

Chapter 4



Chapter 4

CompTIA Network+



Episode 4.01

Episode title: **100BaseT**

Objective: **1.3 Summarize the types of cables and connectors and explain which is the appropriate type for a solution**

Key Terms



- 100 Mbps Ethernet
- Half-duplex
- Full-duplex

Quick Review



- Full-duplex mode allows both sides of a conversation to occur at the same time
- 100BaseT (a.k.a. 100BaseTX) runs at 100 Mbps up to 100 meters
- 100BaseFX, a fiber solution, runs at 100 Mbps up to 2 kilometers



Episode 4.02

Episode title: **Gigabit Ethernet and 10-Gigabit Ethernet**

Objective: **1.3 Summarize the types of cables and connectors and explain which is the appropriate type for a solution**

Key Terms



- SONET

Quick Review



- Know your 1000Base types: names, distances, node number, etc.
- Know your 10GBase types: names, distances, cable types, etc.



Episode 4.03

Episode title: **Transceivers**

Objective: **1.3 Summarize the types of cables and connectors and explain which is the appropriate type for a solution**

Key Terms



- Multisource agreement (MSA)
- Gigabit interface converter (GBIC)
- Small form-factor pluggable (SFP)
- Quad small form-factor pluggable (QSFP)
- Bidirectional (bidi)

Quick Review



- Fiber-optic cable supports multiple connection types from various vendor MSAs
- SFP and SFP+ are small form-factor transceivers
- QSFP is designed for 40 Gbps Ethernet



Episode 4.04

Episode title: **Connecting Ethernet Scenarios**

Objective: **2.3 Given a scenario, configure and deploy common Ethernet switching features**
5.2 Given a scenario, troubleshoot common cable connectivity issues and select the appropriate tools

Key Terms



- Bridging loop
- Spanning Tree Protocol (STP)
- Layer 2 attack
- Flood guard
- Speed mismatch

Quick Review



- Proper switch configuration will avoid bridging loops
- Match switch speeds to network speeds to avoid a slowdown due to speed mismatch
- Most current switches autodetect, eliminating crossover and uplink cable requirements