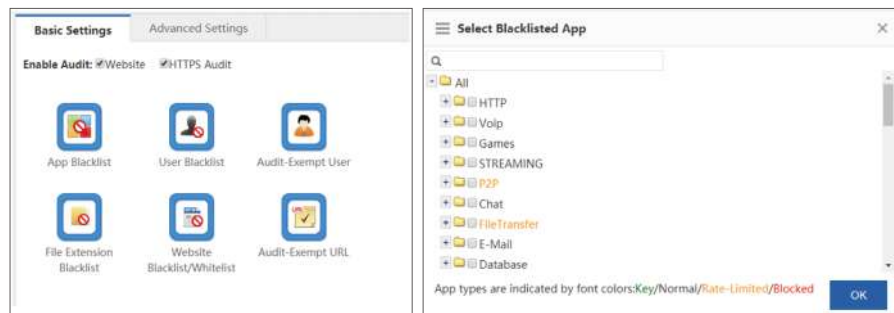


Ruijie EG provide rich access security policy for guest and staff



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

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.

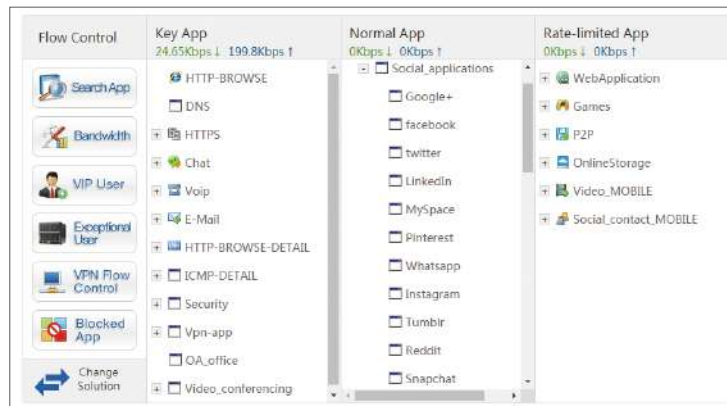
VPN Visualization⁶



Ruijie 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.

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.



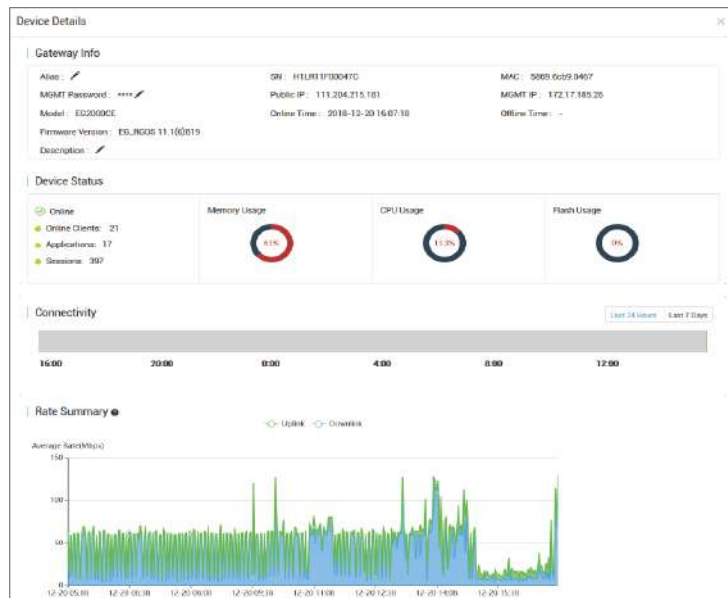
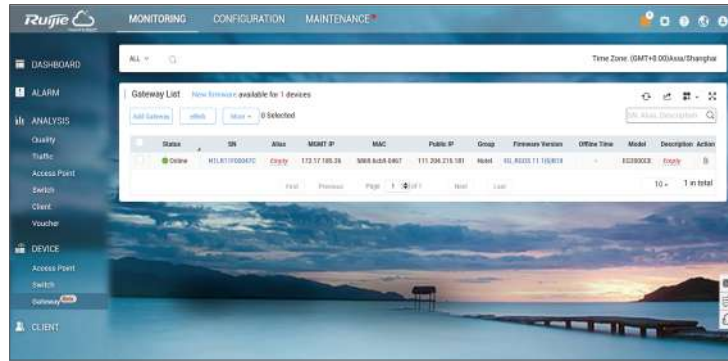
Centralized Cloud Management

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 cloud-based management platform for all the Security Gateway series. No hardware or servers

Note:

⁶ The VPN feature is not available for Russia regions

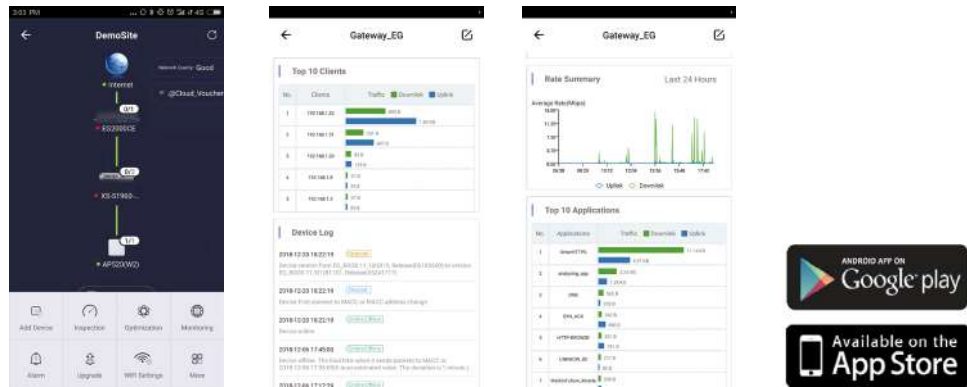
required to be installed on customer premise. Device monitoring, configuration changes & firmware management can be performed easily in anytime, anywhere & anyway.



| Top 10 Applications by Traffic | | | Top 10 Users by Traffic | | |
|--------------------------------|----------------------|-----------------------------|-------------------------|--------------|-----------------------------|
| No. | Application | Traffic = Downlink + Uplink | No. | User | Traffic = Downlink + Uplink |
| 1 | HTTP-Single-Threaded | 11.61 KB 490.83 KB | 1 | 10.10.12.12 | 11.61 KB 490.83 KB |
| 2 | OtherHTTPS | 17.06 KB 29.47 KB | 2 | 10.10.12.16 | 17.09 KB 26.12 KB |
| 3 | HTTP-BROWSE | 2.41 KB 11.89 KB | 3 | 10.10.12.13 | 1.95 KB 8.34 KB |
| 4 | UDP-COMMUTE | 344.00 B 666.00 B | 4 | 10.10.11.79 | 520.00 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 | 527.00 B 449.00 B | 6 | 10.10.12.20 | 527.00 B 449.00 B |
| 7 | SYNACK | 530.00 B 1022.00 B | 7 | 10.10.11.74 | 90.00 B 83.00 B |
| 8 | DNS | 136.00 B 108.00 B | 8 | 10.10.11.119 | 90.00 B 83.00 B |
| 9 | LOOKMYPIC | 83.00 B 107.00 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 |

EG Security Gateway Device Info and Top N Traffic Analysis on Rujie Cloud management platform

Intuitive Mobile App



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.

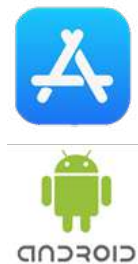
Mobile App Provisioning for Dummy



For ease of provisioning, Ruijie provide an innovative Mobile App Dummy Provisioning⁷ 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

Ruijie EG Gateway provide exclusive Caching technology for any media files resources and Mobile App (Google Android APK and IOS Store), the files will download from EG 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.



Note:

⁷ Available for RG-EG3250 model, and at least one Ruijie Wireless Access Point is required

One of most popular application is for shopping malls, retails chain, F&B, Airport, Metro Company with own Mobile App for O2O business, membership promotion, and value-added service. Guest or Vistors very often will download the same Mobile App during the peak hours, and long downloading is defintely expected because of Internet or Server-side bottleneck issues.

| Resource Name | Resource Size | Hit Times | Hit Traffic |
|--|---------------|-----------|-------------|
| 172.31.61.15/tavikon.ico | 739B | 5 | 3.61KB |
| 172.31.61.15/RuijieCloudAppV1.3.3trial.apk | 25.48MB | 3 | 76.44MB |

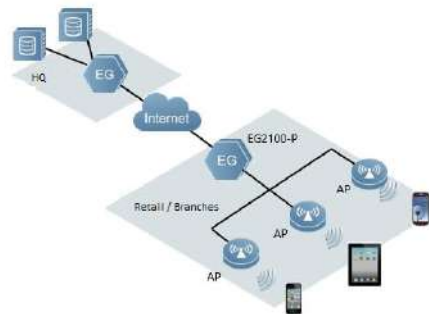
EG Security Gateway Hot Spot Resource Table: Review for the Hit Ratio for cache resources

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 SME Security Gateway (EG3250 model only) supports 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 increase the higher logging retential 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) | https://34.215.177.39/ | UNKNOWN CLASS | 2019-01-31 17:45:49 | Allow |
| /192.168.2.6(192.168.2.6) | http://34.215.177.38/ | UNKNOWN CLASS | 2019-01-31 17:45:49 | Allow |
| /192.168.2.6(192.168.2.6) | https://push.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 |

Built-in Power-Over-Ethernet (POE)



Designed for retail, small organizations and distributed enterprises with remote and branch offices, the RG-EG2100-P v2 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. Cost and time saving!

Technical Specifications

| Model | RG-EG2100-P v2 | RG-EG3250 |
|--|--|---|
| Hardware Specification | | |
| CPU | Multi-core MIPS | |
| Fixed Ports | 8 1000BASE-T ports (7x POE/POE+) | 8 1000BASE-T ports 1 SFP port 1 SFP+ port (non-combo) |
| WAN Ports | Upto 2 | Upto 6 |
| Flash | 4GB EMMC | 8M SPIFLASH |
| Hard Disk | N/A | Standard 1TB |
| Memory | 512M | 2G |
| Performance & Feature | | |
| Performance | 1000Mbps (1518 bytes) | 6000Mbps (1518 bytes) |
| | 450Mbps (512bytes) | 3725Mbps (512bytes) |
| | 70Mbps (64 bytes) | 800Mbps (64 bytes) |
| Concurrent Session | 100,000 | 600,000 |
| Recommended Concurrent User ⁸ | 300 | 2000 |
| Portal Authentication Capacity | 100 (Max Concurrent Users) | 1000 (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 | |
| App Caching | Support | |
| Cache Capacity | 750MB | 100GB |
| Cache Resources | Android APK & Apple IOS | Android APK & Apple IOS; Windows System Patches |
| 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 | |

Note:

⁸Each user approx. 300 concurrent sessions

| Model | RG-EG2100-P v2 | RG-EG3250 |
|------------------------------------|--|--|
| 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. | |
| 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 | |
| WAN Load Balancing | Support (upto 2 WAN Port) | Support (upto 6 WAN Port) |
| IPsec VPN Tunnel ⁹ | 16 | 1000 |
| 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 Prevent ICMP Flood Attack Prevent Teardrop Attack Prevent Ping of Death Attack Prevent Land Attack Prevent Smurf / Fraggle attack Prevent SYN Flood Attack | |
| Layer 2 Features | N/A | 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 | Integrate with AAA software to support multiple authentication modes | |
| Other Features Service and Support | Support push advertising page | |
| | Support multi-link load balancing | |
| | Support remote HTTP online upgrade for signature library, software version, etc. | |
| | Lifetime Free signature library upgrade | |
| Rack Height | 1U | 1U |

Note:

⁹The VPN feature is not available for Russia regions

| Model | RG-EG2100-P v2 | RG-EG3250 |
|--------------------------------|----------------------|-------------------------|
| Weight | 2kg | 4kg |
| Power Supply | 100-240V~,50-60Hz,3A | 100-240V~,50-60Hz,0.65A |
| PoE Budget | 135W | NA |
| Power Consumption | <150W | <25W |
| Dimensions (W x D x H) (mm) | 200 x 200x43.6 | 440 x 200 x 43.6 |
| Operating Temperature | 0° C to 45° C | 0° C to 40° C |
| Operating Humidity | 10% to 90%RH | 10% to 90%RH |

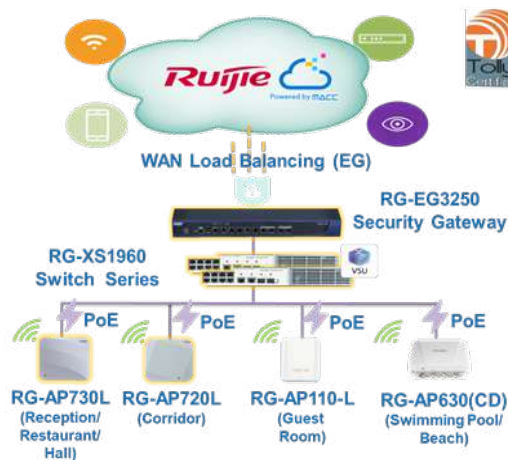
Typical Application

Ruijie EasyGate Next-gen Unified Security Gateway is a multi-functional security gateway product integrated with NAT, security, acceleration, flow control and online behavior management features, which is designed to optimize Internet Gateway Solutions, providing customers with simplified Internet gateway network, optimized Internet experience, flexible online behavior management and other features.

Security Gateway can be applied as Internet gateway for scenarios such as hotels, shopping mall, higher education, primary and secondary schools, enterprise networks, retails, small business, etc.

Boutique Hotel

5-Star Guest Wi-Fi Experience



Challenges:

- × Internet rating dropped due to BAD Wi-Fi
- × No dedicated IT team
- × No MONEY for Enterprise-grade big brand

Our Solutions:

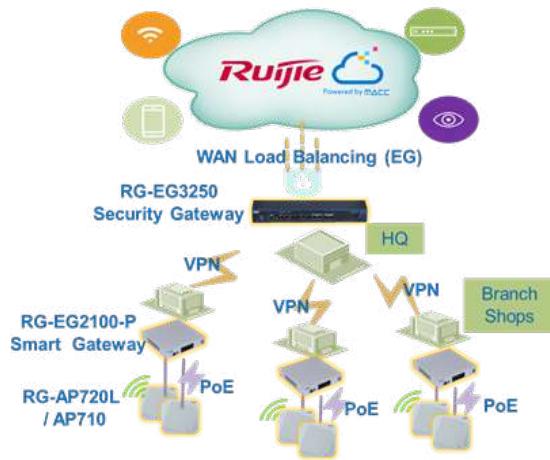
- No WiFi Controller at Premises
- Flexible Guest Auth (w/o PMS)

- WAN Load Balancing
- Internet Compliance Audit (Integrated HDD)

Typical Application Scenario for Hotel and SME Office

Retail Chain / F&B

FREE Central Cloud Management with Easy Provisioning



Challenges:

- × Site settings changes need to do one by one
- × Time consuming for onsite troubleshooting
- × No budget for Enterprise brand big band
- × Slow download for Membership Mobile Apps

Our Solutions:

-  FREE Cloud Management
-  Secure Site-to-Site VPN
-  Multi-lang Guest Portal
-  Mobile App Caching

Typical Application Scenario for Retail Chain store

Application Features:

- Support integration with AAA authentication and Ruijie Cloud unified management
- Multi-link load balancing makes full use of the limited network bandwidth by efficient traffic allocation based on bandwidth/load
- Support user online behavior management such as blacklist URL blocking, user activity tracking and URL monitoring, etc.
- Feature-rich L7 Application visibility to track user traffic and apply necessary remediation
- All VPN traffic and site topology or VPN tunnel status easily be visualized by built-in VPN Web GUI module
- With build-in HDD storage, NAT/URL internet activities are stored for future internet compliance log purpose
- Unique App Caching (both EG2100P v2 and EG3250) provide ultrafast O2O Mobile App download experience

Ordering Information

| Model | Description |
|----------------|--|
| RG-EG3250 | All-in-one Unified Security Gateway, 8 GE ports (upto 6 WAN port), 1SFP, 1SFP+ ports (non-combo) , 1TB Hard disk (Lifetime free L7 DPI signature update) |
| RG-EG2100-P v2 | All-in-one Smart Access Gateway, 8 GE ports (upto 2 WAN & 7 LAN port) upto 7x POE/POE+ (Lifetime free L7 DPI signature update), Rack Mount Kit included |

Ruijie



Ruijie Networks Co., Ltd.

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

All rights are reserved by Ruijie Networks Co., Ltd. Ruijie reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.