

# Connecting the switch to the core router



## AI Overview

The recommended method is to configure a routed interface or VLAN interface on the core switch and connect it to the router using an access or trunk port, with proper IP addressing and routing.

**Interface Configuration**

For a direct connection between a core switch and a router, you can use either a routed port or a VLAN interface:

**Routed Port (Layer 3 interface):** Configure the switch port as a routed interface by disabling the switchport function and assigning an IP address. This eliminates Layer 2 protocols like STP on the link, reducing potential broadcast or loop issues (Cisco Community).

**Example for Cisco:**

```
CodeCopy
interface GigabitEthernet0/1
no switchport
ip address 192.168.1.2 255.255.255.0
no shutdown
```

**VLAN Interface (VLANIF):** Create a VLAN on the core switch, assign an IP address to the VLAN interface, and configure the physical port as an access port in that VLAN. This is commonly used when multiple devices share the same VLAN (Huawei Support).

**Example for Huawei:**

```
CodeCopy
vlan 100
interface Vlanif 100
ip address 10.176.1.2 255.255.255.0
interface 25GE1/0/4
port link-type access
port default vlan 100
```

**Routing Configuration**

Configure a default route on the core switch pointing to the router's IP address to allow traffic to reach external networks. On the router, configure the interface connected to the switch with an IP address in the same subnet and add return routes to the internal networks behind the core switch (Huawei Support).

**Example:**

```
CodeCopy
ip route-static 0.0.0.0 0.0.0.0 10.176.1.1
ip route-static 10.173.0.0 255.255.0.0 10.176.1.2
```

**Security Considerations**

Disable unnecessary Layer 2 protocols on the link, such as DTP, CDP, and Spanning Tree, if using access ports to prevent VLAN hopping or other attacks (Cisco Community). Use trunk ports only when multiple VLANs need to pass between the core switch and router, and ensure the native VLAN is not used for untagged traffic to reduce security risks.

**Best Practices**

Prefer routed ports for point-to-point connections between the core switch and router to simplify the network and avoid L...

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### Ethernet Cable Color Coding Diagram

Another way of remembering the color coding is to simply switch the Green set of wires in place with the Orange set of wires. Specifically, switch the solid Green (G) with the solid Orange, and switch the

### Elements of Computer Network

Switches and Hubs These are used to connect multiple devices within a network:  
Switch: Smarter, forwards data only to the device it's intended for.

ITPro Today, Network Computing, IoT World Today combine

ITPro Today, Network Computing and IoT World Today have combined with TechTarget . The page you are looking for may no longer exist.

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For more information, pricing, or custom solutions, please contact us:

Website: <https://www.introspec.co.za>

Email: [info@introspec.co.za](mailto:info@introspec.co.za)

Phone: +27 73 849 2156

Address: 25 Riebeek Street, Cape Town, 8001, South Africa

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