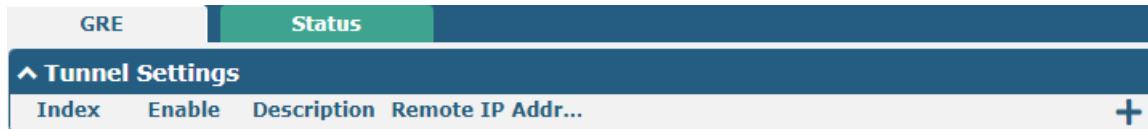


4.4.3 GRE

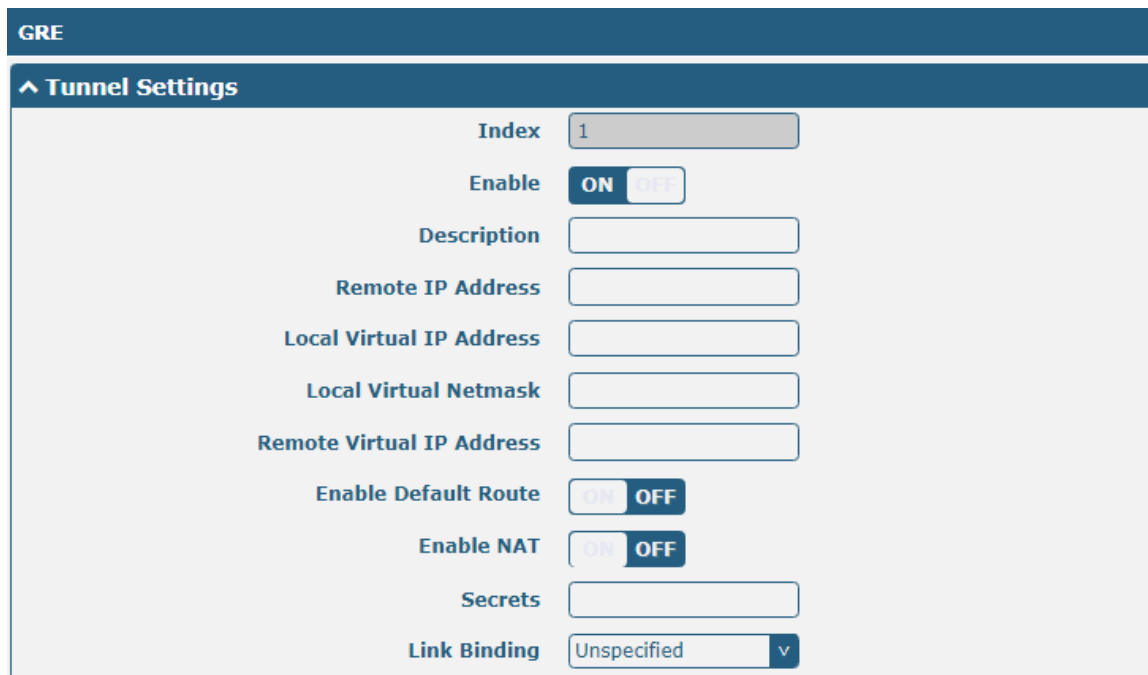
This section allows you to set the GRE and the related parameters. Generic Routing Encapsulation (GRE) is a tunneling protocol that can encapsulate a wide variety of network layer protocols inside virtual point-to-point links over an Internet Protocol network.

GRE



The screenshot shows the 'GRE' configuration page with the 'Status' tab selected. Below the tab is a section titled '^ Tunnel Settings' containing a table with columns: Index, Enable, Description, and Remote IP Addr... A '+' button is located at the end of the table header.

Click **+** to add tunnel settings. The maximum count is 6.



The screenshot shows the detailed configuration for a GRE tunnel. The 'Index' is set to 1. The 'Enable' toggle is currently set to 'ON'. Other fields include Description, Remote IP Address, Local Virtual IP Address, Local Virtual Netmask, Remote Virtual IP Address, Enable Default Route (OFF), Enable NAT (OFF), Secrets, and Link Binding (Unspecified).

Tunnel Settings @ GRE		
Item	Description	Default
Index	Indicate the ordinal of the list.	--
Enable	Click the toggle button to enable/disable this GRE tunnel.	ON
Description	Enter a description for this GRE tunnel.	Null
Remote IP Address	Set the remote real IP address of the GRE tunnel.	Null
Local Virtual IP Address	Set the local virtual IP address of the GRE tunnel.	Null
Local Virtual Netmask	Set the local virtual Netmask of the GRE tunnel.	Null
Remote Virtual IP Address	Set the remote virtual IP Address of the GRE tunnel.	Null
Enable Default Route	Click the toggle button to enable/disable this option. When enabled, all the traffics of the router will go through the GRE VPN.	OFF


```

    netmask = 255.255.255.0
    gateway = ""
    primary_dns = ""
    secondary_dns = ""
    wins_server = ""
    lease_time = 120
    static_lease = ""
    expert_options = ""
    debug_enable = false
}
vlan_id = 0
}
#
# set lan
network      Network Settings
multi_ip     Multiple IP Address Settings
vlan         VLAN
# set lan network 1(space+?)
interface    Interface
ip           IP Address
netmask      Netmask
mtu          MTU
dhcp         DHCP Settings
Vlan_id      VLAN ID
# set lan network 1 interface lan0
OK
# set lan network 1 ip 172.16.24.24           // set IP address for lan
OK                                           // setting succeed
# set lan network 1 netmask 255.255.0.0
OK
#
...
# config save_and_apply
OK                                           // save and apply current configuration, make you configuration effect

```

Example 6: CLI for setting Cellular

```

# show cellular all
sim {
    id = 1
    card = sim1
    phone_number = ""
    pin_code = ""
    extra_at_cmd = ""
    telnet_port = 0
}

```

```
network_type = auto
band_select_type = all
band_settings {
    gsm_850 = false
    gsm_900 = false
    gsm_1800 = false
    gsm_1900 = false
    wcdma_800 = false
    wcdma_850 = false
    wcdma_900 = false
    wcdma_1900 = false
    wcdma_2100 = false
    wcdma_1700 = false
    wcdma_band19 = false
    lte_band1 = false
    lte_band2 = false
    lte_band3 = false
    lte_band4 = false
    lte_band5 = false
    lte_band7 = false
    lte_band8 = false
    lte_band13 = false
    lte_band17 = false
    lte_band18 = false
    lte_band19 = false
    lte_band20 = false
    lte_band21 = false
    lte_band25 = false
    lte_band28 = false
    lte_band31 = false
    lte_band38 = false
    lte_band39 = false
    lte_band40 = false
    lte_band41 = false
}
telit_band_settings {
    gsm_band = 900_and_1800
    wcdma_band = 1900
}
debug_enable = true
verbose_debug_enable = false
}
# set(space+space)
cellular      ddns      dido      email      ethernet
event         firewall  gre       ip_passthrough ipsec
l2tp         lan       link_manager ntp       openvpn
```

```
pptp          reboot          route          sms          ssh
syslog        system          user_management web_server    wifi
# set cellular(space+?)
  sim  SIM Settings
# set cellular sim(space+?)
  Integer  Index (1..1)

# set cellular sim 1(space+?)
  card          SIM Card
  phone_number  Phone Number
  pin_code      PIN Code
  extra_at_cmd  Extra AT Cmd
  telnet_port   Telnet Port
  network_type  Network Type
  band_select_type Band Select Type
  band_settings Band Settings
  telit_band_settings Band Settings
  debug_enable  Debug Enable
  verbose_debug_enable Verbose Debug Enable
# set cellular sim 1 phone_number 18620435279
OK
...
# config save_and_apply
OK //save and apply current configuration, make you configuration eff
```

Glossary

Abbr.	Description
AC	Alternating Current
APN	Access Point Name of GPRS Service Provider Network
ASCII	American Standard Code for Information Interchange
CE	Conformité Européene (European Conformity)
CHAP	Challenge Handshake Authentication Protocol
CLI	Command Line Interface for batch scripting
CSD	Circuit Switched Data
CTS	Clear to Send
dB	Decibel
dBi	Decibel Relative to an Isotropic radiator
DC	Direct Current
DCD	Data Carrier Detect
DCE	Data Communication Equipment (typically modems)
DCS 1800	Digital Cellular System, also referred to as PCN
DI	Digital Input
DO	Digital Output
DSR	Data Set Ready
DTE	Data Terminal Equipment
DTMF	Dual Tone Multi-frequency
DTR	Data Terminal Ready
EDGE	Enhanced Data rates for Global Evolution of GSM and IS-136
EMC	Electromagnetic Compatibility
EMI	Electro-Magnetic Interference
ESD	Electrostatic Discharges
ETSI	European Telecommunications Standards Institute
EDGE	Enhanced Data rates for Global Evolution of GSM and IS-136
FDD LTE	Frequency Division Duplexing Long Term Evolution
GND	Ground
GPRS	General Packet Radio Service
GRE	generic route encapsulation
GSM	Global System for Mobile Communications
HSPA	High Speed Packet Access
ID	identification data
IMEI	International Mobile Equipment Identification
IP	Internet Protocol
IPSec	Internet Protocol Security
kbps	kbits per second
L2TP	Layer 2 Tunneling Protocol

Abbr.	Description
LAN	local area network
LED	Light Emitting Diode
M2M	Machine to Machine
MAX	Maximum
Min	Minimum
MO	Mobile Originated
MS	Mobile Station
MT	Mobile Terminated
OpenVPN	Open Virtual Private Network
PAP	Password Authentication Protocol
PC	Personal Computer
PCN	Personal Communications Network, also referred to as DCS 1800
PCS	Personal Communication System, also referred to as GSM 1900
PDU	Protocol Data Unit
PIN	Personal Identity Number
PLCs	Program Logic Control System
PPP	Point-to-point Protocol
PPTP	Point to Point Tunneling Protocol
PSU	Power Supply Unit
PUK	Personal Unblocking Key
R&TTE	Radio and Telecommunication Terminal Equipment
RF	Radio Frequency
RTS	Request to Send
RTU	Remote Terminal Unit
Rx	Receive Direction
SDK	Software Development Kit
SIM	subscriber identification module
SMA antenna	Stubby antenna or Magnet antenna
SMS	Short Message Service
SNMP	Simple Network Management Protocol
TCP/IP	Transmission Control Protocol / Internet Protocol
TE	Terminal Equipment, also referred to as DTE
Tx	Transmit Direction
UART	Universal Asynchronous Receiver-transmitter
UMTS	Universal Mobile Telecommunications System
USB	Universal Serial Bus
USSD	Unstructured Supplementary Service Data
VDC	Volts Direct Current
VLAN	Virtual Local Area Network
VPN	Virtual Private Network
VSWR	Voltage Stationary Wave Ratio

Abbr.	Description
WAN	Wide Area Network

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