Microsoft Networking with Windows Server 2016, Part 2 of 9: IPv4 Hosts

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: there are no prerequisites

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Course description: This course covers more IPv4 and IPv6 configuration. It will discuss configuring IPv4 and IPv6 hosts and the tools to use to do this and finally you will understand how to troubleshoot connectivity and also the complexities of transitioning from IPv4 to IPv6.

Course outline:

Configuring IPv4 Hosts
- Introduction
- Configuring IPv4 Hosts
- IPv4 Configuration
- IPv4 Configuration Tools
- Demo: Configuring IPv4
- Demo: IP Configuration Commands
- Summary

Managing IPv4 Connectivity
- Introduction
- Managing and Troubleshooting IPv4 Connectivity
- Network Routing
- Working with Routing Tables
- Adding Static Routes
- IPv4 Troubleshooting Methodology
- Command Line Troubleshooting Tools
- Graphical Troubleshooting Tools
- Troubleshooting with Windows PowerShell
- Demo: Troubleshooting
- Demo: Connection Testing
- Demo: Tracert
- Microsoft Message Analyzer
- Summary

IPv6 for Network Hosts
- Introduction
- Implementing IPv6 for Network Hosts
- The Purpose of IPv6
- Reasons to Use IPv6
- Comparing IPv4 and IPv6
- IPv6 Address Structure
- IPv6 Address Types
- IPv6 Autoconfiguration
- Configuring IPv6
- Tools for Configuring IPv6
- Summary

Implementing IPv6 Transitioning and Coexistence
- Introduction
- Implementing IPv6 Transitioning and Coexistence
- Understanding Node Types
- Options for Coexistence
- IPv6 over IPv4 Tunneling
- Understanding ISATAP
- Understanding 6to4
- Understanding Teredo
- Transitioning Process
- Summary