

USR-G808 User Manual

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USR-G808 User Manual

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1. Overview

Product link:

http://www.usriot.com/p/industrial-4g-dual-sim-dual-Ite-modules-wireless-router/



Figure 1 Download Page

If you have any question, please submit it back to customer center: http://h.usriot.com

1.1. Brief introduction

USR-G808 supports WAN, LAN, WLAN and dual 4G interface. User can access to 4G network by WLAN interface or Ethernet interface.

1.2. Product feature

- Support 4 LAN interface, 1 WAN interface. All Ethernet interface support 10/100Mbps
- Support 1 command serial port
- Support 1 WLAN(802.11b/g/n)
- Support serial port, ssh, telnet and Web Server to manage and configure
- Support LED to show work status
- Support Reload button to restore default settings by hardware way
- Support VPN Client(PPTP, L2TP, IPSEC, OPENVPN, GRE, SSTP) and VPN encryption function
- Support load balancing
- Support firewall, NAT, DMZ host
- Support QOS, flow service and limiting speed according to interface



- Support DDNS and port forwarding
- Support WIFIDOG, this function need user custom according to own needs
- Support static routes, PPPOE, DHCP/static IP
- Support NTP, internal RTC
- Support watchdog to guarantee the system stability

1.3. Hardware introduction

1.3.1.Hardware dimension

G808 dimension is 160*121*45 mm.



Figure 2 Hardware dimension



2. Product Functions

This chapter introduces the functions of USR-G808, as the following diagram shown, you can get an overall knowledge of it.



Figure 3 Product function

2.1.Application procedure

1.Power off the G808 and insert SIM card.

2.Connect WIFI antenna and 4G antenna.

3. Power on the G808 by 12V power supply.

Application diagram as follow, user can access internet through LAN interface or WLAN interface of G808:





2.1.1.APN

When user want to configure and use G808, the first and most important step is to configure APN settings. Different operator have different APN(access point name). If user uses the SIM card from the operator, must know the APN. User can ask SIM card operator for APN information. There are three main parameters about APN. Those are APN address, username and password. Sometimes only configuring APN address is enough.

APN configuration by Web Server as follow:

USR IOT IOT Experts		В	e Honest, Do Best! ⊕☆∣English
USR-G808	SIM1 Configuration		
	APN LTE Config S	SIM Info	
> Status	APNAddress	AutoCheck 🔻	
Services Network	Username		E
Interfaces	Password		
APNSET	AuthType	РАР	
IPSECSET Wifi	Check Registered (Seconds)	30	
DHCP and DNS	WAN Priority	wanfirst	
Hostnames	Reference Mode	Custom 💌	
Static Routes Diagnostics	Reference Address(Can only enter the IP)	8.8.8.8	
QoS			
Load Balancing			
Eirouall	SIM2 Configuration		
	JiNan Usr	IOT Technology Limited http://www.usr.cn/	

Figure 5 APN configuration

APNAddress: Default is AutoCheck, user can choose '--custom--' and write correct SIM card APN address. And user can keep AuthType and Check Registered (Seconds) as default settings.

After user configuring successfully, user can click 'SIM Info' above to check SIM card 1 and SIM card 2 information.

2.2.Common functions

2.2.1.DDNS

There are two situations to adopt DDNS function:

- G808 supports, user can choose one service provider on 'Service'.
- G808 doesn't support, user need choose '--custom--' on 'Service' and write correct service provider.



USR IOT IOT Experts		Вe	Honest,	Do	Best! ^{中文 English}
USR-G808	Dynamic DNS Dynamic DNS allows that your router can be reached with a fixed hostname while having a dynamically changing IP address.				
 Services private ip ddns Dynamic DNS 	MYDDNS		Delete		
Captive Portals RemoteManager > Network > Firewall > System	Enable Image: Constraint of the started Event interface wan_wired Image: Constraint of the started Image: Constraint of the started Service ddns.oray.com				
> Logout	Hostname mypersonaldomain.ddns.oray Username myusername Password •••••••				
	Source of IP address interface 💌				

Figure 6 DDNS configuration

User should choose 'Enable' on above figure to enable DDNS function firstly and also need to reset G808 to make new parameters take effect. If user wants to enable this function, the network that G808 belongs to must be distributed independent public network IP.

2.2.2.WIFIdog

User can enter Web Server and configure WIFIdog parameters as follow:

	wifidog-web
USR-G808	wifidog not start
> Status	Configuration
✓ Services	
private ip ddns	General Settings whitelist Advanced Settings
Dynamic DNS	Enable 🔽 🎯 Enable or Disable wifidog
Captive Portals	daemon enable 🔽 👩 Enable daemon for wifidog, ensure the thread always online
RemoteManager	
> Network	Blacklist and whitelist 🖗 🎯 Blacklist and whitelist daemon, monitor the ip changes daemon
> Firewall	AP ID eec57916f
> System	Fill with wifidog server's correct AP ID
> Logout	wifidog server address wifiauth.zhangkongbao.com
	😰 Domain name or ip
	Save

Figure 7 WIFIdog configuration

User need choose 'Enable' and 'daemon enable' to use WIFIdog function. After configuring and clicking 'Save', user need reset G808 to make changing take effect.

2.2.3.RemoteManager

2.2.3.1.Remote Firmware Upgrade

User can configure this function by Web Server as follow:



SR-G808	
	RemoteManager
	Remote firmware upgrade and status monitor.
> Status	
✓ Services	Configuration
private ip ddns	
Dynamic DNS	DataFlowControl DataFlow Status FirmwareUpgrade StatusMor
Cantive Portals	
captive rortais	Enable Remote Firmware
RemoteManager	opgrade
Network	Remote Address ycsj1.usr.cn
Firewall	Port 30001
System	
System	Interval(seconds) 1800
> Logout	

Figure 8 Remote Firmware Upgrade

2.2.3.2.Remote Monitor

This function can realize reporting G808 information(Such as flow, firmware version, RSSI, IMEI) to Remote Monitor server and Remoter Monitor server can also send commands to control G808. User can configure this function by Web Server as follow:

USR-G808	RemoteManager
Status	Remote firmware upgrade and status monitor.
ervices	Configuration
private ip ddns Dynamic DNS	DataFlowControl DataFlow Status FirmwareUpgrade StatusMonitor
Captive Portals	Enable Remote Monitor
RemoteManager	Remote Address ycsj1.usr.cn
Firewall	Port 30001
System	Heartpkt Content Heartpkt
Logout	Heartpkt Interval(seconds) 30
	Interval(seconds) 600

Figure 9 Remote Monitor

2.2.4.LAN interface

G808 supports four wired LAN interfaces(LAN1~LAN4). WIFI interface also belongs to LAN interface(wireless LAN interface).

Default settings: Static IP (IP address: 192.168.1.1); Subnet mask: 255.255.255.0; Enable DHCP Server function. LAN interface functional diagram as follow:





Figure 10 LAN interface functional diagram

User can configure LAN interface as follows:







2.2.4.1.DHCP

DHCP Server default range of distribution is from 192.168.1.100 to 192.168.1.250 and default address lease time is 12 hours. Address range and lease time can be changed.

After entering Web Server LAN interface configuration web page, user can find 'DHCP Server' on Web Server as follow:

USR-G808	IPv4 broadcast		_
Status	Use custom DNS servers	8.8.8.8	-
Services			
Network	DHCP Server		
irewall			
Firewall System	General Setup		
Firewall System Logout	General Setup	Disable DHCP for this	interface
em Dut	General Setup Ignore interface	Disable DHCP for this i	interface.
	General Setup Ignore interface Start	Disable <u>DHCP</u> for this i	interface.
n t	General Setup Ignore interface Start	 Disable <u>DHCP</u> for this i 100 Our Lowest leased address as 	interface. offset from the network address.
	General Setup Ignore interface Start Limit	 Disable <u>DHCP</u> for this i 100 Lowest leased address as 150 	interface. offset from the network address.
n n	General Setup Ignore interface Start Limit	 Disable <u>DHCP</u> for this i 100 Lowest leased address as 150 Maximum number of lease 	interface. offset from the network address. ed addresses.
ewall stem gout	General Setup Ignore interface Start Limit Leasetime	 Disable DHCP for this i 100 Lowest leased address as 150 Maximum number of lease 12h 	interface. offset from the network address. ed addresses.

Figure 12 DHCP Server configuration

2.2.5.WAN interface

G808 supports one wired WAN interface. WAN interface supports DHCP Client, static IP and PPPOE mode. And default setting is DHCP Client mode. User can configure WAN interface as follows:

Interfaces		
Interface Overview		
Network	Status	Actions
	Uptime: 2h 12m 9s	
LAN	MAC-Address: D8:B0:4C:D9:52:30	Connect Stop
(<u>***</u> *********************************	TX: 4.46 MB (21458 Pkts.)	Cality Delete
br-lan	IPv4: 192.168.1.1/24	Edit
	IPv6: FD8B:9BB0:4CD1:0:0:0:0:1/60	
WAN_4G1	Uptime: 0h 0m 0s	Connect Stop
J.	RX: 0.00 B (0 Pkts.)	
eth1	TX: 27.87 KB (91 Pkts.)	Edit Delete
WAN 462	Uptime: 0h 0m 0s	
	MAC-Address: 00:A0:C6:00:00:00	Connect Stop
eth2	RX: 0.00 B (0 Pkts.)	Edit Delete
	TA. 030.35 KB (2045 PKIS.)	
WAN_WIRED	Uptime: 0h 0m 0s	Connect Stop
 800)	MAC-Address: D8:B0:4C:D9:52:30 BX: 0.00 B (0 Pkts)	
eth0.2	TX: 903.63 KB (2645 Pkts.)	Edit Delete



USR-G808	WAN 4G2 WAN 4G1 WAN WIRED LAN
> Status	
> Services	On this have you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and enter t
Network	names of several network interfaces separated by spaces. You can also use <u>VLAN</u> notation INTERFACE.VLANNR (e.g.: etb0.1).
> Firewall	
> System	Common Configuration
> Logout	General Setup Physical Settings Firewall Settings
	Status Uptime: 0h 0m 0s Image: Mac-Address: D8:80:4C:D9:52:30 eth0.2 RX: 0.00 B (0 Pkts.) TX: 907.05 KB (2655 Pkts.)
	Protocol DHCP client
	Hostname to send when requesting DHCP

Figure 13 WAN interface configuration

2.2.6.WIFI interface

G808 is a AP actually and supports other STA devices connecting to. G808 supports at most 24 STA devices to connect and about 150 meters WIFI coverage area in open field. WIFI interface functional diagram as follow:



Figure 14 WIFI interface functional diagram

Default settings of WIFI interface as follows:

-	
Parameters	Default setting
SSID	USR-G808-XXXX(XXXX is MAC address)
Password	www.usr.cn
Channel	Auto
Bandwidth	40MHz
Encryption method	WPA2-PSK

Figure 15 WIFI interface default settings



User can configure WIFI interface as follow:

USR-G808	mt7620: Master "LISR-G808	
> Status	Wireless Overview	
> Services		
✓ Network	802.11 b/g/n W	fireless Controller Add
Interfaces	SSID: USR-G80	3-5230 Mode: Master
APNSET	BSSID: D8:B0:40	:D9:52:2F Encryption: -
IPSECSET		
Wifi		
DHCP and DNS		
Hostnames		
Static Routes		
Diagnostics		
QoS		
Load Balancing		
Firewall		
USR-G808	Wireless Network: Ma	ster "USR-G808-5230" (ra0)
	The Device Configuration see	tion covers physical settings of the radio hardware such as channel, transmit power or antenna selection which are
> Status	mode are grouped in the Inte	eress networks in the radio hardware is multi-ssub capable). Per network settings like encryption of operation erface Configuration.
> Services		
> Network	Device Configuration	
> Firewall	General Setup Advance	rd Settings
> System		
> Logout	Status	Mode: Master Josu Josu
	Radio on/off	on •
	Network Mode	802.11b/g/n
	Channel	auto
	Band Width	40MHz

Figure 16 WIFI interface configuration

User can change Radio on/off to off to close WIFI interface.

2.2.7. Dual 4G interface

G808 supports dual 4G interfaces to access internet. 4G interface functional diagram as follow:







User can configure 4G interfaces by Web Server as follow:

USR-G808	WAN_4G2 WAN_4	4G1 WAN_WIRED LAN	
> Status	Interfaces		
> Services	Interface Overview		
✓ Network	Network	Status	Actions
Interfaces	LAN	Uptime: 0h 25m 47s MAC-Address: D8:B0:4C:D9:52:30 DY: 1.02 MB (11:221 Dim)	Connect Stop
IPSECSET	و ت (۲۳ ش) br-lan	TX: 2.12 MB (9814 Pkts.) TX: 2.12 MB (9814 Pkts.) IPv4: 192.168.1.1/24	Edit Delete
Wifi		IPv6: FD88:9880:4CD1:0:0:0:01/60	
DHCP and DNS Hostnames	wAN_4G1	MAC-Address: 00:A0:C6:00:00:00 RX: 0.00 B (0 Pkts.) TX: 31.47 KB (103 Pkts.)	Connect Stop
Static Routes Diagnostics	WAN_462	Uptime: 0h 0m 0s MAC-Address: 00:A0:C6:00:00:00 RX: 0.00 B (0 Pkts.)	Connect Stop
QoS	eth2	TX: 169.35 KB (531 Pkts.)	
Load Balancing	WAN_WIRED	Uptime: 0h 0m 0s MAC-Address: D8:B0:4C:D9:52:30	Connect Stop

Figure 18 4G interface configuration

2.2.8.Load balancing

Load balancing function will configure dual 4G interfaces to realize dual 4G interfaces load balancing. User can configure this function by Web Server as follow:

USR-G808	Overview Configuration Advanced
> Status	Interfaces Members Policies Rules
> Services	
✓ Network	MWAN Interface Configuration
Interfaces	There are currently 0 of 250 supported interfaces configured
APNSET	Interfaces
IPSECSET	MWAN supports up to 250 physical and/or logical interfaces
Wifi	MWAN requires that all interfaces have a unique metric configured in /etc/config/network Names must match the interface name found in /etc/config/network (see advanced tab)
DHCP and DNS	Names may contain characters A-Z, a-z, 0-9, _ and no spaces Interfaces may not share the same name as configured members, policies or rules
Hostnames	Interface Enclud Tracking Tracking Ping Ping Ping Interface Interface Matrix Encours
Static Routes	IP reliability count timeout interval down up
Diagnostics	
QoS	This section contains no values yet
Load Balancing	
N. Firewell	004

Figure 19 Load balancing configuration

2.2.9.VPN Client

VPN(Virtual Private Network) has Client and Server two parts and protocols includes PPTP, L2TP, ipsec, openvpn, gre, sstp.

2.2.9.1.PPTP Client

PPTP is point-to-point tunnel protocol which uses one TCP connection(port 1723) to maintain tunnel. PPTP protocol will use GRE technology to encapsulate data into PPP data and transmit through tunnel, then encrypt or compress the PPP data.



If PPTP Server has been established, user can configure PPTP Client by Web Server as follows:

031-0000	Network Status Actions	
	Uptime: 1h 1m 41s	
> Status	LAN MAC-Address: D8:80:4C:D9:52:30 Connect Stop RX: 2.10 MB (25209 Pkts.)	
> Services	アン 10.1 Section 2013 Pkts.) Delete Delete	
Services	IPV4: 192.108.1.1/24 IPv6: FD88:9B80:4CD1:0:0:0:0:1/60	
 Network 	WAN_4G1 Uptime: 0h 0m 0s Connect Ston	
Interfaces	MAC-Address: 00:A0:C6:00:00:00 RX: 0.00 B (0 Pkts.)	
APNSET E	eth1 TX: 23.29 KB (75 Pkts.) Edit Delete	
IPSECSET	WAN_4G2 Uptime: 0h 0m 0s Connect Ston	
Wifi	MAC-Address: 00:A0:C6:00:00:00 RX: 0.00 B (0 Pkts.)	
DHCP and DNS	eth2 TX: 417.17 KB (1303 Pkts.) Edit Delete	
Hostnames	WAN WIRED Uptime: 0h 0m 0s	
Static Routes	MAC-Address: D8:B0:4C:D9:52:30	
Diagnostics	eth0.2 TX: 422.09 KB (1237 Pkts.) Edit Delete	
Diagnostics	Add new interface	
Qos		
Load Balancing		
Firewall		
USR-G808	Create Interface	
> Status	Name of the new interface test	
> Services	ine allowed characters are: A-2, U-9 and _	
Network	Protocol of the new pptp	
Eirouall	interace	
riewai	Create a bridge over multiple interfaces	
System		
> Logout	Cover the following interface C Ethernet Adapter: "apclio"	
	C 2 VLAN Interface: "eth0.1" (lan)	
	C 🖉 VLAN Interface: "eth0.2" (wan_wired)	
	C 🖉 Ethernet Adapter: "eth1" (wan_4g1)	
	C Ethernet Adapter: eth2 (wan_4g2)	
	C 🖉 Ethernet Adapter: "teql0"	
	C 🖉 Ethernet Adapter: "wds0"	
	C @ Ethernet Adapter: "Wds1" C @ Ethernet Adapter: "Wds3"	
	C J Ethernet Adapter: "Wds1" C E Ethernet Adapter: "wds2" C E Ethernet Adapter: "wds3"	
	Image: Ethernet Adapter: "Wds1" Image: Ethernet Adapter: "Wds2" Image: Ethernet Adapter: "Wds3" Image: Ethernet Adapter: Ethernet Adapter: "Wds3" Image: Ethernet Adapter: Ethernet Adapter: "Wds3" Image: Ethernet Adapter: Ethernet Adapter: Ethernet Adapter: "Wds3" Image: Ethernet Adapter: Ethe	nter the
USR-G808	Image: Enternet Adapter: "Wds1" Image: Enternet Adapter: "Wds2" Image: Enternet Adapter: "Wds3"	nter the
USR-G808	Image: Enternet Adapter: "Wds1" Image: Enternet Adapter: "Wds2" Image: Enternet Adapter: "Wds3" Image: Enternet Adapter: "Wds3" <td>nter the</td>	nter the
USR-G808	Image: Enternet Adapter: "Wds1" Image: Enternet Adapter: "wds2" Image: Enternet Adapter: "wds3" Image: Enternet Adapter: "wds3" <td>nter the</td>	nter the
USR-G808 Status Services	Common Configuration General Setup Advanced Settings Firewall Settings	nter th
USR-G808 Status Services Network	Image: Enternet Adapter: Wds1* Image: Enternet Adapter: Wds2* Image: Enternet Adapter: Wds2* Image: Enternet Adapter: Wds3*	nter th
USR-G808 Status Services Network Firewall	C	nter th
USR-G808 Status Services Network Firewall Sustam	C	nter th
USR-G808 > Status > Services > Network > Firewall > System	C	nter th
USR-G808 > Status > Services > Network > Firewall > System > Logout	Common Configuration Ceneral Setup Advanced Settings Firewall Settings RX: 0.00 B (0 Pkts.) pptp-test TX: 0.00 B (0 Pkts.) protocol pptp-test TX: 0.00 B (0 Pkts.) pptp-test TX: 0.00 B (0 Pkts.) pptp-test	nter th
USR-G808 Status Services Network Firewall System Logout	Common Configuration Ceneral Setup Advanced Settings Firewall Settings RX: 0.00 B (0 Pkts.) pptp-test TX: 0.00 B (0 Pkts.) protocol pptp VPN Server	nter th
USR-G808 Status Services Network Firewall System Logout	Common Configuration General Setup Advanced Settings Firewall Settings RX: 0.00 B (0 Pkts.) pptp-test VPN Server PAP/CHAP username PAP/CHAP username	nter th
USR-G808 Status Services Network Firewall System Logout	Common Configuration General Setup Advanced Settings Firewall Settings RX: 0.00 B (0 Pkts.) Protocol PPtP Protocol PPtP PAP/CHAP username PAP/CHAP username	nter th
USR-G808 > Status > Services > Network > Firewall > System > Logout	Common Configuration Ceneral Setup Advanced Settings Firewall Settings RX: 0.00 B (0 Pkts.) Protocol PPtP PAP/CHAP username PAP/CHAP password PAP/CHAP password PAP/CHAP password PAP/CHAP password PAP/CHAP password PAP/CHAP password Password PapyCetap Page Page Page Page Page Page Page Page	nter th
USR-G808 Status Services Network Firewall System Logout	Common Configuration General Setup Status Protocol Pptp Ptp Ptp Ptp Ptp Ptp Ptp Ptp Ptp Pt	nter th
USR-G808 Status Services Network Firewall System Logout	Common Configuration General Setup Advanced Settings Firewall Settings RX: 0.00 B (0 Pkts.) Protocol Pptp Ptp RX: 0.00 B (0 Pkts.) Protocol Pptp Ptp Ptp Ptp Ptp Ptp Ptp Ptp Ptp Pt	nter th

Figure 20 PPTP Client configuration

User can choose only MSChapV2 encryption in 'Advanced Settings' according to whether PPTP Server only supports MPPE encryption. And in Firewall Settings, user can choose WAN or LAN according to dialing way.



2.2.9.2.L2TP Client

L2TP is Layer 2 Tunneling Protocol which is similar to PPTP protocol. G808 supports multiple authentication methods such as tunnel password authentication and CHAP, and supports MPPE and L2TP OVER IPSEC encryption way.

User can add a new interface with L2TP protocol by **2.2.9.1.PPTP Client** way and configure by Web Server as follow:

20.9	Interfaces - TEST					
	On this page you can configure the network interfa names of several network interfaces separated by s	On this page you can configure the network interfaces. You can bridge several interfaces by ticking the "bridge interfaces" field and en names of several network interfaces separated by spaces. You can also use VLAN notation INTERFACE. VLANRR (e.g.: eth0. 1).				
	Common Configuration					
	General Setup Advanced Settings Firew	vall Settings				
	Status 🗐 I2tp-ter	RX: 0.00 B (0 Pkts.) st TX: 0.00 B (0 Pkts.)				
	Protocol L2TP	T				
	L2TP Server					
	PAP/CHAP username					
	PAP/CHAP password	2				

Figure 21 L2TP Client configuration

2.2.9.3.IPSEC

IPSEC protocol isn't a separate protocol. It gives a complete architecture of network data security on the IP layer and application layer which includes Network Authentication Protocol AH, ESP, IKE and some algorithms for network authentication/encryption. AH protocol and ESP protocol are used to provide security service, IKE protocol is used to key exchange.

USR-G808	IPSEC Settings
> Status	If you goning to use an IPSEC VPN, please fill in the form correctly
> Services	Configuration
✓ Network	
Interfaces	General Setup Advanced Settings Connect Log
APNSET	Connect Type Net-to-Net Mode 🔻
IPSECSET Wifi	Transport Type Tunnel •
DHCP and DNS	Function Type Client VPN •
Hostnames	Connect Name
Static Routes	Local Interface lan
Diagnostics	
QoS	Local Subnet a Subnet expressed as network/netmask, e.g. 10.10.10.0/24
Load Balancing	Local ID

User can configure IPSEC by Web Server as follow:





2.2.9.4.OPENVPN Client

OPENVPN is based on OpenssI library. It supports bidirectional authentication based on certificate, that's to say Client needs to certificate Server and Server needs to certificate Client.

User can add a OPENVPN interface and configure it by Web Server as follow. Protocol can choose TUN(route mode) or TAP(bridge mode).

USR-G808	Create Interface	
Status	Name of the new interface	est
Services Network	Protocol of the new interface	Static address Static address
Interfaces	Create a bridge over multiple interfaces	DHCP client Unmanaged DHCPv6 client pop
IPSECSET	Cover the following interface	PPPp pppoE :er: "apcli0" PPPoATM h: "eth0"
Wifi DHCP and DNS	F	UMTS/GPRS/EV-DO L2TP : "eth0.1" (lan) GRE : "eth0.2" (wan_wired)
Hostnames	L	TAP :::: "eth1" (wan_4g1) SSTP :::: "eth2" (wan_4g2)
Static Routes Diagnostics		Verlag voltage Verlag v
QoS		Ethernet Adapter: "wds0" Tethernet Adapter: "wds1"
Load Balancing		Ethernet Adapter: "wds2"

Figure 23 OPENVPN Client configuration

2.2.9.5.GRE

GRE(Generic Routing Encapsulation) protocol is the third layer tunnel protocol of VPN which adopts Tunnel technology. It can encapsulate some network layer protocols data(such as IP, IPX) to transmit on another network layer protocol. User can add a GRE interface and configure by Web Server as follow:

	Create Interface		
	Name of the new interface	test The allowed characters are: 	A-Z, a-z, 0-9 and _
rk I	Protocol of the new interface	GRE	
rstem gout	Back to Overview		Submit

Figure 24 GRE configuration

2.2.9.6.SSTP Client

SSTP(secure socket tunnel protocol) is protocol which is applied for internet. It can create a VPN tunnel which can transmit on HTTPS. STTP can only used to remote access and doesn't support site-to- site VPN tunnel.

User can add a SSTP interface and configure by Web Server as follow:



-G808			
	Create Interface		
tus	Name of the new interface	test	
ces		The allowed characters are: A	A-Z, a-z, 0-9 and _
k	Protocol of the new interface	SSTP •	
	Rack to Overview		Sub
ut 🔹			

Figure 25 SSTP Client configuration

2.2.10.Static Routes

This function can realize communication between two different network segment. For example, there are two G808(G808a and G808b) and they have parameters as follows:

- G808a: WAN interface IP is 192.168.4.47, LAN interface IP is 192.168.1.1.
- G808b: WAN interface IP is 192.168.4.11, LAN interface IP is 192.168.2.1.

If user want to realize PC connected to G808a's LAN interface can access to PC connected G808b's LAN interface, user can add a static route and configure it as follow:

-9909	Routes						
tus	Routes specify over which in	nterface and gateway a certain h	ost or network can be	reached.			
vices	Static IPv4 Routes						
work	Interface Targe	t IPv4-Netmask	IPv4-Gateway	Metric	МТU		
rfaces	Host-IP or N	Jetwork if target is a network					
NSET	Hoster of P	vetwork in target is a network	8	1			
ECSET	wan_wired ▼ 192.168.2	.0 255.255.255.255	192.168.4.11	0	1500	💼 Delete	
i:				-			
CP and DNS	Add						
stnames	Static IPv6 Routes						
atic Routes							
agnostics	Interface	Target		IPv6-Gateway	Metric	MTU	
		IPv6-Address or Network	(CIDR)				

Figure 26 Static routes configuration

2.2.11.Firewall

2.2.11.1.Port Forwards

This function can allow PC from internet access PC or service in private LAN. User can configure this function by Web Server as follow:



	Firewall - Port Forwa	Firewall - Port Forwards					
atus	Port forwarding allows rem	note computers on the Intern	et to connect to a specific compu	ter or service within the private	LAN.		
ervices	Port Forwards						
atwork	Name	Match	Forward to	Enable	Sort		
rewall							
eneral Settings							
ort Forwards		This	section contains no values yet				
affic Rules							
stom Rules			New port forward:				
stricting access	Name	Protocol	External External Internal zone port zone	Internal IP Internal address port			
te-limiting	New port forwa	TCP+UDP	wan y lan y		D Add		
stem	their port for the				Le ride		

Figure 27 Port forwards configuration

2.2.11.2.Restricting access

This function can set specified domain name into black list or white list. User can configure this function by Web Server as follow:

USR-G808	Restricting access		
> Status	Input domain keyword, for example:baid	u.com	
> Services			
Network Firewall	ways to restrain close close black list		
General Settings	white list		
Port Forwards		deniele serie	Frankla
Traffic Rules	name	domain name	chable
Custom Rules			
Restricting access		This section contains no values yet	
rate-limiting			
> System		New firewall rule:	
	name	domain name	
Logout	New rule		📮 Add

Figure 28 Restricting access configuration

2.2.11.3.Rate-limiting

This function can do network speed control for specified IP and MAC. User can configure this function by Web Server as follow:

USK-0000	rate-limiting					
Status	Descending rate is	greater than the downwar	d rate			
Services	Restrict access	to the Internet speed	of ip			
etwork						
rewall	start ip	end ip	downstream (KB/S)	upstrea	n (KB/S)	
eneral Settings						
Forwards			This section contains no va	lues yet		
ffic Rules						
tom Rules			New firewall rule:			
icting access	start ip	end ip	downstream (KB/S) u	pstream (KB/S)		
niting					🔂 Add	
m						
out	Restrict access	to the Internet speed	of mac			
	MAC	dowr	stream (KB/S)	upstream (KB	/S)	





2.3.Basic Functions

2.3.1.Network Diagnosis

User can use network diagnosis function by Web Server as follow:

USR-G808	Diagnostics			
Status	Network Utilities	Network Utilities		
Services				
Network	IPv4 ▼ II Ping	Traceroute	Nslookup	
Interfaces				
APNSET				
IPSECSET				
Wifi				
DHCP and DNS				
Hostnames				
Static Routes				
Diagnostics				
loS				
Load Balancing				

Figure 30 Network diagnosis configuration

- Ping: User can do PING test to a specific address in G808.
- Traceroute: Can acquire routing path to visit a specific address.
- Nslookup: Can analyse DNS into IP address

2.3.2.Host Name and Time Zone

G808 default host name is USR-G808 and default Time Zone is Beijing time zone.

User can configure host name and Time Zone by Web Server as follow:

058-9808	System	
	Here you can configure the basic aspects of your device like its hostname or the timezone.	
> Status		
> Services	System Properties	
> Network		
> Firewall	General Settings Logging Language and Style	
✓ System	Local Time Fri Oct 27 18:29:42 2017 📵 Sync with browser	
System	Hostname USR-G808	
Administration		
Scheduled Tasks	Timezone Asia/Beijing 🔹	
Backup / Flash Firmware		
Reboot		
> Logout	Time Synchronization	
	Enable NTP client 🛛 🖉	
	Provide NTP server	





2.3.3.Web Server Password

Default password is root, this password is used to enter Web Server.

User can change password by Web Server as follow:

USR-G808				
	Router Password	Router Password		
> Status	Changes the administrator password for acce	ssing the device		
> Services				
> Network	Password	8		
> Firewall	Confirmation	â		
∼ System				
System				
Administration		Save & Apply		
Scheduled Tasks		Dave drippy		
Backup / Flash Firmware				
Reboot				
> Logout				

Figure 32 Web Server password configuration

2.3.4.Restore default settings

Hardware restore: Press Reload button over 5 seconds and release, G808 will restore default settings and reset.

User can also restore default settings by Web Server as follow:

USR-G808			
	Flash operations		
> Status	Actions		
> Services			
> Network	Backup / Restore		
> Firewall	Click "Generate archive" to download a tar archive of the current configuration files. To reset the firmware to its initial state, click "Perform reset".		
∽ System	Download backup: Generate archive		
System	Reset to defaults: 🔞 Perform		
Administration			
Scheduled Tasks	To restore configuration files, you can upload a previously generated backup archive here.		
Backup / Flash Firmware	Restore backup: 选择文件 未选择任何文件 🔲 Upload archive		
Reboot			
> Logout			
	Flash new firmware image		
	Upload a proper image here to replace the running firmware. Check "Keep settings" to retain the current configuration.		
	Keep settings:		

Figure 33 Restore default settings

2.3.5.Upgrade Firmware Version

Upgrade by Web Server as follow:



USR-G808	Backup / Restore		
	Click "Generate archive" to download a tar archive of the current configuration files. To reset the firmware to its initial state, click "Perform reset".		
> Status	Download backup: Generate archive		
> Services	Reset to defaults: 🔞 Perform		
> Network			
> Firewall	To restore configuration files, you can upload a previously generated backup archive here.		
✓ System	Restore backup:		
System			
Administration			
Scheduled Tasks	Flash new firmware image		
Backup / Flash Firmware	Upload a proper image here to replace the running firmware. Check "Keep settings" to retain the current configuration.		
Reboot	Keep settings:		
> Logout	Image: 这译文件 未选择任何文件 I Flash image		
	Choose firmware file		

Figure 34 Upgrade firmware version

Note:

- The whole upgrading process will last about 2 minutes, user can enter Web Server after about 2 minutes.
- User can choose saving settings.
- User should keep powering up and LAN/WIFI connection during the whole upgrading process.

2.3.6.Reset

Reset time is about 40~60 seconds.

Reset by Web Server as follow:

	USR-G808
>	Status
	Services
	Network
>	Firewall
~	' System
	System
	Administration
	Scheduled Tasks
_	Backup / Flash Firmware
	Reboot
	Logout

Figure 35 Reset function





3. Web Server

USR-C

When user need to configure the G808, user can connect PC to USR-G808 through LAN interface or WLAN, then open Web Server.

Default parameters of G808 as follows:

Parameters	Defaults settings
SSID	USR-G808-XXXX
LAN interface IP Address	192.168.1.1
User name	root
Password	root
WLAN Password	www.usr.cn

Figure 36 G808 Default parameters

Take default parameters as example: User can connect PC to SSID USR-G808-XXXX. Then open browser and enter 192.168.1.1, log in with User name and Password(both are root), user can enter Web Server.

USR IOT IOT Experts		Be Honest, Do Best!
	Authorization Required Please enter your username and password.	
	Username: root Password: Login Reset	
	JiNan Usr IOT Technology Limited http://www.usr.cn/	

Figure 37 Web Server login web

User can change the language between Chinese/English in the top right corner.



4. Contact us

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5. Disclaimer

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6. Update History

2017-11-20 V1.0.4.1 established based on Chinese version V1.0.4.