

Reyee Series Implementation Cookbook (V1.2)



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1 Preface

Audience

Network Engineers

Network Administrator

Obtain Technical Assistance

Ruijie Networks Websites: https://www.ruijienetworks.com

Ruijie Service Portal: https://caseportal.ruijienetworks.com

Welcome to report error and give advice in any Ruijie manual to Ruijie Service Portal

Revision History

Date	Change contents	Reviser
2020.8	V1.0 Initial publication	Nick Chen
2020.11	V1.1 Fix a typo.	Nick Chen
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2 Product Introduction

2.1 Cloud-managed Access Points

Reyee cloud-managed access point is a high performance for indoor/outdoor/wall scenarios. Compliant with 802.11ac wave2 Wi-Fi protocol, cloud-managed series access points support MU-MIMO dual stream technology. The industrial product design makes the product is simple to install and maintenance.

Cloud-managed access points support self-organizing network.

Provide better performance based on Dual-band Wi-Fi

Supports 2.4GHz and 5GHz dual-band communication, providing access rate of 400Mbps at 2.4GHz, 867Mbps at 5GHz and up to 1267Mbps per AP. It can provide 5GHz frequency band with less interference, wider channel, and faster speed for the terminals, allowing the users to enjoy excellent wireless experience.

Seamless Layer 3 Roaming

The device supports Layer 3 roaming for the complex Layer 3 network. When users move across the Layer 3 networks, seamless roaming can be achieved without service interruption.

Support Self-organizing networking feature

Self-organizing networking feature, which breaks through the product limitations and realizes auto-discovery, auto-networking and auto-configuration between routers, switches, and wireless APs without the need for controllers or Internet access. With the mobile app, users can quickly complete the device deployment and configuration, remote management, operation and maintenance of the entire network, which greatly reduces the investment of equipment cost, labor cost and time cost in the process of wireless network construction.

2.2 Reyee Switch

Reyee switches are designed to offer reliable and professional choices to businesses of all sizes. Unmanaged switches are well suited for businesses requiring no management or monitoring of their LAN, smart/L2 switches provide a cost-effective solution for small and medium-sized businesses, and L3 managed switches provide a scalable and stable solution for large organizations, campus networks and ISP networks.

Ruijie Cloud App/ Ruijie Cloud Platform Remote Management

The Reyee managed switches not only support web interface management, but also support life time free Ruijie Cloud App and Ruijie Cloud platform remote management. Users can view the network status, modify the configuration, and troubleshooting at home. In addition, the PoE port can be restarted remotely to restart the faulty PoE camera. With the mobile

app, users can quickly complete the device deployment and configuration, remote management, operation and maintenance of the entire network, such as NVR/ Camera recognition, configure VLAN, real time monitoring, real time alarm, and reboot remotely, which greatly reduces the investment of equipment cost, labor cost and time cost in the process of wireless network construction.

Self-Organizing Networking Feature

Self-organizing networking feature, which breaks through the product limitations and realizes auto-discovery, auto-networking and auto-configuration between routers, switches, and wireless APs without the need for controllers or Internet access.

Full-Power PoE Supporting PoE Cameras at Maximum Capacity

Ruijie Reyee smart surveillance switches support full-power PoE output, powering PoE network cameras for all PoE ports simultaneously. Whether it is day or night, the infrared light of the camera is on or off, it can ensure that all PoE network cameras are powered.

2.3 EasyGate Series Router

Ruijie Reyee RG-EG series Router is a cloud managed router designed for villas and smart home, restaurant, small offices, homestay hotel. it is affordable, small and easy to use, but at the same time comes with 500M-600M bandwidth and supporting up to 200 terminals.

RG-EG series can perform per-port VLAN configuration to achieve port isolation, and integrate with smart flow control to achieve comprehensive network planning and perform local and remote network diagnosis.

2.4 EST310 Bridge

5GHz wireless bridge, including 2 devices for the recorder-end and camera-end, paired by default without requiring any configuration, 1 100M LAN port, up to 867Mbps throughput, built-in directional antenna, support one-to-many bridging, EWeb/ Ruijie Cloud app management, 12VDC and 24VDC non-standard PoE, wall-mounted/ pole-mounted installation

3 Daily Maintenance

3.1 Device Login

eWeb is a Web-based network management system that manages or configures devices. You can access eWeb via browsers such as Google Chrome.

Web-based management involves a Web server and a Web client. The Web server is integrated in a device, and is used to receive and process requests from the client, and return processing results to the client. The Web client usually refers to a browser, such as Google Chrome IE, or Firefox.

Network Topology

As shown in the figure below, you can access the eWeb management system of an access or aggregation switch via a PC browser to manage and configure the device.



1) Set PC's IP assignment mode to Obtain an IP address automatically.

2) Visit http://192.168.110.1 by Chrome browser.

3) Enter the password on the login page and click "Login".

Default Password: admin

RUJJE Hi, Eg205G
Login Forgot Password? English v

Google Chrome and IE browser 9, 10 or 11 are supported. Copyright@2000-2020 Ruijie Networks Co., Ltd.

For the Reyee EG device, you may use either 192.168.110.1 or 10.44.77.254 to access the device.

For the Reyee switches, you may use 10.44.77.200 to access the device.

For the Reyee AP, you may use either 192.168.120.1 or 10.44.77.254 to access the device.

For the EST, you may use 10.44.77.254 to access the device.

The default login password for all Reyee devices is admin.

You may visit <u>https://10.44.77.253</u> to login to the master device of Reyee network.

3.2 Change Password

Login to the master device and choose **Network → Password** to change the device password.

Ruijie	Reyee > Ruijie (Masker) 0	English 🗸 🛆 MAC	C 🔁 Download App	🚖 Network Setup	ଷ୍ଟ Network Check	<u> 처</u> Alarms	🕞 Exit
윰Overview	Device Password						
Online Clients	Change the device password. Please log in again with the	new password later.				C	?
🖽 Gateway	* Old Password						
₩ireless	* New Password	P					
🖻 Switches	* Confirm Password	P					
Setwork ^	Save						
Time							
Password							
Scheduled Reboot							
Reboot & Reset							

3.3 Factory Reset

Option 1: Press the "Reset" button on the device for more than 5 seconds to factory reset the device.

Option 2: Login to the eWeb of the device reset all device in the network.

Ruijie	Reyee > Ruijie (Missing) • MACC _ Download App & Network Setup & Network Check _ Alarms	s 🕞 Exit
움Overview	Network Management	
Online Clients	V Network Management	0
🖽 Gateway	In the action here may affect the whole network. Please be cautious. If the page does not respond, please log in again.	
分 Wireless ∨	Network Management	
🗟 Switches	Action Reboot Reset	
Setwork ^	Option Unbind Account (The devices of this account will be removed from MACC and will not be managed by this account).	
Time	ОК	
Password		
Scheduled Reboot		
Reboot & Reset		

4 Quick Provisioning

4.1 Quick provisioning via Ruijie Cloud APP





1) If your mobile phone does not have the Ruijie Cloud App installed, please search "Ruijie Cloud" on App Store and install it on your mobile phone. Below is an example of searching "Ruijie Cloud" on Google Play Store. Tap INSTALL to install the App directly.

2) Ruijie Cloud App provides a quick start to Create Network and Add Device. You can follow the steps below to finish provisioning.

Step1: Connect to the Wi-Fi with Reyee AP.

Step2: Choose the SSID of "@Ruijie_mXXXX".

Step3: Check all the devices are detected.

Step4: Add the project name and password.

Step5: Finish the WAN configuration.

Step6: Add the wireless configuration.

Step7: Finish all the configuration.

Step8: Devices all online in Ruijie Cloud.

Project Q 🕣	Choose How to Create Project	C Discover Device Can not find devi
My Shared Project Case	Connect Wi-Fihome Please connect to the WiFi:	3 devices are detected. Unmanaged/NBS switches are not displayed.
	Letter m or b	
Reyee321 3	Last 4 digits of device MAC Wait until 중 appears, and return to Ruijie Cloud App to	
Creation Time: 2020-07-08 16:09:34	continue.	E01950 E01950 E12290C-P
X Choose How to Create Project		RAPIZO(E)
Scan or enter SN For Enterprise/Reyee devices	OK	Test Again Start Config
01	02	03
	< Basic Config	< Add WiFi
Project Config → WAN Config	< Basic Config Project Config → WAN Config	Add WiFi Please enter the SSID and password. SSID
Project Config → WAN Config		Please enter the SSID and password.
Project Config → WAN Config roject Name TestRY	Project Config → WAN Config	Please enter the SSID and password.
Project Config → WAN Config Project Name TestRY Management Password	Project Config → WAN Config Linkt(WAN0) PPPoE DHCP Static IP	Please enter the SSID and password. SSID Reyectest
Project Config → WAN Config roject Name TestRY Annagement Password	Project Config → WAN Config Linkt(WAN0) PPPoE DHCP Static IP IP 172.18.158.150 Subnet Mask	Please enter the SSID and password. SSID Reyectest
Project Config → WAN Config roject Name TestRY Annagement Password	Project Config → WAN Config Linkt(WAN0) PPPoE DHCP Static IP IP 172,18,158,150 Subnet Mask 255,255,255,0 Config → WAN Config	Please enter the SSID and password. SSID Reyectest
Project Config → WAN Config Project Name TestRY Management Password ••••••••••••••••••••••••••••••••••••	Project Config → WAN Config Linkt(WAN0) PPPoE DHCP Static IP IP IP I72.18.158.150 Subnet Mask	Please enter the SSID and password. SSID Reyectest
Project Config → WAN Config Project Name TestRY Annagement Password	Project Config → WAN Config Linkt(WAN0) PPPoE DHCP Static IP IP 172.18.158.150 Subnet Mask 255.255.255.0 Gateway	Please enter the SSID and password. SSID Reyectest
Project Config → WAN Config troject Name TestRY Annagement Password	Project Config → WAN Config Linkt(WAN0) PPPoE DHCP Static IP 172.18.158.150 Subnet Mask 255.255.255.0 Gateway 172.18.158.1	Please enter the SSID and password. SSID Reyectest
Project Config → WAN Config troject Name TestRY Annagement Password	Project Config -> WAN Config Linkt(WAN0) PPPoE DHCP Static IP IP 172.18.158.150 Gateway 172.18.158.1 DNS Server	Please enter the SSID and password. SSID Reyectest

< Add succeeded	۲ TestRY O	< TestRY 4
Add succeeded	Hotel Project Status Uptime Od 0h	Hotel Project Status Uptime Excellent > 0d 0h
WI-Fi @Ruijie-m111 Password No Password Management Password ruijie123	ESS200-P BIAPS2000E	Online Devices: 3 Offline Devices: 0 Enterent Contor Control Contor Control Contor Control Contor Co
Enter Project	User Experience No Data	Online Client 4 User Experience
07	Tool Kit Hotel Config	Tool Kit Hotel Config

4.2 Quick provisioning via Reyee EWeb

Network Topology



Step 1: Login to Reyee EWeb (<u>http://192.168.110.1</u>), the local devices will be discovered automatically.

Net Status (Online Devices / Total)					Refresh 5
	Internet	Gateway 1 Gateway	1/1 Switches	হি 0/0 APs	
My Network					
New Device (2 devices)					~
Model	SN	IP Address	MAC	Software Ver	
Gateway EG105G [Master]	1234567890123	192.168.110.1	00:D0:F8:11:11:11	EG_3.0(1)B11P30,Release(07181202)	
Switch RG-ES226GC-P	G1NW12E000307	192.168.110.223	00:D0:F8:20:99:99	ESW_1.0(1)B1P2,Release(07181013)	

Step 2: Create a network based on the actually scenario (PPPoE/DHCP/Static IP Address).

		English 🕥 🗗 Exit
* Network Nam	Reyee	
* Passwor	ا »،ه مه	
IP Assignmen	t O PPPoE O DHCP O Static IP Address Current IP	
* IP Addres	Current Settings: DHCP 172.18.158.150	
* Submas	255.255.255.0	
* Gatewa	172.18.158.1	
	192.168.58.95	
	Reyee666	
- 221		
	Encrypted Open	
* Time Zon	: (GMT+8:00)Asia/Shanghai	
	Previous Create Network & Connect	

Ruijie Create Network	English 👻 🕒 Ext
* Network Name	Rej
* Password	
	Succeeded.
IP Assignment	Current • Project Name: Reyee
* IP Address	172. • SSID: Reyee565
* Submask	Password: rullle123
- Suumask	255 Redirecting
* Gateway	172.18.198.1
5 DINS Server	192 168.58.95
	176.196.2633
* SSID	Reyee556
	🗇 Encrypted 🔹 Open
* Time Zone	(GMT+6:00)Asia/Shanghal
	Previous Create Network & Connect

Step 3: Login to your Ruijie Cloud Account.

Ruíjie	Network Setup	English 🗸 🕞 Exit
	Please enter your Ruijie Cloud account to log in.	
		(

Step 4: Select the project type.

	1 Select Template	2 Enable	Services 3	Complete	
elect the project type.					
Project Type					
Office	Hotel				
Hotel	You can add W	/LAN, wired network, and enable	loop prevention, DHCP Snoopin	g and flow control by one click.	
CCTV					
Other	Preview				
	Typical topology	A Sample hotel		A lepind lepinkay	Add a security gateway
	• Contract Total and Add Add Add Add Add Add Contract Add Add Add Add Add Add Add Add Add Add Add Add Add Add Add	1000 Hothody Junning 240 Hot Hothody Junning 240 Hothody Hothody Junning	Werks reteated planning The transmission stands in the stands are unable The transmission stands in the stands are unable The transmission stands are unable	Analyze A	Da postante a sector de la companya de

Step 5: Enable the services as you need and apply the config.

Ruijie Network Setup			English 🛹 🕒 Ex
	Select Template	Enable Services	- 3 Complete
Topology C Refresh a Gateway1 & Swiddi & AC: 0 & AP: 0 0 Tip: Drag to move the topology @ @ @ @	Reyee Hotel Succeeded to generate the actual top	ology. Click Refresh to update.	≆ VLAN Management on AP
()	Vou can enable the following services 1. Configure Network Wired Network	according to your requirements.	WIAN
	+	Add (Divide VLAN)	+Add (WiFi)
wan-5			1 Hotel WLANs are configured and can be enabled.
• 601056 5N: 12355780123			Reyee666 IP Segment192.168.125.2-192.168.125.250 Dynamic VLAN: 125
[an-3]			중 Guest WiFi
• 552256C-P 5N: G1NW12E000307			IP Segment192.168.130.2-192.168.130.250 Dynamic VLAN: 130
	2. Configure Function		
	Smart Flow Control	IPTV Connect modem and gateway, and	
Back			Apply Config



5 Reyee EG Series Router Configuration

5.1 WAN Load balance

The load balancing function distributes the data to multiple WAN interfaces to avoid the traffic congestion and provide redundancy.

Network Topology



Configuration Steps

Step 1: Choose **Gateway** \rightarrow **Basics** \rightarrow **WAN**

Ruíjie	Reyee > Ruijie [Master] 🕖	Englis	h ∨ OMACC	EDownload App	🗟 Network Setup	ଷ୍ଟ Network Check	👸 Alarms 🕞	Exit
움Overview	Giteway Hostname: Rt	ijie SN: 1234567890123	IP Address: 172	2 18 158 150				
Online Clients	• EG105G	MAC: 00:D0:F8:11:11:1					() Reboot	
A Gateway	Device Overview Basics A Se	curity ~ Behavior ~ VPN ~ .	Advanced ~ Diaç	gnostics ~ System	۱×			
	WAN Settin						0	
🖻 Switches	C comigue m						Ū.	
Network	Single Line Dual-Line							
	* IP Assignment Static IP A	ddress \vee						
	* IP Address 172.18.158	.150						
	* Submask 255.255.25	5.0						
	* Gateway 172.18.158	d						
	* DNS Server 192.168.58	.95						
	Advance	d Settings						
	Sav	e						

Step 2: Configure the WAN interface accordingly

Ruíjie	Reyee > Ruijie Master 🔿 C English 🗸 OMACC 🗄 Download App & Network Setup & Network Check	<u>눩</u> Alarms 🕞 Exit
움Overview	Getewar Hostname: Ruijie SN: 1234567890123 IP Address: 172.18.158.150	
Online Clients	Gateway Hostname: Ruijie SN: 123456/890123 IP Address: 1/2.18.158.150 • EG105G MAC: 00:D0:F8:11:11:11	(U) Reboot
A Gateway	Device Overview Basics Security Behavior VPN Advanced Diagnostics System	
	WAN Settings Configure WAN settings	0
Switches	Configure WAN settings.	
-o- -o- -o- Network	Single Line Dual-Line	
	WAN WAN1 ISP/Load Settings	
	* IP Assignment Static IP Address	
	* IP Address 172.18.158.150	
	* Submask 255.255.255.0	
	* Gateway 172.18.158.1	
	* DNS Server 192.168.58.95	
	Advanced Settings	
	Save	

Step 3: Choose ISP/Load Settings, and configure the load mode and interface weight

1. Balanced mode: The traffic will be spread across multiple links according to the weight of each WAN port. For example, if WAN and WAN1 weight are set to 3 and 2 respectively, 60% of the total traffic will be routed over WAN and 40% over WAN1.

2. Primary & secondary mode: All traffic is routed over the primary interface. Once the primary interface fails, traffic will be switched over to the secondary interface. If there are multiple primary and secondary interfaces, please configure their weight (See balanced mode).



Step 4: Save the configuration

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윤 Overview	Gateway Hostname: Ruijie SN: 1234567890123 IP Address: 172.18.158.150 MAC: 00:D0:F8:11:11:11 MAC: 00:D0:F8:11:11:11 MAC: 00:D0:F8:11:11:11	(U) Reboot
Online Clients	• EG105G	
A Gateway	Device Overview Basics Security Behavior VPN Advanced Diagnostics System S	
	WAN Settings Configure WAN settings.	\bigcirc
A Switches	Configure WAN settings.	U
-a- -a-Network	Single Line Dual-Line	
	WAN WAN1 ISP/Load Settings	
	Load Balancing Settings	
	 Traffic will be routed based on ISP settings preferentially. The remaining traffic will be managed according to load mode. Balanced mode: The traffic will be spread across multiple links according to the weight of each WAN port. For example, if WAN and WAN1 weight are set respectively, 60% of the total traffic will be routed over WAN and 40% over WAN1. Primary & secondary mode: All traffic is routed over the primary interface. Once the primary interface fails, traffic will be switched over to the secondary there are multiple primary and secondary interfaces, please configure their weight (See balanced mode). 	
	Load Mode Balanced ~	
	Balancing Policy Based on Link If you fail to access online bank service, please select Based on Sr. IP Address.	
	* WAN Weight 100	
	* WAN1 Weight 100	
	Save	1

5.2 IPsec VPN

Networking Requirements

The HQ and branch routers use static IP addresses. The HQ router needs to verify the IP address of the branch router.

Network Topology



Configuration Key Points

- 1. Configure router A in the HQ as the IPsec server.
- 2. Configure router B in the branch as the IPsec client.
- 3. Keep parameter settings at both ends consistent. The parameter settings in this case are as follows:

Authentication mode: pre-shared key, with the key set to *ruijie*.

IKE algorithm: 3DES-MD5, DH2

IPsec negotiation scheme: ESP(3DES-MD5)

Configuration Steps

Step 1: Configure the HQ router. Choose **Gateway** \rightarrow **VPN** \rightarrow **IPSec** \rightarrow **Add** to add a policy.

Ruíjie	Reyee > Ruijie (Mastar) 0	English 🗸 🛆 MACC 😜 I	Download App 🛛 😭 Network Set	up 🔍 Network Check	👸 Alarms 🕞 Exit
움Overview					
(8) Online Clients		IF Address: 172.18.1 0:F8:11:11:11	158.150		(U) Reboot
🖽 Gateway	Device Overview Basics ~ Security ~ Behavior ~	VPN ^ Advanced Y Diagnos	stics ~ System ~		
₩ireless	IPSec Security Policy IPSec Connection Status	PSec			
🖻 Switches	IPSec Security Policy Note: Example: IP address/number of subnet mask bits.				\bigcirc
^{-a-} -a- Network ∨	Tip: If it is set to 192.168.110.x/24, the address range is from	n 192.168.110.1 to 192.168.110.254.			Ū.
	Policy List				+ Add
	Up to 1 entries can be added.				
	Policy Type Policy Name Peer Gateway	Local Subnet	Peer Subnet	Status	Action
		No Data			

Step 2: Configure the server site's subnet and pre-shared key. For building VPN with other Reyee EG series routers, you may keep the default setting of "Set IKE Policy" and "Connection Policy"; For other devices, the parameters need to be configured accordingly.

Ruijie	Reyee > Ruijie Winnord ● @ MACC ⊟Download App	
[₽] Overview	German Hostname: Ruijie SN: 1234567890123 IP Address: 172.18.158.150	
Online Clients	EG105G MAC: 00:D0:F8:11:11:1	
A Gateway	Device Overview Basics ~ Edit ~ em ~	
ি Wireless	IPSec Security Policy IPSec C Policy Type O Client O Server	
Switches	IPSec Security Policy * Policy Name IPSEC_VPN_1 IPSec Scample: IP address/n IPSEC_VPN_1	
-e-Network	Tip: If it is set to 192.168.11.	
	Policy List + Add	
	* Local Subnet 192.168.110.0/24 Up to 1 entries can be added.	
	* Pre-shared ruijie	
	Policy Type Policy Nam Key Status Action	
	Server IPSEC_VPN_ 0.0.0/0 Enable ⊘ Edit Delete	
	1. Set IKE Policy 2. Connection Policy	
	Cancel	

Step 3: Configure the branch router. Fill in the **Peer Gateway** (HQ's public IP address or domain), **Local Subnet**, **Peer Subnet** and **Pre-shared Key (need to be the same as HQ's key)**

Ruijie	Reyee > Ruijie [Master] Ø		English 🗸	DMACC 🗄 D	ownload Ap	op 🛯 Network Setu	p 🔍 Network Cheo	k 👸 Alarms 🕞 Exit
A Overview			1 100 10 100 100 100 100 100 100 100 10					
Online Clients	Gateway Hostname: • EG105G		N: 1234567890123 IP Addi C: 00:D0:F8:11:11:11	ress: 172.18.158	.150			(U) Reboot
🖽 Gateway	Device Overview Basics ~	Edit			×	em ~		
ି Wireless 🌱	IPSec Security Policy IPSec C	Policy Type 🧧	Client O Server					
Switches	IPSec Security Policy	* Policy Name	IPSEC_VPN_1					\bigcirc
-a- -a-Network ∽	Tip: If it is set to 192.168.110	* Peer Gateway	IP/Domain		+			\bigcirc
	Policy List	Interface	Auto	~	0			+ Add
	Up to 1 entries can be added.							
	Policy Type Policy Nam	* Local Subnet	192.168.1.0/24			Subnet	Status	Action
	Server IPSEC_VPN_	* Peer Subnet	192.168.110.0/24		+	0.0.0/0	Enable ⊘	Edit Delete
		* Pre-shared	ruijie					
		Key						
		Status						
			1. Set IKE Policy					
			2. Connection Policy					
				Cancel	ОК			

5.3 Smart Flow Control

Reyee Smart Flow Control is a feature used to avoid congestion by optimizing user traffic. The working principle is shown as below: when the total user traffic is low than the maximum WAN bandwidth, the rate limit policy will not be applied, every user will get the required bandwidth; However, when the total user traffic exceeds the maximum WAN bandwidth, the user-based rate limit will take effect. The total WAN bandwidth will be equally allocated to every user. For example, If there are 10 users in the network, the total user traffic is 200Mbps and WAN bandwidth is 100Mbps, every user will get 10Mbps bandwidth after enabling the smart flow control feature.

Configuration Steps

Step 1: Choose Gateway \rightarrow Advanced \rightarrow Flow Control and enable the feature.



Step 2: Fill in the WAN bandwidth and Save the configuration.

Ruíjie	Reyee > Ruijie [Minitian] O MACCDownload App & Network Setup & Network Check	👸 Alarms 🕞 Exit
융Overview		
Online Clients	Ostemsy Hostname: Ruijie SN: 1234567890123 IP Address: 172.18.158.150 • EG105G MAC: 00:D0:F8:11:11:11 MAddress: 172.18.158.150	() Reboot
A Gateway	Device Overview Basics ~ Security ~ Behavior ~ VPN ~ Advanced ~ Diagnostics ~ System ~	
ି Wireless 🗸 🗸	Smart Flow Control	
🕾 Switches	Smart Flow Control Adjust the bandwidth allocated to each user according to the user count	\bigcirc
-a- -a- Network ∨	 Aujust the ballwindur allocated to each user according to the user count. 	
	Smart Flow Control	
	Smart Flow Control	
	If you want to test the WAN speed, please disable smart flow control first.	
	WAN Bandwidth * Up 100 Mbps * Down 100 Mbps	
	Save	

5.4 Port Mapping

Application Scenario

A customer deploys a server on the LAN and enables the HTTP or other services. The server address is a private address. WAN users can neither access this address directly nor use services provided by the server. In this case, you can enable the port mapping function to allow WAN users to access the LAN server. For example, the server address is 192.168.1.20 and HTTP is enabled. As the server address is a private address, WAN users cannot directly access the HTTP service provided by the server. In this case, you can map the server address and server ports to a public network address on the EG device so that WAN users can access the HTTP service provided by the server.

Networking Requirements

- 1. The WAN line is a single 10 Mbps fixed line. The address is 122.133.2.22, subnet mask is 255.255.255.0, and DNS address is 218.85.157.99.
- There is a remote desktop server on the LAN. The IP address of the server is 192.168.1.20. If the LAN server needs to be accessed from the WAN, port mapping is required to map the interfaces of the LAN server to the public network. Network Topology



Configuration Steps

Step 1: Choose Gateway -> Advanced -> Port Mapping

Ruíjie	Reyee > Ruijie (Mastar)	sh 🗸 🔿 MACC 🗄 Download App 🛕 Network	: Setup 🔍 Network Check 🚊 Alarms 🕞 Exit
움Overview	Gatevar Hostname: Ruijie SN: 123456789012	P Address: 172.18.158.150	
Online Clients	Gateway: Hostname: Ruijie SN: 123456/89012 EG105G MAC: 00:D0:F8:11:11		(U) Reboot
A Gateway	Device Overview Basics \checkmark Security \checkmark Behavior \checkmark VPN \checkmark	Advanced ^ Diagnostics ~ System ~	
	Port Mapping NAT-DMZ	Routing Flow Control	
E Switches	7 Port Mapping	Session Limit	0
-a- Network ∨	Port Mapping List	Port Mapping Local DNS	+ Add Delete Selected
	Up to 50 entries can be added.		
	Name Protocol External IP Address	External Port Internal IP Address	Internal Port Action
		No Data	
	Total 0 10/page < 1 > Go to page 1		

Step 2: Add a new Policy

Ruijie	Reyee > Ruijie (Waster) Ø		English 🗸 🛆 MAC		l App	Setup 🔍 Network	Check 👸 Alarms 🗗 Ex
2 Overview	Gateway Hostname:	Puiiio SN - 123	34567890123 IP Address: 1				
Online Clients	• EG105G		D0:F8:11:11:11	172.10.130.130			(U) Reboot
Gateway	Device Overview Basics ~ S	Add		×	stem ~		
	Port Mapping NAT-DMZ	* Name	HTTP	A			
A Switches	Port Mapping	Protocol	UDP	~			0
-9- -9- -9- Network	Port Mapping List	External IP Address	Default: WAN IP address.			+ Add	The Delete Selected
	Up to 50 entries can be added.	* External Port/Range	80				
	Name	* Internal IP Address	192.168.1.20		al IP Address	Internal Port	Action
		* Internal Port/Range	80				
	Total 0 10/page 🗸 🤞		Cance	ОК			

Internal IP Address: Indicates the IP address of the server.

Internal Port/Range: Indicates the port for the server that is to provide external services.

External IP: Indicates the IP address of a WAN port.

External Port/Range: Indicates the target WAN service port of port mapping.

6 Reyee NBS Series Switch Configuration

6.1 VLAN Setting

A virtual LAN (VLAN) is any broadcast domain that is partitioned and isolated in a computer network at the data link layer. VLANs work by applying tags to network frames and handling these tags in networking systems – creating the appearance and functionality of network traffic that is physically on a single network but acts as if it is split between separate networks. In this way, VLANs can keep network applications separate despite being connected to the same physical network, and without requiring multiple sets of cabling and networking devices to be deployed.

Configuration Steps:





Step 2: Choose VLAN and Add a new VLAN

Ruije & Overview	Reyee > Ruijie 🕅	Switch Hostname: R • NBS3200- 48GT4XS-P MAC: 3	tujjie SN: G1PD4 IP Address: 192.168 0:0D:9E:53:0F:E1		(U) Reboot
Online Clients	<i>i</i> Switch List View switc	Home VLAN Monitor ~	Ports ~ Security ~ Advanced	 Diagnostics System 	
A Gateway	Switch List	VLAN List		+ Batch Add + Add	Delete Selected
☆Wireless	C Acti	Up to 4094 entries can be add	ed.(The default VLAN, management VLA	AN, native VLAN, svi Vlan and access VLAN	cannot be deleted.)
Switches	🔄 Mana	VLAN ID 🗢	Description	Port	Action
Network Y	🔲 Mana	1	VLAN0001	Gi1-2,Gi5-48,Te49-52,Ag1	Edit Delete
	Total 2 10/pag	Total 1 10/page 🗸 🤇	1 > Go to page 1		
		Port List			∠ Batch Edit
		-			
Ruíjie	Reyee > Ruijie 🚺				
2 Overview		Switch Hostname:			
	Switch Lie	• NBS3200-	Ruijie SN: G1PD4 IP Address: 192.16 30:0D:9E:53:0F:E1		(U) Reboot
Online Clients	View switc	• NBS3200-	IP Address: 192.16		(U) Reboot
A Gateway	View switc	NB53200- 48GT4XS-P MAC: : Home VLAM Add Add VLAN List	IP Address: 192.16 30:00:9E:53:0F:E1	8.110.192	
∰ Gateway ஒWireless ∨	View switc	NB53200- 48GT4XS-P MAC: : Home VLAM Add VLAN List Up to 4094	IP Address: 192.16 30:0D:9E:53:0F:E1	8.110.192 Dimension Contractor Range: 1–4094	×
A Gateway	View switc	NB53200- 48GT4XS-P MAC: : Home VLAM Add VLAN List Up to 4094	IP Address: 192.16 30:00:9E:53:0F:E1	8.110.192	× ete Selected
 ➡ Gateway ¬ Wireless ✓ ▲ Switches 	View switc Switch List Activ	NB53200- 48GT4XS-P MAC: : Home VLAM Add VLAN List Up to 4094 Des	IP Address: 192.16 30:0D:9E:53:0F:E1	8.110.192 Dimension Contractor Range: 1–4094	× ete Selected Jeleted.) pn Delete
 ➡ Gateway ¬ Wireless ✓ ▲ Switches 	View switc Switch List Activ	NB53200- 48GT4XS-P MAC: : Home VLAM Add VLAN List Up to 4094 Des	IP Address: 192.16 30:0D:9E:53:0F:E1	Range: 1-4094 Max: 32 characters.	× ete Selected Jeleted.) pn Delete
 ➡ Gateway ¬ Wireless ✓ ▲ Switches 	View switc Switch List Activ Mana	NB53200- 48GT4XS-P MAC: Home VLAM Add VLAN List Up to 4094 Des	IP Address: 192.16 30:0D:9E:53:0F:E1	Range: 1-4094 Max: 32 characters.	× ete Selected Jeleted.) pn Delete

Step 3: Assign the new VLAN to ports.

Reyee Series Implementation Cookbook

	Reyee > Ruijie	Switch • NBS3200- 48GT4XS-P	Hostname: Ruijie MAC: 30:0D:9E:5	IP Address: 192.1	49X00172B 68.110.192		(U) Reboot
⊗ Online Clients ∰ Gateway	Switch List	Home VLAN Click to C VLAN List	Collapse the list.	Security Y Advanced	d ∽ Diagnostics ∽ + Batch Add		Delete Selected
☆ Wireless × A Switches	Actio		entries can be added.(The d	lefault VLAN, management VI Description	AN, native VLAN, svi V		Action
, an Network ⊻	Mana		1	VLAN0001	Gi1-2,Gi5-48,Te	49-52,Ag1	Edit Delete
	Total 2 10/pag	Total 2 10/pa	10 ge ~ < 1 >	IT departmant			Edit Delete
		Port List	•				🖉 Batch Edit
		Port	Port Mode	Access VLAN	Native VLAN	Permit VLAN	Action
		Gi1	ACCESS	1			Edit
		Gi2	ACCESS	1			Edit
		Gi3		1	Vember port of Ag1.		
		Gi4		٩	Vember port of Ag1.		



6.2 Access Control List (ACL)

An access control list (ACL) is also referred to as firewall or packet filter in some documents. The ACL controls (permits or discards) data packets on a network device interface by defining ACEs (Access Control Entries).

Configuration Steps:

Step 1: Choose Switches \rightarrow Manage to configure the switch

1 G .	6							
윩Overview	Switch List							
8 Online Clients	<i>View switches in t</i>	he current netwo	rk.					
Gateway	Switch List						Delete Offline Devices	Batch Upgrade
Guteway	1							
	Action	Hostname	IP Address	MAC	Status	Model	Software Ver	SN \$
Switches						RG-		
	Manage	ES226 🖉	192.168.110.224	00:D0:F8:20:99:99	Online	ES226	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E0003
-e Network ~						NBS32	_	
	Manage	Ruijie 🖉	192.168.110.193	30:0D:9E:53:0F:E1	Online	48GT4 P	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172
		_						
	Total 2 10/page 🗸	< 1	> Go to page	1				

ullet



Ruije	Reyee > Ruijie M	Switch Hostname: Ruijie • NBS3200- 48GT4XS-P	SN: G1PD49X0 MAC: 30:0D:9E:5		(U) Reboot
Online Clients	View switch	Home VLAN Monitor ~ Ports ~	Security ^ Advanced ~	Diagnostics \checkmark System \checkmark	
🖽 Gateway	Switch List	ACL List ACL Binding	DHCP Snooping Storm Control		
☆Wireless	Actio	ACL	ACL	+ Add	Delete Selected
Switches	Mana	Up to 512 entries can be added.	Port Protection		
-a- -a-Network	Mana	ACL Name	ACL Type	Status	Action
	Total 2 10/pac		No Data		
		Total 0 10/page \checkmark < 1 >	Go to page 1		

Step 3: Click the "Add" button to add an ACL

Ruíjie	Reyee > Ruijie 🚺	Switch Hostname: Ru	ijie SN: G1PD49X0	00172B IP Address: 192.168.110.193	
A Overview	Switch Lis	• NBS3200- 48GT4XS-P	MAC: 30:0D:9E:5		(U) Reboot
Online Clients	<i>i</i> View switch	Home VLAN Monitor -	Ports ~ Security ~ Advanced ~	Diagnostics ~ System ~	
🕮 Gateway	Switch List	ACL List ACL Binding			
₩ireless	🗌 Actie	ACL		+ Add	Delete Selected
Switches	Mana	Up to 512 entries can be added.			
-e- -e- -e-Network ∽	Mana	ACL Name	ACL Type	Status	Action
	Total 2 10/pac		No Data		
		Total 0 10/page 🗸 🤇	Go to page 1		

Step 4: Fill in the ACL name and type to create an ACL

Ruíjie	Reyee > Ruijie 🕅	Switch	Hostname: Ruijie	SN: G1PD49X001728	IP Address: 192.168.110.193	
合Overview	Switch Lis	• NBS3200- 48GT4XS-P	Hostname. Rujie	MAC: 30:0D:9E:53:0F:E1	IF Address, 152,100,110,155	(U) Reboo
Online Clients	<i>i</i> View switch	Home VLAN-	Monitor V Dorte V	Cocurity Advanced V Diago	actice V Suctom V	
4 Gateway	Switch List	ACL List AC	Add			×
ŵWireless	Actic		* ACL Name:	ACL10		elete Selected
Switches	📄 Mana	Up to 512 er	ACL Type:	Based on MAC O Based on IP /	Address	
Network Y	🗌 Mana				Cancel OK	tion
	Total 2 10/paç					
		Total 0 10/page	✓ < 1 >	Go to page 1		

Step 4: Click "Details" to configure the ACL rule.

Contine Clients Conti	Reyee > Ruijie IV Switch List Switch List	• NBS3200- 48GT4XS-P	_	SN: G1PD49 MAC: 30:0D:98 ecurity ~ Advanced ~	E:53:0F:E1	O Reboot
*Network Y	Mana Mana Mana Total 2 10/pag	Up to 512 entries car ACL 1 ACC Total 1 10/page	Name	ACL Type Based on IP Address Go to page 1	Status	Action Details Edit Delete
Ruíjie	Reyce > Ruijie (N		[ACL10]Settings		×
 Overview Online Clients Gateway Wireless Switches Switches Metwork 	Switch List Switch List Activ Mane	• NBS3200- 48GT4XS-P Home VLAN Mo ACL List ACL Bindi ACL Up to 512 entries ca	nitor Y Pc Sr	(Address Dest IP: 🛃 All	 Allow 8.10.0 / 255.255.2 /Submask) We Reset 	255.0
	Total 2 10/paç		Existi No.	ng ACL: (You can click and c Rule	trag the ACL number to swap the ACL	Control Action
Reyee Series Implementation Cookbook



Step 5: Bind the ACL to the interface.

Reyee Series Implementation Cookbook

Corrections Corre	Reyee > Ruijie M	NBS3200- 48GT4XS-P Home VLAN Moni ACL List ACL Binding ACL Binding	MAC: 30:0D:9E:53:0F:E1	SN: G1PD49X001728 ress: 192.168.110.193 Advanced ~ Diagnostics ~	() Reboot System ~
-a- -a- Network ∽		ACL Binding			+ Batch Add
	Mana Mana	Por	t MAC-based	I ACL IP-based	ACL Action
	Total 2 10/paç	Gi1			Edit
		Gi2			Edit Unbind
		Gia		Member port	of Ag1.
		Gi4		Member port	of Ag1.
		Gi5			Edit Unbind
		Gié			Edit Unbind
		Gi7			Edit Unbind
		Gið			Edit Unbind
		Gis	-	-	Edit Unbind
		Gil)		Edit Unbind

Ruijie	Reyee > Ruijie M	Switch	Hostname: Ruijie	SN: G1PD49X0		
A Overview	Switch Lis	• NBS3200- 48GT4XS-P	MAC: 30:0D:9E:5	IP Address: 192.168.11 3:0F:E1		(U) Reboot
Online Clients	View switch	Home VLAN	Monitor V Porte V	Socurity × Advanced ×	Disgnastics V System	· · · · ·
Gateway	Switch List	ACL List AC	Edit			×
	C Actio	ACL Bind	MAC-based ACL:	No Data	~	
Switches	Mana	<i>i</i> The devic	IP-based ACL:	ACL10	~	
-=- -=-Network		ACL Bindin				ind Selected
	Mana Mana				Cancel	OK on
	Total 2 10/paç		Gi1			Edit Unbind
			Gi2			Edit Unbind
			Gi3		Member port of Ag1.	
			Gi4		Member port of Aq1.	

6.3 Port Isolation

Port isolation implements layer-2 isolation of packets. After port isolation is enabled (which is disabled by default), data cannot be forwarded between isolated ports.

Configuration Step:

Step 1: Choose **Switches** \rightarrow **Manage** to configure the switch

Ruíjie	Reyee > Ruijie <mark>(Master)</mark> 🕖		English 🗸		E Download App	ଛୁ Network Setup 🛛 ପ୍ର Network Cho	eck 👸 Alarms 🕞 Exi
윩Overview	Switch List						
(8) Online Clients	View switches in the current	network.					
🕮 Gateway	Switch List					Delete Offline Devices	Batch Upgrade
	Action Hostna	ne IP Address	MAC	Status	Model	Software Ver	SN \$
Switches	Manage ES226	<u>م</u> 192.168.110.224	00:D0:F8:20:99:99	Online	RG- ES226 E P	SW_1.0(1)B1P2,Release(07181013)	G1NW12E000307
-a- -a- a-Network ∽	Manage Ruijie	2 192.168.110.193	30:0D:9E:53:0F:E1	Online	NBS32 48GT4 SN P	WITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172B
	Total 2 10/page V	1 > Go to page	1				

Step 2: Choose Security \rightarrow Port Protection to configure the port isolation

Ruffe ³ Overview [®] Online Clients	Reyee > Ruijie M Switch Lis View switch	Switch • NBS3200- 48GT4XS-P	SN: G1PD49X001728 IP Address: 192.168.110.193
Gateway	Switch List	-	Security ^ Advanced ~ Diagnostics ~ System ~ DHCP Snooping Storm Control Storm Control
Switches	Mana	Dort List	ACL Port Protection & Batch Edit
-a- -a-Network	Mana	Port	Action
		Gi1	
	Total 2 10/pac	Gi2	
		Gi3	Member port of Ag1.
		Gi4	Member port of Ag1.
		Gi5	
		Gi6	
		Gi7	
		Gi8	
		Gi9	
		Gi10	
		Total 53 10/page < 1 2	3 4 5 6 > Go to page 1

Step 3: Enable the Port Isolation on Ports.

Reyee Series Implementation Cookbook

Ruijie	Reyee > Ruijie 🚺		• Operation succeeded.	
윩Overview	Switch Lis	Hostname: Ruijie NBS3200- 48GT4XS-P	MAC: 30:0D:9E:53:0F:E1	(U) Reboot
Online Clients	<i>i</i> View switch	Home VLAN Monitor ~ Ports ~	Security \checkmark Advanced \checkmark Diagnostics \checkmark System \checkmark	
Gateway	Switch List	Port Protection		
☆Wireless	Actio	The protected ports are isolated from e	each other.	
Switches	Mana	Port List		🖉 Batch Edit
-a- -a- Network ∽		Port	Action	
	Mana	Gi21		
	Total 2 10/pag	Gi22		
	Toypa	Gi23		
		Gi24		
		Gi25		
		Gi26		
		Gi27		
		Gi28		
		Gi29		
		Gi30		
		Total 53 10/page \checkmark 1 2	3 4 5 6 > Go to page 3	

6.4 DHCP Snooping

In the DHCP-enabled network, the general problem facing administrator is that some users use private IP addresses rather than dynamically obtaining IP addresses. As a result, some users using dynamic IP addresses cannot access the network, making network application more complex. In dynamic DHCP binding mode, the device records how legal users obtain IP addresses during the course of DHCP Snooping for security purpose.

Enabling DHCP Snooping helps filter DHCP packets. Only forwards DHCP request packets to the trusted port and DHCP response packets from the trusted port. The port connected to the DHCP server is configured as the trusted port generally

Configuration Steps

Step 1: Choose $\textbf{Switches} \rightarrow \textbf{Manage}$ to configure the switch

Ruíjie	Reyee > Ruijie [Master] 🕖		English \lor	MACC	E Download A	pp 🛯 🏩 Network Setup 🔍 Network Check	< <u> </u>
움Overview	Switch List						
Online Clients	<i>i</i> View switches in the curr	ent network.					
🕮 Gateway	Switch List					Delete Offline Devices	Batch Upgrade
	Action Hos	tname IP Address	MAC	Status	Model	Software Ver	SN \$
Switches	Manage ES2	226 🖉 192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
-o- -a-Network ∨	🗌 Manage R	uijie 192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32 48GT4 P	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
	Total 2 10/page 🗸 🤇	1 > Go to page	1				

Step 2: Choose $\textbf{Security} \rightarrow \textbf{DHCP} \ \textbf{Snooping}$ to configure the DHCP snooping

Ruijie	Reyee > Ruijie 🚺	Switch Hostname: Ruijie SN: G1PD49X00172B IP Address: 192.168.110.193
e ² aOverview	Switch Lis	NBS3200- 48GT4XS-P MAC: 30:0D:9E:53:0F:E1
Online Clients	View switch	Home VLAN Monitor Ports Security Advanced Diagnostics System
A Gateway	Switch List	DHCP Snooping
♥Wireless	C Actio	Description: Enabling DHCP Snooping Storm Control evice only forwards DHCP request packets to the trusted port and DHCP response packets from the trusted to the DHCP ACL ad port generally.
Switches	Mana	Port Protection DHCP Snooping:
™ → ■ - Network ×	🗌 Mana	Option 82:
	Total 2 10/pag	Select Trusted Port:
		1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51
		2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52
		Note: You can click and drag to select one or more ports. Select All Inverse Deselect Save



Reyee Series Implementation Cookbook

Ruffe & Overview & Online Clients	Reyee > Ruijie III Switch Lis View switch	Switch Hostname: Ruijie SN: G1PD 49X001728 IP Address: 192.168.110.193 • NBS3200- 48GT4XS-P MAC: 30:0D:9E:53:0F:E1 IP Address: 192.168.110.193 Home VLAN Monitor ~ Ports ~ Security ~ Advanced ~ Diagnostics ~ System ~
Gateway	Switch List	DHCP Snooping
ଙ୍କ Wireless 🌱	Actio	 Description: Enabling DHCP Snooping helps filter DHCP packets. The device only forwards DHCP request packets to the trusted port and DHCP response packets from the trusted port. Note: The port connected to the DHCP server is configured as the trusted port generally.
Switches	🔲 Mana	DHCP Snooping:
	Mana	Option 82:
	Total 2 10/paç	Select Trusted Port:
		1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51
		2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52
		Note: You can click and drag to select one or more ports. Select All Inverse Deselect

6.5 Link Aggregation

Link aggregation is a technology to combine multiple network connections in parallel in order to increase throughput and provide redundancy in case one of the links should fail.



Configuration Steps

Ruíjie	Reyee > Ruijie [Master]	i		English 🗸	MACC ↓	Download A	pp ଜ୍ରୁ Network Setup ପ୍ରୁ Network Chec	k <u> Ä</u> Alarms 🕞 Exit
A Overview	Switch List							
Online Clients	View switches in th	ne current netwo	rk.					
🖽 Gateway	Switch List						Delete Offline Devices	Batch Upgrade
ି Wireless 🗸	Action	Hostname	IP Address	MAC	Status	Model	Software Ver	SN 💠
Switches	Manage	ES226 Ø_	192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
"aprilia network ℃	Manage	Ruijie	192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32 48GT4 P	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
	Total 2 10/page V	< 1	> Go to page	1				

Step 1: Choose $\textbf{Switches} \rightarrow \textbf{Manage}$ to configure the switch

Step 2: Choose Ports \rightarrow Aggregate Ports to configure the link aggregation

Ruijie	Reyee > Ruijie 🚺	Switch Hostname: Ruijie SN: G1PD49X00172B
⁹ Overview	Switch Lis	• NBS3200- 48GT4XS-P IP Address: 192.168.110.193 © Reboot
Online Clients	<i>i</i> View switch	Home VLAN Monitor V Ports Advanced Diagnostics System
🖽 Gateway	Switch List	Global Settings
	C Activ	Aggregate Ports
Switches	Mana	Algorithm: Rate Limiting
a≞ a≞Network ~~~	🗇 Mana	POE MGMT IP
	Total 2 10/pag	Aggregate Port Settings
		Up to 16 aggregate ports can be added. An aggregate port contains up to 8 member ports.

Step 3: Fill in the aggregate port number and select the port member.

Ruijie	Reyee > Ruijie 🚺	Global Settings
음 Overview ⑧ Online Clients	<i>Switch Lis</i> View switch	Load Balance Src & Dest MAC Algorithm:
🖽 Gateway	Switch List	Save
ବ Wireless ×	Action Mana	Aggregate Port Settings
Network 🗸	Total 2. 10/pag	Up to 16 aggregate ports can be added. An aggregate port contains up to 8 member ports. Select All Ag1 Delete Selected
«Collapse		* Aggregate Port: 2 * Select Member Ports Available Unavailable 1 3 5 7 9 11 13 12 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 5 2 4 6 8 10 12 14 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 5 Note: You can click and drag to select onservere ports. Select All Inverse Deselect Save Save

6.6 Storm Control

When there are excessive broadcast, multicast or unknown unicast data flows in the LANs, the network speed decreases and packet transmission timeout greatly increases. This is called LAN storm, which may be caused by topology protocol execution errors or incorrect network configuration.

Users can perform storm control separately for the broadcast, multicast, and unknown unicast data flows. When the rate of broadcast, multicast, or unknown unicast packets received by the device port exceeds the specified rate, the number of packets allowed per second, or the number of kilobits allowed per second, the device transmits packets only at the specified rate, the number of packets allowed per second, or the number of kilobits allowed per second, and discards packets beyond the rate range, until the packet rate becomes normal, thereby avoiding flooded data from entering the LAN and causing a storm.

Configuration Steps

Step 1: Choose Switches \rightarrow Manage to configure the switch

Reyee > Ruijie [Master]	v		English 🗸		Download <i>i</i>	App 🛕 Network Setup 🔍 Network Check	< <u>`</u> Alarms [→ E
Switch List							
View switches in t	he current netwo	rk.					
Switch List						Delete Offline Devices	Batch Upgrade
Action	Hostname	IP Address	MAC	Status	Model	Software Ver	SN \$
Manage	ES226 🖉	192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
Manage	Ruijie	192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32 48GT4 P	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
Total 2 10/page 🗸	۲ ا	> Go to page	1				
	Switch List View switches in t Switch List Action Manage Manage	Switch List View switches in the current netwo Switch List Action Hostname Manage ES226 & Manage Ruijie	Switch List View switches in the current network. Switch List Action Hostname IP Address Manage ES226 & 192.168.110.223 Manage Ruijie 192.168.110.192	Switch List View switches in the current network. Switch List IP Address MAC Manage ES226 & 192.168.110.223 00:D0:F8:20:99:99 Manage Ruijie 192.168.110.192 30:DD:9E:53:0F:E1	Switch List View switches in the current network. Switch List Action Hostname IP Address MAC Status Manage ES226 & 192.168.110.223 Manage Ruijie 192.168.110.192 30:0D:9E:53:0F:E1 Offline	Switch List View switches in the current network. Switch List Action Hostname IP Address MAC Status Model Manage ES226 & 192.168.110.223 00:D0:F8:20:99:99 Online ES226 Manage Ruijie 192.168.110.192 30:0D:9E:53:0F:E1 Offline MBS32	Switch List View switches in the current network. Switch List Image Action Hostname IP Address MAC Status Model Software Ver Manage ES226 @ 192.168.110.223 00:D0:F8:20:99:99 Online ESS@2.00 ESW_1.0(1)B1P2,Release(07181013) Manage Ruijie 192.168.110.192 30:0D:9E:53:0F:E1 Offline NBS32 SWITCH_3.0(1)B11P30,Release(07181111)

Step 2: Choose $\textbf{Security} \rightarrow \textbf{Storm Control},$ and click Batch Edit

	Reyee > Ruijie (N	• NB53200- 48GT4XS-P	SN: G1PD49X00172B IP Address: 192.168.110.193 (C) Reboot
Online Clients	<i>i</i> View switch	Home VLAN Monitor ~ Ports ~	Security Advanced Diagnostics System
@ Gateway	Switch List	Port List	DHCP Snooping Storm Control
	C Activ	Port Br	ACL
Switches	Mana		Port Protection No Data
Network Y	_ Mana	Total 0 10/page < 1 >	Go to page 1
	Total 2 10/pag		

Step 3: Fill in the threshold value and select the port

Reyee Series Implementation Cookbook



7 Reyee ES Series Switch Configuration

7.1 VLAN Setting

A virtual LAN (VLAN) is any broadcast domain that is partitioned and isolated in a computer network at the data link layer. VLANs work by applying tags to network frames and handling these tags in networking systems – creating the appearance and functionality of network traffic that is physically on a single network but acts as if it is split between separate networks. In this way, VLANs can keep network applications separate despite being connected to the same physical network, and without requiring multiple sets of cabling and networking devices to be deployed.

Configuration Steps:

Step 1: Choose Switches \rightarrow Manage to configure the switch



Step 2: Enable the VLAN settings (disabled by default)



Step 3: Add a VLAN member

Ruíjie	Reyee > Ruijie (Master) 🕖	English	윩 Syst	em Info	Hereit Basi	c Settings	٥ı	Jpgrade
			1	Enable	Auto-Negotiation	1000M/Full-Duplex	Disable	Disable
A Overview	Switch List		2	Enable	Auto-Negotiation	Disconnected	Disable	Disable
Online Clients	<i>i</i> View switches in the current network		3	Enable	Auto-Negotiation	1000M/Full-Duplex	Disable	Disable
	Switch List		4	Enable	Auto-Negotiation	Disconnected	Disable	Disable
Gateway	Switch List		5	Fnahla	Auto-Negotistion	1000M/Full_Dupley	Dicabla	Dicable
	Action Hostname	IP Address	Port Mirror	ing 🛛				>
E Switches		100.100.110.000	Static MAC	0				>
Network	🗌 Manage ES226 🖉	192.168.110.223 0	Search by N	/IAC				>
	🗌 Manage 🛛 Ruijie 🖉	192.168.110.192 3	DHCP Snoo	ping 🛛				>
			VLAN Setti	ngs				
	Total 2 10/page -> K 1 >>	Go to page 1	VLAN Mem	ber 🛈		10 Delete Selected	Add	Ň
				No.	V	LAN ID		Action
				1		1		Delete
			VLAN Setti	as				>
								<i>,</i>
			QoS Setting Rate Limitir					>
								/
Ruíjie	Reyee > Ruijie [Master] 🛛							
	Reyee / Ruijie (Mandrij O	Add operation succe		kana luƙa	⊕ Bas	ic Settings		Upgrade
	Reyce / Ruijle inneren O	Add operation succe		Enable	Auto-Negotiation	1000M/Full-Duplex	Disable	Upgrade Disable
器Overview	Switch List	Add operation succe	eded.					
중 Overview ⑧Online Clients			eded.	Enable	Auto-Negotiation	1000M/Full-Duplex	Disable	Disable
	Switch List		eded.	Enable Enable	Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected	Disable Disable	Disable Disable
⊗ Online Clients ∰ Gateway	Switch List View switches in the current network		eded.	Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex	Disable Disable Disable	Disable Disable Disable
⑧ Online Clients	Switch List View switches in the current network		eded.	Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected	Disable Disable Disable Disable	Disable Disable Disable Disable
⊗ Online Clients ∰ Gateway	Switch List View switches in the current network Switch List	ς	eded.	Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected	Disable Disable Disable Disable	Disable Disable Disable Disable Disable
⊗ Online Clients	Switch List View switches in the current network Switch List	c IP Address	eded.	Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected	Disable Disable Disable Disable	Disable Disable Disable Disable Disable
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 &	c IP Address	eded.	Enable Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected	Disable Disable Disable Disable	Disable Disable Disable Disable Disable Nicable
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 &	c IP Address 192.168.110.223 ()	eded.	Enable Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected	Disable Disable Disable Disable	Disable Disable Disable Disable Disable >> >>
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 &	c IP Address 192.168.110.223 ()	eded.	Enable Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected 1000M/Full-Dupley	Disable Disable Disable Disable Disable	Disable Disable Disable Disable Disable >> >>
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 /2 Manage Ruijie /2	c IP Address 192.168.110.223 0 192.168.110.192 3	eded.	Enable Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected	Disable Disable Disable Disable	Disable Disable Disable Disable Disable >> >>
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 /2 Manage Ruijie /2	c IP Address 192.168.110.223 0 192.168.110.192 3	eded.	Enable Enable Enable Enable Enable Enable	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected 1000M/Eull-Duplex	Disable Disable Disable Disable Disable	Disable Disable Disable Disable Disable >> >>
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 /2 Manage Ruijie /2	c IP Address 192.168.110.223 0 192.168.110.192 3	eded.	Enable Enable Enable Enable Coable Coable MAC Copping O ngs nber O	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected 1000M/Full-Duplex Please enter a VLAN IE Delete Selected	Disable Disable Disable Disable Disable	Disable Disable Disable Disable Disable Nirabla
 Online Clients Gateway Wireless Switches 	Switch List View switches in the current network Switch List Action Hostname Manage ES226 /2 Manage Ruijie /2	c IP Address 192.168.110.223 0 192.168.110.192 3	eded.	Enable Enable Enable Enable Enable Constant Constant Enable Constant Enable Constant	Auto-Negotiation Auto-Negotiation Auto-Negotiation Auto-Negotiation	1000M/Full-Duplex Disconnected 1000M/Full-Duplex Disconnected 1000M/Full-Duplex	Disable Disable Disable Disable Disable	Disable Disable Disable Disable Disable > > > > >

Step 3: Assign the new VLAN member to ports.



7.2 Port Isolation

Port isolation implements layer-2 isolation of packets. After port isolation is enabled (which is disabled by default), data can be forwarded only between uplink ports and downlink ports, and downlink ports cannot forward packets to each other.

Configuration Steps

Step 1: Choose Switches \rightarrow Manage to configure the switch

Ruíjie	Reyee > Ruijie [Master]	0		English 🗸	∆ MACC	- Download	App 🔮 Network Setup 🔍 Network Checl	k <u> ä</u> Alarms 📑 E
움Overview	Switch List							
Online Clients	View switches in t	he current netwo	rk.					
🖽 Gateway	Switch List						Delete Offline Devices	Batch Upgrade
	Action	Hostname	IP Address	MAC	Status	Model	Software Ver	SN \$
Switches	Manage	ES226 🖉	192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
-a- -a-Network	Manage	Ruijie	192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32 48GT4 P	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
	Total 2 10/page 🗸	< 1	> Go to page	1				

Step 2: Choose $\textbf{Basic Settings} \rightarrow \textbf{Port Isolation}$ to enable the Port Isolation

Ruijie	Reyee > Ruijie [Master] 0	ĺ	English	윦 System Info 🕀	Basic Settings	🛆 Upgrade
				Loop Protection 0		
윰Overview	<i>Switch List</i>			Port Isolation 🕖		
Online Clients	View switches in the current netwo	ork.		Port Settings		
A Gateway	Switch List			Port Settings Ø		>
₩ireless				Port Mirroring Ø		>
♥ Wireless	Action Hostname	IP Address	MAC	Static MAC 0		>
Switches	Manage ES226 &	192.168.110.223 0():D0:F8:20:9	Search by MAC		>
-a- -a- Network				DHCP Snooping 🕖		>
		192.168.110.192 30	0:0D:9E:53:0	QoS Settings		
				Rate Limiting		>
	Total 2 10/page 🗸 🤇 1	> Go to page 1		Storm Control		>
				PoE Settings		
				PoE Settings		>

7.3 DHCP Snooping

In the DHCP-enabled network, the general problem facing administrator is that some users use private IP addresses rather than dynamically obtaining IP addresses. As a result, some users using dynamic IP addresses cannot access the network, making network application more complex. In dynamic DHCP binding mode, the device records how legal users obtain IP addresses during the course of DHCP Snooping for security purpose.

Enabling DHCP Snooping helps filter DHCP packets. Only forwards DHCP request packets to the trusted port and DHCP response packets from the trusted port. The port connected to the DHCP server is configured as the trusted port generally **Configuration Steps**

Ruíjie	Reyee > Ruijie [Master]	0		English 🗸		E Download A	pp 🔮 Network Setup 🔍 Network Chec	k 📺 Alarms 🕞 Exi
움Overview	Switch List							
Online Clients	<i>i</i> View switches in t	he current netwo	rk.					
A Gateway	Switch List						Delete Offline Devices	Batch Upgrade
ି Wireless 🗸	Action	Hostname	IP Address	MAC	Status	Model	Software Ver	SN \$
Switches	Manage	ES226 🖉	192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
-a- -a- Network	Manage	Ruijie	192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
	Total 2 10/page 🖂	< 1	> Go to page	1				

Step 1: Choose Switches \rightarrow Manage to configure the switch

Step 2: Choose **Basic Settings** \rightarrow **DHCP Snooping**, and enable the setting.

Ruijie	Reyee > Ruijie [Waster] @			English	윩 System Info	Basic Settings	🛆 Upgrade
Overview					Loop Protection ()		
Overview	Switch List				Port Isolation ()		
Online Clients	View switches in the	current network.			Port Settings		
Gateway	Switch List				Port Settings Ø		
•Wireless ~					Port Mirroring ()		
wireless	Action	Hostname	IP Address	MAC	Static MAC 🕖		
Switches	Manage	ES226 🖉	192.168.110.223	00:D0:F8:20:99:99	Search by MAC		
Network					DHCP Snooping ()		
			192.168.110.192	30:0D:9E:53:0F:E1	DHCP Snooping: 🔵		
					Trusted Port: 🔲 phrase	.all_select	
	Total 2 10/page 🖂	< 1 >	Go to page 1		Port 1	Port 2 Port 3	Port 4 Port 5
					Port 6	Port 7 Port 8	Port 9 Port 10
					Port 11	Port 12 Port 13	Port 14
					Port 15	5 Port 16 Port 17	Port 18
					Port 19	Port 20 Port 21	Port 22
					Port 23	8 Port 24 Port 25	Port 26

Step 3: Select the trusted port and save the configuration

Ruíje	Reyee > Ruijie (Master) 🕖			English	烯 System Info		Basic	Settings	🛆 Upgrade
Overview					Loop Protection Ø				
2 Overview	<i>Switch List</i>				Port Isolation 0				
3 Online Clients	View switches in the cu	rent network.			Port Settings				
Gateway	Switch List				Port Settings				
> Miroloss					Port Mirroring 0				
© Wireless →	Action H	lostname	IP Address	MAC	Static MAC 0				
Switches	Manage	ES226 Ø	192.168.110.223	00:D0:F8:20:99:99	Search by MAC				
Network					DHCP Snooping				
			192.168.110.192	30:0D:9E:53:0F:E1	DHCP Snooping:				
					Trusted Port:	phrase.al	I_select		
	Total 2 10/page 🖂	1 >	Go to page 1]		Port 1	Port 2	Port 3	Port 4 Port 5
						Port 6	Port 7	Port 8	Port 9 Port 10
						Port 11	Port 12	Port 13	Port 14
						Port 15	Port 16	Port 17	Port 18
						Port 19	Port 20	Port 21	Port 22
						Port 23	Port 24	Port 25	Port 26
						Save			

7.4 Speed Rate Limit

Rate limiting feature is used to limit the transmit speed rate on a specific port.

Configuration Steps:

Step 1: Choose Switches \rightarrow Manage to configure the switch

Ruíjie	Reyee > Ruijie [Master] 🕖		English \vee		EDownload Ap	op 🛕 Network Setup 🔍 Network Check	k 👸 Alarms 🕞 Exi
윩Overview	Switch List						
Online Clients	 View switches in the current networ 	k.					
🖽 Gateway	Switch List					Delete Offline Devices	Batch Upgrade
ି Wireless 🗸	Action Hostname	IP Address	MAC	Status	Model	Software Ver	SN \$
Switches	□ Manage ES226 &	192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
Network	Manage Ruijie	192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32 48GT4 9 P	WITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
	Total 2 10/page V C 1	Go to page	1				

Step 2: Choose **Basic Settings** \rightarrow **Rate Limiting**, and fill in the Port, Type, Status and Rate information.

Ruíjie	Reyee > Ruijie Mission 0 English	움 System Info	Basic Settings	🛆 Upgrade
		Loop Protection 🕖		
ஃOverview	Switch List	Port Isolation ()		
Online Clients	View switches in the current network.	Port Settings		
🕮 Gateway	Switch List	Port Settings 🛛		>
		Port Mirroring Ø		>
* Wireless	Action Hostname IP Address MAC	Static MAC 🕖		>
A Switches	☐ Manage ES226	Search by MAC		>
-e- -e- Network		DHCP Snooping Ø		>
	Manage Ruijie 192.168.110.192 30:0D:9E:53:0	QoS Settings		
		Rate Limiting		~
	Total 2 10/page < 1 > Go to page 1	* Port Select	Type All	~]
		Status Enable	V Rate 100	
		Save		
		Port Rx S	Speed (Mbps) Tx Sp	peed (Mbps)
		1	No Limit	No Limit
		2	No Limit	No Limit
		3	No Limit	No Limit
				No Limit
		5	No Limit N	No Limit
		Storm Control		>
		PoE Settings		
		PoE Settings		>

7.5 Storm Control

When there are excessive broadcast, multicast or unknown unicast data flows in the LANs, the network speed decreases and packet transmission timeout greatly increases. This is called LAN storm, which may be caused by topology protocol execution errors or incorrect network configuration.

Users can perform storm control separately for the broadcast, multicast, and unknown unicast data flows. When the rate of broadcast, multicast, or unknown unicast packets received by the device port exceeds the specified rate, the number of packets allowed per second, or the number of kilobits allowed per second, the device transmits packets only at the specified rate, the number of packets allowed per second, or the number of kilobits allowed per second, and discards packets beyond the rate range, until the packet rate becomes normal, thereby avoiding flooded data from entering the LAN and causing a storm.

Configuration Steps:

Step 1: Choose Switches \rightarrow Manage to configure the switch

Reyee > Ruijie [Master]	v		English 🗸		Download <i>i</i>	App 🛕 Network Setup 🔍 Network Check	< <u>`</u> Alarms [→ E
Switch List							
View switches in t	he current netwo	rk.					
Switch List						Delete Offline Devices	Batch Upgrade
Action	Hostname	IP Address	MAC	Status	Model	Software Ver	SN \$
Manage	ES226 🖉	192.168.110.223	00:D0:F8:20:99:99	Online	RG- ES226 P	ESW_1.0(1)B1P2,Release(07181013)	G1NW12E00030
Manage	Ruijie	192.168.110.192	30:0D:9E:53:0F:E1	Offline	NBS32 48GT4 P	SWITCH_3.0(1)B11P30,Release(07181111)	G1PD49X00172E
Total 2 10/page 🗸	۲ ا	> Go to page	1				
	Switch List View switches in t Switch List Action Manage Manage	Switch List View switches in the current netwo Switch List Action Hostname Manage ES226 & Manage Ruijie	Switch List View switches in the current network. Switch List Action Hostname IP Address Manage ES226 & 192.168.110.223 Manage Ruijie 192.168.110.192	Switch List View switches in the current network. Switch List IP Address MAC Manage ES226 & 192.168.110.223 00:D0:F8:20:99:99 Manage Ruijie 192.168.110.192 30:DD:9E:53:0F:E1	Switch List View switches in the current network. Switch List Action Hostname IP Address MAC Status Manage ES226 & 192.168.110.223 Manage Ruijie 192.168.110.192 30:0D:9E:53:0F:E1 Offline	Switch List View switches in the current network. Switch List Action Hostname IP Address MAC Status Model Manage ES226 & 192.168.110.223 00:D0:F8:20:99:99 Online ES226 Manage Ruijie 192.168.110.192 30:0D:9E:53:0F:E1 Offline MBS32	Switch List View switches in the current network. Switch List Image Action Hostname IP Address MAC Status Model Software Ver Manage ES226 @ 192.168.110.223 00:D0:F8:20:99:99 Online ESS@2.00 ESW_1.0(1)B1P2,Release(07181013) Manage Ruijie 192.168.110.192 30:0D:9E:53:0F:E1 Offline NBS32 SWITCH_3.0(1)B11P30,Release(07181111)

Step 2: Choose **Basic Settings** \rightarrow **Rate Limiting**, and fill in the Port, Type, Status and Rate information.

Ruíjie	Reyee > Ruijie (Misster) 🕖	English	윰 System Inf	o 💮	Basic Settings	🛆 Upgrade
్రి Overview (8) Online Clients	Switch List View switches in the current network.		Dire * Dest	Port Select V		
🕮 Gateway	Switch List			Save		
	Action Hostname IP Address	MAC	Src Port	Direction	n Dest P	Port Action
Switches	☐ Manage ES226 & 192.168.110.223	00:D0:F8:20:9	Static MAC Ø			>
-ªa- Ta-Network ∀	Manage Ruijie 192.168.110.192	30:0D:9E:53:0	Search by MAC			>
	Total 2 10/page V C 1 So to page 1		QoS Settings Rate Limiting	,		>
				Enable V	Type B	roadcast v
				Save Broadcast (Mbit/sec)	Unknown Unicast (Mbit/sec)	Unknown Multicast (Mbit/sec)
			1	Disable	Disable	Disable
			2	Disable	Disable	Disable
			3	Disable	Disable	Disable
			4	Disable	Disable	Disable

8 Reyee AP Configuration

8.1 Wi-Fi Setting

The Wi-Fi Settings module allows you to configure the Wi-Fi pomewaters.

Ruíjie	Reyee > Ruijie Mastur 🖉	ត្មAlarms 🕞 Exit
ස Overview ම Online Clients	WiFi Settings Guest WiFi WiFi List Healthy Mode Ip: Changing configuration requires a reboot and will force online clients to go offline. Image: Client Cli	0
Gateway	WiFi Settings Device Group: Default * SSID Reyee123	
APs Clients WiFi	Frequency 2.4G + 5G ~	
Advanced LAN Ports LED	Encryption Open Collapse	
≧ Switches	VLAN Default VLAN VLAN	
	Hide SSID (The SSID is hidden and must be manually entered.) Client Isolation (The client joining this WiFi network will be isolated.)	
	SG Prior (The 5G-supported client will access 5G radio preferentially.) XPress (If the client will experience faster speed.)	
	Layer-3 Roaming (The client will keep his IP address unchanged in this WiFi network.)	

Device Group: Choose the AP group, the following setting will only be applied to the chosen group.

SSID: The Wi-Fi name which the APs broadcasted.

Frequency: Choose the radio which the following setting will be applied to. Both2.4GHz and 5GHz radio will be applied by default.

Encryption: Choose the encryption mode.

Active Time: Choose the time period that the Wi-Fi signal will be broadcasted.

VLAN: The VLAN number that the WIFI will be associated with.

Hide SSID: The SSID is hidden and must be manually entered.

Client Isolation: The client joining this Wi-Fi network will be isolated, which means the clients cannot be accessed by each other.

5G Prior: The 5G-supported client will access 5G radio preferentially.

Xpress: The QoS setting will be automatically applied to optimize the game experience.

8.2 Multiple SSID setting

In some scenario, multiple SSIDs are needed in the network.

Configuration Steps:

 $\texttt{Step1: Choose Wireless} \to \textbf{WiFi} \to \textbf{WiFi List}$

Ruijie	Reyee > Ruijie [Master] 🕖		English 🗸 🛆 MACC	Download App	န္ခ Network Setup	ଷ୍ଟ Network Check	<u>ര്</u> റ്റ് Alarms	🕞 Exit
움Overview	WiFi Settings Guest WiFi	WiFi List Healthy Mod	le					
Online Clients	<i>i</i> Tip: Changing configurat	ion requires a reboot and will force	e online clients to go offline.				C	?
🖽 Gateway	WiFi List Device Group:	Default					+ Ac	
♥Wireless ^ APs	Up to 8 SSIDs can be added							
Clients	SSID	Frequency	Encryption	Hidden	VLAN ID	A	Action	
WiFi	Reyee123	2.4G + 5G	OPEN	No	Default VLA	N Edit	Delete	
Advanced								
LAN Ports								
Switches								
-=- -=- Network								

Step 2: Choose a Device Group and click the "Add" button

Ruíjie	Reyee > Ruijie (Master) 🥑		English 🗸 🔿 MA	CC 🔁 Download App	♠ Network Setup	Solution Check	പ്പ് Alarms	Exit
2 Overview	WiFi Settings Guest WiFi WiFi I	ist Healthy Mode						
Online Clients								
🖽 Gateway	<i>i</i> Tip: Changing configuration require:	a reboot and will force o	nline clients to go offline.				C	2)
☆ Wireless	WiFi List Device Group: Default	^					+ Ad	ld
APs	Up to 8 SSIDs can be added. Defaul	t						
Clients	SSID		Encryption	Hidden	VLAN ID	Ac	tion	
WiFi	Reyee123 2.4	G + 5G	OPEN	No	Default VLAN	N Edit	Delete	
Advanced								
LAN Ports								
LED								
E Switches								
$^{-\alpha-}_{-\alpha-}$ Network								

Step 3: Fill in the SSID name WiFi related settings

Ruíjie	Reyee > Ruijie [Master] Ø		English 🗸		ad App 🖗 I		ଷ୍ଟ Network Check	já Alarms 🕞 Exi
² Overview	WiFi Settings Guest WiFi	WiFi List Health	/ Mode					
⊗ Online Clients	<i>i</i> Tip: Changing configur	Add			×			0
Gateway	WiFi List Device Grou	<i>i</i> The configuration EAP.	n will take effect after	being delivered to				+ Add
APs	Up to 8 SSIDs can be add	* SSID	<u>SSID2</u>	<u>۱</u>				
Clients	SSID	Frequency	2.4G + 5G	\sim		VLAN ID		Action
WiFi Advanced	Reyee123	Encryption	Open	~		Default VLA	N Ed	it Delete
LAN Ports			Collapse					
LED		Active Time	All Time	\sim				
Switches		VLAN	Default VLAN	~				
ENetwork Y		Hide SSID	(The SSID is hid	den and must be manua	ally			

8.3 AP Group

Reyee APs can be divided into different AP groups with different WiFi settings

Configuration Steps

Ruíjie	Reyee > Ruijie [Massler] 0	} Exi
움Overview		
Online Clients	() AP List	
∰ Gateway	AP List Group: All Groups Expand Advanced Search List Filter Batch Action ~	
	Action Hostname	S
APs Clients	Manage Ruijie 192.168.110.203 30:0D:9E:0C:1F:0A Online RAP120 0(E) 1 AP_3.0(1)B11P26,Release(07172301) CAI	NL(
WiFi	Total 1 10/page \checkmark < 1 \rightarrow Go to page 1	
Advanced	To page	
LAN Ports		
LED		
🖾 Switches		
-=- -=- Network		

Step 1: Choose Wireless \rightarrow AP and click the "Expand" button

Step 2: Click the "+" button to add an AP group

Ruíjie	Reyee > Ruijie [Master] 0	English 🗸 🔿 M	ACC 🗄 Download App 🏾 🖨 Networ	k Setup 🔍 Network Cr	eck <u>청</u> Alarms 금 Exi
end overview ⊗ Online Clients	i AP List				0
f Gateway	AP List	Group: All Groups	Collapse Advanced Search	List Filter	Batch Action \vee
	Search by Group * Gro All Groups +	oup Group 1 IP Address ≎	MAC	Model	Softwa
APs Clients	Default 💋 💼 Na	ок Cancel 192.168.110.20	03 30:0D:9E:0C:1F:0A Online	RAP120 1 0(E) 1	AP_3.0(1)B11P26,R
WiFi Advanced	Total 1	10/page v < 1 > Go to page	9 1		
LAN Ports					
LED					
Network					

Step 3: Move the AP to the new group

Ruíjie	Reyee > Ruijie (Master) 🕖	English 🗸 🔿	MACC 📑 Download App	ବ୍ଧୁ Network Setup ୍ଷ୍ଟ	Network Check <u>濟</u> Alarn	ns 🕞 Exit
윤 Overview ⑧ Online Clients	i AP List					0
🖽 Gateway	AP List	Group: All Groups	Collapse Adva	nced Search List	Filter Batch Actio	on 🗸
় Wireless ^	Search by Group	Action Hostname		Status 🔶	Clients Delete Dev	
APs Clients	 ✓ All Groups ← Default ℓ 	Manage Ruijie 192.168.110.	203 30:0D:9E:0C:1F:0A	Online RAP120 0(E)	Change Gro	oup
WiFi		Total 1 10/page 🗸 🤇 1 🗦 Go to pa	ge 1			
Advanced LAN Ports						
LED						
A Switches						
Ruíjie	Reyee > Ruijie [Master] 🕢	English 🗸 🛆	MACC 🚍 Download App	ବ୍ଧୁ Network Setup ୍ର୍	Network Check	ms 🕞 Exi
2 Overview	Reyee > Ruijie (Moster) 0	English 🗸 🛆	VIACC 🔁 Download App	♠ Network Setup	Network Check _ <u>혀</u> Alari	ms 🗗 Exi
		English V 🔿			Network Check 🖄 Alari t Filter Batch Actio	0
ా Overview ⊗ Online Clients	AP List AP List Search by Group					0
Solution Clients Solution Clients Boteway	AP List AP List AP List	Change Group Select Group Group 1	× Adva	inced Search Lis Model	t Filter Batch Action	⊘ on ∨ Softwa
Coverview Conline Clients Control Clients Coverview Cov	AP List AP List AP List Search by Group All Groups + Default Group 1 2	Change Group Select Group Group 1	× Adva	Inced Search Lis Status Model Quine RAP120	t Filter Batch Actio	⊘ on ∨ Softwa
 Overview Online Clients Gateway Wireless APs Clients WiFi Advanced 	AP List AP List AP List Search by Group All Groups + Default Group 1 2	Change Group Select Group Group 1	× Adva	Inced Search Lis Status Model Quine RAP120	t Filter Batch Actio	⊘ on ∨ Softwa
 Overview Online Clients Gateway Wireless APs Clients WiFi 	AP List AP List AP List Search by Group All Groups + Default Group 1 2	Change Group Select Group Group 1	× Adva	Inced Search Lis Status Model Quine RAP120	t Filter Batch Actio	⊘ on ∨ Softwa
 Overview Online Clients Gateway Wireless APs Clients WiFi Advanced LAN Ports 	AP List AP List AP List Search by Group All Groups + Default Group 1 2	Change Group Select Group Group 1	× Adva	Inced Search Lis Status Model Quine RAP120	t Filter Batch Actio	⊘ on ∨ Softwa

8.4 Blacklist/Whitelist

The Blacklist/Whitelist module allows you to configure client blacklist and whitelist.

Blacklist: the devices are added into blacklist will not be able to access the network

Whitelist: only the devices in the whitelist are allowed to access the network

The blacklist and whitelist take effect based on the whole network based or SSID based blacklist/whitelist are not supported.

Configuration Steps

Step 1: Choose Wireless \rightarrow Clients \rightarrow Blacklist/Whitelist

Ruíjie	Reyee > Ruijie [Masker] 0	English V MACC Download App	会 Network Setup 🔍 Network Check 👸 Alarms 급비
Overview	Clients Blacklist/Whitelist		
Online Clients			
🖽 Gateway	Blacklist Mode Whitelist Mode		
	 All STAs except blacklisted STAs are allowed to access 	s WiFi.	0
APs	Blacklist		+ Add Delete Selected
Clients	Up to 30 members can be added.		
WiFi	MAC	Remark	Action
Advanced		No Data	
LAN Ports			
LED			
Switches 🖾			
-a- -a- Network			

Step 2: Click the "Add" button to add the client's MAC address

Ruíjie	Reyee > Ruijie (Waster) 0	English 🗸 스 MACC 금Download App 🔮 N	letwork Setup 🔍 Network Check 🖄 Alarms 🕞 Exit
2 Overview	Clients Blacklist/Whitelist		
Online Clients	Blacklist Mode Add	×	
Gateway	() All STAs except black	* MAC AA:BB:CC:DD:11:22	0
APs	Blacklist	* MAC AA:BB:CC:DD:11:22	+ Add Delete Selected
Clients	Up to 30 members can be a		
WiFi		Cancel	Action
Advanced		No Data	
LAN Ports			
LED			
Switches			
-o- -o- Network			

8.5 Turn on/off LED indicator

The LED indicators on APs could be turned on/off according to the actual requirement.

Configuration Steps:

Choose $\textbf{Wireless} \rightarrow \textbf{LED},$ and turn on/off the LED setting.

Ruíjie	Reyee > Ruijie (Maator) 0	English 🗸	☐ MACC	Download App	le Network Setup	ଷ୍ଟ Network Check	<u>ന്</u> റ്റ് Alarms	🕞 Exit
움Overview	LED Status Control							
Online Clients	Control the LED status of the downlink AP.							
🕮 Gateway	LED							
	Save							
APs								
Clients								
WiFi								
Advanced								
LAN Ports								
LED								
 Network								

9 EST Series Configuration

9.1 Basic Setting

The devices are paired by default and can be used without requiring any configurations.

Change the Admin password

Ruijie	[®] Rcycc ∈			English 🗸 VCR (AP) 🖉 Pair Again 🗈 Lo
습 Overview	• Alarm			
💮 LAN	Configuration is un Hostname Not Set: 2. Configuration is unit	itialized.		×
🛞 Wireless 🛛 👋	Country/Region: China Country/Region: China			
🏷 Diagnostics 🗠	Time Zone: (GMT+8:0) Time Zone: (GMT+8:00)	Asia/Shanghai 🖗		
🔀 System Tools 🛛 🗸	WDS Group Info WDS Groups : 1			X Password 🌒 🛛 🗙 IP Allocation 🌒 🗍 💥 SSID 🕒
	WDS Group1			
	AP: 1. (Ruijie)	Channel :52	Latency @: Fluent(1) Jitter(0) Freeze(0) Bandwidth @: Good(1) Medium	(0) Poor(0) ~
	CPE: 1 . (Online: 1 , Offline: 0)	WDS SSID :@Ruijie-wds-a4cc	Interference 0. Good(1) Medium(0) Poor(0) RSSI 0. Good(1) Medium(0) P	oor(0)
			Strong Signal: Medium Signal: Poor Signal:	
	◇ VCR (AP)			⇔ Camera (CPE)
	Ruijie Image: Constraint of the second		Latency 2ms Rate — 400Mbps Flow — 6.538/39cb R5SI-39db — 360Mbps Flow — 6.56/0ps Uptree 01Min42Sec	Ruijie ∠ № 16 @ ~ MAC: 30.04.99.07.39.88 19: 172.26.4.15Z Online

Password			×
* Password	•••••	\odot	
* Confirm Password	•••••	\odot	
	Save		
E.			

Change the country code. Note: After you change the region, all WDS links will be off. If the specified region does not support the channel settings, the auto channel will be used instead.

Ruijie	Rcycc ∈	English 🗸 VCR (AP) 🖉 Pair Again 🗢 Log
습 Overview	O Alarm	
💮 LAN	Configuration is un Hostname Not Set 2 Configuration is uninitialized.	×
[™] Wireless ✓	Admin Password Not Set 1. Click here to change the password. Country/Region: China Country/Region: China (CN)	
Vy Diagnostics	Time Zone: (GMT+8.0) Time Zone: (GMT+8:00)Asia/Shanghai •	
ightarrow System Tools $ ightarrow$	WDS Group Info WDS Groups 1	X Password 🔍 X IP Allocation 🕘 X SSID 🔍
	,	
Ruíjie	Reyce ≡	English \vee VCR (AP) 🖉 Pair Again 🗢 Log Out
☐ Overview	Region Atter you change the region, all WDS links will be off. If the specified region does not support the channel settings, the auto channel will be used instead.	
② LAN	Country/Region	
ଲି Wireless ୍^ ⇔ WDS	Country/Region	
ය Region	Singapore (SG) Republic of Korea (KR)	
Vy Diagnostics	Indonesia (ID) Hong Kong (HK)	
$ ightarrow$ System Tools $\ ^{\vee}$	Macau (MO) Australia (AU)	
	Talaini (TV) Thaliand (TH) Deketan (CK)	

Change the Time Zone and NTP server

Ruijie	Reyce	Ξ			English 🗸 VCR (AP) 🖉 Pair Again 🗢 Lo	9
	• Alarm					~
LAN	Configuration is Hostname Not Set					
☆ Wireless ∨	Country/Region: C Time Zone <mark>: (GMT</mark> +	hina (CN) 🛿 +8:00)Asia/Shanghai 🖗				
Vy Diagnostics V	WDS Group Info	WDS Groups 1			X Password 🕘 🛛 X IP Allocation 🚱 🛛 X SSID 🖗	_
Svstem Tools						5 L
습 Overview	Time		c module. The ti	etlings will not be saved upon reboot).		(?
송 LAN		2020-11-17 15:04:16 Ed	_			
Wireless ∨ Vy Diagnostics ∨	* Time Zone	(GMT+8:00)Asia/Shangh	ai v			
💥 System Tools 🔷 🔿	* NTP Server	0.cn.pool.ntp.org	Add			
☆ Time ☆ Management		cn.pool.ntp.org	Delete			
☆ Update		pool.ntp.org	Delete			
☆ Reboot		asia.pool.ntp.org	Delete			
		rdate.darkorb.net	Delete			
		Save				

9.2 Devices status monitor

The status of EST310 is shown on overwiew, including channel, WDS SSID, latency, bandwidth, interference, RSSI, link signal, Rate, Flow and online status.

Ruíjie	[≜] Rcycc ≔			English \vee VCR (AP) 🖉 Pair Again 🗢 Log	og Ou
습 Overview	Alarm				~
② LAN	Configuration is uninitialized.				
ର Wireless · ·	Hostname Not Set: 2 . Country/Region: China (CN) Time Zone: (GMT+8:00)Asia/Shanghai				
𝔇 Diagnostics ∨					
🖁 💥 System Tools 🛛 🗸	WDS Group Info WDS Groups : 1			X Password 🕘 🛛 🗙 IP Allocation 🗐 🛛 X SSID 🕲	
	di WDS Group1				
	AP: 1 . (Ruijie)	Channel :52	Latency O: Fluent(1) Jitter(0) Freeze(0) Bandwidth O: Good(1) Media	um(0) Poor(0) ~	,
	CPE: 1 . (Online: 1 , Offline: 0)	WDS SSID :@Ruijie-wds-a4cc	Interference 1: Good(1) Medium(0) Poor(0) RSSI 1: Good(1) Medium(0)	Poor(0)	
			Strong Signal: — Medium Signal: — Poor Signal: —		
	◇ VCR (AP)			◇ Camera (CPE)	
	Ruijie @ ~ MAC: 30.0d;9e:07:a4:cc E513300 IP: 172:26:4.155		Latency 1ms Rate ← 400Mbps Flow ← 5.75Kbps RSSI-404b ← 5.07Kbps Uptime 13Min29Sec	Ruijie ▲ № 16 @ ~ MAC: 30.04 9e.07.a9.88 IP: 172.26.4.152 Online	

Show more details for the EST310



Click the LAN to edit the LAN configuration

Ruíjie	[®] Rcycc ≡			English VCR (AP) Z Pair Again D Log Out
습 Overview	• Alarm			Device: Group 1 / CPE / Ruijie Select a device to view its details)
② LAN	Configuration is uninitialized. Hostname Not Set: 2	LAN	×	Setup: LAN WDS Reboot
Hireless Y	Country/Region: China (CN) Time Zone: (GMT+8:00)Asia/Shanghai	IP Assignment DHCP ~		WDS SSID: Ruijie 🖉
 ♀ Diagnostics ✓ System Tools 	WDS Group Info WDS Groups 1	DHCP does not require an account.		Wel Status Connected Model: EST310 SYS Software Vr. CANA27V002980 Software Vr. CANA27V002980
	WDS Group1	IP Address 172.26.4.157		Hardware Ver: 1.00 MAC: 30:0d:9e:07:a9:88
	AP.1 (Ruijie) Channel 5 CPE 1. (Online: 1. Offline: 0) WDS SSID	Subnet Mask 255 255 252 0 Gateway 172 26 4.1	Bandwidth O: Good(1) RSSI O: Good(1) Mediu	IP Address : 172 26.4.157 Subnet Mask: 255 255 252.0
	◇ VCR (AP)	DNS Server 192.168.58.94		LAN LANO: Disconnected
	Ruijie 2 0 ~ MAC: 30.0d 9e 07.a4 cc ESSED IP: 472.26.4.155 Online	192.168.58.110 Submit	s2Kbps RSSI-40db t0Kbps Uptime 14Min3	Noise Fioor/Utilization: -104 dBm / 3% Distance: 1000M Channel: 52 Transmit Power: 270Bm Channel Kitt, 40MHz Channel: 58 Band: 5.8G

Click the AP's WDS to edit the WDS configuration

Ruíjie	[≜] Rcycc ∈			English 🗸 Camera (CPE) & Pair Again 🖘 Log Out
	WDS Group Info WDS Groups : 1			Device: Group 1 / AP / AP
② LAN		WDS	×	Setup: LAN WDS Reboot
🙈 Wireless 🛛 🗸	WDS Group1 AP: 1 . (AP) Channel ::		Bandwidth @: Good(2)	Lock Status: Locked WDS SSID: AP 🖉
𝔥 Diagnostics ∨	CPE: 2. (Online: 2, Offline: 0) WDS SSIC	Channel & Transmit Power	RSSI (): Good(2) Mediu	Uptime: 7Day20Hr22Min25Sec Net Status: Connected Model: EST310
💥 System Tools 🛛 🗸	◇ VCR (AP)	Channel Auto ~		SYS SN: CANA27K001708 Software Ver: AP_3.0(1)B2P28,Release(07210111)
	AP 2	Channel Width 40MHz ~	RSSI -44db Uptime 1Day01Hr11Min3!	Hardware Ver: 1.00 MAC: 30:0d:9e:07:a4:cc
	MAC: 30.0d.9e:07.a4.cc	Transmit Power Auto ~	RSSI-46db	IP Address : 192.168.110.151 Subnet Mask : 255.255.0
		Distance 1KM V	Uptime 1Day01Hr11Min14	Subnet Mask (255.255.255.0
		Save		Noise Floor/Utilization: -101 dBm / 1% Distance: 1000M Channel: 116 Transmi Power 27dBm Wi-Fi Channel Width:

For the CPE, only show the WDS configuration and can't edit



Ruíjie	[®] Rcycc ≔		English VCR (AP) & Pair Again 5 Log Out
습 Overview	Alarm	Device: Gro	oup 1 / CPE / Ruijie Yelect a device to view its details)
💮 LAN	Configuration is uninitialized, Hostname Not Set 2 . @		WDS Reboot
🗟 Wireless 🛛 🗸	Country/Region: China (CN) 🛛 Time Zone: (GMT+8:00)Asia/Shanghai 🔍	Lock Status: L	WDS SSID: Ruijie 🖉 🔲 👬 📰 🗌
ତ ⊗ Diagnostics ∨		ē	Uptime: 17Min10Sec
💥 System Tools 🛛 👋	WDS Group Info WDS Groups 1	SYS	SN: CANA27V002960 Software Ver: AP_3.0(1)B2P28,Release(07210111) Hardware Ver: 1.00
	WDS Group1 AP: 1. (Rujje) Channel 52 X Maze(0) Bandwidth ©. Good(1)		MAC: 30:0d:9e:07:a9:88
	CPE 1 (Online: 1 , Offline: 0) WDS SSID @Ruple-wds-w () Are you sure you want to reboot device Ruple? (0) Poor(0) RSSI @ Good(1) Media	LAN	IP Address: 172.26.4.157 Subnet Mask: 255.255.252.0 LANO: Disconnected
	◇ VCR (AP)		LANC, DISCONNECTED
	Ruije 2	WI-FI	Noise Floor/Utilization: -104 dBm / 6% Distance: 1000M Channel: 52 Transmit Power: 27dBm Channel Width: 40MHz RSSI: -40d0 Band: 58G

9.3 LAN setting

Ruíje | ≋Rcycc = English \vee Camera (CPE) 🖉 Pair Again 🗢 Log Out ☆ Overview Configure LAN settings ? (2) LAN IP Assignment DHCP 3 Wireless DHCP 𝔥 Diagnostics Static IP Address IP Address 192.168.110.164 💥 System Tools 🛛 🗸 Subnet Mask 255,255,255.0 Gateway 192.168.110.1 DNS Server 192.168.110.1

Change LAN settings, support DHCP and Static IP Address, default is DHCP

9.4 Wireless Setting

WDS SSID configuration, only support change the SSID and the default encryption mode is WPA/WPA2-PSK

Ruíjie	[≜] Rcycc	Œ	
습 Overview	WDSVCR (AP) Configure WDS para	imeters.	
လို့ LAN	WDS		
🗟 Wireless 🛛 🔿	* WDS SSID	@Ruijie-wds-a4cc	Scan
☆ WDS		Save	
☆ Region			
∑ V₂ Diagnostics ✓	Channel & Transr	nit Power	
	5G Channel	Auto ~	Interference
	Channel Width	40MHz V	
	Transmit Power	Auto ~	
	Distance	1KM V	
		Save	

Choose Channel & Transmit Power \rightarrow 5G Channel, change the channel

Click the interference, will show the analysis of 5G channel and click to select a channel you want

Ruíjie	l ≋Rcycc ⊆
	Configure WDS parameters.
袋 LAN	WDS
휾 Wireless 🔷 🗠	* WDS SSID @Ruijie-wds-a4cc Scan
☆ WDS	Analysis (Current Channel: 56) C Refresh
☆ Region	1000
V Diagnostics ∨	Channel & Transmit Power
💥 System Tools 🛛 🗸	5G Channel 56 (5.28Ghz) ∨ ⊟ Interference
	Channel Width 40MHz V
	Transmit Power Auto
	Channel 36 40 44 48 52 56 60 64 149 153 157 161 RFI Count 6 5 4 2 1 2 0 1 8 4 16 3
	Distance 1KM
	Save

Choose Channel & Transmit Power \rightarrow Channel Width, change the band width Default is 40MHz, EST310 LAN only support 100M, so 40MHz is enough



Choose Channel & Transmit Power \rightarrow Transmit Power, change the power

	Ruíjie	Reyee Reyee	Œ	
	☆ Overview	<i>WDSVCR (AP)</i> Configure WDS para	meters.	
	ô LAN	WDS		
	🗟 Wireless 🔷	* WDS SSID	@Ruijie-wds-a4cc	Scan
	☆ WDS		Save	
	☆ Region		Jave	
)	Contraction Diagnostics	Channel & Transn	nit Power	
	🔀 System Tools 🛛 🗠	5G Channel	56 (5.28Ghz) ~	⊟ Interference
		Channel Width	40MHz ~	
		Transmit Power	Auto ^	
		Distance	Auto	
			Low Medium	
			High	

Choose Channel & Transmit Power \rightarrow Distance, change the distance

Note: The distance does not refer to the actual physical distance. For example, if there are obstructions at a distance of 1KM, the performance requirements can be met by increasing the distance to 2KM

Ruíjie	Reyce	Œ	
	<i>WDSVCR (AP)</i> Configure WDS para	imeters.	
्रि LAN	WDS		
Reference Anno Anno Anno Anno Anno Anno Anno Ann	* WDS SSID	@Ruijie-wds-a4cc	Scan
☆ WDS ☆ Region		Save	
🏷 Diagnostics 🗸 🗸			
💥 System Tools 🛛 🗸	Channel & Transr	nit Power	
	5G Channel	56 (5.28Ghz) ~	⊟ Interference
	Channel Width	40MHz V	
	Transmit Power	Auto ~	
	Distance	Auto ~]
		1КМ ^	

9.5 System Setting

Choose System Tools $\rightarrow \mbox{Time},$ change the time and NTP server

Ruíjie	[∉] Rcycc ^Ξ	English	VCR (AP) & Pair Again	tog Out ⊅
습 Overview	Time Configure and view time (The device has no RTC module. The time settings will not be saved upon reboot).			?
(i) LAN	Current Time 2020-11-17 16:49:15 Edit			
🗟 Wireless 🗸 🗸	* Time Zone (GMT+8:00)Asia/Shanghai \checkmark			
𝔥 Diagnostics ∨	* NTP Server Add			
💥 System Tools 🔷	Save			
☆ Time ☆ Management				
☆ Update				
☆ Reboot				



 $Choose \ \textbf{System Tools} \rightarrow \textbf{Management}, \ support \ backup \ and \ import \ setup, \ reset \ the \ device \ and \ set \ the \ session \ timeout$



English V VCR (AP) & Pair Again 5 Log Out	i≋Rcycc ≞	т гијје
	Backup & Import Reset Session Timeout	습 Overview
3	Reset Resetting the device will clear the current configuration. If you want to keep the configuration, please Export Setup first.	ố LAN
	Reset	R Wireless
		♥ Diagnostics ∨
		💥 System Tools 🔷 🗠
		් Time
		☆ Management
		☆ Update
		් Reboot



Choose System Tools \rightarrow Upgrade, support online upgrade, local upgrade and update all the devices in the network

Rujie	Second s	English	VCR (AP) 🖉 Pair Agair	⇒ Log Out
습 Overview	Online Update Local Update All Devices			
🔅 LAN	Online Update Online update will keep the current configuration. Please do not refresh the page or close the browser. You will be redirected to the login page automatically after update.			
🛞 Wireless 🗸 🗸	Current Version AP_3.0(1)B2P28,Release(07210111) (Your version is the latest.)			
𝔅 Diagnostics ∨				
🔀 System Tools 🔷 🗠				
습 Time				
습 Management				
☆ Update				
ా Reboot				



Choose System Tools → Reboot to reboot the device



9.6 PTMP setting

Access to the device, if the device mode is AP, need to switch to CPE mode



Access to the device, if the mode is CPE, no need to switch mode

Ruíjie	[¶] Rcycc ^Ξ	English 🗸 Camera (CPE) 🖉 Pair Aga	in 🕤 Log Ou
	Alarm		~
LAN	Configuration is uninitialized. Hostname Not Set: 1. •		
🗟 Wireless 🗸 🗸	Admin Password Not Set: <u>1</u> . Click <u>here</u> to change the password. Country/Region: China (CN)		
\bigotimes Diagnostics $~~\lor~$	Time Zone: (GMT+8:00)Asia/Shanghal 🖗		
💥 System Tools 🗠	WDS Group Info WDS Groups : 1	X Password 🙆 📔 🗙 IP Allocation 🚱 📔 💥 St	31D 😰
	- (************************************		
	AP: 0. () Channel: CPE: 1. (Online: 0. Offline: 1) WDS \$SID :		~
	Strong Signal: Poor Signal Poor Signal		
	◇ VCR (AP)	◇ Camera (CPE)	
	No Device Available	Buijie ∅ ∅ MAC: 30:0d:9e:d6:d3:a6 ESI300 IP: 10.44.77.254 Offline	

Choose Wireless \rightarrow WDS, scan the SSID list and select a SSID, click Save

Ruíjie	Í ŜRcycc ≘	English \vee	Camera (CPE) 🖉 Pair Again 🐤 Log
습 Overview	WDS-Camera (CPE) Configure WDS parameters.		?
② LAN	WDS		
육 Wireless ^ ☆ WDS ☆ Region	* WDS SSID @Ruijie-wds-c5a5 Scan WDS SSID List (Click to select a SSID.) × Search by SSID Rescan WDS sSID RSSI SN		
🏷 Diagnostics 🗸 🗸	Channel & Transmit Power		
💥 System Tools 🗠	5G Channel Auto V 🗎 Interferer		
	Channel Width 40MHz V		
	In CPE mode, the local channel and channel		
	Transmit Power Auto ~		
	Distance 1KM V		
	Save		
Ruíjie	ैै Rcycc ≡	English V	Camera (CPE) 🖉 Pair Again 🛛 🗢 Log
		English 🗸	-
	WDSCamera (CPE) Configure WDS parameters.	English V	Camera (CPE) /2 Pair Again > Log
습 Overview ⓒ LAN 육 Wireless		English 🗸	-
 Overview Overview LAN Wireless WDS 	WDS-Camera (CPE) Configure WDS parameters.	English v	-
습 Overview ⓒ LAN 육 Wireless	WDS-Camera (CPE) Configure WDS parameters WDS * WDS SSID @Ruije-wds-a4cc	English v	-
 ○ Overview ○ LAN ○ Wreless ○ WDS ○ Region 	WDS-Camera (CPE) Configure WDS parameters. WDS * WDS SSID @Ruije-wds-a4cc Save	English v	-
 ○ Overview ○ LAN ○ Wireless ○ WDS ○ Region ○ Diagnostics 	WDSCamera (CPE) Configure WDS parameters. WDS * WDS SSID @Ruijie-wds-a4cc Save Channel & Transmit Power 59 Channel Auto Auto © Interference	English v	-
 ○ Overview ○ LAN ○ Wireless ○ WDS ○ Region ○ Diagnostics 	WDS-Camera (CPE) Configure WDS parameters. WDS * WDS SSID @Ruljie-wds-a4cc Save Channel & Transmit Power SG Channel Auto Ymain Provide Parameters	English v	-
 ○ Overview ○ LAN ○ Wireless ○ WDS ○ Region ○ Diagnostics 	WDS-Camera (CPE) Configure WDS parameters. WDS * WDS SSID @Ruije.wds-a4cc Sove Channel & Transmit Power GG Channel Auto Channel Wdth 40M4z In CPE mode, the local channel and channel wdth are consist	English	-
 ○ Overview ○ LAN ○ Wireless ○ WDS ○ Region ○ Diagnostics 	WDS-Camera (CPE) Configure WDS parameters. WDS * WDS SSID @Ruije.wds-a4cc Save Save Channel & Transmit Power 66 Channel Auto Channel Wuth 40MHz In CPE mode, the local channel and channel width are consis Transmit Power	English	-
 ○ Overview ○ LAN ○ Wireless ○ WDS ○ Region ○ Diagnostics 	WDS-Camera (CPE) Configure WDS parameters. WDS * WDS SSID @Ruije.wds-a4cc Sove Channel & Transmit Power GG Channel Auto Channel Wdth 40M4z In CPE mode, the local channel and channel wdth are consist	English	-

PTMP success and show the actual topo on the overview

Ruíie	│			English	🗸 🛛 Camera (CPE) 🖉	Pair Again	👈 Log C
C Overview	Alarm						~
ô LAN	Configuration is uninitialized.						
n Wireless	Hostname Not Set: 3 . O Country/Region: China (CN) O						
	Time Zone: (GMT+8:00)Asia/Shanghai @						
☆ WDS							
☆ Region	WDS Group Info WDS Groups : 1			🔀 Passw	vord 🔞 🛛 🔆 IP Allocation 🚱	💥 SSID (0
𝒱 Diagnostics ∨	WDS Group1						
💥 System Tools 🗸	AP: 1. (Ruijie)	Channel :52	Latency : Fluent(2) Jitter(0) Freeze(0) Bandwidth : Good(2) Medium(0) F	Poor(0)			~
System tools	CPE: 2 . (Online: 2 , Offline: 0)	WDS SSID :@Ruijie-wds-a4cc	Interference @: Good(2) Medium(0) Poor(0) RSSI @: Good(2) Medium(0) Poor(0)			
			Strong Signal: 🚥 Medium Signal: 🚥 Poor Signal: 🚥				
	◇ VCR (AP)			⇔Camera (C	PE)		
	Ruije / OV		Latency 2ms Rate 400Mbps Flow - 11.77Kbps RSSI-39db	Buii	ie 🖉 🔷 🔈 🖗 🖉 🗸		
	MAC: 30:0d:9e:07:a4:cc		Latericy 2rris (rate 400Mbps 7.62Kbps Uptime 49Min31Sec	MAC	: 30:0d:9e:d6:d3:a6		
	EST310 IP: 10.44.77.254 Online		Latency 4ms Rate - 400Mbps Flow - 12.58Kbps RSSI-43db	EST310 IP: 1			
			Latency 4ms Rate - 400Mbps Flow - 12.540bps Uptime 03Hr12Min18Sec	Ruij MAC	ie ℓ_		
				EST310 IP: 1	10.44.77.254 Online		
Dutto				_			
Ruijie	i ≋Rcycc ⊑			English	Camera (CPE) 2 P	air Again	⊸ Log Ou
☆ Overview	Alarm						~
🔅 LAN	Configuration is uninitialized.						
-9-	Hostname Not Set: 3 . 🚱						
n Wireless	Country/Region: China (CN) @ Time Zone: (GMT+8:00)Asia/Shanghal @				Camera Count Supported by C	Current	
☆ WDS					WDS Link		
☆ Region	WDS Group Info WDS Groups : 1			*		Count	
⊗ Diagnostics ∨				10	0W Pixels (Data Rate: 3M)	16	
Vi Diagnostics	WDS Group1				0W Pixels (Data Rate:	10	
💥 System Tools 🛛 👋	AP: 1 . (Ruijie) CPE: 2 . (Online: 2 , Offline: 0)	Channel :52	Latency (): Fluent(2) Jitter(0) Freeze(0) Bandwidth (): Good(2) Medium(0) Pr		5M)		~
		WDS SSID :@Ruiiie.wdc.a/cc	Interference @: Good(2) Medium(0) Poor(0) RSSI @: Good(2) Medium(0) Poor(0)				
	GPE. 2. (Online. 2, Online. 0)	WDS SSID :@Ruijie-wds-a4cc	Interference O: Good(2) Medium(0) Poor(0) RSSI O: Good(2) Medium(0) Poor(0)	20	0W Pixels (Data Rate: 6M)	8	
		WDS SSID :@Ruijie-wds-a4cc	Strong Signal: - Medium Signal: - Poor Signal: -	30	6M) 0W Pixels (Data Rate:	8	
	OPE 2. (Online. 2., Online. 0) VCR (AP)	WDS \$SID @Ruijie-wds-a4cc	Strong Signat: 🗯 Medium Signat: 🛑 Poor Signat: 🖛		6M)		
	◇ VCR (AP)	WDS SSID @Rugle-wds-a4cc	Strong Signal: - Medium Signal: - Poor Signal: -	◇ Camer	6M) 0W Pixels (Data Rate: 10M) € 2 № 16 @ ~		
	 ∨ VCR (AP) 	WDS SSID @Rugle-wds-a4cc	Strong Signat: - Medium Signat Poor Signat	◇ Camer	6M) 0W Pixeis (Data Rate: 10M) e ℓ ℓ № 16 ⊗ ~ 30.0d:9e:d6:d3:a6		
	◇ VCR (AP) Ruijie 2 @ ✓ MAC: 30.0d/9e(WDS SSID @Rugie-wds-a4cc	Strong Signat: - Medium Signat Poor Signat	Camer Camer Ruijie MAC: EST310 IP: 10 Ruijie	6M) 0W Pixels (Data Rate: 10M) e ℓ h ≤ 16 ⊗ ~ 30:0019e:d6:d3:a6 0.44.77.254 Online e ℓ h ≤ 16 ⊗ ~		
	♦ VCR (AP) Ruijie 2 Image: Constraint of the second	WDS SSID @Rugie-wdr-a4cc	Strong Signat — Medium Signat — Poor Signat — Latency 2ms Rate — 400Mbps Flow — 11.77Kbps RSSI-39db — 400Mbps Flow — 12.58Kbps RSSI-39db	Camer Camer Ruijie MAC: EST310 IP: 10 Ruijie	6M) 0W Pixels (Data Rate: 10M) e ℓ ↑ 16 ⓒ ∨ 30.04 9e:45:43 a6 2.44.77.254 Online e ℓ ↑ 16 ⓒ ∨ 30.04 9e:07.a9 88		



1. Does Reyee Device support Telnet or SSH login?

No. Reyee device only support web management.

- 2. What is the default IP address of the Reyee switch? 10.44.77.200.
- 3. What is the IP address of the master device on the self-organizing network? 10.44.77.253
- 4. What is the device priority of the self-organizing network master selection? EG > AP > Switch
- 5. What is the difference between the default SSID @Ruijie-s and @Ruijie-m?

@Ruijie-m is generated after successful network self-organization, while @Ruijie-s is generated on a standalone device.

6. Does the self-organizing network support to be formed between Reyee series devices and other Ruijie devices (Running RGOS)?

No. Self-organizing network can only be formed between Reyee Series devices.

7. I failed to log into the eWeb management system. What can I do?

Perform the following steps:

- (1) Check that the network cable is properly connected to the LAN port of the device and the corresponding LED indicator blinks or is steady on.
- (2) Before accessing the configuration GUI, set the IP assignment mode to Obtain an IP address automatically (recommended), so that the server with DHCP enabled can automatically assign an IP address to the PC. To designate a static IP address to the PC, set the IP address of the PC in the same network segment as the IP address of the management interface. For example, if the default IP address of the management interface is 192.168.110.1 and the

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subnet mask is 255.255.255.0, set the IP address of the PC to 192.168.110.X (X is any integer ranging from 2 to 254), and the subnet mask is 255.255.255.0.

- (3) Run the ping command to test the connectivity between the PC and the device.
- (4) If the login failure persists, restore the device to factory settings.

8. What can I do if I forget my username and password? How to restore the factory settings?

To restore the factory settings, power on the device, and press and hold the Reset button for 5s or more, and release the Reset button after the system LED indicator blinks. The device automatically restores the factory settings and restarts. The original configuration will be lost after the factory settings are restored. After the restoration, the default management address is http://10.44.77.254. You can set the username and password upon first login.

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