

دوره جامع مهندسی شبکه | NetworkPlus + MCSE + CCNA

پکیج جامع شروع شبکه
(NetworkPlus + MCSE + CCNA)

مروری بر دوره

علاقتمندان به یادگیری شبکه می‌توانند با شرکت در دوره جامع مهندسی شبکه با تمامی مباحث کاربردی مرتبط با این حوزه آشنا شوند. این دوره جامع به گونه‌ای طراحی شده است که در کنار آشنایی با کلیه مباحث کاربردی شبکه اعم از ۲۰۱۶ MCSE، CCNA، Network+، با اصول مربوط به چگونگی نصب و پیاده‌سازی سرویس‌های ویندوز سرور مایکروسافت و همچنین پیکربندی سوئیچ‌ها و روترهای سیسکو نیز آشنا شوید.

سرفصل‌ها

Network+

- Introducing Computer Networks
- OSI Model
- Identifying Network Components
- Working with IP Addresses
- Routing Traffic
- Introducing Wide-Area Networks



- Using Command-Line Utilities
- Securing a Network

MCSE on windows server ۲۰۲۲

- Deploying windows
- Managing Application and Group policy
- Networking
- Remote Management
- Resource Sharing and permissions
- Disk Management

Introducing windows Server Edition

- Editions
- Hardware requirment
- Upgrade requirement

Installation Windows Server

- pre setting (time,name,IP...)

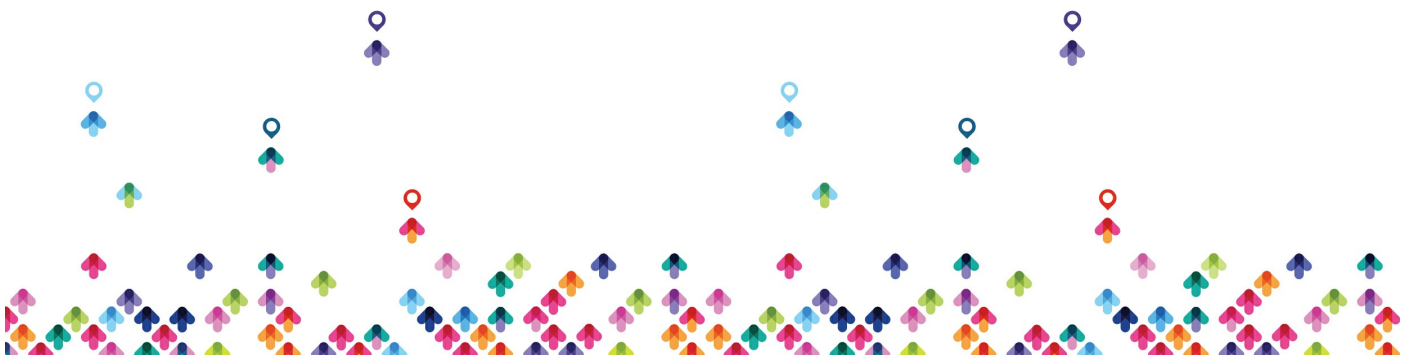


- intro server manager
- intro roles, features

Installation Active Directory

- deferent between domain,workgroup
- install active directory domain services
- dc promotion
- Active Directory Structure
- functional level
- Directory Service Restore Mode
- intro dns,global catalog
- intro consoles (user and computer,domain and trust,site and services)
- server functions (dc,member,standalone)
- join computer to domain
- intro console user's and computers
- Create Users and Groups

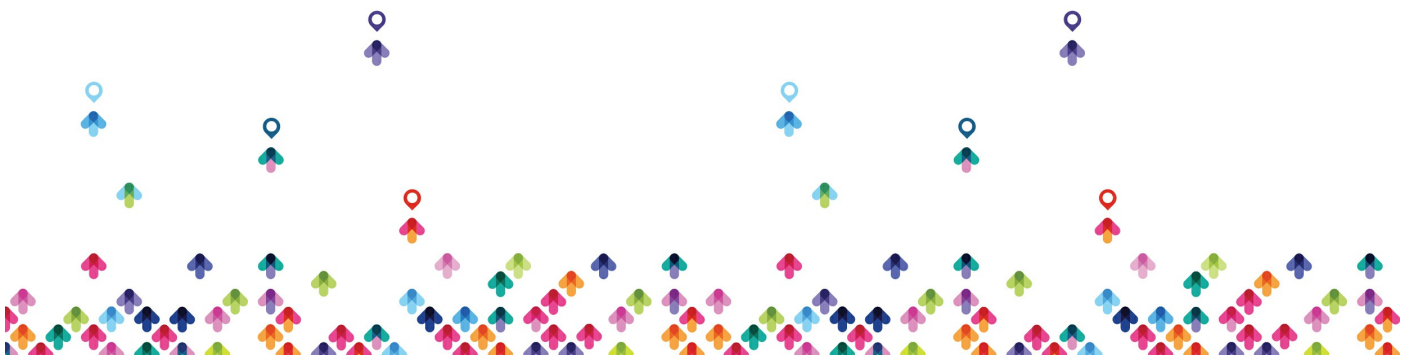
Additional DC



- create another domain controller in domain
- replications between domain controlles
- **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
- zone (primary,secondary,stub,integrated)
- dns data base



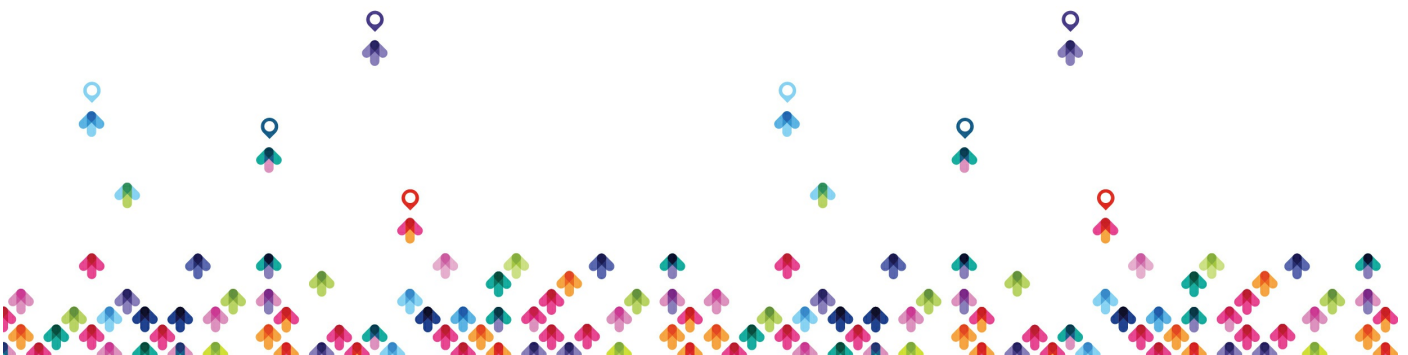
- record (A,PTR,alias,MX,SOA,SRV,NS)
- create root zone (.)
- dns delegation
- zone transfer
- forwarder
- conditional forwarder
- root hint
- dns server cache
- host cache , host file , dns tab in client computer ,auto register
- command line tools : flushdns,registerdns,displaydns,nslookup
- roundrobin
- aging,scavenging
- backup dns database

DHCP

- installation dhcp role



- DHCP binding
- authorize in active directory
- Create scope
- adress pool
- reservation
- exclusion
- delay dhcp offer
- lease duration
- scope option, server option
- L۲ Mac Filtering
- user class and vendor class
- Dynamic Updates to DNS
- name protection
- split scope
- dhcp failover
- backup and restore



- DHCP policies

File server

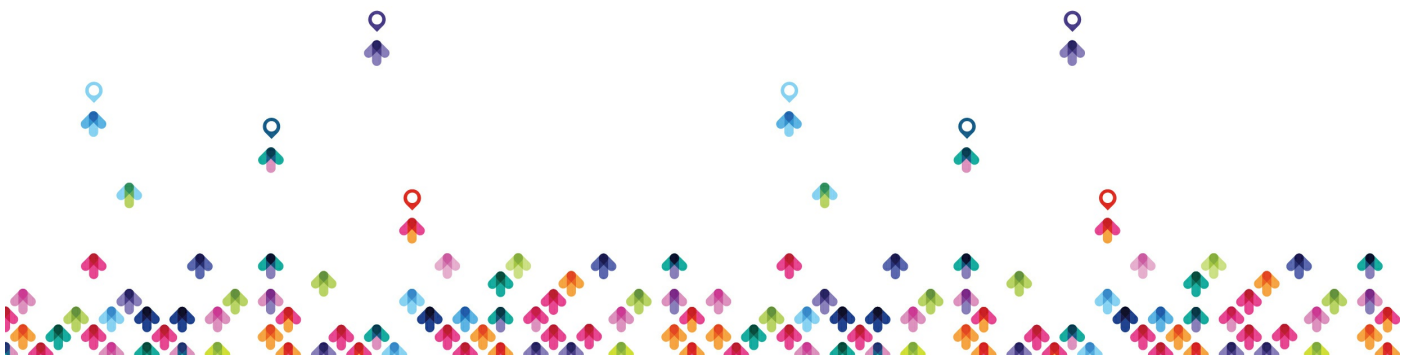
- install role
- DFS Namespace
- DFS Replication
- FSRM

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
- create cluster and add host



- combine IIS and DFS and NLB

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
- restricted group
- file system
- backup and restore
- WMI filters
- Starter GPO
- Software Installation
- publish and assign software

Child Domain

- create child domain
- trust between parent and child
- **Forest Trust**
- create Two way forest trust
- group Type and Scope
- group nesting
- AGUDLP



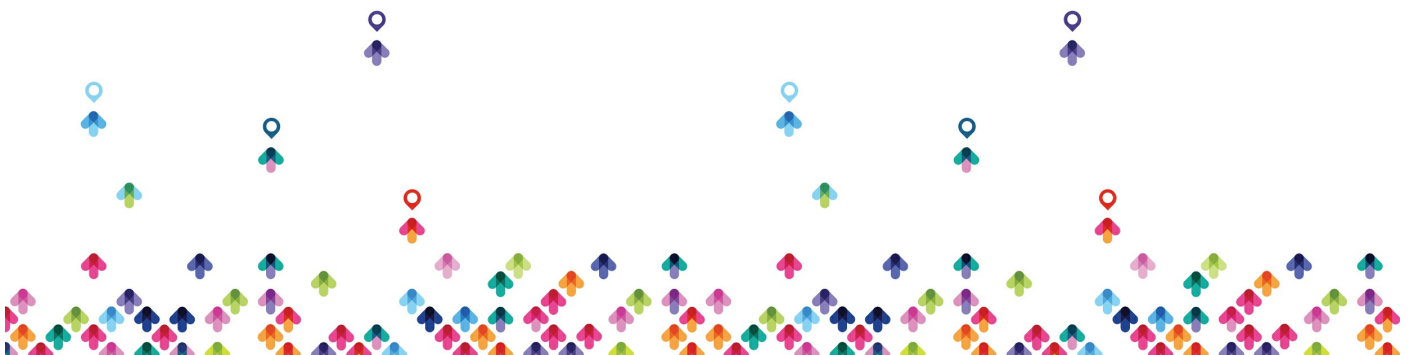
Routing and addressing Function

- install RRAS roles
- static route
- static route with command line tools
- routing table
- metric
- inbound and outbound filter

NAT

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

VPN



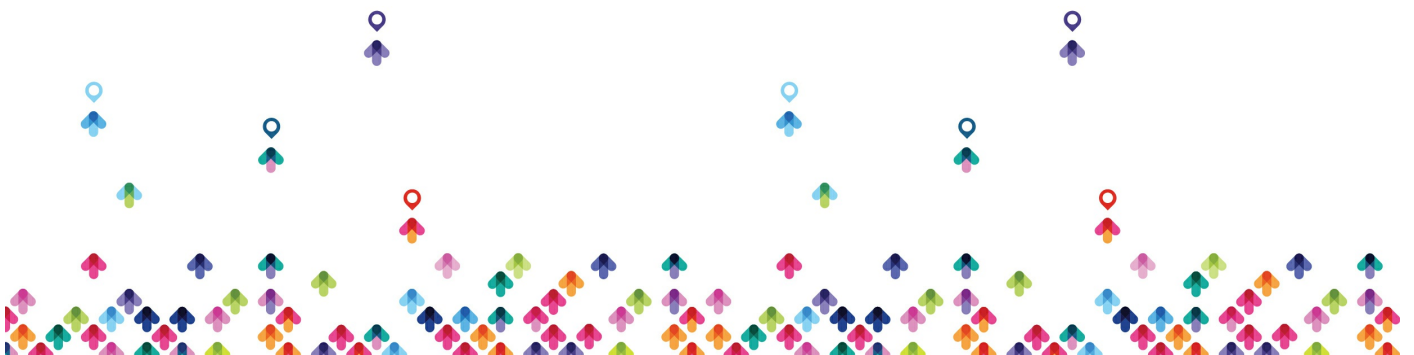
- virtual private network (remote access , site to site)
- install vpn role services
- vpn type
- vpn protocol :pptp,sstp,l2tp,ikev2
- ip address assignment
- enabling broadcast name resolution
- ipsec policy for L2TP
- authentication method
- Demand dial (vpn site to site)

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 VPN remote access

FailOver Cluster

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

Active Directory Installation and Configuration overview active directory

- install from media (IFM)
- removing Active Directory (Demote)



- Active directory administrative center
- Active directory recycle bin
- ADSI Edit (SID)

Backup and Restore of Active Directory

- 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
- Offline Join

Trust

- overview of trust relationship
- trusted/trusting



- incoming/outgoing
- oneway/twoway
- transitive,non transitive
- type of trust :forest,parent-child,external,shortcut,tree,realm
- selective authentication
- UPN Suffix

Site and Services

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



Master Roles

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

CCNA

Switching

- basic commands
- secure console port
- secure ios modes
- telnet
- ssh
- tftp
- dual boot ios



- port security
- etherchannel
- vlan
- vtp
- dtp
- stp
- password recovery

Routing

- routing concept
- static route
- routing protocols
- RIP
- OSPF
- EIGRP
- multilayer switch
- intervlan routing



- ip helper
- nat
- port forwarding
- access- list
- gre tunnel

مخاطبان دوره

کلیه افراد علاقه مند به شروع حرفه شبکه

پیش نیاز ها

این دوره پیش نیازی ندارد

