

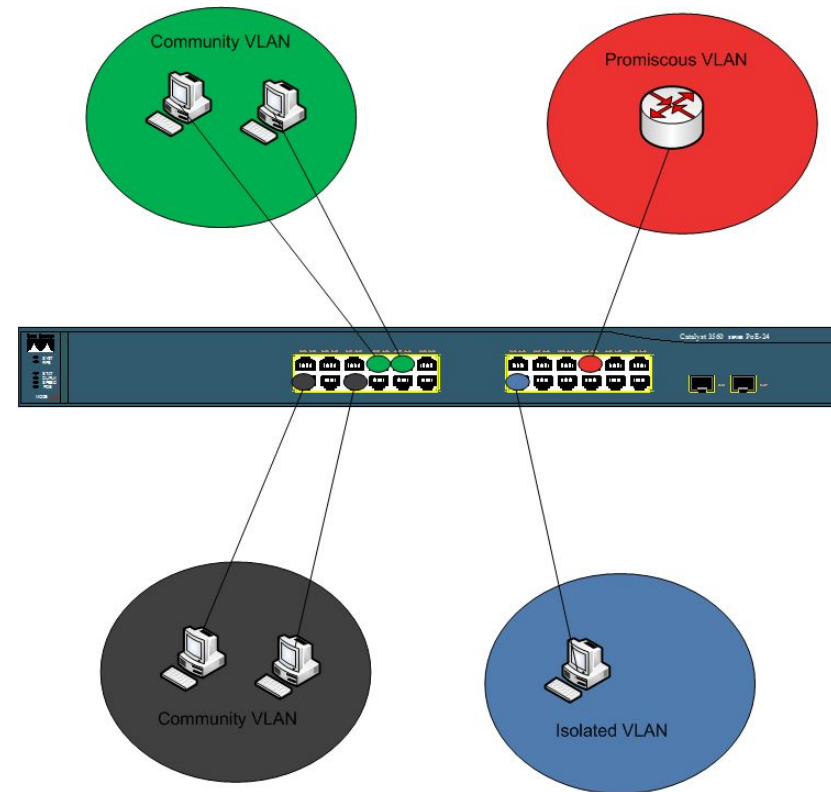


VLAN

Virtual Local Area Network

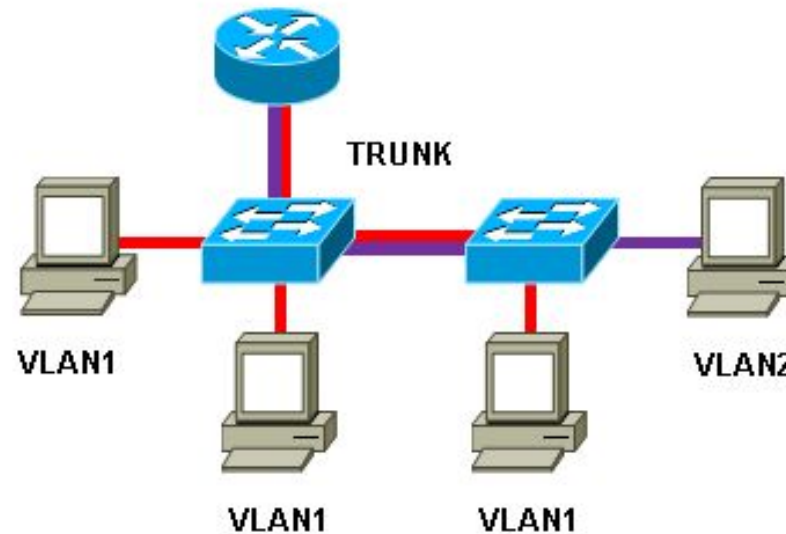
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WHAT IS VLAN?

A virtual local area network (VLAN) is a network on which users are enabled to share a more visual sense of community through high band-width connections.



ROUTER



MAIN GOALS

- connectivity
- security
- management



VLAN TECHNIQUES

Two techniques:

- Frame Filtering --examines particular information about each frame (MAC address or layer 3 protocol type)
- Frame Tagging --places a unique identifier in the header of each frame as it is forwarded throughout the network backbone.



VLAN CONFIGURATIONS

Statically

- Network administrators configure port-by-port
- Each port is associated with a specific VLAN
- The network administrator is responsible for keying in the mappings between the ports and VLANs

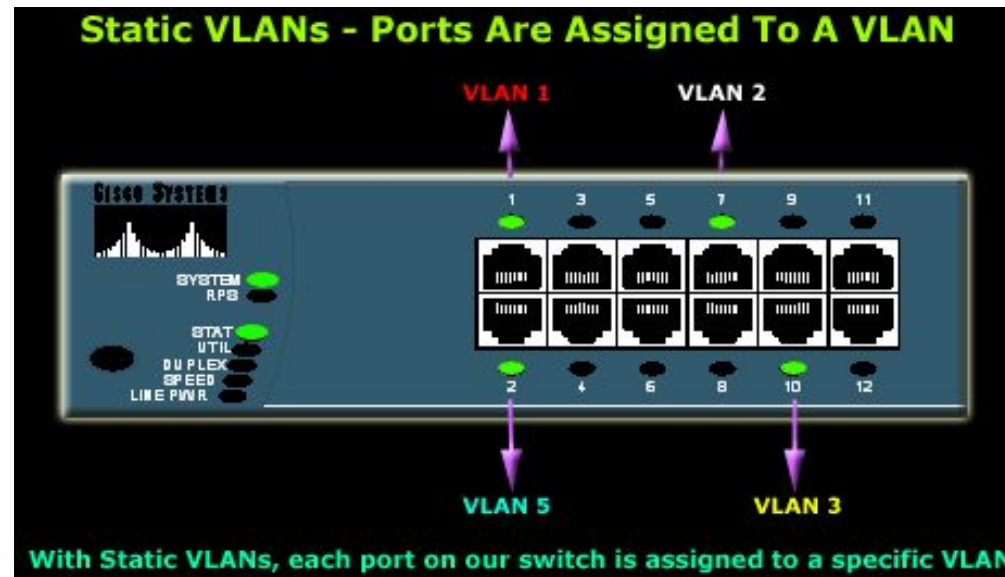
Dynamically

- The ports are able to dynamically work out VLAN configuration
- Uses of software database of MAC address to VLAN mappings



STATIC VLANS

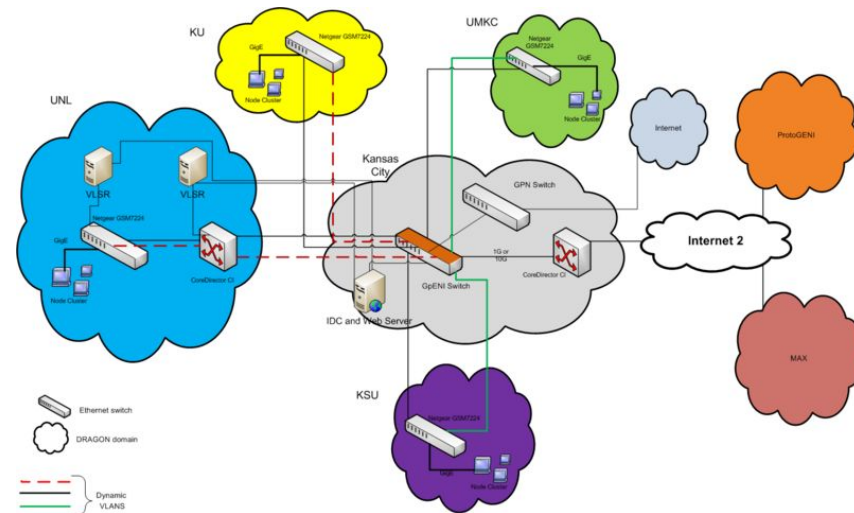
Static membership VLANs calls port-based and port-centric



DYNAMIC VLANS

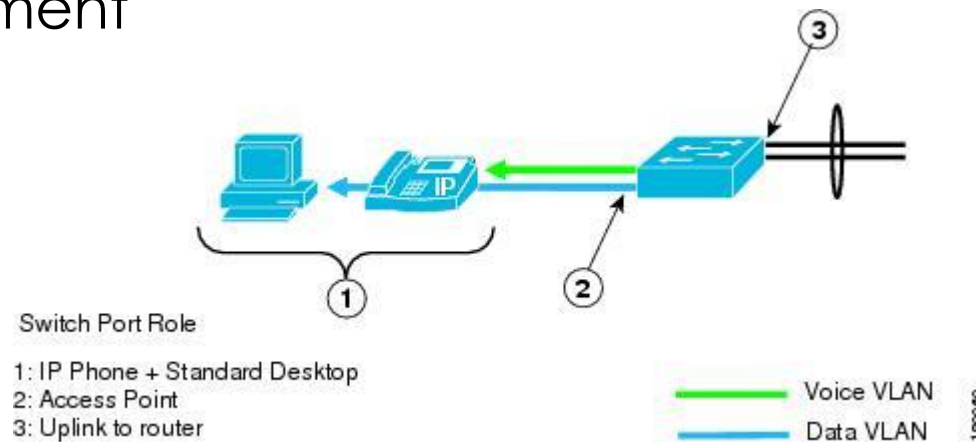
Dynamic VLANs allow for membership based on MAC address to the device connected to the switch port.

This VLANs are created through network management software

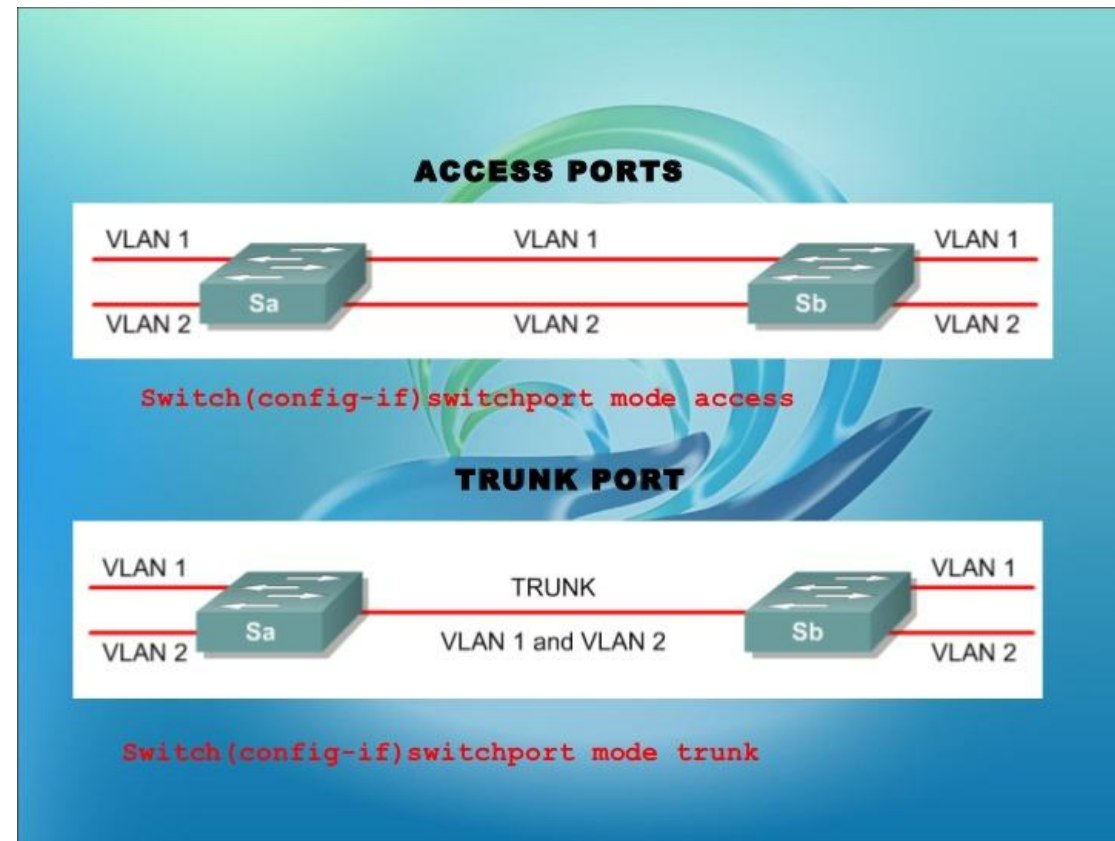


TYPES OF TRAFFIC ON A VLAN

- Data
- Voice
- Network protocol
- Network management



CONFIGURING PORTS



BENEFITS OF VLAN

- Performance
- Formation of Virtual Workgroups
- Simplified Administration
- Reduced Cost
- Security



Thank you

VLAN
VERY LOCAL AREA NETWORK

