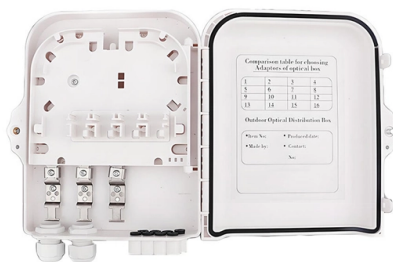


# What happens when a network cable is connected to the same switch



## Overview

This wouldn't be a good thing as this could cause network instability in your environment. This happened years ago at one of my remote offices and it caused problems.

## Key Takeaways

Yes, a network cable can be connected to a switch, allowing multiple devices to communicate within a network and access the internet.

## How It Works

A network switch is a device that connects multiple devices within a local area network (LAN) using Ethernet cables. Each device, such as a computer, printer, or router, can be connected to a switch port using an Ethernet cable with an RJ-45 connector. The switch then forwards data packets only to the intended recipient device, improving network efficiency and reducing congestion.

Steps to Connect a Network Cable to a Switch  
Connect to the Router or Network Source: Plug one end of an Ethernet cable into your router or another network device and the other end into a port on the switch. This provides the switch with internet access and network connectivity.  
Connect Devices to the Switch: Use additional Ethernet cables to connect your computers, printers, or other devices to the remaining switch ports.

**Configure Devices:** Ensure that connected devices are set to obtain an IP address automatically from the router or switch, or configure static IPs if required. **Optimize Performance:** If using a managed switch, you can configure VLANs, QoS, or other settings to improve network performance and security. **Benefits of Connecting Devices via a Switch**  
**Expand Network Capacity:** Connect more devices without running out of router ports.

**Improve Network Performance:** Switches reduce congestion by directing data only to the intended device. **Simplify Network Management:** Managed switches allow monitoring and configuration of network traffic.

### **Cost-**

**Effective:** Switches are often more affordable than adding multiple router ports for large networks.

### **Additional Considerations**

**Cable Type:** Use the highest supported Ethernet cable (e.g., Cat 5e, Cat 6, or Cat 6a) to avoid limiting network speed. **Auto MDI/MDIX:** Many modern switches support automatic crossover detection, allowing standard Ethernet cables to connect devices without needing a crossover cable. **Distance Limitations:** Standard Ethernet cables have a maximum effective length of 100 meters; switches can help extend network reach.

By following these steps, connecting a network cable to a switch is straightforward and provides a reliable, high-speed network for multiple devices.

## **Article Content**

single cable connected to same switch.

This wouldn't be a good thing as this could cause network instability in your environment. This happened years ago at one of my remote offices and it caused problems.

What happens when you plug two or more ethernet cables into a

If each cable goes to its own subnet (e.g. managed switch with VLANs, two different networks, etc), the routing functions built into the network stacks will take over and determine which

Switched Ethernet

These network-connected devices are connected to an Ethernet switch by a cable, and the switch controls the data flow between the devices, apps, cloud services, and the Internet.

## Troubleshoot LAN Switching Environments

A good general rule of thumb is that when you cross an OSI layer, as between a switch and a router, use a straight-through cable; when you connect two devices in the same OSI layer, as

Types of Ethernet cables – straight-through and crossover

This type of cable is used when you need to connect two devices that use same wires to send and receive data. For example, consider connecting two computers together. If you use straight-through

What happens if an unmanaged ethernet switch is looped (connected

If the switch's ports do not auto-sense the orientation of the tx/rx pairs, then absolutely nothing will happen because you've probably used a straight-through cable; the type of cable you'd normally use

Network Devices – How Hubs and Switches Work and How to Secure

The switch can avoid collisions as every connection between a switch and an endpoint is a single collision domain – that is, the switch will refrain from sending more than one frame on a

If you try something like this, you'll create what's known as a Layer 2 ...

If you try something like this, you'll create what's known as a Layer 2 loop. By connecting a cable between two ports on the same switch, you've created a circular path with no end. Ethernet

What happens if you short-circuit a network patch cable?

Basically what happens is that broadcasts go out of one end of the cable and in the other looping back into the network. You therefore create a broadcast storm that will most likely render your network

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What if I plugged both sides of a CAT5 cable into a switch?

My network has a lot of unmanaged switches, and we just can't afford to replace them all, unfortunately. For the managed switches we do have, I've mitigated this problem by simply disabling auto-mdix.

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Connecting a switch to itself: does it hurt?

I've got an unusual question a few days ago: Does a loop (cable returning back to same switch) in one switch affect other switches? How can I detect that there is such a problem in a

What happens if an unmanaged ethernet switch is looped (connected

I don't know much at all about networking, and I when I tried to find an answer to this online I found someone who posted a one sentence answer saying "It would cause lots of broadcasts and

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