



# Azure Administrator, Integration and Security

AZ101T - Version: 2

 4 days Course

## Description:

This 4-days course is comprised of 4 separate 1-day courses. This course will help you prepare to the Microsoft AZ-101 exam. You can review the daily syllabuses in the links below

Day 1: Migrate Servers to Azure

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=az101t01&branchName=165>

Day 2: Implement and Manage Application Services

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=az101t02&branchName=165>

Day 3: Implement Advanced Virtual Networking

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=az101t03&branchName=165>

Day 4: Secure Identities

<http://scc.sela.co.il/Syl/Syllabus/Info?courseCode=az101t04&branchName=165>

## Intended audience:

This course is for Azure Administrators. Azure Administrators manage the cloud services that span storage, networking, and compute cloud capabilities, with a deep understanding of each service across the full IT lifecycle. They take end-user requests for new cloud applications and make recommendations on services to use for optimal performance and scale, as well as provision, size, monitor and adjust as appropriate. This role requires communicating and coordinating with vendors. Cloud Administrators use the Azure Portal and as they become more proficient they use PowerShell and the Command Line Interface.

## Prerequisites:

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

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## Objectives:

Use Azure Migrate to discover and assess on-premises virtual machine migration to Azure.

Use Azure Site Recovery to migrate Hyper-V infrastructures to Azure.

Use Azure Backup for virtual machines, and migrate virtual machines from one Azure region to another.

Use Azure Database Migration service and Azure Import/Export service for data migration scenarios.

Implement Azure Site Recovery Vault.

Configure replication of Azure VMs between Azure regions by using Azure Site Recovery.

Implement use cases and configuration options for Azure App Services and App Service Environments.

Manage and secure web apps with backup, restore, snapshot, and cloning.

Optimize your web app performance with Scale Up, Scale Out, Autoscale, and Grow out strategies.

Deploy serverless computing features like Azure Functions, Event Grid, and Service Bus.

Implement Azure web apps.

Manage scalability and performance of Azure web apps.

Implement and configure Azure Load Balancer, Azure Traffic Manager, and Azure Application Gateway.

Implement and configure Site-to-Site VPN connections and ExpressRoute.

Implement and configure Network Watcher and troubleshooting common network issues.

Deploy Azure VMs by using Azure Resource Manager templates.

Implement Azure Load Balancing.

Implement Azure Traffic Manager load balancing.

Use Azure RBAC to grant a granular level of access based on an administrator's assigned tasks.

Use Azure Multi-Factor Authentication to configure a strong authentication for users at sign-in.

User Azure AD Privileged Identity Management to configure access rights based on just-in-time administration.

## Topics:

### Day 1

- Module 01 - Azure Migrate
  - Overview of Cloud Migration
  - Azure Migrate: The Process
- Module 02 - Azure Site Recovery
  - Overview of ASR
  - Preparing the Infrastructure
  - Completing the Migration Process
- Module 03 - Disaster Recovery
  - Backup and Restore
  - Azure to Azure Disaster Recovery
- Module 04 - Migrating Data
  - Database Migration
  - Import and Export Service
- Module 05 - Lab-Implement Azure Site Recovery Between Azure Regions
  - Implement prerequisites for migration of Azure VMs by using Azure Site Recovery
  - Migrate an Azure VM between Azure regions by using Azure Site Recovery

### Day 2

- Module 01 - Introducing the Azure App Service Platform
  - Introducing Azure App Service
  - App Service Environments
- Module 02 - Managing and Securing Web Apps
  - Deploying Web Apps
  - Managing Web Apps
  - App Service Security
- Module 03 - Scaling and Performance
  - Scale Up and Scale Out
  - Autoscale and Grow out
  - Optimizing Bandwidth and Web Traffic

- Module 04 - Deploying Serverless Computing Solutions
  - Serverless Computing Concepts
  - Managing Azure Functions
  - Managing Event Grid
  - Managing Service Bus
  - Managing Logic App
- Module 05 - Lab-Implement and Manage Application Services
  - Implement Azure web apps.
  - Manage scalability and performance of Azure web apps.

## Day 3

- Module 01 - Distributing Network Traffic
  - Overview of Network Traffic Distribution Options
  - Azure Load Balancer
  - Azure Traffic Manager
  - Azure Application Gateway
- Module 02 - Site Connectivity
  - Site-to-Site VPN Connections
  - ExpressRoute
- Module 03 - Monitoring and Troubleshooting Network Connectivity
  - Introducing Network Watcher
  - Implementing Network Watcher
  - Network Troubleshooting Examples
- Module 04 - Lab-Implement Advanced Virtual Networking
  - Deploy Azure VMs by using Azure Resource Manager templates.
  - Implement Azure Load Balancing.
  - Implement Azure Traffic Manager load balancing.

## Day 4

- Module 01 - Introduction to Identity Protection in Azure
  - Role-Based Access Control
  - Azure Active Directory (Refresher)
  - Protecting Privileged Access in the Environment
- Module 02 - Using Multi-Factor Authentication for Secure Access

- Introducing Multi-Factor Authentication
- Implementing MFA
- Module 03 - Azure AD Privileged Identity Management
  - Getting Started with PIM
  - PIM Security Wizard
  - PIM for Directory Roles
  - PIM for Role Resources
- Module 04 - Lab-Secure Identities
  - Deploy an Azure VM by using an Azure Resource Manager template.
  - Create Azure AD users and groups.
  - Delegate management of Azure resources by using custom Role-Based Access Control (RBAC) roles.
  - Delegate management of Azure AD by using Privileged Identity Management directory roles.
  - Delegate management of Azure resources by using Privileged Identity Management resource roles.