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# **Microsoft Azure Administrator**

Varighed: 4 Days Kursus Kode: M-AZ104 Leveringsme

Leveringsmetode: Virtuel deltagelse

## Beskrivelse:

På dette kursus lærer du at administrere Azure subscriptions, brugerrettigheder, infrastruktur, konfigurere virtuelle netværk, forbinde On-premises netværk, netværktrafik, implementere storage løsninger, konfigurere og skalere virtuelle maskiner, implementere web-apps og containers, back-up og dele data samt monitorering.

#### Virtuel deltagelse

Et V&C Select kursus indholder nøjagtig det samme som et almindeligt kursus. Før kursusstart modtager man kursusmaterialet. Dernæst logger man på kurset via internettet og ser via sin pc den selvsamme præsentation som de øvrige deltagere, man kommunikerer via chat med underviseren og de øvrige deltagere på kurset. Denne uddannelsesmodel er både tids-og omkostningsbesparende og kan være et oplagt alternativ til almindelig klasseundervisning, hvis man f.eks. har et begrænset rejsebudget.

## Målgruppe:

This course is for Azure Administrators. The Azure Administrator implements, manages, and monitors identity, governance, storage, compute, and virtual networks in a cloud environment. The Azure Administrator will provision, size, monitor, and adjust resources as appropriate.

## Forudsætninger:

Successful Azure Administrators start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, and networking.

- Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.
- Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.
- Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).
- Understanding of resilience and disaster recovery, including backup and restore operations.

### Test og certificering

## Indhold:

#### Module 1: Identity

In this module, you will learn how to secure identities with Azure Active Directory, and implement users and groups.

- Azure Active Directory
- Users and Groups

Lab : Manage Azure Active Directory Identities

After completing this module, students will be able to:

- Secure and manage identities with Azure Active Directory.
- Implement and manage users and groups.

Module 2: Governance and Compliance

In this module, you will learn about managing your subscriptions and accounts, implementing Azure policies, and using Role-Based Access Control.

- Subscriptions and Accounts
- Azure Policy

Role-based Access Control (RBAC)

- Lab : Manage Subscriptions and RBAC
- Lab : Manage Governance via Azure Policy

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
- Configure public and private IP addressing.
- Configure network security groups.
- Configure Azure Firewall.
- Configure private and public DNS zones.
- Configure VNet Peering.
- Configure VPN gateways.

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- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
- Configure an Azure Load Balancer.
- Configure and Azure Application Gateway.
- Choose the appropriate network traffic

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
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- Configure VNet Peering.
- Configure VPN gateways.
- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
- Configure an Azure Load Balancer.
- Configure and Azure Application Gateway.
- Choose the appropriate network traffic solution.
- Create Azure storage accounts.
- Configure blob containers.
- Secure Azure storage.
- Configure Azure files shares and file sync.
- Manage storage with tools such as Storage Explorer.
- Plan for virtual machine implementations.
- Create virtual machines.
- Configure virtual machine availability, including scale sets.
- Use virtual machine extensions.
- Create an app service plan.
- Create a web app.
- Implement Azure Container Instances.
- Implement Azure Kubernetes Service.
- Backup and restore file and folders.
- Backup and restore virtual machines.
- Use Azure Monitor.
- Create Azure alerts.
- Query using Log Analytics.
- Use Network Watcher.

Module 5: Intersite Connectivity

In this module, you will learn about intersite connectivity features including VNet Peering, Virtual Network Gateways, and Site-to-Site Connections.

VNet Peering

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Virtual Machine Extensions

Lab : Manage virtual machines

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
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- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
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- Configure Azure Firewall.
- Configure private and public DNS zones.
- Configure VNet Peering.
- Configure VPN gateways.
- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
- Configure an Azure Load Balancer.
- Configure and Azure Application Gateway.

Configure Azure files shares and file sync.

Plan for virtual machine implementations.

- Choose the appropriate network traffic solution.
- Create Azure storage accounts.

Manage storage with tools such as

Configure virtual machine availability,

Implement Azure Container Instances.

Implement Azure Kubernetes Service.

Backup and restore file and folders.

Backup and restore virtual machines.

Use virtual machine extensions.

Create an app service plan.

Configure blob containers.

Secure Azure storage.

Storage Explorer.

Create virtual machines.

including scale sets.

Create a web app.

Use Azure Monitor.

Create Azure alerts.

Kubernetes.

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Use Network Watcher.

Azure App Service Plans

Query using Log Analytics.

Module 9: Serverless Computing

In this module, you will learn administer

Service, Azure Container Instances, and

serverless computing features like Azure App

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solution.

- Create Azure storage accounts.
- Configure blob containers.
- Secure Azure storage.
- Configure Azure files shares and file sync.
  Manage storage with tools such as Storage Explorer.
- Plan for virtual machine implementations.
- Create virtual machines.
- Configure virtual machine availability, including scale sets.
- Use virtual machine extensions.
- Create an app service plan.
- Create a web app.
- Implement Azure Container Instances.
- Implement Azure Kubernetes Service.
- Backup and restore file and folders.
- Backup and restore virtual machines.
- Use Azure Monitor.
- Create Azure alerts.
- Query using Log Analytics.
- Use Network Watcher.

#### Module 3: Azure Administration

In this module, you will learn about the tools an Azure Administrator uses to manage their infrastructure. This includes the Azure Portal, Cloud Shell, Azure PowerShell, CLI, and Resource Manager Templates. This module includes:

- Azure Resource Manager
- Azure Portal and Cloud Shell
- Azure PowerShell and CLI

#### **ARM Templates**

- Lab : Manage Azure resources by Using the Azure Portal
- Lab : Manage Azure resources by Using ARM Templates
- Lab : Manage Azure resources by Using Azure PowerShell
- Lab : Manage Azure resources by Using Azure CLI

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
- Configure public and private IP addressing.
- Configure network security groups.
- Configure Azure Firewall.

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- VPN Gateway Connections
- ExpressRoute and Virtual WAN
- Lab : Implement Intersite Connectivity

After completing this module, students will be able to:

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- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
  Configure public and private IP addressing.
- Configure network security groups.
- Configure Azure Firewall.
- Configure private and public DNS zones.
- Configure VNet Peering.
- Configure VPN gateways.
- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
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- Configure and Azure Application Gateway.
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Module 6: Network Traffic Management

In this module, you will learn about network traffic strategies including network routing and

- Azure App Service
  Container Services

Azure Kubernetes Service

- Lab : Implement Web Apps
- Lab : Implement Azure Container Instances
- Lab : Implement Azure Kubernetes Service

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
- Configure public and private IP addressing.

Configure private and public DNS zones.

Configure network security groups.

Configure Azure Firewall.

Configure VNet Peering.

connectivity solution.

solution.

Configure VPN gateways.

Choose the appropriate intersite

Configure network routing including

Configure an Azure Load Balancer.

Create Azure storage accounts.

Manage storage with tools such as

Configure blob containers.

Secure Azure storage.

Storage Explorer.

Create virtual machines.

including scale sets.

Create a web app.

Use Azure Monitor.

Create Azure alerts.

Use Network Watcher.

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Query using Log Analytics.

Module 10: Data Protection

custom routes and service endpoints.

Choose the appropriate network traffic

Configure and Azure Application Gateway.

Configure Azure files shares and file sync.

Plan for virtual machine implementations.

Configure virtual machine availability,

Implement Azure Container Instances.

Implement Azure Kubernetes Service.

Backup and restore file and folders.

Backup and restore virtual machines.

In this module, you will learn about backing

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up files and folders, and virtual machine

Use virtual machine extensions.

Create an app service plan.

- Configure private and public DNS zones.
- Configure VNet Peering.
- Configure VPN gateways.
- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
- Configure an Azure Load Balancer.
- Configure and Azure Application Gateway.
- Choose the appropriate network traffic solution.
- Create Azure storage accounts.
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- Create a web app.
- Implement Azure Container Instances.
- Implement Azure Kubernetes Service.
- Backup and restore file and folders.
- Backup and restore virtual machines.
- Use Azure Monitor.
- Create Azure alerts.
- Query using Log Analytics.
- Use Network Watcher.

Module 4: Virtual Networking

In this module, you will learn about basic virtual networking concepts like virtual networks and subnetting, IP addressing, network security groups, Azure Firewall, and Azure DNS,

- Virtual Networks
- IP Addressing
- Network Security groups
- Azure Firewall

Azure DNS

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Lab : Implement Virtual Networking

service endpoints, Azure Load Balancer, Azure Application Gateway, and Traffic Manager.

- Network Routing and Endpoints
- Azure Load Balancer
- Azure Application Gateway

Traffic Manager

Lab : Implement Traffic Management

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
- Configure public and private IP addressing.
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- Configure Azure Firewall.
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- Configure VPN gateways.
- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
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backups.

File and Folder Backups

Virtual Machine Backups

Lab : Implement Data Protection

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
- Use RBAC to assign permissions.
- Leverage Azure Resource Manager to organize resources.
- Use the Azure Portal and Cloud Shell.
- Use Azure PowerShell and CLI.
- Use ARM Templates to deploy resources.
- Implement virtual networks and subnets.
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- Configure Azure Firewall.
- Configure private and public DNS zones.
- Configure VNet Peering.
- Configure VPN gateways.

solution.

- Choose the appropriate intersite connectivity solution.
- Configure network routing including custom routes and service endpoints.
   Configure an Azure Load Balancer.

Choose the appropriate network traffic

Create Azure storage accounts.

Manage storage with tools such as

Configure virtual machine availability,

Implement Azure Container Instances.

Implement Azure Kubernetes Service.

Backup and restore file and folders.

Backup and restore virtual machines.

In this module, you will learn about monitoring

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your Azure infrastructure including Azure

Monitor, alerting, and log analytics.

Use virtual machine extensions.

Create an app service plan.

Configure blob containers.

Secure Azure storage.

Storage Explorer.

Create virtual machines.

including scale sets.

Create a web app.

Use Azure Monitor.

Create Azure alerts.

Module 11: Monitoring

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Query using Log Analytics.Use Network Watcher.

Configure and Azure Application Gateway.

Configure Azure files shares and file sync.

Plan for virtual machine implementations.

#### Module 7: Azure Storage

In this module, you will learn about basic storage features including storage accounts, blob storage, Azure files and File Sync, storage security, and storage tools.

- Storage Accounts
- Blob Storage
- Storage Security
- Azure Files and File Sync

#### Managing Storage

Lab : Manage Azure storage

After completing this module, students will be able to:

- Implement and manage Azure subscriptions and accounts.
- Implement Azure Policy, including custom policies.
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- Create a web app.
- Implement Azure Container Instances.
- Implement Azure Kubernetes Service.

- Azure Monitor
- Azure Alerts
- Log Analytics

#### Network Watcher

Lab : Implement Monitoring

After completing this module, students will be able to:

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## Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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