Rohith Perumalla | 3/20/17

This past week I've been learning more about Virtual Local Area Networks (VLANs). Layer 2 switches create VLANs to reduce broadcast domains similarly to Layer 3 switches. VLANs are grouped by their logical connections not their physical connections and are often based on function or application. VLANs provide improved security, reduce costs, increase performance, have smaller broadcast domains, and increase IT/management efficiency. There are 4 main types of VLANs: Data VLANs, Default VLANs, Native VLANs, and Management VLANs. There are also trunk VLANs that link between switches to support the transmission of data associated with numerous VLANs. VLAN configurations are stored in the VLAN.dat file in the Flash storage, NVRAM. The only instance where 2 VLANs could be assigned to a single port are for IP Phones, otherwise, VLANs can only be assigned to one port. It is also recommended to change a switch's default native VLAN and default VLAN to avoid hackers from accessing confidential information. It is also strongly recommended to disable the DTP auto negotiation on end user ports to maintain the confidentiality of the network from hackers. If these security measures and more are implemented VLANs can be used to effectively network within an organization. VLANs overall provide extra security and increase connectivity and efficiency within an organization with multiple switches.