

# Designing Win2K3 Active Directory and Network Infrastructure

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**Meet the expert:** Rafiq Wayani has extensive experience including more than 20 years in IT as Systems Architect, Software Engineer, DBA, and Project Manager. Wayani has instructed in a variety of technical areas, has designed and implemented network and information systems, and is certified across a wide range of platforms and systems including Microsoft Solutions Developer, Systems Engineer, Application Developer, Database Administrator, Trainer; Novell Netware Administrator and Engineer; Master Certified Netware Engineer; and A Certified.

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**Course description:** Designing a Windows Server 2003 Active Directory and Network Infrastructure course will give you the knowledge and skills necessary to prepare to pass Microsoft exam 70-297. This course is intended for individuals pursuing the MCSE on Windows Server 2003 certification.

## Course outline:

### Introduction to Active Directory

- Introduction
- Overview
- Provides Means for Control
- Stores Objects Securely
- Optimizes Network Traffic
- Additional Features
- Global Catalog (GC)
- Distinguished/Relative Names
- Where to Assign a GC Server
- View Site Names with ntdsutil
- Single Sign-On
- Authentication Process
- Authorization Process
- Summary

### Design Active Directory

- Introduction
- Design Components
- Design Team
- Design Tasks
- Guidelines
- Summary

### Design Principles

- Introduction
- Meet Business Needs
- Plan to Meet Those Needs
- Microsoft Solutions Framework
- Summary

### Design Team

- Introduction
- MSF Design Team Roles
- Product Management Role
- Program Management Role

- Development Role
- Test Role
- Release Management Role
- User Experience Role
- Effective Design Team
- Know the Skill Sets Needed
- Determine Roles
- Duties/Responsibilities
- Determine if Team Is Ready
- Summary

### Admin Req Design

- Introduction
- Levels of Admin Access
- Distributed or Collaborative
- Autonomous
- Exclusive or Isolated
- Organizational Priorities
- Cost
- Availability
- Reliability
- Responsibility
- Compromise
- Document and Review
- Summary

### Forest / Domain / Trust Design

- Introduction
- Forest: Models
- Forest: Autonomy
- Forest: Isolation
- Forest: Guidelines
- Domain: Single Domain
- Domain: Multiple Domains

- AD Security
- Security Implemented/Enforced
- Security Attacks
- Trust Relationships
- Trust Categories
- Trust Directions
- Trust Types
- Migration
- AD Schema
- Summary

### Active Directory Administration

- Introduction
- Support
- Security Models
- OU Models
- OU Delegation
- OU Permissions
- Account Policies
- Password Policies
- Group Policies
- Security Groups
- Summary

### AD Logical Structure

- Introduction
- Objects
- Object Classes
- Object Class Demo
- Object Attributes
- AD Schema Explained
- Ways to Open AD Console
- Create a User Object
- Organizational Units (OU)

- Create an OU
- Add Users to an OU
- Add Security to OU
- Domains
- Set Up a Domain Controller
- Domain Trees
- Forests
- Create a Subdomain
- Summary

### AD Physical Structure

- Introduction
- Overview
- Two Components
- Domain Controllers
- Partitions
- Sites
- Default First Site Demo
- Summary

### Operations Masters

- Introduction
- Overview
- Multimaster Replication
- Single Master Replication
- Operation Master (OM) Roles
- Forest-Wide OM Roles
- Domain-Wide OM Roles
- Operation Master Roles Demo
- Transfer OM Roles
- Summary

### Operations Masters (cont.)

- Introduction
- Schema Master
- Domain Naming Master

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# Designing Win2K3 Active Directory and Network Infrastructure

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- PDC Emulator
- Relative ID (RID) Master
- Infrastructure Master
- Transferring Master Roles
- Seize Master Role
- Locate/View the Master Roles
- Register schmgmt.dll
- How to Transfer Roles
- How to Seize Roles
- Summary

### Sites

- Introduction
- Examine Network Structure
- When Thinking About Sites
- Create a New Site
- Add Servers to a Site
- Create a New Subnet
- Inter-Site Transport Properties
- Delegate Control of Transport
- Create a Site Link Bridge
- Global Catalogs
- Reason to Create a Bridge
- Preferred Bridgehead Server
- Summary

### Name Res. / WINS / NetBIOS

- Introduction
- Name Resolution
- Characteristics
- Host Names
- Host Name Characteristics
- Resolve IP Address with Hosts File
- NetBIOS Names
- NetBIOS Characteristics
- WINS Server
- WINS Server Console
- LMHosts File
- Name Resolution Precedence
- NetBIOS Utility
- NetBIOS Local Broadcasts
- Summary

### Client Resolver Cache/ipconfig

- Introduction
- Client Resolver Cache
- ipconfig / displaydns
- ipconfig / flushdns
- Resolver Cache Issues
- Summary

### Network Access

- Introduction
- Components
- Server
- Requirements
- Types of Clients

- Security
- Set Up Remote Access
- Manage Users Permissions
- Configure Routing/Remote
- Connect through VPN
- Connect as a Client
- Failed Connect Attempt
- Summary

### VPN / Wireless / Remote

- Introduction
- VPN Connection
- Connection Process
- Components
- Encryption Protocols
- Encryption Requirements
- Wireless
- Two Modes for Wireless
- Wireless Components
- Wireless Standards
- 802.1x Authentication
- Win XP Client Config Types
- Determine Auth Methods
- Dial-In Permissions
- Permissions
- Remote Access Policy
- Specify RA Policies
- Configure RA Logging
- Dial-In Permissions/Properties
- Raise Domain/Forest Levels
- Summary

### Risk Management

- Introduction
- Assume Risk
- Risk as Positive Activity
- Identify Risks
- Continuously Assess Risks
- Be Proactive Not Reactive
- Determine Project Value
- MSF Risk Mgmt. Process
- Summary

### Requirements Documentation

- Introduction
- Documents Created/Used
- Vision
- Structure
- Risk Assessment
- Design
- Functional Specification
- Plan
- Schedule
- Summary

### Network Connectivity

- Introduction

- Connection Requirements
- Connection Methods: Local
- Connection Methods: Remote
- Connection Methods: Internet
- Security Concerns
- Types of Connections
- Global Network Connectivity
- Business Needs
- Summary