

Sem 2v2 Chapter 11

Troubleshooting the Network

Cisco Networking Academy Program



Examples of problems in each layer might include:

- *Layer 1* - incorrect cable used
- *Layer 2* - interface not configured for Ethernet
- *Layer 3* - subnet mask is incorrect

Layer 1 errors include:

- broken cables
- disconnected cables
- cables connected to the wrong ports
- intermittent cable connection
- wrong cables used for the task at hand (must use rollovers, cross-connects, and straight-through cables correctly)
- transceiver problems
- DCE cable problems
- DTE cable problems
- devices turned off

Layer 2 errors include:

- improperly configured serial interfaces
- improperly configured Ethernet interfaces
- improper encapsulation set (HDLC is default for serial interfaces)
- improper clockrate settings on serial interfaces

Layer 3 errors include:

- routing protocol not enabled
- wrong routing protocol enabled
- incorrect IP addresses
- incorrect Subnet Masks
- incorrect DNS to IP bindings