Detect the type of network environment at home

Based on my experiences in previous 552 sections, your network layout at home should be one of the following two types.

Type I: A cable/DSL modem with the wire or wireless router function. The modem is charge of the following tasks: (a) working as a modem to obtain an external IP from your ISP; and (b) working as a router, including as a gateway of all connected devices to the external network environment; and (c) as a DHCP server to allocate private IP address to devices at home.

Type II: A cable/DSL modem plus a wireless router. If you didn’t turn off modem’s router function, that means you have two DHCP servers at home. It is very possible that external users cannot access your server because external requests cannot pass through two firewalls.
Please execute the following steps to detect the type of your home network environment:

1. Execute `ipconfig /all` to check the gateway of your active network adapter. The screen shot shows that I am using wireless adapter to access Internet and my gateway’s IP address is 192.168.0.1.

2. Open a browser and type the gateway’s IP address. It should take you to the wireless router’s login page. You can find username and password from your ISP or router’s user manual. The most popular default username and password are admin/admin.
3. Check your wireless router's status. If the router obtains a real IP (such as 65.129.120.17 in the screenshot, not private IPs like 192.168.xxx.xxx), that means your network environment is type I. **Your server should be able to be accessed by external users when you apply DMZ or portforwarding.**
Summary of Type 1: The DSL modem obtained an external IP address (65.129.120.17) from ISP to communicate with external networks and used a private IP address (192.168.0.1) to communicate with internal devices (such as my laptop 192.168.0.2).

4. If the router obtains a private IP (such as 192.168.0.17 in the screenshot), that means your network environment is type II. Because you have two routers at home, the server is still blocked by the first router even you apply DMZ or portforwarding to the second router. In this case, please connect your server to the first router directly then apply DMZ or portforwarding.
Summary of Type II: The DSL modem obtained an external IP address (65.129.120.17) from ISP to communicate with external networks and used a private IP address (192.168.0.1) to communicate with the wireless router (192.168.0.17). The wireless router obtained a private IP 192.168.0.17 to communicate with the DSL modem then used another private IP 192.168.1.1 to communicate with other internal devices (such as my laptop 192.168.1.2).