Requirements for VLANs

802.1 Interim Meeting
October 1995

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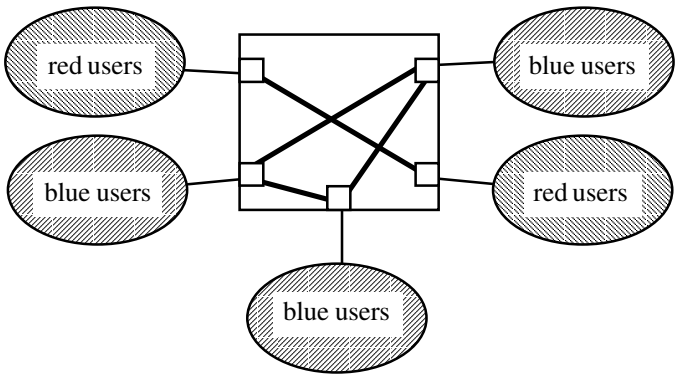
What do customers expect from VLANs?

- Simplification of user adds, moves and changes
- Plug & play ease of use
- Broadcast scoping/containment
- Operation independent of network protocols (multi-protocol support)
- Operation independent of LAN technologies and topologies
- Flexibility (ie. user, server or router interface in 1 or more VLANs)
- Full compatibility with their existing network adapters, hubs, bridges, routers and switches
- Provide migration to emerging technologies (ie. LAN switching, ATM)

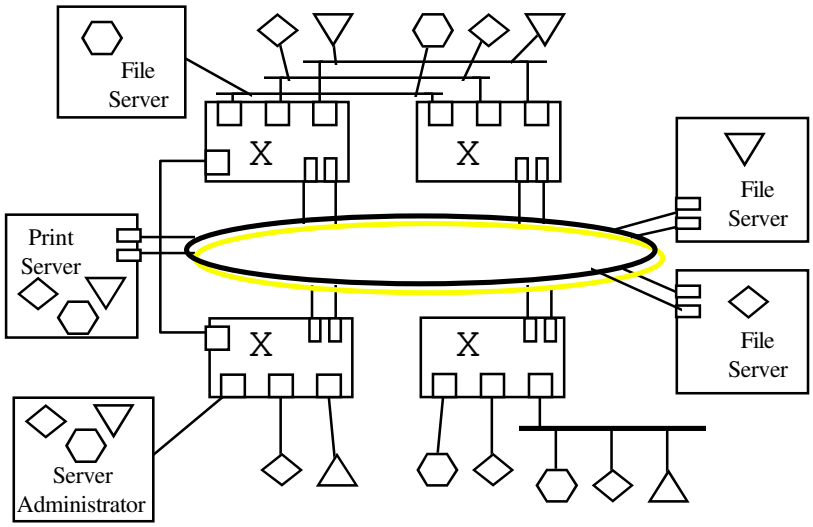
Types of VLANs

- Port Assigned VLANs (PVC-like)
  - Relatively static environment
  - Not ‘user oriented’
  - Tagging oriented or Directory via MAC wildcarding on port
- MAC Address Assigned VLANs (SVC-like)
  - Dynamically changing environment
  - User oriented assignment
  - Allows for user mobility
  - Flexibility
  - Directory oriented

Port Assigned VLANs

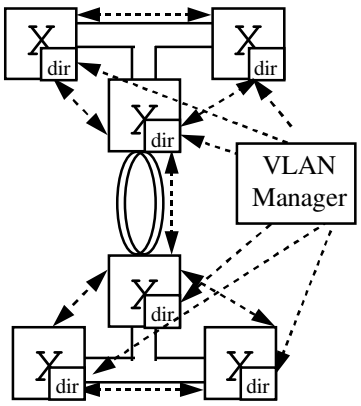


MAC Address Assigned VLANs



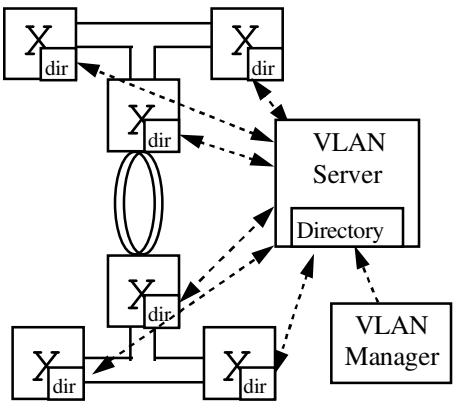
VLAN Directory

Distributed Peer-to-peer



- Simplicity for network provider

Distributed Server-to-client



- Scalability for network provider