

70-412 – Configuring Advanced Windows Server 2012 R2 Services (MCSA/MCSE) Series!

Overview: This series covers everything you need to know about configuring advanced windows server 2012 R2 services. Students will learn about network services, hyper-V and high availability, active directory and active directory federation services. Students will also learn about file and storage services, business continuity and disaster recovery, active directory certificate services and active directory rights management services.

Course Modules:

Module 01 -Network Services

(Duration: 2h 23m)

1. Workbook (Pdf)
2. Network Services
3. Demo – Navigation in Windows Server 2012
4. DHCP – Definition and Purpose
5. Components of DHCP Server
6. Components of Scopes
7. DHCP Lease Process
8. DHCP Options
9. DNS Integration

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10. Super Scopes and Multinetting
11. Demo – Create a Super Scope
12. Multicast Scopes
13. DHCPv6
14. DHCPv6 Regional Registries
15. Demo – Configuring DHCP Scope
16. DHCP Name Protection
17. Demo – Enable DHCP Name Protection
18. DNS Solutions
19. Basics of DNS Permissions
20. DNS Logging
21. Demo – Configuring DNS Debug Logging
22. DNS Security
23. DNSSEC
24. DNSSEC Overview
25. Deploying DNSSEC
26. DNSSEC Zone Signing Wizard
27. Improvements to DNSSEC Windows Server 2012 R2
28. Resource Records
29. Signing the Zone
30. Demo – Deploying DNSSEC
31. DNS Cache Locking
32. Demo – DNS Cache Locking
33. DNS Socket Pool
34. Demo – DNS Socket Pool
35. DNS Aging and Scavenging
36. Maintaining DNS Database
37. Demo – Maintaining DNS Database
38. Name Resolution Optimization
39. Creating Stub Zones
40. Global Names Zone
41. Demo
42. – Create Global Names Zone
43. Demo
44. – Add Alias Global Names Zone
45. IPAM (IP Address Management)
46. IPAM and DHCP
47. Role Based Access Control
48. Role Based Access Control Roles Provided by Default
49. IPAM Monitoring

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50. VMM and System Center 2012 Integration
51. IPAM Prerequisites
52. Hardware & Software Requirements Server 2012
53. Hardware & Software Requirements Server 2008/2008 R2
54. IPAM Abilities
55. IPAM Database Support
56. IPAM Users and Groups
57. IPAM Modules
58. IPAM Deployment Methods
59. IPAM Components
60. Provisioning for IPAM
61. Manual Provisioning for IPAM
62. GPO Provisioning
63. Views of IP Address Space
64. Monitoring and Managing IPAM
65. Migrating IPAM to Windows Server 2012
66. Using PowerShell with IPAM
67. Demo
68. – Installing IPAM
69. Demo
70. – Configuring IPAM
71. Adding Address Space to IPAM
72. Adding IP Address Block to IPAM
73. Adding IP Address Subnet to IPAM
74. Adding IP Address Range to IPAM
75. Adding IP Address to IPAM
76. Importing and Updating Address Spaces
77. Text File Examples
78. Module 01 Review
79. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 02 -High Availability

(Duration: 1h 40m)

1. Workbook (Pdf)

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2. High Availability
3. NLB
4. – Network Load Balancing
5. NLB Uses
6. NLB Prerequisites
7. How NLB Works
8. Server Failures & NLB
9. NLB PowerShell Cmdlets
10. NLB Port Rules
11. Configuring NLB Networks
12. Using NLB with VMs
13. Upgrading NLB Clusters
14. Demo
15. – Implementing NLB Clusters
16. Demo
17. – Configuring NLB Affinity and Port Rules
18. Securing NLB
19. Server 2012 Failover Clustering
20. Windows Server 2012 R2 Failover Clustering
21. Clustering and High Availability
22. Depreciated Cluster Features
23. Storage Options
24. CSV – Cluster Shared Volumes
25. CSV – Clustered Shared Volumes
26. Network Considerations | CSV
27. Windows Requirements for Failover Cluster
28. Infrastructure Requirements
29. Failover Clustering – Quorum
30. Failover Clustering: Hardware Requirements
31. Clustering and Hyper-V Hardware Requirements
32. Quorum | Definitions
33. Quorum Witness
34. Quorum Configuration Options
35. Quorum Modes
36. Failover Cluster Networks
37. Cluster Networking
38. Demo – Create a Cluster
39. Multi-Site Failover Cluster
40. Configuring Multi-Site Failover Clusters
41. Configuring Applications and Services

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42. Procedure Reference: Installing Clustering Server Roles
43. Demo – Deploying Highly Available Servers
44. Cluster Aware Updating
45. Common Cluster Management Tasks
46. Management Tools
47. Backing up Clusters
48. Restoring a Cluster
49. DHCP Failover
50. Configuring DHCP Failover
51. DHCP Failover Modes
52. Demo – Configuring DHCP Failover
53. DHCP MCLT Parameters
54. Module 02 Review
55. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 03 -Hyper-V and High Availability

(Duration: 54m)

1. Workbook (Pdf)
2. Hyper-V and High Availability
3. High Availability | Host Clustering
4. New Features Server 2012 VM Host Clustering
5. Prerequisites for Hyper-V Clusters Server Hardware and Software
6. Prerequisites: Network Infrastructure Requirements
7. Procedure Reference: Configuring Failover Clustering
8. Components of Hyper-V Clusters
9. High Availability | Guest Clustering
10. Windows Server 2012 R2 Shared Virtual Disk
11. Shared Virtual Disks in Guest Clusters
12. SMB 3.0 for Virtual Machines
13. Scale-Out File Server
14. High Availability | Network Load Balancing
15. Cluster Shared Volumes (CSVs)
16. Failover Process
17. VM Failover and Preference Settings

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18. Virtual Machine Manager | System Center 2012
19. VMM Components
20. VMM 2012 Prerequisites
21. What is VMM?
22. Enhancements with Server 2012 R2
23. How to Deploy Virtual Machines with VMM
24. ODX Capable Storage for VM's
25. P2V Migration
26. V2V Migration
27. Migration Methods
28. Virtual Machine and Storage Migration
29. Live Migration
30. Quick Migration
31. Hyper
32. -V Replica
33. Demo
34. – Implementing Hyper
35. -V Replica
36. Hyper
37. -V Replica Components
38. Hyper
39. -V Replica Prerequisites
40. Importing & Exporting
41. Demo
42. – Importing Virtual Machines
43. Demo
44. – Exporting Virtual Machines
45. Module 03 Review
46. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 04 – Active Directory

(Duration: 2h 46m)

1. Workbook (Pdf)
2. Active Directory

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3. AD DS
4. AD DS Domain Boundaries
5. AD DS Forest Boundary
6. Multi
7. -Domain Configuration
8. Multiple Forest Configuration
9. DNS Recommendations
10. Demo
11. – Install AD DS
12. Demo
13. – Installing a New Domain in a New Forest
14. Domain Functional Levels
15. UPNs
16. Demo
17. – Functional Levels and UPNs
18. Demo
19. – Configuring Trusts
20. Upgrading Domain Controllers
21. Restructure and Migration
22. Pre
23. -Migration Steps
24. SID
25. -History Attribute
26. Restructure & Migration Steps
27. Trust Relationships
28. SID Filtering | Selected Authentication
29. AD DS Partitions
30. AD DS Replication
31. AD Sites and Replication
32. Conflicts | Replication
33. Replication Topology
34. RODC Replication
35. RODC Replication Options
36. SYSVOL Replication
37. DFS Replication
38. AD DS Sites
39. Demo – Creating Additional Sites
40. Replication in Same Site
41. Site Replication in Between Sites
42. Demo – Moving Servers Between Sites

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43. AD and SYSVOL Replication
44. ISTG – Intersite Topology Generator
45. AD DS Site Links
46. Demo – Site Links
47. Site Link Bridging
48. Site Link Costs
49. Demo – Configuring AD DS Intersite Replication
50. Universal Group Membership Caching
51. Demo – Configuring RODC Replication Policies
52. Managing Replication
53. Demo – Using Replication Tools: DC Diag
54. Demo – Using Replication Tools: Rep Admin
55. SRV Resource Records for Domain Controllers
56. SRV Record Contents
57. Service Record Example
58. Locating a Login Server
59. Integrating Cloud Services
60. Azure Considerations
61. Implementing Azure
62. Complex AD DS Environments
63. Module 04 Review
64. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 5- Active Directory Federation Services –

(Duration: 39m)

1. Workbook (Pdf)
2. Active Directory Federation Services
3. AD FS
4. Authentication Policies
5. Multi-Factor Authentication
6. AD FS Claim Rules
7. Claims Provider Trusts
8. Claims Based Identity
9. Web Services

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10. New Features to Server 2012
11. SSO within Organization
12. SSO Business to Business
13. Prerequisites for AD FS
14. Certificate Requirements
15. AD FS Components
16. Demo – Install AD Federation Services Role
17. Multi-Factor Access Control in AD FS
18. Multi-Factor Access Control in AD FS with Windows Server 2012 R2
19. Claim Types Available in AD FS with Windows Server 2012 R2
20. AD and Workplace Join
21. Device Registration Service
22. Accessing Web Application before Workplace Join your Device
23. Workplace Joining Your Windows Device
24. Workplace Joining Your iOS Device
25. Module 05 Review
26. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 6 -File and Storage Services

(Duration: 1h 59m)

1. Workbook (Pdf)
2. File and Storage Services
3. File and Storage Services
4. Work Folders
5. Work Folder Functionality
6. BranchCache
7. SMB Server 2012 R2 Enhancements
8. BranchCache Requirements
9. BranchCache Server Settings
10. BranchCache Client Settings
11. Demo
12. – Configure Client Firewall Rules
13. Demo
14. – Implementing BranchCache

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15. Demo
16. – Simulate Slow Link to Branch Office
17. Enabling Distributed Cache Mode or Hosted Cache Mode
18. Discretionary Access Control
19. DAC Scenarios
20. DAC Claims
21. Resource Properties
22. Accessing Resources with DAC
23. DAC Requirements
24. Enabling Support in AD DS KDC
25. Creating Claims
26. Creating Resource Properties
27. Central Access Control Rules
28. Demo
29. – Enable File Share for BranchCache
30. Demo
31. – Configure BranchCache for Branch Office
32. File Server Resource Manager
33. Demo
34. – Installing FSRM
35. File Classification
36. File Classification Properties
37. File Classification Rules Properties
38. Demo
39. – Implementing DAC
40. Demo
41. – Resource Property Definitions
42. Demo
43. – Configure Central Access Rules and Policies
44. Demo
45. – Configure Central Access Denied
46. Demo
47. – Manual Classification
48. Demo
49. – Publish Central Group Policy
50. Optimizing Classification Management
51. Storage Optimization Features
52. iSCSI
53. iSCSI Components
54. iSCSI Security Components

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- 55. Demo
- 56. – Configure iSCSI
- 57. Demo
- 58. – iSCSI Powershell
- 59. Demo
- 60. –
- 61. Bring a New Volume Online
- 62. Module 06 Review
- 63. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 07 – Business Continuity and Disaster Recovery

(Duration: 1h 15m)

- 1. Workbook (Pdf)
- 2. Business Continuity and Disaster Recovery
- 3. Disaster Recovery Requirements
- 4. Service Level Agreements
- 5. Recovery Plans
- 6. Data Recovery
- 7. Service Recovery
- 8. Full Server Recovery
- 9. Site Recovery
- 10. Backup Types
- 11. Backup Technologies
- 12. VSS Admin
- 13. Backup Planning
- 14. Backup Security
- 15. Windows Server Backup
- 16. Demo
- 17. – Installing and Using Windows Server Backup
- 18. Demo
- 19. – Create a Scheduled Backup

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20. Options | Windows Backup
21. Options | Recovery Wizard
22. System Restore
23. Demo
24. – Restoring Files Using Windows Server Backup
25. Windows Azure Online Backup
26. Demo
27. – Windows Azure Backup
28. Data Protection Manager (DPM)
29. Installing DPM
30. Demo
31. – Installing DPM
32. Single Instance Storage
33. Windows RE
34. Windows RE Entry Points
35. Windows Setup and Windows RE
36. Demo
37. – Windows RE Entry Points
38. Safe Boot
39. Demo
40. – Safe Boot
41. Boot Configuration Data Store
42. Module 07 Review
43. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 08 – Active Directory Certificate Services

(Duration: 2h 21m)

1. Workbook (Pdf)
2. Active Directory Certificate Services
3. AD CS
4. SSL Certificates
5. Configuring SSL Certificates
6. SSL Certificate Issued from Internal CA
7. Purchasing SSL Certificate

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8. Using Certificates for Digital Signatures
9. Certificates and EFS
10. Certificates for Authentication
11. PKI Definitions Certificate Services Infrastructure
12. AD CS Server Role
13. New Features AD CS Server 2012
14. Private CA
15. Public CA
16. CA Hierarchies
17. Standalone CA
18. Demo
19. – Deploying Standalone Root CA
20. Enterprise CA
21. Demo
22. – Deploying an Enterprise Root CA
23. Root CA Considerations
24. Offline Root CA Considerations
25. Demo
26. – Deploying Root CA Servers
27. Subordinate CA Deployment
28. Demo
29. – Subordinate CA Deployment
30. CAPolicy.inf
31. AIA | CDP
32. Certificate Templates
33. Template Settings | Users
34. Template Settings | Computers
35. Template Permissions
36. Certificate Template Versions Available in Server 2012
37. Demo
38. – Modify and Enable Certificate Templates
39. Demo
40. – Configure Certificate Templates
41. Certificate AutoEnrollment
42. Demo
43. – Configure AutoEnrollment
44. Demo
45. – Verify AutoEnrollment
46. Manual Enrollment
47. t

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48. CA Web Enrollment
49. Enrollment on Behalf
50. Demo
51. – Restricted Enrollment Agent
52. Credential Roaming
53. Network Device Enrollment Service
54. Certificate Revocation
55. Demo
56. – Certificate Revocation Location
57. Online Responders
58. Demo
59. – Configuring Online Responder
60. Demo
61. – Updating Web Server Certificates
62. Losing Recovery Keys
63. Key Recovery Agents (KRA)
64. Demo
65. – Key Recovery
66. New Functionality with Certificates in Windows Server 2012
67. CA Administration
68. Policy Module and Exit Module
69. Module 08 Review
70. **Review Quiz (Number of attempts allowed: Unlimited)**

Module 9 -Active Directory Rights Management Services

(Duration: 56m)

1. Workbook (Pdf)
2. Active Directory Rights Management Services
3. AD RMS
4. RMS Examples
5. AD RMS Client Requirements

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6. AD RMS Licensing Requirements
7. Demo
8. – Installing AD RMS
9. Components
10. Temporary RAC's
11. RMS Process
12. Creating AD RMS Cluster
13. Policy Rights Templates
14. Demo
15. – AD RMS Templates
16. Template Offline Use
17. Super Users Group
18. Enabling External Users and AD RMS Access
19. Back up AD RMS
20. Decommission AD RMS
21. Module 09 Review
22. Course Closure
23. **Review Quiz (Number of attempts allowed: Unlimited)**

This course includes

- about 14.59 hours on-demand video
- 9 downloadable Pdf Workbooks
- Unlimited time access (During Membership)
- Access on mobile and Desktop
- Certificate of Completion

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