

Glossary

This glossary defines terms used in this guide.

10BaseT

10-Mbps Ethernet specification using two pairs of twisted-pair cabling (Category 3 or 5). 10BaseT, which is part of the IEEE 802.3 specification, has a distance limit of approximately 100 meters per segment.

100BaseTX

100-Mbps Fast Ethernet specification using Category 5 UTP wiring. Based on the IEEE 802.3u standard.

autonegotiation

A protocol through which two connected devices can communicate common capabilities, for example, speed and duplex mode, to each other. Once common capabilities are communicated, the highest common capabilities for both devices, for example, 100 Mbps and full-duplex mode, are chosen as the operating modes.

collision

When two devices on an Ethernet network transmit data at the same time, the data packets from each device collide and are damaged when they meet on the network.

crossover Ethernet cable

A cable that connects two similar devices, for example, two data terminal equipment (DTE) or data communications equipment (DCE) devices. An example is connecting the switch to another Cisco 1548 Micro Switch 10/100.

Ethernet

Baseband LAN specification invented by Xerox Corporation and developed jointly by Xerox, Intel, and Digital Corporation. Ethernet networks use carrier sense multiple access/collision detect (CSMA/CD) and run over a variety of cable types at 10 Mbps. Ethernet is similar to the IEEE 802.3 series of standards.

Fast Ethernet

Any of a number of 100-Mbps Ethernet specifications. Fast Ethernet offers a speed ten times that of the 10BaseT Ethernet specification. Existing 10BaseT applications and network management tools can run on Fast Ethernet networks. Based on an extension to the IEEE 802.3 specification.

full-duplex mode

Capability for simultaneous data transmission between a sending station and a receiving station.

half-duplex mode

Capability for data transmission in only one direction at a time between a sending station and a receiving station.

link

A connection between two ports.

MDI/MDI-X

Some hubs, including the Cisco 1528 Micro Hub 10/100, provide a media-dependent interface/media-dependent interface-crossover (MDI/MDI-X) button. This button is usually associated with a particular port. With this button set correctly, you can connect a network device to the associated port using a straight-through Ethernet cable rather than a crossover Ethernet cable.

segment

Section of a network that is bounded by bridges, routers, or switches.

STP

Shielded twisted-pair. A two-pair wiring mechanism used in a variety of network implementations. STP cabling has a layer of foil shield to reduce electromagnetic interference (EMI).

straight-through Ethernet cable

A cable that wires a pin to its equivalent pin. A straight-through Ethernet cable is the most common cable used. An example specific to the switch is connecting one of these switches to an end station, such as a PC.

throughput

Rate of information arriving at, and possibly passing through, a particular point in a network system.

UTP

Unshielded twisted-pair. A wire medium used in a variety of networks. UTP cabling standards are Categories 1 through 5.

