

**Course Name:** Packet Data Fundamentals

**Course Overview:**

Packet Data Fundamentals will provide an overview of today's packet data networks. The student will be exposed to transport technologies such as Frame Relay, ATM and TCP/IP Networks as well as learn the basic fundamentals of each technology. The class will end with a summary of industry trends and a look at future packet data technologies.

**Course Length:** 2 Days

**Who should attend?**

- Field Service Technicians
- Field Engineers
- Managers/ Field Supervisors
- Design Engineers
- Managers or Supervisors

**You will learn:**

- Difference in Packet switching and Circuit Switching
- Basic Packet Data Requirements
- Advantages of a Packet Data Networks
- Overview of Packet Data Technologies
- Uses for Packet Data Networks
- Why Packet networks are efficient
- Packet Networks designed to transport today's applications

**Prerequisites:** None

**Course Fees:**

- 2-day course at a TESSCO Location \$950 per person
- 2-day course at your location \$6,000 for up to 10 attendees

**Customizable Course:** Yes

**Course Content:**

Packet Data Overview

- What is Packet Data?
- Packet Switching vs. Circuit Switching
- Packet Data Technologies
- Industry trends that support Packet Data Networks

Packet Data Networks

- Overview
- How Networks are evolving
- Public and Private
- Internet
- Hardware
- Software
- Traffic Control and Verification

#### OSI Model

- Introduction
- Role of the OSI in Packet Data Networks
- OSI Layers
- Layer 2 and Layer 3 Technologies
- Troubleshooting Network Problems with the OSI

#### Frame Relay

- Bandwidth
- Frames
- DLCI
- Congestion Control
- Frame Relay Equipment
- Advantages and Disadvantages

#### ATM

- Bandwidth
- Cell Concept
- Adaptation Layer
- VPI and VCI
- ATM Application
- ATM Equipment
- ATM switching
- ATM compared to Frame Relay

#### TCP/IP

- Overview
- IP Addressing
- TCP/UDP
- Traffic Delivery choices
- TCP/IP Network Hardware and Software
- IP Routing
- TCP/IP Protocols

#### Industry Trends for Packet Data

- Enhancements in existing Network Architecture

- Next generation Packet Networks