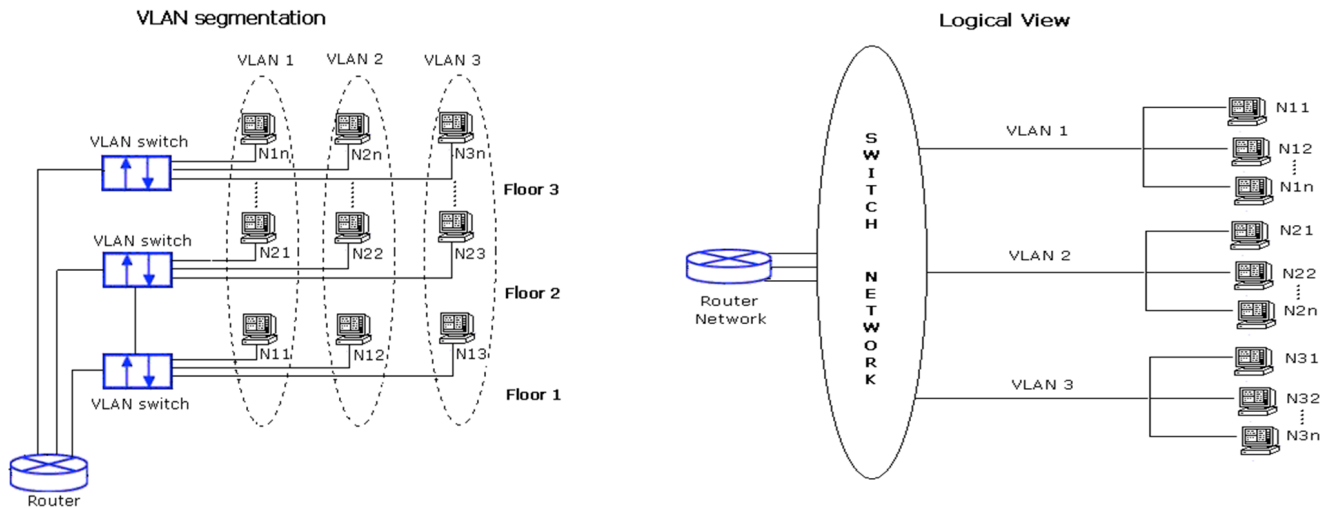


# VLAN - Virtual Local Area Network

A **Virtual Local Area Network (VLAN)** is a logical subnet within a switch or an entire physical network. It can extend across multiple switches. A VLAN separates physical networks into subnets by ensuring that VLAN-enabled switches do not forward frames (data packets) to another VLAN (although the subnets can be connected to shared switches).



## How a Switch Distinguishes between VLANs

This is done by associating the work stations to a specific VLAN using a specified format. This is known as VLAN membership. There are four prominent VLAN membership methods

- **Port** (Layer 1 of the **OSI model** )
- **MAC address** (Layer 2 of the **OSI model** )
- **Protocol type** – EtherType (Layer 2 header contains the protocol type field)
- **Subnet address** (Note that even though the Switch accesses Layer 3 information, it still works at Layer 2 of **OSI model** only.)

Wiki-Article: [https://en.wikipedia.org/wiki/Virtual\\_LAN](https://en.wikipedia.org/wiki/Virtual_LAN)

## Related Links:

- [802.1Q](#)
- [LAN - Local Area Network](#)
- [Network types](#)
- [VLAN - Virtual Local Area Network](#)
- [VLAN and QoS features](#)
- [WAN - Wide Area Network](#)