

**Configuring and Operating Windows Virtual Desktop on Microsoft Azure (AZ-140)**

**Course Number:** MOC-AZ-140
**Duration:** 4 days

**Overview**

Microsoft course AZ-140, Configuring and Operating Windows Virtual Desktop on Microsoft Azure, teaches Azure administrators how to plan, deliver, and manage virtual desktop experiences and remote apps, for any device, on Azure. Students learn how to deploy apps on Windows Virtual Desktop and optimize them to run in multi-session virtual environments. This course prepares students for the [AZ-140 exam](https://docs.microsoft.com/en-us/learn/certifications/exams/AZ-140) for which every attendee receives a voucher.

**Prerequisites**

Students should have taken [AZ-104: Microsoft Azure Administrator](file:////training/microsoft-azure-administrator) or have equivalent knowledge.

**Materials**

All Microsoft Azure training students receive Microsoft official courseware.

For all Microsoft Official Courses taught in their entirety that have a corresponding certification exam, an exam voucher is included for each participant.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class. The class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection. Any recent version of Microsoft Edge, Mozilla Firefox, or Google Chrome will work well.

**Objectives**

* Explain the Azure Virtual Desktop components
* Assess network capacity and speed requirements for Azure Virtual Desktop
* Select a licensing model for Azure Virtual Desktop
* Monitor and repair Azure Virtual Desktop, including virtual machines, virtual networks, application gateways, and load balancers
* Set up an FSLogix profile container share for a host pool using a virtual machine-based file share
* Configure the assignment type of a personal desktop host pool to customize the Azure Virtual Desktop environment
* Create a managed VM image for an Azure Virtual Desktop-specific configuration
* Implement the critical actions for keeping users safe
* Plan for FSLogix
* Configure user settings through group policies for Azure Virtual Desktop
* Work with MSIX app attach for Azure Virtual Desktop
* Configure virtual machine (VM) replication for Azure Virtual Desktop
* Scale session hosts using Azure Automation
* Monitor Azure Virtual Desktop by using Azure Monitor

**Outline**

* Azure Virtual Desktop Architecture
	+ Azure Virtual Desktop for the Enterprise
	+ Azure Virtual Desktop components
	+ Personal and pooled desktops
	+ Service updates for Azure Virtual Desktop desktops
	+ Azure limitations for Azure Virtual Desktop
	+ Virtual machine sizing for Azure Virtual Desktop
	+ Azure Virtual Desktop pricing
* Design the Azure Virtual Desktop Architecture
	+ Assess network capacity and speed requirements for Azure Virtual Desktop
	+ Azure Virtual Desktop Experience Estimator
	+ Recommend an operating system for an Azure Virtual Desktop implementation
	+ Balancing host pools
	+ Recommendations for using subscriptions and management groups
	+ Configure a location for the Azure Virtual Desktop metadata
	+ Recommend a configuration for performance requirements
* Design for User Identities and Profiles
	+ Select an appropriate licensing model for Azure Virtual Desktop based on requirements
	+ Personal and multi-session desktop scenarios
	+ Recommend an appropriate storage solution
	+ Plan for a desktop client deployment
	+ Plan for Azure Virtual Desktop client deployment - Remote Desktop Protocol (RDP)
	+ Windows Desktop client to multiple devices
	+ Hybrid Identity with Azure Active Directory
* Plan for Azure Active Directory (AD) Connect for user identities
	+ Implement and Manage Networking for Azure Virtual Desktop
	+ Implement Azure virtual network connectivity
	+ Manage connectivity to the internet and on-premises networks
	+ Understanding Azure Virtual Desktop network connectivity
	+ Implement and manage network security for Azure Virtual Desktop
	+ Configure Azure Virtual Desktop session hosts using Azure Bastion
	+ Monitor and troubleshoot network connectivity for Azure Virtual Desktop
	+ Plan and implement Remote Desktop Protocol Shortpath
	+ Configure Remote Desktop Protocol Shortpath for managed networks
	+ Configure Windows Defender Firewall with Advanced Security for RDP Shortpath
	+ Plan and implement Quality of Service for Azure Virtual Desktop
* Implement and Manage Storage for Azure Virtual Desktop
	+ Storage for FSLogix components
	+ Configure storage for FSLogix components
	+ Configure storage accounts
	+ Create file shares
	+ Configure disks
* Create and Configure Host Pools and Session Hosts for Azure Virtual Desktop
	+ Automate the creation of an Azure Virtual Desktop host pool using PowerShell
	+ Configure host pool assignment type
	+ Customize Remote Desktop Protocol (RDP) properties for a host pool
	+ Manage licensing for session hosts that run Windows client
	+ Deploying Azure AD-joined virtual machines in Azure Virtual Desktop
* Create and Manage Session a Host Image for Azure Virtual Desktop
	+ Create a managed virtual machine (VM) image
	+ Modify a session host image
	+ Plan for image update and management
	+ Create and use an Azure Compute Gallery using the portaln
	+ Create an Azure Virtual Desktop image by using VM Image Builder
	+ Install Microsoft 365 Apps on a master Virtual Hard Disk image
	+ Install language packs in Azure Virtual Desktop
* Manage Access for Azure Virtual Desktop
	+ Role-based access control (RBAC) for Azure Virtual Desktop
	+ Plan and implement Azure roles and role-based access control (RBAC) for Azure Virtual Desktop
	+ Using Azure Virtual Desktop with Microsoft Intune
	+ Configuring screen capture protection for Azure Virtual Desktop
* Manage security for Azure Virtual Desktop
	+ Plan and implement Conditional Access policies for connections to Azure Virtual Desktop
	+ Plan and implement multifactor authentication (MFA) in Azure Virtual Desktop
	+ Understand Conditional Access policy components
	+ Manage security by using Azure Security Center
	+ Security posture management and threat protection
* Implement and Manage FSLogix
	+ Plan for FSLogix
	+ FSLogix profile containers and Azure files
	+ Install FSLogix
	+ Storage options for FSLogix profile containers
	+ Profile Container vs Office Container
	+ Configure Office Containers
	+ Installing Microsoft Office using FSLogix application containers
	+ Configure Cloud Cache
	+ Configure Profile Containers
	+ Create a profile container with Azure NetApp Files and capacity pool
	+ Manage Rule Sets and application masking
* Configure User Experience Settings
	+ Virtual desktop optimization principles
	+ Persistent virtual desktop environments
	+ Configure user settings through group policies
	+ Configure user settings through Endpoint Manager policies
	+ Configure session timeout properties
	+ Configure device redirections
	+ Configure Universal Print
	+ Implement the Start Virtual Machine on Connect feature
	+ Troubleshoot user profile issues
	+ Troubleshoot Azure Virtual Desktop client
* Install and Configure Apps on a Session Host
	+ MSIX app attach
	+ How MSIX app attach works
	+ Set up a file share for MSIX app attach
	+ Upload MSIX images to Azure NetApp Files in Azure Virtual Desktop
	+ How to configure apps for users
	+ Using the OneDrive sync app on virtual desktops
	+ Using Microsoft Teams on Azure Virtual desktop
	+ Publish built-in apps in Azure Virtual Desktop
	+ Troubleshoot application issues for Azure Virtual Desktop
* Plan for Disaster Recovery
	+ Disaster recovery for Azure Virtual Desktop
	+ Virtual machine replication
	+ FSLogix configuration
* Automate Azure Virtual Desktop Management Tasks
	+ Scale session hosts using Azure Automation
	+ Create or update an Azure Automation account
	+ Create an Azure Automation Run As account
	+ Create the Azure Logic App and execution schedule
* Monitor and Manage Performance and Health
	+ Monitor Azure Virtual Desktop by using Azure Monitor
	+ Log Analytics workspace for Azure Monitor
	+ Monitor Azure Virtual Desktop by using Azure Advisor
	+ How to resolve Azure Advisor recommendations
	+ Diagnose graphics performance issues
* Conclusion