

دوره MCSE مایکروسافت | Microsoft Certified Solution Expert ۲۰۱۶

شرح مختصر

مهارت نصب و راه اندازی سرویس‌های شبکه‌های مبتنی بر سیستم عامل ویندوز سرور ۲۰۱۶

مروری بر دوره

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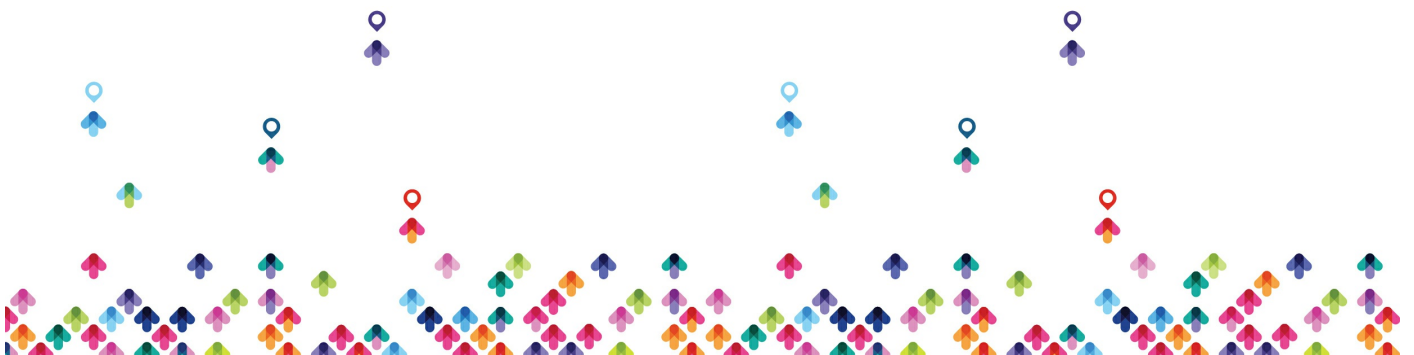
هدف از برگزاری این دوره تربیت متخصص ارشد شبکه‌های مبتنی بر سیستم عامل ویندوز سرور می‌باشد. بدین ترتیب دانش پژوهان پس از طی این دوره مهارت‌های لازم جهت جذب در شرکت‌ها و سازمان‌های متوسط و بزرگ خصوصی و دولتی را خواهند یافت. این دوره متشکل از سرفصل‌های کد های ۷۰-۷۴۱، ۷۰-۷۴۲، ۷۰-۷۴۳ (MCSA) و ۷۰-۷۴۴ (MCSE) و ۷۰-۶۹۸ می‌باشد.

سرفصل‌ها (حضور)

سرفصل‌ها

Introduction to Windows ۱۰

- Compare windows editions
- Install windows from DVD and Iso File
- Intro vmware Workstation
- Hardware Requirment
- Network adapter setting in vmware
- Install windows on VHD
- Dual Boot
- BCDEdit



Deploying windows

- Explain installation over network
- Intro install.wim / boot.wim File
- Create Winpe Boot
- Create Custom Windows image
- Sysprep

Deploying Image using WDS server

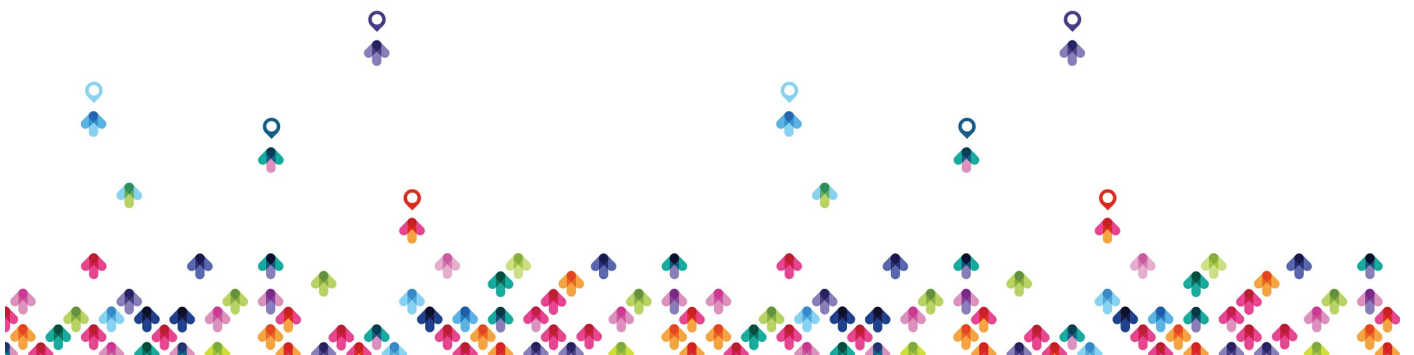
- Managing Drivers and Devices
- Sign and unsign drivers
- Device management
- Utilities (verifier,sigverif,pnputil
driverquery,msinfo,dxdiag)

Managing Application and Group policy

- Local Group Policy
- Software restriction
- Applocker

Networking

- IPv۴ addressing
- Subnetting
- VLSM
- Network profile
- Easy Transfer



- USMT
- Home group
- Network discovery
- Network Adapter properties
- Name resolution,cache,flushdns
- IPv۶
- Troubleshooting

Security

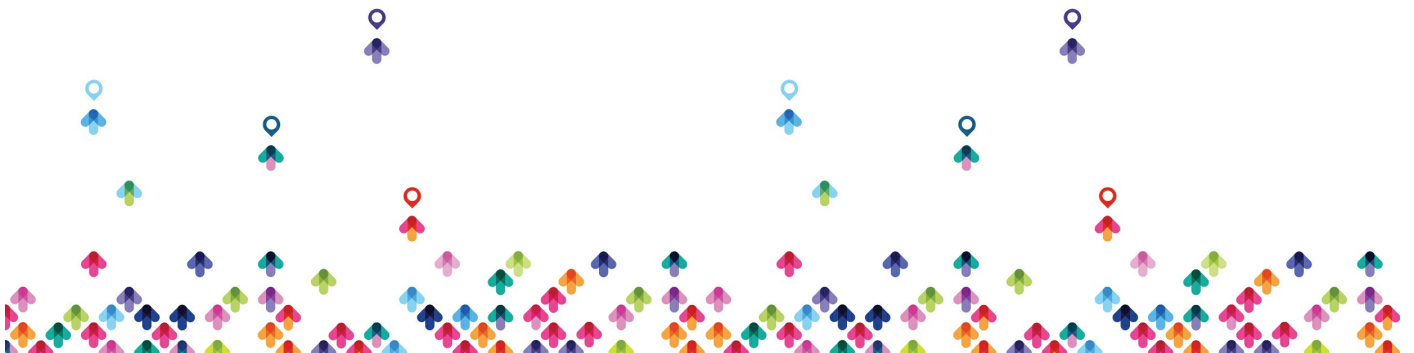
- Windows firewall
- Create Firewall Rules
- Firewall Command line tools (Netsh)
- Security Policy
- User Right Assignment

Remote Management

- Remote desktop
- Remote assistance
- Remote management with WinRM

Resource Sharing

- Share permission
- NTFS permission
- EFS
- Recovery agent



- Branchcache
- Offline File
- File Protection
- Work Folders

Disk Management

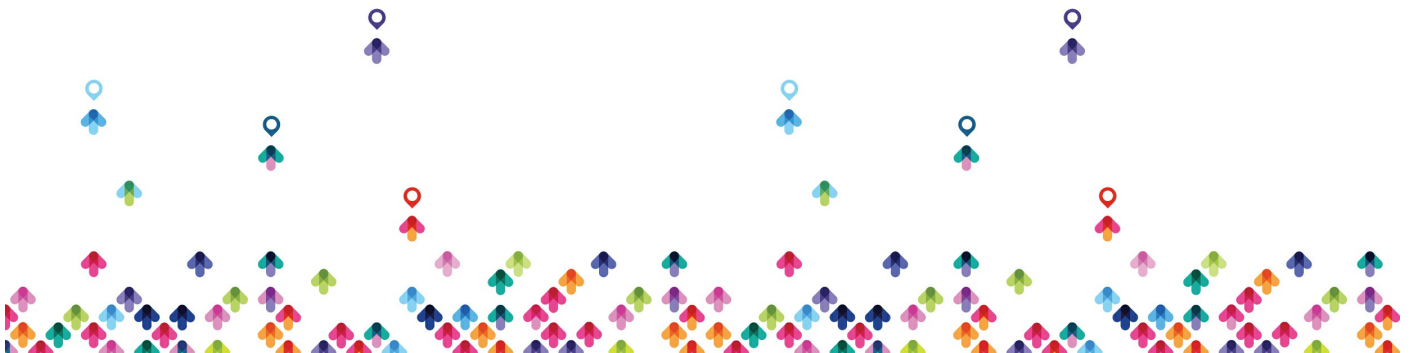
- MBR vs GPT
- Basic vs Dynamic
- Create Primary and Extended Partitions
- Create Volumes
- Mount Partition
- File Systems
- Disk Quota
- Disk CleanUP
- Disk Defragmenter
- Bitlocker
- Storage Space

Configure authorization and authentication

- Account policy and Password Policy
- User account control
- credential Manager

Configure system and data recovery

- Configure system restore



- Windows Backup And Restore
- Configure File History

Configure updates

- Configure Windows Update settings
- Use Group Policy to configure Updates
- Update history
- Hide and uninstall updates

Introducing windows Server Edition

- Editions
- Hardware requirement
- Upgrade requirement

Installation Windows Server

- pre setting (time,name,IP...)
- intro server manager
- intro roles, features

Installation Active Directory

- deferent between domain,workgroup
-
- dc promotion
- Active Directory Structure
- functional level



- Directory Service Restore Mode
- intro dns,global catalog
-
- server functions (dc,member,standalone)
- join computer to domain
- intro console user's and computers
- Create Users and Groups

Additional DC

- create another domain controller in domain
-

Read Only Domain Controller

- installation RODC
- password replication
- Pre Create RODC account
- TGT
- local administrator Role
- command line tools (ntdsutil , dsmgmt
- DNS

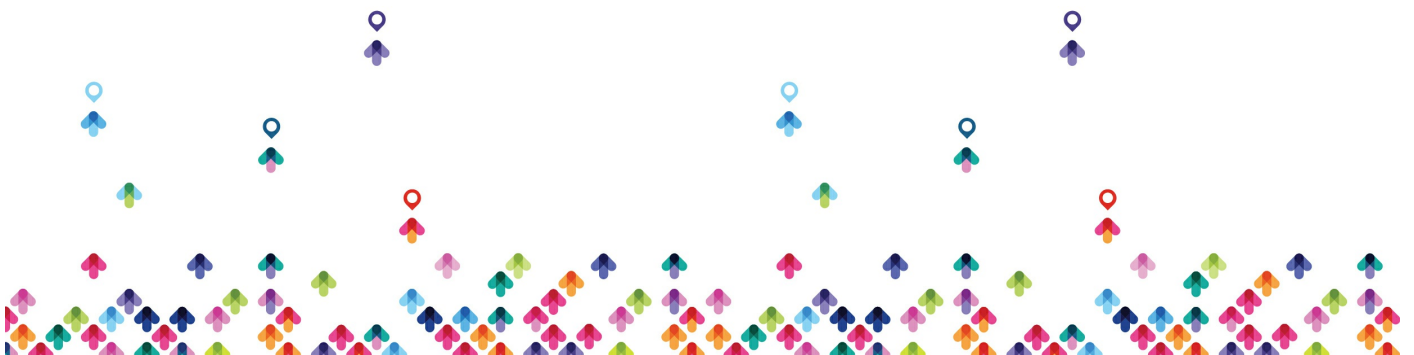
installation DNS role

- different between stand alone and integrated DNS server
- DNS functions in workgroup
- forward and reverse lookup zone



-
- dns data base
- record (A,PTR,alias,MX,SOA,SRV,NS)
- create root zone (.)
- dns delegation
- zone transfer
- forwarder
- conditional forwarder
- root hint
- dns server cache
- host cache , host file , dns tab in client computer ,auto register
- command line tools : flushdns,registerdns,displaydns,nslookup
- roundrobin
- aging,scavenging
- backup dns database
- Recursion
- DNS Global Name Zone
- DNS Security (DNSSEC)
- DNS Logging And Tuning
- DNS Cache Locking and Socket Pool
- DNS Response Rate Limiting
- DNS Policy Load Balancing
- DNS Policy Client Source Address
- DNS Policy Time-based Requests

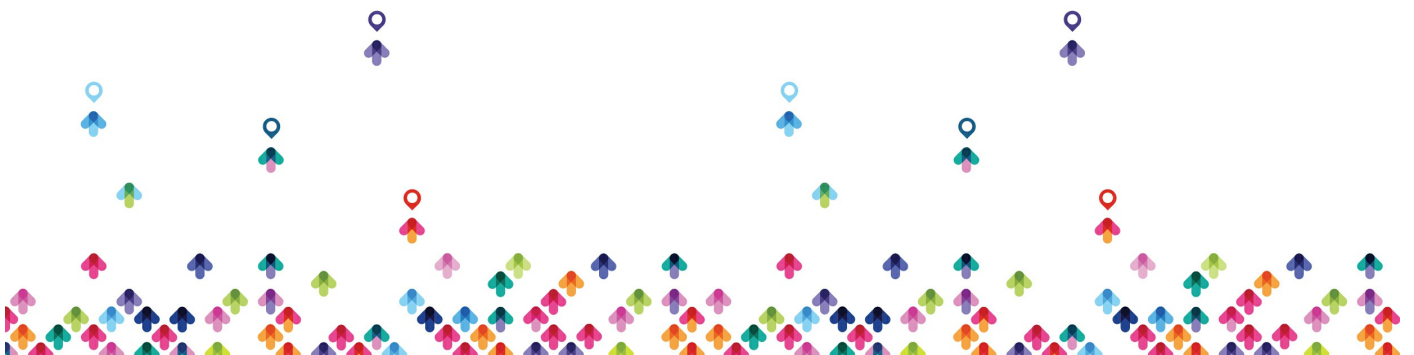
DHCP



- installation dhcp role
- DHCP binding
- dhcpv6 stateless and statefull
- authorize in active directory
- Create scope
- adress pool
- reservation
- exclusion
-
-
- scope option, server option
- L2 Mac Filtering
- user class and vendor class
- super scope , multicast scope
- reconcile
- Dynamic Updates to DNS
-
- split scope
- dhcp failover
- backup and restore
- DHCP policies

WDS

- install windows deployment services
- add install and boot image
- multicast installation



- Create answer file
- deploying images

File server

- install role
- DFS Namespace
- DFS Replication
- FSRM

Web server (IIS)

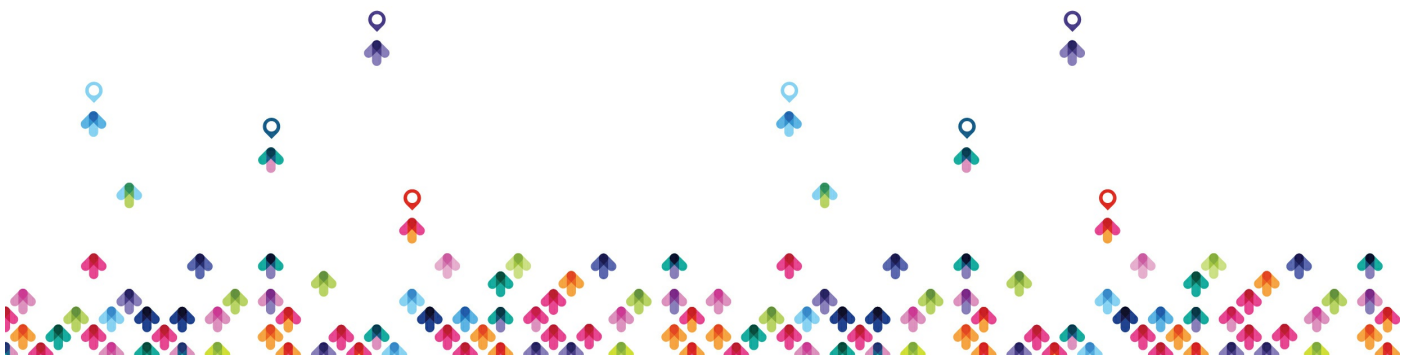
- install web server role
- describe role services (http features , security , management tools)
- FTP
- create site and ftp site
- register web site in dns

NLB

- install network load balance features
- unicast and multicast type
-
-

Domain Group Policy

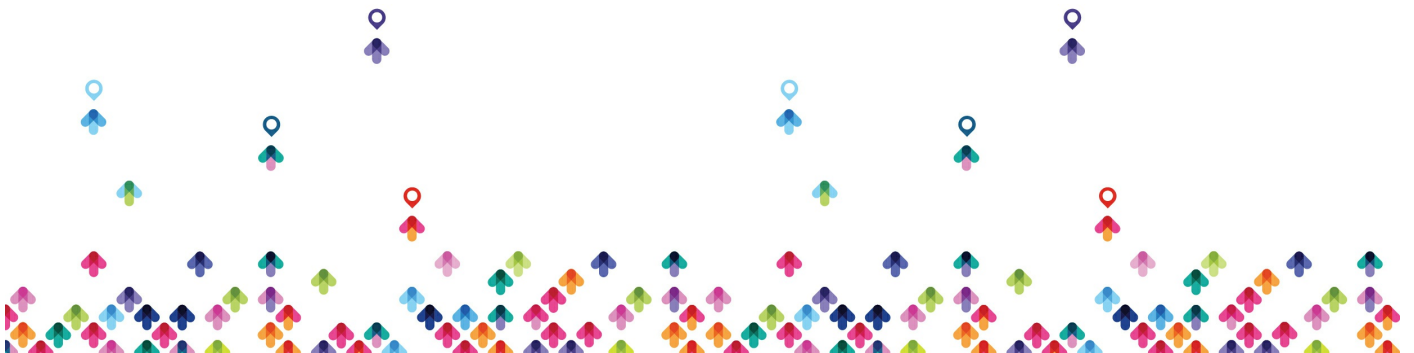
- describe GPMC
- GPO



- examples in user and computer configuration
- link enable and disable
- block inheritance
- enforce policy
- security filtering
- delegation (link , edit , create GPO)
- RSAT
- hide object
- loopback policy
- turnoff local group policy
- security policy
- account policy
- local policy
- scripts
- restricted group
- file system
- backup and restore
- WMI filters
- Starter GPO
- GP modeling
- GP results

Software Installation

- publish and assign software
- zap file



Folder Redirection

- **configure Folder redirection**
- **home folder**

Child Domain

- create child domain
- trust between parent and child

Forest Trust

- create Two way forest trust

Group's

- group Type and Scope
- group nesting
- AGUDLP

RDS

- install remote desktop services
- Remote Desktop session hosts
- RD web access
- Remote Desktop Connection broker

WSUS

- install Windows server Update services



- upstream and downstream
- replica and autonomus mode
- configure client update

Routing

- Routing and addressing Function
- install RRAS roles
- static route
- static route with command line tools
- routing table
- metric
- inbound and outbound filter
- Dynamic routing protocol
- RIPv۲

Bridge

- explain and configure network interfaces for bridge connection

ICS

- explain internet connection sharing
- automatically assign ip address to private network
- port forwarding in ICS

NAT

- explain Nat function



- static, dynamic , PAT
- install Nat
- address assignment
- address pool
- reserve public address for private
- services and port (port forwarding)

VPN

- virtual private network (remote access , site to site)
- install vpn role services
- vpn type
- vpn protocol :pptp,sstp,l2tp,ikev۲
- ip address assignment
- enabling broadcast name resolution
- ipsec policy for L۲TP
- authentication method
- Demand dial (vpn site to site)

Direct Access

- Install and Configure Direct access
- Direct access vs VPN
- Troubleshooting Direct access

Relay Agent

- explain Dhcp relay agent



- hop count and delay time

NPS

- explain network policy server
- install network policy server role
- set policy

Radius

- Radius Server and Radius Client
- NPS with DHCP
- NPS with VPN remote access

NAP

- Network Access Protection
- health validation

Fail Over Cluster

- explain failover clustering
- explain storage
- install iSCSI target
- create IQN
- connect iSCSI initiator with iSCSI target

Ipssec

- explain ipsec function



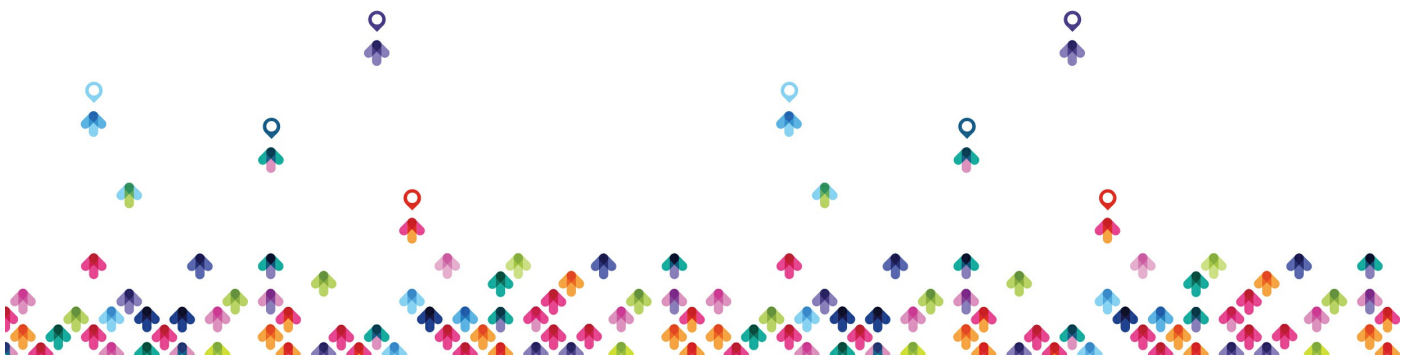
- explain ESP and AH protocol
- install Ipsec in workgroup environment
- show the result in wireshark
- create ipsec in domain environment

IPAM

- IPAM Overview and Installation
- Manage DNS using IPAM
- Manage DHCP using IPAM
- IPAM Role-based Access Control (RBAC)
- Using IPAM to Manage IP Addresses

Active Directory Installation and Configuration overview active directory

- NTDS.DIT
- intro Powershell
- install active directory from Powershell
- install from media (IFM)
- removing Active Directory (Demote)
- removing active directory from powershell
- Active directory administrative center
- Active directory administrative center power shell history
- Active directory recycle bin
- ADSI Edit (SID)
- Backup and Restore of Active Directory
- Install and Configure Active Directory Rights Management Services



- Active Directory Snapshot and defrag
- Install Role on VHD

User Account Management

- Automate the Creation of Active Directory Accounts
- csvde , lifde
- Create, Copy, Configure, and Delete Groups and OUs
- user properties
- user template
- reset password
- enable/disable /rename/copy user account

Computer Account Management

- computer account
- prestaging computer account
- secure channel
- reset computer account
- Offline Join

Trust

- overview of trust relationship
- trusted/trusting
- incoming/outgoing
- oneway/twoway
- transitive,non transitive



- type of trust :forest,parent-child,external,shorcut,tree,realm
- sid filtering
- selective athentication
- UPN Suffix

Site and Services

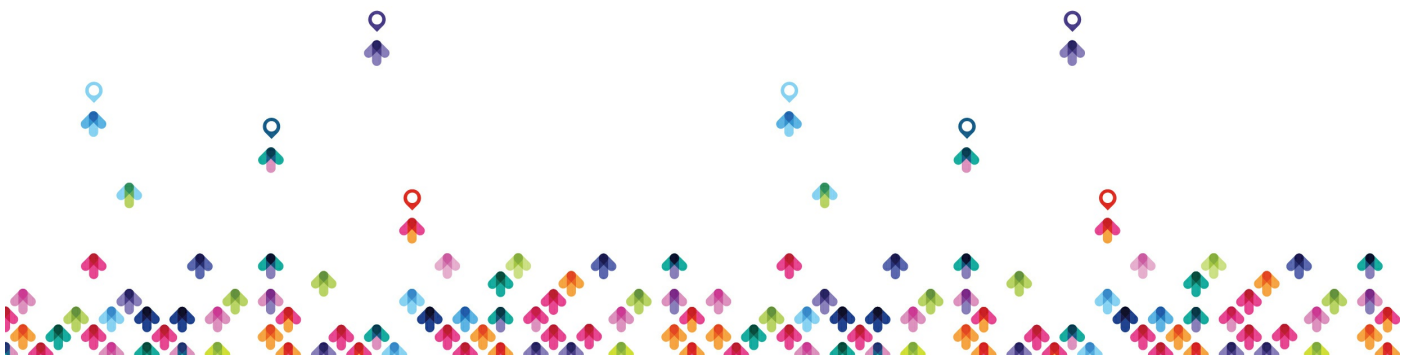
- replication partition
- intra site / inter site
- srv records
- KCC/ISTG
- bridgehead
- site link / site link brigde
- RPC / IP
- Global catalog
- command lines tools (repadmin,...)

Master Roles

- FSMO functions
- describe roles
- rid pool
- Conflict infrustructure master role with Global catalog
- command lines tools(netdom,dsquery,...)

Certificate Services

- CA Management



- Manage Certificates
- standalone CA vs enterprise CA
- Root CA vs Subordinate CA
- web enrollment
- autoenrollment

Hyper-V

- Install Hyper-V
- Configure and Manage Hyper-V
- Create Virtual Machines

Server Core

- Install and Configure Windows Server Core
- Manage Windows Server Core.

NANO Server

- introduction to Nano Server
- Install Nano Server
- Manage and Configure Nano Server

مخاطبان دوره

مخاطبان دوره

- مدیران شبکه، دانش آموختگان فناوری اطلاعات و کلیه علاقمندان به فعالیت در زمینه شبکه های کامپیوتری



پیش نیازها

پیش نیازها

• Network + دوره

