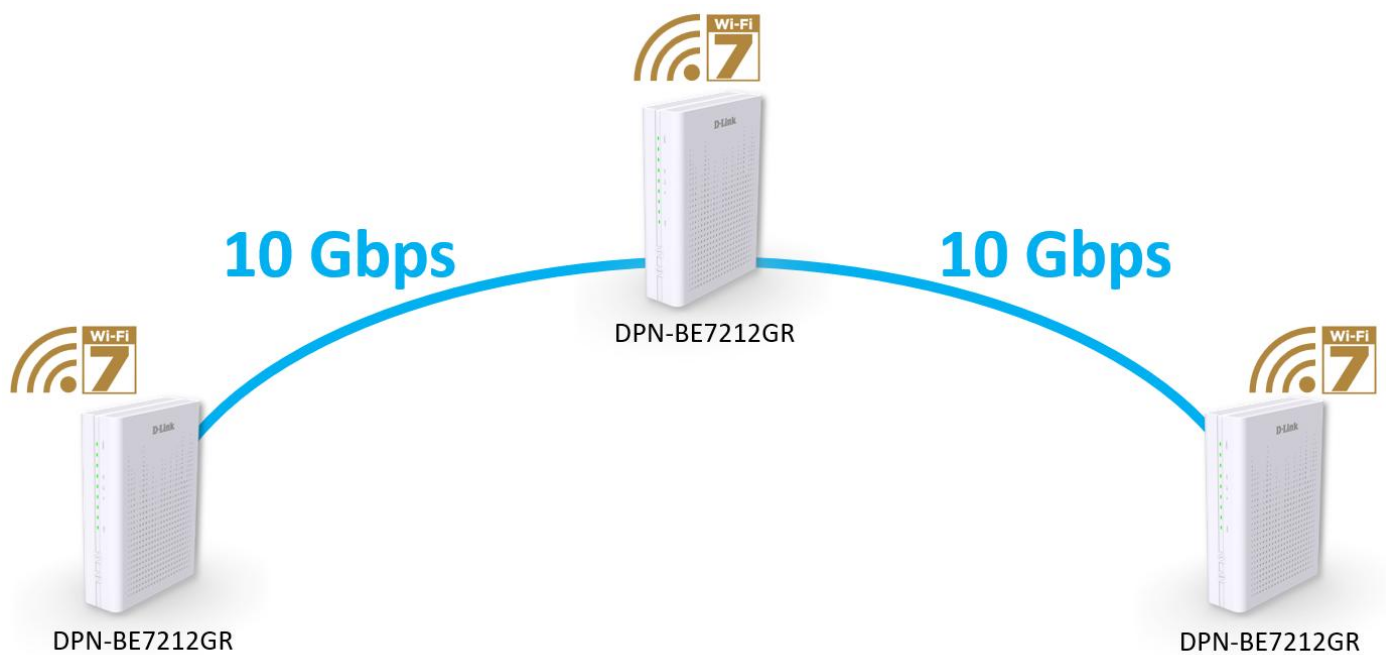


How to Set Up a 10 Gbps LAN Backbone Using Multiple DPN-BE7212GR Routers



Prerequisites:

Your Main Router is configured and connected to the Internet.
All DPN-BE7212GR routers are running firmware AU_3.05 or newer.

Step 1.

Log into your Main Router.

The router's default IP address is 192.168.0.1. The default admin password is printed on the label at the back of the router.

Once logged in, go to Advanced > Network > LAN.

Change DHCP **Start Address** to 192.168.0.10.

Leave **Default Gateway** as 192.168.0.1.

Click on "Save".

Quick Setup

Basic

Advanced

Status

Network

Internet

LAN

Wireless

LAN DHCP Server: ☒ Enabled

LAN IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.1

Start Address: 192.168.0.10

End Address: 192.168.0.254

Primary DNS: 1.1.1.1

Secondary DNS: 8.8.8.8

* Lease Time: 3600 sec

Record your Main Router's Wi-Fi network name (SSID) and password. These settings will be used on all Downstream Routers. You can find the router's Wi-Fi configuration details under Advanced > Wireless > Wireless Settings.

Step 2.

Power off your Main Router.

Keeping the Main Router powered off during configuration prevents IP address conflicts while assigning LAN addresses to the Downstream Routers.

Step 3.

Power on your Downstream Router 1 and connect to it using Wi-Fi or an Ethernet cable.

Log into the router and go to Advanced > Network > LAN.

Change the router's **LAN IP Address** to 192.168.0.5.

Quick Setup

Basic

Advanced

Status

LAN DHCP Server: ☒ Enabled

LAN IP Address: 192.168.0.5

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.5

Start Address: 192.168.0.2

Click on "Save" and confirm the IP change.

After the router restarts, re-login to the router via its new IP.

Step 4.

Configure the Downstream Router's Wi-Fi network name (SSID), password, and security settings to match those of the Main Router. This can be done under Advanced > Wireless > Wireless Settings.

Step 5.

In your Downstream Router go to Advanced > Network > LAN. Disable the **LAN DHCP server**.

Click on "Save".

Quick Setup

Basic

Advanced

Status

LAN DHCP Server: ☐ Disabled

LAN IP Address: 192.168.0.5

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.0.5

Start Address: 192.168.0.2

Step 6.

Go to Advanced > Network > Internet.

Change the **Operation Mode** to Bridge.

Disable **NAT**.

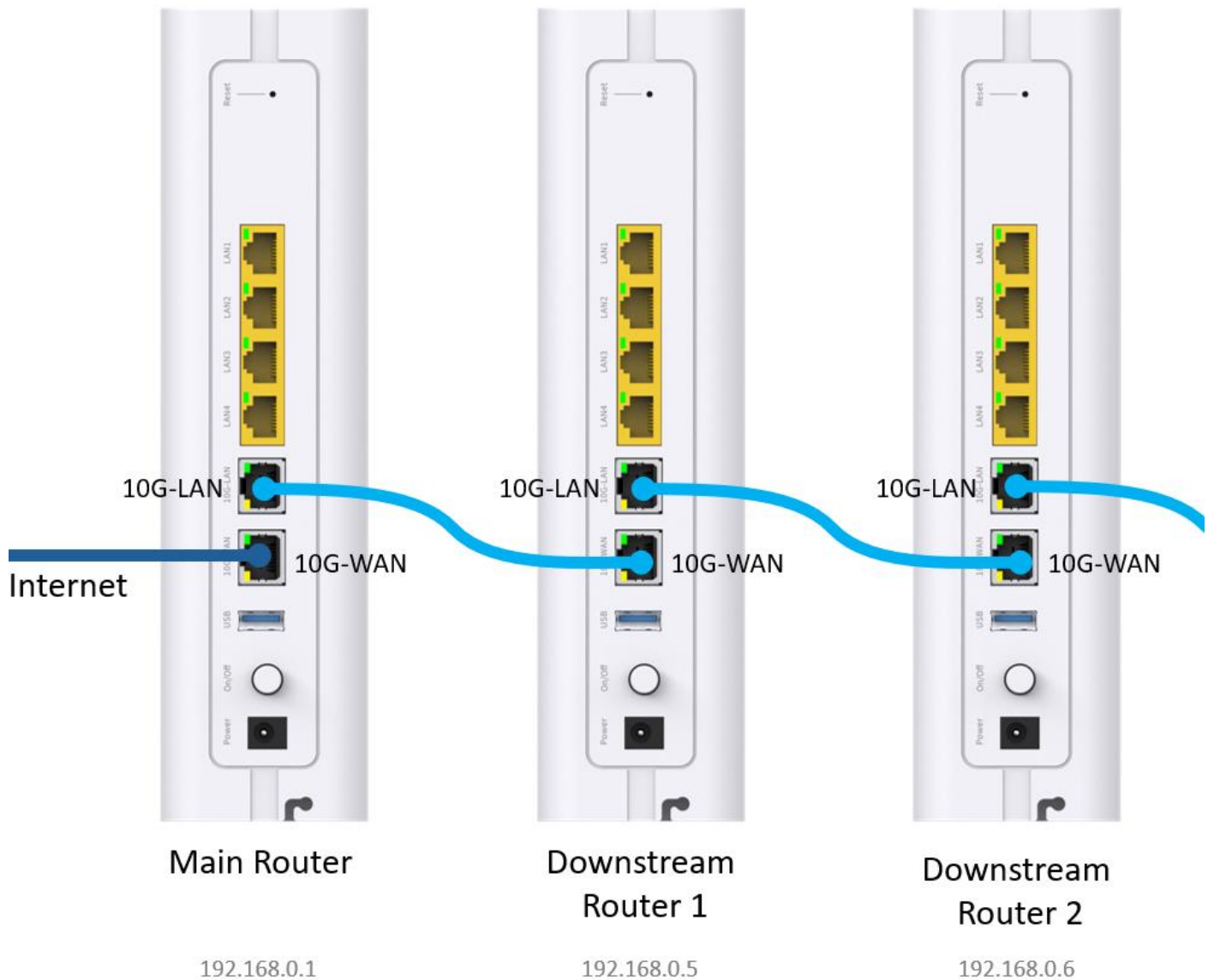
The screenshot shows the 'Internet Settings' page for a D-Link router. The left sidebar contains navigation links: Quick Setup, Basic, Advanced, Status, Network, Internet (selected), LAN, Wireless, Samba, and FOTA. The main content area is titled 'Internet Settings' and includes a dropdown menu for '1_INTERNET_R' with 'Add WAN' and 'Delete' buttons. Below this, there is an 'Enable' section with a checked 'Enabled' checkbox. The 'Operation Mode' is set to 'Bridge' (highlighted with a red box). The 'Internet Connection Type' is set to 'Dynamic IP (DHCP)'. The 'IP Mode' is set to 'IPv4 & IPv6'. The 'NAT' section shows 'NAT' with a radio button set to 'Off' (highlighted with a red box). The 'MTU' is set to '1492' and the '802.1p' priority is set to '0'. The 'VLAN Mode' is set to 'Disabled'.

Click on “Save”.

Turn off your Downstream Router 1.

Repeat Steps 3-6 for each additional Downstream Router, assigning LAN IP addresses sequentially (for example, 192.168.0.6, 192.168.0.7, and so on).

Connect all Downstream Routers to the Main Router as shown in the diagram below, then power on all routers.



For reliable 10 Gbps connections, it is recommended to use Cat6A Ethernet cable for cable runs up to 100 m. Cat6 cable may also be used for runs up to 55 m.