CompTIA NET+ Cert, Part 11 of 17: Network Management

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: Security Threats and Attacks course before viewing this course.

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Course description: In this chapter we are going to look at a number of areas that require adequate planning in order to implement and maintain successful network infrastructures. It's not enough to set up the network, you cannot just leave it to itself. You need to be aware of how to monitor network communications, how to document and manage those communications, and how to optimize those communications. This will ensure that the network continues to perform and to meet requirements into the future.

Course outline:

Network Monitoring
- Introduction
- Network Management
- SNMP
- Network Monitoring Tools
- Network Monitoring Tools (Cont)
- Monitoring Tool Categories
- Network Traffic Analysis
- Port Filtering
- Traffic Filtering
- Network Diagnostics
- Network Diagnostics (Cont)
- System Performance Monitors
- Protocol Analyzers
- Network Fault Tolerance
- Summary

Management Documentation
- Introduction
- Network Administration
- Configuration Management
- Network Documentation
- Physical Netowrk Diagrams
- Logical Network Diagrams
- Critical Inventories
- Critical Inventories (Cont)
- Network Policies
- Legal Compliance Requirements
- Network Baselines
- Network Baselining Process
- Demo: Network Baseline
- Demo: Baseline Properties
- Summary

Performance and Optimization
- Introduction
- QoS
- The Need for QoS
- QoS Parameters
- Traffic Shaping
- Load Balancing
- High Availability
- Caching Engines
- High-Bandwidth Applications
- Factors Affecting QoS
- Summary