

# Microsoft Networking with Windows Server 2016, Part 1 of 9: IP Addressing

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:** there are no prerequisites

**Runtime:** 01:31:37

**Course description:** In this Course we will look at planning and implementing IPv4 and IPv6 networks, discussing fundamental aspects of networking and IP addressing schemes and understanding their structure and subnets and the default gateway.

## Course outline:

### General Network Requirements

- Introduction
- Agenda
- Plan and Implement IP Addressing Schemes for IPv4
- General Networking Requirements
- IPv4 Required Settings
- IPv4 Addresses
- IPv4 Subnet Masks
- Default Gateways
- Demo: Understanding Binary Addressing
- Demo: Writing Binary Numbers
- Demo: Subnetting
- Summary

### Subnets

- Introduction
- IPv4 Address Classes
- What Are Subnets?
- The Subnetting Method
- Demo: Subnet Creation Process
- Demo: Creating a Mask
- Demo: Binary Addressing
- Summary

### Address Types

- Introduction
- IPv4 Address Types
- Demo: Variable-Length Subnet Masking
- Demo: Dividing Subnets
- Demo: Small Subnets
- Summary