

06:33

VLAN

- ★ A VLAN is a logical partition of a Layer 2 network.
- ★ Multiple partitions can be created, allowing for multiple VLANs to co-exist.
- ★ Each VLAN is a broadcast domain, usually with its own IP network.
- ★ VLANs are mutually isolated and packets can only pass between them via a router.
- ★ The partitioning of the Layer 2 network takes place inside a Layer 2 device, usually via a switch.
- ★ The hosts grouped within a VLAN are unaware of the VLAN's existence.

NESO ACADEMY

07:07

BENEFITS OF VLAN

- ★ Security.
- ★ Cost reduction.
- ★ Better performance.
- ★ Shrink broadcast domains.
- ★ Improved IT staff efficiency.
- ★ Simpler project and application management.

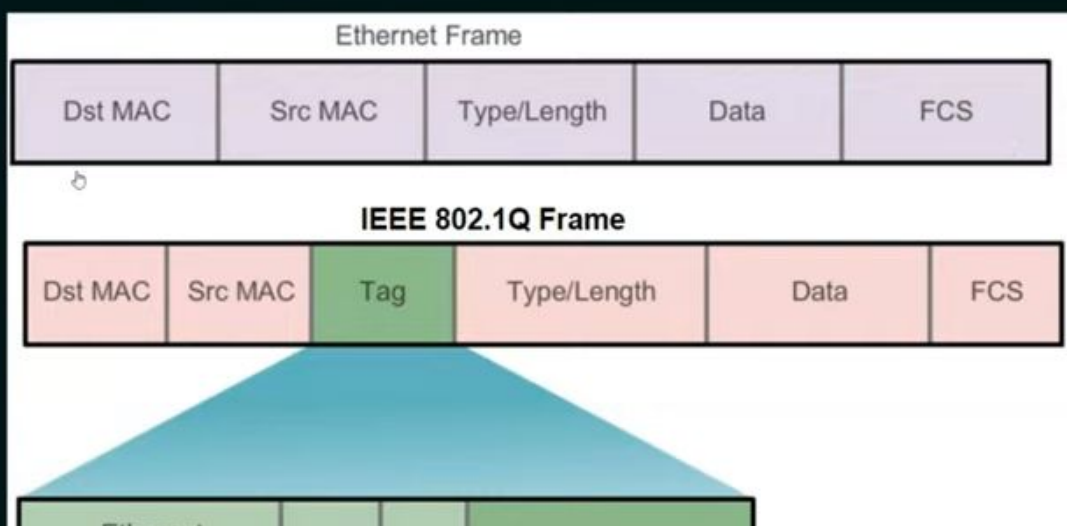
07:17

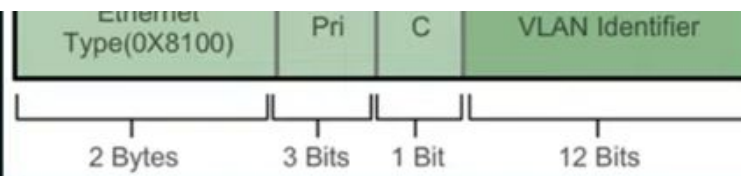
TYPES OF VLAN

- ★ Data VLAN
- ★ Default VLAN
- ★ Native VLAN
- ★ Management VLAN
- ★ Voice VLAN

07:29

VLAN FRAME TAGGING





TAG identifies to which VLAN it will send the data.

10:01

VLAN FRAME TAGGING

- ★ Frame tagging is the process of adding a VLAN identification header to the frame.
- ★ It is used to properly transmit multiple VLAN frames through a trunk link.
- ★ Switches tag frames to identify the VLAN to that they belong. Different tagging protocols exist; IEEE 802.1Q is a very popular example.
- ★ The protocol defines the structure of the tagging header added to the frame.
- ★ Switches add VLAN tags to the frames before placing them into trunk links and remove the tags before forwarding frames through non-trunk ports.
- ★ When properly tagged, the frames can transverse any number of switches via trunk links and still be forwarded within the correct VLAN at the destination.