

# DVS Technologies

## **DVS AZURE ADMIN COURSE CONTENT**

### **INTRODUCTION TO CLOUD**

- What is Cloud?
- History and evolution of cloud
- Cloud Computing Concepts
- Public, Private, Hybrid Clouds
- IAAS, SAAS, PAAS Cloud Models
- Public Clouds
  - Amazon Web Services, Azure, Oracle Cloud, IBM Cloud

### **MODULE 1: AZURE INTRODUCTION**

- Cloud Keywords
- Create Azure Account
- Billing Alert
- Azure tour
- Azure vocabulary
- Subscription management
- Cost Analysis & Management

### **MODULE 2: AZURE ACTIVE DIRECTORY - PART 1**

- Azure AD Introduction
- Creating user without permissions
- Granting access at the resource level
- Granting access at the resource group level
- Granting access at the subscription level
- Creating custom roles
- Granting custom roles to the user

### **MODULE 3: AZURE VIRTUAL MACHINE**

- Creating a virtual machine
- Login to VM
- Boot strap – custom data
- Custom script extension
- working with extra disk
- Disk snapshot
- VM resize

- Adding network interface
- Custom image creation
- Boot diagnostics & Console connect

#### **MODULE 4: VIRTUAL MACHINE AVAILABILITY**

- Introduction for infra availability
- Availability sets
- Availability zones
- Azure scale sets
- Proximity placement group
- Azure redeploy

#### **MODULE 5: AZURE VM BACKUP**

- Backup for the virtual machines
- Restore files from backup
- Restore vm from backup
- Soft deletion of backup
- Azure backup agent
- Azure site recovery for the virtual machine

#### **MODULE 6: VIRTUAL NETWORK**

- Introduction to server networking
- Create VNET with subnets
- Create a server from custom subnet
- Creating bastion/jump host
- Working with public ip's
- Working with network interfaces
- Network security group at interface level
- Network security group at subnet level
- Virtual network peering

#### **MODULE 7: VIRTUAL PRIVATE NETWORK AND FIREWALL**

- Point to Site VPN
- Site to Site VPN
- VPN – S2S – VNET – Peering
- High availability for VPN gateway
- Private DNS
- Public DNS

#### **MODULE 8: APP SERVICES**

- Service Plan creation
- Using visual studio
- Create a sample application
- Webapp creation
- Expore webapp
- Deployment slots
- Webapp autoscalling
- Virtual network integration
- Webapp custom domains

#### **MODULE 9: LOAD BALANCER**

- Introduction about load balancer
- Load balancer with VM's (Basic & Standard)
- Basic LB with availability sets
- Basic LB with Inbound NAT rules
- Basic LB with VMSS
- Standard LB with AVS
- Standard LB with VMSS
- Standard LB with multiple backend pools
- Standard LB with Inbound NAT rules
- Standard LB – SNAT
- Application gateway – Context based routing
- Application gateway – Multiple sites

#### **MODULE 10: AZURE STORAGE**

- Introduction about storage
- Blob service
- Accessing data using shared access signature
- Accessing data using Storage explorer
- Accessing data using AD users
- Data redundancy - LRS,ZRS,GRS,RAGRS,GZRS
- Storage access tiers
- Storage lifecycle polies
- Object replication
- Azure file share
- Firewall and network settings

#### **MODULE 11: AZURE CONTAINER REGISTRY**

- Introduction about registry
- Working with az registry

## **MODULE 12: AZURE KUBERNETES SERVICE**

- Deploying azure kubernetes service
- AKS using CLI
- Using azure storage for deployments

## **MODULE 13: MONITORING AND LOGGING**

- Introduction about monitoring & metrics
- Activity logs & alerts
- Log analytics
- Sending custom logs
- Dashboards
- Application insights
- Resource tags
- Resource management
- Locks

## **MODULE 14: AZURE ACTIVE DIRECTORY – PART 2**

- Active directory groups
- Active directory rules
- Adding vm to AD
- Password and MFA for users
- Conditional access