Dual Homing for Turbo Ring V2

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This Tech Note applies to the following Moxa switches:

- EDS-400A series
- EDS-500A series (includes the EDS-G509 and EDS-P510 series)
- EDS-600 series
- EDS-700 series
- EDS-800 series
- IKS-6524/6526 Series
- IKS-6726 Series
- PT-7828 Series
- PT-7700 Series
- PT-G7509 Series
- TN-5500 Series

What is Dual Homing for Turbo Ring V2?

(Applies only to "Turbo Ring V2")

The **"dual-homing"** option uses a single Ethernet switch to connect two networks. The primary path is the operating connection, and the backup path is a back-up connection that is activated in the event that the primary path connection fails.

See the diagram below. The primary path of Switch C is the operating connection, and the backup path of Switch C is a back-up connection that is activated in the event that the primary path connection fails.

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About Moxa

Moxa manufactures one of the world's leading brands of device networking solutions. Products include serial boards, USB-to-serial hubs, media converters, device servers, embedded computers, Ethernet I/O servers, terminal servers, Modbus gateways, industrial switches, and Ethernet-to-fiber converters. Our products are key components of many networking applications, including industrial automation, manufacturing, POS, and medical treatment facilities.

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Switch A

Primary Path

Switch C

Turbo Ring V2

Backup Path

Switch B
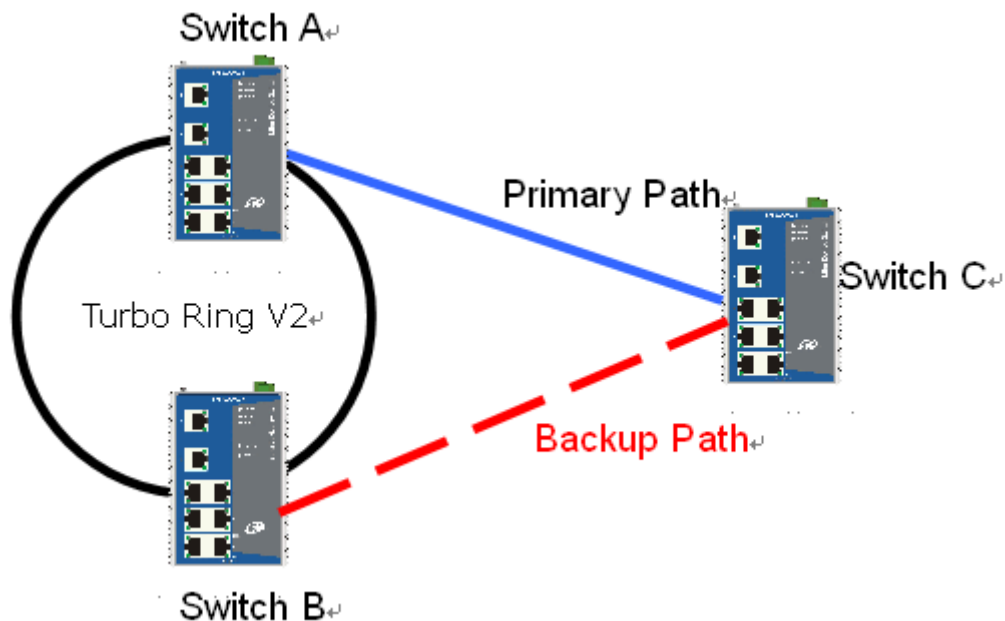
Enabling Dual Homing

Enabling Dual Homing through the web console for the EDS-400A/ 500A/600 /700/800 series, IKS-6524/6526 Series, IKS-6726 Series, PT-7828 Series, PT-G7509 Series, PT-7700 Series, and TN-5500 Series

Before performing the following steps, restore the Moxa switch default settings via web console.

1. Make sure that all DIP switches are set to OFF and then power on the Moxa switch.

2. Make sure that the Moxa switch and the host PC are properly connected to the network.

3. Adjust the Moxa switch's IP settings as necessary so that it is on the same network as your PC. You may also need to modify the host PC's IP configuration. Make sure you can ping the Moxa switch from your host PC. *Note: The IP addresses of the Moxa switch and the PC must be on the same subnet. If one IP address is modified, you may need to modify the other IP address.*

4. Prepare 3 Moxa Managed Switches (i.e., Switch A, B, and C as in the diagram above) to form 1 group (Switch A and B) Turbo Ring and one standalone switch device.

5. Configure and connect the cables of Switch A and B (refer to the "Turbo Ring V2 Function QIG).

6. Enable Dual Homing on Switch C via web console and decide which ports in Switch C to use as "Primary Port", "Backup Port".

It can be found through the web console as follows:

Communication Redundancy→Turbo Ring V2→ Enable Ring Coupling

→Coupling Mode: Dual Homing

Check the "Primary Port" and "Backup Port" that you decided.

7. Carefully connect the Switch C primary port and backup port cables to Switches A and B.

8. Monitor the status of the "Primary Port" and "Backup Port."

Testing the Dual Homing function
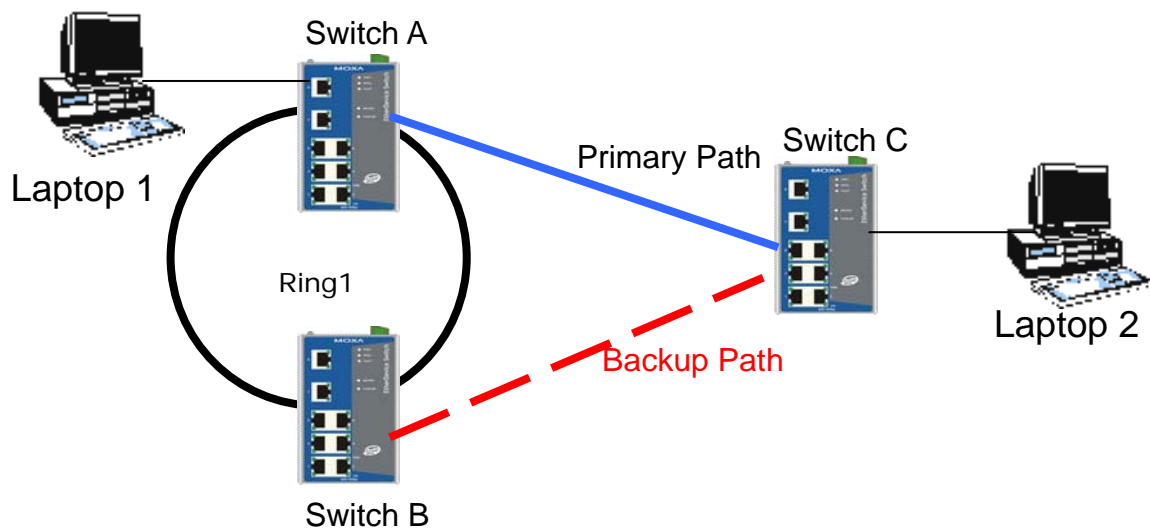
1. Configure Laptop1 and 2 to be located in the same subnet.

2. Connect Laptop 1 and 2 to Switch A and C, separately.

3. Run the **Ping** x.x.x.x command from Laptop1. (x.x.x.x is Laptop 2's IP address)

4. Unplug the primary path cable of switch C and confirm that the ping session recovers immediately.

5. Monitor the status of the "Primary Port" and "Backup Port"

6. Plug in the primary path cable of switch C and confirm that the ping session recovers immediately.

7. Monitor the status of the "Primary Port" and "Backup Port"