Windows Server 2012 Admin, Part 4 of 8: Managing DNS

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Prerequisites: The course assumes that students have some familiarity with Microsoft Windows, Microsoft Windows Server, basic networking concepts, and a fundamental understanding of computer hardware.

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Course description: Before you can have a full-service network, certain infrastructure components need to be in place. Domain Name System or DNS is one such component and it is used almost universally for name resolution. By installing, configuring and managing DNS on your Windows server 2012 network, enable that network to have full functionality. DNS naming locates computers and services through user-friendly names. Through this session we will install and configure a DNS server. We will also look at how to integrate active directory and DNS together and configure zone transfers, delegation, and conditional forwarding. We'll finish up going over some security features and ways to monitor and troubleshoot your DNS installation.

Course outline:

Install Configure DNS Server
- Introduction
- What is DNS?
- DNS Components
- DNS Namespace
- Host Names
- FQDN
- DNS Naming Standards
- DNS Zones
- DNS Queries – Iterative
- DNS Queries – Recursive
- DNS Resource Records
- Configuration Options
- Dynamic Updates
- Deployment Considerations
- DNS Sever Properties
- Demo: Configure DNS
- Demo: Configure DNS - Cont.
- Summary

Integrate AD and DNS
- Introduction
- DNS & Active Directory
- SRV Records
- External & Internal DNS
- AD & DNS Integration
- Split-Brain DNS
- Different Namespaces
- Internal Namespace - Subdomain
- Best Practices
- Benefits
- Demo: Split-Brain DNS
- Summary

Configure Zone Transfers
- Introduction
- Zone Properties
- Zone Properties (Cont)
- Zone Properties (Cont)
- Zone Transfers
- Interoperability with BIND DNS
- Zone Transfer Configuration
- Start of Authority Settings
- Zone Serial Numbers
- AD-Integrated Zone Transfers
- Child Domains
- Delegation
- DNS Caching
- DNS Caching-Only Servers
- Conditional Forwarding
- ConditionalForwarders&StubZone
- Demo: Zones
- Demo: DNS Delegation
- Summary

Configure DNSSEC
- Introduction
- DNSSEC Configuration
- Configure DNSSEC
- RRSIG
- KSK
- ZSK & DNSKey
- NSEC3 Record
- Chain of Trust & Trust Anchor
- DNSSEC Limits
- Demo: Zones
- Demo: DNSSEC
- Summary

Monitor and Troubleshoot DNS
- Introduction
- Event Logs
- Debug Logging & TTL
- Aging and Scavenging
- Common Problems & Solutions
- Demo: Common Procedures
- Demo: Zones
- Demo: Debug Logging
- Demo: Queries
- Demo: Dynamic Updates
- Summary