CompTIA NET+ Cert, Part 02 of 17: Media and Hardware[replaced]

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Meet the expert: Patrick Loner has certifications for MCSA, MCSE, MCITP, A+, Network+, Security+, and more. He has been working as a Microsoft Certified Trainer, network administrator, and network consultant for over ten years. He has over a decade of experience working with and teaching about Windows networks with client and server operating systems. He has guided many students toward Microsoft and CompTIA certifications. Most recently, he has worked as a freelance trainer and network consultant specializing in Windows Server 2008 and Microsoft Exchange 2007 and Exchange 2010 implementations, design, and upgrades. Patrick continues to branch out now working with and training on Windows Server 2012, Windows 8, Exchange 2013, and System Center Configuration Manager 2012.

Prerequisites: This course assumes the user has some experience with computer hardware, software, and understands the concept of a computer network. The user should have viewed CompTIA NET+ Cert: Theory and Communications before taking this course.

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Course description: ** this course is updated for current certification N10-008 with parts 1 through 7 starting at https://www.learnnowonline.com/course/npe**

In this session we cover a lot of ground on cables, cables, and more cables. First there were the twisted pair cables that are most prevalent on today's networks, then there was the history lesson on coaxial cables used in earlier implementations of Ethernet. And then you will see the various types of optical cables that exist, single mode and multi-mode fiber of various types and distances. We will see that in some cases you aren't dealing with cables at all but instead the various wireless communication technologies. We'll end things up with an overview of the network devices that are required to connect nodes on the network.

Course outline:

Bounded Network Media
- Introduction
- Network Media
- Copper Media
- Twisted Pair Cables
- Twisted Pair Cable Types
- Twisted Pair Cable Categories
- TP Cable Categories - cont'd
- Coaxial Cables
- Coaxial Cable Types
- Coaxial Connector Types
- Summary

Bounded Network Media (Cont.)
- Introduction
- Media Performance Factors
- Media Converters
- Media Converters (Contd)
- Structured Cabling
- Structured Cabling (Contd 1)
- Structured Cabling (Contd 2)
- Premise Wiring
- Premise Wiring (Contd)
- Plenum and PVC Cables
- Plenum and PVC Cables (Contd 1)
- Plenum and PVC Cables (Contd 2)
- Summary

Fiber Optic Cables
- Introduction
- Fiber Optic Cables
- Fiber Optic Cable Modes
- FO Cable Modes (Contd 1)
- FO Cable Modes (Contd 2)
- Fiber Connectors
- Fiber Connectors (Contd)
- Cable Properties
- Cable Properties (Contd)
- Other Cable Media Types
- Summary

Unbounded Media
- Introduction
- Wireless Communication
- Radio Networking
- Broadcast Radio
- Spread Spectrum
- Types of Spread Spectrum
- Infrared Transmission
- Bluetooth
- Microwave Transmission
- Wireless Access Points
- Summary

Noise Control
- Introduction
- Electrical Noise
- Sources of Electrical Noise
- Grounding
- Shielding
- Differential Signaling
- Nosie Control and Twisted Pair
- Termination
- Noise Reduction Considerations
- Summary

Network Devices
- Introduction
- NICs
- Transceivers
- Switches
- Virtual Switches
- Virtual Switches (Contd)
- Routers
- Gateways
- Virtual Servers
- Virtual Servers (Contd)
- Virtual PBX
- NaaS
- Legacy Network Conn. Devices
- Summary