

TopGlobal Bridge Mode Solution

Top Global MobileBridge connects 3G and Ethernet network, as well as WiFi network. MB8000 is a product of MobileBridge serials.

MB8000 provides a gateway service for its LAN (including wired LAN and wireless LAN) users. There is a NAT (Network Address Translator) service resident inside, which is a method of connecting a number of computers in a LAN to the Internet using a single one public IP address.

With MB8000, you can place your HTTP Server or FTP server in its LAN to provide service to the Internet easily and rapidly. You can also place your VPN Server to provide a secure connection and communication with your colleague or business company.

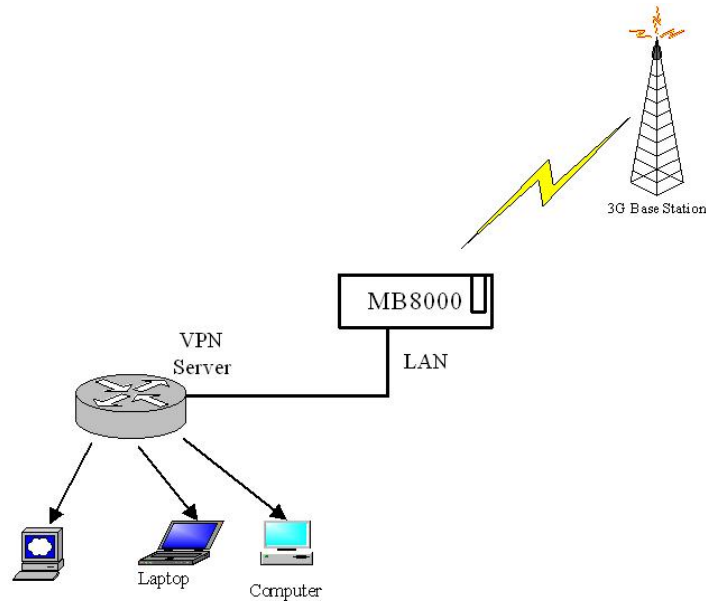
But, it is known that the NAT will do something harmful to the VPN Service. The NAT could not make VPN protocol pass-through smoothly because of the IP address replacement. So, you might want a transparent connection to the Internet for your VPN Server, without the NAT.

MB8000 also provide a good solution for that requirement. That is what Bridge Mode function in MB8000 does. When bridge mode is enabled, MB8000 works as a bridge. MB8000 forwards incoming and outgoing packets, doesn't modify anything about them. With this deployment, your VPN Server will have a public IP address, as if it connects to the Internet directly.

This application notes presents how MB8000 be deployed as a transparent router between your device and the Internet without NAT, which makes the connection more smoothly and faster. Thus you could deploy your network services such as VPN.

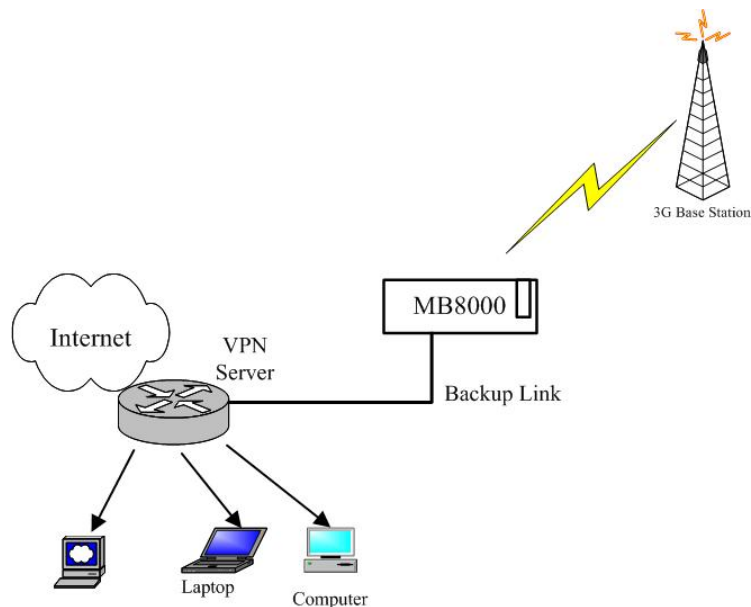
Application scenario 1:

You can deploy MB8000 Bridge Mode as your VPN Server's outgoing connection to the Internet. All of the data traffic is handled by MB8000. You can also apply this deployment for your mobile VPN Service when any time needed.



Application scenario 2:

You can also deploy MB8000 Bridge Mode as a backup link for your VPN server. For example, normally, the data traffic is routed by a common link, such as DDN (Digital Data Network) or others. The backup connection link will take place the former one once it is down or not available.



Set up Bridge Mode with MB8000:

Configuration of your device which is going to be connected with MB8000:

You MUST set your device to obtain the IP address from a DHCP server.

Configuration of MB8000 to support Bridge Mode:

It is simple to configure MB8000 to support Bridge Mode. Power up and login to the WEB management page and go to the Advanced-> IP Port Forwarding page. In the Bridge Mode domain, configure the "Bridge Mode" item and MAC Address item according to your application. Save the changes.

SetUp
 Forwarding
 Forwarding

Status:

TCP:

Local IP Address	Local Port Number	Global Port Number
<input type="button" value="Add"/> <input type="button" value="Edit"/>		

UDP:

Local IP Address	Local Port Number	Global Port Number
<input type="button" value="Add"/> <input type="button" value="Edit"/>		

Bridge Mode:

Bridge Mode:

MAC Address:

- Bridge Mode: Indicates users which bridge mode will be used. When **Enable with Static MAC** is selected, users should assign a client's MAC address to MB8000. When **Enable with Dynamic MAC** is selected, MB8000 gets the device's physical address automatically.
- MAC Address: the device's physical address.

Second, in the Web GUI-> Basic-> Local IP Configuration page, set the Default Lease Time to 30 or less. Save the changes.

Setup **Network** Local IP Configuration

IP Configuration

Local IP Address: 172.16.0.1
Local IP Mask: 255.255.0.0

DHCP Server

DHCP Server Status: Enable
Start IP Address: 172.16.0.2
Width of IP Address: 200
Default Lease Time: 86400
Maximum Lease Time: 864000

DNS Configuration

DNS Relay Status: Disable
Primary DNS IP Address: 221.130.33.60
Secondary DNS IP Address: 221.130.33.52

OK

Cancel

Save your configuration and then reboot MB8000.

After get this done, Attach you device such as VPN Server to the RJ45 in MB8000. The device that you attached will be able to get a public IP address from MB8000, the default gateway IP address will be one up the public IP address, the subnet mask is 255.255.255.0 and it can connect to the internet without NAT. The MB8000 looks transparent to that device.

You need to record the private IP address of MB8000 so that you can manage it. The default Address is 172.16.0.1. You need to manually assign the laptop which you want to use for the MB8000 management with the IP address of 172.16.0.x for example: 172.16.0.2. Use this laptop to connect MB8000 via WiFi or Ethernet through a Hub since the Ethernet port is used for Bridge Made. Then you can manage MB8000 with http://172.16.0.1.