

# MS 70-412 Exam Objectives

## *Configuring Advanced Windows Server 2012 Services*

Below are the exam objectives for *Configuring Advanced Windows Server 2012 Services R2 – Exam 70-412*

Tasks measured as per latest update implemented in January of 2014. This revision brings to 111 the total number of sub-objectives. The percentages in parenthesis are the approximate number of questions for that objective out of the typically 50 – 55 total number of questions presented at the exam.

### **I. Configure and manage high availability (15–20%)**

#### **1. Configure Network Load Balancing (NLB)**

- Install NLB nodes
- Configure NLB prerequisites
- Configure affinity
- Configure port rules
- Configure cluster operation mode
- Upgrade an NLB cluster

#### **2. Configure failover clustering**

- Configure quorum
- Configure cluster networking
- Restore single node or cluster configuration
- Configure cluster storage
- Implement Cluster-Aware Updating
- Upgrade a cluster
- Configure and optimize clustered shared volumes
- Configure clusters without network names
- Configure storage spaces

#### **3. Manage failover clustering roles**

- Configure role-specific settings, including continuously available shares
- Configure virtual machine (VM) monitoring
- Configure failover and preference settings
- Configure guest clustering

#### **4. Manage VM movement**

- Perform live migration
- Perform quick migration
- Perform storage migration
- Import, export, and copy VMs

Configure VM network health protection  
Configure drain on shutdown

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## II. Configure file and storage solutions (15–20%)

### 1. Configure advanced file services

Configure Network File System (NFS) data store  
Configure BranchCache  
Configure File Classification Infrastructure (FCI) using File Server Resource Manager (FSRM),  
Configure file access auditing

### 2. Implement Dynamic Access Control (DAC)

Configure user and device claim types  
Implement policy changes and staging  
Perform access-denied remediation  
Configure file classification  
Create and configure Central Access rules and policies  
Create and configure resource properties and lists

### 3. Configure and optimize storage

Configure iSCSI target and initiator  
Configure Internet Storage Name server (iSNS)  
Implement thin provisioning and trim  
Manage server free space using Features on Demand  
Configure tiered storage

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## III. Implement business continuity and disaster recovery (15–20%)

### 1. Configure and manage backups

Configure Windows Server backups  
Configure Microsoft Azure backups  
Configure role-specific backups  
Manage VSS settings using VSSAdmin

### 2. Recover servers

Restore from backups  
Perform a Bare Metal Restore (BMR)  
Recover servers using Windows Recovery Environment (Win RE) and safe mode  
Configure the Boot Configuration Data (BCD) store

### 3. Configure site-level fault tolerance

Configure Hyper-V Replica, including Hyper-V Replica Broker and VMs

- Configure multi-site clustering
  - Including network settings, Quorum, and failover settings
- Configure Hyper-V Replica extended replication
- Configure Global Update Manager
- Recover a multi-site failover cluster

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## IV. Configure Network Services (15–20%)

### 1. Implement an advanced Dynamic Host Configuration Protocol (DHCP) solution

- Create and configure superscopes and multicast scopes
- Implement DHCPv6
- Configure high availability for DHCP
  - Including DHCP failover and split scopes
- Configure DHCP Name Protection; configure DNS registration

### 2. Implement an advanced DNS solution

- Configure security for DNS, including Domain Name System Security Extensions (DNSSEC)
- DNS Socket Pool, and cache locking
- Configure DNS logging
- Configure delegated administration
- Configure recursion
- Configure netmask ordering
- Configure a GlobalNames zone
- Analyze zone level statistics

### 3. Deploy and manage IP Address Management (IPAM)

- Provision IPAM manually or by using Group Policy
- Configure server discovery
- Create and manage IP blocks and ranges
- Monitor utilization of IP address space
- Migrate to IPAM, delegate IPAM administration
- Manage IPAM collections
- Configure IPAM database storage

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## V. Configure the Active Directory infrastructure (15–20%)

### 1. Configure a forest or a domain

- Implement multi-domain and multi-forest Active Directory environments
  - Including interoperability with previous versions of Active Directory
- Upgrade existing domains and forests
  - Including environment preparation and functional levels

Configure multiple user principal name (UPN) suffixes

## **2. Configure trusts**

- Configure external, forest, shortcut, and realm trusts
- Configure trust authentication
- Configure SID filtering
- Configure name suffix routing

## **3. Configure sites**

- Configure sites and subnets
- Create and configure site links
- Manage site coverage
- Manage registration of SRV records
- Move domain controllers between sites

## **4. Manage Active Directory and SYSVOL replication**

- Configure replication to Read-Only Domain Controllers (RODCs)
- Configure Password Replication Policy (PRP) for RODC
- Monitor and manage replication
- Upgrade SYSVOL replication to Distributed File System Replication (DFSR)

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# **VI. Configure Identity and Access Solutions (15–20%)**

## **1. Implement Active Directory Federation Services (AD FS)**

- Install AD FS
- Implement claims-based authentication, including Relying Party Trusts
- Configure authentication policies
- Configure Workplace Join
- Configure multi-factor authentication

## **2. Install and configure Active Directory Certificate Services (AD CS)**

- Install an Enterprise Certificate Authority (CA)
- Configure certificate revocation lists (CRL) distribution points
- Install and configure Online Responder
- Implement administrative role separation
- Configure CA backup and recovery

## **3. Manage certificates**

- Manage certificate templates
- Implement and manage certificate deployment, validation, and revocation; manage certificate renewal
- Manage certificate enrollment and renewal to computers and users using Group Policies
- Configure and manage key archival and recovery

#### **4. Install and configure Active Directory Rights Management Services (AD RMS)**

- Install a licensing or certificate AD RMS server
- Manage AD RMS Service Connection Point (SCP)
- Manage RMS templates
- Configure Exclusion Policies
- Back-up and restore AD RMS