

CompTIA NET+ Cert, Part 12 of 17: Network Troubleshooting

page 1

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 also viewed CompTIA NET+ Cert: Network Management before viewing this course.

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Course description: In this course we are going to look at what to do as a network technician when things go wrong. You have to know how to handle failures in network communication, how to deal with various network problems, and how to do so in an organized manner. So we'll start with troubleshooting methodology so that we can get the most out of our time, diagnosing and resolving issues efficiently. Then we will look at the various tools you can use to troubleshoot issues and finally some common problems, their causes, and their resolutions.

Course outline:

Troubleshooting Models

- Introduction
- Troubleshooting
- Troubleshooting Models
- Network+ Troubleshooting Model
- Step 1
- Step 2
- Step 3
- Step 4
- Step 5
- Step 6
- Step 7
- Summary

Troubleshooting Utilities

- Introduction
- Troubleshooting with IP Config
- The ping Utility
- The traceroute Utility
- The arp Utility
- The NBTSTAT Utility
- The NETSTAT Utility
- The Nslookup Utility
- SNIPS
- SNIPS (Cont)
- Demo: Troubleshooting Utilities
- Summary

Hardware Troubleshooting

- Introduction

- Network Technician Hand Tools
- Electrical Safety Rules
- Electrical Safety Rules 2
- Electrical Safety Rules 3
- Wire Crimpers
- Punch Down Blocks
- Punch Down Tools
- Circuit Testers
- Multimeters
- Cable Testers
- Cable Certifiers
- Types of Testers & Certifiers
- Crossover Cables
- Hardware Loopback Plugs
- Time-Domain Reflectometers
- TDRs (Cont.)
- Tone Generator & Tone Locators
- Environment Monitors
- Butt Sets
- LED Indicators
- Network Analyzers
- Demarc
- Wireless Testers
- WLAN Survey Software
- Summary
- Physical Issues
- Logical Issues
- Wireless Issues
- Wireless Issues (Cont.)
- Routing and Switching Issues
- Summary

Common Networking Problems

- Introduction