

# Networking Devices

---

Prof. Amit K. Nerurkar

Assistant Professor

Department of Computer Engineering

Vidyalankar Institute of Technology, Wadala



## Hub



## Gateway



## Router



Image: <https://i2.wp.com/networkustad.com/wp-content/uploads/2019/05/Network-Devices.jpg>

## Repeater



## Bridge



## Switch



## HUB

A hub connects multiple wires coming from different branches

### Hub



<http://www.fiber-optic-solutions.com/buy-ethernet-switch-hub.html>

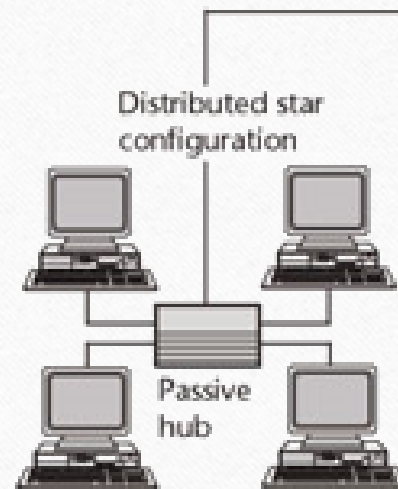


[https://www.diffen.com/difference/Hub vs Switch](https://www.diffen.com/difference/Hub%20vs%20Switch)

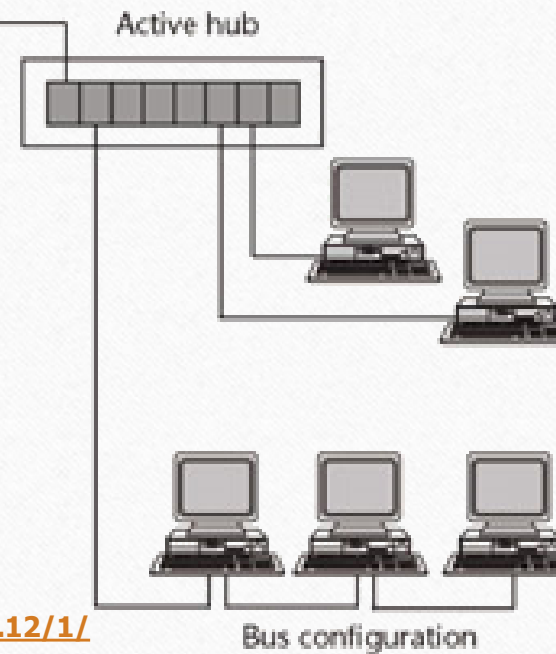


# Types of Hubs

## Passive



## Active



<https://flylib.com/books/en/4.62.1.12/1/>

## Switch

A switch is a multiport bridge with a buffer and a design that can boost its efficiency and performance

## Switch



<http://www.fiber-optic-solutions.com/buy-ethernet-switch-hub.html>



[https://www.diffen.com/difference/Hub vs Switch](https://www.diffen.com/difference/Hub%20vs%20Switch)

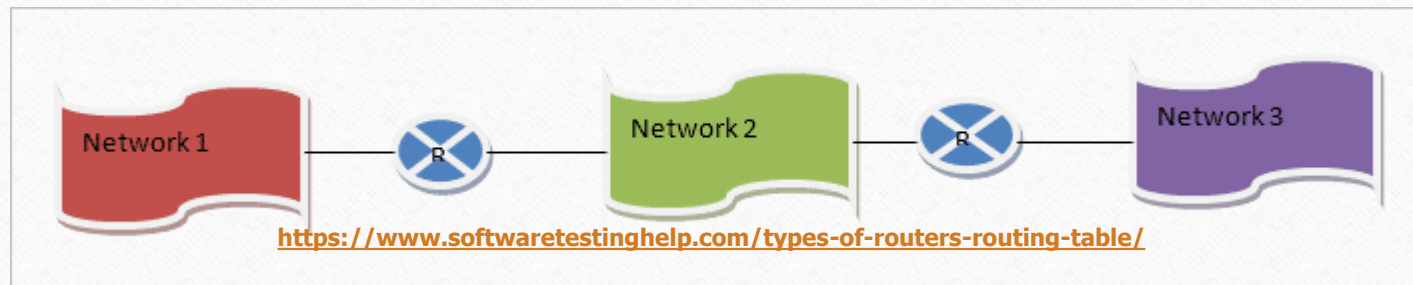


## Router

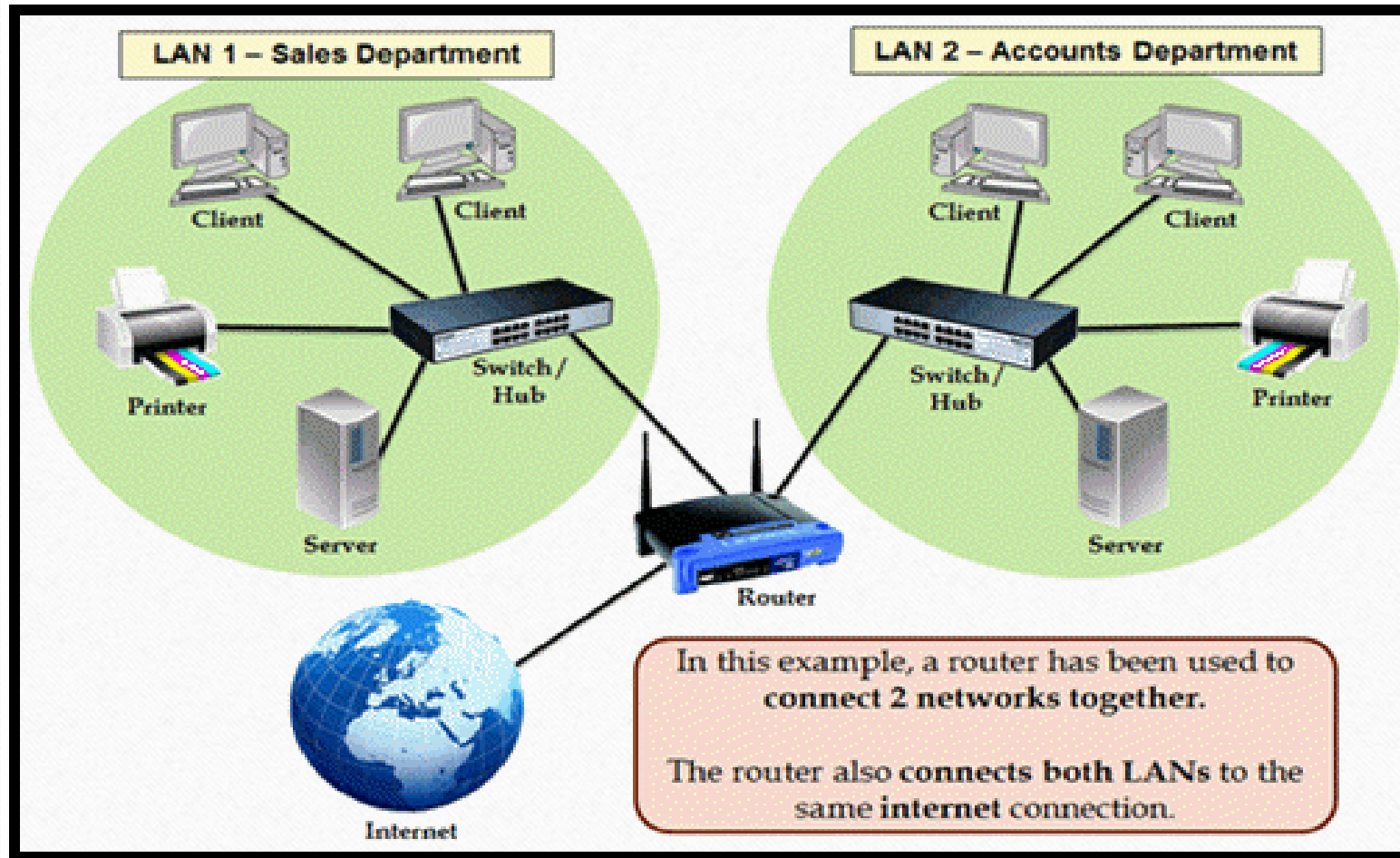
A router is a device like a switch that routes data packets based on their IP addresses.



<https://www.netgear.com/home/products/networking/wifi-routers/R6120.aspx>



# Hubs, Switches and Routers



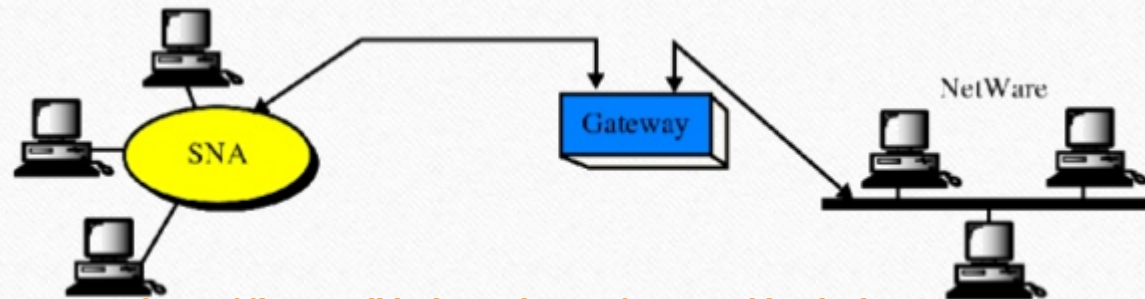


## Gateway

A gateway, as the name suggests, is a passage to connect two networks together that may work upon different networking models.



<https://5.imimg.com/data5/MV/HT/MY-74225086/8-port-gsm-gateway-device-500x500.jpg>

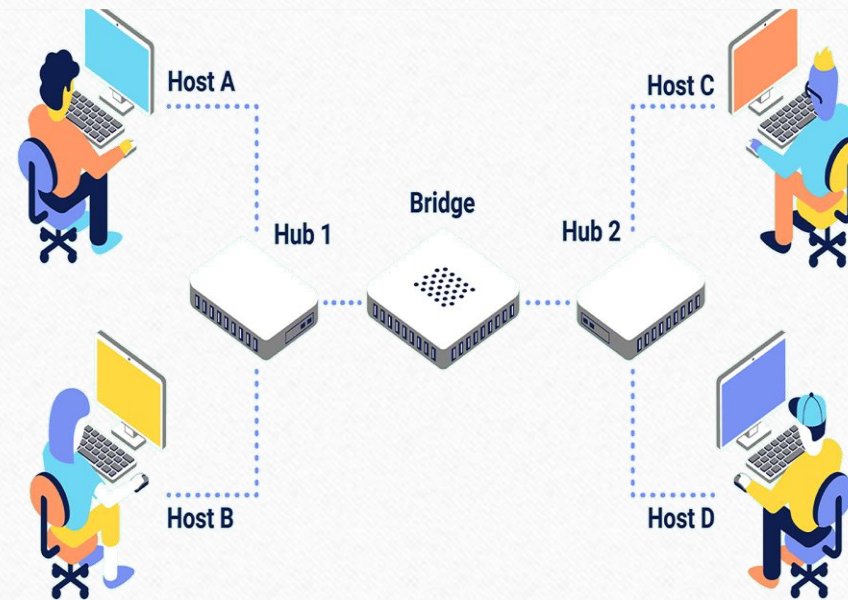


<https://image.slidesharecdn.com/1networkingdevices2014>



## Bridge

A bridge is a repeater, with add on the functionality of filtering content by reading the MAC addresses of source and destination. It is also used for interconnecting two LANs working on the same protocol.



<https://www.lifewire.com/how-network-bridges-work-816357>

**1. Switch is intelligent HUB?**

**A. True**

**B. False**

**A. TRUE**

**2. Gateway connects two different networks?**

**A. True**

**B. False**

**A. TRUE**



PROF. AMIT K. NERURKAR



# Thank You

---

*Name: Amit K. Nerurkar*

*Designation: Assistant Professor*

*College: Vidyalankar Institute of Technology*

*Email: [amit.nerurkar@vit.edu.in](mailto:amit.nerurkar@vit.edu.in)*



**VIT** | Vidyalankar  
Institute of  
Technology  
Accredited A+ by NAAC