Microsoft Networking with Windows Server 2016, Part 9 of 9: Network Features

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: In this Course implementing advanced networking features will be covered. Windows server 2016 provides a number of high performance features, SMB 3.11 new quality of service options, and enhancement son network packet processing. Next Hyper-V enhancements and switch functionality and network packet processing will be discussed along with virtual machine queuing and spending time looking at software defined networking and network virtualization important to understand conceptually and when they are used in private and public cloud environments.

Course outline:

Implementing Network Features for High Performance
- Introduction
- Chapter 7 - Implementing Advanced Network Features
- Hihg Performance Networking Features
- NIC Teaming
- Demo: NIC Teaming
- SMB 3.1.1 Shared Folders
- Advanced SMB 3.1.1 Functionality
- Quality of Service (QoS)
- Understanding RSS
- Summary

Implmenting Hyper-V Advanced Features
- Introduction
- Implementing Hyper-V Advanced Networking Features
- Virtual Switch Improvements
- Extensible Virtual Switch
- Understanding SR-IOV
- Dynamic VMQ
- Advanced Features for Network Adapters
- NIC Teaming in Virtual Machines
- Summary

Introduction to Software-Defined Networking
- Introduction
- Introduction to Software-Defined Networking
- SDN Benefits
- Planning for SDN
- SDN Deployments
- Summary

Overview of Network Virtualization
- Introduction
- Overview of Network Virtualization
- Network VIrtualization Benefits
- Generic Route Encapsulation
- Summary