

Routers on the same fiber optic cable but with different IP addresses on different subnets



Article Overview

You can connect multiple routers on the same fiber optic cable using different subnets by configuring static routes or using firewalls/VLANs to manage traffic between them.

Network Configuration

When routers share a single fiber connection but operate on different IP subnets, each router must have its own default gateway for its subnet. Devices connected to each router will use that router as their gateway, and communication between subnets requires routing rules or a Layer 3 device to forward traffic appropriately .

Options for Connecting Routers

- Direct Fiber to Firewalls or Routers
- Connect the fiber to each router or firewall interface.
- Assign each interface an IP in a new connectivity subnet.
- Configure static routes on each router to reach the other subnet via the opposite router's IP on the connectivity segment .
- This setup allows traffic separation and security filtering but may limit throughput compared to a switch.
- Using a Layer 3 Switch...

Article Content

Connect two routers with different subnet

You say these routers support port-based VLANs, so I'd do it like this: Set up a port-based VLAN (untagged) on both

Can I connect two routers to one fiber modem?

Learn how to connect two routers to one fiber modem for better WiFi coverage. Discover setup steps, potential issues, and network

Is it possible to connect two wifi routers to same fiber modem

But I would like to know, technically is it possible to connect new router directly to the fiber modem? (my fiber modem has extra RJ45

Same network but different IP address?

When set up correctly, you should find that all devices on your network automatically have an IP address that starts

Communication between different subnet MASKS with IP address that

This would break down if i chose in the same subnets different IP's, they would not be able to ping each other with out

Configuring static routing for 2 routers with different subnets ...

Both of my routers are using Openwrt and I am not too sure about how to configure a LAN port on both routers to be

Routing the same subnet in two locations / gateways?

My problem is that I have machines on the same subnet in both locations, but I dont want to traverse the trunk if my traffic stays

Can an ISP provide two static IPs over a single cable?

A former ISP, sonic , offered six static IP addresses with their monthly service. You don't need a router. You just need a hub or

How are IP addresses assigned for two routers in the same network?

In case my other router is connected to the LAN port of the main, will the second router be on the 192.168.0.2 e.g. ? or

Spectrum Fiber Multiple IPs

We have a 500m fiber connection and for years have only had one single IP. Recently I had a block of IPs added so

I tried different Switches and also reduced my network setup to 1 device + 2 Fritzboxes but I still always experience

What are the implications of having two subnets on the same switch?

Can anyone tell me what some of the implications of having two different subnets on the same switch would be if

Why Devices on Different VLANs but on the Same Subnet Can

A common confusion arises when devices are on different VLANs but share the same IP subnet: they can't

Running two subnets over the same physical LAN

The first two are reasons to have a separate broadcast domain for IP camera's but not necessarily reasons not to have two subnets

How To: One Internet connection - Two Private LANs

You can use any two private IP address ranges as long as they are different. The top router ("Internet") takes the single Internet

Multiple hosts with same ip/subnet separated by router possible?

You cannot have the same IP network on different layer 3 interfaces of the same gateway device (router or layer 3

connect two routers with different subnet

Do those routers have a third interface you can use to physically connect them (assuming they are in the same location

Two homes one internet, separating the networks

If you do, keep in mind that the router will need to do its job and "route" all the traffic between the different subnets. With a single

Router interface on same subnet

Could someone please explain why a router can't have 2 interfaces on same subnet? Do routers use network

Direct Fiber between subnets

A fiber connection is really no different than just running an ethernet cable between the two buildings, at least not from

Why can't devices in different subnets talk with each other?

Devices in different subnets can communicate. That is the purpose of a router. Routers route packets between

A single fiber connection into two independent routers

There is no need to get extra IP, it doesn't really solve some potential issues. The easiest way to do is, terminate your ISP

2 LANs 2 subnets over fiber

You will then want to configure subinterfaces on your ethernet port on the router- each IP address on the ethernet

ISP providing two IPs blocks on two subnets : [r/networking](#)

ISP providing two IPs blocks on two subnets I've run into a situation where I'm in a bit over my head and was hoping someone could

Two routers on a fibre optic network? : [r/HomeNetworking](#)

The junction box (pictured) has a straight connection from the fibre modem to a single Ethernet connection in one of the room A in

One fibre line into two separate networks? : [r/HomeNetworking](#)

Two of the Ethernet ports (E1 and E2) are configured with static IP addresses on different small subnets with private IP spaces, like

Two subnets in the same ethernet cable?

Hi, we have both iptv and internet from our isp and the iptv is on different subnet on dedicated ports on the

Is it possible to configure a router with multiple IP subnets?

That is going to depend on the router. For example, a Ubiquiti USG has dual LAN ports, and

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