Ethernet VLANs

IPC_118d | On-Demand | Transport | Express
Course Duration: 1.5 hours

As the communications industry transitions to wireless and wireline converged networks to support voice, video, data and mobile services over IP networks, a solid understanding of Ethernet and its role in networking is essential. Ethernet is native to IP and has been adopted in various forms by the telecom industry as the Layer 1 and Layer 2 of choice. VLANs are used extensively in the end-to-end IP network and a solid foundation in IP and Ethernet has become a basic job requirement for the carrier world. Starting with a brief history, the course provides a focused basic level introduction to the fundamentals of Ethernet VLAN technology.

Intended Audience

This course is intended for those seeking a basic level introduction to Ethernet Bridging.

Objectives

After completing this course, the student will be able to:

- Define Ethernet VLANs
- Identify Ethernet VLAN applications and benefits
- Summarize the key variations of the Ethernet family of standards to support VLANs
- Identify the key types of Ethernet VLANs
- Describe VLAN Trunks and their purpose

Course Prerequisites

No Prerequisites

Outline

1. Virtual Local Area Networks (VLANs)
1.1 VLAN Definition
1.2 Characteristics of LAN
1.3 Packet flow in VLAN
1.4 Advantages of VLAN

2. VLAN Application and Benefits
2.1 VLAN Applications
2.2 VLAN Benefits

3. Single Switch VLANs
3.1 Port based VLAN

4. Multi-Switch VLANs: Trunks and Tagging
4.1 Multi-Switch VLANs
4.2 VLAN tags
4.3 VLAN Trunks

Putting It All Together