

QUICK GUIDE

GRANDSTREAM ROUTER GWN7002

Practical selection of basic installation and configuration

Summary document of 10 pages, including cover and syllabus.

Main content

- Physical installation and connections
- Access to the web interface
- Initial WAN configuration • LAN and VLAN creation • Basic IPsec VPN configuration

SYLLABUS

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This guide includes only the essential pages from the original manual for perform an initial installation and basic configuration of the router.

INSTALLATION

Before deploying and configuring the GWN7000, the device needs to be properly powered up and connected to the network. This section describes detailed information on installation, connection and warranty policy of the GWN7000.

Equipment Packaging

Table 2: GWN7000 Equipment Packaging

Main Case	Yes (1)
Power adapter	Yes (1)
Quick Installation Guide	Yes (1)
GPL License	Yes (1)

Connect your GWN7000

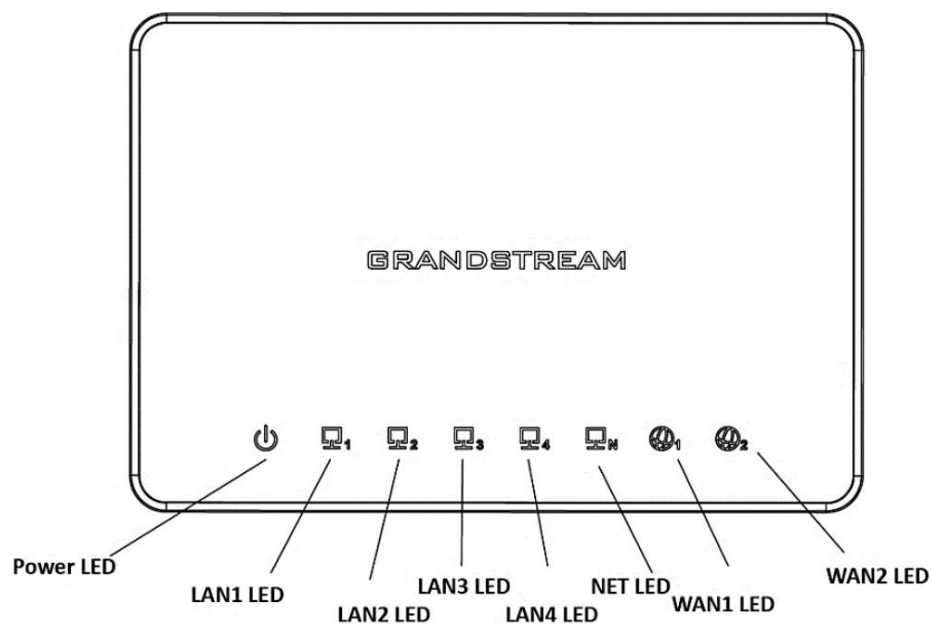


Figure 1: GWN7000 Front View



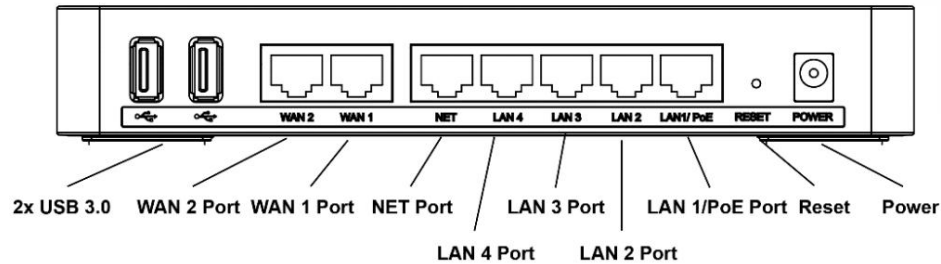


Figure 2: GWN7000 Back View

To set up the GWN7000, follow the steps below:

1. Connect one end of an RJ-45 Ethernet cable into the WAN1 or/and WAN2 port(s) of the GWN7000.
2. Connect the other end of the Ethernet cable(s) into a DSL modem or router(s) as an uplink to ISP.
3. Connect the 12V DC power adapter into the power jack on the back of the GWN7000. Insert the main plug of the power adapter into a surge-protected power outlet.
4. Wait for the GWN7000 to boot up and connect to internet/network. On the front of the GWN7000 the Power LED will be in solid green, and the WAN LED will flash in green indicating data transmission.
5. Connect one of the LAN ports to your computer, the associated LED ports will flash in green.
6. (Optional) Connect LAN port(s) to your LAN, including GWN76XX access points and other devices, The associated LED port(s) will flash in green.

Safety Compliance

The GWN7000 Enterprise Router complies with FCC/CE and various safety standards. The GWN7000 power adapter is compliant with the UL standard. Use the universal power adapter provided with the GWN7000 package only. The manufacturer's warranty does not cover damages to the device caused by unsupported power adapters.

Warranty

If the GWN7000 Enterprise Router was purchased from a reseller, please contact the company where the device was purchased for replacement, repair or refund. If the device was purchased directly from Grandstream, contact our Technical Support Team for an RMA (Return Materials Authorization) number before the product is returned. Grandstream reserves the right to remedy warranty policy without prior notification.



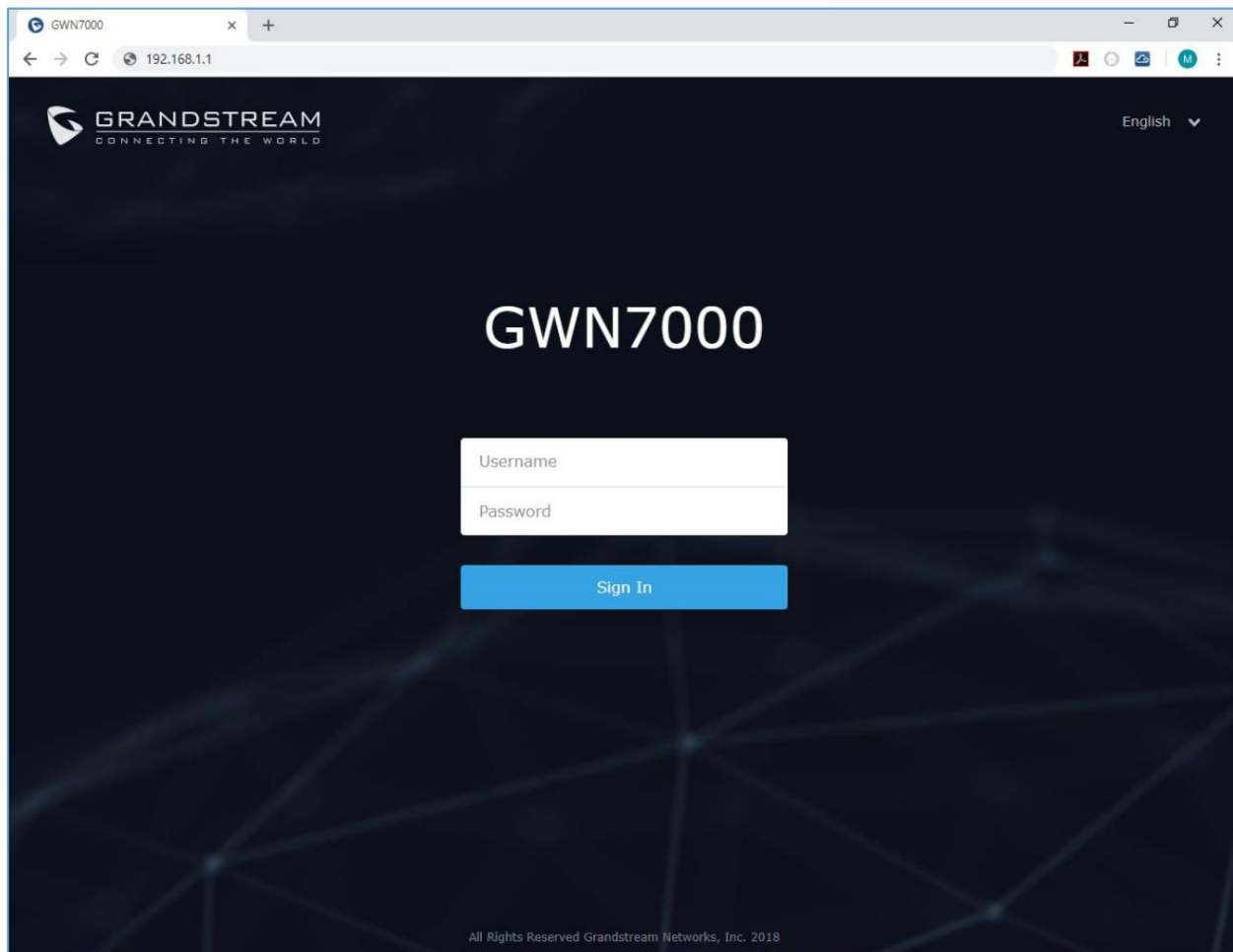


Figure 3: GWN7000 Web GUI Login Page

To access the Web GUI:

1. Connect a computer to a LAN Port of the GWN7000.
2. Ensure the device is properly powered up, and the Power, LAN port LEDs light up in green.
3. Open a Web browser on the computer and enter the web GUI URL in the following format:
<https://192.168.1.1> (Default IP address).
4. Enter the administrator's login and password to access the Web Configuration Menu. The default administrator's username and password are "admin" and "admin".

Note: At first boot or after factory reset, users will be asked to change the default administrator and user passwords before accessing GWN7000 web interface.

The password field is case sensitive with a maximum length of 32 characters. Using strong password including letters, digits and special characters is recommended for security purposes.



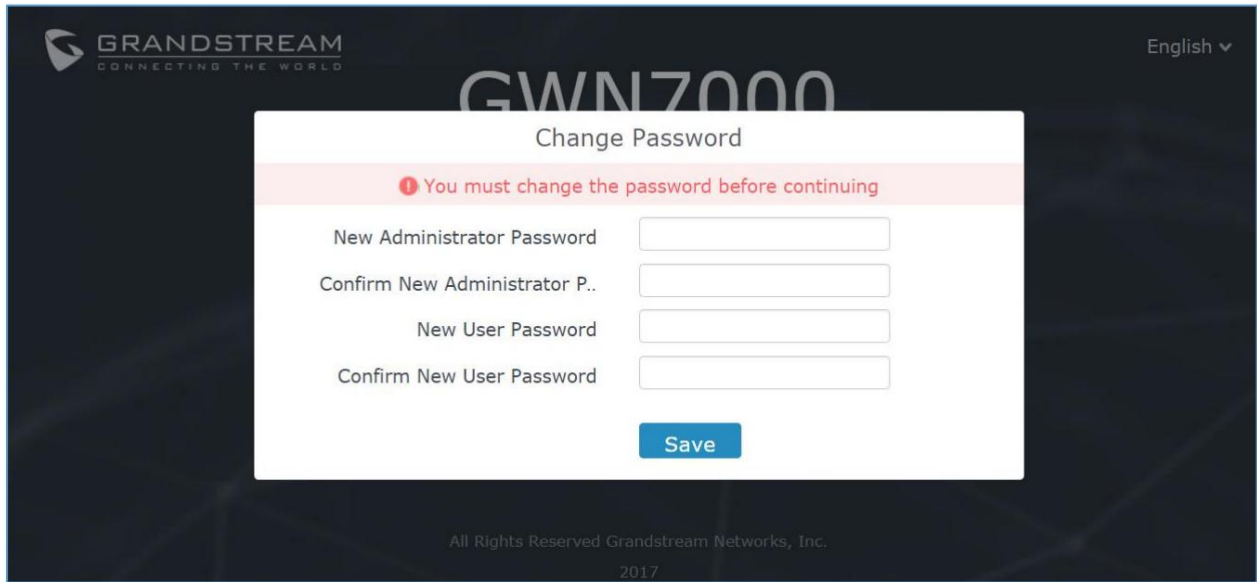


Figure 4: Change Password on first boot

At first login, a Setup Wizard tool will pop up to help going through the configuration setup, or exit to configure manually. Setup Wizard can be accessed anytime by clicking on  while on the web interface.

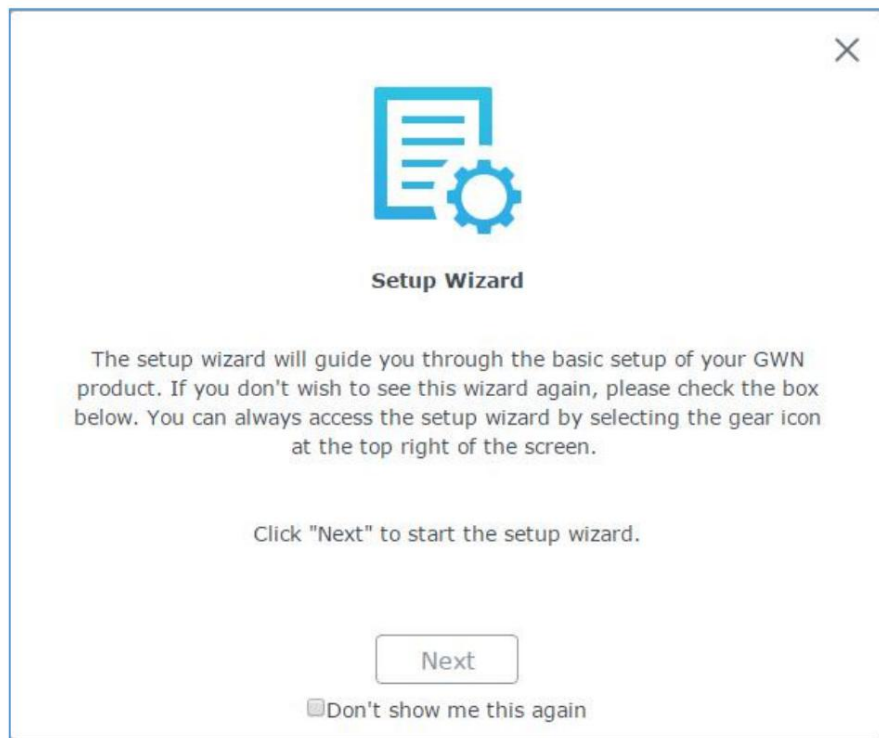


Figure 5: Setup Wizard



Router Configuration

Connect to GWN7000's Web GUI from a computer connected to a LAN port and go to **Router**→**WAN** page for Port configuration.

WAN Ports Settings

The GWN7000 has 2 WAN ports configured as DHCP clients by default. Each port can be connected with DSL modem or routers. WAN ports also support setting static IPv4/IPv6 addresses and configure PPPoE for each WAN port. Please refer to the following table for basic network configuration parameters on WAN ports for GWN7000.

Table 5: GWN7000 WEB GUI→Router→WAN→WAN Port (1,2)

Enabled	Choose whether to enable or disable the WAN port.
Yam	Specify the port name.
WAN Address Type	Select "DHCP", "Static" or "PPPoE" mode on the WAN interfaces of GWN7000. The default setting is "DHCP". • DHCP When selected, it will act as a DHCP client and acquire an IPv4 address automatically from the DHCP server. • Static When selected, the user should set a static IPv4 address, IPv4 Subnet Mask, IPv4 Gateway and adding Additional IPv4 Addresses as well to communicate with the web interface, SSH, or other services running on the device. • PPPoE When selected, the user should set the PPPoE account and password, PPPoE Keep alive interval and Inter-Key Timeout (in seconds).
Preferred IPv4 DNS	Enter the preferred DNS server address (IPv4 address). If Preferred DNS is set, GWN7000 will use it in priority.
Alternate IPv4 DNS	Enter the Alternate DNS server address (IPv4 address). If Preferred DNS is set, GWN7000 will use it in when the Preferred DNS fails.
IP Tracking	Configure the tracking IP(s). ICMP packets are being used to track the IP(s) address(es). When the tracking fails, the GWN7000 will use the secondary WAN port as failover. Default IP used is 8.8.8.8.
MTU	Configures the maximum transmission unit allowed on the wan port. The valid range is 64-9000 Bytes, and the default value is 1500.



Global Settings

This section specifies operating mode for multi-WAN that will be used for enabling/disabling Failover and Load Balancing on WAN ports and using MAC override address.

The following table shows the configuration parameters for global WAN settings

Table 11: GWN7000 WEB GUI Router Port Global Settings

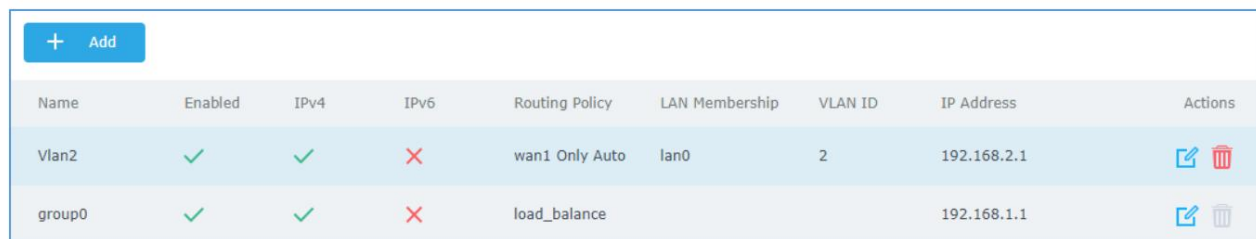
Local Routing Policy	Specifies the routing policy that would be applied on locally generated traffic from the GWN7000 router. See <i>[Policy Routing]</i> section.
MAC Override Address	This option is used to override the MAC address of the GWN7000 Router. MAC Address octets (in hex) are separated by “:” in English input condition. The characters here must be lowercase. Note: Reboot the router to take effect.

Switch Configuration

LAN

GWN7000 supports creating up to 16 different LAN groups separated as VLANs with the possibility to add and pair GWN76xx Access Points to each LAN which is mapped to an SSID by VLAN tagging.

To access LAN configuration page, log in to the GWN7000 WebGUI and go to **Router** > **LAN**.



Name	Enabled	IPv4	IPv6	Routing Policy	LAN Membership	VLAN ID	IP Address	Actions
Vlan2	✓	✓	✗	wan1 Only Auto	lan0	2	192.168.2.1	 
group0	✓	✓	✗	load_balance			192.168.1.1	 

Figure 11: LAN Groups

The GWN7000 will have a default group named group0, click on  to edit it, or click on **“Add”** to add a new LAN subnet.



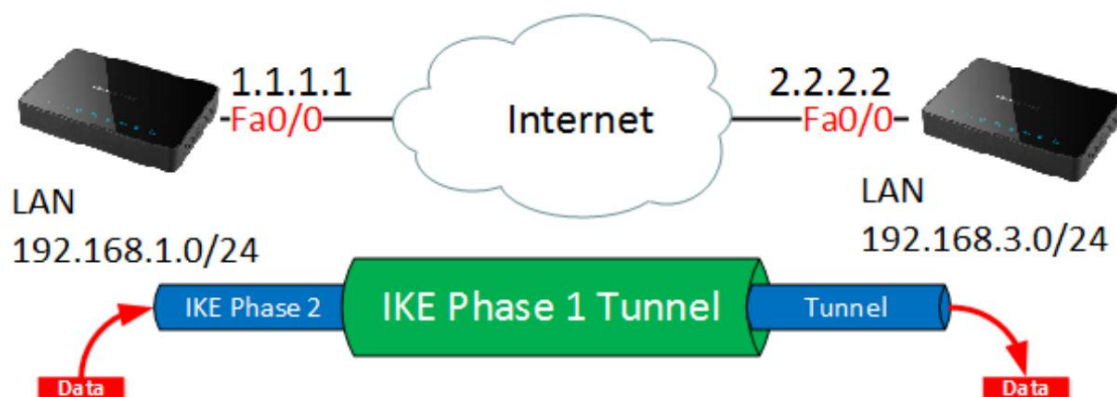
VLAN	Check to enable VLAN. This field is appearing only when having more than one LAN subnet.
VLAN ID	Set a VLAN ID. Valid range is between 2 and 4093.
Enable IPv4	Check to enable IPv4 addressing for this LAN.
IPv4 Static Address	Set a static Ipv4 address for the LAN subnet when enabling Ipv4.
Additional IPv4 Static Address	Set an additional static Ipv4 address for the LAN subnet when enabling IPv4.
IPv4 Subnet Mask	Set the Subnet Mask.
DHCP Enabled for IPv4	Check to enable DHCP using Ipv4. This will allow clients connected to this LAN subnet to get Ipv4 addresses automatically from GWN7000 acting as DHCP server.
DHCP Start Address	Set the starting Ipv4 address for this LAN's clients.
DHCP End Address	Set the ending Ipv4 address for this LAN's clients
DHCP Lease Time	Set the lease time for DHCP clients, the value can be defined in hours, minutes, or as "infinite". Default lease time is "12h".
DHCP Options	Set the DHCP options. Click on  to add another option, and  to delete an option. Example: 44,192.168.2.50 for DHCP option 44 and 192.168.2.50 is the WINS server's address. Please refer to the following link for DHCP options syntax: https://wiki.openwrt.org/doc/howto/dhcp_dnsmasq_
DHCP Gateway	Defines the IP address of the DHCP gateway.
DHCP Preferred DNS	Set the preferred DNS Servers via DHCP.
DHCP Alternate DNS	Set the alternate DNS Servers via DHCP.
DHCPv4 Relay Enabled	Enable this option, if you want the GWN7000 relays the DHCP requests from clients to another DHCP server(s). Once checked, click  to add another DHCPv4 Relay Target, and  to delete a DHCPv4 Relay Target.
Enable IPv6	Check to enable IPv6 addressing for this LAN subnet.
IPv6 Relay from WAN	Check to allow GWN7000 to relay IPv6 DHCP request from LAN's clients to WAN port.
DHCP Enabled for IPv6	Check whether to enable IPv6 DHCP server for this LAN.
IPv6 Prefix for Assignment	Set the prefix value to be assigned to the LAN. Valid range is between 1 to 64. Example: 64 will assign /64 prefixes.
IPv6 Subnet Hint	Set the subnet mask value.



Configuring GWN7000 IPSec Tunnel

In order to build an IPSec secure tunnel between two devices located on different places on the Internet, we can use the sample scenario below:

Branch office router needs to connect to Headquarters office via an IPSec tunnel, on each side we have a GWN7000 router. Users can configure the two devices as follows:



The branch office router runs a LAN subnet 192.168.1.0/24 and the HQ router runs a LAN subnet 192.168.3.0, the public IP of the branch office router is 1.1.1.1 and the IP of the HQ router is 2.2.2.2.

Configuration of Branch office router:

Go under **VPN** → **IPSec** then click on add and fill in the following information under phase 1 tab:

