

Introduction to Data Technologies

Course Length	3 days
Course Code:	NFSDTA1
Prerequisites	None. A basic understanding of telecommunications transmission principles will be useful for students taking course.
Course Overview:	This course focuses on introducing the student to data technologies and equipment through a unique hands-on approach. Students will learn data while actually cabling networks, installing equipment and doing basic setup and testing. (The student will basically wire an Ethernet LAN and transport it over a Frame Relay and/or ATM Network. This network will then be used to pass TCP/IP and SMTP traffic over the Internet.)

*This course can be customized or combined to meet specific system requirements

Course Outline

Data Industry

- Trends
- Drivers

OSI Model

- Purposes
- Layers
- LAN vs. WAN

Purpose of OSI Model

Physical Layer 1

- T1/DS1
- DS3 SONET
- DWDM

Datalink Layer 2

WAN technologies
ISDN D channel
Frame Relay
ATM
SS7

LAN technologies
Ethernet
Token Ring
ATM

Network Layer 3 Technologies

ISDN
IP
IPX
AppleTalk

Transport Layer 4 technologies

TCP
UDP

Upper Layers (5, 6 and 7)

Overview of technologies and functions

Overview of Basic Equipment

Router
Switch (LAN and WAN)
Hub/Repeater
Multiplexer
Bridge
Firewall
Gateway
Personal Computer
CSU/DSU
NIU/Smartjack
DSL Router/Modem



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