

**Course Name:** HDSL/HDSL2/HDSL4 Concepts

**Course Overview:**

HDSLx technologies are offered to deliver T1 bandwidth transparently from telecommunications carriers to end-users. This course provides an overview of service offerings, design impact, changes to equipment, technology fundamentals, and new testing and maintenance considerations when implanting an HDSLx technology.

**Course Length:** 1 day

**Who should attend?**

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

**You will learn:**

- HDSLx services and networks
- Technology background and fundamentals
- Equipment
- Testing requirements
- Impact on other advanced data services

**Prerequisites:** None

**Customizable Course:** Yes



## Course Content:

### Technology Overview

- T1 fundamentals
- xDSL comparisons and history
- Modulation
- Line coding
- Pairs and balance
- Distance
- Grounding

### Equipment

- HxTU-C
- HxTU-R
- Repeaters
- Doublers

### Testing

- Resistance measurements
- Balance in resistance and loss
- T1 testing
- Channel testing
- Terminal access

### Network Applications

- High speed internet
- Cellular backhaul
- Voice systems
- SCADA

### Service Considerations

- Fractionalization
- Balance
- Grounding
- NIU/HTU-R and HTU-C compatibility

