

# Azure PowerShell Documentation

Official product documentation for Azure PowerShell. Azure PowerShell is a collection of modules for managing Azure resources from PowerShell.

## About Azure PowerShell

### OVERVIEW

[Get started](#)

[What is Azure PowerShell?](#)

[Support Lifecycle](#)

### TRAINING

[Automate Azure tasks from PowerShell](#)

Choose the best Azure command line tools for managing and provisioning your cloud infrastructure

## Installation

### DOWNLOAD

[Install](#)

[Install - Windows](#)

[Install - Linux](#)

[Install - macOS](#)

[Run in Azure Cloud Shell ↗](#)

[Azure PowerShell in Docker](#)

## What's new

### WHAT'S NEW

[Release notes](#)

[Az 10.0.0 migration guide](#)

[Upcoming breaking changes](#)

## Azure PowerShell Reference



REFERENCE

[Cmdlet reference](#)

## Identity and Authentication



WHAT'S NEW

[Azure AD to Microsoft Graph Migration changes](#)



HOW-TO GUIDE

[Authentication methods](#)

[Create a service principal](#)

[Credential Contexts](#)

## Concepts



HOW-TO GUIDE

[Manage subscriptions](#)

[Manage Azure resources with Invoke-AzRestMethod](#)

[Filter cmdlet results](#)

[Format output](#)

[PowerShell jobs](#)



TUTORIAL

[Create virtual machines](#)

## Configuration

---

### HOW-TO GUIDE

[Configure global settings](#)

[Intelligent command completion](#)

[Use the Az PowerShell module behind a proxy](#)

## Deploy

---

### DEPLOY

[Deploy resource manager templates](#)

[Export resource manager templates](#)

[Deploy private resource manager templates](#)

## Samples

---

### SAMPLE

[Azure App Service](#)

[SQL databases](#)

[Cosmos DB](#)

[Samples repo](#)

## Migrate from AzureRM

---

### OVERVIEW

[Introducing the Az PowerShell module](#)

[Changes between AzureRM and Az](#)

---

### HOW-TO GUIDE

## Migration steps

---

### QUICKSTART

[Automatically migrate PowerShell scripts](#)

## Help & Support

---

### OVERVIEW

[Report product issues](#)

[Troubleshoot](#)

[Follow Azure PowerShell on Twitter](#)

[Azure Tools Blog](#)

# What is Azure PowerShell?

Article • 09/27/2023

Azure PowerShell is a set of cmdlets for managing Azure resources directly from PowerShell. Azure PowerShell is designed to make it easy to learn and get started with, but provides powerful features for automation.

## The Az PowerShell module

### Important

The Az PowerShell module is the recommended PowerShell module for managing Azure resources on all platforms.

The Az PowerShell module is based on the .NET Standard, and works with PowerShell 7.0.6 LTS and PowerShell 7.1.3 or higher on all platforms including Windows, Linux, and macOS. It's also compatible with Windows PowerShell 5.1.

### Note

PowerShell 7.0.6 LTS and PowerShell 7.1.3 or higher is the recommended version of PowerShell for use with the Az PowerShell module on all platforms.

You can install the Az PowerShell module locally on Windows, Linux, and macOS. It can also be used from a browser through [Azure Cloud Shell](#) or [inside a Docker container](#). For more information, see the [Azure PowerShell documentation](#).

## Authentication

Azure PowerShell supports several authentication methods. For detailed information about authenticating to Azure from the Az PowerShell module, see [Sign in with Azure PowerShell](#).

## Module Design

The Az PowerShell module is a wrapper module for Azure service related PowerShell modules, usually one module per Azure service such as `Az.Network` for Azure networking services and `Az.AKS` for Azure Kubernetes Service.

The cmdlets in the Az PowerShell module make REST calls to the Azure API. Breaking changes in the Az PowerShell module are limited to twice a year. Many breaking changes at the API level are handled within the cmdlets to prevent the perception of a breaking change.

The Az PowerShell module contains cmdlets for performing both control plane and data plane operations in Azure. You use the control plane to manage resources in your subscription. You use the data plane to use capabilities exposed by your instance of a resource type. For more information, see [Azure control plane and data plane](#).

## Output Objects

The cmdlets in the Az PowerShell module produce .NET objects. As with any PowerShell command that produces output, the cmdlets in the Az PowerShell module can be piped to the [Get-Member](#) cmdlet to determine what type of object is produced along with a list of the available properties and methods. For more information, see [Query output of Azure PowerShell](#) and [Format Azure PowerShell cmdlet output](#).

## Other modules

The AzureAD and MSOnline PowerShell modules aren't part of the Az PowerShell module. For more information about those modules, see the documentation for [Azure Active Directory PowerShell for Graph](#).

## Legacy Azure PowerShell modules

### The AzureRM PowerShell module

#### ⊗ Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

The AzureRM PowerShell module is no longer recommended as deprecation has been announced, new features are no longer being added, and it's not cross platform. For more information, see [Overview of the AzureRM PowerShell module](#).

## The Azure PowerShell module

### Important

The cmdlets in the Azure PowerShell module are for managing legacy Azure resources that use Service Management APIs.

Some cmdlets in the Azure PowerShell module have been deprecated and others have been deprecated for new customers with retirement announced for existing customers as noted on their corresponding reference documentation pages. For more information, see [Overview of the Azure PowerShell Service Management module](#)

# Get started with Azure PowerShell

Article • 09/27/2023

Azure PowerShell is designed for managing and administering Azure resources from the command line. Use Azure PowerShell when you want to build automated tools that use the Azure Resource Manager model. Try it out in your browser with [Azure Cloud Shell](#), or install on your local machine.

This article helps you get started with Azure PowerShell and teaches the core concepts behind it.

## Install or run in Azure Cloud Shell

The easiest way to get started with Azure PowerShell is by trying it out in an Azure Cloud Shell environment. To get up and running with Cloud Shell, see [Quickstart for PowerShell in Azure Cloud Shell](#). Cloud Shell runs PowerShell on a Linux container, so Windows-specific functionality isn't available.

When you're ready to install Azure PowerShell on your local machine, follow the instructions in [Install the Azure PowerShell module](#).

## Sign in to Azure

Sign in interactively with the [Connect-AzAccount](#) cmdlet. Skip this step if you use Cloud Shell. Your Azure Cloud Shell session is already authenticated for the environment, subscription, and tenant that launched the Cloud Shell session.

```
Azure PowerShell
  Connect-AzAccount
```

Azure cloud services offer environments compliant with regional data-handling laws. For accounts in a regional cloud, use the `Environment` parameter to sign in. Get the name of the environment for your region using the [Get-AzEnvironment](#) cmdlet. For example, to sign in to Azure China 21Vianet:

```
Azure PowerShell
  Connect-AzAccount -Environment AzureChinaCloud
```

Beginning with Az PowerShell module version 5.0.0, `Connect-AzAccount` presents an interactive browser based login prompt by default. You can specify the `UseDeviceAuthentication` parameter to receive a token string which was previously the default for PowerShell version 6 and higher.

After signing in, you'll see information indicating which of your Azure subscriptions is active. If you have multiple Azure subscriptions in your account and want to select a different one, get your available subscriptions with [Get-AzSubscription](#) and use the [Set-AzContext](#) cmdlet with your subscription ID. For more information about managing your Azure subscriptions in Azure PowerShell, see [Use multiple Azure subscriptions](#).

Once signed in, use the Azure PowerShell cmdlets to access and manage resources in your subscription. To learn more about the sign-in process and authentication methods, see [Sign in with Azure PowerShell](#).

## Find commands

Azure PowerShell cmdlets follow a standard naming convention for PowerShell, `Verb-Noun`. The verb describes the action (examples include `New`, `Get`, `Set`, `Remove`) and the noun describes the resource type (examples include `AzVM`, `AzKeyVaultCertificate`, `AzFirewall`, `AzVirtualNetworkGateway`). Nouns in Azure PowerShell always start with the prefix `Az`. For the full list of standard verbs, see [Approved verbs for PowerShell Commands](#).

Knowing the nouns, verbs, and the Azure PowerShell modules available helps you find commands with the [Get-Command](#) cmdlet. For example, to find all VM-related commands that use the `Get` verb:

```
PowerShell
Get-Command -Verb Get -Noun AzVM* -Module Az.Compute
```

To help you find common commands, this table lists the resource type, corresponding Azure PowerShell module, and noun prefix to use with `Get-Command`:

Resource type	Azure PowerShell module	Noun prefix
Resource group	<a href="#">Az.Resources</a>	<code>AzResourceGroup</code>
Virtual machines	<a href="#">Az.Compute</a>	<code>AzVM</code>
Storage accounts	<a href="#">Az.Storage</a>	<code>AzStorageAccount</code>

Resource type	Azure PowerShell module	Noun prefix
Key Vault	Az.KeyVault	AzKeyVault
Web applications	Az.Websites	AzWebApp
SQL databases	Az.Sql	AzSqlDatabase

For a full list of the modules in Azure PowerShell, see the [Azure PowerShell modules list](#) hosted on GitHub.

## Data Collection

Azure PowerShell collects telemetry data by default. Microsoft aggregates collected data to identify patterns of usage to identify common issues and to improve the experience of Azure PowerShell. Microsoft Azure PowerShell does not collect any private or personal data. For example, the usage data helps identify issues such as cmdlets with low success and helps prioritize our work.

While we appreciate the insights this data provides, we also understand that not everyone wants to send usage data. You can disable data collection with the [Disable-AzDataCollection](#) cmdlet. You can also read our [privacy statement](#) to learn more.

## Learn Azure PowerShell basics with quickstarts and tutorials

To get started with Azure PowerShell, try an in-depth tutorial for setting up virtual machines and learning how to query them.

### Create virtual machines with Azure PowerShell

There are also Azure PowerShell quickstarts for other popular Azure services:

- [Create a storage account](#)
- [Transfer objects to/from Azure Blob storage](#)
- [Create and retrieve secrets from Azure Key Vault](#)
- [Create an Azure SQL database and firewall](#)
- [Run a container in Azure Container Instances](#)
- [Create a Virtual Machine Scale Set](#)
- [Create a standard load balancer](#)

# Next steps

- Sign in with Azure PowerShell
- Manage Azure subscriptions with Azure PowerShell
- Create service principals with Azure PowerShell
- Get help from the community:
  - [Azure forum on MSDN](#)
  - [Stack Overflow](#)

# Azure PowerShell versioning, release cadence, and breaking changes

Article • 09/27/2023

The Az PowerShell module is a rollup module containing more than 70 generally available (GA) or stable service modules for managing Azure resources directly from PowerShell.

## Versioning

The Az PowerShell modules follow [Semantic Versioning](#) for version numbering.

Versions of Azure service modules fall into one of three categories:

- Generally available. Modules version 1.0.0 and higher without *preview* in the version. Adheres to breaking change policy.
- Preview. Modules less than version 1.0.0. Don't adhere to breaking change policy.
- Feature preview. Modules version 1.0.0 and higher with *preview* in the version. Don't adhere to breaking change policy.

There are two Az PowerShell rollup modules:

- [Az](#). Installs all GA service modules for managing Azure resources.
- [AzPreview](#). Installs all GA and preview modules for managing Azure resources. Doesn't include feature preview modules.

The AzPreview module is always the same version and is released at the same time as the Az module.

## Release cadence

Planned updates to the Az PowerShell module are released on the first Tuesday of each month. These 12 planned updates per calendar year are in two categories:

- Major versions. At most, two per calendar year introduce breaking changes. The first number in the version number is updated. For example, version 6.6.0 to version 7.0.0.
- Minor versions. 10 per calendar year that don't introduce breaking changes. The second number in the version number is updated. For example, version 7.0.0 to version 7.1.0.

## Warning

Before upgrading to a major breaking change version of the Az PowerShell module, you should [review the migration guide](#).

Unplanned patch versions may be released at any time to fix bugs. Patch versions don't introduce breaking changes. The third number in the version number is updated. For example, version 6.2.0 to version 6.2.1.

## Breaking changes

### Important

Breaking changes may occur at any point for non-GA preview and feature preview modules. Non-GA modules aren't required to adhere to breaking change policies.

## When do breaking changes occur

We release two breaking change versions per year:

- One in late spring
- One in the fall

For information about upcoming breaking change releases, see [Azure PowerShell milestones](#).

## Types of breaking changes

Various types of breaking changes can occur in cmdlets. For more information, see [Breaking Change Definition](#).

## List of breaking changes

For detailed information about breaking changes in major releases of the Az PowerShell module, see the following articles.

- [AZ 10.0.0 breaking changes](#)
- [AZ 9.0.1 breaking changes](#)
- [Az 8.0.0 breaking changes](#)

- [Az 7.0.0 breaking changes](#)
- [Az 6.0.0 breaking changes](#)
- [Az 5.0.0 breaking changes](#)
- [Az 4.1.0 breaking changes](#)
- [Az 3.0.0 breaking changes](#)
- [Az 2.0.0 breaking changes](#)

## Breaking change warning messages

Breaking change warning messages allow Azure PowerShell cmdlet author's to communicate upcoming breaking changes with end users.

## Suppress breaking change warning messages

To suppress breaking change warning messages, see [How do I disable breaking change warning messages in Azure PowerShell?](#).

For more information, see [Breaking Changes Attribute Help](#).

## Provide feedback

- For general feedback, use the [Send-Feedback cmdlet](#).
- For product issues, log an [issue in the azure-powershell GitHub repository](#).

## Other resources

- [Azure PowerShell modules](#).
- [Azure PowerShell Support Lifecycle](#)
- [Azure PowerShell releases demystified](#)

# Azure PowerShell Support Lifecycle

Article • 09/27/2023

## Az PowerShell modules

The "Az PowerShell modules" consist of the module named "Az" and the dependent modules signed by "Microsoft Corporation". The Az PowerShell modules are identifiable by their names, that start with "Az.". For the current list of Az PowerShell modules, see [Azure PowerShell Modules](#).

The Az PowerShell modules support lifecycle falls under the [Azure SDK lifecycle policy](#). We support the last two minor versions of the current major version and last minor version of the previous major version of the Az PowerShell module.

## Supported environments

The following table identifies the supported platforms for the Az, AzureRM, and Azure PowerShell modules.

- The ✅ icon indicates supported version combinations of Azure PowerShell and PowerShell.
- The 🟡 icon indicates version combinations of Azure PowerShell and PowerShell that are no longer supported.
- The ❌ icon indicates unsupported version combinations of Azure PowerShell and PowerShell.

Azure PowerShell	PowerShell ≤ 7.1	PowerShell ≥ 7.2	Windows PowerShell 5.1
✅ Az 10.x	❌	✅	✅
✅ Az 9.x	❌	✅	✅
🟡 ≤ Az 8.x	🟡	🟡	🟡
✅ AzureRM 6.13.2	❌	❌	✅
✅ Azure 5.3.1	❌	❌	✅

### ⓘ Note

PowerShell 6.2 reached its end of life as of September 4, 2020. The Az PowerShell modules are not supported on any version of PowerShell 6.

## Information about CVE-2021-26701

The Az PowerShell modules use components affected by security advisory [CVE-2021-26701](#) which has been fixed in PowerShell 7.0.6 and 7.1.3. For more information, see [Microsoft Security Advisory CVE-2021-26701: .NET Core Remote Code Execution Vulnerability](#).

Starting with Az 6.0.0, PowerShell 7.0.6 or 7.1.3 or later is required. When the Az.Accounts module is imported, the following non-blocking message is displayed if an unsupported version of PowerShell is being used: "*This version of Az.Accounts is only supported on Windows PowerShell 5.1 and PowerShell 7.0.6 or greater, open <https://aka.ms/install-powershell> to learn how to upgrade. For further information, go to <https://aka.ms/azpslifecycle> .*"

## AzureRM PowerShell modules

### Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, **update your scripts** that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by February 29, 2024. To automatically update your scripts, follow the [quickstart guide](#).

# How to install Azure PowerShell

Article • 09/27/2023

The Azure PowerShell Az module is a rollup module. Installing the Az PowerShell module downloads the generally available modules and makes their cmdlets available for use.

## Install

The current version of Azure PowerShell is 10.4.1. For information about the latest release, see the [release notes](#).

- [Install on Windows](#)
- [Install on Linux](#)
- [Install on macOS](#)
- [Run in Azure Cloud Shell ↗](#)
- [Run in Docker container](#)

A supported version of [PowerShell version 7 or higher](#) is the recommended version of PowerShell for use with the Az PowerShell module on all platforms including Windows, Linux, and macOS.

The Az PowerShell module is preinstalled in Azure [Cloud Shell](#) and in [Docker images](#).

## See also

- [What is Azure PowerShell](#)
- [Get started with Azure PowerShell](#)
- [Versioning, release cadence, and breaking changes](#)
- [Support Lifecycle](#)

# Install Azure PowerShell on Windows

Article • 09/27/2023

The Azure PowerShell Az module is a rollup module. Installing the Az PowerShell module downloads the generally available modules and makes their cmdlets available for use.

The recommended installation method and PowerShell version for the Az PowerShell module:

- Install from the PowerShell Gallery
- Use with PowerShell version 7 or higher

This article explains how to install the Az PowerShell module on Windows from the [PowerShell Gallery](#).

## Prerequisites

- Run the following command from PowerShell to determine your PowerShell version:

```
PowerShell  
$PSVersionTable.PSVersion
```

- Determine if you have the AzureRM PowerShell module installed:

```
PowerShell  
Get-Module -Name AzureRM -ListAvailable
```

### Important

If you have the AzureRM PowerShell module installed, see [Az and AzureRM coexistence](#) before proceeding.

PowerShell 7

- Install a supported version of [PowerShell version 7 or higher](#)

- Set the PowerShell execution policy to remote signed or less restrictive

- Check the PowerShell execution policy:

```
PowerShell
```

```
Get-ExecutionPolicy -List
```

- Set the PowerShell execution policy to remote signed:

```
PowerShell
```

```
Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Scope CurrentUser
```

For more information about execution policies, see [about\\_Execution\\_Policies](#).

## Installation

Use the [Install-Module](#) cmdlet to install the Az PowerShell module:

```
PowerShell
```

```
Install-Module -Name Az -Repository PSGallery -Force
```

## Update the Az PowerShell module

Use [Update-Module](#) to update to the latest version of the Az PowerShell module:

```
PowerShell
```

```
Update-Module -Name Az -Force
```

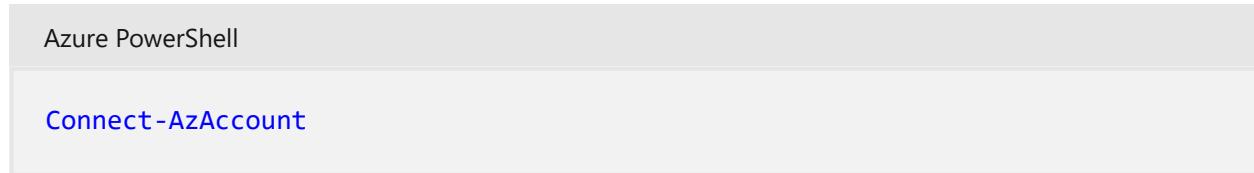
Updating the Az PowerShell module using `Update-Module` doesn't remove old versions of the Az PowerShell module from your system.

## Uninstallation

To remove the Az PowerShell module, see [Uninstall the Azure PowerShell module](#).

## Sign in

To start managing your Azure resources with the Az PowerShell module, launch a PowerShell session and run `Connect-AzAccount` to sign in to Azure:



Azure PowerShell

```
Connect-AzAccount
```

Use your Azure account login credentials to log into the browser window that opens.

You'll need to repeat this step for every new PowerShell session you start. To learn how to persist your Azure sign-in across PowerShell sessions, see [Azure PowerShell context objects](#).

## Troubleshooting

For solutions to common installation issues with the Az PowerShell module, see [Troubleshoot installation problems with the Azure Az PowerShell module](#).

## Provide feedback

To file an issue about the Az PowerShell module, see: [file an issue on GitHub](#) ↗

To provide feedback from within a PowerShell session, use the [Send-Feedback](#) cmdlet.

## Next Steps

To learn more about managing your Azure resources with the Az PowerShell module, see [Get Started with Azure PowerShell](#).

# Install Azure PowerShell on Linux

Article • 09/27/2023

The Azure PowerShell Az module is a rollup module. Installing it downloads the generally available Az PowerShell modules and makes their cmdlets available for use.

This article explains how to install the Az PowerShell module on Linux.

## Prerequisites

- Install a supported version of [PowerShell version 7 or higher](#)

## Installation

Open the Terminal or other shell host application and run `pwsh` to start PowerShell.

Use the [Install-Module](#) cmdlet to install the Az PowerShell module:

```
PowerShell  
Install-Module -Name Az -Repository PSGallery -Force
```

## Update the Az PowerShell module

Use [Update-Module](#) to update to the latest version of the Az PowerShell module:

```
PowerShell  
Update-Module -Name Az -Force
```

Updating the Az PowerShell module using `Update-Module` doesn't remove old versions of the Az PowerShell module from your system.

## Uninstallation

To remove the Az PowerShell module from your system, see [Uninstall the Azure PowerShell module](#).

# Sign in

To start managing your Azure resources with the Az PowerShell module, launch a PowerShell session and run `Connect-AzAccount` to sign in to Azure:



Use your Azure account login credentials to log into the browser window that opens.

You'll need to repeat this step for every new PowerShell session you start. To learn how to persist your Azure sign-in across PowerShell sessions, see [Azure PowerShell context objects](#).

## Troubleshooting

For solutions to common installation issues with the Az PowerShell module, see [Troubleshoot installation problems with the Azure Az PowerShell module](#).

## Provide feedback

To file an issue about the Az PowerShell module, see: [file an issue on GitHub](#).

To provide feedback from within a PowerShell session, use the [Send-Feedback](#) cmdlet.

## Next Steps

To learn more about managing your Azure resources with the Az PowerShell module, see [Get Started with Azure PowerShell](#).

# Install Azure PowerShell on macOS

Article • 09/27/2023

This article explains how to install the Azure PowerShell Az module from [the PowerShell Gallery](#) on macOS.

The Az PowerShell module is a rollup module. Installing it downloads the generally available Az PowerShell modules and makes their cmdlets available for use.

## Prerequisites

- Install a supported version of [PowerShell version 7 or higher](#)

## Installation

Open the Terminal or other shell host application and run `pwsh` to start PowerShell.

Use the [Install-Module](#) cmdlet to install the Az PowerShell module:

```
PowerShell  
Install-Module -Name Az -Repository PSGallery -Force
```

## Update the Azure PowerShell module

Use the [Update-Module](#) cmdlet to update to the latest version of the Az PowerShell module.

```
PowerShell  
Update-Module -Name Az -Force
```

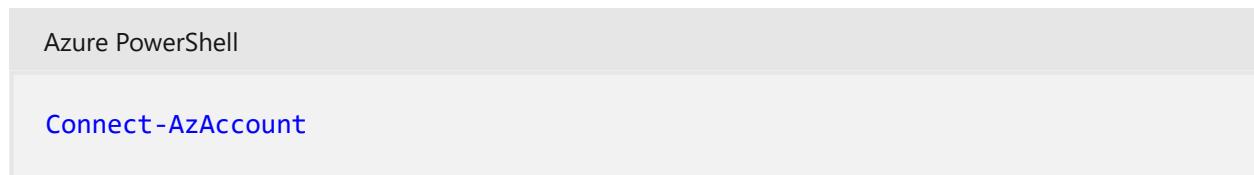
Updating the Az PowerShell module using `Update-Module` doesn't remove old versions of the Az PowerShell module from your system.

## Uninstallation

To remove the Az PowerShell module from your system, see [Uninstall the Azure PowerShell module](#).

# Sign in

To start managing your Azure resources with the Az PowerShell module, launch a PowerShell session and run `Connect-AzAccount` to sign in to Azure:



Use your Azure account login credentials to log into the browser window that opens.

You'll need to repeat this step for every new PowerShell session you start. To learn how to persist your Azure sign-in across PowerShell sessions, see [Azure PowerShell context objects](#).

## Troubleshooting

For solutions to common installation issues with the Az PowerShell module, see [Troubleshoot installation problems with the Az PowerShell module](#).

## Provide feedback

To file an issue about the Az PowerShell module, see: [file an issue on GitHub](#).

To provide feedback from within a PowerShell session, use the [Send-Feedback](#) cmdlet.

## Next steps

To learn more about managing your Azure resources with the Az PowerShell module, see [Get Started with Azure PowerShell](#).

# Using Azure PowerShell in a Docker container

Article • 09/27/2023

We publish Docker images with Azure PowerShell preinstalled. You can use Docker to run a standalone Linux container with Azure PowerShell preinstalled. This article shows you how to use Azure PowerShell in the Docker container.

## Finding available images

The released images require Docker 17.05 or newer. You must be able to run Docker without `sudo` or local administrative rights. Follow Docker's official [instructions](#) to install Docker.

The release containers derive from the official distribution image, install dependencies, and install the Azure PowerShell module.

The latest container image contains the latest version of PowerShell and the latest Azure PowerShell modules supported with the Az PowerShell module.

You can find a complete list of Azure PowerShell Docker images on our [Docker image](#) page.

## Using Azure PowerShell in a container

The following steps show the Docker commands required to download the image and start an interactive PowerShell session.

amd64

1. Download the latest azure-powershell image.

Console

```
docker pull mcr.microsoft.com/azure-powershell
```

2. Run the azure-powershell container in interactive mode:

Console

```
docker run -it mcr.microsoft.com/azure-powershell pwsh
```

For Windows Docker hosts, you must enable Docker file sharing to allow local drives on Windows to be shared with Linux containers. For more information, see [Get started with Docker for Windows](#).

## Remove the image when no longer needed

The following command deletes the Docker container when you no longer need it.

amd64

Console

```
docker rmi mcr.microsoft.com/azure-powershell
```

## Next steps

To learn more about the Azure PowerShell modules and their features, see [Get Started with Azure PowerShell](#).

# How to uninstall Azure PowerShell modules

Article • 09/27/2023

This article explains how to uninstall Azure PowerShell, or completely remove it from your system. If you've decided to completely uninstall Azure PowerShell and don't plan to reinstall it, give us some feedback through the [Send-Feedback](#) cmdlet. If you encountered a bug, [file a GitHub issue](#).

## Uninstall the Az module

If you have the Az module installed on your system and would like to uninstall it, there are two options. Which method you follow depends on how you installed the Az module. If you're not sure of your original installation method, follow the MSI steps for uninstalling first.

### Option 1: Uninstall the Az PowerShell module from MSI

If you installed Az PowerShell module using the MSI package, you must uninstall through the Windows system rather than PowerShell.

Platform	Instructions
Windows 10	Start > Settings > Apps
Windows 7	Start > Control Panel > Programs > Uninstall a program
Windows 8	

Once on this screen, you should see **Azure PowerShell** in the program listing. This is the app to uninstall. If you don't see this program listed, then you installed through PowerShellGet and should follow the instructions outlined in option 2.

### Option 2: Uninstall the Az PowerShell module from PowerShellGet

When the Az PowerShell module is installed, it installs numerous PowerShell modules for different Azure services. All the modules begin with an Az prefix.

 **Important**

Run PowerShell elevated as an admin if any version of the Az PowerShell module is installed in the all users \$env:PSModulePath.

To uninstall the Az PowerShell module, you can use the [Uninstall-Module](#) cmdlet. However, `Uninstall-Module` only uninstalls the modules specified for the `Name` parameter. To remove the Az PowerShell module completely, you must uninstall each module individually.

### ⓘ Note

Uninstallation can be complicated if you have more than one version of the Az PowerShell module installed. Because of this complexity, we only support uninstalling all versions of the Az PowerShell module that are installed.

First, you'll need a list of all the Az PowerShell module versions installed on your system.

PowerShell

```
Get-InstalledModule -Name Az -AllVersions -OutVariable AzVersions
```

You can use the following example to generate a list of all the Az PowerShell modules that need to be uninstalled in addition to the Az module.

PowerShell

```
($AzVersions |  
    ForEach-Object {  
        Import-Clixml -Path (Join-Path -Path $_.InstalledLocation -ChildPath  
        PSGetModuleInfo.xml)  
    }).Dependencies.Name | Sort-Object -Descending -Unique -OutVariable  
    AzModules
```

Remove the Az modules from memory and then uninstall them.

PowerShell

```
$AzModules |  
    ForEach-Object {  
        Remove-Module -Name $_ -ErrorAction SilentlyContinue  
        Write-Output "Attempting to uninstall module: $_"  
        Uninstall-Module -Name $_ -AllVersions  
    }
```

The final step is to remove the Az PowerShell module.

## PowerShell

```
Remove-Module -Name Az -ErrorAction SilentlyContinue  
Uninstall-Module -Name Az -AllVersions
```

# Uninstall the AzureRM module

If you have the Az module installed on your system and would like to uninstall AzureRM, there are two options. Which method you follow depends on how you installed the AzureRM module. If you're not sure of your original installation method, follow the MSI steps for uninstalling first.

## Option 1: Uninstall the AzureRM PowerShell module from MSI

If you installed the AzureRM PowerShell module using the MSI package, you must uninstall through the Windows system rather than PowerShell.

Platform	Instructions
Windows 10	Start > Settings > Apps
Windows 7	Start > Control Panel > Programs > Uninstall a program
Windows 8	

Once on this screen, you should see **Azure PowerShell** or **Microsoft Azure PowerShell - Month Year** in the program listing. This is the app to uninstall. If you don't see this program listed, then you installed through PowerShellGet, and should follow the next set of instructions.

## Option 2: Uninstall the AzureRM PowerShell module from PowerShellGet

If you installed AzureRM with PowerShellGet, then you can remove the modules with the **Uninstall-AzureRM** cmdlet, available as part of the **Az.Accounts** module.

To use **Uninstall-AzureRM** from the **Az.Accounts** module, you need to have the Az PowerShell module installed. Having both the AzureRM and the Az modules installed at the same time isn't supported, however the Az module can be used to immediately uninstall the AzureRM module. You can install the Az module and bypass the AzureRM

module warning with the following command if you don't have the Az module installed already:

```
PowerShell
```

```
Install-Module -Name Az -AllowClobber -Scope CurrentUser
```

Once the Az module is installed, the following command removes *all* AzureRM modules from your machine. It requires administrator privileges.

```
PowerShell
```

```
Uninstall-AzureRm
```

# Azure PowerShell release notes

Article • 09/27/2023

## 10.4.0 - September 2023

### Az.Accounts 2.13.1

- Added the module name in breaking change messages
- Upgraded Microsoft.ApplicationInsights version from 2.13.1 to 2.18.0

### Az.Cdn 3.1.1

- Customized output property for 'Get-AzCdnEdgeNode' command

### Az.ContainerInstance 3.2.2

- Added breaking change warning message for 'Get/New/Remove-ContainerGroup', 'New-ContainerInstanceInitDefinitionObject', 'New-ContainerInstanceObject' [#22268]
  - Output properties starting with 'PreviouState' will be corrected to 'PreviousState'

### Az.DataProtection 2.1.0

- Added soft delete and MUA feature for Backup vaults

### Az.KeyVault 4.12.0

- Supported splitting 'Import-AzKeyVaultSecurityDomain' process into three steps to allow keys to be hidden offline.
  - Added 'DownloadExchangeKey', 'RestoreBlob' and 'ImportRestoredBlob' in 'Import-AzKeyVaultSecurityDomain'.

### Az.RecoveryServices 6.6.0

- Added support for custom RG with suffix while creating or modifying policy for workload type AzureVM.
- Added TLaD warning <https://aka.ms/TLaD> for Azure Site Recovery and Backup.
- Added support for setting AlwaysON soft delete state for recovery services vault.

### Az.ResourceMover 1.2.0

- Upgraded API version to 2023-08-01.
- Improved error reporting to the customer using custom cmdlets to handle the error in a better manner.

## Az.Resources 6.11.0

- Supported 'TemplateParameterFile' to accept a '.bicepparam' file.
- Fixed inexplicable error message when subscription and scope are neither provided in 'Get-AzRoleDefinition'. [#22716]

## Az.SecurityInsights 3.1.0

- Fixed parameters' issues for 'New-AzSentinelAlertRule' and 'Update-AzSentinelAlertRule' [#21181][#21217][#22318]

## Az.StackHCI 2.2.0

- Bug fixes for Attestation commands.
- Added support for installing mandatory extensions on HCI OS 22H2 and removed confirmation prompt for consent.
- Added ability to customize the location of logs generated during registration.
  - Custom log location can be specified by specifying an optional '-LogsDirectory' parameter in 'Register-AzStackHCI'.
  - 'Get-AzStackHCILogsDirectory' can be used to obtain the log location.
- Increased retry count for setting up ARC integration.

## Az.Storage 5.10.1

- Added warning messages for an upcoming breaking change that the output Permissions will be changed to a string when creating and updating a Queue access policy
  - 'Get-AzStorageQueueStoredAccessPolicy'
  - 'Set-AzStorageQueueStoredAccessPolicy'

# 10.3.0 - September 2023

## Az.Accounts 2.13.0

- Supported in-tool notification for version upgrade.
- Added an alias 'Set-AzConfig' to 'Update-AzConfig'
- Refilled credentials from 'AzKeyStore' when run 'Save-AzContext' [#22355]
- Added config 'DisableErrorRecordsPersistence' to disable writing error records to file system [#21732]
- Updated Azure.Core to 1.34.0.

## Az.ArcResourceBridge 1.0.0

- General availability for module Az.ArcResourceBridge

## Az.Compute 6.3.0

- Added '-Hibernate' switch parameter to 'Stop-AzVmss' default parameter set.
- For 'Get-AzVmRunCommand', a bug is fixed to work when returning a list of RunCommands [#22403]
- Updated Azure.Core to 1.34.0.
- Added new cmdlets 'Get-AzHostSize' and 'Update-AzHost'.
- Added the 'Standard' value to the 'SecurityType' parameter to the cmdlets 'Set-AzDiskSecurityType', 'New-AzVmssConfig', 'Set-AzVmssSecurityProfile', 'Update-AzVmss', 'New-AzVmss', 'New-AzVMConfig', 'Set-AzVMSecurityProfile', and 'New-AzVM'.
- Fixed 'Update-AzVMSS' to update ImageReferenceSKU [#22195]
- Updated the above change to include 'New-AzVMConfig' as 1 scenario was initially missed when only using this cmdlet.

## Az.ContainerInstance 3.2.1

- Fixed a bug in 'Invoke-AzContainerInstanceCommand' when no result was returned under some conditions [#22453]

## Az.ContainerRegistry 4.1.1

- Updated Azure.Core to 1.34.0.

## Az.CosmosDB 1.12.0

- Added PublicNetworkAccess parameter to 'Restore-AzCosmosDBAccount'.

## Az.DataLakeAnalytics 1.0.3

- Refreshed module to ensure catalog file signed by Microsoft.

## Az.EventHub 4.1.0

- Supported EventHub MSI capture feature in cmdlets 'New-AzEventHub' and 'Set-AzEventHub'

## Az.HDInsight 6.0.1

- This change adds some warning messages to the incoming break changes for the next version, with detailed information as follows:
  - Added warning message for planning to replace the type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.
  - Added warning message for planning to replace the type of property 'WorkerNodeDataDisksGroups' of type

```
'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' from  
'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to  
'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.  
○ Added warning message for planning to replace the parameter 'NodeType' type from  
'Microsoft.Azure.Management.HDInsight.Models.ClusterNodeType' to  
'Microsoft.Azure.Commands.HDInsight.Models.Management.RuntimeScriptActionClusterNodeType'.
```

## Az.KeyVault 4.11.0

- Fixed certificate policy bugs if DnsName is null. [#22642]
- Supported multi-regions for Managed Hsm: Added 'Add/Get/Remove-AzKeyVaultManagedHsmRegion'.
- Added 'Test-AzKeyVaultNameAvailability' and 'Test-AzKeyVaultManagedHsmNameAvailability'.
- Formatted the table view of '-AzKeyVault', '-AzKeyVaultKey' and '\*-AzKeyVaultSecret'
- Added 'SecurityDomain' and 'Regions' properties into the output of 'New/Update/Get-AzKeyVaultManagedHsm' ('PSManagedHsm').
- Supported Setting for Managed HSM: Added 'Get-AzKeyVaultSetting' and 'Update-AzKeyVaultSetting'.
- Updated Azure.Core to 1.34.0.

## Az.Maintenance 1.3.1

- Fixed breaking change information

## Az.Media 1.1.2

- Refreshed module to ensure catalog file signed by Microsoft.

## Az.Monitor 4.6.0

- Fixed 'Get-AzInsightsPrivateLinkScope' to support 'ResourceId' parameter [#22568]
- Fixed 'New-AzMetricAlertRuleV2DimensionSelection' to have 'exclude' or 'include' values only [#22256]
- Fixed 'Add-AzMetricAlertRuleV2' and 'Get-AzMetricAlertRuleV2' to support web tests criteria [#22350]
- Added parameter 'Dimension' for 'Get-AzMetric' to easily filter metrics by dimensions [#22320]
- Added breaking change for Data Collection Rule
- Added breaking change for Action Group

## Az.Network 6.2.0

- Added support for new Application Gateway SKU type, Basic SKU
- Onboarded 'Microsoft.EventGrid/partnerNamespaces' to private link cmdlets
- Onboarded 'Microsoft.EventGrid/namespaces' to private link cmdlets

- Fixed bug in 'NewAzureApplicationGatewayFirewallCustomRuleGroupByVariable' to add 'GeoLocation' as a valid input for VariableName
- Added breaking change message for parameter 'VariableName' in 'NewAzureApplicationGatewayFirewallCustomRuleGroupByVariable' to remove 'Geo' as a valid input.

## Az.NotificationHubs 1.1.2

- Refreshed module to ensure catalog file signed by Microsoft.

## Az.PolicyInsights 1.6.3

- Updated Azure.Core to 1.34.0.

## Az.RecoveryServices 6.5.1

- Added StorageAccountName property to AzureFileShare job.
- Added support for AFS restore to alternate storage account in different region and resource group than source storage account.

## Az.Resources 6.10.0

- Added breaking change warnings for Azure Policy cmdlets.
- Implemented logic that allows Deployment Stack objects to be piped into Save and Remove Deployment Stack cmdlets.

## Az.SecurityInsights 3.0.2

- Added breaking change message for 'Az.SecurityInsights'.

## Az.Sql 4.10.0

- Fixed cmdlets to use 2018-06-01-preview api version
  - 'Set-AzSqlInstanceDatabaseSensitivityClassification',
  - 'Remove-AzSqlInstanceDatabaseSensitivityClassification',
  - 'Enable-AzSqlInstanceDatabaseSensitivityRecommendation',
  - 'Disable-AzSqlInstanceDatabaseSensitivityRecommendation',
- Added 'EncryptionProtectorAutoRotation' parameter to 'New-AzSqlDatabase', 'Get-AzSqlDatabase', 'Set-AzSqlDatabase', 'New-AzSqlDatabaseCopy', 'New-AzSqlDatabaseSecondary', 'Restore-AzSqlDatabase' cmdlets

## Az.SqlVirtualMachine 2.1.0

- Added more parameters on cmdlet 'Update-AzSqlVM'.

## Az.StackHCI 2.1.2

- Removed device type check and only check if service already exists.

## Az.Storage 5.10.0

- Updated Azure.Core to 1.34.0.
- Added support for encryption context
  - 'New-AzDataLakeGen2Item'
- Updated warning messages for an upcoming breaking change when creating a storage account
  - 'New-AzStorageAccount'
- Updated help file of 'New-AzStorageQueueSASToken'

## Az.Synapse 3.0.3

- Updated Azure.Core to 1.34.0.
- Updated Azure.Analytics.Synapse.Artifacts to 1.0.0-preview.18

## Az.Websites 3.1.1

- Added support for XenonMV3 webapps

# 10.2.0 - August 2023

## Az.Accounts 2.12.5

- Changed output stream from debug stream to warning stream for 'CmdletPreviewAttribute'
- Decreased the prompted frequency of preview warning message to once per cmdlet in one session
- Reworded default preview message and added estimated GA date for 'CmdletPreviewAttribute'
- Updated Azure.Core to 1.33.0

## Az.AppConfiguration 1.3.0

- Added cmdlets to support data plane operation:
  - 'Get-AzAppConfigurationKey'
  - 'Get-AzAppConfigurationKeyValue'
  - 'Get-AzAppConfigurationLabel'
  - 'Get-AzAppConfigurationRevision'
  - 'Remove-AzAppConfigurationKeyValue'
  - 'Remove-AzAppConfigurationLock'
  - 'Set-AzAppConfigurationKeyValue'
  - 'Set-AzAppConfigurationLock'
  - 'Test-AzAppConfigurationKeyValue'

## Az.Batch 3.5.0

- Removed cmdlets: 'Get-AzBatchPoolStatistic' and 'Get-AzBatchJobStatistic'
- Deprecated cmdlets: 'Get-AzBatchCertificate' and 'New-AzBatchCertificate'
  - The Batch account certificates feature is deprecated. Please transition to using Azure Key Vault to securely access and install certificates on your Batch pools, [learn more](#)

## Az.Compute 6.2.0

- Fixed the 'Update-AzVmss' cmdlet so the 'AutomaticRepairGracePeriod', 'AutomaticRepairAction', and 'EnableAutomaticRepair' parameters function correctly.
- Updated help doc for 'New-AzVM', 'New-AzVMConfig', 'New-AzVmss', 'New-AzVmssConfig', 'Update-AzVM', and 'Update-AzVmss' to include parameters that were previously added for Trusted Launch features.
- Updated Azure.Core to 1.33.0.

## Az.ContainerRegistry 4.1.0

- Updated Azure.Core to 1.33.0.
- Added new cmdlet 'New-AzContainerRegistryCredentials'

## Az.CosmosDB 1.11.2

- Updated Azure.Core to 1.33.0.

## Az.Databricks 1.7.0

- Added some parameters in 'Update-AzDatabricksWorkspace':
  - 'EnableNoPublicIP'
  - 'PublicNetworkAccess'

## Az.DataFactory 1.17.0

- Added DisablePublish to Set\_AzDataFactoryV2 Command

## Az.Dns 1.1.3

- Removed length validation for DNS TXT record to make it consistent with Azure CLI and Azure portal.

## Az.KeyVault 4.10.1

- Removed maximum number for 'IpAddressRange' and 'VirtualNetworkResourceId' in '*-AzKeyVaultNetworkRuleSet*' from client side. [#22137]
- Updated Azure.Core to 1.33.0.

## Az.Maintenance 1.3.0

- Added support for Resource Group and Subscription configuration assignment.

## Az.Network 6.1.1

- Onboarded 'Microsoft.ElasticSan/elasticSans' to private link cmdlets

## Az.PolicyInsights 1.6.2

- Updated Azure.Core to 1.33.0.

## Az.PrivateDns 1.0.4

- Removed length validation for DNS TXT record to make it consistent with Azure CLI and Azure portal.

## Az.Resources 6.9.0

- Fixed the issue that 'New-AzRoleAssignment' didn't work without subscription.
- Added cmdlets for group owner
  - 'Get-AzADGroupOwner'
  - 'New-AzADGroupOwner'
  - 'Remove-AzADGroupOwner'
- Updated Tags functionality in deployment stacks New and Set cmdlets

## Az.Sql 4.9.0

- Added new cmdlets for Azure SQL Managed Instance start/stop schedule
  - 'Start-AzSqlInstance',
  - 'Stop-AzSqlInstance',
  - 'Get-AzSqlInstanceStartStopSchedule',
  - 'New-AzSqlInstanceStartStopSchedule',
  - 'Remove-AzSqlInstanceStartStopSchedule',
  - 'New-AzSqlInstanceScheduleItem'

## Az.StackHCI 2.1.0

- Updated to api-version 2023-03-01.
- Cmdlets added:
  - Invoke-AzStackHciExtendClusterSoftwareAssuranceBenefit : Enable Software Assurance for a cluster
  - Invoke-AzStackHciConsentAndInstallDefaultExtensions : Consent to installing default extensions on the cluster

## Az.Storage 5.9.0

- Supported OAuth authentication on File service cmdlets
  - 'New-AzStorageContext'
  - 'Get-AzStorageFile'
  - 'Get-AzStorageFileContent'
  - 'Get-AzStorageFileCopyState'
  - 'New-AzStorageDirectory'
  - 'Remove-AzStorageDirectory'
  - 'Remove-AzStorageFile'
  - 'Set-AzStorageFileContent'
  - 'Start-AzStorageFileCopy'
  - 'Stop-AzStorageFileCopy'
  - 'Get-AzStorageFileHandle'
  - 'Close-AzStorageFileHandle'
- Supported get a file share object without get share properties. For pipeline to file/directory cmdlets with OAuth authentication.
  - 'Get-AzStorageShare'
- Updated Azure.Core to 1.33.0.

## Az.Synapse 3.0.2

- Updated Azure.Core to 1.33.0.

## Az.Websites 3.1.0

- Added AppServicePlan management support for P0V3 and P\*mv3 tiers

## Thanks to our community contributors

- Dante Stancato (@dantecit0), Update Set-AzFirewall.md (#22224)
- Hiroshi Yoshioka (@hyoshioka0128), Typo "flexible server"→"Flexible Server" (#22215)
- @Jingshu918, [DataFactory]Added DisablePublish to Set\_AzDataFactoryV2 Command (#22273)
- Miguel Vega (@miguel-vega), Updated Example 3 of the Connect-AzAccount.md page to use the correct PowerShell variable. (#22376)
- @Skatterbrainz, Update Remove-AzVM.md (#22378)
- @veppala, added examples for New-AzSqlVM cmdlet (#22185)
- @vladik-hbinov, Fixed Example 2 (#22193)

## 10.1.0 - July 2023

## Az.Accounts 2.12.4

- Changed 'gallery' property to be optional in ARM metadata of 'Set-AzEnvironment' and 'Add-AzEnvironment'[#22037].

## Az.Aks 5.5.1

- Fixed the issue of handling 'nextLink' in 'Set-AzAksCluster'. [#21846]
- Fixed the issue of parameter 'AcrNameToDetach' in 'Set-AzAksCluster' due to role assignment name is a guid.
- Added breaking change message for parameter 'DockerBridgeCidr' in 'New-AzAksCluster'.
- Supported the value 'AzureLinux' for parameter '-NodeOsSKU' in 'New-AzAksCluster' and parameter '-OsSKU' in 'New-AzAksNodePool'.
- Fixed the issue of '-DisableLocalAccount' for 'Set-AzAksCluster'. [#21835]

## Az.Billing 2.0.3

- Fixed page continuation for Consumption PriceSheet cmdlet

## Az.Cdn 3.1.0

- Upgraded API version to 2023-05-01
- Fixed known issue for 'Update-AzCdnProfile', 'Update-AzFrontDoorCdnProfile', 'Remove-AzCdnProfile', 'Remove-AzCdnProfile'

## Az.CognitiveServices 1.14.0

- Updated CognitiveServices PowerShell to use 2023-05-01 version.

## Az.Compute 6.1.0

- Added useful examples to the 'New-AzVMConfig' help doc.
- Added new 'ResourceId' parameter to the 'Get-AzVmss' cmdlet.
- Added '-SecurityType', '-EnableSecureBoot' and '-EnableVtpm' parameters to 'New-AzVm', 'New-AzVmConfig', 'New-AzVmss', 'New-AzVmssConfig', 'Update-AzVm' and 'Update-AzVmss' cmdlets.
- Configured parameter flags '-EnableSecureBoot' and '-EnableVtpm' to default to True for TrustedLaunch and ConfidentialVM values for the '-SecurityType' parameter in 'New-AzVm', 'New-AzVmConfig', 'New-AzVmss', 'New-AzVmssConfig', 'Update-AzVm' and 'Update-AzVmss' cmdlets.
- Added a message to the user when they provide an outdated image alias to 'New-AzVM' via the '-Image' parameter or to 'New-AzVmss' via the '-ImageName' parameter. The non-versioned image aliases were updated to versioned values in October 2023, and this message is to help urge customers to use the newer versioned image alias values.
- Changed the installation behavior for the 'GuestAttestation' extension in 'New-AzVM' and 'New-AzVmss' to set the property 'EnableAutomaticUpgrade' to true.
- Changed to 'Set-AzVMOperatingSystem' to correct unnecessary mandatory parameters.

## Az.CosmosDB 1.11.1

- Locations showed in response included status, isSubscriptionRegionAccessAllowedForRegular and isSubscriptionRegionAccessAllowedForAz properties

## Az.Databricks 1.6.0

- Added some parameters in the 'New-AzDatabricksWorkspace' and 'Update-AzDatabricksWorkspace'.
  - 'ManagedDiskKeyVaultPropertiesKeyName'
  - 'ManagedDiskKeyVaultPropertiesKeyVaultUri'
  - 'ManagedDiskKeyVaultPropertiesKeyVersion'
  - 'ManagedDiskRotationToLatestKeyVersionEnabled'
  - 'ManagedServicesKeyVaultPropertiesKeyName'
  - 'ManagedServicesKeyVaultPropertiesKeyVaultUri'
  - 'ManagedServicesKeyVaultPropertiesKeyVersion'
  - 'Authorization'
  - 'UiDefinitionUri'
- Added some parameters in the 'Update-AzDatabricksVNetPeering'.
  - 'DatabricksAddressSpacePrefix'
  - 'DatabricksVirtualNetworkId'
  - 'RemoteAddressSpacePrefix'
  - 'RemoteVirtualNetworkId'

## Az.Migrate 2.2.0

- Fixed key vault SPN Id coming as null for some users
- Added support for Windows Server OS upgrade while migrating the server to Azure using Azure Migrate
- Updated OsUpgradeVersion parameter for Azure Migrate

## Az.MySql 1.1.1

- Fixed iops and high availability parameters issue

## Az.Network 6.1.0

- Added new cmdlets to get Connection child resource of Network Virtual Appliance. -'Get-AzNetworkVirtualApplianceConnection'
- Updated cmdlets to return connections in Network Virtual Appliance -'Network Virtual Appliance'
- Allowed not to provide 'Rules' in 'PSApplicationGatewayFirewallPolicyManagedRuleGroupOverride', which would return an empty 'RuleID' to be passed to NRP.
- Added optional parameter 'AdminState' to Express Route Virtual Network Gateway
- Fixed bug that caused 'Remove-AzApplicationGatewayAutoscaleConfiguration' to always fails
- Added read-only property 'DefaultPredefinedSslPolicy' in PSApplicationGateway

- Updated cmdlet to added optional parameter 'DomainNameLabelScope' to Public Ip Address
  - 'New-AzPublicIpAddress'
- Fixed bug where HubRoutingPreference didn't show up when running 'Get-AzRouteServer'
- Updated 'New-AzVirtualNetworkGateway' to remove validation for 'ExtendedLocation' parameter

## Az.RecoveryServices 6.5.0

- Added CRR support for new regions malaysiasouth, chinanorth3, chinaeast3, jioindiacentral, jioindiawest.
- Regenerated CRR SDK. Fixed issues with SQL CRR.
- Fixed bug with rp expiry time, making 30 days expiry time for adhoc backup as default from client side.
- Added example to fetch pruned recovery points after modify policy.
- Fixed the documentation for suspend backups with immutability.

## Az.RedisCache 1.8.0

- Upgraded API version to 2023-04-01

## Az.Resources 6.8.0

- Fixed the incorrect behavior of pagination for 'Get-AzTag'
- Updated API version to 2022-09-01
- Added Deployment Stacks cmdlets
- Added support for dynamic parameters when deploying symbolic name templates.
- Fixed 'Set-AzPolicyExemption' parameter PolicyDefinitionReferenceId not accept empty array.
- Fixed 'Get-AzPolicyExemption' output not contain system data.

## Az.Sql 4.8.0

- Added 'TryPlannedBeforeForcedFailover' parameter to 'Switch-AzSqlDatabaseFailoverGroup'
- Added new cmdlets for managed database move and copy operations
  - 'Copy-AzSqlInstanceDatabase'
  - 'Move-AzSqlInstanceDatabase'
  - 'Complete-AzSqlInstanceDatabaseCopy'
  - 'Stop-AzSqlInstanceDatabaseCopy'
  - 'Complete-AzSqlInstanceDatabaseMove'
  - 'Stop-AzSqlInstanceDatabaseMove'
  - 'Get-AzSqlInstanceDatabaseMoveOperation'
  - 'Get-AzSqlInstanceDatabaseCopyOperation'

## Az.Storage 5.8.0

- Supported TierToCold and TierToHot in Storage account management policy

- 'Add-AzStorageAccountManagementPolicyAction'
- Supported Blob Tier Cold
  - 'Copy-AzStorageBlob'
  - 'Set-AzStorageBlobContent'
  - 'Start-AzStorageBlobCopy'
- Migrated the following Azure Queue dataplane cmdlets from 'Microsoft.Azure.Storage.Queue' to 'Azure.Storage.Queue'
  - 'New-AzStorageQueueSASToken'
- Added warning messages for an upcoming breaking change when creating SAS token
  - 'New-AzStorageBlobSasToken'
  - 'New-AzStorageContainerSasToken'
  - 'New-AzStorageAccountSasToken'
  - 'New-AzStorageContext'
  - 'New-AzStorageFileSasToken'
  - 'New-AzStorageShareSasToken'
  - 'New-AzStorageQueueSasToken'
  - 'New-AzStorageTableSasToken'
  - 'New-AzDataLakeGen2SasToken'
- Added a warning message for an upcoming breaking change when creating a storage account
  - 'New-AzStorageAccount'

## Az.StorageMover 1.0.1

- Fixed the issue of System.Management.Automation.Internal.Host.InternalHost conflicting with system parameter System.Management.Automation.Internal.Host.InternalHost

## Az.Synapse 3.0.1

- Fixed the issue for 'Start-AzSynapseTrigger/Stop-AzSynapseTrigger' to not throw exception when Request Status is 202

## Az.TrafficManager 1.2.1

Added a new API 'CheckTrafficManagerNameAvailabilityV2'.

## Az.Websites 3.0.1

- Increased timeout for Publish-AzWebApp command
- Fixed Set-AzWebApp issue with 'Set-AzWebApp' when piping in Get-AzWebApp object [#21820]
- Added support for the PremiumMV3 tier to 'New-AzAppServicePlan' [#21933]

## Thanks to our community contributors

- Bas Wijdenes (@baswijdenes), Update Get-AzAutomationJob.md (#21984)

- Sebastiaan Koning (@OneAndOnlySeabass), Fix a few typos in Get-AzMarketplaceTerms.md (#21945)
- Hiroshi Yoshioka (@hyoshioka0128)
  - Typo "CosmosDB Account"→"Cosmos DB Account" (#22005)
  - Typo "azure key vault"→"Azure Key Vault" (#22103)

## 10.0.0 - June 2023

### Az.Accounts 2.12.3

- Updated System.Security.Permissions to 4.7.0.

### Az.Aks 5.5.0

- Fixed the issue of 'Enable-AzAksAddon' when there are no addons. [#21665]
- Added parameter '-EnableAHUB' for 'New-AzAksCluster' and 'Set-AzAksCluster'
- Added parameter '-WindowsProfileAdminUserPassword' for 'Set-AzAksCluster'

### Az.Billing 2.0.2

- Fixed skip token for Consumption PriceSheet cmdlet

### Az.Cdn 3.0.0

- Upgraded API version to 2022-11-01-preview
- Added support to migrate from Azure Front Door (classic) to Azure Front Door Standard and Premium.
- Added support for AFDX upgrade from Standard tier to Premium tier.

### Az.Compute 6.0.0

- Added new switch parameter 'OSImageScheduledEventEnabled' and string parameter 'OSImageScheduledEventNotBeforeTimeoutInMinutes' to the cmdlets 'New-AzVmssConfig' and 'Update-AzVmss'.
- Fixed an issue that 'Add-AzVhd' throws 'FileNotFoundException' on Windows PowerShell. [#21321]
- Removed the 'NextLink' parameter and parameter set from the 'Get-AzVM' cmdlet.

### Az.ContainerRegistry 4.0.0

- Updated module to autorest based

### Az.CosmosDB 1.11.0

- Added support for Continuous 7 Days backup mode.
- Added new parameter 'EnablePartitionMerge' to 'Update-AzCosmosDBAccount' and 'New-AzCosmosDBAccount'.

## Az.Databricks 1.5.1

- Fixed an issue that 'Update-AzDatabricksWorkspace' doesn't work as expected while enabling encryption. [#21324]

## Az.DataProtection 2.0.0

- Added support for Blob Hardened recovery points (VaultStore).
- Added Cross Subscription Restore for 'AzureDisk', 'AzureDatabaseForPostgreSQL' and 'AzureBlob'.
- Added 'Get-AzDataProtectionOperationStatus' command for long running cmdlets async.

## Az.DesktopVirtualization 4.0.0

- Upgraded API version to 2022-09-09
- Added cmdlet:
  - 'Get-AzWvdScalingPlanPooledSchedule'
  - 'New-AzWvdScalingPlanPooledSchedule'
  - 'Remove-AzWvdScalingPlanPooledSchedule'
  - 'Update-AzWvdScalingPlanPooledSchedule'
- Added parameters 'pageSize', 'isDescending' and 'initialSkip' to:
  - 'Get-AzWvdApplication'
  - 'Get-AzWvdApplicationGroup'
  - 'Get-AzWvdDesktop'
  - 'Get-AzWvdHostPool'
  - 'Get-AzWvdMsixPackage'
  - 'Get-AzWvdScalingPlan'
  - 'Get-AzWvdSessionHost'
  - 'Get-AzWvdStartMenuItem'
  - 'Get-AzWvdUserSession'
  - 'Get-AzWvdWorkspace'
- Added parameters 'AgentUpdateMaintenanceWindow', 'AgentUpdateMaintenanceWindowTimeZone', 'AgentUpdateType', 'AgentUpdateUseSessionHostLocalTime' to:
  - 'New-AzWvdHostPool'
  - 'Update-AzWvdHostPool'
- Added parameter 'FriendlyName' to:
  - 'New-AzWvdHostPool'
  - 'Update-AzWvdHostPool'
  - 'Update-AzWvdSessionHost'

## Az.EventHub 4.0.0

- Aliased 'New-AzEventHubNamespace', 'Remove-AzEventHubNamespace', 'Set-AzEventHubNamespace', 'Get-AzEventHubNamespace' with 'New-AzEventHubNamespaceV2', 'Remove-AzEventHubNamespaceV2', 'Set-AzEventHubNamespaceV2', 'Get-AzEventHubNamespaceV2' respectively
- Replaced 'New-AzEventHubEncryptionConfig' by 'New-AzEventHubKeyVaultPropertiesObject'

## Az.Functions 4.0.7

- Removed support to create v3 function apps (Functions v3 reached EOL on December, 2022) [#20838]
- Enabled using ARM API to get stacks information for function app creation [#14682][#20009]
- Added support to create dotnet-isolated function apps [#16349]
- Added support for custom handler function apps [#12542]

## Az.HDInsight 6.0.0

- Breaking Change:
  - Removed the parameter '-RdpAccessExpiry' which has been marked as deprecated for a long time from cmdlet 'New-AzHDInsightCluster'
  - Removed the parameter '-RdpCredential' which has been marked as deprecated for a long time from cmdlet 'New-AzHDInsightCluster'

## Az.KeyVault 4.10.0

- Added breaking change announcement for parameter 'SoftDeleteRetentionInDays' in 'New-AzKeyVaultManagedHsm'. The parameter 'SoftDeleteRetentionInDays' is becoming mandatory
  - This change will take effect on version 6.0.0
- Changed the encoding way from a string into byte array in 'Invoke-AzKeyVaultKeyOperation' from ASCII to UTF8. UTF8 is backward-compatible with ASCII. [#21269]
- Bug fix: Changed the decoding way from byte array into a string from system default encoding to UTF8 to match encoding way. [#21269]
- Added parameter 'PolicyPath' and 'PolicyObject' in 'Import-AzKeyVaultCertificate' to support custom policy [#20780]

## Az.MachineLearningServices 1.0.0

- General availability for module Az.MachineLearningServices

## Az.Migrate 2.2.0

- Added support for Windows Server OS upgrade while migrating the server to Azure using Azure Migrate
- Added fix for keyvault SPN Id coming as null for some users

## Az.Monitor 4.5.0

- Added cmdlets for monitor workspace:
  - 'Get-AzMonitorWorkspace'
  - 'New-AzMonitorWorkspace'
  - 'Update-AzMonitorWorkspace'
  - 'Remove-AzMonitorWorkspace'

## Az.Network 6.0.0

- Added new cmdlets for RouteMap child resource of VirtualHub. -'Get-AzRouteMap' -'New-AzRouteMapRuleCriterion' -'New-AzRouteMapRuleActionParameter' -'New-AzRouteMapRuleAction' -'New-AzRouteMapRule' -'New-AzRouteMap' -'Set-AzRouteMap' -'Remove-AzRouteMap'
- Updated cmdlets to add inbound/outbound route maps in routingConfiguration -'New-AzRoutingConfiguration'
- Added the command 'New-AzFirewallPolicyApplicationRuleCustomHttpHeader'
- Added the method 'AddCustomHttpHeaderToInsert' to 'PSAzureFirewallPolicyApplicationRule'
- Added new cmdlets to support Rate Limiting Rule for Application Gateway WAF
  - 'New-AzApplicationGatewayFirewallCustomRuleGroupByUserSession',
  - 'New-AzApplicationGatewayFirewallCustomRuleGroupByVariable',
  - Also updated cmdlet to add the property of 'RateLimitDuration', 'RateLimitThreshold' and 'GroupByUserSession'
  - 'New-AzureApplicationGatewayFirewallCustomRule'
- Added support of 'AdditionalNic' Property in 'New-AzNetworkVirtualAppliance'
- Added the new cmdlet for supporting 'AdditionalNic' Property
  - 'New-AzVirtualApplianceAdditionalNicProperty'
- Added new cmdlets to support Log Scrubbing Feature for Application Gateway WAF Firewall Policy
  - 'New-AzApplicationGatewayFirewallPolicyLogScrubbingConfiguration',
  - 'New-AzApplicationGatewayFirewallPolicyLogScrubbingRule',
  - Also updated cmdlet to add the property of 'LogScrubbing'
  - 'New-AzApplicationGatewayFirewallPolicySetting'
- Onboarded 'Microsoft.HardwareSecurityModules/cloudHsmClusters' to private link cmdlets
- Updated cmdlet to add the property of 'DisableRequestBodyEnforcement', 'RequestBodyInspectLimitInKB' and 'DisableFileUploadEnforcement'
  - 'New-AzApplicationGatewayFirewallPolicySetting'
- Added optional property 'AuxiliarySku' to cmdlet 'New-AzNetworkInterface' to help choose performance on an 'AuxiliaryMode' enabled Network Interface.
- Added a new value 'AcceleratedConnections' for existing property 'AuxiliaryMode' for 'New-AzNetworkInterface'
- Added new cmdlets to get virtual hub effective routes and in/outbound routes
  - 'Get-AzVHubEffectiveRoute'
  - 'Get-AzVHubInboundRoute'
  - 'Get-AzVHubOutboundRoute'

## Az.RedisEnterpriseCache 1.2.0

- Upgraded API version to 2023-03-01-preview

## Az.Relay 2.0.0

- Updated API version to 2021-11-01

## Az.Resources 6.7.0

- Added parameter '-CountVariable' for list operations, 'odataCount' can now be assigned to this variable [#20982]
  - 'Get-AzADApplication'
  - 'Get-AzADServicePrincipal'
  - 'Get-AzADUser'
  - 'Get-AzADGroup'
- Supported polymorphism for 'Get-AzADGroupMember', output of this cmdlet was now 'Application' 'ServicePrincipal', 'User' and 'Group' based on the 'odataType' [#19728]
- Added '-Force' parameter on 'Publish-AzBicepModule' for supporting overwriting existing modules.
- Fixed 'New-AzADApplication' when multiple redirect url types were provided. [#21108]
- Fixed 'Update-AzADServicePrincipal' when empty array passed for 'IdentifierUri' [#21345]
- Fixed an issue where location header was missing in the response from the service for 'New-AzManagedApplication'.
- Fixed 'Get-AzResourceGroup' ignored the subscription ID in '-Id' [#21725]

## Az.ServiceBus 3.0.0

- Aliased 'New-AzServiceBusNamespace', 'Remove-AzServiceBusNamespace', 'Set-AzServiceBusNamespace', 'Get-AzServiceBusNamespace' with 'New-AzServiceBusNamespaceV2', 'Remove-AzServiceBusNamespaceV2', 'Set-AzServiceBusNamespaceV2', 'Get-AzServiceBusNamespaceV2' respectively.
- Replaced 'New-AzServiceBusEncryptionConfig' by 'New-AzServiceBusKeyVaultPropertiesObject'

## Az.ServiceFabric 3.2.0

- Added new cmdlet 'Add-AzServiceFabricManagedClusterNetworkSecurityRule' to update network security rules in managed cluster resource

## Az.SignalR 2.0.0

- Breaking change:
  - Removed 'HostNamePrefix' property of output type 'PSSignalRResource' of following cmdlets:
    - 'Get-AzSignalR'

- 'New-AzSignalR'
- 'Update-AzSignalR'

## Az.Sql 4.7.0

- Added new cmdlets 'Get-AzSqlInstanceDatabaseLedgerDigestUpload', 'Disable-AzSqlInstanceDatabaseLedgerDigestUpload', and 'Enable-AzSqlInstanceDatabaseLedgerDigestUpload'
- Added 'EnableLedger' parameter to 'New-AzSqlInstanceDatabase'
- Added 'PreferredEnclaveType' parameter to 'NewAzureSqlElasticPool' and 'SetAzureSqlElasticPool' cmdlet

## Az.SqlVirtualMachine 2.0.0

- Converted Az.SqlVirtualMachine to autorest-based module.

## Az.StackHCI 2.0.0

- Made Region parameter mandatory in 'Register-AzStackHCI' cmdlet.
- Removed EnableAzureArcServer parameter from 'Register-AzStackHCI' cmdlet.
- Removed 'Test-AzStackHCIConnection' cmdlet. Customers can use 'Invoke-AzStackHciConnectivityValidation' from AzStackHCI.EnvironmentChecker module for enhanced connectivity verification tests.
- Added support for Managed Service identity (MSI) in Azure China Cloud.
- Added support for Mandatory extensions, for OS versions starting 23H2.
- Added parameter validations for 'Register-AzStackHCI' cmdlet.
- Improved Error logging in Registration and Unregistration.

## Az.Storage 5.7.0

- Fixed issue of getting a single blob with leading slashes
  - 'Get-AzStorageBlob'
- Supported setting CORS rules in management plane cmdlets
  - 'Update-AzStorageBlobServiceProperty'
  - 'Update-AzStorageFileServiceProperty'
- Fixed an issue of 'StorageAccountName' field in context object when the context is invalid
  - 'New-AzStorageContext'
- Fixed an issue when a context does not have Credentials field
- Added " " to be a valid container name

## Az.StorageSync 2.0.0

- Deprecated 'RegisteredServer' alias for InputObject parameter for Set-AzStorageSyncServerEndpoint

## Az.Synapse 3.0.0

- Removed the unnecessary breaking change of parameter '-SparkConfigFilePath' for 'New-AzSynapseSparkPool' and 'Update-AzSynapseSparkPool' cmdlets

## Az.Websites 3.0.0

- Removed 'New-AzWebAppContainerPSSession' and 'Enter-AzWebAppContainerPSSession' cmdlets

## Thanks to our community contributors

- Gitanjali Verma (@gitanjali1993), Update Set-AzApplicationGatewayBackendAddressPool.md (#21458)
- Jeremiah Mathers (@jeremiahmathers), Update Set-AzApplicationGatewayConnectionDraining.md (#21601)
- Morris Janatzek (@morrisjdev), Added PackageAction `Set` for `Update-AzSynapseSparkPool` to support removing and adding packages in one action (#21579)
- Adam Myatt (@myatt83)
  - Update Set-AzNetworkManagerSubscriptionConnection.md (#21621)
  - Update Get-AzApiManagementAuthorizationServerClientSecret.md (#21619)
- Noah Koontz (@prototypicalpro)
  - Regenerate help for Az.Network (#21533)
  - feat: add autoscale support for virtual hub and update network formatting (#21518)
- Simon Wåhlin (@SimonWahlin), Add -Force parameter on Publish-AzBicepModule (#21713)
- Steve Matney (@stevematney), Fix typo in Update-AzWebAppTrafficRouting.md (#21667)

## 9.7.1 - May 2023

### Az.Accounts 2.12.2

- Fixed 'AzureSynapseAnalyticsEndpointResourceId' of 'USGovernment' environment.
- Updated Azure.Core to 1.31.0.
- Updated the reference of Azure PowerShell Common to 1.3.75-preview.

### Az.Aks 5.4.0

- Added cmdlet 'New-AzAksMaintenanceConfiguration', 'Get-AzAksMaintenanceConfiguration', 'Remove-AzAksMaintenanceConfiguration', 'New-AzAksSnapshot', 'Get-AzAksSnapshot', 'Remove-AzAksSnapshot', 'Get-AzAksManagedClusterCommandResult', 'Get-AzAksManagedClusterOSOption', 'Get-AzAksManagedClusterOutboundNetworkDependencyEndpoint', 'Invoke-AzAksAbortAgentPoolLatestOperation', 'Invoke-AzAksAbortManagedClusterLatestOperation', 'Invoke-AzAksRotateManagedClusterServiceAccountSigningKey', 'Start-

- AzAksManagedClusterCommand', 'New-AzAksTimeInWeekObject', 'New-AzAksTimeSpanObject'.
- Added parameter '-OutboundType' for 'New-AzAksCluster'
- Added parameter '-EnableOidcIssuer' for 'New-AzAksCluster' and 'Set-AzAksCluster'
- Added parameter '-NodePodSubnetID' for 'New-AzAksCluster', '-PodSubnetID' for 'New-AzAksNodePool'

## Az.Compute 5.7.1

- Added a breaking change warning to the 'Get-AzVM' cmdlet to show that the 'NextLink' parameter and parameter set will be removed in June 2023. The parameter has been non-functional for a long time.
- Updated the breaking change warning in 'New-AzVM' and 'New-AzVmss' regarding using the new versioned image aliases to indicate that certain aliases will be removed next breaking change release.
- Updated the 'Get-AzVMRunCommand' to include the 'ProvisioningState' value. Fix [#21473]
- Updated Azure.Core to 1.31.0.

## Az.ContainerRegistry 3.0.4

- Updated Azure.Core to 1.31.0.

## Az.CosmosDB 1.10.1

- Updated Azure.Core to 1.31.0.

## Az.KeyVault 4.9.3

- Added breaking changes for 'Invoke-AzKeyVaultKeyOperation'. The encoded/decoded way between string and bytes in 'Invoke-AzKeyVaultKeyOperation' will change to UTF8.
  - This change will take effect on 5/23/2023
  - The change is expected to take effect from the version 5.0.0
- Updated Azure.Core to 1.31.0.

## Az.LoadTesting 1.0.0

- General availability of 'Az.LoadTesting' module

## Az.Network 5.7.0

- Onboarded 'Microsoft.HardwareSecurityModules/cloudHsmClusters' to private link cmdlets
- Fixed the issue for 'Update-AzCustomIpPrefix' that 'NoInternetAdvertise' will should be set to false if not provided

## Az.PolicyInsights 1.6.1

- Updated Azure.Core to 1.31.0.

## Az.PowerBIEmbedded 1.2.1

- Added deprecate warning message for workspace collection cmdlets

## Az.RecoveryServices 6.4.0

- Added support for updating CrossSubscriptionRestoreState of the vault
- Added Cross subscription restore support for workload type MSSQL

## Az.Resources 6.6.1

- Added support for Azure resources deployment with parameters file using Bicep parameters syntax

## Az.Sql 4.6.0

- Added new cmdlets for managing server configuration options
  - 'Set-AzSqlServerConfigurationOption'
  - 'Get-AzSqlServerConfigurationOption'

## Az.Storage 5.6.0

- Supported rename file and directory
  - 'Rename-AzStorageFile'
  - 'Rename-AzStorageDirectory'
- Added a warning message for an upcoming breaking change when getting a single blob
  - 'Get-AzStorageBlob'
- Fixed the issue of listing blobs with leading slashes
  - 'Get-AzStorageBlob'
- Added support for sticky bit
  - 'New-AzDataLakeGen2Item'
  - 'New-AzDataLakeGen2ACLObject'
  - 'Update-AzDataLakeGen2Item'
- Added warning messages for an upcoming cmdlet breaking change
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Allowed to clear blob tags on a blob
  - 'Set-AzStorageBlobTag'
- Updated Azure.Core to 1.31.0

## Az.Synapse 2.3.1

- Updated Azure.Core to 1.31.0.

## Az.Websites 2.15.0

- Fixed Tag parameter issues with ASE for 'New-AzWebApp'

## Thanks to our community contributors

- @geologyrocks
  - Update IsCustom property on example role defintion (#21514)
  - Fix Assignment/Definition typo in Output (#21442)

## 9.6.0 - April 2023

### Az.Aks 5.3.2

- Fixed the issue that system variable 'True' is undefined in 'Windows PowerShell'.
- Decoupled AutoMapper dependency, replaced with AdapterHelper.

### Az.Batch 3.4.0

- Added new property 'Encryption' of type 'EncryptionProperties' to 'AccountCreateParameters'.
  - Configures how customer data is encrypted inside the Batch account.

### Az.Billing 2.0.1

- Fixed pagination for 'Get-AzConsumptionPriceSheet' cmdlet

### Az.CognitiveServices 1.13.1

- Removed notice and attestation from 'New-AzCognitiveServicesAccount'.

### Az.Compute 5.7.0

- Addressed bug in 'Remove-AzVmss' to throw error when '-InstanceId' is null. [#21162]
- Added '-CustomData', '-AdminPassword', and '-ExactVersion' parameters to 'Invoke-AzVMReimage'.
- Removed the image alias 'CoreOS' as the publisher CoreOS no longer has any images for Azure. Updated the names of the 'openSUSE-Leap' and 'SLES' aliases to 'OpenSuseLeap154' and 'SuseSles15SP4' respectively. Updated these aliases to point to an image that actually exists.
- Added a breaking change warning to 'New-AzVM' and 'New-AzVmss' for future planned image alias removals due to the images reaching their End of Support date.
- Added new descriptive and versioned alias names for the Linux image aliases, including a new alias for the 'Kinvolk' publisher.

## Az.ContainerRegistry 3.0.3

- Added breaking change attributes for cmdlets

## Az.CosmosDB 1.10.0

- Introduced restorable apis support for Gremlin and Table, which includes:
  - Added the apis for RestorableGremlinDatabases, RestorableGremlinGraphs, RestorableGremlinResources, RestorableTables, RestorableResources.
  - Added RetrieveContinuousBackupInfo apis for Gremlin and Table which help in determining the restore point of time and the resources to restore.
  - Added GremlinDatabasesToRestore and TablesToRestore field to provision and restore database account api.
  - Added StartTime and EndTime support for listing restorable containers event feed.

## Az.DataProtection 1.2.0

- Added support for AKS workload with Backup Vaults
- Added support for 'Set-AzDataProtectionMSIPermission' during restore with AKS workload

## Az.EventGrid 1.6.0

- Added fix for DeliveryAttributeMapping
- Added validation for StorageQueueTtl

## Az.EventHub 3.2.3

- Added upcoming breaking change notifications for Az.EventHub module.

## Az.Kusto 2.2.0

- Added cmdlet 'Get-AzKustoSku'
- Added parameter 'CallerRole' for cmdlet 'AzKustoDatabase' and 'Update-AzKustoDatabase'
- Added support for new data connection kind 'CosmosDb' for cmdlet 'New-AzKustoDataConnection' and 'Update-AzKustoDataConnection'
- Added parameters 'DatabaseNameOverride' 'DatabaseNamePrefix' 'TableLevelSharingPropertyFunctionsToInclude' 'TableLevelSharingPropertyFunctionsToExclude' for cmdlet 'New-AzKustoAttachedDatabaseConfiguration'

## Az.Network 5.6.0

- Updated 'New-AzLoadBalancer' and 'Set-AzLoadBalancer' to validate surface level parameters for global tier load balancers
- Added property 'AuthorizationStatus' to ExpressRouteCircuit
- Added property 'BillingType' to ExpressRoutePort

- Added support for connection flushing in network security group which when enabled, re-evaluates flows when rules are updated
  - 'New-AzNetworkSecurityGroup'
- Added support for state in WAF Custom Rule
- Added 'New-AzGatewayCustomBgplpConfigurationObject' command
- Updated 'New-AzVirtualNetworkGatewayConnection', 'Set-AzVirtualNetworkGatewayConnection' and 'New-AzVpnSiteLinkConnection' to support GatewayCustomBgplpConfiguration.
- Updated 'Reset-AzVpnGateway' to support IpConfigurationId.
- Blocked some regions when creating/updating Basic Sku firewall
- Fixed bugs related to auto learn IP prefixes and Snat
- Updated multi-auth to be supported when both OpenVPN and IkeV2 protocols are used for VNG and VWAN VPN

## Az.Resources 6.6.0

- Fixed an issue when running the 'New-AzManagementGroup' command where it tried to cast an async operation as a Management Group. [#21000]
- Fixed an issue when running 'Get-AzResourceGroup -Name 'some\_name'', it ignores '-Location' if specified[#21225]

## Az.ServiceBus 2.2.1

- Added upcoming breaking change notifications for Az.ServiceBus module.

## Az.Sql 4.5.0

- Added a new cmdlet to refresh external governance status
  - 'Invoke-AzSqlServerExternalGovernanceStatusRefresh'

## Az.SqlVirtualMachine 1.1.1

- Added breaking change notification for cmdlets to be removed and parameters to be changed.
  - Cmdlet 'New-AzSqlVMConfig' will be removed.
  - Cmdlet 'Set-AzSqlVMConfigGroup' will be removed.
  - Cmdlet 'Update-AzAvailabilityGroupListener' will be removed.
  - Parameter 'SqlVM' will be removed from cmdlet 'New-AzSqlVM'.
  - Parameter 'SqlVMGroupObject' will be removed from cmdlet 'Get-AzAvailabilityGroupListener' and 'Remove-AzAvailabilityGroupListener'.
  - Parameter alias 'SqlVM' will be removed from 'InputObject' of cmdlet 'Remove-AzSqlVM'.
  - Parameter alias 'SqlVMGroup' will be removed from 'InputObject' of cmdlet 'Update-AzSqlVMGroup' and 'Remove-AzSqlVMGroup'.
- Added breaking change notification for SqlManagementType

## Az.Storage 5.5.0

- Supported create storage account with DnsEndpointType
  - 'New-AzStorageAccount'
- Fixed file cmdlets potential context issue when the current context doesn't match with the credential of input Azure File object
  - 'Close-AzStorageFileHandle'
  - 'Get-AzStorageFile'
  - 'Get-AzStorageFileContent'
  - 'Get-AzStorageFileHandle'
  - 'New-AzStorageDirectory'
  - 'New-AzStorageFileSASToken'
  - 'Remove-AzStorageDirectory'
  - 'Remove-AzStorageFile'
  - 'Remove-AzStorageShare'
  - 'Set-AzStorageFileContent'
  - 'Set-AzStorageShareQuota'
  - 'Start-AzStorageFileCopy'

## Az.Websites 2.14.0

- Fixed 'Edit-AzWebAppBackupConfiguration' to pass backup configuration enabled or not
- Added a new parameter '-SoftRestart' for 'Restart-AzWebApp' and 'Restart-AzWebApp' to perform a soft restart
- Updated 'Get-AzWebApp' and 'Get-AzWebAppSlot' to expose 'VirtualNetwork Integration Info' [#10665]
- Set default value for '-RepositoryUrl' of 'New-AzStaticWebApp' [#21202]

## Thanks to our community contributors

- Allen TechWorld (@hachi1030-Allen), Bug - Invoke-AzCostManagementQuery cmdlet should handle null value in the response rows (#21180)
- Simon Angling (@sangling), Minor Spelling (#21165)
- Thomas Pike (@thwpike), Missing formatting for code block (#21130)

## 9.5.0 - March 2023

### Az.Accounts 2.12.0

- Fixed the issue that errors related to WAM are thrown when it is not enabled. [#20871] [#20824]
- Updated Azure.Core library to 1.28.0.
- Fixed an issue that the helper message about missing modules shows up at the wrong time. [#19228]
- Added a hint message for some resource creation cmdlets when there is another region which may reduce the costs.

- Supported environment initialization and auto-discovery with ArmMetadata of API version 2022-09-01.

## Az.Aks 5.3.1

- Fixed the issue that Invoke-AzAksRunCommand will fail when the directory for parameter CommandContextAttachment contains sub-directories. [#20734]

## Az.Automanage 1.0.0

- General availability for module Az.Automanage

## Az.Automation 1.9.1

- Fixed bug: Runbooks Name Pattern failures.

## Az.CloudService 1.2.0

- Upgraded the api version to 2022-09-04.
- Upgraded the api version of referenced network to 2022-07-01.

## Az.CognitiveServices 1.13.0

- Updated CognitiveServices PowerShell to use 2022-12-01 version.
- Added new CognitiveServices CommitmentPlan and Association cmdlets.
- Added MultiRegionSetting support for CognitiveServices Account cmdlets.

## Az.Compute 5.5.0

- Added breaking change message for 'New-AzVmss'.
- Added '-PerformancePlus' parameter to 'New-AzDiskConfig'
- Added 'MaxSurge' to Set-AzVmssRollingUpgradePolicyCommand
- Added support for 'latest' in 'Get-AzvmImage' '-Version' parameter
- Added 'CompletionPercent' property to PSDisk object.

## Az.ContainerInstance 3.2.0

- Added 'priority' property to Container Group properties
- Added 'Confidential' sku type to Container Group Skus

## Az.ContainerRegistry 3.0.2

- Updated Azure.Core to 1.28.0.

## Az.CosmosDB 1.9.1

- Updated Azure.Core to 1.28.0.

## Az.Databricks 1.5.0

- Upgraded API version to 2023-02-01

## Az.DataFactory 1.16.13

- Updated ADF .Net SDK version to 9.2.0
- Added AzureBlobFS sasUri and sasToken properties in ADF
- Added AzureBlobStorage containerUri and authenticationType properties in ADF
- Added support copyComputeScale And pipelineExternalComputeScale in IntegrationRuntime

## Az.EventHub 3.2.2

- Added breaking change description for parameter 'MessageRetentionInDays', which would be deprecated and would be replaced by 'RetentionTimeInHours'

## Az.FrontDoor 1.10.0

- Fixed New-AzFrontDoorWafPolicy cmdlet to support adding Tags for the Azure Frontdoor waf policy

## Az.IotHub 2.7.5

- Updated IoT Hub Management SDK to version 4.2.0 (api-version 2021-07-02)
- Fixed 'Get-AzIoTHub' to work with DigiCert hubs

## Az.KeyVault 4.9.2

- Updated Azure.Core to 1.28.0.

## Az.ManagedServiceIdentity 1.1.1

- Upgraded to API version 2023-01-31.
- Federated identity credentials GA version is available now.

## Az.Network 5.5.0

- Updated cmdlets to add new property of 'Snat' in Azure Firewall Policy.
  - 'New-AzFirewallPolicySnat'
  - 'New-AzFirewallPolicy'
  - 'Set-AzFirewallPolicy'
- Fixed a bug that reverts classic fw private ranges to default when doing get & set
- Onboarded 'Microsoft.Monitor/accounts' to private link cmdlets

## Az.PolicyInsights 1.6.0

- Added support for policy attestations.

## Az.RecoveryServices 6.3.0

- Supported using managed disks for replication for HyperV to Azure provider in Azure Site Recovery

## Az.Relay 1.0.4

- Added breaking change message for cmdlets.
  - 'Set-AzRelayNamespace'
  - 'Get-AzRelayOperation'

## Az.Resources 6.5.3

- Updated behavior of Get-AzPolicyDefinition which previously returned all definitions when -Id was provided with a nonexistent policy definition id. Fixed to correctly throw a 404 exception in this case.

## Az.Security 1.4.0

- Updated Alerts cmdlets: 'Get-AzSecurityAlert' 'Set-AzSecurityAlert'
- Moving Security Contacts to be based on the latest API version '2020-01-01-preview' with backward compatibility support

## Az.ServiceBus 2.2.0

- Upgraded API version to 2022-10-01-preview
- Fixed a bug for 'Set-AzServiceBusQueue'

## Az.ServiceFabric 3.1.1

- Added support for Windows 2022 server vm image.
  - This enables cluster operations with Windows 2022 server vm image

## Az.Sql 4.4.0

- Fixed identity assignment in 'Set-AzSqlDatabase' cmdlet
- Added new parameters to 'New-AzSqlDatabase', 'Get-AzSqlDatabase', 'Set-AzSqlDatabase', 'New-AzSqlDatabaseCopy', 'New-AzSqlDatabaseSecondary' cmdlets
  - AssignIdentity
  - EncryptionProtector
  - UserAssignedIdentityId

- KeyList
- KeysToRemove
- FederatedClientId
- Added 'ExpandKeyList' and 'KeysFilter' parameters to 'Get-AzSqlDatabaseGeoBackup' and 'Get-SqlDeletedDatabaseBackup'
- Added new cmdlets for Per DB CMK
  - 'Revalidate-AzSqlDatabaseTransparentDataEncryptionProtector'
  - 'Revert-AzSqlDatabaseTransparentDataEncryptionProtector'
  - 'Revalidate-AzSqlServerTransparentDataEncryptionProtector'
  - 'Revalidate-AzSqlInstanceTransparentDataEncryptionProtector'
- Added an optional parameter 'SecondaryType' to: 'Set-AzSqlDatabaseInstanceFailoverGroup' 'New-AzSqlDatabaseInstanceFailoverGroup'

## Az.StackHCI 1.4.3

- Removed manual installation for Az.Accounts from Az.StackHCI.
- Removed verbose while importing modules.

## Az.Storage 5.4.1

- Updated Azure.Core to 1.28.0.

## Az.StorageMover 1.0.0

- General availability for module Az.StorageMover
- Updated StorageMover API version to 2023-03-01

## Az.Synapse 2.3.0

- Upgraded Azure.Analytics.Synapse.Artifacts to 1.0.0-preview.17
- Updated 'New-AzSynapseSparkPool' and 'Update-AzSynapseSparkPool' to support for setting spark pool isolated compute by '-EnableIsolatedCompute'
- Updated 'New-AzSynapseSparkPool' and 'Update-AzSynapseSparkPool' to support for setting spark pool node size to 'XLarge', 'XXLarge', 'XXXLarge'

## Az.Websites 2.13.0

- Added a new parameter '-CopyIdentity' for 'New-AzWebAppSlot' to copy the identity from the parent app to the slot.
- Updated 'New-AzWebAppSSLBinding' to support -WhatIf parameter

## Thanks to our community contributors

- Brett Miller (@brettmillerb), Corrected syntax for ConfirmAction (#20902)
- Dave Neeley (@daveneeley), Clarify behavior of AccountEnabled and Password (#21006)

- Hiroshi Yoshioka (@hyoshioka0128), Typo "udpate"→"update" (#20810)
- @meenalsri
  - Update New-AzSynapseRoleAssignment.md (#20905)
  - Update Remove-AzSynapseRoleAssignment.md (#20906)
  - Added note for scenario when an SPN role assignment is listed (#20907)
- @sushil490023, Update Reference to latest swagger for Runbook Cmdlets (#20803)

## 9.4.0 - February 2023

### Az.Accounts 2.11.2

- Supported Web Account Manager on ARM64-based Windows systems. Fixed an issue where 'Connect-AzAccount' failed with error 'Unable to load DLL 'msalruntime\_arm64''. [#20700]
- Enabled credential to be found only by applicationId while tenant was not matched when accquire token. [#20484]
- When Az.Accounts ran in parallel, the waiters were allowed to wait infinitely to avoid throw exception in automation enviroment. [#20455]

### Az.Aks 5.3.0

- Added parameter '-AadProfile' for 'New-AzAksCluster' and 'Set-AzAksCluster'
- Added parameter '-NodeHostGroupID' for 'New-AzAksCluster' and parameter '-HostGroupID' for 'New-AzAksNodePool'

### Az.ApplicationInsights 2.2.2

- Added parameter validation for 'Get-AzApplicationInsights' [#20697]

### Az.Compute 5.4.0

- Added '-SkipIdentity', '-PathUserIdentity', '-IsTest' parameter to 'Set-AzVMAEMExtension'
- Added 'ConsistencyMode' parameter to 'New-AzRestorePoint'.
- Updated the storage account type value in several locations from the outdated 'StandardLRS' to the current 'Standard\_LRS'.
- Filled in missing parameter descriptions across multiple parameters and improved some existing parameter descriptions.
- Updated Compute PS to use the new .Net SDK version 59.0.0. This includes an approved breaking change for a non-functional feature.
  - The type of the property 'Source' of type 'Microsoft.Azure.Management.Compute.Models.GalleryDiskImage', 'Microsoft.Azure.Management.Compute.Models.GalleryOSDiskImage', and 'Microsoft.Azure.Management.Compute.Models.GalleryImageVersionStorageProfile' has changed from 'Microsoft.Azure.Management.Compute.Models.GalleryArtifactVersionSource' to 'Microsoft.Azure.Management.Compute.Models.GalleryDiskImageSource'.

- Updated the broken 'UbuntuLTS' image alias to use its original sku version of '16.04-LTS' instead of the nonexistent image '20.04-LTS'. This fixes an issue introduced in the version 5.3.0 release.
- Updated Set-AzVMRunCommand and Set-AzVmssRunCommand ScriptLocalPath parameter set to work with Linux and with files that have comments.
- Added '-TargetExtendedLocation' parameter to 'New-AzGalleryImageVersion' and 'Update-AzGalleryImageVersion'
- Added '-AllowDeletionOfReplicatedLocation' to 'Update-AzGalleryImageVersion'

## Az.DataFactory 1.16.12

- Updated ADF .Net SDK version to 9.0.0

## Az.DataProtection 1.1.0

- Added support for Immutable backup vaults
- Added Cross subscription restore flag for backup vaults
- Added Soft delete setting for backup vaults
- Fixed issue with Set-AzDataProtectionMSIPermission command
- Replaced Get-InstalledModule with Get-Module -ListAvailable
- Added New-AzDataProtectionSoftDeleteSettingObject command

## Az.EventHub 3.2.1

- Fixed 'New-AzEventHubAuthorizationRuleSASToken' cmdlet which was returning wrong skn value

## Az.Monitor 4.4.1

- Removed default value for time window for autoscale profile [#20660]
  - 'Get-AzAutoscaleSetting'
  - 'New-AzAutoscaleSetting'

## Az.Network 5.4.0

- Fixed a bug that does not enable to set Perform SNAT to Always
- Fixed the incorrect type of '-TotalBytesPerSession' in 'New-AzNetworkWatcherPacketCapture'

## Az.RecoveryServices 6.2.0

- Added support for enable/disable Public Network Access and PrivateEndpoints
- Added support for Immutable Vaults
- Added support for RetainRecoveryPointsAsPerPolicy in Disable-AzRecoveryServicesBackupProtection cmdlet. Now user can suspend backups and retain RPs as per policy

- Added List Recovery Point expiry time
- Added RecoveryServices, RecoveryServices.Backup, RecoveryServices.Backup.CrossRegionRestore management SDK
- Added support for non-UTC time zones with standard policy for workloadType IaaSVM, MSSql, AzureFiles

## Az.RedisCache 1.7.1

- Updated 'Get-AzRedisCacheLink' and 'New-AzRedisCacheLink' to print 'PrimaryHostName', 'GeoReplicatedPrimaryHostName', 'ServerRole', and 'LinkedRedisCacheLocation'.

## Az.Resources 6.5.2

- Fixed query issue when objectId in assignment is empty for 'Get-DenyAssignment'
- Fixed an issue where running deployment cmdlets with '-WhatIf' throws exception when formatting results with nested array changes

## Az.Sql 4.3.0

- Added an optional parameter 'HAReplicaCount' to 'Restore-AzSqlDatabase'
- Added new cmdlets for managed instance DTC 'Get-AzSqlInstanceDtc' 'Set-AzSqlInstanceDtc'
- Added 'TargetSubscriptionId' to 'Restore-AzSqlInstanceDatabase' in order to enable cross subscription restore
- Enabled support for UserAssignedManagedIdentity in Auditing
- Fixed WorkspaceResourceId parameter value in 'Set-AzSqlServerAudit'

## Az.StackHCI 1.4.2

- Added Remote Support terms and conditions for HCI device types.
- Unified Resource Group support for both Azure Stack HCI and Arc for server resources.
- Enhanced error feedback and logging in the Register-AzStackHCI cmdlet.
- Bug fixes and improvements in Azure Arc for servers enablement in Register-AzStackHCI cmdlet.
- Improved parameter validations in the Register-AzStackHCI cmdlet.
- Enabled Managed System Identity (MSI) for Registration in Fairfax Cloud.
- Minor bug fixes and improvements.

## Az.Storage 5.4.0

- Added a warning message for the upcoming breaking change when creating a Storage account
  - 'New-AzStorageAccount'
- Removed the ValidateSet of StandardBlobTier parameter
  - 'Copy-AzStorageBlob'
  - 'Set-AzStorageBlobContent'
  - 'Start-AzStorageBlobCopy'

## Az.TrafficManager 1.2.0

- Added a new optional parameter 'AlwaysServe' for endpoints.

## Thanks to our community contributors

- Arun Sabale (@Ar-Sa), Fix example 1 in Set-AzVirtualNetworkPeering.md (#20588)
- Hiroshi Yoshioka (@hyoshioka0128)
  - Fixed typo "resouce group" → "resource group" (#20664)
  - Typo "resouce group" → "resource group" (#20713)

## 9.3.0 - January 2023

### Az.Accounts

- Supported Web Account Manager (WAM) as an opt-in interactive login experience. Enable it by 'Update-AzConfig -EnableLoginByWam True'.
- Optimized the mechanism for assembly loading.
- Enabled AzKeyStore with keyring in Linux.
- Fixed a typo in GetAzureRmContextAutosaveSetting.cs changing the cmdlet class name to GetAzureRmContextAutosaveSetting
- Removed survey on error message in 'Resolve-AzError'. [#20398]

### Az.Aks

- Added parameter '-EnableEncryptionAtHost' for 'New-AzAksCluster' and 'New-AzAksNodePool'
- Added parameter '-EnableUltraSSD' for 'New-AzAksCluster' and 'New-AzAksNodePool'
- Added parameter '-NodeKubeletConfig' for 'New-AzAksCluster', '-KubeletConfig' for 'New-AzAksNodePool'
- Added parameter '-NodeLinuxOSConfig' for 'New-AzAksCluster', '-LinuxOSConfig' and 'New-AzAksNodePool'
- Added parameter '-NodeMaxSurge' for 'New-AzAksCluster', '-MaxSurge' for 'New-AzAksNodePool' and 'Update-AzAksNodePool'
- Added parameter '-PPG' for 'New-AzAksCluster' and 'New-AzAksNodePool'
- Added parameter '-SpotMaxPrice' for 'New-AzAksNodePool'
- Added parameter '-EnableFIPS' for 'New-AzAksCluster' and 'New-AzAksNodePool'
- Added parameter '-AutoScalerProfile' for 'New-AzAksCluster' and 'Set-AzAksCluster'
- Added parameter '-GpuInstanceProfile' for 'New-AzAksCluster' and 'New-AzAksNodePool'
- Added parameter '-EnableUptimeSLA' for 'New-AzAksCluster' and 'Set-AzAksCluster'
- Added parameter '-EdgeZone' for 'New-AzAksCluster'

### Az.ApiManagement

- Updated description of Resourceld param 'New-AzApiManagementBackend' and 'Set-AzApiManagementBackend' cmdlet [#16868]

## Az.ApplicationInsights

- Enabled output object enumerating for 'Get-AzApplicationInsights' [#20225]

## Az.Automation

- Updated Example: Start-AzAutomationRunbook should pass ordered dictionary for parameters [#20408]

## Az.Batch

- Added new properties 'CurrentNodeCommunicationMode' (read only) and 'TargetCommunicationMode' of type 'NodeCommunicationMode' to 'PSCloudPool'.
  - Valid values for 'NodeCommunicationMode': Default, Classic, Simplified
  - When the 'PSCloudPool' is updated with a new 'TargetCommunicationMode' value, the Batch service will attempt to update the pool to the new value the next time the pool is resized down to zero compute nodes and back up.
- 'PSPrivateLinkServiceConnectionState's 'ActionRequired' property required has been renamed to 'ActionsRequired'. The old property has been marked as obsolete, and now just returns the new property. This should not impact existing consumers.

## Az.Compute

- Removed the image 'Win2008R2SP1' from the list of available images and documentation. This image is no longer available on the backend so the client tools need to sync to that change.
- Fixed a bug for creating Linux VM's from SIG/Community Gallery Images
- Added 'ImageReferenceId' string parameter to the 'New-AzVmssConfig' cmdlet. This allows gallery image references to be added for the Confidential VM feature.
- Added 'SecurityEncryptionType' and 'SecureVMDiskEncryptionSet' string parameters to the 'Set-AzVmssStorageProfile' cmdlet for the Confidential VM feature.

## Az.ContainerRegistry

- Fixed bug in 'Get-AzContainerRegistryTag' to show correct tags [#20528]

## Az.Monitor

- Fixed bug for 'Remove-AzDataCollectionRuleAssociation' [#20207]
- Added support for test notifications cmdlets
  - 'Test-AzActionGroup'
- Fixed start time parameter description of 'Get-AzActivityLog' [#20409]

## Az.Network

- Added samples for retrieving Private Link IP Configuration using 'New-AzApplicationGatewayPrivateLinkIpConfiguration' with fix [#20440]
- Added 'DdosProtectionPlan' property in 'AzPublicIpAddress'
- Updated mapping in 'AzPublicIpAddress' to always show/create DdosSettings
- Fixed a bug that added Ddos related properties when viewing PublicIpAddress and DdosProtectionPlan objects
- Fixed a Bug for Set-AzIpGroup cmdlet to support the '-WhatIf' parameter
- Fixed a Bug for 'Add-AzLoadBalancerFrontendIpConfig', 'Add-AzLoadBalancerProbeConfig', 'Add-AzLoadBalancerBackendAddressPoolConfig', 'Set-AzLoadBalancer', 'New-AzLoadBalancerRuleConfig', 'Remove-AzLoadBalancerInboundNatRuleConfig' cmdlets to support the '-WhatIf' parameter. [#20416]
- Fixed a bug for DestinationPortBehavior in 'Get-AzNetworkWatcherConnectionMonitor', 'New-AzNetworkWatcherConnectionMonitor' powershell command by adding this properties to get and set the DestinationPortBehavior information. [#15996]

## Az.RedisCache

- Added optional parameter 'PreferredDataArchiveAuthMethod' in 'Export-AzRedisCache'
- Added optional parameter 'PreferredDataArchiveAuthMethod' in 'Import-AzRedisCache'
- Added 4 additional properties for a geo replication link: 'PrimaryHostName', 'GeoReplicatedPrimaryHostName', 'ServerRole', and 'LinkedRedisCacheLocation' in 'Get-AzRedisCacheLink' and 'New-AzRedisCacheLink'

## Az.Resources

- Fixed issue introduced in previous fix for 'Set-AzPolicySetDefinition' InternalServerError when the initiative is too large [#20238], which will remove space in value.
- Fixed 'Get-AzRoleAssignment' BadRequest when scope is '/' [#20323]

## Az.SecurityInsights

- Fixed for 'Update-AzSentinelAlertRule' fails when using '-TriggerThreshold 0' [#20417]

## Az.Sql

- Added a parameter named 'UseIdentity' for 'Set-AzSqlServerAudit', 'Set-AzSqlDatabaseAudit', 'Set-AzSqlServerMSSupportAudit'
- Added 'IsManagedIdentityInUse' property to the output of 'Get-AzSqlServerMSSupportAudit'
- Added 'PreferredEnclaveType' parameter to 'New-AzSqlDatabase', 'Get-AzSqlDatabase' and 'Set-AzSqlDatabase' cmdlet

## Az.StackHCI

- Added support for arc extensions which depend on HCI cluster's IMDS endpoints.

## Az.Storage

- Return ListBlobProperties in blob list result
  - 'Get-AzStorageBlob'
- Output AllowedCopyScope in get account result
  - 'Get-AzStorageAccount'

## Az.Websites

- Fixed 'Import-AzWebAppKeyVaultCertificate' to use certificate naming convention same as portal [#19592]

## Thanks to our community contributors

- Pavel Lyalyakin (@bahrep), New-AzDiskConfig.md: fixed a copy-paste (#20514)
- Eugene Ogongo (@eugeneogongo), Update Images.json (#18654)
- Hiroshi Yoshioka (@hyoshioka0128), Typo "resouce"→"resource" (#20441)
- Paul Gledhill (@pmgledhill102), Spelling mistake 'Accpeted' (#20380)
- Cameron Sowder (@sowderca), Fixed typo in Get-AzContextAutosaveSetting class name: GetzureRmContextAutosaveSetting -> GetAzureRmContextAutosaveSetting (#20420)

## 9.2.0 - December 2022

## Az.Accounts

- Enabled caching tokens when logging in with a client assertion. This fixed the incorrectly short lifespan of tokens.
- Upgraded target framework of Microsoft.Identity.Client to net461 [#20189]
- Stored 'ServicePrincipalSecret' and 'CertificatePassword' into 'AzKeyStore'.
- Updated the reference of Azure PowerShell Common to 1.3.67-preview.

## Az.Aks

- Bumped API version to 2022-09-01
- Added parameter '-NodeOsSKU' for 'New-AzAksCluster' and parameter '-OsSKU' for 'New-AzAksNodePool'
- Added parameter '-Mode' for 'New-AzAksNodePool' and 'Update-AzAksNodePool'
- Added property '-NodeImageVersion' for the output of 'Get-AzAksNodePool' [#19893]
- Added parameter '-NodePoolLabel' for 'Set-AzAksCluster', '-NodeLabel' for 'New-AzAksNodePool' and 'Update-AzAksNodePool'
- Added parameter '-NodePoolTag' for 'New-AzAksCluster' and 'Set-AzAksCluster', '-Tag' for 'New-AzAksNodePool' and 'Update-AzAksNodePool'

## Az.ApplicationInsights

- Supported Workbook function. Below is the new cmdlet
  - 'Get-AzApplicationInsightsMyWorkbook'
  - 'Get-AzApplicationInsightsWorkbook'
  - 'Get-AzApplicationInsightsWorkbookRevision'
  - 'Get-AzApplicationInsightsWorkbookTemplate'
  - 'New-AzApplicationInsightsMyWorkbook'
  - 'New-AzApplicationInsightsWorkbook'
  - 'New-AzApplicationInsightsWorkbookTemplate'
  - 'New-AzApplicationInsightsWorkbookTemplateGalleryObject'
  - 'Remove-AzApplicationInsightsMyWorkbook'
  - 'Remove-AzApplicationInsightsWorkbook'
  - 'Remove-AzApplicationInsightsWorkbookTemplate'
  - 'Update-AzApplicationInsightsMyWorkbook'
  - 'Update-AzApplicationInsightsWorkbook'
  - 'Update-AzApplicationInsightsWorkbookTemplate'

## Az.Compute

- Fixed issue found for 'Set-AzVmssVMRunCommand' [#19985]
- Fixed 'Get-AzVm' cmdlet when parameter '-Status' is provided, return property 'OsName', 'OsVersion' and 'HyperVGeneration'
- Fixed 'New-AzVM' cmdlet when creating VM with bootdiagnostic storage causes exception 'Kind' cannot be null.

## Az.CosmosDB

- Added support for Cosmos DB Service related cmdlets.

## Az.DataFactory

- Updated ADF .Net SDK version to 8.0.0

## Az.DataProtection

- Fixed spacing issues in Set-AzDataProtectionMSIPermission.ps1

## Az.EventHub

- Added NamespaceV2 cmdlets for EventHub

## Az.KeyVault

- Fixed certificate export parameter issue in 'Add-AzKeyVaultKey' [#19623]
- Fixed CertificateString decoding issue in 'Import-AzKeyVaultCertificate'
- Shifted the location of key CVM release policy to GitHub [#19984]

- Added fallback logic (reading default CVM policy from a local copy) if fetching default CVM Policy from GitHub failed.

## Az.Monitor

- Fixed bug for 'New-AzActivityLogAlert' and 'Update-AzActivityLogAlert' [#19927]

## Az.Network

- Added optional parameters 'CustomBlockResponseStatus' and 'CustomBlockResponseBody' parameter to 'AzApplicationGatewayFirewallPolicySettings'
- Added a new cmdlet to get the application gateway waf manifest and rules
  - 'Get-AzApplicationGatewayWafDynamicManifest'

## Az.RecoveryServices

- Added support for passing DiskEncryptionSetId for Cross region restore
- Fixed the pagination bug in 'Get-AzRecoveryServicesAsrProtectableItem' for the V2ARCM scenario.
- Fixed 'IncludeDiskId' property for 'New-ASRReplicationProtectedItem' cmdlet of H2A

## Az.Resources

- Added cmdlet 'Get-AzADOrganization'
- Fixed 'Set-AzPolicySetDefinition' InternalServerError when the initiative is too large [#20238]

## Az.ServiceBus

- Added NamespaceV2 cmdlets for ServiceBus.

## Az.SignalR

- Updated to API version 2022-08-01-preview
  - Added support for custom domain. Added new cmdlets New-AzWebPubSubCustomCertificate, Get-AzWebPubSubCustomCertificate, Remove-AzWebPubSubCustomCertificate, New-AzWebPubSubCustomDomain, Get-AzWebPubSubCustomDomain, Remove-AzWebPubSubCustomDomain.
  - Added support for event listeners in hub settings. Added new cmdlets New-AzWebPubSubEventHubEndpointObject, New-AzWebPubSubEventNameFilterObject.

## Az.StackHCI

- Enabled system-assigned identity on HCI cluster resource registration and repair registration flow.
- Added error message in the command Register-AzStackHCI if Arc is not enabled.

- Added default region confirmation prompt if the region is not mentioned in the command Register-AzStackHCI.
- Added general logging improvements.
- Added logic that skipping the Arc SPN permission check in Register-AzStackHCI if a customer doesn't have the required permissions to read Arc SPN credential.
- Added deprecation message for the command Test-AzStackHCIConnection. Customers can use Invoke-AzStackHciConnectivityValidation from the module AzStackHCI.EnvironmentChecker for connectivity verification tests.

## Az.Storage

- Supported MaxPageSize, Include, and Filter parameters for listing encryption scopes
  - 'Get-AzStorageEncryptionScope'
- Supported excludePrefix, includeDeleted, and many new schema fields in Blob Inventory
  - 'New-AzStorageBlobInventoryPolicyRule'

## Az.Synapse

- Added breaking change message for '-SparkConfigFilePath'. It will be deprecated around the middle of December.
- Updated 'New-AzSynapseSparkPool' and 'Update-AzSynapseSparkPool' to support for setting spark pool configuration artifact by '-SparkCongifuration'. '-SparkCongifuration' is an alternative of parameter '-SparkConfigFilePath'.

## Az.Websites

- Added Tag parameter for 'New-AzWebApp' and 'New-AzWebAppSlot'
- Fixed 'Set-AzWebApp' and 'Set-AZWebAppSlot' to rethrow exception when Service Principal/User doesn't have permission to list web app configuration. [#19942]

## Thanks to our community contributors

- @Ajay1250, The example was using the wrong command (#20237)
- Hiroshi Yoshioka (@hyoshioka0128), Typo "resouce"→"resource" (#20321)
- Mats Estensen (@matsest), [Az.Tools.Installer]: Updates for a new minor/patch version (#20022)
- Matthew Burleigh (@mburleigh), fix typos (#20020)
- Mo Zaatar (@mzaatar), Change letter case in example of New-AzStorageBlobSASToken (#20018)
- @patchin404, Updates Enable-AzCdnCustomDomainCustomHttps Doc (#20165)
- Robin Malik (@robinmalik), Update New-AzADAppCredential.md (#20317)
- @SherrySahni, container name not supported with upper case (#20012)
- @sushil490023, Adding PS Cmdlets for Azure Automation Python3 operation (#19598)
- Thomas Pike (@thwpike), Typo Fix (#20087)

# 9.1.0 - November 2022

## Az.Accounts

- Updated 'Get-AzSubscription' to retrieve subscription by Id rather than listed all the subscriptions from server if subscription Id is provided. [#19115]

## Az.CognitiveServices

- Updated CognitiveServices PowerShell to use 2022-10-01 version.

## Az.Compute

- Fixed EdgeZone does not pass to VM for 'New-AzVM' 'SimpleParameterSet' [#18978]
- Added 'ScriptFilePath' parameter set for 'Set-AzVMRunCommand' and 'Set-AzVmssVMRunCommand' to allow users to pass in the path of the file that has the run command script
- Added '-AsJob' optional parameter to 'Remove-AzVMEdition' cmdlet.
- Added '-EdgeZone' optional parameter for 'Get-AzComputeResourceSku' and 'New-AzSnapshotUpdateConfig' cmdlets.
- Added Disk Delete Optional parameters 'OsDisk Deletion Option' and 'Delete Option' to the 'Set-AzVmssStorageProfile' (OS Disk) and 'Add-AzVmssDataDisk' (Data Disk)
- Improved printed output for 'Get-AzComputeResourceSku'
- Updated 'Get-AzHost' cmdlet logic to return Host for '-ResourceId' parameterset.
- Added '-OSDiskSizeGB' optional parameter for 'Set-AzVmssStorageProfile'.
- Improved cmdlet description for 'Set-AzVM' and added examples.
- Updated property mapping for parameter 'Encryption' of 'New-AzGalleryImageVersion'
- Updated list format to display all VmssVmRunCommand properties for 'Get-AzVmssVmRunCommand'
- Updated 'Get-AzGallery', 'New-AzGallery', 'Update-AzGallery', 'Get-AzGalleryImageDefinition', 'Get-AzGalleryImageVersion', 'New-AzVm' and 'New-AzVmss' to support community galleries

## Az.Databricks

- Added 'RequiredNsgRule' parameter in the 'Update-AzDatabricksWorkspace'.

## Az.DataFactory

- Updated ADF .Net SDK version to 7.0.0

## Az.DataProtection

- Fixed list parameter set for 'Get-AzDataProtectionBackupVault'

## Az.EventGrid

- Updated to use the 2022-06-15 API version.
- Added new features:
  - Partner topics
  - Partner topic event subscriptions
  - Partner namespaces
  - Partner namespace keys
  - Partner configurations
  - Partner registrations
  - Verified partners
  - Channels

## Az.EventHub

- Added readonly Status property in EventHub Namespace

## Az.Functions

- Added warning logs to detect Az context switching in Get-AzFunctionApp

## Az.KeyVault

- Bumped API version to 2022-07-01
- Added 'Undo-AzKeyVaultManagedHsm' to recover deleted managed HSM

## Az.ManagedServiceIdentity

- Supported Create/Get/Update/Remove Federated Identity Credentials on a User Assigned Managed Identity
  - 'Get-AzFederatedIdentityCredentials'
  - 'New-AzFederatedIdentityCredentials'
  - 'Remove-AzFederatedIdentityCredentials'
  - 'Update-AzFederatedIdentityCredentials'
- Supported List Associated Resources on a User Assigned Managed Identity
  - 'Get-AzUserAssignedIdentityAssociatedResource'

## Az.Migrate

- Added parameter 'CacheStorageAccountId' to 'Initialize-AzMigrateReplicationInfrastructure'
- Added support for OS Disk Swap and Test Migrate Subnet Selection

## Az.Network

- Added possible value 'LocalGateway' for parameter 'GatewayType'

- 'New-AzVirtualNetworkGateway'
- Exposed 'ExtendedLocation' and 'VNetExtendedLocationResourceId' for 'VirtualNetworkGateway'
  - 'Get-AzVirtualNetworkGateway'
- Added new cmdlet to get firewall learned ip prefixes
  - 'Get-AzFirewallLearnedIpPrefix'
- Fixed a bug that does not update firewall policy application, network and nat rules' descriptions even though description is provided via description parameter
- Updated 'New-AzIpConfigurationBgpPeeringAddressObject' to remove validate null or empty check for CustomAddress in Azure Virtual Network Gateway
- Updated 'New-AzVirtualNetworkGateway' to add validate null or empty check for CustomAddress in Azure Virtual Network Gateway
- Updated cmdlets to add new property of 'VirtualNetworkGatewayPolicyGroup' and 'VpnClientConnectionConfiguration' in Azure Virtual Network Gateway
  - 'New-AzVirtualNetworkGateway'
  - 'Set-AzVirtualNetworkGateway'
- Added new cmdlets to create
  - 'New-AzVirtualNetworkGatewayPolicyGroup'
  - 'New-AzVirtualNetworkGatewayPolicyGroupMember'
  - 'New-AzVpnClientConnectionConfiguration'
- Added message in breaking change attribute to notify that load balancer sku default behavior will be changed
  - 'New-AzLoadBalancer'
- Added cmdlet preview to notify customers to use default value or leave null for load balancer probe threshold property
  - 'New-AzLoadBalancerProbeConfig'
  - 'Set-AzLoadBalancerProbeConfig'
  - 'Add-AzLoadBalancerProbeConfig'

## Az.RecoveryServices

- Added support for cross zonal restore for ZRS vaults for non-ZonePinned VM
- Fixed bug with Update-AzRecoveryServicesAsrProtectionContainerMapping
- Added new scenarios: EZ-to-AZ, EZ-to-AZ, EZ-to-EZ
- Removed 'VmName' from non A2A scenarios of 'New-AzRecoveryServicesAsrReplicationProtectedItem' as it is not applicable

## Az.Resources

- Fixed parameter 'Count' for
  - Get-AzADApplication
  - Get-AzADServicePrincipal
  - Get-AzADUser
- Polished preview warning message for:
  - Add-AzADGroupMember

- Get-AzADGroupMember
- Remove-AzADGroupMember
- Fixed a 'NullReferenceException' when deploying a JSON template using Bicep extensibility
- Added '-AsJob' to support running 'Register-AzResourceProvider' as a Job

## Az.Sql

- Added new cmdlets for CRUD operations on SQL server IPv6 Firewall rules 'Get-AzSqlServerIpv6FirewallRule' 'New-AzSqlServerIpv6FirewallRule' 'Remove-AzSqlServerIpv6FirewallRule' 'Set-AzSqlServerIpv6FirewallRule'
- StorageContainerSasToken parameter in the 'Start-AzSqlInstanceDatabaseLogReplay' cmdlet is now optional

## Az.StackHCI

- Supported WDAC compliant APIs
- Fixed module versions of dependent PS modules
- Updated Remote Support cmdlets to check device type between HClv2 and AzureEdge

## Az.Storage

- Supported generate DataLakeGen2 Sas token with Encryption scope
  - 'New-AzDataLakeGen2SasToken'
- Supported blob type conversions in sync blob copy
  - 'Copy-AzStorageBlob'
- Supported create/upgrade storage account with Keyvault from another tenant and access Keyvault with FederatedClientId
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported find blobs in a container with a blob tag filter sql expression
  - 'Get-AzStorageBlobByTag'
- Migrated following Azure File dataplane cmdlets from 'Microsoft.Azure.Storage.File' to 'Azure.Storage.Files.Shares'
  - 'Get-AzStorageFileHandle'
  - 'Close-AzStorageFileHandle'

## Az.Websites

- Fixed 'Publish-AzWebApp' to use latest publish API when deploying war package [#19791]

## Thanks to our community contributors

- @alekiv, Fix typo in Example 1 (#19727)
- Johan Vanneuville (@JohanVanneuville), Update New-AzGalleryApplicationVersion.md (#19858)
- Simon Bass (@nimsarr), Fix typos (#19912)

- @wooch82, Update New-AzApplicationInsightsContinuousExport.md (#19802)

## 9.0.1 - October 2022

### Az.Accounts

- Upgraded Azure.Core to 1.25.0 and Azure.Identity to 1.6.1
- Upgraded Microsoft.Identity.Client to 4.46.2 and Microsoft.Identity.Client.Extensions.Msal to 2.23.0
- Upgraded Microsoft.ApplicationInsights to 2.13.1
- [Breaking Change] Changed target framework of AuthenticationAssemblyLoadContext to netcoreapp3.1.
- [Breaking Change] Removed built-in environment of Azure Germany
- Supported tenant domain as input while using 'Connect-AzAccount' with parameter 'Tenant'. [#19471]
- Used the ArgumentCompleter attribute to replace the dynamic parameters of 'Get-AzContext'. [#18041]
- Fixed issue that module cannot be imported when required file is locked [#19624]

### Az.Advisor

- Bumped API version to 2020-01-01

### Az.Aks

- [Breaking Change] Removed the alias 'Install-AzAksKubectl' of 'Install-AzAksCliTool'.

### Az.ApiManagement

- [Breaking Change] Changed the type of parameter 'Sku' from Enum to String in 'Add-AzApiManagementRegion', 'New-AzApiManagement' and 'Update-AzApiManagementRegion'.

### Az.Attestation

- [Breaking Change] Replaced 'New/Remove/Get-AzAttestation' with 'New/Remove/Get-AzAttestationProvider'
- Added 'Get-AzAttestationDefaultProvider' and 'Update-AzAttestationProvider'
- Upgraded API version from 2018-09-01-preview to 2020-10-01

### Az.Automation

- Added cmdlets 'Remove-AzAutomationHybridRunbookWorker', 'Remove-AzAutomationHybridRunbookWorkerGroup', 'Set-AzAutomationHybridRunbookWorkerGroup', 'Get-AzAutomationHybridRunbookWorker', 'Get-AzAutomationHybridRunbookWorkerGroup',

'Move-AzAutomationHybridRunbookWorker', 'New-AzAutomationHybridRunbookWorker', 'New-AzAutomationHybridRunbookWorkerGroup' for Hybrid Runbook Worker group management.

## Az.Compute

- Added the 'TimeCreated' property to the Virtual Machine and Virtual Machine Scale Set models.
- Added Confidential VM functionality to multiple cmdlets.
  - Added new parameter 'SecureVMDiskEncryptionSet' to cmdlet 'Set-AzDiskSecurityProfile'.
  - Added new parameters 'SecureVMDiskEncryptionSet' and 'SecurityEncryptionType' to cmdlet 'Set-AzVMOSDisk'.
- Improved cmdlet descriptions and parameter descriptions for VM/VMSS creation.
- Added the 'BaseRegularPriorityCount' integer property to the following cmdlets: 'New-AzVmssConfig' and 'Update-AzVmssConfig'
- Added the 'RegularPriorityPercentage' integer property to the following cmdlets: 'New-AzVmssConfig' and 'Update-AzVmssConfig'
- Added Breaking Changes for Add-AzVMAdditionalUnattendContent and Get-AzGallery cmdlets
- Added '-DiskControllerType' property to the following cmdlets: 'New-AzVm', 'New-AzVmss', 'New-AzVmConfig', 'Set-AzVmssStorageProfile'

## Az.Databricks

- Upgraded API version to 2022-04-01-preview
- Modified description of 'EnableNoPublicIP' parameter in the 'New-AzDatabricksWorkspace'.  
[#14381]

## Az.DataFactory

- Updated ADF .Net SDK version to 6.4.0

## Az.EventGrid

- Add remaining advanced filters
  - StringNotContains
  - StringNotBeginsWith
  - StringNotEndsWith
  - NumberInRange
  - NumberNotInRange
  - IsNullOrUndefined
  - IsNotNull

## Az.EventHub

- Most cmdlets in Az.EventHub module have been migrated to a new format and would witness breaking changes. Please refer our migration guide <https://go.microsoft.com/fwlink/?linkid=2204690> to know breaking changes in detail.

## Az.Functions

- Enabled support to create Node 18 Preview and Java 17 Preview function apps (fixes issues #19184 and #18925)
- Removed the logic that checks for AzureGermanCloud in the cloud endpoints (fixes issue #19667)
- Hid generated unused cmdlets (fixes #16666)

## Az.KeyVault

- Fixed the exception content swallowed issue when exception.Response is null [#19531]
- Added the existing parameters 'Exportable', 'Immutable', 'UseDefaultCVPMPolicy', and 'ReleasePolicyPath' to the parameter sets 'InteractiveCreate', 'InputObjectCreate', and 'ResourceIdCreate'.

## Az.MarketplaceOrdering

- Upgraded API version to 2021-01-01.

## Az.Migrate

- Updated ApiVersion to 2022-05-01
- Added support for pause and resume
  - 'Suspend-AzMigrateServerReplication'
  - 'Resume-AzMigrateServerReplication'
- [Breaking Change] Removed unless cmdlets
  - 'Get-AzMigrateReplicationEligibilityResult'
  - 'Get-AzMigrateReplicationProtectionIntent'
  - 'Get-AzMigrateReplicationVaultSetting'
  - 'Get-AzMigrateSupportedOperatingSystem'
  - 'New-AzMigrateReplicationProtectionIntent'
  - 'New-AzMigrateReplicationVaultSetting'

## Az.Monitor

- [Breaking Change] Upgraded API version for ActivityLogAlert from 2017-04-01 to 2020-10-01, affected cmdlets:
  - 'Get-AzActivityLogAlert'
  - 'Remove-AzActivityLogAlert'
  - 'Set-AzActivityLogAlert' replaced by 'New-AzActivityLogAlert'
  - 'Disable-AzActivityLogAlert' replaced by 'Update-AzActivityLogAlert'

- 'Enable-AzActivityLogAlert' replaced by 'Update-AzActivityLogAlert'
- 'New-AzActionGroup' replaced by 'New-AzActivityLogAlertActionGroupObject'
- [Breaking Change] Upgraded API version for DiagnosticSetting from 2017-05-01-preview to 2021-05-01-preview
  - 'Get-AzDiagnosticSettingCategory'
  - 'Get-AzDiagnosticSetting'
  - 'New-AzDiagnosticSetting'
  - 'Remove-AzDiagnosticSetting'
  - 'Set-AzDiagnosticSetting' replaced by 'New-AzDiagnosticSetting'
  - 'New-AzDiagnosticDetailSetting' replaced by 'New-AzDiagnosticSettingLogSettingsObject' and 'New-AzDiagnosticSettingMetricSettingsObject'
  - 'Get-AzSubscriptionDiagnosticSettingCategory' replaced by 'Get-AzEventCategory'
- [Breaking Change] Upgraded API version for Autoscale from 2015-04-01 to 2022-10-01
  - 'Get-AzAutoscaleSetting'
  - 'Remove-AzAutoscaleSetting'
  - 'Add-AzAutoscaleSetting' replaced by 'New-AzAutoscaleSetting'
  - 'New-AzAutoscaleNotification' replaced by 'New-AzAutoscaleNotificationObject'
  - 'New-AzAutoscaleProfile' replaced by 'New-AzAutoscaleProfileObject'
  - 'New-AzAutoscaleRule' replaced by 'New-AzAutoscaleScaleRuleObject'
  - 'New-AzAutoscaleWebhook' replaced by 'New-AzAutoscaleWebhookNotificationObject'
- [Breaking Change] Upgraded API version for ScheduledQueryRule from 2018-04-16 to 2021-08-01
  - 'Get-AzScheduledQueryRule'
  - 'New-AzScheduledQueryRuleAlertingAction'
  - 'New-AzScheduledQueryRuleAznActionGroup'
  - 'New-AzScheduledQueryRule'
  - 'New-AzScheduledQueryRuleLogMetricTrigger'
  - 'New-AzScheduledQueryRuleSchedule'
  - 'New-AzScheduledQueryRuleSource'
  - 'New-AzScheduledQueryRuleTriggerCondition'
  - 'Remove-AzScheduledQueryRule'
  - 'Set-AzScheduledQueryRule'
  - 'Update-AzScheduledQueryRule'

## Az.MySql

- Added 'PublicNetworkAccess' to 'Update-AzSqlServer' [#19189]

## Az.Network

- Added a new endpoint switch 'AzureArcVM' in 'New-AzNetworkWatcherConnectionMonitor'
- Updated 'New-AzVirtualNetworkGatewayConnection' to support bypassing the ExpressRoute gateway when accessing private-links
- Updated 'Update-AzCustomIpPrefix' to support no-internet advertise CustomIpPrefix

- Updated 'New-AzNetworkInterface' to support create/update nic with DisableTcpStateTracking property
- Updated cmdlet to support specifying a VirtualRouterAsn on Virtual Hub
  - 'New-AzVirtualHub'
  - 'Update-AzVirtualHub'
- Updated cmdlet to support specifying an ASN on VPN Gateway
  - 'New-AzVpnGateway'
  - 'Update-AzVpnGateway'
- Updated 'New-AzRoutingConfiguration' to support bypassing NVA for spoke vNet traffic
- Updated 'Update-AzCustomIpPrefix' to support new parameters: Asn, Geo, ExpressRouteAdvertise
- Updated cmdlets to enable verification on client certificate revocation by using a new property VerifyClientRevocation in ApplicationGatewayClientAuthConfiguration
  - 'New-AzApplicationGatewayClientAuthConfiguration'
  - 'Set-AzApplicationGatewayClientAuthConfiguration'
- Updated 'New-AzCustomIpPrefix' to support IPv4 Parent/Child CustomIpPrefix creation.
- Added Uppercase Transform in New-AzApplicationGatewayFirewallCondition
- Added DdosProtectionMode parameter in New-AzPublicIpAddress
- Added ProbeThreshold parameter to Load Balancer Probe
  - 'Add-AzLoadBalancerProbeConfig'
  - 'New-AzLoadBalancerProbeConfig'
  - 'Set-AzLoadBalancerProbeConfig'
- Updated 'New-AzApplicationGatewayFirewallPolicyManagedRuleOverride' to support specifying an action for a managed rule override in Application Gateway WAF Policy
- Added breaking change enum values/notification for the following network manager cmdlets
  - 'Deploy-AzNetworkManagerCommit'
  - 'New-AzNetworkManagerConnectivityConfiguration'
  - 'New-AzNetworkManagerConnectivityGroupItem'
  - 'New-AzNetworkManagerSecurityAdminRule'
  - 'New-AzNetworkManagerSecurityAdminConfiguration'
  - 'New-AzNetworkManagerAddressPrefixItem'
  - 'New-AzNetworkManager'
- Added 'EnableUDPLogOptimization' parameter to 'New-AzFirewall'
- Fixed a bug that does not return HubIPAddresses and PrivateIPAddress during a Get-AzFirewall command
- Replaced 'IdentifyTopFatFlow' parameter with 'EnableFatFlowLogging' parameter to 'New-AzFirewall'
- Fixed a bug not able to add MSSQL application rules to an AZURE FIREWALL POLICY
- Onboard Project AzureML Registries to Private Link Common Cmdlets

## Az.RecoveryServices

- [Breaking Change] Added fix for Enable-AzRecoveryServicesBackupProtection cmdlet. Resolved the null reference issue by making policy a mandatory parameter.

- [Breaking Change] Removed status filter from Get-AzRecoveryServicesBackupContainer command
- Added SubTasks Duration for IaaSVM job

## Az.Resources

- Fixed NullReferenceException issue in 'New-AzRoleAssignment' [#19793]

## Az.SecurityInsights

- Changed 'Az.SecurityInsights' to autorest-based module

## Az.ServiceBus

- Most cmdlets in Az.ServiceBus module have been migrated to a new format and would witness breaking changes. Please refer our migration guide <https://go.microsoft.com/fwlink/?linkid=2204584> to know breaking changes in detail.

## Az.Sql

- Added new fields to the 'Get-AzSqlInstanceDatabaseLogReplay' cmdlet
- Improved error handling in the 'Stop-AzSqlInstanceDatabaseLogReplay' cmdlet
- Added StorageContainerIdentity parameter in the 'Start-AzSqlInstanceDatabaseLogReplay' cmdlet
- Removed the following cmdlets: 'Clear-AzSqlServerAdvancedThreatProtectionSetting' and 'Clear-AzSqlDatabaseAdvancedThreatProtectionSetting'
- Added the following cmdlets: 'Get-AzSqlInstanceAdvancedThreatProtectionSetting', 'Get-AzSqlInstanceAdvancedThreatProtectionSetting', 'Update-AzSqlInstanceDatabaseAdvancedThreatProtectionSetting' and 'Update-AzSqlInstanceAdvancedThreatProtectionSetting'
- Removed the following aliases: 'Enable-AzSqlServerAdvancedThreatProtection', 'Disable-AzSqlServerAdvancedThreatProtection', 'Get-AzSqlServerThreatDetectionSetting', 'Remove-AzSqlServerThreatDetectionSetting', 'Set-AzSqlServerThreatDetectionSetting', 'Get-AzSqlDatabaseThreatDetectionSetting', 'Set-AzSqlDatabaseThreatDetectionSetting' and 'Remove-AzSqlDatabaseThreatDetectionSetting'
- Changed the returned object for the following cmdlets: 'Get-AzSqlServerAdvancedThreatProtectionSetting' and 'Get-AzSqlDatabaseAdvancedThreatProtectionSetting'
- Changed the parameters for the following cmdlets: 'Update-AzSqlServerAdvancedThreatProtectionSetting' and 'Update-AzSqlDatabaseAdvancedThreatProtectionSetting'. Only 'Enable' parameter is now supported.
- Changed endpoint used in SQL Server and SQL Instance from AD Graph to MS Graph

## Az.StackHCI

- Made GraphAccessToken parameter obsolete in Register-AzStackHCI, Unregister-AzStackHCI and Set-AzStackHCI cmdlets. This is because Az.StackHCI module does not depend on Azure AD anymore.
- Include API version for all Microsoft.AzStackHCI related AZ-Resource calls

## Az.Storage

- Migrated following Azure File dataplane cmdlets from 'Microsoft.Azure.Storage.File 11.2.2' to 'Azure.Storage.Files.Shares 12.10.0'
  - 'Get-AzStorageFile'
  - 'Get-AzStorageFileCopyState'
  - 'Get-AzStorageShare'
  - 'Get-AzStorageShareStoredAccessPolicy'
  - 'New-AzStorageDirectory'
  - 'New-AzStorageFileSasToken'
  - 'New-AzStorageShare'
  - 'New-AzStorageShareSasToken'
  - 'New-AzStorageShareStoredAccessPolicy'
  - 'Remove-AzStorageDirectory'
  - 'Remove-AzStorageFile'
  - 'Remove-AzStorageShare'
  - 'Remove-AzStorageShareStoredAccessPolicy'
  - 'Set-AzStorageShareQuota'
  - 'Set-AzStorageShareStoredAccessPolicy'
  - 'Start-AzStorageFileCopy'
  - 'Stop-AzStorageFileCopy'
- Migrated Get/List blob to always use 'Azure.Storage.Blobs'
  - 'Get-AzStorageBlob'
- Fix create file sas failure with file object pipeline
  - 'New-AzStorageFileSasToken'

## Az.Synapse

- [Breaking Change] Updated models of Synapse Link for Azure Sql Database
- Updated 'New-AzSynapseWorkspace' and 'Update-AzSynapseWorkspace' to support for user assigned managed identity (UAMI) by '-UserAssignedIdentityAction' and '-UserAssignedIdentityId'
- Added EnablePublicNetworkAccess parameter to 'New-AzureSynapseWorkspace' and 'Update-AzSynapseWorkspace'

## Thanks to our community contributors

- Aliaksei Venski (@AliakseiVenski), Update New-AzServiceBusAuthorizationRuleSASToken.md (#19521)
- Jason (@moo2u2), Fixed multiple hostnames param for app gateway http listener (#19451)

- Jan-Hendrik Peters [MSFT] (@nyanhp), [Connect-AzConnectedMachine] Fixes error with return value processing (#19542)
- @rahulbissa2727, PS changes for Uppercase Transform (#19546)

## 8.3.0 - September 2022

### Az.Accounts

- Supported returning all subscriptions with specified name while using 'Get-AzSubscription' with parameter 'SubscriptionName'. [#19295]
- Fixed null reference exception when cmdlet uses AzureRestOperation [#18104]
- Updated survey message and settings

### Az.Aks

- Added support of 'FQDN' in 'Import-AzAksCredential' [#17711]
- Added hint when 'Import-AzAksCredential' meets bad formatted kubernetes configuration file [#16741]
- Added parameter '-NodeResourceGroup' for 'New-AzAksCluster'. [#19014]
- Added support for 'Auto Upgrade' in 'New-AzAksCluster' and 'Set-AzAksCluster'.
- Added support for 'Http Proxy' in 'New-AzAksCluster' and 'Set-AzAksCluster'.
- Added parameter 'DisableLocalAccount' and 'DiskEncryptionSetID' in 'New-AzAksCluster' and 'Set-AzAksCluster'.
- Added logic for installing 'kubelogin' in 'Install-AzAksKubectl'.

### Az.ApiManagement

- Added warning message for upcoming breaking change: changed the type of parameter Sku from Enum to String
- Supported GraphQL Specification Format

### Az.AppConfiguration

- Added cmdlets 'Get-AzAppConfigurationDeletedStore' and 'Clear-AzAppConfigurationDeletedStore'
- Updated ApiVersion to 2022-05-01.

### Az.Automation

- Fixed bug: Export-AzAutomationRunbook no longer adds extra " to file names [#11101]
- Fixed bug: Get-AzAutomationDscCompilationJobOutput returns complete summaries [#12322]
- Fixed bug: Get-AzAutomationDscNode [#10404]
- Fixed bug: Get-AzAutomationJob fails for some jobIds

## Az.Batch

- Fixed a bug wherein creating a new JobSchedule does not properly submit Output Files.

## Az.Compute

- Added Trusted Launch Generic Breaking Change warning for 'New-AzVM', 'New-AzDisk' and 'New-AzVMSS' cmdlets.
- 'Get-AzVMRunCommand' now shows all the properties of VMRunCommand in a list format.
- Added new Parameter '-PublicIpSku' to the 'NewAzVM' cmdlet with acceptable values : 'Basic' and 'Standard'.
- Added Generic Breaking Change PublicIpSku Warning and Overridden '-Zone' logic when '-PublicIpSku' is explicitly provided.
- Added Disk Delete Optional parameters 'OsDisk Deletion Option' and 'Delete Option' to the 'Set-AzVmssStorageProfile' (OS Disk) and 'Add-AzVmssDataDisk' (Data Disk)
- Improved printed output for 'Get-AzComputeResourceSku'
- Updated 'Update-AzVm' to give constructive error messages when empty variables are passed in parameters. [#15081]
- Added 'Zone' and 'IntentVMSizeList' optional parameters to the cmdlet 'New-AzProximityPlacementGroup'.
- Added parameters to Gallery cmdlets for Community Galleries
- For 'New-AzGalleryImageVersion', 'CVMEncryptionType' and 'CVMDiskEncryptionSetID' added as keys for parameter '-Target'.

## Az.DesktopVirtualization

- Corrected parameter description of '-Force' in 'Remove-AzWvdUserSession'.

## Az.EventGrid

- Updated to use the 2021-12-01 API version.
- Added new features:
  - System topic
  - System topic event subscription
  - System topic event subscription delivery attributes
- Updated cmdlets:
  - 'New-AzEventGridDomain':
    - Add new optional parameters to support auto creation of topic with first subscription.
    - Add new optional parameters to support auto deletion of topic with last subscription.
    - Add optional parameters to support azure managed identity
  - 'New-AzEventGridTopic'/'Update-AzEventGridTopic' :
    - Add optional parameters to support azure managed identity
  - 'New-AzEventGridSubscription'/'Update-AzEventGridSubscription' :
    - Add new optional parameters to support advanced filtering on arrays.
    - Add new optional parameters to support delivery attribute mapping.
    - Add new optional parameters to support storage queue message ttl.

## Az.EventHub

- In the upcoming major breaking change release in October 2022, Az.EventHub would be migrating most cmdlets to a new format for a better powershell experience and as a result would witness breaking changes. Please refer our migration guide to know more <https://go.microsoft.com/fwlink/?linkid=2204690>.

## Az.Functions

- Made PowerShell 7.2 the default when creating a PowerShell function app

## Az.KeyVault

- Fixed parameter validation logic of '-UseDefaultCVPMPolicy'
- Added parameter 'ContentType' in 'Import-AzKeyVaultCertificate' to support importing pem via certificate string
- Allowed 'DnsName' in 'New-AzKeyVaultCertificatePolicy' to accept an empty list [#18954]

## Az.MarketplaceOrdering

- Added a warning message for an upcoming breaking change to 'Get-AzMarketplaceTerms'.

## Az.Monitor

- Added breaking change warning messages for
  - 'ActivityLogAlert'
  - 'DiagnosticSetting'
  - 'ScheduledQueryRule'
  - 'Autoscale'

## Az.Network

- Added breaking change notification for 'Get-AzFirewall', 'New-AzFirewall', 'Set-AzFirewall' and 'New-AzFirewallHubIpAddress'

## Az.OperationalInsights

- Added new cmdlets for Table resource: 'New-AzOperationalInsightsRestoreTable', 'New-AzOperationalInsightsSearchTable', 'New-AzOperationalInsightsTable', 'Remove-AzOperationalInsightsTable', 'Update-AzOperationalInsightsTable', 'Convert-AzOperationalInsightsMigrateTable'
- Added new property 'DefaultDataCollectionRuleResourceId' to 'Set-AzOperationalInsightsWorkspace' and to 'New-AzOperationalInsightsWorkspace' cmdlets

## Az.PolicyInsights

- Updated parameter documentation for Get-AzPolicyState

## Az.RecoveryServices

- Added support for Archive smart tiering for AzureVM and MSSQL workloads.

## Az.Resources

- Fixed bug '-Password' overwrite '-PasswordProfile' in 'New-AzADUser' [#19265]
- Exposed 'EmployeeOrgData' 'Manager' for 'Get-AzADUser' [#18205]
- Exposed parameter '-Count' for 'Get-AzADUser' [#16874]

## Az.ServiceBus

- In the upcoming major breaking change release in October 2022, Az.ServiceBus would be migrating most cmdlets to a new format for a better powershell experience and as a result would witness breaking changes. Please refer our migration guide to know more <https://go.microsoft.com/fwlink/?linkid=2204584>.
- Added -MinimumTlsVersion to New-AzServiceBusNamespace and Set-AzServiceBusNamespace

## Az.Storage

- Supported to create or update Storage account with Azure Files Active Directory Domain Service Kerberos Authentication
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported create/upgrade storage account by enable sftp and enable localuser
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported manage local user of a storage account
  - 'Set-AzStorageLocalUser'
  - 'Get-AzStorageLocalUser'
  - 'Remove-AzStorageLocalUser'
  - 'New-AzStorageLocalUserSshPassword'
  - 'Get-AzStorageLocalUserKey'
  - 'New-AzStorageLocalUserSshPublicKey'
  - 'New-AzStorageLocalUserPermissionScope'
- Supported soft delete DataLake Gen2 item
  - 'Get-AzDataLakeGen2DeletedItem'
  - 'Restore-AzDataLakeGen2DeletedItem'

## Az.Synapse

- Updated 'New-AzSynapseSparkPool' and 'Update-AzSynapseSparkPool' to support for setting spark pool dynamic executor allocation by '-EnableDynamicExecutorAllocation'

## Az.Websites

- Fixed 'Import-AzWebAppKeyVaultCertificate' to use certificate naming convention same as Az-CLI

## Thanks to our community contributors

- Harshit Aggarwal (@harshit283), Onboard EnergyServices to PrivatelinkCommonCmdlets (#19271)
- Jarrad O'Brien (@jarrad-obrien), typo (#19153)
- sravani saluru (@sravanisaluru), Update Set-AzSynapseSqlPoolAuditSetting.md (#18839)

## 8.2.0 - August 2022

## Az.Accounts

- Implemented 'SupportsShouldProcess' for 'Invoke-AzRestMethod'
- Supported giving suggestions if an Azure PowerShell command cannot be found, for example when there is a typo in command name.

## Az.Aks

- Removed the warning messages for MSGraph migration [#18856]

## Az.Compute

- Added parameters 'PackageName', 'ConfigFileName' for 'New-AzGalleryApplicationVersion'

## Az ConfidentialLedger

- General availability of 'Az ConfidentialLedger'

## Az.EventHub

- Added -MinimumTlsVersion to New-AzEventHubNamespace and Set-AzEventHubNamespace
- Added -SupportsScaling to New-AzEventHubCluster and Set-AzEventHubCluster to support self serve clusters
- Deprecation warning on a few parameters in cluster cmdlets that will be deprecated in the November major release

## Az.KeyVault

- Removed the warning messages for MSGraph migration [#18856]

## Az.Migrate

- Fixed a cross-subscription issue

## Az.Network

- Updated cmdlets to add new property of 'ExplicitProxy' in Azure Firewall Policy.
  - 'New-AzFirewallPolicyExplicitProxy'
  - 'New-AzFirewallPolicy'
  - 'Set-AzFirewallPolicy'
- Added new cmdlets to create packet captures for Network Watcher:
  - 'New-AzNetworkWatcherPacketCaptureV2'
  - 'New-AzPacketCaptureScopeConfig'
- Added support for CustomV2 ssl policies for Application Gateway.
  - Added 'CustomV2' to the validation set of 'PolicyType'
  - Added 'TLSv1\_3' to the validation set of 'MinProtocolVersion'
  - Removed validation for null or empty cipher suites list since there can be empty cipher suites list for min protocol version of tls1.3
- Network Watcher Feature Change: Added new parameter i.e. AzureVMSS as source endpoint in ConnectionMonitor.
  - 'New-AzNetworkWatcherConnectionMonitorEndpointObject'
- Added 'IdentifyTopFatFlow' parameter to 'AzureFirewall'
  - 'New-AzFirewall'
- Enabled Azure Firewall forced tunneling by default (AzureFirewallManagementSubnet and ManagementPublicIpAddress are required) whenever basic sku firewall is created.
  - 'New-AzFirewall'
- Fixed bug that causes an overflow due to incorrect SNAT private ranges IP validation.
- Added new cmdlets to create/manage L4(TCP/TLS) objects for ApplicationGateway:
  - 'Get-AzApplicationGatewayListener'
  - 'New-AzApplicationGatewayListener'
  - 'Add-AzApplicationGatewayListener'
  - 'Set-AzApplicationGatewayListener'
  - 'Remove-AzApplicationGatewayListener'
  - 'Get-AzApplicationGatewayBackendSetting'
  - 'New-AzApplicationGatewayBackendSetting'
  - 'Add-AzApplicationGatewayBackendSetting'
  - 'Set-AzApplicationGatewayBackendSetting'
  - 'Remove-AzApplicationGatewayBackendSetting'
  - 'Get-AzApplicationGatewayRoutingRule'
  - 'New-AzApplicationGatewayRoutingRule'
  - 'Add-AzApplicationGatewayRoutingRule'
  - 'Set-AzApplicationGatewayRoutingRule'
  - 'Remove-AzApplicationGatewayRoutingRule'
- Updated cmdlet to add TCP/TLS Listener , BackendSetting , RoutingRule support for Application Gateway:
  - 'New-AzApplicationGateway'

- Updated cmdlets to add TCP/TLS protocol support for Application gateway Health Probe configuration:
  - 'Set-AzApplicationGatewayProbeConfig'
  - 'Add-AzApplicationGatewayProbeConfig'
  - 'New-AzApplicationGatewayProbeConfig'
- Updated cmdlets to add basic sku support on Azure Firewall and Azure Firewall Policy:
  - 'New-AzFirewall'
  - 'New-AzFirewallPolicy'
  - 'Set-AzFirewallPolicy'
- Added new cmdlets to create/manage authorization objects for ExpressRoutePort:
  - 'Add-AzExpressRoutePortAuthorization'
  - 'Get-AzExpressRoutePortAuthorization'
  - 'Remove-AzExpressRoutePortAuthorization'
- Added option parameter 'AuthorizationKey' to cmdlet 'New-AzExpressRouteCircuit' to allow creating ExpressRoute Circuit on a ExpressRoutePort with a different owner.
- Fixed bug that can't display CustomIpPrefix in PublicIpPrefix.
- Updated cmdlets to add new property of 'HubRoutingPreference' in VirtualHub and set property of 'PreferredRoutingGateway' deprecated .
  - 'New-AzVirtualHub'
  - 'Update-AzVirtualHub'
- Added optional parameter 'AuxiliaryMode' to cmdlet 'New-AzNetworkInterface' to enable this network interface as Sirius enabled. Allowed values are None(default) and MaxConnections.
- Multipool feature change: Updated cmdlets to add new optional property: 'ConfigurationPolicyGroups' object for associating policy groups.
  - 'Update-AzVpnServerConfiguration'
  - 'New-AzVpnServerConfiguration'
- Multipool feature change: Updated cmdlets to add new optional property: 'P2SConnectionConfiguration' object for specifying multiple Connection configurations.
  - 'Update-AzP2sVpnGateway'
  - 'New-AzP2sVpnGateway'
- Multipool feature change: Added new cmdlets to support CRUD of Configuration policy groups for VpnServerConfiguration.
  - 'Get-AzVpnServerConfigurationPolicyGroup'
  - 'New-AzVpnServerConfigurationPolicyGroup'
  - 'Update-AzVpnServerConfigurationPolicyGroup'
  - 'Remove-AzVpnServerConfigurationPolicyGroup'
- Added new cmdlets for RoutingIntent child resource of VirtualHub. -'Add-AzRoutingPolicy' - 'Get-AzRoutingPolicy' -'New-AzRoutingPolicy' -'Remove-AzRoutingPolicy' -'Set-AzRoutingPolicy' -'Get-AzRoutingIntent' -'New-AzRoutingIntent' -'Remove-AzRoutingIntent' - 'Set-AzRoutingIntent'
- Updated cmdlets to add new option of 'HubRoutingPreference' in RouteServer.
  - 'New-AzRouteServer'
  - 'Update-AzRouteServer'
- Fixed bug that can't parse CustomIpPrefixParent parameter from swagger to powershell.
- Added 'Any' operator in New-AzApplicationGatewayFirewallCondition

- Made properties 'ApplicationSecurityGroups' and 'IpConfigurations' for 'PrivateEndpoint' updatable in the cmdlet 'Set-AzPrivateEndpoint'
- Onboarded Device Update for IoT Hub to Private Link Common Cmdlets

## Az.RedisEnterpriseCache

- Upgraded API version to 2022-01-01

## Az.Resources

- Removed the warning messages for MSGraph migration [#18856]
- [Breaking Change] Renamed cmdlet from '{}-AzADAppFederatedIdentityCredential' to '{}-AzADAppFederatedCredential'
- [Breaking Change] Renamed '-Id' to '-FederatedCredentialId' for
  - 'Get-AzADAppFederatedCredential'
  - 'Remove-AzADAppFederatedCredential'
  - 'Update-AzADAppFederatedCredential'
- Upgraded API version from Beta to 1.0

## Az.Sql

- Removed the warning messages for MSGraph migration [#18856]
- Moved SQL Server and SQL Instance from ActiveDirectoryClient to MicrosoftGraphClient
- Supported cross-subscription Failover Group creation using 'PartnerSubscriptionId' parameter in 'New-AzSqlDatabaseFailoverGroup' cmdlet

## Az.Storage

- Added check for storage account sas token is secured with the storage account key.
  - 'New-AzStorageAccountSASToken'
- Supported Management Policy rule filter BlobIndexMatch
  - Added a new cmdlet 'New-AzStorageAccountManagementPolicyBlobIndexMatchObject'
  - Added a new parameter 'BlobIndexMatch' in 'New-AzStorageAccountManagementPolicyFilter'

## Az.Synapse

- Set 'ResourceGroupName' as optional for 'Set-AzSynapseSqlAuditSetting' cmdlet
- Added LastCommitId parameter to 'New-AzureSynapseGitRepositoryConfig'
- Fixed the issue that update spark pool version fail by 'Update-AzSynapseSparkPool'

## Az.Websites

- Fixed 'Publish-AzWebapp' to handle relative paths properly [#18028]

## Thanks to our community contributors

- Harish Karthic (@hkarthik7), Updated parameter name from `-Type` to `-SkuName` (#18882)
- Oscar de Groot (@odegroot), Fix "save as pfx" example (#19003)
- @shiftychris, Update New-AzApplicationGatewayFirewallPolicyManagedRuleSet.md (#18972)

## 8.1.0 - July 2022

### Az.Accounts

- Supported exporting and importing configurations by 'Export-AzConfig' and 'Import-AzConfig'.
- Fixed an issue that Az.Accounts may fail to be imported in parallel PowerShell processes. [#18321]
- Fixed incorrect access token [#18105]
- Upgraded version of Microsoft.Identity.Client for .NET Framework. [#18495]
- Fixed an issue that Az.Accounts failed to be imported if multiple environment variables, which only differ by case, are set. [#18304]

### Az.Aks

- Added parameter 'CommandContextAttachmentZip' for 'Invoke-AzAksRunCommand'. [#17454]
- Added ManagedIdentity support for Aks[#15656].
- Added property 'PowerState' for the output of 'Get-AzAksCluster' [#18271]
- Updated the logic of 'Set-AzAksCluster' for parameter 'NodeImageOnly'.
- Added parameter 'NodeImageOnly' for 'Update-AzAksNodePool'.
- Added parameter 'AvailabilityZone' for 'New-AzAksCluster'. [#18658]

### Az.ApplicationInsights

- Fixed parameters for Set-AzApplicationInsightsDailyCap [#18315]
- Fixed parameter 'DocumentType' for 'New-AzApplicationInsightsContinuousExport' and 'Set-AzApplicationInsightsContinuousExport' [#18350]
- Fixed parameter 'ResourceId' for 'Get-AzApplicationInsights' [#18707]

### Az.Compute

- Added image alias 'Win2022AzureEditionCore'
- Added the '`-DisableIntegrityMonitoring`' switch parameter to the 'New-AzVM' cmdlet. Changed the default behavior for 'New-AzVM' and 'New-AzVmss' when these conditions are met:
  1. '`-DisableIntegrityMonitoring`' is not true.
  2. 'SecurityType' on the SecurityProfile is 'TrustedLaunch'.
  3. 'VTPMEnabled' on the SecurityProfile is true.
  4. 'SecureBootEnabled' on the SecurityProfile is true. Now 'New-AzVM' will install the 'Guest Attestation' extension to the new VM when these conditions are met. Now 'New-AzVmss'

will install the 'Guest Attestation' extension to the new Vmss when these conditions are met and installed to all VM instances in the Vmss.

- Added '-UserAssignedIdentity' and '-FederatedClientId' to the following cmdlets:
  - 'New-AzDiskEncryptionSetConfig'
  - 'Update-AzDiskEncryptionSet'
- Added '-TreatFailureAsDeploymentFailure' to cmdlets 'Add-AzVmGalleryApplication' and 'Add-AzVmssGalleryApplication'
- Removed Exceptions for when SinglePlacementGroup is set to true in 'OrchestrationMode'

## Az.CosmosDB

- Added support for partition key and id paths to be part of client encryption policy.
- Fixed bug related to Update-AzCosmosDBSqlContainer command on containers with Client Encryption Policy.

## Az.DataFactory

- Updated ADF .Net SDK version to 6.3.0

## Az.EventHub

- Added cmdlets for CRUD operations on EventHub Application Groups. The added cmdlets include, -New-AzEventHubApplicationGroup -Set-AzEventHubApplicationGroup -Remove-AzEventHubApplicationGroup -Get-AzEventHubApplicationGroup -New-AzEventHubThrottlingPolicyConfig
- Get-AzEventHubNamespace returned a maximum of 100 namespaces for list by resource groups or list by subscriptions so far. From here onwards, for resource groups and subscriptions with over a 100 namespaces, the cmdlet will return all the namespaces. You will not see a change in the cmdlet behaviour if your resource groups or subscriptions have less than a 100 namespaces.
- Added cmdlets for manual approval of EventHubs Private Endpoint Connections. The added cmdlets include, -Approve-AzEventHubPrivateEndpointConnection -Deny-AzEventHubPrivateEndpointConnection -Get-AzEventHubPrivateEndpointConnection -Remove-AzEventHubPrivateEndpointConnection -Get-AzEventHubPrivateLink

## Az.KeyVault

- Supported importing pem certificate by 'Import-AzKeyVaultCertificate' [#18494]
- Supported accepting rotation policy in a JSON file
- [Breaking Change] Changed parameter 'ExpiresIn' in 'Set-AzKeyVaultKeyRotationPolicy' from TimeSpan? to string. It must be an ISO 8601 duration like 'P30D' for 30 days.
- [Breaking Change] Changed output properties 'ExpiresIn', 'TimeAfterCreate' and 'TimeBeforeExpiry' of 'Set-AzKeyVaultKeyRotationPolicy' and 'Get-AzKeyVaultKeyRotationPolicy' from TimeSpan? to string.
- Supported creating/updating key with release policy in a Managed HSM

- Removed default value for 'EnabledForDeployment', 'EnabledForTemplateDeployment', 'EnabledForDiskEncryption' and 'EnableRbacAuthorization' during the process of key vault creation
- Changed default access policies for Key Vault secret, certificate and storage as 'All'

## Az.Network

- Added support for CustomV2 ssl policies for Application Gateway.
  - Added 'CustomV2' to the validation set of 'PolicyType'
  - Added 'TLSv1\_3' to the validation set of 'MinProtocolVersion'
  - Removed validation for null or empty cipher suites list since there can be empty cipher suites list for min protocol version of tls1.3
- [Breaking Change] Changed default value of '-PrivateEndpointNetworkPoliciesFlag' to 'Disabled' in 'Add-AzVirtualNetworkSubnetConfig' and 'New-AzVirtualNetworkSubnetConfig'
- Fixed bugs that cannot parse virtual network encryption paramemters when updating exsiting vnet.

## Az.PowerBIEmbedded

- Updated SKU allowed values to support A7 and A8

## Az.RecoveryServices

- Fixed delay in long running operations [#18567]

## Az.Resources

- Added feedback when deleting role assignments even if passthru is not used
- Fixed relative path failure in -AsJob scenario [#18084]
- Fixed logic of 'createtime' and 'ChangedTime' in 'Get-AzResource --ExpandProperties'. [#18206]
- Fixed role assignment latency for 'New-AzADServicePrincipal' [#16777]

## Az.ServiceBus

- Added cmdlets for manual approval of Service Bus Private Endpoint Connections. The added cmdlets include, -Approve-AzServiceBusPrivateEndpointConnection -Deny-AzServiceBusPrivateEndpointConnection -Get-AzServiceBusPrivateEndpointConnection -Remove-AzServiceBusPrivateEndpointConnection -Get-AzServiceBusPrivateLink

## Az.ServiceFabric

- Fixed typo in verbose log message.
- Added Tag support for managed cluster create and update

## Az.Sql

- Added 'GeoZone' option to 'BackupStorageRedundancy' parameter to 'New-AzSqlDatabase', 'Set-AzSqlDatabase', 'New-AzSqlDatabaseCopy', 'New-AzSqlDatabaseSecondary', and 'Restore-AzSqlDatabase' to enable create, update, copy, geo secondary and PITR support for GeoZone hyperscale databases
- Added additional input validation to 'Stop-AzSqlInstanceDatabaseLogReplay' cmdlet to ensure the target database was created by log replay service
- Bug fix for cmdlet 'Restore-AzSqlDatabase'. The optional property 'Tags' was not working as expected
- Added `isManagedIdentityInUse` get parameter for 'Get-AzSqlServerAudit' and 'Get-AzSqlDatabaseAudit'
- Added new cmdlet 'Set-AzSqlInstanceDatabase'

## Az.StackHCI

- Added support to Stack HCI Cluster
- Added support to Stack HCI Extension
- Added support to Stack HCI Arc Settings

## Az.Storage

- Supported `BaseBlob DaysAfterCreationGreater Than` in Management Policy
  - 'Add-AzStorageAccountManagementPolicyAction'

## Thanks to our community contributors

- @ayeshurun, Update SKU allowed values for PowerBI Embedded capacities (#18670)
- @JulianePadrao, [SQL] fix for deprecated term (#18620)
- @kaushik-ms, powershell changes for new ssl policies in appgw (#18287)
- Adrian Leonhard (@NaridaL), fix typo begin -> begin in 3 files (#18391)

## 8.0.0 - May 2022

## Az.Accounts

- Added a preview feature allowing user to control the following configurations by using 'Get-AzConfig', 'Update-AzConfig' and 'Clear-AzConfig':
  - 'DefaultSubscriptionForLogin': Subscription name or GUID. Sets the default context for Azure PowerShell when logging in without specifying a subscription.
  - 'DisplayBreakingChangeWarning': Controls if warning messages for breaking changes are displayed or suppressed.
  - 'EnableDataCollection': When enabled, Azure PowerShell cmdlets send telemetry data to Microsoft to improve the customer experience.
- Upgraded System.Reflection.DispatchProxy on Windows PowerShell [#17856]
- Upgraded Azure.Identity to 1.6.0 and Azure.Core to 1.24.0

## Az.Aks

- Removed these aliases:
  - 'Get-AzAks'
  - 'New-AzAks'
  - 'Set-AzAks'
  - 'Remove-AzAks'

## Az.ApiManagement

- [Breaking change] Replaced parameter 'Sample' by 'Examples' in 'New-AzApiManagementOperation' and 'Set-AzApiManagementOperation'
- Updated APIM .Net SDK version to 8.0.0 / API Version 2021-08-01

## Az.ApplicationInsights

- Upgraded API version for ApplicationInsights component to 2020-02-02
- Supported Log Analytics workspace-based component by 'New-AzApplicationInsights' and 'Update-AzApplicationInsights'

## Az.Cdn

- Upgraded API version to 2021-06-01
- Removed deprecated cmdlets
  - Disable-AzCdnCustomDomain
  - Enable-AzCdnCustomDomain
  - Get-AzCdnEdgeNodes
  - Get-AzCdnProfileSsoUrl
  - New-AzCdnDeliveryPolicy
  - Set-AzFrontDoorCdnSecret
- Added new cmdlets
  - Clear-AzFrontDoorCdnEndpointContent
  - Get-AzFrontDoorCdnEndpointResourceUsage
  - Get-AzFrontDoorCdnOriginGroupResourceUsage
  - Get-AzFrontDoorCdnProfileResourceUsage
  - Get-AzFrontDoorCdnRuleSetResourceUsage
  - Test-AzFrontDoorCdnEndpointCustomDomain
  - Test-AzFrontDoorCdnEndpointNameAvailability
  - Test-AzFrontDoorCdnProfileHostNameAvailability
  - Update-AzFrontDoorCdnCustomDomainValidationToken
  - Update-AzFrontDoorCdnRule
- Renamed Set cmdlets to Update cmdlets
- Added 'Object' suffix to memory object creation cmdlets

## Az.Compute

- Edited 'New-AzVm' cmdlet internal logic to use the 'PlatformFaultDomain' value in the 'PSVirtualMachine' object passed to it in the new virtual machine.
- Added a new cmdlet named 'Restart-AzHost' to restart dedicated hosts.
- Added '-DataAccessAuthMode' parameter to the following cmdlets:
  - 'New-AzDiskConfig'
  - 'New-AzDiskUpdateConfig'
  - 'New-AzSnapshotConfig'
  - 'New-AzSnapshotUpdateConfig'
- Added '-Architecture' parameter to the following cmdlets:
  - 'New-AzDiskConfig'
  - 'New-AzDiskUpdateConfig'
  - 'New-AzSnapshotConfig'
  - 'New-AzSnapshotUpdateConfig'
  - 'New-AzGalleryImageDefinition'
- Added '-InstanceView' parameter to 'Get-AzRestorePoint'
- Added parameter '-ScriptString' to 'Invoke-AzvmRunCommand' and 'Invoke-AzvmssRunCommand'
- Added parameter '-ScaleInPolicyForceDeletion' to 'Update-Azvmss'

## Az.ContainerRegistry

- Updated parameter types from bool to bool? for 'Update-AzContainerRegistryRepository' [#17857]
  - 'ReadEnabled'
  - 'ListEnabled'
  - 'WriteEnabled'
  - 'DeleteEnabled'

## Az.CosmosDB

- Introduced support for creating containers with Client Encryption Policy. The current supported version of Client Encryption Policy is 1.

## Az.DataFactory

- Updated ADF .Net SDK version to 6.1.0
- Fixed Set-AzDataFactoryV2 -InputObject not correct with PublicNetworkAccess Parameter

## Az.EventHub

- Made 'IPRule' and 'VirtualNetworkRule' optional in 'Set-AzEventHubNetworkRuleSet'.
- Deprecated older MSI properties in 'Set-AzEventHubNamespace' and 'New-AzEventHubNamespace'

## Az.Functions

- Fixed an issue that New-AzFunctionApp cmdlet should write a warning message when setting default values for parameters that are not provided.

## Az.HealthcareApis

- Migrated module to generated codebase.
- Added cmdlets:
  - New/Get/Update/Remove-AzHealthcareApisService
  - New/Get/Update/Remove-AzHealthcareApisWorkspace
  - New/Get/Update/Remove-AzHealthcareFhirService
  - New/Get/Update/Remove-AzHealthcareDicomService
  - New/Get/Update/Remove-AzHealthcareIoTConnector
  - New/Get/Remove-AzHealthcareIoTConnectorFhirDestination
  - Get-AzHealthcareFhirDestination

## Az.KeyVault

- Added 'Rotate' into the list of permissions to keys [#17970]

## Az.ManagedServiceIdentity

- General availability of 'Az.ManagedServiceIdentity'

## Az.Network

- Supported 'Microsoft.Network/privateLinkServices' in 'Get-AzPrivateEndpointConnection' [#16984].
- Provided friendly message if resource type is not supported for private endpoint connection features [#17091].
- Added 'DisableIPsecProtection' to 'Virtual Network Gateway'.
- Added new cmdlets to create/manage authorization objects for ExpressRoutePort:
  - 'Add-AzExpressRoutePortAuthorization'
  - 'Get-AzExpressRoutePortAuthorization'
  - 'Remove-AzExpressRoutePortAuthorization'
- Added option parameter 'AuthorizationKey' to cmdlet 'New-AzExpressRouteCircuit' to allow creating ExpressRoute Circuit on a ExpressRoutePort with a different owner.
- Fix bug that can't display CustomIpPrefix in PublicIpPrefix.
- Updated cmdlets to add new property of 'HubRoutingPreference' in VirtualHub and set property of 'PreferredRoutingGateway' deprecated .
  - 'New-AzVirtualHub'
  - 'Update-AzVirtualHub'
- Added optional parameter 'AuxiliaryMode' to cmdlet 'New-AzNetworkInterface' to enable this network interface as Sirius enabled. Allowed values are None(default) and MaxConnections.
- Multipool feature change: Updated cmdlets to add new optional property: 'ConfigurationPolicyGroups' object for associating policy groups.

- 'Update-AzVpnServerConfiguration'
  - 'New-AzVpnServerConfiguration'
- Multipool feature change: Updated cmdlets to add new optional property: 'P2SConnectionConfiguration' object for specifying multiple Connection configurations.
  - 'Update-AzP2sVpnGateway'
  - 'New-AzP2sVpnGateway'
- Multipool feature change: Added new cmdlets to support CRUD of Configuration policy groups for VpnServerConfiguration.
  - 'Get-AzVpnServerConfigurationPolicyGroup'
  - 'New-AzVpnServerConfigurationPolicyGroup'
  - 'Update-AzVpnServerConfigurationPolicyGroup'
  - 'Remove-AzVpnServerConfigurationPolicyGroup'

## Az.RecoveryServices

- Added support for Multi-user authorization using Resource Guard for recovery services vault.
- Added support for cross subscription restore for recovery services vault, modified storage account to be fetched from target subscription.

## Az.Resources

- Added cmdlet for Application federated identity credential
  - 'Get-AzADAppFederatedIdentityCredential'
  - 'New-AzADAppFederatedIdentityCredential'
  - 'Remove-AzADAppFederatedIdentityCredential'
  - 'Update-AzADAppFederatedIdentityCredential'
- Upgraded and revised 'Get-AzLocation' cmdlet:
  - Upgraded 'subscriptionClient' for 'Get-AzLocation'. Changed its apiVersion from 2016-01-01 to 2021-01-01.[#18002]
  - Added all attributes of location info for 'Get-AzLocation', including 'pairedRegion' and so on. [#18045][#17536]
  - Support ExtendedLocations by 'Get-AzLocation' [#18046]
- Added the following cmdlets to remain in parity with 2021-04-01 API version:
  - 'New-AzHierarchySetting'
  - 'Get-AzHierarchySetting'
  - 'Update-AzHierarchySetting'
  - 'Remove-AzHierarchySetting'
  - 'Get-AzManagementGroupSubscription'
  - 'Get-AzSubscriptionUnderManagementGroup'
  - 'Start-AzTenantBackfill'
  - 'Get-AzTenantBackfillStatus'
  - 'Get-AzManagementGroupNameAvailability'
  - 'Get-AzEntity'
- [Breaking Change] Renamed property `isSyncedFromOnPremis` to `isSyncedFromOnPremise` to align with API spec

## Az.Security

- Added new cmdlet: 'Get-AzSecuritySolution'
- Added Alerts Suppression Rules to cmdlets: 'Get-AlertsSuppressionRule' 'Remove-AlertsSuppressionRule' 'Set-AlertsSuppressionRule' 'New-AzAlertsSuppressionRuleScope'

## Az.ServiceBus

- Fixed miscellaneous network rule set typos across module.
- Add 'TrustedServiceAccessEnabled' to 'Set-AzServiceBusNetworkRuleSet'

## Az.Sql

- Added new cmdlet 'Get-AzSqlInstanceEndpointCertificate'
- Added parameter 'HighAvailabilityReplicaCount' to 'New-AzSqlElasticPool' and 'Set-AzSqlElasticPool'

## Az.Storage

- Supported generate Sas token for DataLakeGen2
  - 'New-AzDataLakeGen2SasToken'
- Showed OAuth token in debug log in debug build only
  - 'New-AzStorageContext'
- Supported return more file properties when list Azure file
  - 'Get-AzStorageFile'

## Az.Synapse

- Added support for Synapse Link for Azure Sql Database
  - Added 'Get-AzSynapseLinkConnection' cmdlet
  - Added 'Get-AzSynapseLinkConnectionDetailedStatus' cmdlet
  - Added 'Set-AzSynapseLinkConnection' cmdlet
  - Added 'Remove-AzSynapseLinkConnection' cmdlet
  - Added 'Start-AzSynapseLinkConnection' cmdlet
  - Added 'Stop-AzSynapseLinkConnection' cmdlet
  - Added 'Set-AzSynapseLinkConnectionLinkTable' cmdlet
  - Added 'Get-AzSynapseLinkConnectionLinkTable' cmdlet
  - Added 'Get-AzSynapseLinkConnectionLinkTableStatus' cmdlet
  - Added 'Update-AzSynapseLinkConnectionLandingZoneCredential' cmdlet
- Set 'UploadedTimestamp' when adding package to spark pool by 'Update-AzSynapseSparkPool'

## Az.Websites

- Updated 'Get-AzWebApp' and 'Get-AzWebAppSlot' to expose 'VirtualNetworkSubnetId' property [#18042]

## Thanks to our community contributors

- @bb-froggy, Fixed dead link to the DCR Overview (#17998)
- Darryl van der Peijl (@DarrylvanderPeijl), Changing on-premise to on-premises (#17974)
- Hiroshi Yoshioka (@hyoshioka0128), Typo "Github Actions"→"GitHub Actions" (#18160)
- @misbamustaqa, Adding DisableIPsecProtection check(bool) to Virtual Network Gateway (#18029)
- Scott Tang (@scottwtang), Update documentation for Get-AzApiManagementSubscription cmdlet (#18027)
- @SnehaSudhirG, Update Get-AzAutomationScheduledRunbook.md (#18059)

## 7.5.0 - April 2022

### Az.Accounts

- Upgraded Microsoft.Rest.ClientRuntime to 2.3.24

### Az.Aks

- Updated the description of 'Force' in 'Invoke-AzAksRunCommand' [#17756]
- Fixed the issue that 'identity' cannot be piped into 'Set-AzAksCluster' [#17376]

### Az.ApiManagement

Added warning message for upcoming breaking change.

### Az.Batch

- Updated Az.Batch to use 'Microsoft.Azure.Batch' SDK version 15.3.0
  - Add ability to assign user-assigned managed identities to 'PSCloudPool'. These identities will be made available on each node in the pool, and can be used to access various resources.
  - Added 'IdentityReference' property to the following models to support accessing resources via managed identity:
    - 'PSAzureBlobFileSystemConfiguration'
    - 'PSOutputFileBlobContainerDestination'
    - 'PSContainerRegistry'
    - 'PSResourceFile'
    - 'PSUploadBatchServiceLogsConfiguration'
  - Added new 'extensions' property to 'PSVirtualMachineConfiguration' on 'PSCloudPool' to specify virtual machine extensions for nodes

- Added the ability to specify availability zones using a new property 'NodePlacementConfiguration' on 'VirtualMachineConfiguration'
- Added new 'OSDisk' property to 'VirtualMachineConfiguration', which contains settings for the operating system disk of the Virtual Machine.
  - The 'Placement' property on 'PSDiffDiskSettings' specifies the ephemeral disk placement for operating system disks for all VMs in the pool. Setting it to 'CacheDisk' will store the ephemeral OS disk on the VM cache.
- Added 'MaxParallelTasks' property on 'PSCloudJob' to control the maximum allowed tasks per job (defaults to -1, meaning unlimited).
- Added 'VirtualMachineInfo' property on 'PSComputeNode' which contains information about the current state of the virtual machine, including the exact version of the marketplace image the VM is using.
- Added 'RecurrenceInterval' property to 'PSSchedule' to control the interval between the start times of two successive job under a job schedule.
- Added a new 'Get-AzBatchComputeNodeExtension' command, which gets a specific extension by name, or a list of all extensions, for a given compute node.
- Updated Az.Batch'Microsoft.Azure.Management.Batch' SDK version 14.0.0.
  - Added a new 'Get-AzBatchSupportedVirtualMachineSku' command, which gets the list of Batch-supported Virtual Machine VM sizes available at a given location.
  - Added a new 'Get-AzBatchTaskSlotCount' command, which gets the number of task slots required by a given job.
  - 'MaxTasksPerComputeNode' has been renamed to 'TaskSlotsPerNode', to match a change in functionality.
    - 'MaxTasksPerComputeNode' will remain as an alias but will be removed in a coming update.

## Az.Cdn

- Added breaking change messages for all cmdlets in Az.CDN module

## Az.CognitiveServices

- Updated CognitiveServices PowerShell to use 2022-03-01 version.
- Added 'Get-AzCognitiveServicesAccountModel' cmdlet.

## Az.Compute

- Added '-ImageReferenceId' parameter to following cmdlets: 'New-AzVm', 'New-AzVmConfig', 'New-AzVmss', 'Set-AzVmssStorageProfile'
- Added functionality for cross-tenant image reference for VM, VMSS, Managed Disk, and Gallery Image Version creation.
- 'New-AzGallery' can take in '-Permission' parameter to set its sharingProfile property.
- 'Update-AzGallery' can update sharingProfile.
- 'Get-AzGallery' can take in '-Expand' parameter for expanded resource view.
- New parameter set for the following cmdlets to support Shared Image Gallery Direct Sharing

- Get-AzGallery
- Get-AzGalleryImageDefinition
- Get-AzGalleryImageVersion
- Updates and improvements to 'Add-AzVhd'
  - Added '-DiskHyperVGeneration' and '-DiskOsType' parameters to the DirectUploadToManagedDisk parameter set for upload to more robust managed disk settings.
  - Updated progress output functions so that it works with VHD files with '&' character in its name.
  - Updated so that uploading dynamically sized VHD files are converted to fixed size during upload.
  - Fixed a bug in uploading a differencing disk.
  - Automatically delete converted/resized VHD files after upload.
  - Fixed a bug that indicates '-ResourceGroupName' parameter as optional when it is actually mandatory.

## Az.ContainerInstance

- Supported empty directory volume and secret volume for creating container group [#17410]

## Az.DataFactory

- Updated ADF .Net SDK version to 6.0.0

## Az.EventHub

- Deprecating older MSI related fields in New-AzEventHubNamespace and Set-AzEventHubNamespace

## Az.KeyVault

- Supported getting random number from managed HSM by 'Get-AzKeyVaultRandomNumber'
- Skipped subscription connection status validation for Az.KeyVault.Extension [#17712]
- Enabled public network access setting

## Az.Kusto

- Supported inline script resource (creation of script with content instead of sas token)
- Added managed identity support to EventGrid
- Added databaseRouting (Single/Multi) to all data connections
- Added PublicIPType to cluster

## Az.Network

- Fixed 'ArgumentNullException' in 'Add-AzureRmRouteConfig' when 'RouteTable.Routes' is null.

## Az.RecoveryServices

- Added support for multiple backups per day (hourly) Enhanced policy for workloadType AzureVM.

## Az.Resources

- Fixed redundant quotes in list pagination [#17667]
- Added cmdlet 'Update-AzADGroup' [#17514]
- Updated API version to beta for group member related cmdlet to allow service principal to be add, get and delete from group [#16698]
- Added parameter '-OwnedApplication' for 'Get-AzADApplication' to get applications owned by current user
- Added parameter '-Web' for 'Update-AzADApplication' [#16750]

## Az.Security

- Added new cmdlets for security Automations API

## Az.StackHCI

- Updated firewall rules for Attestation network to block all other traffic
- Updated cluster to ignore Attestation network

## Az.Storage

- Supported DaysAfterLastTierChangeGreaterThan in Management Policy
  - 'Add-AzStorageAccountManagementPolicyAction'
- Fixed the issue that upload blob might fail on Linux [#17743]
  - 'Set-AzStorageBlobContent'
- Supported AllowPermanentDelete when enable blob soft delete
  - 'Enable-AzStorageBlobDeleteRetentionPolicy'
- Added breaking change warning message for upcoming cmdlet breaking change
  - 'Get-AzStorageFile'

## Az.Synapse

- Added support for Synapse Azure Active Directory (Azure AD) only authentication
  - Added 'Get-AzSynapseActiveDirectoryOnlyAuthentication' cmdlet
  - Added 'Enable-AzSynapseActiveDirectoryOnlyAuthentication' cmdlet
  - Added 'Disable-AzSynapseActiveDirectoryOnlyAuthentication' cmdlet

## Az.Websites

- Updated 'New-AzWebAppContainerPSSession' with CmdletDeprecation Attribute [#16646]

- Updated 'Restore-AzDeletedWebApp' to fix issue that prevents the cmdlet from working on hosts with a locale is anything different from 'en-US'

## Thanks to our community contributors

- Aleksandar Nikolić (@alexandair), Fix the UniqueName property in the examples (#17826)
- @enevoj, Markup rendering issue? (#17732)
- @jeremytanyz, Update Set-AzStorageFileContent.md (#17805)
- Martin Bentancour (@mbentancour), Fix DateTime issue restoring deleted webapp (#16308)
- Preben Huybrechts (@pregress), Perform null check before accessing it (#16552)
- Ryan Buckman (@ryan-buckman), update example 1 command description to match the ApiRevision arg in code sample (#17741)

## 7.4.0 - April 2022

### Az.Accounts

- Added 'SshCredentialFactory' to support get ssh credential of vm from msal.
- Fixed the bug of cmdlet fails when -DefaultProfile is set to service principal login context. [#16617]
- Fixed the issue that authorization does not work in Dogfood environment

### Az.AppConfiguration

- Added parameter 'PublicNetworkAccess' in 'New-AzAppConfigurationStore' and 'Update-AzAppConfigurationStore'

### Az.ApplicationInsights

- Added breaking change warnings for upcoming Az.ApplicationInsights 2.0.0

### Az.Cdn

- Added breaking change messages for upcoming breaking change release of version 2.0.0

### Az.Compute

- Updated 'New-AzVM' to create a new storage account for boot diagnostics if one does not exist. This will prevent the cmdlet from using a random storage account in the current subscription to use for boot diagnostics.
- Added 'AutomaticRepairAction' string parameter to the 'New-AzVmssConfig' and 'Update-AzVmss' cmdlets.
- Updated 'Get-AzVm' to include 'GetVirtualMachineByld' parameter set.

- Edited the documentation for the cmdlet 'Set-AzVMADDomainExtension' to ensure the example is accurate.
- Improved description and examples for disk creation.
- Added new parameters to 'New-AzRestorePoint' and 'New-AzRestorePointCollection' for copying Restore Points and Restore Point Collections.
- Added 'Zone' and 'PlacementGroupId' Parameters to 'Repair-AzVmssServiceFabricUpdateDomain'.
- Edited 'New-AzVmss' logic to better check for null properties when the parameter 'OrchestrationMode' is used.

## Az.CosmosDB

- Introduced support for client encryption key resource management required for CosmosDB Client-Side Encryption by adding support for creating, updating and retrieving client encryption keys with following cmdlets: 'Get-AzCosmosDbClientEncryptionKey', 'New-AzCosmosDbClientEncryptionKey' and 'Update-AzCosmosDbClientEncryptionKey'

## Az.DataFactory

- Updated ADF .Net SDK version to 5.4.0

## Az.Functions

- Exposed PowerShell 7.2 stack definition for function app creation in Functions V4 only

## Az.HDInsight

This release migrates Microsoft.Azure.Graph SDK to MicrosoftGraph SDK.

## Az.KeyVault

- Fixed a bug to continue visiting 'NextPageLink' when listing key vaults from ARM API

## Az.Network

- Added support for retrieving the state of packet capture even when the provisioning state of the packet capture was failure
  - 'Get-AzNetworkWatcherPacketCapture'
- Added support for accepting Vnet, Subnet and NIC resources as the TargetResourceId for the following cmdlets
  - 'Set-AzNetworkWatcherFlowLog'
  - 'New-AzNetworkWatcherFlowLog'

## Az.OperationalInsights

- Removed capacity validation in new and update cluster cmdlets as validation exists on server side.
- Extended error message on base class for extended information.
- Bug fix - prevent exceptions while using StorageInsight cmdlets.
- Bug fix - when updating a cluster, it's SKU was set even if no value was passed.

## Az.PostgreSql

- Added parameter PublicNetworkAccess for PostgreSQL single server related cmdlets [#17263]

## Az.RecoveryServices

- Added support for Trusted VM backup and Enhanced policy for WorkloadType AzureVM.
- Added support for disabling hybrid backup security features in 'Set-AzRecoveryServicesVaultProperty' cmdlet. The feature can be re-enabled by setting 'DisableHybridBackupSecurityFeature' flag to False.

## Az.Resources

- Removed '-ApplicationId' from 'New-AzADServicePrincipal' 'SimpleParameterSet' [#17256]
- Added 'New-AzResourceManagementPrivateLink', and 'New-AzPrivateLinkAssociation' cmdlets
- Added authorization related cmdlets:
  - 'Get-AzRoleAssignmentSchedule'
  - 'Get-AzRoleAssignmentScheduleInstance'
  - 'Get-AzRoleAssignmentScheduleRequest'
  - 'Get-AzRoleEligibilitySchedule'
  - 'Get-AzRoleEligibilityScheduleInstance'
  - 'Get-AzRoleEligibilityScheduleRequest'
  - 'Get-AzRoleEligibleChildResource'
  - 'Get-AzRoleManagementPolicy'
  - 'Get-AzRoleManagementPolicyAssignment'
  - 'New-AzRoleAssignmentScheduleRequest'
  - 'New-AzRoleEligibilityScheduleRequest'
  - 'New-AzRoleManagementPolicyAssignment'
  - 'Remove-AzRoleManagementPolicy'
  - 'Remove-AzRoleManagementPolicyAssignment'
  - 'Stop-AzRoleAssignmentScheduleRequest'
  - 'Stop-AzRoleEligibilityScheduleRequest'
  - 'Update-AzRoleManagementPolicy'
- Added 'Get-AzResourceManagementPrivateLink', 'Remove-AzResourceManagementPrivateLink', 'Get-AzResourceManagementPrivateLinkAssociation' and 'Remove-AzResourceManagementPrivateLinkAssociation' cmdlets

## Az.ServiceBus

- Fixed that 'New-AzServiceBusAuthorizationRuleSASToken' returns invalid token. [#12975]

## Az.ServiceFabric

- Added support for Ubuntu 20.04 vm image.
  - This enables cluster operations with Ubuntu 20.04 vm image using AZ powershell.

## Az.Sql

- Added parameter 'ServicePrincipalType' to 'New-AzSqlInstance' and 'Set-AzSqlInstance'
- [Breaking change] Removed 'Get-AzSqlDatabaseTransparentDataEncryptionActivity'
- Added property 'CurrentBackupStorageRedundancy' and 'RequestedBackupStorageRedundancy' in the outputs of Managed Instance CRUD commands
- Added optional property 'Tag' to 'Restore-AzSqlDatabase'
- Added new cmdlets for managing Server Trust Certificates
  - 'New-AzSqlInstanceServerTrustCertificate'
  - 'Get-AzSqlInstanceServerTrustCertificate'
  - 'Remove-AzSqlInstanceServerTrustCertificate'
- Added new cmdlets for managing Managed Instance Link
  - 'New-AzSqlInstanceLink'
  - 'Get-AzSqlInstanceLink'
  - 'Remove-AzSqlInstanceLink'
  - 'Set-AzSqlInstanceLink'
- Added support for DataWarehouse cross tenant and cross subscription restore operations to 'Restore-AzSqlDatabase' cmdlet

## Az.Storage

- Updated examples in reference documentation for 'Close-AzStorageFileHandle'
- Supported create storage context with customized blob, queue, file, table service endpoint
  - 'New-AzStorageContext'
- Fixed copy blob failure on Premium Storage account, or account enabled hierarchical namespace
  - 'Copy-AzStorageBlob'
- Supported create account SAS token, container SAS token, blob SAS token with EncryptionScope
  - 'New-AzStorageAccountSASToken'
  - 'New-AzStorageContainerSASToken'
  - 'New-AzStorageBlobSASToken'
- Supported asynchronous blob copy run on new API version
  - 'Start-AzStorageBlobCopy'
- Fixed IpRule examples in help
  - 'Add-AzStorageAccountNetworkRule'
  - 'Remove-AzStorageAccountNetworkRule'
  - 'Update-AzStorageAccountNetworkRuleSet'

## Az.Synapse

- Upgraded Azure.Analytics.Synapse.Artifacts to 1.0.0-preview.14
- Fixed the issue that following cmdlets only shows 100 entries
  - 'Get-AzSynapseRoleAssignment' cmdlet
  - 'Get-AzSynapsePipelineRun' cmdlet
  - 'Get-AzSynapseTriggerRun' cmdlet
  - 'Get-AzSynapseActivityRun' cmdlet
- Fixed the issue that there should be an error message when removing a dependency pipeline

## Az.Websites

- Fixed 'Set-AzWebAppSlot' to support MinTlsVersion version update [#17663]
- Fixed 'Set-AzAppServicePlan' to keep existing Tags when adding new Tags
- Fixed 'Set-AzWebApp','Set-AzWebAppSlot', 'Get-AzWebApp' and 'Get-AzWebAppSlot' to expose 'VnetRouteAllEnabled' property in 'SiteConfig' [#15663]
- Fixed 'Set-AzWebApp', 'Set-AzWebAppSlot', 'Get-AzWebApp' and 'Get-AzWebAppSlot' to expose 'HealthCheckPath' property in 'SiteConfig' [#16325]
- Fixed DateTime conversion issue caused by culture [#17253]
- Added support for the web job feature [#661]
  - Get-AzWebAppContinuousWebJob
  - Get-AzWebAppSlotContinuousWebJob
  - Get-AzWebAppSlotTriggeredWebJob
  - Get-AzWebAppSlotTriggeredWebJobHistory
  - Get-AzWebAppSlotWebJob
  - Get-AzWebAppTriggeredWebJob
  - Get-AzWebAppTriggeredWebJobHistory
  - Get-AzWebAppWebJob
  - Remove-AzWebAppContinuousWebJob
  - Remove-AzWebAppSlotContinuousWebJob
  - Remove-AzWebAppSlotTriggeredWebJob
  - Remove-AzWebAppTriggeredWebJob
  - Start-AzWebAppContinuousWebJob
  - Start-AzWebAppSlotContinuousWebJob
  - Start-AzWebAppSlotTriggeredWebJob
  - Start-AzWebAppTriggeredWebJob
  - Stop-AzWebAppContinuousWebJob
  - Stop-AzWebAppSlotContinuousWebJob

## Thanks to our community contributors

- Axel B. Andersen (@Agazoth)
  - Update Get-AzADUser.md (#17549)
  - Added a new example (#17535)
- @davidslamb, Fix invalid SAS token from New-AzServiceBusAuthorizationRuleSASToken (#17349)

- elle (@elle24), Update Get-AzApplicationGatewayRequestRoutingRule.md (#17405)
- @enevoj, Update Get-AzDataCollectionRule.md (#17586)
- Felipe Guth de Freitas Bergstrom (@guthbergstrom), Update New-AzDatabricksWorkspace.md (#17472)
- @k0rtina, Update Set-AzConsumptionBudget.md (#17355)
- Kanika Gupta (@kangupt), Added example for New-AzVM
- Evgeniy Chuvikov (@snofe), Update Update-AzCosmosDBSqlDatabaseThroughput.md

## 7.3.2 - March 2022

### Az.Accounts

- Changed target framework of AuthenticationAssemblyLoadContext to netcoreapp2.1 [#17428]

### Az.Compute

- Updated New-AzVM feature for 'vCPUsAvailable' and 'vCPUsPerCore' parameters. Cmdlets will not try to use the new 'VMCustomizationPreview' feature if the user does not have access to that feature. [#17370]

## 7.3.0 - March 2022

### Az.Accounts

- Fixed the issue that authorization does not work in customized environment [#17157]
- Enabled Continue Access Evaluation for MSGraph
- Improved error message when login is blocked by AAD
- Improved error message when silent reauthentication failed
- Loaded System.Private.ServiceModel and System.ServiceModel.Primitives on Windows PowerShell [#17087]

### Az.Aks

- Updated the breaking change warning messages [#16805]

### Az.CloudService

- Fixed the issue of 'Get-AzCloudServiceNetworkInterface' and 'Get-AzCloudServicePublicIPAddress'.

### Az.Compute

- Upgraded Compute .NET SDK package reference to version 52.0.0

- Updated 'New-AzSshKey' cmdlet to write file paths to generated keys to the Warning stream instead of the console.
- Added 'vCPUsAvailable' and 'vCPUsPerCore' integer parameters to the 'New-AzVm', 'New-AzVmConfig', and 'Update-AzVm' cmdlets.

## Az.ContainerInstance

- Fixed Identity Bug in ImageRegistryCredential

## Az.Databricks

- Upgraded API version to 2021-04-01-preview

## Az.DataFactory

- Updated ADF .Net SDK version to 5.2.0

## Az.DataShare

- Added breaking change warning message due to update API version.

## Az.EventHub

- Added MSI properties to New-AzEventHubNamespace and Set-AzEventHubNamespace. Adding New-AzEventHubEncryptionConfig.

## Az.KeyVault

- 'New-AzKeyVaultManagedHsm': supported specifying how long a deleted managed hsm is retained by 'SoftDeleteRetentionInDays' and enabling purge protection by 'EnablePurgeProtection'
- 'Update-AzKeyVaultManagedHsm': supported enabling purge protection by 'EnablePurgeProtection'
- 'Get-AzKeyVaultManagedHsm': Supported getting or listing deleted managed HSM(s)
- 'Remove-AzKeyVaultManagedHsm': Supported purging a specified deleted managed HSM

## Az.Monitor

- Fixed an issue where users could not correctly ignore warning messages after setting environment variables [#17013]

## Az.Network

- Added new property 'SqlSetting' for Azure Firewall Policy cmdlets
  - 'Get-AzFirewallPolicy'

- 'New-AzFirewallPolicy'
- 'Set-AzFirewallPolicy'
- Added new to create new 'SqlSetting' object for creating Azure Firewall Policy
  - 'New-AzFirewallPolicySqlSetting'
- Added new cmdlet to support query Load Balancer inbound nat rule port mapping lists for backend addresses
  - 'Get-AzLoadBalancerBackendAddressInboundNatRulePortMapping'
  - Also updated cmdlets to support inbound nat rule V2 configurations
    - 'New-AzLoadBalancerInboundNatRuleConfig'
    - 'Set-AzLoadBalancerInboundNatRuleConfig'
    - 'Add-AzLoadBalancerInboundNatRuleConfig'

## Az.RecoveryServices

- Azure Backup added support for 'Create new virtual machine' and 'Replace existing virtual machine' experience for Managed VMs in Restore-AzRecoveryServicesBackupItem cmdlet. To perform a VM restore to AlternateLocation use TargetVMName, TargetVNetName, TargetVNetResourceGroup, TargetSubnetName parameters. To perform a restore to a VM in OriginalLocation, do not provide TargetResourceGroupName and RestoreAsUnmanagedDisks parameters, refer examples for more details.

## Az.Resources

- Fixed keycredential key format, from base64url to byte [#17131]
- Fixed add key credential overwrite existing one [#17088]
- Deleted parameter sets cannot be reached for 'New-AzADServicePrincipal'
- Marked 'ObjectType' as 'Unknown' if object is not found or current account has insufficient privileges to get object type for role assignment [#16981]
- Fixed that 'Get-AzRoleAssignment' shows empty RoleDefinitionName for custom roles when not specifying scope [#16991]
- Unified the returned 'RoleDefinitionId' in PSRoleAssignment to GUID [#16991]

## Az.ServiceBus

- Added identity and encryption properties to New-AzServiceBusNamespace and Set-AzServiceBusNamespace.
- Added New-AzServiceBusEncryptionConfig

## Az.Storage

- Supported download blob from managed disk account with Sas Uri and bearer token
  - 'Get-AzStorageBlobContent'
- Supported create/upgrade storage account with ActiveDirectorySamAccountName and ActiveDirectoryAccountType
  - 'New-AzStorageAccount'

- 'Set-AzStorageAccount'

## Az.StorageSync

- Migrated Azure AD features in Az.StorageSync to MSGraph APIs. The cmdlets will call MSGraph API according to input parameters: New-AzStorageSyncCloudEndpoint
- Changed default parameter set of Invoke-AzStorageSyncChangeDetection to use full share detection

## Az.Synapse

- Updated 'Update-AzSynapseSparkPool' to support new parameter [-ForceApplySetting]

## Thanks to our community contributors

- Aleksandar Nikolić (@alexandair)
  - Fix the StayProvisioned parameter (#17070)
  - Fix a typo (#17069)
- Joel Greijer (@greijer), Clarified special case on TemplateParameterUri (#17004)
- Aman Sharma (@HarvestingClouds), Added Workload Type to the bullets to match the accepted values (#17041)
- @hsrivast, Hsrivastava/breaking change msg (#16985)
- Chris (@isjwuk), Update New-AzAutomationUpdateManagementAzureQuery.md (#16365)
- @MSakssharm, Returning error if insufficient user permissions are there for GetAgentRegistrationInfo (#16965)
- Emanuel Palm (@PalmEmanuel), New-AzSshKey should log to Warning stream instead of console (#16988)
- Pavel Safonov (@PSafonov), Fixed a typo in ManagedResourceGroupName parameter description (#17039)
- Michael Arnwine (@vsmike), Update New-AzApplicationGatewayRewriteRuleSet.md Description Text is incorrect (#17102)

## 7.2.1 - February 2022

### Az.Resources

- Fixed `New-AzADServicePrincipal` not working [#17054] [#17040]

## 7.2.0 - February 2022

### Az.Accounts

- Removed legacy assembly System.Private.ServiceModel and System.ServiceModel.Primitives [#16063]

## Az.Aks

- Fixed the typo in 'New-AzAksCluster' [#16733]

## Az.Compute

- Remove ProvisioningDetails property from PSRestorePoint object.
- Updated 'Set-AzVmExtension' cmdlet to properly display '-Name' and '-Location' parameters as mandatory.
- Edited 'New-AzVmssConfig' second example so it runs successfully by changing the Tag input to the correct format.
- Added 'Hibernate' parameter to 'Stop-AzVm' cmdlet.
- Added 'HibernationEnabled' parameter to 'New-AzVm', 'New-AzVmConfig', and 'Update-AzVm' cmdlets.
- Added 'EnableHotpatching' parameter to the 'Set-AzVmssOSProfile' cmdlet.
- Added 'ForceDeletion' parameter to Remove-AzVM and Remove-AzVMSS.

## Az.DataFactory

- Updated ADF .Net SDK version to 5.1.0

## Az.EventHub

- Added public network access to the 'Set-AzEventHubNetworkRuleSet' set cmdlet
- Added 'New-AzEventHubSchemaGroup', 'Remove-AzEventHubSchemaGroup' and 'Get-AzEventHubSchemaGroup' in the eventhubs PS.

## Az.HealthcareApis

- HealthcareApis cmdlets will bump up API version which may introduce breaking change. Please contact us for more information.

## Az.KeyVault

- Improved the error message of Az.KeyVault.Extension [#16798]
- Added default access policies for Key Vault key as 'All but purge'
- Absorbed KeyOps from parameter when importing key from certificate on managed HSM [#16773]
- Fixed a bug when updating key operations on managed HSM [#16774]
- Fixed the issue when importing no-password certificate [#16742]

## Az.OperationalInsights

- Added logic to prevent exceptions while using 'StorageInsight' cmdlets.

## Az.PolicyInsights

- Added support for new remediation properties allowing the remediation of more resources with better control over the remediation rate and error handling
- Added support of fetching very large sets of results by internally using paginated API calls for policy states and policy events commands

## Az.RecoveryServices

- Reverted the configure backup per policy limit for VMs from 1000 to 100. This limit was previously relaxed but as Azure portal has a limit of 100 VMs per policy, we are reverting this limit.
- Added support for multiple backups per day for FileShares.
- Segregated some of the CRR and non-CRR flows based on the SDK update.
- Add EdgeZone parameter to Azure Site recovery service cmdlet 'New-AzRecoveryServicesAsrRecoveryPlan'

## Az.Resources

- Added proeprties 'onPremisesLastSyncDateTime', 'onPremisesSyncEnabled' to 'User' object [#16892]
- Added additional properties when creating request for 'New-AzADServicePrincipal' and 'Update-AzADServicePrincipal' [#16847] [#16841]
- Fixed 'DisplayName' and 'ApplicationId' for 'New-AzADAppCredential' [#16764]
- Enabled password reset for 'Update-AzADUser' [#16869]
- Updated parameter name 'EnableAccount' to 'AccountEnabled', and added alias 'EnableAccount' for 'Update-AzADUser' [#16753] [#16795]
- Fixed 'Set-AzPolicyAssignment' does not remove 'notScope' if empty [#15828]

## Az.ServiceBus

- Added support to Enable or Disable Public Network Access as optional parameter 'PublicNetworkAccess' to 'Set-AzServiceBusNetworkRuleSet'
- Fixed 'Set-AzServiceBusNamespace' with Tags

## Az.Sql

- Deprecation of Get-AzSqlDatabaseTransparentDataEncryptionActivity cmdlet
- Fixed cmdlets for Azure Active Directory Admin  
'AzureSqlServerActiveDirectoryAdministratorAdapter' and  
'AzureSqlInstanceActiveDirectoryAdministratorAdapter' migrate from  
'AzureEnvironment.Endpoint.AzureEnvironment.Endpoint.Graph' to  
'AzureEnvironment.ExtendedEndpoint.MicrosoftGraphUrl'

## Az.StackHCI

- Adding support cmdlet for Remote Support
  - New cmdlets - Install-AzStackHCIRemoteSupport, Remove-AzStackHCIRemoteSupport, Enable-AzStackHCIRemoteSupport, Disable-AzStackHCIRemoteSupport, Get-AzStackHCIRemoteSupportAccess, Get-AzStackHCIRemoteSupportSessionHistory

## Az.Storage

- Fixed the issue that output number in console when update/copy blob sometimes [#16783]
  - 'Set-AzStorageBlobContent'
  - 'Copy-AzStorageBlob'
- Updated help file, added more description for the asynchronous blob copy.
  - 'Start-AzStorageBlobCopy'

## Az.TrafficManager

- Added two new optional parameters 'MinChildEndpointsIPv4' and 'MinChildEndpointsIPv6' for nested endpoints

## Az.Websites

- Updated 'New-AzAppServicePlan' to create an app service plan with host environment id #16094

## Thanks to our community contributors

- @adriancuadrado, Update New-AzADServicePrincipal.md (#16896)
- Alan (@AlanFlorance), Update Get-AzDataLakeGen2ChildItem.md (#16292)
- @geologyrocks, Duplicated header (#16876)
- Hiroshi Yoshioka (@hyoshioka0128), Typo "Azure CosmosDB" → "Azure Cosmos DB" (#16561)
- Jean-Paul Smit (@jeanpaulsmit), The -Force option is not documented and not accepted as parameter (#16910)
- Kamil Konderak (@kamilkonderak), Fixed description for NodeOsDiskSize parameter (#16716)
- Muralidhar Ranganathan (@rmuralidhar), Mitigate Get-AzKeyVaultSecret: Invalid Parameter AsPlainText (#16730)
- Ørjan Landgraff (@theorjan), better PS example (#16748)
- @ahbleite, The switch option was not updated to reflect the new ParameterSetName values, therefore the \$id is always null. (#16818)

## 7.1.0 - January 2022

## Az.Accounts

- Copied 'ServicePrincipalSecret' and 'CertificatePassword' from Az.Accounts buildin profile to customer set profile. [#16617]

- Updated help message and help markdown for parameter 'Tenant' of the cmdlet 'Set-AzContext'. [#16515]
- Fixed the issue that Azure PowerShell could not work in a workflow. [#16408]
- Fixed the doubled Api Version in the URI of the underlying request issued by 'Invoke-AzRestMethod'. [#16615]

## Az.Aks

- Added support of 'load balancer' and 'api server access' in 'New-AzAksCluster' and 'Set-AzAksCluster'. [#16575]

## Az.Automation

- 'New-AzAutomationSchedule' allows defining StartTime with offsets.
- Fixed bug: updated 'Set-AzAutomationModule' to use PUT call while updating modules with specific versions [#12552]

## Az.CognitiveServices

- Updated PowerShell to use 2021-10-01 version.
- Added CommitmentTier and CommitmentPlan cmdlets.
- Added Deployment cmdlets.
- Added 'New-AzCognitiveServicesObject' cmdlet for generating CommitmentPlan/Deployment objects.

## Az.Compute

- Updated 'UserData' parameter in VM and VMSS cmdlets to pipe by the Property Name to ensure piping scenarios occur correctly.
- Changed 'New-AzVM' cmdlet when using the SimpleParameterSet to not create a 'PublicIPAddress' when a 'PublicIPAddress' name is not provided.
- Added 'PlatformFaultDomain' parameter to cmdlets: 'New-AzVM' and 'New-AzVMConfig'
- Added '-Feature' parameter for 'New-AzGalleryImageDefinition'
- Added 'DiffDiskPlacement' string parameter to 'Set-AzVmOSDisk' and 'Set-AzVmssStorageProfile' cmdlets.

## Az.CosmosDB

- Exposed BackupPolicyMigrationState as a part of Get-AzCosmosDBAccount response.
  - This shows the status of a backup policy migration state when an account was being converted from periodic backup mode to continuous.

## Az.DataFactory

- Updated ADF .Net SDK version to 5.0.0

## Az.Functions

- Removed preview from the PowerShell 7.0 stack on Linux

## Az.KeyVault

- Added cmdlets: 'Invoke-AzKeyVaultKeyRotation', 'Get-AzKeyVaultKeyRotationPolicy' and 'Set-AzKeyVaultKeyRotationPolicy'

## Az.MySql

- General availability of Az.MySql

## Az.Network

- Used case-insensitive comparison for ResourceId (Set/New-NetworkWatcherFlowLog)
- Added new properties 'ApplicationSecurityGroup', 'IpConfiguration' and 'CustomNetworkInterfaceName' for Private Endpoint cmdlets
  - 'Get-AzPrivateEndpoint'
  - 'New-AzPrivateEndpoint'
- Added new cmdlet to create new 'IpConfiguration' object for building Private Endpoint
  - 'New-AzPrivateEndpointIpConfiguration'
- Added OrdinalIgnoreCase for string comparison of 'ResourceIdIdentifier' type for FlowLog cmdlets
- Fixed typo in error message of 'InvalidWorkspaceResourceId'

## Az.PostgreSql

- General availability of Az.PostgreSql

## Az.RedisCache

- Added 'IdentityType' and 'UserAssignedIdentity' parameter in 'New-AzRedisCache' and 'Set-AzRedisCache' cmdlets.
  - It is used to assign and modify the Identity of Azure Cache for Redis.

## Az.ResourceMover

- Added support for Tags in azure resource mover
- Added support for SystemData in azure resource mover
- Released 2021-08-01 api-version

## Az.Resources

- Fixed incorrect alias for 'Get-AzADSpCredential' [#16592]

- Fixed 'ServicePrincipalName' and 'InputObject' parameters for 'Update-AzADServicePrincipal' [#16620]
- Fixed example for 'New-AzADAppCredential' [#16682]
- Added parameter 'Web' for 'New-AzADApplication' [#16659]
- Added secret text in response of 'New-AzADApplication' and 'New-AzADServicePrincipal' [#16659]
- Deserialized the 'Value' in 'DeploymentVariable' as object array if its type is Array [#16523]
- Fixed the usage of 'SignInName' in 'New-AzRoleAssignment' [#16627]
- Formatted the output format of 'DeploymentVariable'
- Remove 'isUser' operation filter from GetAzureProviderOperation Cmdlet

## Az.SignalR

- Fixed the bug of 'Update-AzSignalR' cmdlet that resets the resource states by mistake.

## Az.Sql

- Added 'ZoneRedundant' parameter to 'New-AzSqlDatabaseCopy', 'New-AzSqlDatabaseSecondary' and 'Restore-AzSqlDatabase' to enable zone redundant copy, geo secondary and PITR support for hyperscale databases

## Az.Storage

- Fixed the failure of sync copy blob with long destination blob name [#16628]
  - 'Copy-AzStorageBlob'
- Supported AAD oauth storage context in storage table cmdlets.
  - `Get-AzStorageCORSRule`
  - `Get-AzStorageServiceLoggingProperty`
  - `Get-AzStorageServiceMetricsProperty`
  - `Get-AzStorageServiceProperty`
  - `Get-AzStorageTable`
  - `Get-AzStorageTableStoredAccessPolicy`
  - `New-AzStorageTable`
  - `New-AzStorageTableSASToken`
  - `New-AzStorageTableStoredAccessPolicy`
  - `Remove-AzStorageCORSRule`
  - `Remove-AzStorageTableStoredAccessPolicy`
  - `Set-AzStorageCORSRule`
  - `Set-AzStorageServiceLoggingProperty`
  - `Set-AzStorageServiceMetricsProperty`
  - `Set-AzStorageServiceProperty`
  - `Set-AzStorageTable`
  - `Set-AzStorageTableStoredAccessPolicy`

## Az.Synapse

- General availability of Az.Synapse
- Migrated Azure AD features in Az.Synapse to MSGraph APIs. The cmdlets below called MSGraph API according to input parameters:
  - 'New-AzSynapseRoleAssignment' cmdlet
  - 'Get-AzSynapseRoleAssignment' cmdlet
  - 'Remove-AzSynapseRoleAssignment' cmdlet
  - 'Set-AzSynapseSqlActiveDirectoryAdministrator' cmdlet
- Added a default value for [-AutoPauseDelayInMinute] parameter of command 'New-AzSynapseSparkpool' and 'Update-AzSynapseSparkpool'

## Thanks to our community contributors

- @adishiritwick, Updated Set-AzAutomationModule to use PUT call while updating modules with specific versions (#16505)
- @anuraj, Update the New-AzWebAppCertificate (#16634)
- @BrajaMS, Updated the example command with NodeType param (#16670)
- @geologyrocks, Principal typo (was princial) (#16699)
- Hen Itzhaki (@HenItzhaki), Added more example (#16424)
- Chris (@isjwuk), Formatting improvement (#15826)
- Jaromir Kaspar (@jaromirk), Added example for password credentials (#16600)
- Martin Falkus (@mfalkus), Fix a typo in Update Az-Tags doc where "Repalces" was specified instead of "Replaces" (#16541)
- Radoslav Gatev (@RadoslavGatev), [Az.Accounts] Fix the doubled Api Version in Uri of the request issued by Invoke-AzRestMethod (#16616)
- @Skuldo, Typo fix (#16585)
- Sujit Singh (@sujitks), Update Set-AzApplicationGatewayFirewallPolicy.md (#16583)
- @trudolf-msft, new example 4/workaround (#16437)

## 7.0.0 - December 2021

### Az.Accounts

- Removed 'ServicePrincipalSecret' and 'CertificatePassword' in 'PSAzureRmAccount' [#15427]
- Added optional parameter 'MicrosoftGraphAccessToken' to 'Connect-AzAccount'
- Added optional parameters 'MicrosoftGraphEndpointResourceId', 'MicrosoftGraphUrl' to 'Add-AzEnvironment' and 'Set-AzEnvironment'
- Added '-AccountId' property to 'UserWithSubscriptionId' parameter set of 'Connect-AzAccount' which allows a user name to be pre-selected for interactive logins
- Added '-Uri' and '-ResourceId' to 'Invoke-AzRestMethod'
- Added Environment auto completer to the following cmdlets: Connect-AzAccount, Get-AzEnvironment, Set-AzEnvironment, and Remove-AzEnvironment [#15991]
- Added module name and version to User-Agent string [#16291]

## Az.Advisor

- Fixed the issue that 'Az.Advisor.psd1' was not signed [#16226]

## Az.Aks

- [Breaking Change] Updated parameter alias and output type of 'Get-AzAksVersion'
- Added 'Invoke-AzAksRunCommand' to support running a shell command (with kubectl, helm) on aks cluster. [#16104]
- Added support of 'EnableNodePublicIp' and 'NodePublicIPPrefixID' for 'New-AzAksCluster' and 'New-AzAksNodePool'. [#15656]
- Migrated the logic of creating service principal in 'New-AzAksCluster' from 'Azure Active Directory Graph' to 'Microsoft Graph'.
- Fixed the issue that 'Set-AzAksCluster' can't upgrade cluster when node pool version doesn't match cluster version. [#14583]
- Added 'ResourceGroupName' in 'PSKubernetesCluster'. [#15802]

## Az.ApplicationInsights

- Added WebTest function. Below is the new cmdlet
  - 'Get-AzApplicationInsightsWebTest'
  - 'New-AzApplicationInsightsWebTest'
  - 'New-AzApplicationInsightsWebTestGeolocationObject'
  - 'New-AzApplicationInsightsWebTestHeaderFieldObject'
  - 'Remove-AzApplicationInsightsWebTest'
  - 'Update-AzApplicationInsightsWebTestTag'

## Az.Automation

- Fixed example in reference doc for 'Remove-AzAutomationHybridWorkerGroup'
- Updated 'Set-AzAutomationModule' to use PUT call while updating modules with specific versions [#12552]

## Az.CloudService

- General availability of 'Az.CloudService' module

## Az.Compute

- Contains updates to the following powershell cmdlets
  - 'SetAzVmssDiskEncryptionExtension' : Added extension parameters for the cmdlet to work with test extensions and parameter 'EncryptFormatAll' for Virtual Machine Scale Sets
  - 'GetAzVmssVMDiskEncryptionStatus' : Modified the functionality of the cmdlet to properly display the encryption status of data disks of Virtual Machine Scale Sets

- 'SetAzDiskEncryptionExtension' : Fixed a bug in the cmdlet in the migrate scenario from 2pass to 1pass encryption
- Added 'Add-AzVhd' to convert VHD using Hyper-V
- Added 'UserData' parameter to VM and VMSS cmdlets
- Added string parameter 'PublicNetworkAccess' to DiskConfig and SnapshotConfig cmdlets
- Added boolean parameter 'AcceleratedNetwork' to DiskConfig and SnapshotConfig cmdlets
- Added 'CompletionPercent' property to the PSSnapshot model so it is visible to the user.

## Az.ContainerInstance

- Upgraded API version to 2021-09-01
  - [Breaking Change] Changed the type of parameter 'LogAnalyticWorkspaceResourceId' in 'New-AzContainerGroup' from Hashtable to String
  - [Breaking Change] Removed parameter 'NetworkProfileId' in 'New-AzContainerGroup', added 'SubnetId' as its alternative
  - [Breaking Change] Removed parameter 'ReadinessProbeHttpGetHttpHeadersName' and 'ReadinessProbeHttpGetHttpHeadersValue' in 'New-AzContainerInstanceObject', added 'ReadinessProbeHttpGetHttpHeader' as their alternative
  - [Breaking Change] Removed parameter 'LivenessProbeHttpGetHttpHeadersName' and 'LivenessProbeHttpGetHttpHeadersValue' in 'New-AzContainerInstanceObject', added 'LivenessProbeHttpGetHttpHeader' as their alternative
  - Added 'Zone' in 'New-AzContainerGroup', 'AcrIdentity' in 'New-AzContainerGroupImageRegistryCredentialObject'
  - Changed 'Username' in 'New-AzContainerGroupImageRegistryCredentialObject' from mandatory to optional
- For 'Invoke-AzContainerInstanceCommand'
  - [Breaking Change] Displayed command execution result as the cmdlet output by connecting websocket in backend [#15754]
  - Added '-PassThru' to get last execution result when the command succeeds
  - Changed 'TerminalSizeCol' and 'TerminalSizeRow' from mandatory to optional, set their default values by current PowerShell window size
- Added 'Restart-AzContainerGroup', 'Get-AzContainerInstanceContainerGroupOutboundNetworkDependencyEndpoint' and 'New-AzContainerInstanceHttpHeaderObject'

## Az.CosmosDB

- Fixed when a warning about the value of AnalyticalStorageSchemaType is displayed when no value was given.
- Added support for managed Cassandra.

## Az.DataFactory

- Updated ADF .Net SDK version to 4.28.0

## Az.EventHub

- Fixed the issue that 'New-AzEventHubKey' always generates a new primary key instead of a secondary key since version 1.9.0 [#16362]

## Az.Functions

- [Breaking change] 'Update-AzFunctionAppPlan' prompts for confirmation [#16490]
- [Breaking change] 'Remove-AzFunctionApp' does not delete ASP if it is the last app in the plan [#16487]
- [Breaking change] Set the 'FunctionsVersion' to 4 for FunctionApp creation [#16426]
- [Breaking change] 'Update-AzFunctionApp' prompts for confirmation [#14442]
- Fixed an error creating function with 'New-AzFunctionApp' on PowerShell 5.1 [#15430]
- Supported storage account SKU 'Standard\_GZRS' [#14633]

## Az.HDInsight

- Added two parameters '-Zone' and '-PrivateLinkConfiguration' to cmdlet 'New-AzHDInsightCluster'
  - Added parameter '-Zone' to cmdlet 'New-AzHDInsightCluster' to support to create cluster with availability zones feature
  - Added parameter '-PrivateLinkConfiguration' to cmdlet 'New-AzHDInsightCluster' to support to add private link configuration when creating cluster with private link feature.
- Added cmdlet New-AzHDInsightIPConfiguration to create ip configuration object in memory.
- Added cmdlet New-AzHDInsightPrivateLinkConfiguration to create private link configuration object in memory.
- Fixed the output type in help doc of Set-AzHDInsightClusterDiskEncryptionKey cmdlet from 'Microsoft.Azure.Management.HDInsight.Models.Cluster' to 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' to keep consistent with the real type of returned object.
- Breaking change:
  - Changed the type of parameter 'OSType' from 'Microsoft.Azure.Management.HDInsight.Models.OSType' to 'System.string' in cmdlet 'New-AzHDInsightCluster'.
  - Changed the type of parameter 'ClusterTier' from 'Microsoft.Azure.Management.HDInsight.Models.ClusterTier' to 'System.string' in cmdlets 'New-AzHDInsightCluster' and 'New-AzHDInsightClusterConfig'.
  - Changed the type of property 'VmSizes' in class 'AzureHDInsightCapabilities' from `IDictionary<string, AzureHDInsightVmSizesCapability>` to `IList<string>`.
  - Changed the type of property 'AssignedIdentity' in class 'AzureHDInsightCluster' from 'Microsoft.Azure.Management.HDInsight.Models.ClusterIdentity' to 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightClusterIdentity'.

## Az.KeyVault

- [Breaking Change] Renamed properties of 'PSKeyVaultPermission' type to follow the pattern of Azure RBAC.
- Migrated AAD Graph API to MSGraph API.
- Added a message to 'Set-AzKeyVaultAccessPolicy' stating that for the Permissions parameters, using the 'All' option will not include the 'Purge' permission.

## Az.ManagedServices

- [Breaking Change] Updated API version to 2020-02-01-preview

## Az.Monitor

- Added new properties EventName, Category, ResourceProviderName, OperationName, Status, SubStatus with type string as output for command Get-AzLog [#15833]
- Supported event hub receiver in action group [#16348]
- Added default parameter set 'GetByResourceGroup' for the command 'Get-AzAlertRule' [#16356]

## Az.Network

- Bugfix in PSAzureFirewallPolicyThreatIntelWhitelist for FirewallPolicy
- Added optional parameter '-IsSecuritySite' to the following cmdlet:
  - 'New-AzVpnSite'
- Added support for new Match Variables in WAF Exclusions
- Onboard Virtual Network Encryption to Virtual Network Cmdlets
- Added support for NAT port range parameters in VPN NAT rule resources
  - 'New-AzVpnGatewayNatRule.md'
  - 'Update-AzVpnGatewayNatRule.md'
  - 'New-AzVirtualNetworkGatewayNatRule.md'
  - 'Update-AzVirtualNetworkGatewayNatRule.md'
- Added new cmdlets to support Per Rule Exclusions for Application Gateway WAF
  - 'New-AzApplicationGatewayFirewallPolicyExclusionManagedRuleSet'
  - 'New-AzApplicationGatewayFirewallPolicyExclusionManagedRuleGroup'
  - 'New-AzApplicationGatewayFirewallPolicyExclusionManagedRule'
  - Also updated cmdlet to add the property for configuring ExclusionManagedRuleSet within Exclusions
    - 'New-AzApplicationGatewayFirewallPolicyExclusion'
- Bug Fix in Application Gateway Trusted Client Certificate cmdlets to load the entire cert chain from file.

## Az.OperationalInsights

- Expanded DataSourceType with values 'Query', 'Alerts' for LinkedStorageAccount cmdlets
- [Breaking Change] rename 'StorageAccountId' to 'StorageAccountIds'
  - 'New-AzOperationalInsightsLinkedStorageAccount'

- [Breaking Change] Returns 'PSSavedSearch' instead of 'HttpStatusCode' by 'New-AzOperationalInsightsComputerGroup'
- [Breaking Change] Returns 'PSCluster' instead of 'PSLinkedService' by 'Update-AzOperationalInsightsCluster'
- Expanded Sku with values 'capacityreservation', 'lacluster' for Workspace
- Added new properties:'SkuCapacity', 'ForceCmkForQuery', 'DisableLocalAuth' for Workspace
- Added new property: 'DailyQuotaGb'on'Set-AzOperationalInsightsWorkspace'
- Added new properties: 'ETag', 'Tag' for StorageInsight cmdlets
- Added new property 'StorageAccountResourceID' to cmdlet:
  - 'Set-AzOperationalInsightsStorageInsight'
- Added SupportsShouldProcess attribute to cmdlet:
  - 'Set-AzOperationalInsightsStorageInsight'
- Added new cmdlets to support Table, DataExport, WorkspaceShareKey, PurgeWorkspace, and AvailableServiceTier
- Added 'Error' property in the result of the 'Invoke-AzOperationalInsightsQuery' to retrieve partial error when running a query [#16378]

## Az.RecoveryServices

- Azure Backup updated validate sets for supported BackupManagementType in 'Get-AzRecoveryServicesBackupItem', 'Get-AzRecoveryServicesBackupContainer', Get-AzRecoveryServicesBackupJob cmdlets.
- Azure Backup added support for SAPHanaDatabase for 'Disable-AzRecoveryServicesBackupProtection', 'Unregister-AzRecoveryServicesBackupContainer', 'Get-AzRecoveryServicesBackupItem', 'Get-AzRecoveryServicesBackupContainer' cmdlets.
- Breaking Change: 'Get-AzRecoveryServicesBackupJob', 'Get-AzRecoveryServicesBackupContainer' and 'Get-AzRecoveryServicesBackupItem' commands will only support 'BackupManagementType MAB' instead of 'MARS'.
- Azure Site Recovery support for capacity reservation for Azure to Azure provider.

## Az.Resources

- Added 'Get-AzProviderPreviewFeature', 'Register-AzProviderPreviewFeature' and 'Unregister-AzProviderPreviewFeature' cmdlets.
- Fixed a bug when running Get-AzPolicyAlias with empty value of NamespaceMatch parameter [#16370]
- [Breaking change] Migrated from AAD Graph to Microsoft Graph
- [Breaking change] Changed the returned 'Id' in PSDenyAssignment from GUID string to fully qualified ID
- Allowed parameter 'Id' in 'Get-AzDenyAssignment' to accept fully qualified ID
- Added new cmdlet 'Publish-AzBicepModule' for publishing Bicep modules
- Added deprecation message for 'AssignIdentity' parameter in '\*-AzPolicyAssignment' cmdlets.
- Added support for user assigned managed identities in policy assignments by adding 'IdentityType' and 'IdentityId' parameters to '\*-AzPolicyAssignment' cmdlets.

- Updated policy cmdlets to use new api version 2021-06-01 that introduces support for user assigned managed identities in policy assignments.
- Narrowed API permission when get information about active directory object for \*-AzRoleAssignment [#16054]

## Az.Sql

- Fixed FirewallRuleName wildcard filtering in 'Get-AzSqlServerFirewallRule' [#16199]
- Moved SQL Server and SQL Instance AAD from ActiveDirectoryClient to MicrosoftGraphClient

## Az.StackHCI

- Promoted Az.StackHCI to GA

## Az.Storage

- Fixed the failure of 'Get-AzStorageContainerStoredAccessPolicy' when permission is null [#15644]
- Supported create blob service Sas token or account Sas token with permission i
  - 'New-AzStorageBlobSASToken'
  - 'New-AzStorageContainerSASToken'
  - 'New-AzStorageAccountSASToken'
- Fixed creating container SAS token failed from an access policy without expire time, and set SAS token expire time [#16266]
  - 'New-AzStorageContainerSASToken'
- Removed parameter -Name from Get-AzRmStorageShare ShareResourceIdParameterSet
  - 'Get-AzRmStorageShare'
- Supported create or migrate container to enable immutable Storage with versioning.
  - 'New-AzRmStorageContainer'
  - 'Invoke-AzRmStorageContainerImmutableStorageWithVersioningMigration'
- Supported set/remove immutability policy on a Storage blob.
  - 'Set-AzStorageBlobImmutabilityPolicy'
  - 'Remove-AzStorageBlobImmutabilityPolicy'
- Supported enable/disable legal hold on a Storage blob.
  - 'Set-AzStorageBlobLegalHold'
- Supported create storage account with enable account level immutability with versioning, and create/update storage account with account level immutability policy.
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'

## Az.Websites

- Updated the Microsoft.Azure.Management.Websites SDK to 3.1.2

## Thanks to our community contributors

- Hiroshi Yoshioka (@hyoshioka0128), Fix typo "Azure CosmosDB"→"Azure Cosmos DB" (#16470)
- Chris (@isjwuk), Update New-AzAutomationSourceControl.md (#16366)
- Julian Hüppauff (@jhueppauff), [API Management] Fixed variable reference (#16525)
- @toswedlu, [CosmosDB] Changing the warning message for AnalyticalStorageSchemaType (#15723)

## 6.6.0 - November 2021

### Az.Accounts

- Added new version of AAD service client using Microsoft Graph API

### Az.Aks

- Added support for new parameters 'NetworkPolicy', 'PodCidr', 'ServiceCidr', 'DnsServiceIP', 'DockerBridgeCidr', 'NodePoolLabel', 'AksCustomHeader' in 'New-AzAksCluster'. [#13795]
- Added warnings of upcoming breaking change of migrating to Microsoft Graph.
- Added support for changing the number of nodes in a node pool. [#12379]

### Az.ApiManagement

- Fixed a bug in 'Get-AzApiManagementTenantGitAccess' cmdlet.

### Az.Batch

- Removed assembly 'System.Text.Encodings.Web.dll' [#16062]

### Az.Compute

- Added cmdlets for adding VMGalleryApplication property to VM/VMSS
  - New-AzVmGalleryApplication
  - New-AzVmssGalleryApplication
  - Add-AzVmGalleryApplication
  - Add-AzVmssGalleryApplication
  - Remove-AzVmGalleryApplication
  - Remove-AzVmssGalleryApplication
- Added support for proxy and debug settings for VM Extension for SAP (AEM)
- Updated New-AzGalleryImageVersion to take in the 'Encryption' property correctly from '-TargetRegion' parameter.
- Updated Set-AzVmBootDiagnostic to default to managed storage account if not provided.
- Edited New-AzVmss defaulting behavior when 'OrchestrationMode' is set to Flexible.
  - Removed NAT Pool.
  - Removed UpgradePolicy. Throws an error if provided.
  - SinglePlacementGroup must be false. Throws an error if true.

- Networking Profile's API version is 2020-11-01 or later.
- Networking Profile IP Configurations Primary property is set to true.

## Az.CosmosDB

- Introduced Get-AzCosmosDBMongoDBBackupInformation to retrieve latest backup information for MongoDB.
- Updated New-AzCosmosDBAccount, Update-AzCosmosDBAccount to accept BackupStorageRedundancy
- Introduced Get-AzCosmosDBLocation to list Azure CosmosDB Account and its locations properties.

## Az.DataFactory

- Added PublicNetworkAccess to Update\_AzDataFactoryV2 Command
- Updated ADF .Net SDK version to 4.26.0

## Az.DesktopVirtualization

- Upgraded api version to 2021-07-12.

## Az.EventHub

- Added support for Premium sku and namesapce and optional switch parameter 'DisableLocalAuth' to 'New-AzEventHubNamespace' and 'Set-AzEventHubNamespace'

## Az.Functions

- Set site config netFrameworkVersion for Windows V4 apps only
- Enabled function app creation for Functions V4 stacks [#15919]

## Az.IotHub

- Updated IoT Hub Management SDK to version 4.1.0 (api-version 2021-07-10)

## Az.KeyVault

- Added warning message of upcoming breaking change to 'New-AzKeyVaultRoleDefinition' and 'Get-AzKeyVaultRoleDefinition'.
  - To comply with the syntax of 'New-AzRoleDefinition' and 'Get-AzRoleDefinition' we are going to rename some of the properties of 'PSKeyVaultPermission' model, which might affect these two cmdlets.
- Added warnings of upcoming breaking change of migrating to Microsoft Graph.

## Az.Migrate

- Added check for invalid IP address

## Az.OperationalInsights

- Fixed a bug in 'Set-AzOperationalInsightsLinkedService': when linked service does not exist, perform create(update) instead of failing'

## Az.RecoveryServices

- Azure Backup fixed issues with StorageConfig
- Azure Backup added NodesList and AutoProtectionPolicy to Get-AzRecoveryServicesBackupProtectableItem Cmdlets.
- Azure Backup fixed GetItemsForContainerParamSet to support fetching the MAB backup item.
- Azure Backup fixed Get-AzRecoveryServicesBackupContainer to support BackupManagementType MAB instead of MARS.
- Added breaking change warning: 'Get-AzRecoveryServicesBackupJob', 'Get-AzRecoveryServicesBackupContainer' and 'Get-AzRecoveryServicesBackupProtectableItem' commands will only support 'BackupManagementType MAB' instead of 'MARS' alias, changes will take effect from upcoming breaking release.
- Added support for ZRS disk type for Azure to Azure replication.
- Added Availability zone information in replicated protected item response for Azure to Azure replication.

## Az.RedisCache

- Created new examples in documentation of 'New-AzRedisCache' and 'Set-AzRedisCache'.

## Az.Resources

- Fixed a bug about the exitcode of Bicep [#16055]
- Added breaking change warnings for AAD cmdlets
- Added property 'UIFormDefinition' to Template Spec Versions, 'Export-AzTemplateSpec' will now include a Template Spec Version's UIFormDefinition (if any) as part of the export.
- Added error catching for role assignment creation fail while creating a Service Principal
- Performance improvement for Get-AzPolicyAlias when -NamespaceMatch matches a single RP namespace

## Az.Security

- Updated Security .NET SDK package reference to version 3.0.0

## Az.ServiceBus

- Added support for ZoneRedundant and optional switch parameter 'DisableLocalAuth' to 'New-AzServiceBusNamespace' and 'Set-AzServiceBusNamespace'

## Az.SignalR

- Added Web PubSub cmdlets
  - 'New-AzWebPubSub'
  - 'Get-AzWebPubSub'
  - 'Update-AzWebPubSub'
  - 'Restart-AzWebPubSub'
  - 'Remove-AzWebPubSub'
  - 'New-AzWebPubSubHub'
  - 'Get-AzWebPubSubHub'
  - 'Remove-AzWebPubSubHub'
  - 'New-AzWebPubSubKey'
  - 'Get-AzWebPubSubKey'
  - 'Get-AzWebPubSubSku'
  - 'Get-AzWebPubSubUsage'
  - 'Test-AzWebPubSubNameAvailability'

## Thanks to our community contributors

- bgomezangulo (@beagam), Update Resume-AzNetAppFilesReplication.md (#16040)
- Jim McCormick (@eimajtrebor), Fixed typo (#16091)
- Lampson Nguyen (@lampson), Update Get-AzDataShare.md (#16015)
- @MaxMeng1985, Update Get-AzSynapseSqlPoolRestorePoint.md (#16138)
- Reggie Gibson (@regedit32), New-AzBotService: Fix AppSecret conversion to plaintext on Windows PowerShell (#16160)
- Mötz Jensen (@Splaxi), BusinessIdentities details doesn't match the current implementation (#16141)

## 6.5.0 - October 2021

### Az.Accounts

- Supported getting the access token for Microsoft Graph.
- Added AuthorizeRequestDelegate to allow service module to adjust token audience.
- Utilized [AssemblyLoadContext](#) to resolve assembly conflict issues in PowerShell.
- Updated Azure.Core from 1.16.0 to 1.19.0.

### Az.Attestation

- General availability of 'Az.Attestation' module

### Az.Cdn

- Fixed null reference exception and typos in 'New-AzFrontDoorCdnRule' cmdlet

## Az.Compute

- Updated Compute .NET SDK package reference to version 49.1.0
- Fixed a bug in 'Get-AzVM' that caused incorrect power status output.

## Az.DataFactory

- Added a DataFlowEnableQuickReuse argument for the 'Set-AzDataFactoryV2IntegrationRuntime' cmdlet to enable quick reuse of clusters in next pipeline activities.
- Updated ADF .Net SDK version to 4.25.0
- Added a VNetInjectionMethod argument for the 'Set-AzDataFactoryV2IntegrationRuntime' cmdlet to support the express virtual network injection of Azure-SSIS Integration Runtime.

## Az.FrontDoor

- Allowed rule engine action creation without RouteConfigurationOverride for 'New-AzFrontDoorRulesEngineActionObject'.
- Fixed DynamicCompression parameter being ignored issue of 'New-AzFrontDoorRulesEngineActionObject'.

## Az.KeyVault

- Supported custom role definitions on managed HSM:
  - Create via 'New-AzKeyVaultRoleDefinition'
  - Delete via 'Remove-AzKeyVaultRoleDefinition'
  - Filter all custom roles via 'Get-AzKeyVaultRoleDefinition -Custom'
- Supported Encrypt/Decrypt/Wrap/Unwrap using keys [#15679]
- Enabled managing resources in other subscriptions without switching the context by adding `-Subscription <String>`.

## Az.Maintenance

- Added Guest patch maintenance support.

## Az.Network

- Support for Sku, ScaleUnits parameters of BastionHost resource.
  - 'New-AzBastion'
  - 'Set-AzBastion'
- Onboard Azure Resource Manager to Private Link Common Cmdlets
- Updated cmdlets to add properties to enable/disable BgpRouteTranslationForNat for VpnGateway.
  - 'New-AzVpnGateway'
  - 'Update-AzVpnGateway'

- Updated cmdlet to add property to disable InternetSecurity for P2SVpnGateway.
  - 'New-AzP2sVpnGateway'
- Added new cmdlets for HubBgpConnection child resource of VirtualHub.
  - 'Get-AzVirtualHubBgpConnection'
  - 'New-AzVirtualHubBgpConnection'
  - 'Update-AzVirtualHubBgpConnection'
  - 'Remove-AzVirtualHubBgpConnection'
- Onboard Azure HDInsight to Private Link Common Cmdlets

## Az.RecoveryServices

- Azure Site Recovery bug fixes for VMware to Azure Reprotect, Update policy and Disable scenarios.
- Azure Backup added the support for UserAssigned MSI in RecoveryServices Vault.

## Az.Resources

- Added a clearer error message for a case in which TemplateUri do not accept bicep file.
- Fixed typos with ManagementGroups breaking change descriptions [#15819].
- Fixed resource tags casing issue - resource tags casing not being preserved.
- Updated to Microsoft.Azure.Management.Authorization 2.13.0-preview.

## Az.Sql

- Fixed 'Get-AzSqlDatabaseImportExportStatus' to report the error encountered

## Az.Storage

- Upgraded Azure.Storage.Blobs to 12.10.0
- Upgraded Azure.Storage.Files.Shares to 12.8.0
- Upgraded Azure.Storage.Files.DataLake to 12.8.0
- Upgraded Azure.Storage.Queues to 12.8.0
- Supported upgrade storage account to enable HierarchicalNamespace
  - 'Invoke-AzStorageAccountHierarchicalNamespaceUpgrade'
  - 'Stop-AzStorageAccountHierarchicalNamespaceUpgrade'
- Supported AccessTierInferred, Tags in blob inventory policy schema
  - 'New-AzStorageBlobInventoryPolicyRule'
- Supported create/update storage account with PublicNetworkAccess enabled/disabled
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported create/update storage blob container with RootSquash
  - 'New-AzRmStorageContainer'
  - 'Update-AzRmStorageContainer'
- Supported AllowProtectedAppendWriteAll in set container Immutability Policy, and add container LegalHold

- 'Set-AzRmStorageContainerImmutabilityPolicy'
- 'Add-AzRmStorageContainerLegalHold'

## Az.StorageSync

- Fixed a bug where not all properties of PSSyncSessionStatus and PSSyncActivityStatus objects were being populated properly.
- This affected the 'Get-AzStorageSyncServerEndpoint' cmdlet when trying to access the following properties of the output:
  - SyncStatus.UploadStatus
  - SyncStatus.DownloadStatus
  - SyncStatus.UploadActivity
  - SyncStatus.DownloadActivity

## Az.Websites

- Updated 'Import-AzWebAppKeyVaultCertificate1' to set the default name with combination of keyvault name and cert name

## Thanks to our community contributors

- @DSakura207, Use last PowerState instance in Statuses for power status (#15941)
- Yannic Graber (@grabery), Recode Example2 (#15808)
- @joelmforsyth, Fix multi-regional examples (#15918)
- Adam Coffman (@SysAdminforCoffee), Update Set-AzNetworkInterfaceIpConfig.md (#15846)
- Michael Howard (@x509cert), Reworded sentence to make it clear that a specific key version must be provided (#15886)

## 6.4.0 - September 2021

### Az.Accounts

- Corrected the URLs to Azure Portal in the results of 'Get-AzEnvironment' and 'Get-AzContext'. [#15429]
- Made infrastructural changes to support overriding default subscription via a `-SubscriptionId <String>` parameter.
  - [Az.Aks](#) is the first module that supports it.

### Az.Aks

- Made `-Subscription <String>` available in all Aks cmdlets. You can manage Aks resources in other subscriptions without switching the context.

### Az.ApiManagement

- Added new 'Sync-AzApiManagementKeyVaultSecret' cmdlet.
- Added new 'New-AzApiManagementKeyVaultObject' cmdlet.
- Added new optional [-useFromLocation] parameter to the 'Get-ApiManagementCache' 'New-ApiManagementCache' 'Update-ApiManagementCache' cmdlet.
- Updated cmdlet **New-AzApiManagement** to manage ApiManagement service
  - Added support for the new 'Isolated' SKU
  - Added support for managing Availability Zones using 'Zone' property
  - Added support for Disabling Gateway in a Region using 'DisableGateway' property
  - Added support for managing the minimum Api Version to allow for Control Plane using 'MinimalControlPlaneApiVersion' property.
- Updated cmdlet **New-AzApiManagementRegion** to manage ApiManagement service
  - Added support for managing Availability Zones using 'Zone' property
  - Added support for Disabling Gateway in a Region using 'DisableGateway' property
- Updated cmdlet **Add-AzApiManagementRegion** to manage ApiManagement service
  - Added support for managing Availability Zones using 'Zone' property
  - Added support for Disabling Gateway in a Region using 'DisableGateway' property
- Updated cmdlet **Update-AzApiManagementRegion** to manage ApiManagement service
  - Added support for managing Availability Zones using 'Zone' property
  - Added support for Disabling Gateway in a Region using 'DisableGateway' property
- Updated cmdlet **New-AzApiManagementCustomHostnameConfiguration** to manage Custom Hostname Configuration
  - Added support for specifying 'IdentityClientId' to provide Managed Identity User Assigned ClientId to use with KeyVault

## Az.Automation

- Fixed bug: Closing in input file handle in Import-AzAutomationRunbook

## Az.Cdn

- Fixed mandatory parameters issue in 'Get-AzCdnEndpointResourceUsage' cmdlet

## Az.Compute

- Added new parameters '-LinuxConfigurationPatchMode', '-WindowsConfigurationPatchMode', and '-LinuxConfigurationProvisionVMAgent' to 'Set-AzVmssOSProfile'
- Added new parameters '-SshKeyName' and '-GenerateSshKey' to 'New-AzVM' to create a VM with SSH
- Fixed a bug in 'Add-AzVHD' on Linux that caused uploads to fail for certain destination URI
- Added new cmdlets for Restore Points and Restore Point Collection:
  - 'New-AzRestorePoint'
  - 'New-AzRestorePointCollection'
  - 'Get-AzRestorePoint'
  - 'Get-AzRestorePointCollection'
  - 'Update-AzRestorePointCollection'

- 'Remove-AzRestorePoint'
- 'Remove-AzRestorePointCollection'
- Added new parameters '-EnableSpotRestore' and '-SpotRestoreTimeout' to 'New-AzVMSSConfig' to enable Spot Restore Policy
- Added new cmdlets: 'Update-AzCapacityReservationGroup' and 'Update-AzCapacityReservation'

## Az.CosmosDB

- Fixed a bug where the restore of deleted database accounts fail.

## Az.DataFactory

- Added a subnetId argument for the 'Set-AzDataFactoryV2IntegrationRuntime' cmdlet to support RBAC checking for VNet injection against the subnet resource ID instead of the VNet resource ID.
- Added the 'Get-AzDataFactoryV2IntegrationRuntimeOutboundNetworkDependenciesEndpoint' cmdlet to provide a list of outbound network dependencies for SSIS integration runtime in Azure Data Factory that joins a virtual network.
- Added PublicNetworkAccess to Data Factory.
- Updated ADF .Net SDK version to 4.23.0

## Az.KeyVault

- Supported adding EC keys in key vault [#15699]

## Az.Migrate

- Supported duplicate disk UUID in source disk.
- Supported subnets in same VNet for AVSet.
- Supported runAsAccount fetching for multiple Vcenters in same site.

## Az.Network

- Updated cmdlet to add 'Subnet' property for IP based load balancer backend address pool.
  - 'New-AzLoadBalancerBackendAddressConfig'
- Updated cmdlet to add 'TunnelInterface' property for backend pool related operations.
  - 'New-AzLoadBalancerBackendAddressPool'
  - 'Set-AzLoadBalancerBackendAddressPool'

## Az.RecoveryServices

- Azure Site Recovery multi appliance support for VMware to Azure disaster recovery scenarios using RCM as the control plane.
- Azure Backup fixed targetPhysicalPath issue with SQL CRR

- Azure Backup fixed disable protection for SQL workload
- Azure Backup resolved bug in setting CMK properties in latest release
- Azure Backup removed special characters from register-azrecoveryservicesbackupcontainer command help text

## Az.Resources

- Use JsonExtensions to serialize deserialize JSON objects to ensure the use of custom serialization settings [#15552]
- Added support for 'Unsupported' and 'NoEffect' change types to deployment What-If cmdlets.

## Az.SecurityInsights

- Updated to 'Get-AzSentinelIncident' parameters
  - Added '-Filter' to support OData filter
  - Added '-OrderBy' to support OData ordering
  - Added '-Max' to support retrieving more than the default of 1000 incidents.

## Az.Sql

- Changed the underlying implementation of 'Get-AzSqlDatabase' to support a paginated response from the server
- Added 'ZoneRedundant' parameter to 'New-AzSqlInstance' and 'Set-AzSqlInstance' to enable the creation and the update of zone - redundant instances.
- Added ZoneRedundant field to the model of the managed instance so that it displays information about zone - redundancy for instance that are returned by 'Get-AzSqlInstance'.
- Extended AuditActionGroups enum in server & database audit. Added DBCC\_GROUP, DATABASE\_OWNERSHIP\_CHANGE\_GROUP and DATABASE\_CHANGE\_GROUP.
- Added 'AsJob' flag to 'Remove-AzSqlInstance'
- Added 'SubnetId' parameter to 'Set-AzSqlInstance' to support the cross-subnet update SLO
- Upgraded to newest SDK version

## Az.Storage

- Supported get/set blob tags on a specific blob
  - 'Get-AzStorageBlobTag'
  - 'Set-AzStorageBlobTag'
- Supported create destination blob with specific blob tags while upload/copy Blob
  - 'Set-AzStorageBlobContent'
  - 'Start-AzStorageBlobCopy'
- Supported list blobs across containers with a blob tag filter sql expression
  - 'Get-AzStorageBlobByTag'
- Supported list blobs inside a container and include Blob Tags
  - 'Get-AzStorageBlob'

- Supported run blob operation with blob tag condition, and fail the cmdlet when blob tag condition not match
  - 'Get-AzStorageBlob'
  - 'Get-AzStorageBlobContent'
  - 'Get-AzStorageBlobTag'
  - 'Remove-AzStorageBlob'
  - 'Set-AzStorageBlobContent'
  - 'Set-AzStorageBlobTag'
  - 'Start-AzStorageBlobCopy'
  - 'Stop-AzStorageBlobCopy'
- Generate blob sas token with new API version
  - 'New-AzStorageBlobSASToken'
  - 'New-AzStorageContainerSASToken'
  - 'New-AzStorageAccountSASToken'
- Fixed blob copy failure with OAuth credential when client and server has time difference  
[#15644]
  - 'Copy-AzStorageBlob'
- Fixed remove Data Lake Gen2 item fail with readonly SAS token
  - 'Remove-AzDataLakeGen2Item'
- Revised destination existing check in move Data Lake Gen2 item
  - 'Move-AzDataLakeGen2Item'

## Az.StorageSync

- Added parameter sets to 'Invoke-AzStorageSyncChangeDetection'
  - Can call the cmdlet without -DirectoryPath and -Path parameters to trigger change detection on an entire file share
- Added support for authoritative upload as part of New-AzStorageSyncServerEndpoint.
- Added cloud change enumeration status information in Cloud Endpoint object.
- Updated Server Endpoint object with various health properties
- Added 'ServerName' property in Server Endpoint and Registered Server objects to support showing the current FQDN of a server.

## Az.Websites

- Fixed 'Set-AzWebApp' to return a valid warning message when fails to add -Hostname #9316
- Fixed 'Get-AzWebApp' to return CustomDomainVerificationId in the response. #9316

## Thanks to our community contributors

- Andrew Sears (@asears)
  - Fix spelling of accountname (#15779)
  - Fix Spelling, examples (#15780)
- @cawrites, Update New-AzDataMigrationService.md (#15646)
- @harpaul-gill, Adding support for pagination in Sql Get Databases (#15772)

- @jeepingben, Create mutex names that are safe for Linux (fixes #15653) (#15666)
- @LosManos, Docs: Parameter is ignored when listing secrets (#15788)
- Mats Estensen (@matsest), docs: add examples for Update-AzSubscription (#15748)
- Mauricio Arroyo (@mauricio-msft), Fix typo in cmdlet example (#15719)

## 6.3.0 - August 2021

### Az.Accounts

- Disabled context auto saving when token cache persistence fails on Windows and macOS
- Added PowerShell version into telemetry record
- Upgraded Microsoft.ApplicationInsights from 2.4.0 to 2.12.0
- Updated Azure.Core to 1.16.0

### Az.Aks

- Added 'Start-AzAksCluster', 'Stop-AzAksCluster', 'Get-AzAksUpgradeProfile' and 'Get-AzAksNodePoolUpgradeProfile'. [#14194]
- Added property 'IdentityProfile' in the output of 'Get-AzAksCluster'. [#12546]

### Az.CognitiveServices

- [Breaking Change] Changed type of PSCognitiveServicesAccount.Identity.Type from IdentityType to ResourceIdentityType.
- [Breaking Change] Changed type of PSCognitiveServicesAccount.Sku.Tier from SkuTier to string.
- [Breaking Change] Removed ActionRequired from PrivateLinkServiceConnectionState.
- Updated PowerShell to use 2021-04-30 version.
- Added 'Undo-AzCognitiveServicesAccountRemoval' cmdlet.
- Added parameters '-RestrictOutboundNetworkAccess', '-AllowedFqdnList', '-DisableLocalAuth', '-KeyVaultIdentityClientId', '-IdentityType', '-UserAssignedIdentityId' to 'New-AzureCognitiveServicesAccount' and 'Set-AzureCognitiveServicesAccount'.
- Added parameters '-InRemovedState', '-Location' to 'Remove-AzureCognitiveServicesAccount' and 'Get-AzureCognitiveServicesAccount'.

### Az.Compute

- Fixed the warning in 'New-AzVM' cmdlet stating the sku of the VM is being defaulted even if a sku size is provided by the user. Now it only occurs when the user does not provide a sku size.
- Edited 'Set-AzVmOperatingSystem' cmdlet to no longer overwrite any existing EnableAutomaticUpdates value on the passed in virtual machine if it exists.
- Updated Compute module to use the latest .Net SDK version 48.0.0.
- Added new cmdlets for the Capacity Reservation Feature:
  - 'New-AzCapacityReservationGroup'
  - 'Remove-AzCapacityReservationGroup'

- 'Get-AzCapacityReservationGroup'
- 'New-AzCapacityReservation'
- 'Remove-AzCapacityReservation'
- 'Get-AzCapacityReservation'
- Added a new parameter '-CapacityReservationGroupId' to the following cmdlets:
  - 'New-AzVm'
  - 'New-AzVmConfig'
  - 'New-AzVmss'
  - 'New-AzVmssConfig'
  - 'Update-AzVm'
  - 'Update-AzVmss'

## Az.DataFactory

- Updated ADF .Net SDK version to 4.21.0

## Az.Migrate

- Added SQL Server license type.
- Added CRN feature.
- Added resource tags feature.
- Updated to 2021-02-10 api version.

## Az.Monitor

- Added parameter 'ResourceGroupName' back for 'Add-AzAutoscaleSetting' parameter set 'AddAzureRmAutoscaleSettingUpdateParamGroup' and made it optional [#15491]

## Az.RecoveryServices

- Added Archive for V1 vaults.
- Added ProtectedItemCount in Get-AzRecoveryServicesBackupProtectionPolicy.
- Azure site recovery bug fix for azure to azure in update vm properties.

## Az.RedisCache

- Added 'RedisVersion' parameter in 'New-AzRedisCache' and 'Set-AzRedisCache'

## Az.Resources

- Fixed bug with 'PSResource' where some constructors left 'SubscriptionId' property unassigned/null. [#10783]
- Added support for creating and updating Template Spec in Bicep file [#15313]
- Added '-ProceedIfNoChange' parameter to deployment create cmdlets.

## Az.ServiceFabric

- Fixed Managed and Classic Application models (Application, Cluster, Service) by updating constructor to take all new properties
  - This solves piping related issues where piping the results directly from a Get cmdlet call into and Update or Set call remove some intentionally set properties
  - Updated appropriate test files to cover the above mentioned cases

## Az.Sql

- Fixed identity logic in 'Set-AzSqlServer' and 'Set-AzSqlInstance'

## Az.Storage

- Supported Blob Last Access Time
  - 'Enable-AzStorageBlobLastAccessTimeTracking'
  - 'Disable-AzStorageBlobLastAccessTimeTracking'
  - 'Add-AzStorageAccountManagementPolicyAction'
- Made 'Get-AzDataLakeGen2ChildItem' list all datalake gen2 items by default, instead of needing user to list chunk by chunk.
- Fixed BlobProperties is empty issue when using sas without prefix '?' [#15460]
- Fixed synchronously copy small blob failure [#15548]
  - 'Copy-AzStorageBlob'

## Az.Websites

- Fixed 'Add-AzWebAppAccessRestrictionRule' failing when users does not have permissions to get Service Tag list #15316 and #14862

## Thanks to our community contributors

- Borys Generalov (@bgener), Update Get-AzPolicyState.md (#15455)
- Dean Mock (@deanmock), Update New-AzAutomationSchedule.md (#15371)
- John Bevan (@JohnLBevan), #10783 - Fix for Get-AzResource returning PSResource with null SubscriptionId (#15106)
- Michael Mejias Sanchez (@mikemej), Update - Update deployment (external VNET) (#15391)
- @mjsharma, Adding note for alternate commands (#15360)
- Ked Mardemootoo (@nocticdr), Fixed some typos for added clarity (#15428)
- Pascal Berger (@pascalberger), Fix parameter name in Sync-AzVirtualNetworkPeering examples (#15493)
- @rcabr, Doc fix in Get-AzStorageContainer (#15476)
- AAron (@S-AA-RON), Update New-AzNetworkSecurityGroup.md (#15512)
- 坂本ボテコ (@sakamoto-poteko), Update New-AzVMConfig.md (#15376)
- @Shawn-Yuen, Update Remove-AzDataLakeGen2Item.md (#15388)

## 6.2.1 - July 2021

### Az.Accounts

- Fixed access error when subscription has no 'Tags' property [#15425].

## 6.2.0 - July 2021

### Az.Accounts

- Added Tags, AuthorizationSource to PSAzureSubscription and added TenantType, DefaultDomain, TenantBrandingLogoUrl, CountryCode to PSAzureTenant [#15220]
- Upgraded subscription client to 2021-01-01 [#15220]
- Removed Interactive mode check in common lib
- Added endpoint of OperationalInsights to environment AzureChinaCloud [#15305]
- Printed auto generated modules' default logs to verbose stream

### Az.Aks

- Added parameter 'AvailabilityZone' for 'New-AzAksNodePool'. [#14505]

### Az.ApplicationInsights

- Added read only property 'ConnectionString' and 'ApplicationId' to applicationinsights component

### Az.Compute

- Added optional parameter '-OrchestrationMode' to 'New-AzVmss' and 'New-AzVmssConfig'
- Updated the following cmdlets to work when the resource uses a remote image source using AKS or Shared Image Gallery.
  - 'Update-AzVm'
  - 'Update-AzVmss'
  - 'Update-AzGalleryImageVersion'
- Added parameters '-EnableCrossZoneUpgrade' and '-PrioritizeUnhealthyInstance' to the 'Set-AzVmssRollingUpgradePolicy'
- Added 'AssessmentMode' parameter to the 'Set-AzVMOperatingSystem' cmdlet.
- Fixed a bug in 'Add-AzVmssNetworkInterfaceConfiguration'
- Fixed IOPS and throughput check in 'Test-AzVMAEMExtension'
- Added new cmdlets for 2020-12-01 DiskRP API version
  - New-AzDiskPurchasePlanConfig
  - Set-AzDiskSecurityProfile
- Changed Cmdlets for 2020-12-01 DiskRP API version
  - New-AzDiskConfig

- New-AzSnapshotConfig
- New-AzSnapshotUpdateConfig
- New-AzDiskUpdateConfig
- New-AzDiskEncryptionSetConfig
- Update-AzDiskEncryptionSet

## Az.CosmosDB

- This release introduces the cmdlets for the features of Continuous Backup(Point in time restore):
  - Introduced support for creating accounts with continuous mode backup policy.
  - Introduced support for Point in time restore for accounts with continuous mode backup policy.
  - Introduced support to update the backup interval and backup retention for accounts with periodic mode backup policy.
  - Introduced support to list the restorable resources in a live database account.
  - Introduces support to specify analytical storage schema type on account creation/update.
  - The following cmdlets are added:
    - Restore-AzCosmosDBAccount, New-AzCosmosDBDatabaseToRestore, Get-AzCosmosDBRestorableDatabaseAccount,
    - Get-AzCosmosDBSqlRestorableDatabase, Get-AzCosmosDBSqlRestorableContainer, Get-AzCosmosDBSqlRestorableResource,
    - Get-AzCosmosDBMongoDBRestorableDatabase, Get-AzCosmosDBMongoDBRestorableCollection, Get-AzCosmosDBMongoDBRestorableResource.

## Az.DataFactory

- Added Customer Managed Key Encryption to DataFactory

## Az.Functions

- Added two additional app settings (WEBSITE\_CONTENTSHARE and WEBSITE\_CONTENTAZUREFILECONNECTIONSTRING) for Linux Consumption apps. [15124]
- Fixed bug with New-AzFunctionApp when created on Azure Gov. [13379]
- Added Az.Functions cmdlets need to support creating and copying app settings with empty values. [14511]

## Az.Monitor

- Fixed null reference bug for 'Get-AzMetric' when 'ResultType' set to 'Metadata'
- Fixed bug for 'Add-AzAutoscaleSetting' not able to pipe result from 'Get-AzAutoscaleSetting' [#13861]

## Az.Network

- Added public ip address as an optional parameter to create route server
  - 'New-AzRouteServer'
- Updated cmdlets to enable specification of edge zone
  - 'New-AzPublicIpPrefix'
  - 'New-AzLoadBalancer'
  - 'New-AzPrivateLinkService'
  - 'New-AzPrivateEndpoint'
- Added support for viewing extended location of virtual network in the console
  - 'New-AzVirtualNetwork'
  - 'Get-AzVirtualNetwork'
- Added support for viewing extended location of public IP address in the console
  - 'New-AzPublicIpAddress'
  - 'Get-AzPublicIpAddress'

## Az.RecoveryServices

- Fixed Disable SQL AG AutoProtection.

## Az.Security

- General availability of Az.Security module
- Changed the name of Get-AzRegulatoryComplianceAssessment to Get-AzRegulatoryComplianceAssessment to fix typo

## Az.Sql

- Added 'RestrictOutboundNetworkAccess' parameter to following cmdlets
  - 'New-AzSqlServer'
  - 'Set-AzSqlServer'
- Added new cmdlets for CRUD operations on Allowed FQDNs of Outbound Firewall rules 'Get-AzSqlServerOutboundFirewallRule' 'New-AzSqlServerOutboundFirewallRule' 'Remove-AzSqlServerOutboundFirewallRule'
- Fixed the identity logic for SystemAssigned,UserAssigned identities for New-AzSqlServer, New-AzSqlInstance
- Updated cmdlets for getting and updating SQL database's differential backup frequency 'Get-AzSqlDatabaseBackupShortTermRetentionPolicy' 'Set-AzSqlDatabaseBackupShortTermRetentionPolicy'
- Fixed Partial PUT issue for Azure Policy in 'Set-AzSqlServer' and 'Set-AzSqlInstance'

## Az.Storage

- Supported enable/disable Blob container soft delete
  - 'Enable-AzStorageContainerDeleteRetentionPolicy'
  - 'Disable-AzStorageContainerDeleteRetentionPolicy'
- Supported list deleted Blob containers

- 'Get-AzRmStorageContainer'
- 'Get-AzStorageContainer'
- Supported restore deleted Blob container
  - 'Restore-AzStorageContainer'
- Supported secure SMB setting in File service properties
  - 'Update-AzStorageFileServiceProperty'
- Supported create account with EnableNfsV3
  - 'New-AzStorageAccount'
- Supported input more copy blob parameters from pipeline [#15301]
  - 'Start-AzStorageBlobCopy'

## Az.Websites

- Fixed 'Import-AzWebAppKeyVaultCertificate' to support ServerFarmId [#15091]
- Fixed 'Added an optional parameter to delete or keep Appservice plan when the last WebApp is removing from plan'

## Thanks to our community contributors

- Mikey Bronowski (@MikeyBronowski)
  - Update Get-AzSynapseTriggerRun.md (#15231)
  - Update Get-AzSynapsePipelineRun.md by adding more examples covering more scenarios (#15232)
- @mjsharma, Adding note for alternate commands (#15359)
- @tomswedlund, Adding support for setting analytical storage schema type on account create/update for CosmosDB (#15362)
- @ylabade, Fix web app parameter name in examples (#15291)

## 6.1.0 - June 2021

### Az.Accounts

- Added cmdlet 'Open-AzSurveyLink'
- Supported certificate file as input parameter of Connect-AzAccount

### Az.Aks

- Fixed the issue that 'Set-AzAks' will fail in Automation Runbook. [#15006]

### Az.ApplicationInsights

- Fixed issue that 'ResourcegroupName' is missed when executing below cmdlets with 'InputObject' parameter [#14848]
  - 'Get-AzApplicationInsightsLinkedStorageAccount'

- 'New-AzApplicationInsightsLinkedStorageAccount'
- 'Update-AzApplicationInsightsLinkedStorageAccount'
- 'Remove-AzApplicationInsightsLinkedStorageAccount'

## Az.Cdn

- Fixed profile missing issue in 'Remove-AzCdnProfile' cmdlet

## Az.Compute

- Updated Compute module to use the latest .Net SDK version 47.0.0.

## Az.ContainerInstance

- Removed the display of file share credential [#15224]

## Az.DataFactory

- Updated ADF .Net SDK version to 4.19.0

## Az.EventHub

- Added functionality to accept input from pipeline for 'Get-AzEventHub' from 'Get-AzEventHubNamespace'.

## Az.HDInsight

- Support new azure monitor feature in HDInsight:
  - Add cmdlet 'Get-AzHDInsightAzureMonitor' to allow customer to get the Azure Monitor status of HDInsight cluster.
  - Add cmdlet 'Enable-AzHDInsightAzureMonitor' to allow customer to enable the Azure Monitor in HDInsight cluster.
  - Add cmdlet 'Disable-AzHDInsightAzureMonitor' to allow customer to disable the Azure Monitor in HDInsight cluster.

## Az.KeyVault

- Removed duplicate list item in 'Get-AzKeyVault' [#15164]
- Added 'SecretManagement' tag to 'Az.KeyVault' module [#15173]

## Az.Network

- Updated cmdlets for route server for a more stable way to add IP configuration.
- Added support for getting a single private link resource.
- Added more detailed description about GroupId in 'New-AzPrivateLinkServiceConnection'

- Updated cmdlets to enable setting of PrivateRange on AzureFirewallPolicy.
  - 'New-AzFirewallPolicy'
  - 'Set-AzFirewallPolicy'
- Updated cmdlets to add NatRules in VirtualNetworkGateway and BgpRouteTranslationForNat.
  - 'New-AzVirtualNetworkGateway'
  - 'Set-AzVirtualNetworkGateway'
- Updated cmdlets to add EngressNatRules and EgressNatRules in VirtualNetworkGateway Connection.
  - 'New-AzVirtualNetworkGatewayConnection'
  - 'Set-AzVirtualNetworkGatewayConnection'
- Updated cmdlet to enable setting of FlowTimeout in VirtualNetwork.
  - 'New-AzVirtualNetwork'
- Added cmdlets for Get/Create/Update/Delete VirtualNetworkGatewayNatRules.
  - 'New-AzVirtualNetworkGatewayNatRule'
  - 'Update-AzVirtualNetworkGatewayNatRule'
  - 'Get-AzVirtualNetworkGatewayNatRule'
  - 'Remove-AzVirtualNetworkGatewayNatRule'
- Added a new cmdlet for Sync on VirtualNetworkPeering
  - 'Sync-AzVirtualNetworkPeering'
- Updated cmdlets to add new properties and redefined an existing property in the VirtualNetworkPeering
  - 'Add-AzVirtualNetworkPeering'
  - 'Get-AzVirtualNetworkPeering'
- Updated cmdlets to enable setting of PreferredRoutingGateway on VirtualHub.
  - 'New-AzVirtualHub'
  - 'Update-AzVirtualHub'
- Updated cmdlets to expose two read-only properties of client certificate.
  - 'Get-AzApplicationGatewayTrustedClientCertificate'

## Az.RecoveryServices

- Added cross tenant DS Move.
- Removed restriction to fetch recovery points only for a 30 days time range.
- Enabled CRR for new regions.

## Az.Resources

- Allowed naming the deployment when testing deployments [#11497]

## Az.SignalR

- Changed to 'Allow' and 'Deny' parameters of 'Update-AzSignalRNetworkAcl' cmdlet:
  - Accepted 'Trace' as a valid value.
  - Accepted '@()' as empty collection to clear the list.

- Supported 'ResourceGroupCompleter' and 'ResourceNameCompleter' in the applicable cmdlets.
- Deprecated the 'HostNamePrefix' property of output type 'PSSignalRResource' of following cmdlets:
  - 'Get-AzSignalR'
  - 'New-AzSignalR'
  - 'Update-AzSignalR'

## Az.Sql

- Added option to support short version of maintenance configuration id for Managed Instance in 'New-AzSqlInstance' and 'Set-AzSqlInstance' cmdlets
- Added HighAvailabilityReplicaCount to 'New-AzSqlDatabaseSecondary'
- Added External Administrator and AAD Only Properties to AzSqlServer and AzSqlInstance
  - Added option to specify '-ExternalAdminName', '-ExternalAdminSid', '-EnableActiveDirectoryOnlyAuthentication' in 'New-AzSqlInstance' and 'Set-AzSqlInstance' cmdlets
  - Added option to expand external administrators information using '-ExpandActiveDirectoryAdministrator' in 'Get-AzSqlServer' and 'Get-AzSqlInstance' cmdlets
- Fixed 'Set-AzSqlDatabase' to no longer default ReadScale to Disabled when not specified
- Fixed 'Set-AzSqlServer' and 'Set-AzSqlInstance' for partial PUT with only identity and null properties
- Added parameters related to UMI in 'New-AzSqlServer', 'New-AzSqlInstance', 'Set-AzSqlServer' and 'Set-AzSqlInstance' cmdlets.
- Added -AutoRotationEnabled parameter to following cmdlets:
  - 'Set-AzSqlServerTransparentDataEncryptionProtector'
  - 'Get-AzSqlServerTransparentDataEncryptionProtector'
  - 'Set-AzSqlInstanceTransparentDataEncryptionProtector'
  - 'Get-AzSqlInstanceTransparentDataEncryptionProtector'

## Az.Storage

- Supported create file share with NFS/SMB enabledEnabledProtocol and RootSquash, and update share with RootSquash
  - 'New-AzRmStorageShare'
  - 'Update-AzRmStorageShare'
- Supported enable Smb Multichannel on File service
  - 'Update-AzStorageFileServiceProperty'
- Fixed copy inside same account issue by access source with anonymous credential, when copy Blob inside same account with Oauth credential
- Removed StorageFileDataSmbShareOwner from value set of parameter DefaultSharePermission in create/update storage account
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'

## Az.Websites

- Fixed issue that prevented removing rules by name and unique identifier in 'Remove-AzWebAppAccessRestrictionRule'
- Fixed issue that defaults AlwaysOn to false in 'Set-AzWebAppSlot'

## Thanks to our community contributors

- Andy Roberts (@andyr8939), Removing unused TimeGrain variable from example (#15062)
- Ashley Roll (@AshleyRoll), Remove Write-Host leaking file share credentials (#15225)
- Kailash Mandal (@KaishM), Update New-AzPublicIpAddress.md (#15040)
- Olivier Miossec (@omiossec), Update Get-AzExpressRouteCircuitRouteTable.md (#15054)
- Scott (@S-T-S), Update Set-AzNetworkInterface.md (#15112)
- @sohaibMSFT, Application Gateway AutoScale Example (#15071)
- @Srihsu, Update Split-AzReservation.md (#15049)
- @srozemuller, typo in examples resourcegroup parameter (#15146)

## 6.0.0 - May 2021

Az 6.0.0 (Az.Accounts 2.3.0) is only supported on Windows PowerShell 5.1, PowerShell 7.0 version 7.0.6 or greater and PowerShell 7.1 version 7.1.3 or greater, open [https://aka.ms/install-powershell ↗](https://aka.ms/install-powershell) to learn how to upgrade. For further information, go to [https://aka.ms/azpslifecycle ↗](https://aka.ms/azpslifecycle).

## Az.Accounts

- Upgraded Azure.Identity to 1.4 and MSAL to 4.30.1
- Removed obsolete parameters 'ManagedServiceHostName', 'ManagedServicePort' and 'ManagedServiceSecret' of cmdlet 'Connect-AzAccount', environment variables 'MSI\_ENDPOINT' and 'MSI\_SECRET' could be used instead
- Customize display format of PSAzureRmAccount to hide secret of service principal [#14208]
- Added optional parameter 'AuthScope' to 'Connect-AzAccount' to support enhanced authentication of data plane features
- Set retry times by environment variable [#14748]
- Supported subject name issuer authentication

## Az.Compute

- Added 'Invoke-AzVmInstallPatch' to support patch installation in VMs using PowerShell.
- Updated Compute module to use the latest .Net SDK version 46.0.0.
- Added optional parameter '-EdgeZone' to the following cmdlets:
  - 'Get-AzVMImage'
  - 'Get-AzVMImageOffer'
  - 'Get-AzVMImageSku'
  - 'New-AzDiskConfig'
  - 'New-AzImageConfig'

- 'New-AzSnapshotConfig'
- 'New-AzVM'
- 'New-AzVmssConfig'
- 'New-AzVMSS'

## Az.ContainerInstance

- Added new cmdlets: 'Start-AzContainerGroup', 'Stop-AzContainerGroup' [#10773], 'Invoke-AzContainerInstanceCommand' [#7648], 'Update-AzContainerGroup', 'Add-AzContainerInstanceOutput', 'Get-AzContainerInstanceCachedImage', 'Get-AzContainerInstanceCapability', 'Get-AzContainerInstanceUsage', 'New-AzContainerGroupImageRegistryCredentialObject', 'New-AzContainerGroupPortObject', 'New-AzContainerGroupVolumeObject', 'New-AzContainerInstanceEnvironmentVariableObject', 'New-AzContainerInstanceInitDefinitionObject', 'New-AzContainerInstanceObject', 'New-AzContainerInstancePortObject' and 'New-AzContainerInstanceVolumeMountObject'
- Supported Log Analytics parameters in 'New-AzContainerGroup' [#11117]
- Added support to specify network profile and the name of Azure File Share in 'New-AzContainerGroup' [#9993] [#12218]
- Added support to specify environment variables as SecureValue [#10110] [#10640]

## Az.ContainerRegistry

- Fixed username and password issue in 'Import-AzContainerRegistryImage' [#14971]
- Fixed data plane operations (repository, tag, manifest) failed cross registry in single Powershell session [#14849]

## Az.CosmosDB

- Introduced support for Sql data plane RBAC, allowing the creation, updating, removal, and retrieval of Role Definitions and Role Assignments
  - The following cmdlets are added:
    - Get-AzCosmosDBSqlRoleDefinition, Get-AzCosmosDBSqlRoleAssignment,
    - New-AzCosmosDBSqlRoleDefinition, New-AzCosmosDBSqlRoleAssignment,
    - Remove-AzCosmosDBSqlRoleDefinition, Remove-AzCosmosDBSqlRoleAssignment,
    - Update-AzCosmosDBSqlRoleDefinition, Update-AzCosmosDBSqlRoleAssignment,
    - New-AzCosmosDBSqlPermission

## Az.DesktopVirtualization

- Upgraded api version to 2021-02-01-preview.

## Az.Functions

- Added support in function app creation for Python 3.9 and Node 14 function apps

- Removed support in function app creation for V2, Python 3.6, Node 8, and Node 10 function apps
- Updated IdentityID parameter from string to string array in Update-AzFunctionApp. This is to be consistent with New-AzFunctionApp which has the same parameter as a string array
- Updated FullyQualifiedErrorId for an invalid Functions version from FunctionsVersionIsInvalid to FunctionsVersionNotSupported
- When creating a Node.js function app, if no runtime version is specified, the default runtime version is set to 14 instead of 12

## Az.KeyVault

- Provided key size for RSA key [#14819]

## Az.Kusto

- Bumped API version to stable 2021-01-01

## Az.Maintenance

- Bumped API version to stable 2021-05-01

## Az.Migrate

- Fixed an issue in Initialize-AzMigrateReplicationInfrastructure.ps1

## Az.Network

- Updated validation to allow passing zero value for saDataSizeKilobytes parameter
  - 'New-AzureRmlPsecPolicy'
- Added optional parameter '-EdgeZone' to the following cmdlets:
  - 'New-AzNetworkInterface'
  - 'New-AzPublicIpAddress'
  - 'New-AzVirtualNetwork'

## Az.RecoveryServices

- Fixed security issue with SQL restore, this is a necessary breaking change. TargetContainer becomes mandatory for Alternate Location Restore.
- Removed Set-AzRecoveryServicesBackupProperties cmdlet alias, Set-AzRecoveryServicesBackupProperty is supported.
- Removed Get-AzRecoveryServicesBackupJobDetails cmdlet alias, Get-AzRecoveryServicesBackupJobDetail is supported.
- Added support for cross subscription DS Move.
- Azure Site Recovery support for VMware to Azure disaster recovery scenarios using RCM as the control plane.

## Az.Resources

- Changed '-IdentifierUris' in 'New-AzADApplication' to optional parameter
- Removed generated 'DisplayName' of ADApplication created by 'New-AzADServicePrincipal'
- Updated SDK to 3.13.1-preview to use GA TemplateSpecs API version
- Added 'AdditionalProperties' to PSADUser and PSADGroup [#14568]
- Supported 'CustomKeyIdentifier' in 'New-AzADAppCredential' and 'Get-AzADAppCredential' [#11457], [#13723]
- Changed 'MainTemplate' to be shown by the default formatter for Template Spec Versions

## Az.SecurityInsights

- GA release for `Az.SecurityInsights`

## Az.ServiceFabric

- Removed deprecated cluster certificate commands:
  - 'Add-AzServiceFabricClusterCertificate'
  - 'Remove-AzServiceFabricClusterCertificate'
- Changed PSManagedService model to avoid using the properties parameter directly from sdk.
- Removed deprecated parameters for managed cmdlets:
  - 'ReverseProxyEndpointPort'
  - 'InstanceCloseDelayDuration'
  - 'ServiceDnsName'
  - 'InstanceCloseDelayDuration'
  - 'DropSourceReplicaOnMove'
- Fixed 'Update-AzServiceFabricReliability' to update correctly the vm instance count of the primary node type on the cluster resource.

## Az.Sql

- Updated 'Set-AzSqlDatabaseVulnerabilityAssessmentRuleBaseline' documentation to include example of define array of array with one inner array.
- Added cmdlet 'Copy-AzSqlDatabaseLongTermRetentionBackup'
  - Copy LTR backups to different servers
- Added cmdlet 'Update-AzSqlDatabaseLongTermRetentionBackup'
  - Update Backup Storage Redundancy values for LTR backups
- Added CurrentBackupStorageRedundancy, RequestedBackupStorageRedundancy to 'Get-AzSqlDatabase', 'New-AzSqlDatabase', 'Set-AzSqlDatabase', 'New-AzSqlDatabaseSecondary', 'Set-AzSqlDatabaseSecondary', 'New-AzSqlDatabaseCopy'
  - Changed BackupStorageRedundancy value to CurrentBackupStorageRedundancy, RequestedBackupStorageRedundancy to reflect both the current value and what has been requested if a change was made

## Az.Storage

- Supported file share snapshot
  - 'New-AzRmStorageShare'
  - 'Get-AzRmStorageShare'
  - 'Remove-AzRmStorageShare'
- Supported remove file share with it's snapshot (leased and not leased), by default remove file share will fail when share has snapshot
  - 'Remove-AzRmStorageShare'
- Supported Set/Get/Remove blob inventory policy
  - 'New-AzStorageBlobInventoryPolicyRule'
  - 'Set-AzStorageBlobInventoryPolicy'
  - 'Get-AzStorageBlobInventoryPolicy'
  - 'Remove-AzStorageBlobInventoryPolicy'
- Supported DefaultSharePermission in create/update storage account
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported AllowCrossTenantReplication in create/update storage account
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported Set Object Replication Policy with SourceAccount/DestinationAccount as Storage account resource Id
  - 'Set-AzStorageObjectReplicationPolicy'
- Supported set SasExpirationPeriod as TimeSpan.Zero
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Make sure the correct account name is used when create account credential
  - 'New-AzStorageContext'

## Az.StorageSync

- Deprecated 'Invoke-AzStorageSyncFileRecall'
  - Customers should instead use 'Invoke-StorageSyncFileRecall', a cmdlet that is shipped with the Azure File Sync agent.
- Removed offline data transfer feature in 'New-AzStorageSyncServerEndpoint'.

## Az.StreamAnalytics

- Bumped API version to 2017-04-01-preview
- Added StreamAnalytics Cluster support

## Az.Websites

- updated 'Set-AzAppServicePlan' to keep existing Tags when adding new Tags
- Fixed 'Set-AzWebApp' to set the AppSettings
- updated 'Set-AzWebAppSlot' to set FtpsState
- Added support for StaticSites.

## Thanks to our community contributors

- @corichte, Update New-AzVirtualNetworkGatewayConnection Ex 1 (#14858)
- Hiroshi Yoshioka (@hyoshioka0128)
  - Typo "Azure SQL database"→"Azure SQL Database" (#14883)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14891)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14892)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14902)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14901)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14900)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14898)
  - Typo "Azure SQL managed instance"→"Azure SQL Managed Instance" (#14899)
- Jay Zelos (@jzelos), Updated example 3 to use correct parameter (#14852)
- @StevePantol, Update New-AzVMwarePrivateCloud.md (#14996)

## 5.9.0 - May 2021

### Az.Aks

- Added support 'AcrNameToAttach' in 'Set-AzAksCluster'. [#14692]
- Added support 'AcrNameToDelete' in 'Set-AzAksCluster'. [#14693]
- Added 'Set-AzAksClusterCredential' to reset the ServicePrincipal of an existing AKS cluster.

### Az.Automation

- Added support for User Assigned Identities and PublicNetworkAccess flag

### Az.Cdn

- Added cmdlets to support new AFD Premium / Standard SKUs

### Az.Compute

- Updated the 'Set-AzVMDiskEncryptionExtension' cmdlet to support ADE extension migration from two pass (version with AAD input parameters) to single pass (version without AAD input parameters).
  - Added a switch parameter '-Migrate' to trigger migration workflow.
  - Added a switch parameter '-MigrationRecovery' to trigger recovery workflow for VMs experiencing failures after migration from two pass ADE.

### Az.DataFactory

- Added User Assigned Identities to Data Factory.
- Updated ADF .Net SDK version to 4.18.0

## Az.FrontDoor

- Allowed Enable-AzFrontDoorCustomDomainHttps's SecretVersion parameter to be optional to support bring-your-own-certificate auto-rotation

## Az.KeyVault

- Fixed a bug for 'Get-AzKeyVaultSecret -IncludeVersions' when current version is disabled [#14740]
- Displayed error code and message when updating purged secret [#14800]

## Az.RecoveryServices

- Azure Site Recovery support for Multiple IP per NIC for Azure to Azure provider.
- Azure Site Recovery support for SqlServerLicenseType for VMware to Azure and HyperV to Azure providers.
- Azure Site Recovery support for Availability set for VMware to Azure and HyperV to Azure providers.
- Azure Site Recovery support for TargetVmSize for VMware to Azure and HyperV to Azure providers.
- Azure Site Recovery support for ResourceTagging for VMware to Azure and HyperV to Azure providers.
- Azure Site Recovery support for Virtual Machine Scale Set for Azure to Azure provider.
- Added support for restoring unmanaged disks vm as managed disks.

## Az.Resources

- Added parameter 'ObjectType' for 'New-AzRoleAssignment'

## Az.ServiceFabric

- Upgraded Managed Cluster commands to use Service Fabric Managed Cluster SDK version 1.0.0 which uses service fabric resource provider api-version 2021-05-01.
- 'New-AzServiceFabricManagedCluster' add parameters UpgradeCadence and ZonalResiliency.
- 'New-AzServiceFabricManagedNodeType' add parameters DiskType, VmUserAssignedIdentity, IsStateless and MultiplePlacementGroup.
- 'New-AzServiceFabricManagedClusterService' and 'Set-AzServiceFabricManagedClusterService' mark parameters for deprecation: InstanceCloseDelayDuration, DropSourceReplicaOnMove and ServiceDnsName. They are not supported.

## Az.ResourceMover

- General availability of 'Az.ResourceMover' module

## Az.Storage

- Supported create/update storage account with KeyExpirationPeriod and SasExpirationPeriod
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported create/update storage account with keyvault encryption and access keyvault with user assigned identity
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported EdgeZone in create storage account
  - 'New-AzStorageAccount'
- Fixed an issue that delete immutable blob will prompt incorrect message.
  - 'Remove-AzStorageAccount'
- Allowed update Storage Account KeyVault properties by cleanup Keyversion to enable key auto rotation [#14769]
  - 'Set-AzStorageAccount'
- Added breaking change warning message for upcoming cmdlet breaking change
  - 'Remove-AzRmStorageShare'

## Thanks to our community contributors

- Thomas Lee (@doctordns), Update Get-AzEnvironment.md (#14704)
- Fabian (@FullByte), Example with wrong parameter (typo) (#14743)
- @gradinDotCom, Update Get-AzNetworkWatcherNextHop.md (#14813)
- Dr Greg Low (@greglow-sdu), Update Get-AzSqlServerDnsAlias.md (#14737)
- Prateek Singh (@PrateekKumarSingh)
  - fixing a typo (#14779)
  - fixing typo (#14773)
- Remco Eissing (@remcoeissing)
  - Fixed typos in Restore-AzApiManagement (#14770)
  - Example 2 to use New-AzPolicyExemption (#14716)
- @sharma224
  - User identity changes (#14803)
  - Supporting Customer managed key (#14680)
- Yannick Dils (@yannickdils), Update Location explanation (#14719)

## 5.8.0 - April 2021

### Az.Accounts

- Fallback to first valid context if current default context key is 'Default' which is invalid

### Az.Automation

- Added support for Customer Managed Key Encryption with System Assigned Identity
- Fixed issue that disables the schedule for update deployment if schedule was re-created with same name

## Az.Compute

- Fixed a bug when 1 data disk attached to VMSS for Remove-AzVmssDataDisk [#13368]
- Added new cmdlets to support TrustedLaunch related cmdlets:
  - 'Set-AzVmSecurityProfile'
  - 'Set-AzVmUefi'
  - 'Set-AzVmssSecurityProfile'
  - 'Set-AzVmssUefi'
- Edited default value for Size parameter in New-AzVM cmdlet from Standard\_DS1\_v2 to Standard\_D2s\_v3.

## Az.ContainerRegistry

- Fixed bug in 'Get-AzContainerRegistryManifest' showing incorrect image name

## Az.HDInsight

- Supported getting default vmsize from backend if customer does not provide the related parameters: '-WorkerNodeSize', '-HeadNodeSize', '-ZookeeperNodeSize', '-EdgeNodeSize', '-KafkaManagementNodeSize'.

## Az.HealthcareApis

- Added support for Acr LoginServers

## Az.KeyVault

- Fixed a bug for 'Get-AzKeyVaultSecret -AsPlainText' if the secret is not found [#14645]

## Az.Migrate

- Nullref Bug fixed in get discovered server and initialize replication infrastructure commandlets.

## Az.Monitor

- Added cmdlet to get diagnostic setting categories for subscription
  - 'Get-AzSubscriptionDiagnosticSettingCategory'
- Supported subscription diagnostic setting operations with new parameter: SubscriptionId
  - 'Get-AzDiagnosticSetting'
  - 'New-AzDiagnosticSetting'
  - 'Remove-AzDiagnosticSetting'
- Supported 'AutoMitigate' parameter in metric alert rule properties. The flag indicates whether the alert should be auto resolved or not.

## Az.Resources

- Added upcoming breaking change warnings on below cmdlets, because the value of 'IdentifierUris' parameter will need verified domain.
  - 'New-AzADApplication'
  - 'Update-AzADApplication'
  - 'New-AzADServicePrincipal'
  - 'Update-AzADServicePrincipal'
- Ignored Bicep warning message in error stream if exitcode equals zero.

## Az.Sql

- Added cmdlet output breaking change warnings to the following:
  - 'New-AzSqlDatabase'
  - 'Get-AzSqlDatabase'
  - 'Set-AzSqlDatabase'
  - 'Remove-AzSqlDatabase'
  - 'New-AzSqlDatabaseSecondary'
  - 'Remove-AzSqlDatabaseSecondary'
  - 'Get-AzSqlDatabaseReplicationLink'
  - 'New-AzSqlDatabaseCopy'
  - 'Set-AzSqlDatabaseSecondary'

## Az.Storage

- Fixed copy blob fail with source context as Oauth [#14662]
  - 'Start-AzStorageBlobCopy'

## Az.StreamAnalytics

- Added upcoming breaking change warning message to all cmdlets because of upcoming changes on parameters.

## Thanks to our community contributors

- Andrei Zhukouski (@BurgerZ), Fix typo (#14575)
- Mark Allison (@markallisongit), Update Invoke-AzSqlInstanceFailover.md (#14603)

## 5.7.0 - March 2021

## Az.Accounts

- Fixed incorrect warning message on Windows PowerShell [#14556]
- Set Azure Environment variable 'AzureKeyVaultServiceEndpointResourceId' according to the value of 'AzureKeyVaultDnsSuffix' when discovering environment

## Az.Automation

- Fixed the issue for starting Python3 runbooks with parameters

## Az.DataFactory

- Updated ADF .Net SDK version to 4.15.0

## Az.EventHub

- Fixed that 'New-AzServiceBusAuthorizationRuleSASToken' returns invalid token. [#12975]

## Az.IotHub

- Updated IoT Hub Management SDK and models to version 3.0.0 (api-version 2020-03-01)

## Az.KeyVault

- Supported upcoming new API design for 'Export-AzKeyVaultSecurityDomain'
- Fixed several typos in cmdlet messages [#14341]

## Az.Network

- Added new cmdlets to replace old product name 'virtual router' with new name 'route server' in the future.
  - 'Get-AzRouteServerPeerAdvertisedRoute'
  - 'Get-AzRouteServerPeerAdvertisedRoute'
  - Added deprecation attribute warning to the old cmdlets.
- Updated 'set-azExpressRouteGateway' to allow parameter -MinScaleUnits without specifying - MaxScaleUnits
- Updated cmdlets to enable setting of VpnLinkConnectionMode on VpnSiteLinkConnections.
  - 'New-AzVpnSiteLinkConnection'
  - 'Update-AzVpnConnection'
- Added new cmdlet to fetch IKE Security Associations for VPN Site Link Connections.
  - 'Get-VpnSiteLinkConnectionIkeSa'
- Added new cmdlet to reset a Virtual Network Gateway Connection.
  - 'Reset-AzVirtualNetworkGatewayConnection'
- Added new cmdlet to reset a Vpn Site Link Connection.
  - 'Reset-VpnSiteLinkConnection'
- Updated cmdlets to enable setting an optional parameter -TrafficSelectorPolicies
  - 'New-AzVpnConnection'
  - 'Update-AzVpnConnection'
- Bug fix for update vpnServerConfiguration.
- Add scenarioTest for p2s multi auth VWAN.
- Added multi auth feature support for VNG

- 'Get-AzVpnClientConfiguration'
- 'New-AzVirtualNetworkGateway'
- 'Set-AzVirtualNetworkGateway'

## Az.RecoveryServices

- Added Cross Zonal Restore for managed virtual machines.

## Az.RedisEnterpriseCache

- GA version of Az.RedisEnterpriseCache

## Az.Resources

- Redirected bicep message to verbose stream
- Removed the logic of copying Bicep template file to temp folder.
- Add support of policy exemption resource type
- Fixed what-if functionality when using '-QueryString' parameter.
- Normalized '-QueryString' starting with '?' for scenarios involving dynamic parameters.

## Az.ServiceBus

- Fixed that 'New-AzServiceBusAuthorizationRuleSASToken' returns invalid token. [#12975]

## Az.ServiceFabric

- Added parameters 'VMImagePublisher', 'VMImageOffer', 'VMImageSku', 'VMImageVersion' to 'Add-AzServiceFabricNodeType' to facilitate easy alternate OS image creation for new node type.
- Added parameter 'IsPrimaryNodeType' to 'Add-AzServiceFabricNodeType' to be able to create an additional primary node type, for the purpose of transitioning the primary node type to another one in the case of OS migration.
- 'Add-AzServiceFabricNodeType' now correctly copies the LinuxDiagnostic extension. This was previously not working for Linux.
- 'Add-AzServiceFabricNodeType' now correctly copies the RDP/SSH load balancer inbound NAT port mapping to the new node type.
- Added template for 'UbuntuServer1804' for creating Ubuntu 18.04 clusters using 'New-AzServiceFabricCluster'.
- 'Remove-AzServiceFabricNodeType' was incorrectly blocking Bronze durability node types for removal, and this has been updated to only block when the Bronze durability level differs between the SF node type and VMSS setting.
- Added cmdlet 'Update-AzServiceFabricVmImage' to update the delivered SF runtime package type. This must be changed when migrating from Ubuntu 16 to 18.
- Added cmdlet 'Update-AzServiceFabricNodeType' to update the properties of a cluster node type. For now this is solely used to update whether the node type is primary via bool parameter

- '-IsPrimaryNodeType False'.
- 'Update-AzServiceFabricReliability' is now able to update reliability level when the cluster has more than one primary node type. To do this, the name of the node type is supplied via the new -NodeType parameter.
- Added new cmdlets for managed applications:
  - 'New-AzServiceFabricManagedClusterApplication'
  - 'Get-AzServiceFabricManagedClusterApplication'
  - 'Set-AzServiceFabricManagedClusterApplication'
  - 'Remove-AzServiceFabricManagedClusterApplication'
  - 'New-AzServiceFabricManagedClusterApplicationType'
  - 'Get-AzServiceFabricManagedClusterApplicationType'
  - 'Set-AzServiceFabricManagedClusterApplicationType'
  - 'Remove-AzServiceFabricManagedClusterApplicationType'
  - 'New-AzServiceFabricManagedClusterApplicationTypeVersion'
  - 'Get-AzServiceFabricManagedClusterApplicationTypeVersion'
  - 'Set-AzServiceFabricManagedClusterApplicationTypeVersion'
  - 'Remove-AzServiceFabricManagedClusterApplicationTypeVersion'
  - 'New-AzServiceFabricManagedClusterService'
  - 'Get-AzServiceFabricManagedClusterService'
  - 'Set-AzServiceFabricManagedClusterService'
  - 'Remove-AzServiceFabricManagedClusterService'
- Upgraded Managed Cluster commands to use Service Fabric Managed Cluster SDK version 1.0.0-beta.1 which uses service fabric resource provider api-version 2021-01-01-preview.

## Az.Sql

- Added cmdlet 'New-AzSqlServerTrustGroup'
- Added cmdlet 'Remove-AzSqlServerTrustGroup'
- Added cmdlet 'Get-AzSqlServerTrustGroup'

## Az.Storage

- Fixed an issue that list account from resource group won't use nextlink
  - 'Get-AzStorageAccount'
- Supported ChangeFeedRetentionInDays when Enable ChangeFeed on Blob service
  - 'Update-AzStorageBlobServiceProperty'

## Az.Websites

- Updated 'Add-AzWebAppAccessRestrictionRule' to allow all supported Service Tags and validate against Service Tag API.

## Thanks to our community contributors

- Freddie Sackur (@fsackur), Fix invalid SAS token from New-AzServiceBusAuthorizationRuleSASToken and New-AzEventHubAuthorizationRuleSASToken (#14535)
- Serafín Martín (@infoTraininggym), Unkown parameter (#14515)
- João Carlos Ferra de Almeida (@Jalmeida1994), Update Get-AzAksNodePool.md (#14503)
- Liam Barnett (@liambarnett), Fixed 3 typos in the document (#14335)
- @sbojjawar-Msft, Update Set-AzSqlDatabaseVulnerabilityAssessmentRuleBaseline.md (#14432)
- Yannick Dils (@yannickdils), Remove resource group from get-azloadbalancer this results in a region / zone update. (#14417)

## 5.6.0 - March 2021

### Az.Accounts

- Upgrade Azure.Identity to fix the issue that Connect-AzAccount fails when ADFS credential is used [#13560]

### Az.Automation

- Fixed the issue that string cannot be serialized correctly. [#14215]
- Added Support for Python3 Runbook Type

### Az.Compute

- Added parameter '-EnableHotpatching' to the 'Set-AzVMOperatingSystem' cmdlet for Windows machines.
- Added parameter '-PatchMode' to the Linux parameter sets in the cmdlet 'Set-AzVMOperatingSystem'.
- [Breaking Change] Breaking changes for users in the public preview for the VM Guest Patching feature.
  - Removed property 'RebootStatus' from the 'Microsoft.Azure.Management.Compute.Models.LastPatchInstallationSummary' object.
  - Removed property 'StartedBy' from the 'Microsoft.Azure.Management.Compute.Models.LastPatchInstallationSummary' object.
  - Renamed property 'Kbid' to 'Kbld' in the 'Microsoft.Azure.Management.Compute.Models.VirtualMachineSoftwarePatchProperties' object.
  - Renamed property 'patches' to 'availablePatches' in the 'Microsoft.Azure.Management.Compute.Models.VirtualMachineAssessPatchesResult' object.
  - Renamed object 'Microsoft.Azure.Management.Compute.Models.SoftwareUpdateRebootBehavior' to 'Microsoft.Azure.Management.Compute.Models.VMGuestPatchRebootBehavior'.
  - Renamed object 'Microsoft.Azure.Management.Compute.Models.InGuestPatchMode' to 'Microsoft.Azure.Management.Compute.Models.WindowsVMPatchMode'.

- [Breaking Change] Removed all 'ContainerService' cmdlets. The Container Service API was deprecated in January 2020.
  - 'Add-AzContainerServiceAgentPoolProfile'
  - 'Get-AzContainerService'
  - 'New-AzContainerService'
  - 'New-AzContainerServiceConfig'
  - 'Remove-AzContainerService'
  - 'Remove-AzContainerServiceAgentPoolProfile'
  - 'Update-AzContainerService'

## Az.ContainerRegistry

- Fixed authentication for `Connect-AzContainerRegistry`

## Az.CosmosDB

- Introduced NetworkAclBypass and NetworkAclBypassResourceIds for Database Account cmdlets.
- Introduced ServerVersion parameter to `Update-AzCosmosDBAccount`.
- Introduced BackupInterval and BackupRetention for Database Account cmdlets

## Az.DataFactory

- Updated ADF .Net SDK version to 4.14.0

## Az.Migrate

- Az.Migrate GA
- Incorporated Initialize-AzMigrateReplicationInfrastructure as a cmdlet in the Az.Migrate module, from the external script that is run currently today.
- Made some parameters of New-AzMigrateServerReplication, New-AzMigrateDiskMapping case insensitive.
- Added support for scale appliance change, to handle new V3 keys.

## Az.RecoveryServices

- Added null check for target storage account in FileShare restore.

## Az.Resources

- Added support for Azure resources deployment in Bicep language
- Fixed issues with TemplateSpec deployments in 'New-AzTenantDeployment' and 'New-AzManagementGroupDeployment'
- Added support for '-QueryString' parameter in 'Test-Az\*Deployments' cmdlets
- Fixed issue with dynamic parameters when 'New-Az\*Deployments' is used with '-QueryString'

- Added support for '-TemplateParameterObject' parameter while using '-TemplateSpecId' parameter in 'New-Az\*Deployments' cmdlets
- Fixed the inaccurate error message received on trying to deploy a non-existent template spec

## Az.Storage

- Upgraded to Microsoft.Azure.Management.Storage 19.0.0, to support new API version 2021-01-01.
- Supported resource access rule in NetworkRuleSet
  - 'Update-AzStorageAccountNetworkRuleSet'
  - 'Add-AzStorageAccountNetworkRule'
  - 'Remove-AzStorageAccountNetworkRule'
- Supported Blob version and Append Blob type in Management Policy
  - 'Add-AzStorageAccountManagementPolicyAction'
  - 'New-AzStorageAccountManagementPolicyFilter'
  - 'Set-AzStorageAccountManagementPolicy'
- Supported create/update account with AllowSharedKeyAccess
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported create Encryption Scope with RequireInfrastructureEncryption
  - 'New-AzStorageEncryptionScope'
- Supported copy block blob synchronously, with encryption scope
  - 'Copy-AzStorageBlob'
- Fixed issue that Get-AzStorageBlobContent use wrong directory separator char on Linux and MacOS [#14234]

## Az.Websites

- Introduced an option to give custom timeout for 'Publish-AzWebApp'
- Added support for App Service Environment
  - 'New-AzAppServiceEnvironment'
  - 'Remove-AzAppServiceEnvironment'
  - 'Get-AzAppServiceEnvironment'
  - 'New-AzAppServiceEnvironmentInboundServices'

## Thanks to our community contributors

- @alunmj, Small spelling, formatting changes (#14155)
- @chakra146, Update Add-AzLoadBalancerInboundNatPoolConfig.md (#14231)
- Martin Ehrnst (@ehrnst), Fixed a typo in the cmdlet (#14112)
- Jan David Narkiewicz (@jdmark)
  - Examples used New-AzAks which is legacy cmdlet and the alias for New-AzAksCluster. Changed examples to use New-AzAksCluster which is the cmdlet this documentation page targets. (#14088)
  - Type fix: changed SshKeyVaule to SshKeyValue (#14087)

- Ivan Kulezic (@kukislav), Add sql mi maintenance configuration examples (#14216)
- @webguynj, Update Set-AzNetworkSecurityRuleConfig.md (#14176)
- Yannick Dils (@yannickdils), Added an additional cmdline to the example which applies the changes to the load balancer (#14185)

## 5.5.0 - February 2021

### Az.Accounts

- Tracked CloudError code in exception
- Raised 'ContextCleared' event when 'Clear-AzContext' was executed

### Az.Aks

- Refined error messages of cmdlet failure.
- Upgraded exception handling to use Azure PowerShell related exceptions.
- Fixed the issue that user could not use provided service principal to create Kubernetes cluster.  
[#13938]

### Az.Automation

- Fixed the issue of processing 'PSCustomObject' and 'Array'.

### Az.Compute

- Added parameter '-EnableAutomaticUpgrade' to 'Set-AzVmExtension' and 'Add-AzVmssExtension'.
- Removed FilterExpression parameter from 'Get-AzVMIImage' cmdlet documentation.
- Added deprecation message to the ContainerService cmdlets:
  - 'Add-AzureRmContainerServiceAgentPoolProfileCommand'
  - 'Get-AzContainerService'
  - 'New-AzContainerService'
  - 'New-AzContainerServiceConfig'
  - 'Remove-AzContainerService'
  - 'Remove-AzContainerServiceAgentPoolProfile'
  - 'Update-AzContainerService'
- Added parameter '-BurstingEnabled' to 'New-AzDiskConfig' and 'New-AzDiskUpdateConfig'
- Added '-GroupByApplicationId' and '-GroupByUserAgent' parameters to the 'Export-AzLogAnalyticThrottledRequest' and 'Export-AzLogAnalyticRequestRateByInterval' cmdlets.
- Added 'VMParameterSet' parameter set to 'Get-AzVMExtension' cmdlet. Added new parameter '-VM' to this parameter set.

### Az.ContainerRegistry

- Added cmdlets to supported repository, manifest, and tag operations:
  - 'Get-AzContainerRegistryRepository'
  - 'Update-AzContainerRegistryRepository'
  - 'Remove-AzContainerRegistryRepository'
  - 'Get-AzContainerRegistryManifest'
  - 'Update-AzContainerRegistryManifest'
  - 'Remove-AzContainerRegistryManifest'
  - 'Get-AzContainerRegistryTag'
  - 'Update-AzContainerRegistryTag'
  - 'Remove-AzContainerRegistryTag'

## Az.Databricks

Supported -EnableNoPublicIP when creating a Databricks workspace

## Az.FrontDoor

- Added FrontDoorId to properties
- Added JSON Exclusions and RequestBodyCheck support to managed rules

## Az.HDInsight

- Added new parameter '-EnableComputeIsolation' and '-ComputeIsolationHostSku' to the cmdlet 'New-AzHDInsightCluster' to support compute isolation feature
- Added property 'ComputeIsolationProperties' and 'ConnectivityEndpoints' in the class AzureHDInsightCluster.

## Az.KeyVault

- Supported specifying key type and curve name when importing keys via a BYOK file

## Az.Network

- Added new cmdlets to replace old product name 'virtual router' with new name 'route server' in the future.
  - 'New-AzRouteServer'
  - 'Get-AzRouteServer'
  - 'Remove-AzRouteServer'
  - 'Update-AzRouteServer'
  - 'Get-AzRouteServerPeer'
  - 'Add-AzRouteServerPeer'
  - 'Update-AzRouteServerPeer'
  - 'Remove-AzRouteServerPeer'
  - Added deprecation attribute warning to the old cmdlets.

- Bug fix in ExpressRouteLink MacSecConfig. Added new property 'SciState' to 'PSExpressRouteLinkMacSecConfig'
- Updated format list and format table views for Get-AzVirtualNetworkGatewayConnectionIkeSa

## Az.PolicyInsights

- Retracted changes made in powershell that increased request row limit. Removed incorrect statement of supporting paging

## Az.RecoveryServices

- modified policy validation limits as per backup service.
- Added Zone Redundancy for Recovery Service Vaults.
- Azure Site Recovery support for Proximity placement group for VMware to Azure and HyperV to Azure providers.
- Azure Site Recovery support for Availability zone for VMware to Azure and HyperV to Azure providers.
- Azure Site Recovery support for UseManagedDisk for HyperV to Azure provider

## Az.Resources

- Removed principal type on New-AzRoleAssignment and Set-AzRoleAssignment because current mapping was breaking certain scenarios

## Az.Sql

- Added MaintenanceConfigurationId to 'New-AzSqlDatabase', 'Set-AzSqlDatabase', 'New-AzSqlElasticPool' and 'Set-AzSqlElasticPool'
- Fixed regression in 'Set-AzSqlServerAudit' when PredicateExpression argument is provided

## Az.Storage

- Supported RoutingPreference settings in create/update Storage account
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Upgraded Azure.Storage.Blobs to 12.8.0
- Upgraded Azure.Storage.FilesShares to 12.6.0
- Upgraded Azure.Storage.Files.DataLake to 12.6.0

## Az.Websites

- Added support for Importing a key vault certificate to WebApp.

## Thanks to our community contributors

- @atul-ram, Update Set-AzEventHub.md (#13921)
- Christoph Bergmeister [MVP] (@bergmeister), Set-AzDataLakeGen2AclRecursive.md - Fix typo (directiry -> directory) (#14082)
- Alexander Schmidt (@devdeer-alex), Fixed broken link to contribution guidelines (#14009)
- @JiangYuchun, Update Get-AzApplicationGatewayAuthenticationCertificate.md (#13972)
- Sebastian Olsen (@Spacebjorn), Corrected example command (#13901)

## 5.4.0 - January 2021

### Az.Accounts

- Shown correct client request id on debug message [#13745]
- Added common Azure PowerShell exception type
- Supported storage API 2019-06-01

### Az.Automation

- Fixed issue where description was not populated for update management schedules

### Az.CosmosDB

- General availability of 'Az.CosmosDB' module
- Restricting New-AzCosmosDBAccount cmdlet to make update calls to existing Database Accounts.
- Introducing AnalyticalStorageTTL in SqlContainer.

### Az.IotHub

- Fixed a regression regarding SAS token generation

### Az.KeyVault

- Fixed an issue in Secret Management module

### Az.LogicApp

- Fixed issue that 'Get-AzLogicAppTriggerHistory' and 'Get-AzLogicAppRunAction' only retrieving the first page of results [#9141]

### Az.Monitor

- Added cmdlets for data collection rules:
  - 'Get-AzDataCollectionRule'
  - 'New-AzDataCollectionRule'

- 'Set-AzDataCollectionRule'
- 'Update-AzDataCollectionRule'
- 'Remove-AzDataCollectionRule'
- Added cmdlets for data collection rules associations
  - 'Get-AzDataCollectionRuleAssociation'
  - 'New-AzDataCollectionRuleAssociation'
  - 'Remove-AzDataCollectionRuleAssociation'

## Az.Network

- Added new cmdlets for CRUD of VpnGatewayNATRule.
  - 'New-AzVpnGatewayNatRule'
  - 'Update-AzVpnGatewayNatRule'
  - 'Get-AzVpnGatewayNatRule'
  - 'Remove-AzVpnGatewayNatRule'
- Updated cmdlets to set NATRule on VpnGateway resource and associate it with VpnSiteLinkConnection resource.
  - 'New-AzVpnGateway'
  - 'Update-AzVpnGateway'
  - 'New-AzVpnSiteLinkConnection'
- Updated cmdlets to enable setting of ConnectionMode on Virtual Network Gateway Connections.
  - 'New-AzVirtualNetworkGatewayConnection'
  - 'Set-AzVirtualNetworkGatewayConnection'
- Updated 'New-AzFirewallPolicyApplicationRule' cmdlet:
  - Added parameter TargetUrl
  - Added parameter TerminateTLS
- Added new cmdlets for Azure Firewall Premium Features
  - 'New-AzFirewallPolicyIntrusionDetection'
  - 'New-AzFirewallPolicyIntrusionDetectionBypassTraffic'
  - 'New-AzFirewallPolicyIntrusionDetectionSignatureOverride'
- Updated New-AzFirewallPolicy cmdlet:
  - Added parameter -SkuTier
  - Added parameter -Identity
  - Added parameter -UserAssignedIdentityId
  - Added parameter -IntrusionDetection
  - Added parameter -TransportSecurityName
  - Added parameter -TransportSecurityKeyVaultSecretId
- Added new cmdlet to fetch IKE Security Associations for Virtual Network Gateway Connections.
  - 'Get-AzVirtualNetworkGatewayConnectionIkeSa'
- Added multiple Authentication support for p2sVpnGateway
  - Updated New-AzVpnServerConfiguration and Update-AzVpnServerConfiguration to allow multiple authentication parameters to be set.
- Updated 'New-AzVpnGateway' and 'New-AzP2sVpnGateway' cmdlet:
  - Added parameter EnableRoutingPreferenceInternetFlag

## Az.RecoveryServices

- Added Cross Region Restore feature.
- Blocked getting workload config when target item is an availability group.

## Az.Resources

- Added support for -QueryString parameter in New-Az\*Deployments cmdlets

## Az.Sql

- Made 'Start-AzSqlInstanceDatabaseLogReplay' cmdlet synchronous, added -AsJob flag

## Az.Storage

- Fix ContinuationToken never null when list blob with -IncludeVersion
  - 'Get-AzStorageBlob'

## Az.Websites

- Added support for App Service Managed certificates
  - 'New-AzWebAppCertificate'
  - 'Remove-AzWebAppCertificate'
- Fixed issue that causes Docker Password to be removed from appsettings in 'Set-AzWebApp' and 'Set-AzWebAppSlot'

## Thanks to our community contributors

- Ivan Akcheurov (@ivanakcheurov), Update Set-AzSecurityWorkspaceSetting.md (#13877)
- @javiermarasco, Update example (#13837)
- @jhaprakash26, Update Set-AzVirtualNetwork.md (#13857)
- Michael Holmes (@MichaelHolmesWP), Update New-AzStorageTableStoredAccessPolicy.md (#13871)
- Michael James (@mikejwhat), Allow Get-AzLogicAppTriggerHistory and Get-AzLogicAppRunAction to return more than 30 results (#13846)
- @Willem-J-an, Fix bug causing Docker Password to be removed from appsettings in Set-AzWebApp(Slot) (#13866)

## 5.3.0 - December 2020

## Az.Accounts

- Fixed the issue that Http proxy is not respected in Windows PowerShell [#13647]
- Improved debug log of long running operations in generated modules

## Az.Automation

- Fixed issue that parameters of 'Start-AzAutomationRunbook' cannot convert PSObject wrapped string to JSON string [#13240]
- Fixed location completer for New-AzAutomationUpdateManagementAzureQuery cmdlet

## Az.Compute

- New parameter 'VM' in new parameter set 'VMParameterSet' added to 'Get-AzVMDscExtensionStatus' and 'Get-AzVMDscExtension' cmdlets.
- Edited 'New-AzSnapshot' cmdlet to check for existing snapshot with the same name in the same resource group.
  - Throws an error if a duplicate snapshot exists.

## Az.Databricks

- Fixed an issue that may cause 'New-AzDatabricksVNetPeering' to return before it is fully provisioned (<https://github.com/Azure/autorest.powershell/issues/610> ↗)

## Az.DataFactory

- Fixed the command 'Invoke-AzDataFactoryV2Pipeline' for SupportsShouldProcess issue

## Az.DesktopVirtualization

- Added StartVMOnConnect property to hostpool.

## Az.HDInsight

- Added properties: Fqdn and EffectiveDiskEncryptionKeyUrl in the class AzureHDInsightHostInfo.

## Az.KeyVault

- Added a new parameter '-AsPlainText' to 'Get-AzKeyVaultSecret' to directly return the secret in plain text [#13630]
- Supported selective restore a key from a managed HSM full backup [#13526]
- Fixed some minor issues [#13583] [#13584]
- Added missing return objects of 'Get-Secret' in SecretManagement module
- Fixed an issue that may cause vault to be created without default access policy [#13687]

## Az.Kusto

- Updated API version to 2020-09-18.

## Az.Network

- Fixed issue in remove peering and connection cmdlet for ExpressRouteCircuit scenario
  - 'Remove-AzExpressRouteCircuitPeeringConfig' and 'Remove-AzExpressRouteCircuitConnectionConfig'

## Az.PolicyInsights

- Added support for returning paginated results for Get-AzPolicyState

## Az.RecoveryServices

- Enabled softdelete feature for SQL.
- Fixed SQL AG restore and removed the container name check.
- Changed container name format for Azure Files backup item.
- Added CMK feature support for Recovery services vault.

## Az.Resources

- Fixed a NullRef exception issue in 'New-AzureManagedApplication' and 'Set-AzureManagedApplication'.
- Updated Azure Resource Manager SDK to use latest DeploymentScripts GA api-version: 2020-10-01.

## Az.ServiceFabric

- Fixed 'Add-AzServiceFabricNodeType'. Added node type to service fabric cluster before creating virtual machine scale set.

## Az.Sql

- Fixed parameter description for 'InstanceFailoverGroup' command.
- Updated the logic in which schemaName, tableName and columnName are being extracted from the id of SQL Data Classification commands.
- Fixed Status and StatusMessage fields in 'Get-AzSqlDatabaseImportExportStatus' to conform to documentation
- Added Microsoft support operations (DevOps) auditing cmdlets: Get-AzSqlServerMSSupportAudit, Set-AzSqlServerMSSupportAudit, Remove-AzSqlServerMSSupportAudit

## Az.Storage

- Supported create/update/get/list EncryptionScope of a Storage account
  - 'New-AzStorageEncryptionScope'
  - 'Update-AzStorageEncryptionScope'
  - 'Get-AzStorageEncryptionScope'
- Supported create container and upload blob with Encryption Scope setting

- 'New-AzRmStorageContainer'
- 'New-AzStorageContainer'
- 'Set-AzStorageBlobContent'

## Thanks to our community contributors

- Andreas Wolter (@AndreasWolter), removed marketing language, better example filter (#13671)
- Tidjani Belmansour (@BelRarr), Update Get-AzBillingInvoice.md (#13634)
- David Klempfner (@DavidKlempfner)
  - Fixed spelling mistake (#13677)
  - Update PSMetricNoDetails.cs (#13676)
- @kilobyte97, bugfix for remove cmdlet to delete config (#13655)
- @kongou-ae, Update Set-AzFirewall.md (#13727)
- @MasterKuat, Fix swap between title and code in documentation (#13666)
- NickT (@nukeulis), Update Set-AzContext.md (#13702)
- @PaulHCode, Update Start-AzJitNetworkAccessPolicy.md - Fix the Example to display the proper cmdlet being demonstrated (#13713)
- Ryan Borstelmann (@ryanborMSFT), Removed Subscription ID (#13715)
- Shashikant Shakya (@shshakya), Update Set-AzSqlDatabase.md (#13674)
- Sebastian Olsen (@Spacebjorn), Update Get-AzRecoveryServicesBackupItem.md (#13719)

## 5.2.0 - December 2020

### Az.Accounts

- Managed to parse ExpiresOn time from raw token if could not get from underlying library
- Improved warning message if Interactive authentication is unavailable

### Az.ApiManagement

- [Breaking change] 'New-AzApiManagementProduct' by default has no subscription limit.

### Az.Compute

- Edited Get-AzVm to filter by '-Name' prior to checking for throttling due to too many resources.
- New cmdlet 'Start-AzVmssRollingExtensionUpgrade'.

### Az.ContainerRegistry

- Supported parameter 'Name' for and value from pipeline input for 'Get-AzContainerRegistryUsage' [#13605]
- Polished exceptions for 'Connect-AzContainerRegistry'

## Az.DataFactory

- Updated ADF .Net SDK version to 4.13.0

## Az.HealthcareApis

- Added support for customer managed keys

## Az.IotHub

- Fixed an issue of SAS token.

## Az.KeyVault

- Supported 'all' as an option when setting key vault access policies
- Supported new version of SecretManagement module [#13366]
- Supported ByteArray, String, PSCredential and Hashtable for 'SecretValue' in SecretManagementModule [#12190]
- [Breaking change] redesigned the API surface of cmdlets related to managed HSM.

## Az.Monitor

- Changed parameter 'Rule' of 'New-AzAutoscaleProfile' to accept empty list. [#12903]
- Added new cmdlets to support creating diagnostic settings more flexible:
  - 'Get-AzDiagnosticSettingCategory'
  - 'New-AzDiagnosticSetting'
  - 'New-AzDiagnosticDetailSetting'

## Az.RecoveryServices

- Made help text and parameter set name changes to 'Restore-AzRecoveryServicesBackupItem' cmdlet.

## Az.Resources

- Added '-Tag' parameter support to 'Set-AzTemplateSpec' and 'New-AzTemplateSpec'
- Added Tag display support to default formatter for Template Specs

## Az.ServiceFabric

- Added example to 'Set-AzServiceFabricSetting' with SettingsSectionDescription param
- Updated application related cmdlets to call out that support is only for ARM deployed resources
- Marked for deprecation cluster cert cmdlets 'Add-AzureRmServiceFabricClusterCertificate' and 'Remove-AzureRmServiceFabricClusterCertificate'

## Az.Sql

- Added SecondaryType to the following:
  - 'New-AzSqlDatabase'
  - 'Set-AzSqlDatabase'
  - 'New-AzSqlDatabaseSecondary'
- Added HighAvailabilityReplicaCount to the following:
  - 'New-AzSqlDatabase'
  - 'Set-AzSqlDatabase'
- Made ReadReplicaCount an alias of HighAvailabilityReplicaCount in the following:
  - 'New-AzSqlDatabase'
  - 'Set-AzSqlDatabase'

## Az.Storage

- Supported upload Azure File size up to 4 TiB
  - 'Set-AzStorageFileContent'
- Upgraded Azure.Storage.Blobs to 12.7.0
- Upgraded Azure.Storage.FilesShares to 12.5.0
- Upgraded Azure.Storage.Files.DataLake to 12.5.0

## Az.StorageSync

- Added Sync tiering policy feature with download policy and local cache mode

## Az.Websites

- Prevent duplicate access restriction rules

## Thanks to our community contributors

- Andrew Dawson (@dawsonar802), Update Get-AzKeyVaultCertificate.md - Get cert and save it as pfx section to work with PowerShell Core (#13557)
- @iviark, Healthcare APIs Powershell BYOK Updates (#13518)
- John Duckmanton (@johnduckmanton), Correct spelling of TagPatchOperation (#13508)
- Michael James (@mikejwhat)
  - Get-AzLogicAppRunHistory Help Tidy (#13513)
- Richard de Zwart (@mountain65)
  - Update Update-AzAppConfigurationStore.md (#13485)
  - Update New-AzCosmosDBAccount.md (#13490)
- @SteppingRazor, New-AzApiManagementProduct: Change SubscriptionsLimit parameter default value to None (#13457)
- Steve Burkett (@SteveBurkettNZ), Fix Typo for WorkspaceResourceId parameter in example (#13589)

# 5.1.0 - November 2020

## Az.Accounts

- Fixed an issue that TenantId may be not respected if using 'Connect-AzAccount -DeviceCode' [#13477]
- Added new cmdlet 'Get-AzAccessToken'
- Fixed an issue that error happens if user profile path is inaccessible
- Fixed an issue causing Write-Object error during Connect-AzAccount [#13419]
- Added parameter 'ContainerRegistryEndpointSuffix' to: 'Add-AzEnvironment', 'Set-AzEnvironment'
- Supported interrupting login by hitting **CTRL + C**
- Fixed an issue causing 'Connect-AzAccount -KeyVaultAccessToken' not working [#13127]
- Fixed null reference and method case insensitive in 'Invoke-AzRestMethod'

## Az.Aks

- Fixed the issue that user cannot use service principal to create a new Kubernetes cluster. [#13012]

## Az.AppConfiguration

- General availability of 'Az.AppConfiguration' module

## Az.DataFactory

- Improved error message of 'New-AzDataFactoryV2LinkedServiceEncryptedCredential' command

## Az.DataLakeStore

- Updated ADLS dataplane SDK to 1.2.4-alpha. Changes:<https://github.com/Azure/azure-data-lake-store-net/blob/preview-alpha/CHANGELOG.md#version-124-alpha>

## Az.DesktopVirtualization

- Added new MSIX Package cmdlets and updated Applications cmdlets.

## Az.EventHub

- Fixed Cluster commands for EventHub cluster without tags
- Updated help text for PartnerNamespace of AzEventHubGeoDRConfiguration commands

## Az.HDInsight

- Add parameters 'ResourceProviderConnection' and 'PrivateLink' to cmdlet 'New-AzHDInsightCluster' to support relay outbound and private link feature
- Add parameter 'AmbariDatabase' to cmdlet 'New-AzHDInsightCluster' to support custom Ambari database feature
- Add accept value 'AmbariDatabase' to the parameter 'MetastoreType' of the cmdlet 'Add-AzHDInsightMetastore'

## Az.IotHub

- Allowed tags in IoT Hub create cmdlet.

## Az.KeyVault

- Supported updating key vault tag

## Az.LogicApp

- Fixed for Get-AzLogicAppRunHistory only retrieving the first page of results

## Az.Network

- Updated below cmdlet
  - 'New-AzLoadBalancerFrontendIpConfigCommand', 'Set-AzLoadBalancerFrontendIpConfigCommand', 'Add-AzLoadBalancerFrontendIpConfigCommand':
    - Added PublicIpAddressPrefix property
    - Added PublicIpAddressPrefixId property
- Added new properties to the following cmdlets to allow for global load balancing
  - 'New-AzLoadBalancer':
    - Added Sku Tier property
  - 'New-AzPublicIpAddress':
    - Added Sku Tier property
  - 'New-AzPublicIpPrefix':
    - Added Sku Tier property
  - 'New-AzLoadBalancerBackendAddressConfig':
    - Added LoadBalancerFrontendIPConfigurationId property
- Updated planning to deprecate warnings for the following cmdlets -'New-AzVirtualHubRoute' - 'New-AzVirtualHubRouteTable' -'Add-AzVirtualHubRoute' -'Add-AzVirtualHubRouteTable' - 'Get-AzVirtualHubRouteTable' -'Remove-AzVirtualHubRouteTable'
- Added planning to deprecate warnings on the argument 'RouteTable' for the following cmdlets -'New-AzVirtualHub' -'Set-AzVirtualHub' -'Update-AzVirtualHub'
- Made arguments '-MinScaleUnits' and '-MaxScaleUnits' optional in 'Set-AzExpressRouteGateway'
- Added new cmdlets to support Mutual Authentication and SSL Profiles on Application Gateway
  - 'Get-AzApplicationGatewayClientAuthConfiguration'

- 'New-AzApplicationGatewayClientAuthConfiguration'
- 'Remove-AzApplicationGatewayClientAuthConfiguration'
- 'Set-AzApplicationGatewayClientAuthConfiguration'
- 'Add-AzApplicationGatewayTrustedClientCertificate'
- 'Get-AzApplicationGatewayTrustedClientCertificate'
- 'New-AzApplicationGatewayTrustedClientCertificate'
- 'Remove-AzApplicationGatewayTrustedClientCertificate'
- 'Set-AzApplicationGatewayTrustedClientCertificate'
- 'Add-AzApplicationGatewaySslProfile'
- 'Get-AzApplicationGatewaySslProfile'
- 'New-AzApplicationGatewaySslProfile'
- 'Remove-AzApplicationGatewaySslProfile'
- 'Set-AzApplicationGatewaySslProfile'
- 'Get-AzApplicationGatewaySslProfilePolicy'
- 'Remove-AzApplicationGatewaySslProfilePolicy'
- 'Set-AzApplicationGatewaySslProfilePolicy'

## Az.RecoveryServices

- Specifying policy BackupTime is in UTC.
- Modifying breaking change warning in Get-AzRecoveryServicesBackupJobDetails cmdlet.
- Updating sample script help text for Set-AzRecoveryServicesBackupProtectionPolicy cmdlet.

## Az.Resources

- Fixed an issue where What-If shows two resource group scopes with different casing
- Updated 'Export-AzResourceGroup' to use the SDK.
- Added culture info to parse methods

## Az.Sql

- Fixed issues where Set-AzSqlDatabaseAudit were not support Hyperscale database and database edition cannot be determined
- Added MaintenanceConfigurationId to 'New-AzSqlInstance' and 'Set-AzSqlInstance'
- Fixed a bug in GetAzureSqlDatabaseReplicationLink.cs where PartnerServerName parameter was being checked for by value instead of key

## Az.Websites

- Added support for new access restriction features: ServiceTag, multi-ip and http-headers

## Thanks to our community contributors

- John Q. Martin (@johnmart82), Adding firewall prerequisite information (#13385)

- Manikandan Duraisamy (@madurais-msft), Corrected the PublicSubnetName argument (#13417)
- @mahortas, Update for -HostNames parameter values (#13349)
- @MariachiForHire, added supported TrafficAnalyticsInterval values (#13304)
- Michael James (@mikejwhat), Allow Get-AzLogicAppRunHistory to return more than 30 entries (#13393)
- Shashikant Shakya (@shshakya), Update Restore-AzSqlInstanceDatabase.md (#13404)

## 5.0.0 - October 2020

### Az.Accounts

- [Breaking Change] Removed 'Get-AzProfile' and 'Select-AzProfile'
- Replaced Azure Directory Authentication Library with Microsoft Authentication Library(MSAL)

### Az.Aks

- [Breaking Change] Removed parameter alias 'ClientIdAndSecret' in 'New-AzAksCluster' and 'Set-AzAksCluster'.
- [Breaking Change] Changed the default value of 'NodeVmSetType' in 'New-AzAksCluster' from 'AvailabilitySet' to 'VirtualMachineScaleSets'.
- [Breaking Change] Changed the default value of 'NetworkPlugin' in 'New-AzAksCluster' from 'None' to 'azure'.
- [Breaking Change] Removed parameter 'NodeOsType' in 'New-AzAksCluster' as it supports only one value Linux.

### Az.Billing

- Added 'Get-AzBillingAccount' cmdlet
- Added 'Get-AzBillingProfile' cmdlet
- Added 'Get-AzInvoiceSection' cmdlet
- Added new parameters in 'Get-AzBillingInvoice' cmdlet
- Removed properties DownloadUrlExpiry, Type, BillingPeriodNames from the response of Get-AzBillingInvoice cmdlet

### Az.Cdn

- Added cmdlets to support multi-origin and private link functionality

### Az.CognitiveServices

- Updated SDK to 7.4.0-preview.

### Az.Compute

- Added '-VmssId' parameter to 'New-AzVm'
- Added 'PlatformFaultDomainCount' parameter to the 'New-AzVmss' cmdlet.
- New cmdlet 'Get-AzDiskEncryptionSetAssociatedResource'
- Added 'Tier' and 'LogicalSectorSize' optional parameters to the New-AzDiskConfig cmdlet.
- Added 'Tier', 'MaxSharesCount', 'DiskIOPSReadOnly', and 'DiskMBpsReadOnly' optional parameters to the 'New-AzDiskUpdateConfig' cmdlet.

## Az.ContainerRegistry

- [Breaking Change] Updates API version to 2019-05-01
- [Breaking Change] Removed SKU 'Classic' and parameter 'StorageAccountName' from 'New-AzContainerRegistry'
- Added New cmdlets: 'Connect-AzContainerRegistry', 'Import-AzContainerRegistry', 'Get-AzContainerRegistryUsage', 'New-AzContainerRegistryNetworkRule', 'Set-AzContainerRegistryNetworkRule'
- Added new parameter 'NetworkRuleSet' to 'Update-AzContainerRegistry'

## Az.Databricks

- Fixed a bug that may cause updating databricks workspace without `-EncryptionKeyVersion` to fail.

## Az.DataFactory

- Updated ADF .Net SDK version to 4.12.0
- Updated ADF encryption client SDK version to 4.14.7587.7
- Added 'Stop-AzDataFactoryV2TriggerRun' and 'Invoke-AzDataFactoryV2TriggerRun' commands

## Az.DesktopVirtualization

- Require Location property for creating top level arm objects. \* Made `ApplicationGroupType` required for `New-AzWvdApplicationGroup`. \* Made `HostPoolArmPath` required for `New-AzWvdApplicationGroup`. \* Added `PreferredAppGroupType` for `New-AzWvdHostPool`.

## Az.Functions

- [Breaking Change] Removed 'IncludeSlot' switch parameter from all but one parameter set of 'Get-AzFunctionApp'. The cmdlet now supports retrieving deployment slots in the results when '`-IncludeSlot`' is specified.
- Updated 'New-AzFunctionApp':
  - Fixed `-DisableApplicationInsights` so that no application insights project is created when this option is specified. [#12728]
  - [Breaking Change] Removed support to create PowerShell 6.2 function apps.
  - [Breaking Change] Changed the default runtime version in Functions version 3 on Windows for PowerShell function apps from 6.2 to 7.0 when the `RuntimeVersion` parameter is not

- specified.
- [Breaking Change] Changed the default runtime version in Functions version 3 on Windows and Linux for Node function apps from 10 to 12 when the RuntimeVersion parameter is not specified.
- [Breaking Change] Changed the default runtime version in Functions version 3 on Linux for Python function apps from 3.7 to 3.8 when the RuntimeVersion parameter is not specified.

## Az.HDInsight

- For New-AzHDInsightCluster cmdlet:
  - Replaced parameter 'DefaultStorageAccountName' with 'StorageAccountResourceId'
  - Replaced parameter 'DefaultStorageAccountKey' with 'StorageAccountKey'
  - Replaced parameter 'DefaultStorageAccountType' with 'StorageAccountType'
  - Removed parameter 'PublicNetworkAccessType'
  - Removed parameter 'OutboundPublicNetworkAccessType'
  - Added new parameters: 'StorageFileSystem' and 'StorageAccountManagedIdentity' to support ADLSGen2
  - Added new parameter 'EnableIDBroker' to Support HDInsight ID Broker
  - Added new parameters: 'KafkaClientGroupId', 'KafkaClientGroupName' and 'KafkaManagementNodeSize' to support Kafka Rest Proxy
- For New-AzHDInsightClusterConfig cmdlet:
  - Replaced parameter 'DefaultStorageAccountName' with 'StorageAccountResourceId'
  - Replaced parameter 'DefaultStorageAccountKey' with 'StorageAccountKey'
  - Replaced parameter 'DefaultStorageAccountType' with 'StorageAccountType'
  - Removed parameter 'PublicNetworkAccessType'
  - Removed parameter 'OutboundPublicNetworkAccessType'
- For Set-AzHDInsightDefaultStorage cmdlet:
  - Replaced parameter 'StorageAccountName' with 'StorageAccountResourceId'
- For Add-AzHDInsightSecurityProfile cmdlet:
  - Replaced parameter 'Domain' with 'DomainResourceId'
  - Removed the mandatory requirement for parameter 'OrganizationalUnitDN'

## Az.KeyVault

- [Breaking Change] Deprecated parameter DisableSoftDelete in 'New-AzKeyVault' and EnableSoftDelete in 'Update-AzKeyVault'
- [Breaking Change] Removed attribute SecretValueText to avoid displaying SecretValue directly [#12266]
- Supported new resource type: managed HSM
  - CRUD of managed HSM and cmdlets to operate keys on managed HSM
  - Full HSM backup/restore, AES key creation, security domain backup/restore, RBAC

## Az.ManagedServices

- [Breaking Change] Updated parameters naming conventions and associated examples

## Az.Network

- [Breaking Change] Removed parameter 'HostedSubnet' and added 'Subnet' instead
- Added new cmdlets for Virtual Router Peer Routes
  - 'Get-AzVirtualRouterPeerLearnedRoute'
  - 'Get-AzVirtualRouterPeerAdvertisedRoute'
- Updated New-AzFirewall cmdlet:
  - Added parameter '-SkuTier'
  - Added parameter '-SkuName' and made Sku as Alias for this
  - Removed parameter '-Sku'
- [Breaking Change] Made 'Connectionlink' argument mandatory in 'Start-AzVpnConnectionPacketCapture' and 'Stop-AzVpnConnectionPacketCapture'
- [Breaking Change] Updated 'New-AzNetworkWatcherConnectionMonitorEndPointObject' to remove parameter '-Filter'
- [Breaking Change] Replaced 'New-AzNetworkWatcherConnectionMonitorEndpointFilterItemObject' cmdlet with 'New-AzNetworkWatcherConnectionMonitorEndpointScopeItemObject'
- Updated 'New-AzNetworkWatcherConnectionMonitorEndPointObject' cmdlet:
  - Added parameter '-Type'
  - Added parameter '-CoverageLevel'
  - Added parameter '-Scope'
- Updated 'New-AzNetworkWatcherConnectionMonitorProtocolConfigurationObject' cmdlet with new parameter '-DestinationPortBehavior'

## Az.RecoveryServices

- Fixing Workload Restore for contributor permissions.
- Added new parameter sets and validations for Restore-AzRecoveryServicesBackupItem cmdlet.

## Az.Resources

- Fixed parsing bug
- Updated ARM template What-If cmdlets to remove preview message from results
- Fixed an issue where template deployment cmdlets crash if '-WhatIf' is set at a higher scope [#13038]
- Fixed an issue where template deployment cmdlets does not preserve case for template parameters
- Added a default API version to be used in 'Export-AzResourceGroup' cmdlet
- Added cmdlets for Template Specs ('Get-AzTemplateSpec', 'Set-AzTemplateSpec', 'New-AzTemplateSpec', 'Remove-AzTemplateSpec', 'Export-AzTemplateSpec')
- Added support for deploying Template Specs using existing deployment cmdlets (via the new -TemplateSpecId parameter)
- Updated 'Get-AzResourceGroupDeploymentOperation' to use the SDK.
- Removed '-ApiVersion' parameter from '\*-AzDeployment' cmdlets.

## Az.Sql

- Added DiffBackupIntervalInHours to 'Set-AzSqlDatabaseBackupShortTermRetentionPolicy'
- Fixed issue where New-AzSqlDatabaseExport fails if networkIsolation not specified [#13097]
- Fixed issue where New-AzSqlDatabaseExport and New-AzSqlDatabaseImport were not returning OperationStatusLink in the result object [#13097]
- Update Azure Paired Regions URL in Backup Storage Redundancy Warnings

## Az.Storage

- Removed obsolete property RestorePolicy.LastEnabledTime
  - 'Enable-AzStorageBlobRestorePolicy'
  - 'Disable-AzStorageBlobRestorePolicy'
  - 'Get-AzStorageBlobServiceProperty'
  - 'Update-AzStorageBlobServiceProperty'
- Change Type of DaysAfterModificationGreaterThan from int to int?
  - 'Set-AzStorageAccountManagementPolicy'
  - 'Get-AzStorageAccountManagementPolicy'
  - 'Add-AzStorageAccountManagementPolicyAction'
  - 'New-AzStorageAccountManagementPolicyRule'
- Supported create/update file share with access tier
  - 'New-AzRmStorageShare'
  - 'Update-AzRmStorageShare'
- Supported set/update/remove Acl recursively on Datalake Gen2 item
  - 'Set-AzDataLakeGen2AclRecursive'
  - 'Update-AzDataLakeGen2AclRecursive'
  - 'Remove-AzDataLakeGen2AclRecursive'
- Supported Container access policy with new permission x,t
  - 'New-AzStorageContainerStoredAccessPolicy'
  - 'Set-AzStorageContainerStoredAccessPolicy'
- Changed the output of get/set Container access policy cmdlet, by change the child property Permission type from enum to String
  - 'Get-AzStorageContainerStoredAccessPolicy'
  - 'Set-AzStorageContainerStoredAccessPolicy'
- Fixed a sample script issue of set management policy with json
  - 'Set-AzStorageAccountManagementPolicy'

## Az.Websites

- Added support for Premium V3 pricing tier
- Updated the WebSites SDK to 3.1.0

## Thanks to our community contributors

- @atul-ram, Update Get-AzDelegation.md (#13176)

- @dineshreddy007, Get the App Roles assigned correctly in case of Stack HCI registration using WAC token. (#13249)
- @kongou-ae, Update New-AzOffice365PolicyProperty.md (#13217)
- Lohith Chowdary Chilukuri (@Lochiluk), Update Set-AzApplicationGateway.md (#13150)
- Matthew Burleigh (@mburleigh)
  - Add links to PowerShell cmdlets referenced in the document (#13203)
  - Add links to PowerShell cmdlets referenced in the document (#13190)
  - Add links to PowerShell cmdlets referenced in the document (#13189)
  - add links to referenced cmdlets (#13137)
  - Add links to PowerShell cmdlets referenced in the document (#13204)
  - Add links to PowerShell cmdlets referenced in the document (#13205)

## 4.8.0 - October 2020

### Az.Accounts

- Fixed DateTime parse issue in common libraries [#13045]

### Az.CognitiveServices

- Added 'New-AzCognitiveServicesAccountApiProperty' cmdlet.
- Supported 'ApiProperty' parameter for 'New-AzCognitiveServicesAccount' and 'Set-AzCognitiveServicesAccount'

### Az.Compute

- Fixed issue in 'Update-ASRRecoveryPlan' by populating FailoverTypes
- Added the '-Top' and '-OrderBy' optional parameters to the 'Get-AzVmImage' cmdlet.

### Az.Databricks

- General availability of 'Az.Databricks' module
- Added support for virtual network peering

### Az.DataFactory

- Fixed typo in output messages

### Az.EventHub

- Added optional switch parameter 'TrustedServiceAccessEnabled' to 'Set-AzEventHubNetworkRuleSet' cmdlet

### Az.HDInsight

- Added warning message for planning to deprecate the parameters 'PublicNetworkAccessType' and 'OutboundPublicNetworkAccessType'
- Added warning message for planning to replace the parameter 'DefaultStorageAccountName' with 'StorageAccountResourceId'
- Added warning message for planning to replace the parameter 'DefaultStorageAccountKey' with 'StorageAccountKey'
- Added warning message for planning to replace the parameter 'DefaultStorageAccountType' with 'StorageAccountType'
- Added warning message for planning to replace the parameter 'DefaultStorageContainer' with 'StorageContainer'
- Added warning message for planning to replace the parameter 'DefaultStorageRootPath' with 'StorageRootPath'

## Az.IotHub

- Updated devices sdk.

## Az.KeyVault

- Provided the detailed date of removing property SecretValueText

## Az.ManagedServices

- Updated breaking change warnings on cmdlets of managed services assignment and definition

## Az.Monitor

- Fixed the bug that warning message cannot be suppressed. [#12889]
- Supported 'SkipMetricValidation' parameter in alert rule criteria. Allows creating an alert rule on a custom metric that isn't yet emitted, by causing the metric validation to be skipped.

## Az.Network

- Added Office365 Policy to VPNSite Resource
  - 'New-AzO365PolicyProperty'

## Az.RecoveryServices

- Added container name validation for workload backup.

## Az.RedisCache

- Made 'New-AzRedisCache' and 'Set-AzRedisCache' cmdlets not fail because of permission issue related to registering Microsoft.Cache RP

## Az.Sql

- Added BackupStorageRedundancy to the following:
  - 'Restore-AzureRmSqlDatabase'
  - 'New-AzSqlDatabaseCopy'
  - 'New-AzSqlDatabaseSecondary'
- Removed case sensitivity for BackupStorageRedundancy parameter for all SQL DB references
- Updated BackupStorageRedundancy warning message names

## Az.Storage

- Supported enable/disable/get share soft delete properties on file Service of a Storage account
  - 'Update-AzStorageFileServiceProperty'
  - 'Get-AzStorageFileServiceProperty'
- Supported list file shares include the deleted ones of a Storage account, and Get single file share usage
  - 'Get-AzRmStorageShare'
- Supported restore a deleted file share
  - 'Restore-AzRmStorageShare'
- Changed the cmdlets for modify blob service properties, won't get the original properties from server, but only set the modified properties to server.
  - 'Enable-AzStorageBlobDeleteRetentionPolicy'
  - 'Disable-AzStorageBlobDeleteRetentionPolicy'
  - 'Enable-AzStorageBlobRestorePolicy'
  - 'Disable-AzStorageBlobRestorePolicy'
  - 'Update-AzStorageBlobServiceProperty'
- Fixed help issue for New-AzStorageAccount parameter -Kind default value [#12189]
- Fixed issue by add example to show how to set correct ContentType in blob upload [#12989]

## Thanks to our community contributors

- @felickz, Clarify escaping special characters in Subject (#13028)
- Martin Zurita (@Gorgoras), Corrected some typos in messages. (#12999)
- @kingsleyAzure
  - Add managed hsm uri in regex matching (#12912)
  - Add Managed HSM support for SQL (#13073)
- @MasterKuat, Fixed complaint on Managed instance's system database for vulnerability assessment (#12971)

## 4.7.0 - September 2020

## Az.Accounts

- Formatted the upcoming breaking change messages
- Updated Azure.Core to 1.4.1

## Az.Aks

- Added client side parameter validation logic for 'New-AzAksCluster', 'Set-AzAksCluster' and 'New-AzAksNodePool'. [#12372]
- Added support for add-ons in 'New-AzAksCluster'. [#11239]
- Added cmdlets 'Enable-AzAksAddOn' and 'Disable-AzAksAddOn' for add-ons. [#11239]
- Added parameter 'GenerateSshKey' for 'New-AzAksCluster'. [#12371]
- Updated api version to 2020-06-01.

## Az.CognitiveServices

- Showed additional legal terms for certain APIs.

## Az.Compute

- Added the '-EncryptionType' optional parameter to 'New-AzVmDiskEncryptionSetConfig'
- New cmdlets for new resource type: DiskAccess 'Get-AzDiskAccess', 'New-AzDiskAccess', 'Get-AzDiskAccess'
- Added optional parameters '-DiskAccessId' and '-NetworkAccessPolicy' to 'New-AzSnapshotConfig'
- Added optional parameters '-DiskAccessId' and '-NetworkAccessPolicy' to 'New-AzDiskConfig'
- Added 'PatchStatus' property to VirtualMachine Instance View
- Added 'VMHealth' property to the virtual machine's instance view, which is the returned object when 'Get-AzVm' is invoked with '-Status'
- Added 'AssignedHost' field to 'Get-AzVM' and 'Get-AzVmss' instance views. The field shows the resource id of the virtual machine instance
- Added optional parameter '-SupportAutomaticPlacement' to 'New-AzHostGroup'
- Added the '-HostGroupId' parameter to 'New-AzVm' and 'New-AzVmss'

## Az.DataFactory

- Updated ADF .Net SDK version to 4.11.0

## Az.EventHub

- Added new Cluster cmdlets - 'New-AzEventHubCluster', 'Set-AzEventHubCluster', 'Get-AzEventHubCluster', 'Remove-AzEventHubCluster', 'Get-AzEventHubClustersAvailableRegions'.
- Fixed for issue #10722 : Fix for assigning only 'Listen' to AuthorizationRule rights.

## Az.Functions

- Removed the ability to create v2 Functions in regions that do not support it.
- Deprecated PowerShell 6.2. Added a warning for when a user creates a PowerShell 6.2 function app that advises them to create a PowerShell 7.0 function app instead.

## Az.HDInsight

- Supported creating cluster with Autoscale configuration
  - Add new parameter 'AutoscaleConfiguration' to the cmdlet 'New-AzHDInsightCluster'
- Supported operating cluster's Autoscale configuration
  - Add new cmdlet 'Get-AzHDInsightClusterAutoscaleConfiguration'
  - Add new cmdlet 'New-AzHDInsightClusterAutoscaleConfiguration'
  - Add new cmdlet 'Set-AzHDInsightClusterAutoscaleConfiguration'
  - Add new cmdlet 'Remove-AzHDInsightClusterAutoscaleConfiguration'
  - Add new cmdlet 'New-AzHDInsightClusterAutoscaleScheduleCondition'

## Az.KeyVault

- Added support for RBAC authorization [#10557]
- Enhanced error handling in 'Set-AzKeyVaultAccessPolicy' [#4007]

## Az.Kusto

- General availability of 'Az.Kusto' module

## Az.Network

- [Breaking Change] Updated below cmdlets to align resource virtual router and virtual hub
  - 'New-AzVirtualRouter':
    - Added -HostedSubnet parameter to support IP configuration child resource
    - deleted -HostedGateway and -HostedGatewayId
  - 'Get-AzVirtualRouter':
    - Added subscription level parameter set
  - 'Remove-AzVirtualRouter'
  - 'Add-AzVirtualRouterPeer'
  - 'Get-AzVirtualRouterPeer'
  - 'Remove-AzVirtualRouterPeer'
- Added new cmdlet for Azure Express Route Port
  - 'New-AzExpressRoutePortLOA'
- Added RemoteBgpCommunities property to the VirtualNetwork Peering Resource
- Modified the warning message for 'New-AzLoadBalancerFrontendIpConfig', 'New-AzPublicIpAddress' and 'New-AzPublicIpPrefix'.
- Added VpnGatewayIpConfigurations to 'Get-AzVpnGateway' output
- Fixed bug for 'Set-AzApplicationGatewaySslCertificate' [#9488]
- Added 'AllowActiveFTP' parameter to 'AzureFirewall'
- Updated below commands for feature: Enable internet security set/remove on VirtualWan P2SVpnGateway.
  - Updated 'New-AzP2sVpnGateway': Added optional switch parameter 'EnableInternetSecurityFlag' for customers to set true to enable internet security on P2SVpnGateway, which will be applied for Point to site clients.

- Updated 'Update-AzP2sVpnGateway': Added optional switch parameters 'EnableInternetSecurityFlag' or 'DisableInternetSecurityFlag' for customers to set true/false to enable/disable internet security on P2SVpnGateway, which will be applied for Point to site clients.
- Added new cmdlet 'Reset-AzP2sVpnGateway' for customers to reset/reboot their VirtualWan P2SVpnGateway for troubleshooting.
- Added new cmdlet 'Reset-AzVpnGateway' for customers to reset/reboot their VirtualWan VpnGateway for troubleshooting.
- Updated 'Set-AzVirtualNetworkSubnetConfig'
  - Set NSG and Route Table properties of subnet to null if explicitly set in parameters [#1548] [#9718]

## Az.RecoveryServices

- Fixed the Delete State for workload Backup Items.

## Az.Resources

- Added missing check for Set-AzRoleAssignment
- Added breaking change attribute to 'SubscriptionId' parameter of 'Get-AzResourceGroupDeploymentOperation'
- Updated ARM template What-If cmdlets to show 'Ignore' resource changes last
- Fixed secure and array parameter serialization issues for deployment cmdlets [#12773]

## Az.ServiceFabric

- Added new cmdlets for managed clusters and node types:
  - 'New-AzServiceFabricManagedCluster'
  - 'Get-AzServiceFabricManagedCluster'
  - 'Set-AzServiceFabricManagedCluster'
  - 'Remove-AzServiceFabricManagedCluster'
  - 'Add-AzServiceFabricManagedClusterClientCertificate'
  - 'Remove-AzServiceFabricManagedClusterClientCertificate'
  - 'New-AzServiceFabricManagedNodeType'
  - 'Get-AzServiceFabricManagedNodeType'
  - 'Set-AzServiceFabricManagedNodeType'
  - 'Remove-AzServiceFabricManagedNodeType'
  - 'Add-AzServiceFabricManagedNodeTypeVMExtension'
  - 'Add-AzServiceFabricManagedNodeTypeVMSecret'
  - 'Remove-AzServiceFabricManagedNodeTypeVMExtension'
  - 'Restart-AzServiceFabricManagedNodeType'
- Upgraded Service Fabric SDK to version 1.2.0 which uses service fabric resource provider api-version 2020-03-01 for the current model and 2020-01-01-preview for managed clusters.

## Az.Sql

- Added BackupStorageRedundancy to 'New-AzSqlInstance' and 'Get-AzSqlInstance'
- Added cmdlet 'Get-AzSqlServerActiveDirectoryOnlyAuthentication'
- Added cmdlet 'Enable-AzSqlServerActiveDirectoryOnlyAuthentication'
- Added Force parameter to 'New-AzSqlInstance'
- Added cmdlets for Managed Database Log Replay service
  - 'Start-AzSqlInstanceDatabaseLogReplay'
  - 'Get-AzSqlInstanceDatabaseLogReplay'
  - 'Complete-AzSqlInstanceDatabaseLogReplay'
  - 'Stop-AzSqlInstanceDatabaseLogReplay'
- Added cmdlet 'Get-AzSqlInstanceActiveDirectoryOnlyAuthentication'
- Added cmdlet 'Enable-AzSqlInstanceActiveDirectoryOnlyAuthentication'
- Added cmdlet 'Disable-AzSqlInstanceActiveDirectoryOnlyAuthentication'
- Updated cmdlets 'New-AzSqlDatabaseImport' and 'New-AzSqlDatabaseExport' to support network isolation functionality
- Added cmdlet 'New-AzSqlDatabaseImportExisting'
- Updated Databases cmdlets to support backup storage type specification
- Added Force parameter to 'New-AzSqlDatabase'
- Added warning for BackupStorageRedundancy configuration in select regions in 'New-AzSqlDatabase'
- Updated ActiveDirectoryOnlyAuthentication cmdlets for server and instance to include ResourceId and InputObject

## Az.Storage

- Fixed upload blob fail by upgrade to Microsoft.Azure.Storage.DataMovement 2.0.0 [#12220]
- Supported Point In Time Restore
  - 'Enable-AzStorageBlobRestorePolicy'
  - 'Disable-AzStorageBlobRestorePolicy'
  - 'New-AzStorageBlobRangeToRestore'
  - 'Restore-AzStorageBlobRange'
- Supported get blob restore status of Storage account by run get-AzureRMStorageAccount with parameter -IncludeBlobRestoreStatus
  - 'Get-AzureRMStorageAccount'
- Added breaking change warning message for upcoming cmdlet output change
  - 'Get-AzStorageContainerStoredAccessPolicy'
  - 'Set-AzStorageContainerStoredAccessPolicy'
  - 'Set-AzStorageAccountManagementPolicy'
  - 'Get-AzStorageAccountManagementPolicy'
  - 'Add-AzStorageAccountManagementPolicyAction'
  - 'New-AzStorageAccountManagementPolicyRule'
- Upgraded Microsoft.Azure.Cosmos.Table SDK to 1.0.8

## Thanks to our community contributors

- Thomas Van Laere (@ThomVanL), Add Dockerfile-alpine-3.10 (#12911)
- Lohith Chowdary Chilukuri (@Lochiluk), Update Remove-AzNetworkInterfaceIpConfig.md (#12807)
- Robert Strand (@roberthstrand), Get-AzResourceGroup - New example, and cleanup (#12828)
- Ravi Mishra (@inmishrar), update Azure Web App runtime stack to DOTNETCORE (#12833)
- @jack-education, Updated Set-AzVirtualNetworkSubnetConfig to allow NSG and Route Table to be removed from subnet (#12351)
- @hagop-globanet, Update Add-AzApplicationGatewayCustomError.md (#12784)
- Joshua Van Daalen (@greenSacrifice)
  - Update spelling of Property to Property (#12821)
  - Update New-AzResourceLock.md examples (#12806)
- Eragon Riddle (@eragonriddle), Corrected parameter field name in the example (#12825)
- @rossifumax, Fix typo in New-AzConfigurationAssignment.md (#12701)

## 4.6.1 - August 2020

### Az.Compute

- Patched '-EncryptionAtHost' parameter in 'New-AzVm' to remove default value of false [#12776]

## 4.6.0 - August 2020

### Az.Accounts

- Loaded all public cloud environments when discovery endpoint doesn't return default AzureCloud or other public environments [#12633]
- Exposed SubscriptionPolicies in 'Get-AzSubscription' [#12551]

### Az.Automation

- Added '-RunOn' parameters to 'Set-AzAutomationWebhook' to specify a Hybrid Worker Group

### Az.Compute

- Added '-EncryptionAtHost' parameter to 'New-AzVm', 'New-AzVmss', 'New-AzVMConfig', 'New-AzVmssConfig', 'Update-AzVM', and 'Update-AzVmss'
- Added 'SecurityProfile' to 'Get-AzVM' and 'Get-AzVmss' return object
- Added '-InstanceView' switch as optional parameter to 'Get-AzHostGroup'
- Added new cmdlet 'Invoke-AzVmPatchAssessment'

### Az.DataFactory

- Added missing properties to PSPipelineRun class.

## Az.HDInsight

- Supported creating cluster with encryption at host feature.

## Az.KeyVault

- Added warning messages for planning to disable soft delete
- Added warning messages for planning to remove attribute SecretValueText

## Az.Maintenance

- Added optional schedule related fields to 'New-AzMaintenanceConfiguration'
- Added new cmdlet for 'Get-AzMaintenancePublicConfiguration'

## Az.ManagedServices

- Added breaking change warnings on cmdlets of managed services assignment and definition

## Az.Monitor

- Extended the parameter set in 'Set-AzDiagnosticSetting' for separation of Logs and Metrics enablement [#12482]
- Fixed bug for 'Add-AzMetricAlertRuleV2' when getting metric alert from pipeline

## Az.Resources

- Updated 'Get-AzPolicyAlias' response to include information indicating whether the alias is modifiable by Azure Policy.
- Created new cmdlet 'Set-AzRoleAssignment'
- Added 'Get-AzDeploymentManagementGroupWhatIfResult' for getting ARM template What-If results at management Group scope
- Added 'Get-AzTenantWhatIfResult' new cmdlet for getting ARM template What-If results at tenant scope
- Overrode '-WhatIf' and '-Confirm' for 'New-AzManagementGroupDeployment' and 'New-AzTenantDeployment' to use ARM template What-If results
- Fixed the behaviors of '-WhatIf' and '-Confirm' for new deployment cmdlets so they comply with False and
- Fixed serialization error for '-TemplateObject' and 'TemplateParameterObject' [#1528] [#6292]
- Added breaking change attribute to 'Get-AzResourceGroupDeploymentOperation' for the upcoming output type change

## Az.SignalR

- Fixed 'Restart-AzSignalR' and 'Update-AzSignalR' help files errors
- Added cmdlets 'Update-AzSignalRNetworkAcl', 'Set-AzSignalRUpstream'

## Az.Storage

- Supported blob query acceleration
  - 'Get-AzStorageBlobQueryResult'
  - 'New-AzStorageBlobQueryConfig'
- Updated help file, added more description, and fixed typo
  - 'Start-AzStorageBlobCopy'
  - 'Get-AzDataLakeGen2Item'
- Fixed download blob fail when related sub directory not exist [#12592]
  - 'Get-AzStorageBlobContent'
- Supported Set/Get/Remove Object Replication Policy on Storage accounts
  - 'New-AzStorageObjectReplicationPolicyRule'
  - 'Set-AzStorageObjectReplicationPolicy'
  - 'Get-AzStorageObjectReplicationPolicy'
  - 'Remove-AzStorageObjectReplicationPolicy'
- Supported enable/disable ChangeFeed on Blob Service of a Storage account
  - 'Update-AzStorageBlobServiceProperty'

## 4.5.0 - August 2020

## Az.Accounts

- Updated 'Connect-AzAccount' to accept parameter 'MaxContextPopulation' [#9865]
- Updated SubscriptionClient version to 2019-06-01 and display tenant domains [#9838]
- Supported home tenant and managedBy tenant information of subscription
- Corrected module name, version info in telemetry data
- Adjusted SqlDatabaseDnsSuffix and ServiceManagementUrl if environment metadata endpoint returns incompatible value

## Az.Aks

- Removed 'ClientIdAndSecret' to 'ServicePrincipalIdAndSecret' and set 'ClientIdAndSecret' as an alias [#12381].
- Removed 'Get-AzAks'/'New-AzAks'/'Remove-AzAks'/'Set-AzAks' to 'Get-AzAksCluster'/'New-AzAksCluster'/'Remove-AzAksCluster'/'Set-AzAksCluster' and set the original ones as alias [#12373].

## Az.ApiManagement

- Added new 'Add-AzApiManagementApiToGateway' cmdlet.
- Added new 'Get-AzApiManagementGateway' cmdlet.
- Added new 'Get-AzApiManagementGatewayHostnameConfiguration' cmdlet.
- Added new 'Get-AzApiManagementGatewayKey' cmdlet.
- Added new 'New-AzApiManagementGateway' cmdlet.
- Added new 'New-AzApiManagementGatewayHostnameConfiguration' cmdlet.

- Added new 'New-AzApiManagementResourceLocationObject' cmdlet.
- Added new 'Remove-AzApiManagementApiFromGateway' cmdlet.
- Added new 'Remove-AzApiManagementGateway' cmdlet.
- Added new 'Remove-AzApiManagementGatewayHostnameConfiguration' cmdlet.
- Added new 'Update-AzApiManagementGateway' cmdlet.
- Added new optional [-GatewayId] parameter to the 'Get-AzApiManagementApi' cmdlet.

## Az.CognitiveServices

- Used 'Deny' specifically as NetworkRules default action.

## Az.FrontDoor

- Fixed an issue where an exception is being thrown when `Enum.Parse` tries to coerce a null value to an Enabled or Disabled enum values [#12344]

## Az.HDInsight

- Supported creating cluster with encryption in transit feature.
  - Add new parameter 'EncryptionInTransit' to the cmdlet 'New-AzHDInsightCluster'
  - Add new parameter 'EncryptionInTransit' to the cmdlet 'New-AzHDInsightClusterConfig'
- Supported creating cluster with private link feature:
  - Add new parameter 'PublicNetworkAccessType' and 'OutboundPublicNetworkAccessType' to the cmdlet 'New-AzHDInsightCluster'
  - Add new parameter 'PublicNetworkAccessType' and 'OutboundPublicNetworkAccessType' to the cmdlet 'New-AzHDInsightClusterConfig'
- Returned virtual network information when calling 'New-AzHDInsightCluster' or 'Get-AzHDInsightCluster'

## Az.Network

- Added support for `AddressPrefixType` parameter to 'Remove-AzExpressRouteCircuitConnectionConfig'
- Added non-breaking changes: `PeerAddressType` functionality for Private Peering in 'Remove-AzExpressRouteCircuitPeeringConfig'.
- Code changed to ignore case for `AddressPrefixType` and `PeerAddressType` parameter.
- Modified the warning message for 'New-AzLoadBalancerFrontendIpConfig', 'New-AzPublicIpAddress' and 'New-AzPublicIpPrefix'.

## Az.OperationalInsights

- Added '-ForceDelete' option for 'Remove-AzOperationalInsightsworkspace'
- Added new cmdlet 'Get-AzOperationalInsightsDeletedWorkspace'
- Added new cmdlet 'Restore-AzOperationalInsightsWorkspace'

## Az.RecoveryServices

- Improved the Azure Backup container/item discovery experience.

## Az.Resources

- Added properties 'Condition', 'ConditionVersion' and 'Description' to 'New-AzRoleAssignment'
  - This included all the relevant changes to the data models

## Az.Sql

- Fixed potential server name case insensitive error in 'New-AzSqlServer' and 'Set-AzSqlServer'
- Fixed wrong database name returned on existing database error in 'New-AzSqlDatabaseSecondary'

## Az.Storage

- Supported create container/blob Sas token with new permission x,t
  - 'New-AzStorageBlobSASToken'
  - 'New-AzStorageContainerSASToken'
- Supported create account Sas token with new permission x,t,f
  - 'New-AzStorageAccountSASToken'
- Supported get single file share usage
  - 'Get-AzRmStorageShare'

# 4.4.0 - July 2020

## Az.Accounts

- Added new cmdlet 'Invoke-AzRestMethod'
- Fixed an issue that may cause authentication errors in multi-process scenarios such as running multiple Azure PowerShell cmdlets using 'Start-Job' [#9448]

## Az.Aks

- Fixed bug 'Get-AzAks' doesn't get all clusters [#12296]

## Az.AnalysisServices

- Removed project reference to Authentication

## Az.Automation

- Fixed the issue that string with escape chars cannot be converted into json object.

## Az.Compute

- Added warning when using 'New-AzVmss' without 'latest' image version

## Az.DataFactory

- Added global parameters to Data Factory.

## Az.EventGrid

- Updated to use the 2020-06-01 API version.
- Added new features:
  - Input mapping
  - Event Delivery Schema
  - Private Link
  - Cloud Event V10 Schema
  - Service Bus Topic As Destination
  - Azure Function As Destination
  - WebHook Batching
  - Secure webhook (AAD support)
  - IpFiltering
- Updated cmdlets:
  - 'New-AzEventGridSubscription'/'Update-AzEventGridSubscription':
    - Add new optional parameters to support webhook batching.
    - Add new optional parameters to support secured webhook using AAD.
    - Add new enum for EndpointType parameter to support azure function and service bus topic as new destinations.
    - Add new optional parameter for delivery schema.
  - 'New-AzEventGridTopic'/'Update-AzEventGridTopic' and 'New-AzEventGridDomain'/'Update-AzEventGridDomain':
    - Add new optional parameters to support IpFiltering.
  - 'New-AzEventGridTopic'/'New-AzEventGridDomain':
    - Add new optional parameters to support Input mapping.

## Az.FrontDoor

- Updated module to use API 2020-05-01
- Added Private link support for Storage, Keyvault and Web App Service resources

## Az.HDInsight

- Supported creating cluster with ADLSGen1/2 storage in national clouds.

## Az.Monitor

- Fixed bug for 'Get-AzDiagnosticSetting' when metrics or logs are null [#12272]

## Az.Network

- Fixed parameters swap in VWan HubVnet connection
- Added new cmdlets for Azure Network Virtual Appliance Sites
  - 'Get-AzVirtualApplianceSite'
  - 'New-AzVirtualApplianceSite'
  - 'Remove-AzVirtualApplianceSite'
  - 'Update-AzVirtualApplianceSite'
  - 'New-AzOffice365PolicyProperty'
- Added new cmdlets for Azure Network Virtual Appliance
  - 'Get-AzNetworkVirtualAppliance'
  - 'New-AzNetworkVirtualAppliance'
  - 'Remove-AzNetworkVirtualAppliance'
  - 'Update-AzNetworkVirtualAppliance'
  - 'Get-AzNetworkVirtualApplianceSku'
  - 'New-AzVirtualApplianceSkuProperty'
- Onboarded Application Gateway to Private Link Common Cmdlets
- Onboarded StorageSync to Private Link Common Cmdlets
- Onboarded SignalR to Private Link Common Cmdlets

## Az.RecoveryServices

- Removed project reference to Authentication
- Azure Backup tuned cmdlets help text to be more accurate.
- Azure Backup added support for fetching MAB agent jobs using 'Get-AzRecoveryServicesBackupJob' cmdlet.

## Az.Resources

- Updated 'Save-AzResourceGroupDeploymentTemplate' to use the SDK.
- Added 'Unregister-AzResourceProvider' cmdlet.

## Az.Sql

- Added support for Service principal and guest users in Set-AzSqlInstanceActiveDirectoryAdministrator cmdlet'
- Fixed a bug in Data Classification cmdlets.'
- Added support for Azure SQL Managed Instance failover: 'Invoke-AzSqlInstanceFailover'

## Az.Storage

- Fixed the issue that UserAgent is not added for some data plane cmdlets.
- Supported create/update Storage account with MinimumTlsVersion and AllowBlobPublicAccess

- 'New-AzStorageAccount'
- 'Set-AzStorageAccount'
- Support enable/disable versioning on Blob Service of a Storage account
  - 'Update-AzStorageBlobServiceProperty'
- Support list blobs with blob versions
  - 'Get-AzStorageBlob'
- Support get/remove single blob snapshot or blob version
  - 'Get-AzStorageBlob'
  - 'Remove-AzStorageBlob'
- Support pipeline from blob object generated from Azure.Storage.Blobs V12
  - 'Get-AzStorageBlobContent'
  - 'New-AzStorageBlobSASToken'
  - 'Remove-AzStorageBlob'
  - 'Set-AzStorageBlobContent'
  - 'Start-AzStorageBlobCopy'

## Az.StorageSync

- Added a new version StorageSync SDK targeting ApiVersion 2020-03-01
- Added Update Storage Sync Service cmdlet
  - 'Set-AzStorageSyncService'
- Added IncomingTrafficPolicy and PrivateEndpointConnections to StorageSyncService cmdlets.

## Az.Websites

- Added support to perform operations for Slots not in the same resource group as the App Service Plan

## 4.3.0 - June 2020

## Az.Accounts

- Supported discovering environment setting by default and adding environment via 'Add-AzEnvironment'
- Update preloaded assemblies [#12024], [#11976]
- Updated Azure.Core assembly
- Fixed an issue that may cause 'Connect-AzAccount' to fail in multi-threaded execution [#11201]

## Az.Aks

- Replaced usage of old [AccessProfile API](#) with calls to [ListClusterAdmin](#) and [ListClusterUser](#) APIs

## Az.Batch

- Updated Az.Batch to use 'Microsoft.Azure.Management.Batch' SDK version to 11.0.0
- Added the ability to set the BatchAccount Identity in the 'New-AzBatchAccount' cmdlet

## Az.CognitiveServices

- Supported displaying account capabilities.
- Supported modifying PublicNetworkAccess.

## Az.Compute

- Added SimulateEviction parameter to Set-AzVM and Set-AzVmssVM cmdlets.
- Added 'Premium\_LRS' to the argument completer of StorageAccountType parameter for New-AzGalleryImageVersion cmdlet.
- Added Substatuses to VMCustomScriptExtension [#11297]
- Added 'Delete' to the argument completer of EvictionPolicy parameter for New-AzVM and New-AzVMConfig cmdlets.
- Fixed name of new VM Extension for SAP

## Az.DataFactory

- Updated ADF .Net SDK version to 4.9.0

## Az.EventHub

- Added Managed Identity parameters to 'New-AzEventHubNamespace' and 'Set-AzEventHubNamespace' cmdlets

## Az.Functions

- Added support to create PowerShell 7.0 and Java 11 function apps

## Az.HDInsight

- Supported listing hosts and restart specific hosts of the HDInsight cluster.

## Az.HealthcareApis

- Updated the SDK version to 1.1.0
- Added support for Export settings and Managed Identity

## Az.Monitor

- Fixed input object parameter for 'Set-AzActivityLogAlert'
- Fixed 'InputObject' parameter for 'Set-AzActionGroup' [#10868]

## Az.Network

- Added support for AddressPrefixType parameter to 'Remove-AzExpressRouteCircuitConnectionConfig'
- Added new cmdlets for Azure FirewallPolicy
  - 'New-AzFirewallPolicyDnsSetting'
  - Support for Destination FQDN in Network Rules for Firewall Policy
- Added support for backend address pool operations
  - 'New-AzLoadBalancerBackendAddressConfig'
  - 'New-AzLoadBalancerBackendAddressPool'
  - 'Set-AzLoadBalancerBackendAddressPool'
  - 'Remove-AzLoadBalancerBackendAddressPool'
  - 'Get-AzLoadBalancerBackendAddressPool'
- Added name validation for 'New-AzIpGroup'
- Added new cmdlets for Azure FirewallPolicy
  - 'New-AzFirewallPolicyThreatIntelWhitelist'
- Updated below commands for feature: Custom dns servers set/remove on VirtualWan P2SVpnGateway.
  - Updated New-AzP2sVpnGateway: Added optional parameter '-CustomDnsServer' for customers to specify their dns servers to set on P2SVpnGateway, which can be used by Point to site clients.
  - Updated Update-AzP2sVpnGateway: Added optional parameter '-CustomDnsServer' for customers to specify their dns servers to set on P2SVpnGateway, which can be used by Point to site clients.
- Updated 'Update-AzVpnGateway'
  - Added optional parameter '-BgpPeeringAddress' for customers to specify their custom bgps to set on VpnGateway.
- Added new cmdlet to support resetting the routing state of a VirtualHub resource:
  - 'Reset-AzHubRouter'
- Updated below things based on recent swagger change for Firewall Policy
  - Changes names for RuleGroup, RuleCollectionGroup and RuleType
  - Added support for Firewall Policy NAT Rule Collections to support multiple NAT Rule Collection
- [Breaking Change] Added mandatory parameter 'SourceIpGroup' for 'New-AzFirewallPolicyApplicationRule' and 'New-AzFirewallPolicyNetworkRule'.
- [Breaking Change] Fixed 'New-AzFirewallPolicyApplicationRule', parameter 'SourceAddress' to be mandatory.
- [Breaking Change] Fixed 'New-AzFirewallPolicyApplicationRule', parameter 'SourceAddress' to be mandatory.
- [Breaking Change] Removed mandatory parameters: 'TranslatedAddress', 'TranslatedPort' for 'New-AzFirewallPolicyNatRuleCollection'.
- Added new cmdlets to support PrivateLink On Application Gateway
  - 'New-AzApplicationGatewayPrivateLinkConfiguration'
  - 'Get-AzApplicationGatewayPrivateLinkConfiguration'
  - 'New-AzApplicationGatewayPrivateLinkConfiguration'
  - 'Set-AzApplicationGatewayPrivateLinkConfiguration'

- 'Remove-AzApplicationGatewayPrivateLinkConfiguration'
- 'New-AzApplicationGatewayPrivateLinkIpConfiguration'
- Added new cmdlets for HubRouteTables child resource of VirtualHub.
  - 'New-AzVHubRoute'
  - 'New-AzVHubRouteTable'
  - 'Get-AzVHubRouteTable'
  - 'Update-AzVHubRouteTable'
  - 'Remove-AzVHubRouteTable'
- Updated existing cmdlets to support optional RoutingConfiguration input parameter for custom routing in VirtualWan.
  - 'New-AzExpressRouteConnection'
  - 'Set-AzExpressRouteConnection'
  - 'New-AzVirtualHubVnetConnection'
  - 'Update-AzVirtualHubVnetConnection'
  - 'New-AzVpnConnection'
  - 'Update-AzVpnConnection'
  - 'New-AzP2sVpnGateway'
  - 'Update-AzP2sVpnGateway'

## Az.OperationalInsights

- Fixed bug PSWorkspace doesn't implement IOperationalInsightsWorkspace [#12135]
- Added 'pergb2018' to valid value set of parameter 'Sku' in 'Set-AzOperationalInsightsWorkspace'
- Added alias 'FunctionParameters' for parameter 'FunctionParameter' to
  - 'New-AzOperationalInsightsSavedSearch'
  - 'Set-AzOperationalInsightsSavedSearch'

## Az.RecoveryServices

- Azure Backup added support for fetching MAB items.
- Azure Site Recovery supports disk type 'StandardSSD\_LRS'

## Az.Resources

- Added 'UsageLocation', 'GivenName', 'Surname', 'AccountEnabled', 'MailNickname', 'Mail' on 'PSADUser' [#10526] [#10497]
- Fixed issue that '-Mail' doesn't work on 'Get-AzADUser' [#11981]
- Added '-ExcludeChangeType' parameter to 'Get-AzDeploymentWhatIfResult' and 'Get-AzResourceGroupDeploymentWhatIfResult'
- Added '-WhatIfExcludeChangeType' parameter to 'New-AzDeployment' and 'New-AzResourceGroupDeployment'
- Updated 'Test-Az\*Deployment' cmdlets to show better error messages
- Fixed help message for '-Name' parameter of deployment create and What-If cmdlets

## Az.Sql

- Added support for service principal for Set SQL Server Azure Active Directory Admin cmdlet
- Fixed sync issue in Data Classification cmdlets.
- Supported searching user by mail on 'Set-AzSqlServerActiveDirectoryAdministrator' [#12192]

## Az.Storage

- Supported create Storage account with RequireInfrastructureEncryption
  - 'New-AzStorageAccount'
- Moved the logic of loading Azure.Core to Az.Accounts

## Az.Websites

- Added safeguard to delete created webapp if restore failed in 'Restore-AzDeletedWebApp'
- Added 'SourceWebApp.Location' for 'New-AzWebApp' and 'New-AzWebAppSlot'
- Fixed bug that prevented changing Container settings in 'Set-AzWebApp' and 'Set-AzWebAppSlot'
- Fixed bug to get SiteConfig when -Name is not given for Get-AzWebApp
- Added a support to create ASP for Linux Apps
- Added exceptions for clone across resource groups

# 4.2.0 - June 2020

## Az.Accounts

- Fixed an issue that may cause Az to skip logs in Azure Automation or PowerShell jobs [#11492]

## Az.AnalysisServices

- Updated assembly version of data plane cmdlets

## Az.ApiManagement

- Updated assembly version of service management cmdlets

## Az.Billing

- Updated assembly version of consumption cmdlets

## Az.CognitiveServices

- Support PrivateEndpoint and PublicNetworkAccess control.

## Az.DataFactory

- Updated assembly version of data factory V2 cmdlets

## Az.DataShare

- General availability of "Az.DataShare" module

## Az.DesktopVirtualization

- General availability of "Az.DesktopVirtualization" module

## Az.OperationalInsights

- Upgraded SDK to 0.21.0
- Added optional parameters to
  - 'New-AzOperationalInsightsSavedSearch'
  - 'Set-AzOperationalInsightsSavedSearch'

## Az.PolicyInsights

- Corrected example 3 for 'Start-AzPolicyComplianceScan'

## Az.PowerBIEmbedded

- Updated assembly version of PowerBI cmdlets

## Az.PrivateDns

- Corrected verbose output string formatting for Remove-AzPrivateDnsRecordSet

## Az.RecoveryServices

- Azure Site Recovery support for creating recovery plan for zone to zone replication from xml input.
- Updated assembly version of SiteRecovery and Backup cmdlets

## Az.Resources

- Added Tail parameter to Get-AzDeploymentScriptLog and Save-AzDeploymentScriptLog cmdlets
- Formatted Output property and show it on the Get-AzDeploymentScript cmdlet output
- Renamed -DeploymentScriptInputObject parameter to -DeploymentScriptObject
- Fixed missing file/target name in cmdlet messages.
- Updated assembly version of resource manager and tags cmdlets

## Az.Sql

- Added UsePrivateLinkConnection to 'New-AzSqlSyncGroup', 'Update-AzSqlSyncGroup', 'New-AzSqlSyncMember' and 'Update-AzSqlSyncMember'
- Added SyncMemberAzureDatabaseResourceId to 'New-AzSqlSyncMember' and 'Update-AzSqlSyncMember'
- Added Guest user lookup support to Set SQL Server Azure Active Directory Admin cmdlet

## Az.Storage

- Updated assembly version of data plane cmdlets

## 4.1.0 - May 2020

### Highlights since the last release

- Supported PowerShell versions: Windows PowerShell 5.1, PowerShell Core 6.2.4+, PowerShell 7
- General availability of Az.Functions
- Az.ApiManagement, Az.Batch, Az.Compute, Az.KeyVault, Az.Monitor, Az.Network, Az.OperationalInsights, Az.Resources, and Az.Storage have major release

## Az.Accounts

- Updated 'Add-AzEnvironment' and 'Set-AzEnvironment' to accept parameters 'AzureSynapseAnalyticsEndpointResourceId' and 'AzureSynapseAnalyticsEndpointSuffix'
- Added Azure.Core related assemblies into Az.Accounts, supported PowerShell platforms include Windows PowerShell 5.1, PowerShell Core 6.2.4, PowerShell 7+

## Az.Aks

- Upgraded API Version to 2019-10-01
- Supported to create AKS using Windows container
- Provided new cmdlets: 'New-AzAksNodePool', 'Update-AzAksNodePool', 'Remove-AzAksNodePool', 'Get-AzAksNodePool', 'Install-AzAksKubectl', 'Get-AzAksVersion'

## Az.ApiManagement

- 'New-AzApiManagement' and 'Set-AzApiManagement': [-AssignIdentity] parameter renamed as [-SystemAssignedIdentity]
- 'New-AzApiManagement' and 'Set-AzApiManagement': New parameter added: [-UserAssignedIdentity <String[]>]
- 'Get-AzApiManagementProperty': renamed as 'Get-AzApiManagementNamedValue'. PropertyId parameter renamed as NamedValueId.
- 'New-AzApiManagementProperty': renamed as 'New-AzApiManagementNamedValue'. PropertyId parameter renamed as NamedValueId.

- 'Set-AzApiManagementProperty': renamed as 'Set-AzApiManagementNamedValue'. PropertyId parameter renamed as NamedValueId.
- 'Remove-AzApiManagementProperty': renamed as 'Remove-AzApiManagementNamedValue'. PropertyId parameter renamed as NamedValueId.
- Added new 'Get-AzApiManagementAuthorizationServerClientSecret' cmdlet and 'Get-AzApiManagementAuthorizationServer' will not return client secret anymore.
- Added new 'Get-AzApiManagementNamedValueSecretValue' cmdlet and 'Get-AzApiManagementNamedValue' will not return secret value.
- Added new 'Get-AzApiManagementOpenIdConnectProviderClientSecret' cmdlet and 'Get-AzApiManagementOpenIdConnectProvider' will not return client secret anymore.
- Added new 'Get-AzApiManagementSubscriptionKey' cmdlet and 'Get-AzApiManagementSubscription' will not return subscription keys anymore.
- Added new 'Get-AzApiManagementTenantAccessSecret' cmdlet and 'Get-AzApiManagementTenantAccess' will not return keys anymore.
- Added new 'Get-AzApiManagementTenantGitAccessSecret' cmdlet and 'Get-AzApiManagementTenantGitAccess' will not return keys anymore.

## Az.ApplicationInsights

- Added Parameters: 'RetentionInDays' 'PublicNetworkAccessForIngestion' 'PublicNetworkAccessForQuery' for 'New-AzApplicationInsights'
- Created cmdlet 'Update-AzApplicationInsights'
- Created cmdlets for Linked Storage Account

## Az.Batch

- Updated Az.Batch to use 'Microsoft.Azure.Batch' SDK version 13.0.0 and 'Microsoft.Azure.Management.Batch' SDK version 9.0.0.
- Added the ability to select the kind of certificate being added using the new '-CertificateKind' parameter to 'New-AzBatchCertificate'.
- Removed 'ApplicationPackages' property from 'PSApplication' which was previously always "".
  - The specific packages inside of an application now can be retrieved using 'Get-AzBatchApplicationPackage'. For example: 'Get-AzBatchApplication -AccountName myaccount -ResourceGroupName myresourcegroup -ApplicationId myapplication'.
- When creating a pool using 'New-AzBatchPool', the 'VirtualMachineImageId' property of 'PSImageReference' can now only refer to a Shared Image Gallery image.
- When creating a pool using 'New-AzBatchPool', the pool can be provisioned without a public IP using the new 'PublicIPAddressConfiguration' property of 'PSNetworkConfiguration'.
  - The 'PublicIPs' property of 'PSNetworkConfiguration' has moved in to 'PSPublicIPAddressConfiguration' as well. This property can only be specified if 'IPAddressProvisioningType' is 'UserManaged'.

## Az.Compute

- Added HostId parameter to 'Update-AzVM' cmdlet

- Updated Help documents for 'New-AzVMConfig', 'New-AzVmssConfig', 'Update-AzVmss', 'Set-AzVMOperatingSystem' and 'Set-AzVmssOsProfile' cmdlets.
- Breaking changes
  - FilterExpression parameter is removed from 'Get-AzVMImage' cmdlet.
  - AssignIdentity parameter is removed from 'New-AzVmssConfig', 'New-AzVMConfig' and 'Update-AzVM' cmdlets.
  - AutomaticRepairMaxInstanceRepairsPercent is removed from 'New-AzVmssConfig' and 'Update-AzVmss' cmdlets.
  - AvailabilitySetsColocationStatus, VirtualMachinesColocationStatus and VirtualMachineScaleSetsColocationStatus properties are removed from ProximityPlacementGroup.
  - MaxInstanceRepairsPercent property is removed from AutomaticRepairsPolicy.
  - The types of AvailabilitySets, VirtualMachines and VirtualMachineScaleSets are changed from `IList<SubResource>` to `IList<SubResourceWithColocationStatus>`.
- Description for 'Get-AzVM' cmdlet has been updated to better describe it.

## Az.DataFactory

- Supported CRUD of data flow runtime properties in Managed IR.

## Az.FrontDoor

- Added new cmdlets for creation, update, retrieval, and deletion of Front Door Rules Engine object
- Added helper cmdlets for construction of Front Door Rules Engine object
- Added Rules Engine reference to Front Door Routing Rule object.
- Added Private Link parameters to Front Door Backend object

## Az.Functions

- General availability of "Az.Functions" module

## Az.HDInsight

- Supported Customer-managed key disk encryption.

## Az.HealthcareApis

- Access policies are no longer defaulted to the current principal

## Az.IotHub

- Added cmdlet to invoke a query in an IoT hub to retrieve information using a SQL-like language.

- Fix issue that 'Add-AzIoTHubDevice' fails to create Edge Enabled Device without child devices [#11597]
- Added cmdlet to generate SAS token for IoT Hub, device or module.
- Added cmdlet to invoke configuration metrics query.
- Manage IoT Edge automatic deployment at scale. New cmdlets are:
  - 'Add-AzIoTHubDeployment'
  - 'Get-AzIoTHubDeployment'
  - 'Remove-AzIoTHubDeployment'
  - 'Set-AzIoTHubDeployment'
- Added cmdlet to invoke an IoT Edge deployment metrics query.
- Added cmdlet to apply the configuration content to the specified edge device.

## Az.KeyVault

- Removed two aliases: 'New-AzKeyVaultCertificateAdministratorDetails' and 'New-AzKeyVaultCertificateOrganizationDetails'
- Enabled soft delete by default when creating a key vault
- Network rules can be set to govern the accessibility from specific network locations when creating a key vault
- Added support to bring your own key (BYOK)
  - 'Add-AzKeyVaultKey' supports generating a key exchange key
  - 'Get-AzKeyVaultKey' supports downloading a public key in PEM format
- Updated the 'KeyOps' part of the help document of 'Add-AzKeyVaultKey'

## Az.Monitor

- Fixed bug for 'Set-AzDiagnosticSettings', retention policy won't apply to all categories [#11589]
- Supported WebTest availability criteria for metric alert V2
  - 'New-AzMetricAlertRuleV2Criteria': an option to create webtest availability criteria was added
  - 'Add-AzMetricAlertRuleV2': supports the new webtest availability criteria
- Removed redundant definition for RetentionPolicy in PSLogProfile [#7608]
- Removed redundant properties defined in PSEventData [#11353]
- Renamed 'Get-AzLog' to 'Get-AzActivityLog'

## Az.Network

- Added breaking change attribute to notify that Zone default behaviour will be changed
  - 'New-AzPublicIpAddress'
  - 'New-AzPublicIpPrefix'
  - 'New-AzLoadBalancerFrontendIpConfig'
- Added support for a new top level resource SecurityPartnerProvider
  - New cmdlets added:
    - New-AzSecurityPartnerProvider
    - Remove-AzSecurityPartnerProvider

- Get-AzSecurityPartnerProvider
  - Set-AzSecurityPartnerProvider
- Added 'RequiredZoneNames' on 'PSPrivateLinkResource' and 'GroupId' on 'PSPrivateEndpointConnection'
- Fixed incorrect type of SuccessThresholdRoundTripTimeMs parameter for New-AzNetworkWatcherConnectionMonitorTestConfigurationObject
- Updated VirtualWan cmdlets to set default value of AllowVnetToVnetTraffic argument to True.
  - 'New-AzVirtualWan'
  - 'Update-AzVirtualWan'
- Added new cmdlets to support DNS zone group for private endpoint
  - 'New-AzPrivateDnsZoneConfig'
  - 'Get-AzPrivateDnsZoneGroup'
  - 'New-AzPrivateDnsZoneGroup'
  - 'Set-AzPrivateDnsZoneGroup'
  - 'Remove-AzPrivateDnsZoneGroup'
- Added 'DNSEnableProxy', 'DNSRequireProxyForNetworkRules' and 'DNServers' parameters to 'AzureFirewall'
- Added 'EnableDnsProxy', 'DnsProxyNotRequiredForNetworkRule' and 'DnsServer' parameters to 'AzureFirewall'
  - Updated cmdlet:
  - New-AzFirewall

## Az.OperationalInsights

- Updated legacy code to apply new generated SDK
- Deleted cmdlets due to deprecated APIs
  - 'Get-AzOperationalInsightsSavedSearchResult' (alias 'Get-AzOperationalInsightsSavedSearchResults')
  - 'Get-AzOperationalInsightsSearchResult' (alias 'Get-AzOperationalInsightsSearchResults')
  - 'Get-AzOperationalInsightsLinkTarget' (alias 'Get-AzOperationalInsightsLinkTargets')
- Added parameters for 'Set-AzOperationalInsightsWorkspace' and 'New-AzOperationalInsightsWorkspace'
- Created cmdlets for Linked Stoarge Account
- Created cmdlets for Clusters and Linked Service

## Az.RecoveryServices

- Azure Site Recovery added support for protecting proximity placement group virtual machines for Azure to Azure provider.
- Azure Site Recovery added support for zone to zone replication.
- Azure Backup Added Long term retention support for Azure FileShare Recovery Points.
- Azure Backup Added disk exclusion properties to 'Get-AzRecoveryServicesBackupItem' cmdlet output.
- Added private endpoint for Vault credential file for site recovery service.

## Az.Resources

- Added message warning about view delay when creating a new Role Definition
- Changed policy cmdlets to output strongly-typed objects
- Removed '-TenantLevel' parameter used for on the 'Get-AzResourceLock' cmdlet [#11335]
- Fixed 'Remove-AzResourceGroup -Id ResourceId'[#9882]
- Added new cmdlet for getting ARM template What-If results at resource group scope: 'Get-AzDeploymentResourceGroupWhatIfResult'
- Added new cmdlet for getting ARM template What-If results at subscription scope: 'Get-AzDeploymentWhatIfResult'
  - Alias: 'Get-AzSubscriptionDeploymentWhatIf'
- Overrode '-WhatIf' and '-Confirm' parameters for 'New-AzDeployment' and 'New-AzResourceGroupDeployment' to use ARM template What-If results
- Added deprecation message for 'ApiVersion' parameter in deployment cmdlets
- Added capability to show improved error messages for deployment failures
- Added correlationId logging for deployment failures
- Added 'error' property to the deployment script output
- Updated nuget Microsoft.Azure.Management.ResourceManager to '3.7.1-preview'
- Removed specific test cases as Error property in DeploymentValidateResult has changed to readonly from nuget 3.7.1-preview
- Brought GenericResourceExpanded from SDK ResourceManager 3.7.1-preview
- Added tag support for all Get cmdlets for deployment, as well as
  - 'New-AzDeployment'
  - 'New-AzManagementGroupDeployment'
  - 'New-AzResourceGroupDeployment'
  - 'New-AzTenantDeployment'

## Az.ServiceFabric

- Fixed bug in add certificate using --SecretIdentifier that was getting the wrong certificate thumbprint

## Az.Sql

- Enhance performance of:
  - 'Set-AzSqlDatabaseSensitivityClassification'
  - 'Set-AzSqlInstanceDatabaseSensitivityClassification'
  - 'Remove-AzSqlDatabaseSensitivityClassification'
  - 'Remove-AzSqlInstanceDatabaseSensitivityClassification'
  - 'Enable-AzSqlDatabaseSensitivityRecommendation'
  - 'Enable-AzSqlInstanceDatabaseSensitivityRecommendation'
  - 'Disable-AzSqlDatabaseSensitivityRecommendation'
  - 'Disable-AzSqlInstanceDatabaseSensitivityRecommendation'
- Removed client-side validation of 'RetentionDays' parameter from cmdlet 'Set-AzSqlDatabaseBackupShortTermRetentionPolicy'

- Auditing to a storage account in Vnet, fixing a bug when creating a Storage Blob Data Contributor role.

## Az.Storage

- Added '-AsJob' to get/list account cmdlet 'Get-AzStorageAccount'
- Make KeyVersion to optional when update Storage account with KeyvaultEncryption, to support key auto-rotation
  - 'Set-AzStorageAccount'
- Fixed remove Azure File Directory fail with pipeline
  - 'Remove-AzStorageDirectory'
- Fixed [#9880]: Change NetWorkRule DefaultAction value defination to align with swagger.
  - 'Update-AzStorageAccountNetworkRuleSet'
  - 'Get-AzStorageAccountNetworkRuleSet'
- Fixed [#11624]: Skip duplicated rules when add NetworkRules, to avoid server failure
  - 'Add-AzStorageAccountNetworkRule'
- Upgraded Microsoft.Azure.Cosmos.Table SDK to 1.0.7
- Added a warning message to remind user to list again with ContinuationToken when only part items are returned in list DataLake Gen2 Items,
  - 'Get-AzDataLakeGen2ChildItem'
- Supported to create or update Storage account with Azure Files Active Directory Domain Service Authentication
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported to new or list Kerberos keys of Storage account
  - 'New-AzStorageAccountKey'
  - 'Get-AzStorageAccountKey'
- Supported failover Storage account
  - 'Invoke-AzStorageAccountFailover'
- Updated help of 'Get-AzStorageBlobCopyState'
- Updated help of 'Get-AzStorageFileCopyState' and 'Start-AzStorageBlobCopy'
- Integrated Storage client library v12 to Queue and File cmdlets
- Changed output type from CloudFile to AzureStorageFile, the original output will become a child property of the new output
  - 'Get-AzStorageFile'
  - 'Remove-AzStorageFile'
  - 'Get-AzStorageFileContent'
  - 'Set-AzStorageFileContent'
  - 'Start-AzStorageFileCopy'
- Changed output type from CloudFileDirectory to AzureStorageFileDirectory, the original output will become a child property of the new output
  - 'New-AzStorageDirectory'
  - 'Remove-AzStorageDirectory'
- Changed output type from CloudFileShare to AzureStorageFileShare, the original output will become a child property of the new output

- 'Get-AzStorageShare'
- 'New-AzStorageShare'
- 'Remove-AzStorageShare'
- Changed output type from FileShareProperties to AzureStorageFileShare, the original output will become a sub child property of the new output
  - 'Set-AzStorageShareQuota'

## Az.TrafficManager

- Fixed incorrect profile name in 'DisableAzureTrafficManagerEndpoint' verbose output

## Az.Websites

- Fixed typo on help of 'Update-AzWebAppAccessRestrictionConfig'.

# 3.8.0 - April 2020

## Az.Accounts

- Updated Azure PowerShell survey URL in 'Resolve-AzError' [#11507]

## Az.ApiManagement

- Added breaking change notice for Azure File cmdlets output change in a future release
- 'Set-AzApiManagementGroup' Updated documentation to specify the GroupId parameter

## Az.Cdn

- Fixed ChinaCDN related pricing SKU display

## Az.CognitiveServices

- Supported Identity, Encryption, UserOwnedStorage

## Az.Compute

- Added 'Set-AzVmssOrchestrationServiceState' cmdlet.
- 'Get-AzVmss' with -InstanceView shows OrchestrationService states.

## Az.IotHub

- Manage IoT device twin configuration, New cmdlets are:
  - 'Get-AzIoTDeviceTwin'
  - 'Update-AzIoTDeviceTwin'

- Added cmdlet to invoke direct method on a device in an IoT Hub.
- Manage IoT device module twin configuration, New cmdlets are:
  - 'Get-AzIoTModuleTwin'
  - 'Update-AzIoTModuleTwin'
- Manage IoT automatic device management configuration at scale. New cmdlets are:
  - 'Add-AzIoTHubConfiguration'
  - 'Get-AzIoTHubConfiguration'
  - 'Remove-AzIoTHubConfiguration'
  - 'Set-AzIoTHubConfiguration'
- Added cmdlet to invoke an edge module method in an IoT Hub.

## Az.KeyVault

- Added a new cmdlet 'Update-AzKeyVault' that can enable soft delete and purge protection on a vault
- Added support to Microsoft.PowerShell.SecretManagement [#11178]
- Fixed error in the examples of 'Remove-AzKeyVaultManagedStorageSasDefinition' [#11479]
- Added support to private endpoint

## Az.Maintenance

- Publishing release version of Maintenance cmdlets for GA

## Az.Monitor

- Added cmdlets for private link scope
  - 'Get-AzInsightsPrivateLinkScope'
  - 'Remove-AzInsightsPrivateLinkScope'
  - 'New-AzInsightsPrivateLinkScope'
  - 'Update-AzInsightsPrivateLinkScope'
  - 'Get-AzInsightsPrivateLinkScopedResource'
  - 'New-AzInsightsPrivateLinkScopedResource'
  - 'Remove-AzInsightsPrivateLinkScopedResource'

## Az.Network

- Updated cmdlets to enable connection on private IP for Virtual Network Gateway.
  - 'New-AzVirtualNetworkGateway'
  - 'Set-AzVirtualNetworkGateway'
  - 'New-AzVirtualNetworkGatewayConnection'
  - 'Set-AzVirtualNetworkGatewayConnection'
- Updated cmdlets to enable FQDN based LocalNetworkGateways and VpnSites
  - 'New-AzLocalNetworkGateway'
  - 'New-AzVpnSiteLink'
- Added support for IPv6 address family in ExpressRouteCircuitConnectionConfig (Global Reach)

- Added 'Set-AzExpressRouteCircuitConnectionConfig'
  - allows setting of all the existing properties including the IPv6CircuitConnectionProperties
- Updated 'Add-AzExpressRouteCircuitConnectionConfig'
  - Added another optional parameter AddressPrefixType to specify the address family of address prefix
- Updated cmdlets to enable setting of DPD Timeout on Virtual Network Gateway Connections.
  - New-AzVirtualNetworkGatewayConnection
  - Set-AzVirtualNetworkGatewayConnection

## Az.PolicyInsights

- Added 'Start-AzPolicyComplianceScan' cmdlet for triggering policy compliance scans
- Added policy definition, set definition, and assignment versions to 'Get-AzPolicyState' output

## Az.ServiceFabric

- Improved code formatting and usability of 'New-AzServiceFabricCluster' examples

## Az.Sql

- Added cmdlets 'Get-AzSqlInstanceOperation' and 'Stop-AzSqlInstanceOperation'
- Supported auditing to a storage account in VNet.

## Az.Storage

- Added breaking change notice for Azure File cmdlets output change in a future release
- Supported new SkuName StandardGZRS, StandardRAGZRS when create/update Storage account
  - 'New-AzStorageAccount'
  - 'Set-AzStorageAccount'
- Supported DataLake Gen2
  - 'New-AzDataLakeGen2Item'
  - 'Get-AzDataLakeGen2Item'
  - 'Get-AzDataLakeGen2ChildItem'
  - 'Move-AzDataLakeGen2Item'
  - 'Set-AzDataLakeGen2ItemAclObject'
  - 'Update-AzDataLakeGen2Item'
  - 'Get-AzDataLakeGen2ItemContent'
  - 'Remove-AzDataLakeGen2Item'

# 0.10.0-preview - April 2020

## General

- Az modules is now available in preview on Azure Stack Hub. This allows for cross-platform compatibility with Linux and macOs. Azure Stack Hub now supports PowerShell core with the Az modules, more information [here ↗](#)
- Az modules support profile 2019-03-01-hybrid:
  - Az.Billing
  - Az.Compute
  - Az.DataBoxEdge
  - Az.EventHub
  - Az.IotHub
  - Az.KeyVault
  - Az.Monitor
  - Az.Network
  - Az.Resources
  - Az.Storage
  - Az.Websites
- Three new PowerShell modules for az have been introduced that work with Azure Stack Hub, which are Az.Databox, Az.IotHub, and Az.EventHub
- Commands remain relatively the same, with minor changes such as changing AzureRM to Az
- Updated link to PowerShell documentation for Azure Stack Hub can be found [here ↗](#)

## Az.Accounts

- Upgrade from ADAL to MSAL

## 3.7.0 - March 2020

## Az.Accounts

- Fixed 'Get-AzTenant'/'Get-AzDefault'/'Set-AzDefault' throw NullReferenceException when not login [#10292]

## Az.Compute

- Added the following parameters to 'New-AzDiskConfig' cmdlet:
  - DiskIOPSReadOnly, DiskMBpsReadOnly, MaxSharesCount, GalleryImageReference
- Allowed Encryption property to Target parameter of 'New-AzGalleryImageVersion' cmdlet.
- Fixed tempDisk issue for 'Set-AzVmss' -Reimage and 'Invoke-AzVMReimage' cmdlets. [#11354]
- Added support to below cmdlets for new SAP Extension
  - 'Set-AzVMAEMExtension'
  - 'Get-AzVMAEMExtension'
  - 'Remove-AzVMAEMExtension'
  - 'Update-AzVMAEMExtension'
- Fixed errors in examples of help document
- Showed the exact string value for VM PowerState in the table format.

- 'New-AzVmssConfig': fixed serialization of AutomaticRepairs property when SinglePlacementGroup is disabled. [#11257]

## Az.DataFactory

- Updated ADF .Net SDK version to 4.8.0
- Added optional parameters to 'Invoke-AzDataFactoryV2Pipeline' command to support rerun

## Az.DataLakeStore

- Added breaking change description for 'Export-AzDataLakeStoreItem' and 'Import-AzDataLakeStoreItem'
- Added option of Byte encoding for 'New-AzDataLakeStoreItem', 'Add-AzDataLakeStoreItemContent', and 'Get-AzDataLakeStoreItemContent'

## Az.HDInsight

- Supported specifying minimal supported TLS version when creating cluster.

## Az.IotHub

- Added support to manage distributed settings per-device. New Cmdlets are:
  - 'Get-AzIotHubDistributedTracing'
  - 'Set-AzIotHubDistributedTracing'

## Az.KeyVault

- Added breaking change attributes to 'New-AzKeyVault'

## Az.Monitor

- Updated documentation for 'New-AzScheduledQueryRuleLogMetricTrigger'

## Az.Network

- Updated cmdlets to allow cross-tenant VirtualHubVnetConnections
  - 'New-AzVirtualHubVnetConnection'
  - 'Update-AzVirtualHubVnetConnection'
  - 'New-AzVirtualHub'
  - 'Update-AzVirtualHub'
- Removed Sql Management SDK dependency
- Updated cmdlets to allow force firewallPolicy association
  - 'New-AzApplicationGateway'

## Az.PolicyInsights

- Improved error messages

## Az.RecoveryServices

- Azure Site Recovery added support for doing reprotect and updated vm properties for Azure disk encrypted Virtual Machines.
- Added Azure Site Recovery VmwareToAzure properties DR monitoring
- Azure Backup added support for retrying policy update for failed items.
- Azure Backup Added support for disk exclusion settings during backup and restore.
- Azure Backup Added Support for Restoring Multiple files/folders in AzureFileShare
- Azure Backup Added support for User-specified Resourcegroup support while updating IaaSVM Policy

## Az.Resources

- Fixed 'Get-AzResource -ResourceGroupName -Name -ExpandProperties -ResourceType' to use actual apiVersion of resources instead of default apiVersion [#11267]
- Added correlationId logging for error scenarios
- Small documentation change to 'Get-AzResourceLock'. Added example.
- Escaped single quote in parameter value of 'Get-AzADUser' [#11317]
- Added new cmdlets for Deployment Scripts ('Get-AzDeploymentScript', 'Get-AzDeploymentScriptLog', 'Save-AzDeploymentScriptLog', 'Remove-AzDeploymentScript')

## Az.Sql

- Added readable secondary parameter to 'Invoke-AzSqlDatabaseFailover'
- Added cmdlet 'Disable-AzSqlServerActiveDirectoryOnlyAuthentication'
- Saved sensitivity rank when classifying columns in the database.

## Az.Support

- General availability of 'Az.Support' module

## Az.Websites

- Added support for working with webapp Traffic Routing Rules via below new cmdlets
  - 'Get-AzWebAppTrafficRouting'
  - 'Update-AzWebAppTrafficRouting'
  - 'Add-AzWebAppTrafficRouting'
  - 'Remove-AzWebAppTrafficRouting'

## 3.6.1 - March 2020

## Az.Accounts

- Open Azure PowerShell survey page in 'Send-Feedback' [#11020]
- Display Azure PowerShell survey URL in 'Resolve-Error' [#11021]
- Added Az version in UserAgent

## Az.ApiManagement

- Added support for retrieving and configuring Custom Domain on the DeveloperPortal Endpoint [#11007]
- 'Export-AzApiManagementApi' Added support for downloading Api Definition in Json format [#9987]
- 'Import-AzApiManagementApi' Added support for importing OpenApi 3.0 definition from Json document
- 'New-AzApiManagementIdentityProvider' and 'Set-AzApiManagementIdentityProvider' Added support for configuring 'Signin Tenant' for AAD B2C Provider [#9784]

## Az.DataLakeStore

- Added reference to System.Buffers explicitly in csproj and psd1.

## Az.IotHub

- Added support to manage devices in an IoT Hub. New Cmdlets are:
  - 'Add-AzIoTHubDevice'
  - 'Get-AzIoTHubDevice'
  - 'Remove-AzIoTHubDevice'
  - 'Set-AzIoTHubDevice'
- Added support to manage modules on a target IoT device in an IoT Hub. New Cmdlets are:
  - 'Add-AzIoTHubModule'
  - 'Get-AzIoTHubModule'
  - 'Remove-AzIoTHubModule'
  - 'Set-AzIoTHubModule'
- Added cmdlet to get the connection string of a target IoT device in an IoT Hub.
- Added cmdlet to get the connection string of a module on a target IoT device in an IoT Hub.
- Added support to get/set parent device of an IoT device. New Cmdlets are:
  - 'Get-AzIoTHubDeviceParent'
  - 'Set-AzIoTHubDeviceParent'
- Added support to manage device parent-child relationship.

## Az.Monitor

- Fixed output value for 'Get-AzMetricDefinition' [#9714]

## Az.Network

- Updated Sql Management SDK.

- Fixed a naming-difference issue in `PrivateLinkServiceConnectionState` class.
  - Mapping the field `ActionsRequired` to `ActionRequired`.
- Added `PublicNetworkAccess` to '`New-AzSqlServer`' and '`Set-AzSqlServer`'

## Az.Resources

- Fixed for null reference bug in '`Get-AzRoleAssignment`'
- Marked switch '`-Force`' and '`-PassThru`' optional in '`Remove-AzADGroup`' [#10849]
- Fixed issue that '`MailNickname`' doesn't return in '`Remove-AzADGroup`' [#11167]
- Fixed issue that '`Remove-AzADGroup`' pipe operation doesn't work [#11171]
- Fixed for null reference bug in `GetAzureRoleAssignmentCommand`
- Added breaking change attributes for upcoming changes to policy cmdlets
- Updated '`Get-AzResourceGroup`' to perform resource group tag filtering on server-side
- Extended Tag cmdlets to accept `-ResourceId`
  - `Get-AzTag -ResourceId`
  - `New-AzTag -ResourceId`
  - `Remove-AzTag -ResourceId`
- Added new Tag cmdlet
  - `Update-AzTag -ResourceId`
- Brought ScopedDeployment from SDK 3.3.0

## Az.Sql

- Added `PublicNetworkAccess` to '`New-AzSqlServer`' and '`Set-AzSqlServer`'
- Added support for Long Term Retention backup configuration for Managed Databases
  - Get/Set LTR policy on a managed database
  - Get LTR backup(s) by managed database, managed instance, or by location
  - Remove an LTR backup
  - Restore an LTR backup to create a new managed database
- Added `MinimalTlsVersion` to `New-AzSqlServer` and `Set-AzSqlServer`
- Added `MinimalTlsVersion` to `New-AzSqlInstance` and `Set-AzSqlInstance`
- Bumped SQL SDK version for Az.Network

## Az.Storage

- Supported `AllowProtectedAppendWrite` in `ImmutabilityPolicy`
  - '`Set-AzRmStorageContainerImmutabilityPolicy`'
- Added breaking change warning message for `AzureStorageTable` type change in a future release
  - '`New-AzStorageTable`'
  - '`Get-AzStorageTable`'

## Az.Websites

- Added Tag parameter for '`New-AzAppServicePlan`' and '`Set-AzAppServicePlan`'

- Stop cmdlet execution if an exception is thrown when adding a custom domain to a website
- Added support to perform operations for App Services not in the same resource group as the App Service Plan
- Applied access restriction to WebApp/Function in different resource groups
- Fixed issue to set custom hostnames for WebAppSlots

## 3.5.0 - February 2020

### Highlights since the last major release

- Updated client side telemetry.
- Az.IotHub added cmdlets to support to manage devices.
- Az.SqlVirtualMachine added cmdlets for Availability Group Listener.

### Az.Resource

- Fixed bug preventing correct tenant-level resource id generation.
- Fixed typo.

### Az.Accounts

- Added SubscriptionId, TenantId, and execution time into data of client side telemetry

### Az.Automation

- Fixed typo in Example 1 in reference documentation for 'New-AzAutomationSoftwareUpdateConfiguration'

### Az.CognitiveServices

- Updated SDK to 7.0
- Improved error message when server responses empty body

### Az.Compute

- Allowed empty value for ProximityPlacementGroupId during update

### Az.FrontDoor

- Added cmdlet to get managed rule definitions that can be used in WAF

### Az.IotHub

- Added support to manage devices in an Iot Hub. New Cmdlets are:

- 'Add-AzlotHubDevice'
- 'Get-AzlotHubDevice'
- 'Remove-AzlotHubDevice'
- 'Set-AzlotHubDevice'

## Az.KeyVault

- Fixed duplicated text for Add-AzKeyVaultKey.md

## Az.Monitor

- Fixed description of the Get-AzLog cmdlet.
- A new parameter called ActionGroupId was added to 'New-AzMetricAlertRuleV2' command.
  - The user can provide either ActionGroupId(string) or ActionGorup(ActivityLogAlertActionGroup).

## Az.Network

- Added one extra parameter note for parameter '-EnableProxyProtocol' for 'New-AzPrivateLinkService' cmdlet.
- Fixed FilterData example in Start-AzVirtualNetworkGatewayConnectionPacketCapture.md and Start-AzVirtualnetworkGatewayPacketCapture.md.
- Added Packet Capture example for capture all inner and outer packets in Start-AzVirtualNetworkGatewayConnectionPacketCapture.md and Start-AzVirtualnetworkGatewayPacketCapture.md.
- Supported Azure Firewall Policy on VNet Firewalls
  - No new cmdlets are added. Relaxing the restriction for firewall policy on VNet firewalls

## Az.RecoveryServices

- Added Support for Restore-as-files for SQL Databases.

## Az.Resources

- Refactored template deployment cmdlets
  - Added new cmdlets for managing deployments at management group: \*-AzManagementGroupDeployment
  - Added new cmdlets for managing deployments at tenant scope: \*-AzTenantDeployment
  - Refactored \*-AzDeployment cmdlets to work specifically at subscription scope
  - Created aliases \*-AzSubscriptionDeployment for \*-AzDeployment cmdlets
- Fixed 'Update-AzADApplication' when parameter 'AvailableToOtherTenants' is not set
- Removed ApplicationObjectWithoutCredentialParameterSet to avoid AmbiguousParameterSetException.
- Regenerated help files

## Az.Sql

- Added support for cross subscription point in time restore on Managed Instances.
- Added support for changing existing Sql Managed Instance hardware generation
- Fixed 'Update-AzSqlServerVulnerabilityAssessmentSetting' help examples: parameter/property output - EmailAdmins

## Az.SqlVirtualMachine

- Added cmdlets for Availability Group Listener

## Az.StorageSync

- Updated supported character sets in 'Invoke-AzStorageSyncCompatibilityCheck'.

# 3.4.0 - February 2020

## Az.CosmosDB

- Added cmdlets for Gremlin, MongoDB, Cassandra and Table APIs.
- Updated .NET SDK Version to 1.0.1
- Added parameters ConflictResolutionPolicyMode, ConflictResolutionPolicyPath and ConflictResolutionPolicyPath in Set-AzCosmosDBSqlContainer.
- Added new cmdlets for Sql API : New-CosmosDBSqlSpatialSpec, New-CosmosDBSqlCompositePath, New-CosmosDBSqlIncludedPathIndex, New-CosmosDBSqlIncludedPath

## Az.Accounts

- Disable context auto saving when AzureRmContext.json not available
- Update the reference to Azure Powershell Common to 1.3.5-preview

## Az.ApiManagement

- **Get-AzApiManagementApiSchema** Fixed getting Open-Api Schema associated with an API  
[https://github.com/Azure/azure-powershell/issues/10626 ↗](https://github.com/Azure/azure-powershell/issues/10626)
- **New-AzApiManagementProduct\*** and **Set-AzApiManagementProduct**
  - Fix documentation for [https://github.com/Azure/azure-powershell/issues/10472 ↗](https://github.com/Azure/azure-powershell/issues/10472)
- **Set-AzApiManagementApi** Added example to show how to update the ServiceUrl using the cmdlet

## Az.Compute

- Limit the number of VM status to 100 to avoid throttling when Get-AzVM -Status is performed without VM name.

- Add Update-AzDiskEncryptionSet cmdlet
- Add EncryptionType and DiskEncryptionSetId parameters to the following cmdlets:
  - New-AzDiskUpdateConfig, New-AzSnapshotUpdateConfig
- Add ColocationStatus parameter to Get-AzProximityPlacementGroup cmdlet.

## Az.DataFactory

- Update ADF .Net SDK version to 4.7.0

## Az.DeploymentManager

- Adds LIST operations for resources
- Adds capability for performing operations on Health Check steps

## Az.HDInsight

- Fix document error of New-AzHDInsightCluster.

## Az.KeyVault

- Add Name alias to VaultName attribute to make Remove-AzureKeyVault consistent with New-AzureKeyVault.

## Az.Network

- New example added to Set-AzNetworkWatcherConfigFlowLog.md to demonstrate Traffic Analytics disable scenario.
- Add support for assigning management IP configuration to Azure Firewall - a dedicated subnet and Public IP that the firewall will use for its management traffic
  - Updated New-AzFirewall cmdlet:
    - Added parameter -ManagementPublicIpAddress (not mandatory) which accepts a Public IP Address object
    - Added method SetManagementIpConfiguration on firewall object - requires a subnet and a Public IP address as input - subnet name must be 'AzureFirewallManagementSubnet'
- Corrected Get-AzNetworkSecurityGroup examples to show examples for NSG's instead of network interfaces.
- Fixed typo in New-AzVpnSite command that was preventing resource id completer from completing a parameter.
- Added support for Url Configuration in Rewrite Rules Action Set in the Application Gateway
  - New cmdlets added:
    - New-AzApplicationGatewayRewriteRuleUrlConfiguration
    - Cmdlets updated with optional parameter - UrlConfiguration
      - New-AzApplicationGatewayRewriteRuleActionSet
- Add support for NetworkWatcher ConnectionMonitor version 2 resources

## Az.PolicyInsights

- Support evaluating compliance prior to determining what resource to remediate
  - Add '-ResourceDiscoverMode' parameter to Start-AzPolicyRemediation
- Add Get-AzPolicyMetadata cmdlet for getting policy metadata resources
- Updated Get-AzPolicyState and Get-AzPolicyStateSummary for API version 2019-10-01

## Az.RecoveryServices

- Azure Site Recovery support for removing a replicated disk.
- Azure Backup added support for adding tags while creating a Recovery Services Vault.

## Az.Resources

- Make -Scope optional in \*-AzPolicyAssignment cmdlets with default to context subscription
- Add examples of creating ADServicePrincipal with password and key credential

## Az.Sql

Fix New-AzSqlDatabaseSecondary cmdlet to check for PartnerDatabaseName existence instead of DatabaseName existence.

## Az.Storage

- Support set Table/Queue Encryption Keytype in Create Storage Account
  - New-AzStorageAccount
- Show RequestId when StorageException don't have ExtendedErrorInformation
- Fix the Example 6 of cmdlet Start-AzStorageBlobCopy

## Az.Websites

- Set-AzWebapp and Set-AzWebappSlot supports AlwaysOn, MinTls and FtpsState properties
- Fixing issue where setting HttpsOnly along with changing AppservicePlan at the same time using the single Set-AzWebApp Command, was resetting HttpsOnly to default value

## 3.3.0 - January 2020

## Az.Accounts

- Updated Add-AzEnvironment and Set-AzEnvironment to accept parameters AzureAttestationServiceEndpointResourceId and AzureAttestationServiceEndpointSuffix

## Az.Cdn

- Display error response detail in New-AzCdnEndpoint cmdlet

## Az.Compute

- Fix Set-AzVMCustomScriptExtension cmdlet for a VM with managed OD disk which does not have OS profile.

## Az.ContainerInstance

- Fixed parameter names used by example of New-AzContainerGroup

## Az.DataBoxEdge

- Added cmdlet 'Get-AzDataBoxEdgeStorageContainer'
  - Get the Edge Storage Container
- Added cmdlet 'New-AzDataBoxEdgeStorageContainer'
  - Create new Edge Storage Container
- Added cmdlet 'Remove-AzDataBoxEdgeStorageContainer'
  - Remove the Edge Storage Container
- Added cmdlet 'Invoke-AzDataBoxEdgeStorageContainer'
  - Invoke action to refresh data on Edge Storage Container
- Added cmdlet 'Get-AzDataBoxEdgeStorageAccount'
  - Get the Edge Storage Account
- Added cmdlet 'New-AzDataBoxEdgeStorageAccount'
  - Create new Edge Storage Account
- Added cmdlet 'Remove-AzDataBoxEdgeStorageAccount'
  - Remove the Edge Storage Account
- Invoke cmdlet 'Invoke-AzDataBoxEdgeShare'
  - Invoke action to refresh data on share
- Added cmdlet 'Set-AzDataBoxEdgeStorageAccountCredential'
  - Set the az databoxedge storage account credential

## Az.DataFactory

- Add AutoUpdateETA, LatestVersion, PushedVersion, TaskQueueId and VersionStatus properties for Get-AzDataFactoryV2IntegrationRuntime cmd
- Update ADF .Net SDK version to 4.6.0
- Add parameter 'PublicIPs' for 'Set-AzDataFactoryV2IntegrationRuntime' cmd to enable create Azure-SSIS IR with static public IP addresses.

## Az.DevTestLabs

- Remove the broken link in Get-AzDtlAllowedVMSizesPolicy.md

## Az.EventHub

- Fix for issue 10634 : Fix the null Object reference for remove eventhubnamespace

## Az.HDInsight

- Fix Invoke-AzHDInsightHiveJob.md error.

## Az.MachineLearning

- Removed below cmdlets because MachineLearningCompute is not available any longer
  - Get-AzMIOpCluster
  - Get-AzMIOpClusterKey
  - New-AzMIOpCluster
  - Remove-AzMIOpCluster
  - Set-AzMIOpCluster
  - Test-AzMIOpClusterSystemServicesUpdateAvailability
  - Update-AzMIOpClusterSystemService

## Az.Network

- Upgrade dependency of Microsoft.Azure.Management.Sql from 1.36-preview to 1.37-preview

## Az.RecoveryServices

- Azure Site Recovery change support for managed disk vms encrypted at rest with customer managed keys for Azure to Azure provider.
- Azure Site Recovery support to input disk encryption Set Id as optional input at enabling protection for Vmware to Azure.
- Azure Site Recovery support to input disk encryption Set Id as optional input at disk level to enable protection for Vmware to Azure.
- Azure Site Recovery support to update replication protected item with disk encryption set Map for HyperV to Azure.

## Az.Resources

- Fix an error in help document of 'Remove-AzTag'.

## Az.Sql

- Fix vulnerability assessment set baseline cmdlets functionality to work on master db for azure database and limit it on managed instance system databases.
- Fix an error when creating SQL instance failover group

## Az.SqlVirtualMachine

- Add DR as a new valid License type

## Az.Storage

- Add breaking change warning message for DefaultAction Value change in a future release
  - Update-AzStorageAccountNetworkRuleSet
- Support Get last sync time of Storage account by run get-AzStorageAccount with parameter -  
IncludeGeoReplicationStats
  - Get-AzStorageAccount

## 3.2.0 - December 2019

### General

- Update references in .psd1 to use relative path for all modules

### Az.Accounts

- Set correct UserAgent for client-side telemetry for Az 4.0 preview
- Display user friendly error message when context is null in Az 4.0 preview

### Az.Batch

- Fix issue #10602, where **New-AzBatchPool** did not properly send  
'VirtualMachineConfiguration.ContainerConfiguration' or  
'VirtualMachineConfiguration.DataDisks' to the server.

### Az.DataFactory

- Update ADF .Net SDK version to 4.5.0

### Az.FrontDoor

- Added WAF managed rules exclusion support
- Add SocketAddr to auto-complete

### Az.HealthcareApis

- Exception Handling

### Az.KeyVault

- Fixed error accessing value that is potentially not set
- Elliptic Curve Cryptography Certificate Management
  - Added support to specify the Curve for Certificate Policies

### Az.Monitor

- Adding optional argument to the Add Diagnostic Settings command. A switch argument that if present indicates that the export to Log Analytics must be to a fixed schema (a.k.a. dedicated, data type)

## Az.Network

- Support for IpGroups in AzureFirewall Application,Nat & Network Rules.

## Az.RecoveryServices

- Added SoftDelete feature for VM and added tests for softdelete
- Azure Site Recovery support for Azure Disk Encryption One Pass for Azure to Azure.

## Az.Resources

- Fix an issue where template deployment fails to read a template parameter if its name conflicts with some built-in parameter name.
- Updated policy cmdlets to use new api version 2019-09-01 that introduces grouping support within policy set definitions.

## Az.Sql

- Upgraded storage creation in Vulnerability Assessment auto enablement to StorageV2

## Az.Storage

- Support generate Blob/Container Identity based SAS token with Storage Context based on Oauth authentication
  - New-AzStorageContainerSASToken
  - New-AzStorageBlobSASToken
- Support revoke Storage Account User Delegation Keys, so all Identity SAS tokens are revoked
  - Revoke-AzStorageAccountUserDelegationKeys
- Upgrade to Microsoft.Azure.Management.Storage 14.2.0, to support new API version 2019-06-01.
- Support Share QuotaGiB more than 5120 in Management plane File Share cmdlets, and add parameter alias 'Quota' to parameter 'QuotaGiB'
  - New-AzRmStorageShare
  - Update-AzRmStorageShare
- Add parameter alias 'QuotaGiB' to parameter 'Quota'
  - Set-AzStorageShareQuota
- Fix the issue that Set-AzStorageContainerAcl can clean up the stored Access Policy
  - Set-AzStorageContainerAcl

## 3.1.0 - November 2019

# Highlights since the last major release

- Az.DataBoxEdge 1.0.0 released
- Az.SqlVirtualMachine 1.0.0 released

## Az.Compute

- VM Reapply feature
  - Add Reapply parameter to Set-AzVM cmdlet
- VM Scale Set AutomaticRepairs feature:
  - Add EnableAutomaticRepair, AutomaticRepairGracePeriod, and AutomaticRepairMaxInstanceRepairsPercent parameters to the following cmdlets: New-AzVmssConfig Update-AzVmss
- Cross tenant gallery image support for New-AzVM
- Add 'Spot' to the argument completer of Priority parameter in New-AzVM, New-AzVMConfig and New-AzVmss cmdlets
- Add DiskIOPSReadWrite and DiskMBpsReadWrite parameters to Add-AzVmssDataDisk cmdlet
- Change SourceImageId parameter of New-AzGalleryImageVersion cmdlet to optional
- Add OSDiskImage and DataDiskImage parameters to New-AzGalleryImageVersion cmdlet
- Add HyperVGeneration parameter to New-AzGalleryImageDefinition cmdlet
- Add SkipExtensionsOnOverprovisionedVMs parameters to New-AzVmss, New-AzVmssConfig and Update-AzVmss cmdlets

## Az.DataBoxEdge

- Added cmdlet `Get-AzDataBoxEdgeOrder`
  - Get the Order
- Added cmdlet `New-AzDataBoxEdgeOrder`
  - Create new Order
- Added cmdlet `Remove-AzDataBoxEdgeOrder`
  - Remove the Order
- Change in cmdlet `New-AzDataBoxEdgeShare`
  - Now creates Local Share
- Added cmdlet `Set-AzDataBoxEdgeRole`
  - Now IoTRole can be mapped to Share
- Added cmdlet `Invoke-AzDataBoxEdgeDevice`
  - Invoke scan update, download update, install updates on the device
- Added cmdlet `Get-AzDataBoxEdgeTrigger`
  - Gets the information about Triggers
- Added cmdlet `New-AzDataBoxEdgeTrigger`
  - Create new Triggers
- Added cmdlet `Remove-AzDataBoxEdgeTrigger`
  - Remove the Triggers

## Az.DataFactory

- Update ADF .Net SDK version to 4.4.0
- Add parameter 'ExpressCustomSetup' for 'Set-AzDataFactoryV2IntegrationRuntime' cmd to enable setup configurations and 3rd party components without custom setup script.

## Az.DataLakeStore

- Update documentation of Get-AzDataLakeStoreDeletedItem and Restore-AzDataLakeStoreDeletedItem

## Az.EventHub

- Fix for issue 10301 : Fix the SAS Token date format

## Az.FrontDoor

- Add MinimumTlsVersion parameter to Enable-AzFrontDoorCustomDomainHttps and New-AzFrontDoorFrontendEndpointObject
- Add HealthProbeMethod and EnabledState parameters to New-AzFrontDoorHealthProbeSettingObject
- Add new cmdlet to create BackendPoolsSettings objec to pass into creation/update of Front Door
  - New-AzFrontDoorBackendPoolsSettingObject

## Az.Network

- Change 'Start-AzVirtualNetworkGatewayConnectionPacketCapture.md' and 'Start-AzVirtualnetworkGatewayPacketCapture.md' FilterData option examples.

## Az.PrivateDns

- Updated PrivateDns .net sdk to version 1.0.0

## Az.RecoveryServices

- Azure Site Recovery support to select disk type at enabling protection.
- Azure Site Recovery bug fix for recovery plan action edit.
- Azure Backup SQL Restore support to accept filestream DBs.

## Az.RedisCache

- Added 'MinimumTlsVersion' parameter in 'New-AzRedisCache' and 'Set-AzRedisCache' cmdlets. Also, added 'MinimumTlsVersion' in the output of 'Get-AzRedisCache' cmdlet.
- Added validation on '-Size' parameter for 'Set-AzRedisCache' and 'New-AzRedisCache' cmdlets

## Az.Resources

- Updated policy cmdlets to use new api version 2019-06-01 that has new EnforcementMode property in policy assignment.
- Updated create policy definition help example
- Fix bug Remove-AZADServicePrincipal -ServicePrincipalName, throw null reference when service principal name not found.
- Fix bug New-AZADServicePrincipal, throw null reference when tenant doesn't have any subscription.
- Change New-AzAdServicePrincipal to add credentials only to associated application.

## Az.Sql

- Added support for database ReadReplicaCount.
- Fixed Set-AzSqlDatabase when zone redundancy not set

# 3.0.0 - November 2019

## General

- Az.PrivateDns 1.0.0 released

## Az.Accounts

- Add a deprecation message for 'Resolve-Error' alias.

## Az.Advisor

- Added new category 'Operational Excellence' to Get-AzAdvisorRecommendation cmdlet.

## Az.Batch

- Renamed `CoreQuota` on `BatchAccountContext` to `DedicatedCoreQuota`. There is also a new `LowPriorityCoreQuota`.
  - This impacts `Get-AzBatchAccount`.
- `New-AzBatchTask` `-ResourceFile` parameter now takes a collection of `PSResourceFile` objects, which can be constructed using the new `New-AzBatchResourceFile` cmdlet.
- New `New-AzBatchResourceFile` cmdlet to help create `PSResourceFile` objects. These can be supplied to `New-AzBatchTask` on the `-ResourceFile` parameter.
  - This supports two new kinds of resource file in addition to the existing `HttpUrl` way:
    - `AutoStorageContainerName` based resource files download an entire auto-storage container to the Batch node.
    - `StorageContainerUrl` based resource files download the container specified in the URL to the Batch node.

- Removed `ApplicationPackages` property of `PSApplication` returned by `Get-AzBatchApplication`.
  - The specific packages inside of an application now can be retrieved using `Get-AzBatchApplicationPackage`. For example: `Get-AzBatchApplication -AccountName myaccount -ResourceGroupName myresourcegroup -ApplicationId myapplication`.
- Renamed `ApplicationId` to `ApplicationName` on `Get-AzBatchApplicationPackage`, `New-AzBatchApplicationPackage`, `Remove-AzBatchApplicationPackage`, `Get-AzBatchApplication`, `New-AzBatchApplication`, `Remove-AzBatchApplication`, and `Set-AzBatchApplication`.
  - `ApplicationId` now is an alias of `ApplicationName`.
- Added new `PSWindowsUserConfiguration` property to `PSUserAccount`.
- Renamed `Version` to `Name` on `PSApplicationPackage`.
- Renamed `BlobSource` to `HttpUrl` on `PSResourceFile`.
- Removed `OSDisk` property from `PSVirtualMachineConfiguration`.
- Removed `Set-AzBatchPoolIOSVersion`. This operation is no longer supported.
- Removed `TargetOSVersion` from `PSCloudServiceConfiguration`.
- Renamed `CurrentOSVersion` to `OSVersion` on `PSCloudServiceConfiguration`.
- Removed `DataEgressGiB` and `DataIngressGiB` from `PSPoolUsageMetrics`.
- Removed `Get-AzBatchNodeAgentSku` and replaced it with `Get-AzBatchSupportedImage`.
  - `Get-AzBatchSupportedImage` returns the same data as `Get-AzBatchNodeAgentSku` but in a more friendly format.
  - New non-verified images are also now returned. Additional information about `Capabilities` and `BatchSupportEndOfLife` for each image is also included.
- Added ability to mount remote file-systems on each node of a pool via the new `MountConfiguration` parameter of `New-AzBatchPool`.
- Now support network security rules blocking network access to a pool based on the source port of the traffic. This is done via the `SourcePortRanges` property on `PSNetworkSecurityGroupRule`.
- When running a container, Batch now supports executing the task in the container working directory or in the Batch task working directory. This is controlled by the `WorkingDirectory` property on `PSTaskContainerSettings`.
- Added ability to specify a collection of public IPs on `PSNetworkConfiguration` via the new `PublicIPs` property. This guarantees nodes in the Pool will have an IP from the list user provided IPs.
- When not specified, the default value of `WaitForSuccess` on `PSStartTask` is now `$True` (was `$False`).
- When not specified, the default value of `Scope` on `PSAutoUserSpecification` is now `Pool` (was `Task` on Windows and `Pool` on Linux).

## Az.Cdn

- Introduced `UrlRewriteAction` and `CacheKeyQueryStringAction` to `RulesEngine`.
- Fixed several bugs like missing 'Selector' Input in `New-AzDeliveryRuleCondition` cmdlet.

## Az.Compute

- Disk Encryption Set feature
  - New cmdlets: New-AzDiskEncryptionSetConfig New-AzDiskEncryptionSet Get-AzDiskEncryptionSet Remove-AzDiskEncryptionSet
  - DiskEncryptionSetId parameter is added to the following cmdlets: Set-AzImageOSDisk Set-AzVMOSDisk Set-AzVmssStorageProfile Add-AzImageDataDisk New-AzVMDataDisk Set-AzVMDataDisk Add-AzVMDataDisk Add-AzVmssDataDisk Add-AzVmssVMDisk
  - DiskEncryptionSetId and EncryptionType parameters are added to the following cmdlets: New-AzDiskConfig New-AzSnapshotConfig
- Add PublicIPAddressVersion parameter to New-AzVmssIPConfig
- Move FileUris of custom script extension from public setting to protected setting
- Add ScaleInPolicy to New-AzVmss, New-AzVmssConfig and Update-AzVmss cmdlets
- Breaking changes
  - UploadSizeInBytes parameter is used instead of DiskSizeGB for New-AzDiskConfig when CreateOption is Upload
  - PublishingProfile.Source.ManagedImage.Id is replaced with StorageProfile.Source.Id in GalleryImageVersion object

## Az.DataFactory

- Update ADF .Net SDK version to 4.3.0

## Az.DataLakeStore

- Update ADLS SDK version (<https://github.com/Azure/azure-data-lake-store-net/blob/preview-alpha/CHANGELOG.md#version-123-alpha>), brings following fixes
- Avoid throwing exception while unable to deserialize the creationtime of the trash or directory entry.
- Expose setting per request timeout in adlclient
- Fix passing the original syncflag for badoffset recovery
- Fix EnumerateDirectory to retrieve continuation token once response is checked
- Fix Concat Bug

## Az.FrontDoor

- Fixed miscellaneous typos across module

## Az.HDInsight

- Fixed the bug that customer will get 'Not a valid Base-64 string' error when using Get-AzHDInsightCluster to get the cluster with ADLSSGen1 storage.
- Add a parameter named 'ApplicationId' to three cmdlets Add-AzHDInsightClusterIdentity, New-AzHDInsightClusterConfig and New-AzHDInsightCluster so that customer can provide the service principal application id for accessing Azure Data Lake.
- Changed Microsoft.Azure.Management.HDInsight from 2.1.0 to 5.1.0

- Removed five cmdlets:
  - Get-AzHDInsightOMS
  - Enable-AzHDInsightOMS
  - Disable-AzHDInsightOMS
  - Grant-AzHDInsightRdpServicesAccess
  - Revoke-AzHDInsightRdpServicesAccess
- Added three cmdlets:
  - Get-AzHDInsightMonitoring to replace Get-AzHDInsightOMS.
  - Enable-AzHDInsightMonitoring to replace Enable-AzHDInsightOMS.
  - Disable-AzHDInsightMonitoring to replace Disable-AzHDInsightOMS.
- Fixed cmdlet Get-AzHDInsightProperties to support get capabilities information from a specific location.
- Removed parameter sets('Spark1', 'Spark2') from Add-AzHDInsightConfigValue.
- Add examples to the help documents of cmdlet Add-AzHDInsightSecurityProfile.
- Changed output type of the following cmdlets:
  - Changed the output type of Get-AzHDInsightProperties from CapabilitiesResponse to AzureHDInsightCapabilities.
  - Changed the output type of Remove-AzHDInsightCluster from ClusterGetResponse to bool.
  - Changed the output type of Set-AzHDInsightGatewaySettings HttpConnectivitySettings to GatewaySettings.
- Added some scenario test cases.
- Remove some alias: 'Add-AzHDInsightConfigValues', 'Get-AzHDInsightProperties'.

## Az.IotHub

- Breaking changes:
  - The cmdlet 'Add-AzlotHubEventHubConsumerGroup' no longer supports the parameter 'EventHubEndpointName' and no alias was found for the original parameter name.
  - The parameter set '\_\_AllParameterSets' for cmdlet 'Add-AzlotHubEventHubConsumerGroup' has been removed.
  - The cmdlet 'Get-AzlotHubEventHubConsumerGroup' no longer supports the parameter 'EventHubEndpointName' and no alias was found for the original parameter name.
  - The parameter set '\_\_AllParameterSets' for cmdlet 'Get-AzlotHubEventHubConsumerGroup' has been removed.
  - The property 'OperationsMonitoringProperties' of type 'Microsoft.Azure.Commands.Management.IotHub.Models.PSlotHubProperties' has been removed.
  - The property 'OperationsMonitoringProperties' of type 'Microsoft.Azure.Commands.Management.IotHub.Models.PSlotHubInputProperties' has been removed.
  - The cmdlet 'New-AzlotHubExportDevice' no longer supports the alias 'New-AzlotHubExportDevices'.
  - The cmdlet 'New-AzlotHubImportDevice' no longer supports the alias 'New-AzlotHubImportDevices'.

- The cmdlet 'Remove-AzlotHubEventHubConsumerGroup' no longer supports the parameter 'EventHubEndpointName' and no alias was found for the original parameter name.
- The parameter set '\_AllParameterSets' for cmdlet 'Remove-AzlotHubEventHubConsumerGroup' has been removed.
- The cmdlet 'Set-AzlotHub' no longer supports the parameter 'OperationsMonitoringProperties' and no alias was found for the original parameter name.
- The parameter set 'UpdateOperationsMonitoringProperties' for cmdlet 'Set-AzlotHub' has been removed.

## Az.RecoveryServices

- Azure Site Recovery support to configure networking resources like NSG, public IP and internal load balancers for Azure to Azure.
- Azure Site Recovery Support to write to managed disk for vMWare to Azure.
- Azure Site Recovery Support to NIC reduction for vMWare to Azure.
- Azure Site Recovery Support to accelerated networking for Azure to Azure.
- Azure Site Recovery Support to agent auto update for Azure to Azure.
- Azure Site Recovery Support to Standard SSD for Azure to Azure.
- Azure Site Recovery Support to Azure Disk Encryption two pass for Azure to Azure.
- Azure Site Recovery Support to protect newly added disk for Azure to Azure.
- Added SoftDelete feature for VM and added tests for softdelete

## Az.Resources

- Update dependency assembly Microsoft.Extensions.Caching.Memory from 1.1.1 to 2.2

## Az.Network

- Change all cmdlets for PrivateEndpointConnection to support generic service provider.
  - Updated cmdlet:
    - Approve-AzPrivateEndpointConnection
    - Deny-AzPrivateEndpointConnection
    - Get-AzPrivateEndpointConnection
    - Remove-AzPrivateEndpointConnection
    - Set-AzPrivateEndpointConnection
- Add new cmdlet for PrivateLinkResource and it also support generic service provider.
  - New cmdlet:
    - Get-AzPrivateLinkResource
- Add new fields and parameter for the feature Proxy Protocol V2.
  - Add property EnableProxyProtocol in PrivateLinkService
  - Add property LinkIdentifier in PrivateEndpointConnection
  - Updated New-AzPrivateLinkService to add a new optional parameter EnableProxyProtocol.
- Fix incorrect parameter description in 'New-AzApplicationGatewaySku' reference documentation
- New cmdlets to support the azure firewall policy

- Add support for child resource RouteTables of VirtualHub
  - New cmdlets added:
    - Add-AzVirtualHubRoute
    - Add-AzVirtualHubRouteTable
    - Get-AzVirtualHubRouteTable
    - Remove-AzVirtualHubRouteTable
    - Set-AzVirtualHub
- Add support for new properties Sku of VirtualHub and VirtualWANType of VirtualWan
  - Cmdlets updated with optional parameters:
    - New-AzVirtualHub : added parameter Sku
    - Update-AzVirtualHub : added parameter Sku
    - New-AzVirtualWan : added parameter VirtualWANType
    - Update-AzVirtualWan : added parameter VirtualWANType
- Add support for EnableInternetSecurity property for HubVnetConnection, VpnConnection and ExpressRouteConnection
  - New cmdlets added:
    - Update-AzVirtualHubVnetConnection
  - Cmdlets updated with optional parameters:
    - New-AzVirtualHubVnetConnection : added parameter EnableInternetSecurity
    - New-AzVpnConnection : added parameter EnableInternetSecurity
    - Update-AzVpnConnection : added parameter EnableInternetSecurity
    - New-AzExpressRouteConnection : added parameter EnableInternetSecurity
    - Set-AzExpressRouteConnection : added parameter EnableInternetSecurity
- Add support for Configuring TopLevel WebApplicationFirewall Policy
  - New cmdlets added:
    - New-AzApplicationGatewayFirewallPolicySetting
    - New-AzApplicationGatewayFirewallPolicyExclusion
    - New-AzApplicationGatewayFirewallPolicyManagedRuleGroupOverride
    - New-AzApplicationGatewayFirewallPolicyManagedRuleOverride
    - New-AzApplicationGatewayFirewallPolicyManagedRule
    - New-AzApplicationGatewayFirewallPolicyManagedRuleSet
  - Cmdlets updated with optional parameters:
    - New-AzApplicationGatewayFirewallPolicy : added parameter PolicySetting, ManagedRule
- Added support for Geo-Match operator on CustomRule
  - Added GeoMatch to the operator on the FirewallCondition
- Added support for perListener and perSite Firewall policy
  - Cmdlets updated with optional parameters:
    - New-AzApplicationGatewayHttpListener : added parameter FirewallPolicy, FirewallPolicyId
    - New-AzApplicationGatewayPathRuleConfig : added parameter FirewallPolicy, FirewallPolicyId
- Fix required subnet with name AzureBastionSubnet in 'PSBastion' can be case insensitive
- Support for Destination FQDNs in Network Rules and Translated FQDN in NAT Rules for Azure Firewall
- Add support for top level resource RouteTables of IpGroup
  - New cmdlets added:

- New-AzIpGroup
- Remove-AzIpGroup
- Get-AzIpGroup
- Set-AzIpGroup

## Az.ServiceFabric

- Remove Add-AzServiceFabricApplicationCertificate cmdlet as this scenario is covered by Add-AzVmssSecret.

## Az.Sql

- Added support for restore of dropped databases on Managed Instances.
- Deprecated from code old auditing cmdlets.
- Removed deprecated aliases:
- Get-AzSqlDatabaseIndexRecommendations (use Get-AzSqlDatabaseIndexRecommendation instead)
- Get-AzSqlDatabaseRestorePoints (use Get-AzSqlDatabaseRestorePoint instead)
- Remove Get-AzSqlDatabaseSecureConnectionPolicy cmdlet
- Remove aliases for deprecated Vulnerability Assessment Settings cmdlets
- Deprecate Advanced Threat Detection Settings cmdlets
- Adding cmdlets to Disable and enable sensitivity recommendations on columns in a database.

## Az.Storage

- Support enable Large File share when create or update Storage account
  - New-AzStorageAccount
  - Set-AzStorageAccount
- When close/get File handle, skip check the input path is File directory or File, to avoid failure with object in DeletePending status
  - Get-AzStorageFileHandle
  - Close-AzStorageFileHandle

# 2.8.0 - October 2019

## General

- Az.HealthcareApis 1.0.0 release

## Az.Accounts

- Update telemetry and url rewriting for generated modules, fix windows unit tests.

## Az.ApiManagement

- **Set-AzApiManagementApi** - Added support for Updating Api into ApiVersionSet
  - Fix for issue <https://github.com/Azure/azure-powershell/issues/10068>

## Az.Automation

- Fixed New-AzureAutomationSoftwareUpdateConfiguration cmdlet for Linux reboot setting parameter.

## Az.Batch

- **Get-AzBatchNodeAgentSku** is deprecated and will be replaced by **Get-AzBatchSupportImage** in version 2.0.0.

## Az.Compute

- Add Priority, EvictionPolicy, and MaxPrice parameters to New-AzVM and New-AzVmss cmdlets
- Fix warning message and help document for Add-AzVMAdditionalUnattendContent and Add-AzVMSshPublicKey cmdlets
- Fix -skipVmBackup exception for Linux VMs with managed disks for Set-AzVMDiskEncryptionExtension.
- Fix bug in update encryption settings in Set-AzVMDiskEncryptionExtension, two pass scenario.

## Az.DataFactory

- Adding CRUD commands for ADF V2 data flow: Set-AzDataFactoryV2DataFlow, Remove-AzDataFactoryV2DataFlow, and Get-AzDataFactoryV2DataFlow.
- Adding action commands for ADF V2 data flow debug Session: Start-AzDataFactoryV2DataFlowDebugSession, Get-AzDataFactoryV2DataFlowDebugSession, Add-AzDataFactoryV2DataFlowDebugSessionPackage, Invoke-AzDataFactoryV2DataFlowDebugSessionCommand and Stop-AzDataFactoryV2DataFlowDebugSession.
- Update ADF .Net SDK version to 4.2.0

## Az.DataLakeStore

- Fix account validation so that accounts with '-' can be passed without domain

## Az.HealthcareApis

- Updated the powershell version to 1.0.0
- Updated the SDK version to 1.0.2
- Update in tests to refer to new SDK version
- Updated the output structure from nested to flattened.

## Az.IotHub

- Add new routing source: DigitalTwinChangeEvents
- Minor bug fix: Get-AzIoTHub not returning subscriptionId

## Az.Monitor

- New action group receivers added for action group -ItsmReceiver -VoiceReceiver -ArmRoleReceiver -AzureFunctionReceiver -LogicAppReceiver -AutomationRunbookReceiver -AzureAppPushReceiver
- Use common alert schema enabled for the receivers. This is not applicable for SMS, Azure App push , ITSM and Voice receivers
- Webhooks now supports Azure active directory authentication .

## Az.Network

- Add new cmdlet Get-AzAvailableServiceAlias which can be called to get the aliases that can be used for Service Endpoint Policies.
- Added support for the adding traffic selectors to Virtual Network Gateway Connections
  - New cmdlets added:
    - New-AzureRmTrafficSelectorPolicy
    - Cmdlets updated with optional parameter -TrafficSelectorPolicies -New-AzVirtualNetworkGatewayConnection -Set-AzVirtualNetworkGatewayConnection
- Add support for ESP and AH protocols in network security rule configurations
  - Updated cmdlets:
    - Add-AzNetworkSecurityRuleConfig
    - New-AzNetworkSecurityRuleConfig
    - Set-AzNetworkSecurityRuleConfig
- Improve handling of exceptions in Cortex cmdlets
- New Generations and SKUs for VirtualNetworkGateways
  - Introduce new Generations for VirtualNetworkGateways.
  - Introduce new high throughput SKUs for VirtualNetworkGateways.

## Az.RedisCache

- Updated 'Set-AzRedisCache' reference documentation to include missing values for '-Size' parameter

## Az.Sql

- Add support for setting Active Directory Administrator on Managed Instance

## Az.Storage

- Upgrade Storage Client Library to 11.1.0
- List containers with Management plane API, will list with NextPageLink
  - Get-AzRmStorageContainer

- List Storage accounts from subscription, will list with NextPageLink
  - Get-AzStorageAccount

## Az.StorageSync

- Fix Issue 9810 in Reset-AzStorageSyncServerCertificate.

## Az.Websites

- Set-AzWebApp updating ASP of an app was failing

# 2.7.0 - September 2019

## Az.ApiManagement

- Update '-Format' parameter description in 'Set-AzApiManagementPolicy' reference documentation
- Removed references of deprecated cmdlet 'Update-AzApiManagementDeployment' from reference documentation. Use 'Set-AzApiManagement' instead.

## Az.Automation

- Fixed example typo in reference documentation for 'Register-AzAutomationDscNode'
- Added clarification on OS restriction to Register-AzAutomationDSCNode
- Fixed Start-AzAutomationRunbook cmdlet Null reference exception for -Wait option.

## Az.Compute

- Add UploadSizeInBytes parameter to New-AzDiskConfig
- Add Incremental parameter to New-AzSnapshotConfig
- Add a low priority virtual machine feature:
  - MaxPrice, EvictionPolicy and Priority parameters are added to New-AzVMConfig.
  - MaxPrice parameter is added to New-AzVmssConfig, Update-AzVM and Update-AzVmss cmdlets.
- Fix VM reference issue for Get-AzAvailabilitySet cmdlet when it lists all availability sets in the subscription.
- Fix the null exception for Get-AzRemoteDesktopFile.
- Fix VHD Seek method for end-relative position.
- Fix UltraSSD issue for New-AzVM and Update-AzVM.

## Az.DataFactory

- Adding 3 new commands for ADF V2 - Add-AzDataFactoryV2TriggerSubscription, Remove-AzDataFactoryV2TriggerSubscription, and Get-AzDataFactoryV2TriggerSubscriptionStatus

- Updated ADF .Net SDK version to 4.1.3

## Az.HDInsight

- Call out breaking changes

## Az.IotHub

- Add support to invoke failover for an IoT Hub to the geo-paired disaster recovery region.
- Add support to manage message enrichment for an IoT Hub. New cmdlets are:
  - Add-AzIoTHubMessageEnrichment
  - Get-AzIoTHubMessageEnrichment
  - Remove-AzIoTHubMessageEnrichment
  - Set-AzIoTHubMessageEnrichment

## Az.Monitor

- Pointing to the most recent Monitor SDK, i.e. 0.24.1-preview
  - Adds non-breaking changes to the Metrics cmdlets, i.e. the Unit enumeration supports several new values. These are read-only cmdlets, so there would be no change in the input of the cmdlets.
  - The api-version of the **ActionGroups** requests is now **2019-06-01**, before it was **2018-03-01**. The scenario tests have been updated to accommodate for this change.
  - The constructors for the classes **EmailReceiver** and **WebhookReceiver** added one new mandatory argument, i.e. a Boolean value called **useCommonAlertSchema**. Currently, the value is fixed to **false** to hide this breaking change from the cmdlets. **NOTE:** this is a temporary change that must be validated by the Alerts team.
  - The order of the arguments for the constructor of the class **Source** (related to the **ScheduledQueryRuleSource** class) changed from the previous SDK. This change required two unit tests to be fixed: they compiled, but failed to pass the tests.
  - The order of the arguments for the constructor of the class **AlertingAction** (related to the **ScheduledQueryRuleSource** class) changed from the previous SDK. This change required two unit tests to be fixed: they compiled, but failed to pass the tests.
- Support Dynamic Threshold criteria for metric alert V2
  - New-AzMetricAlertRuleV2Criteria: now creates dynamic threshold criteria also
  - Add-AzMetricAlertRuleV2: now accept dynamic threshold criteria also
- Improvements in Scheduled Query Rule cmdlets (SQR)
- Cmdlets will accept 'Location' parameter in both formats, either the location (e.g. eastus) or the location display name (e.g. East US)
- Illustrated 'Enabled' parameter in help files properly
- Added examples for 'ActionGroup' optional parameter
- Overall improved help files
- Fix bug in determining scope type for 'Set-AzActionRule'

## Az.Network

- Fix incorrect example in 'New-AzApplicationGateway' reference documentation
- Add note in 'Get-AzNetworkWatcherPacketCapture' reference documentation about retrieving all properties for a packet capture
- Fixed example in 'Test-AzNetworkWatcherIPFlow' reference documentation to correctly enumerate NICs
- Improved cloud exception parsing to display additional details if they are present
- Improved cloud exception parsing to handle additional type of SDK exception
- Fixed incorrect mapping of Security Rule models
- Added properties to network interface for private ip feature
  - Added property 'PrivateEndpoint' as type of PSResourceId to PSNetworkInterface
  - Added property 'PrivateLinkConnectionProperties' as type of PSIpConfigurationConnectivityInformation to PSNetworkInterfaceIPConfiguration
  - Added new model class PSIpConfigurationConnectivityInformation
- Added new ApplicationRuleProtocolType 'mssql' for Azure Firewall resource
- MultiLink support in Virtual WAN
  - New cmdlets
    - New-AzVpnSiteLink
    - New-AzVpnSiteLinkConnection
  - Updated cmdlet:
    - New-VpnSite
    - Update-VpnSite
    - New-VpnConnection
    - Update-VpnConnection
- Fixed documents for some PowerShell examples to use Az cmdlets instead of AzureRM cmdlets

## Az.RecoveryServices

- Update AzureVMpolicy Object with ProtectedItemCount Attribute
- Added Tests for VM policy and Original Storage Account Restore

## Az.Resources

- Fix bug where New-AzRoleAssignment could not be called without parameter Scope.

## Az.ServiceFabric

- Fixed typo in example for 'Update-AzServiceFabricReliability' reference documentation
- Adding new cmdlets to manage application and services:
  - New-AzServiceFabricApplication
  - New-AzServiceFabricApplicationType
  - New-AzServiceFabricApplicationTypeVersion
  - New-AzServiceFabricService
  - Update-AzServiceFabricApplication
  - Get-AzServiceFabricApplication

- Get-AzServiceFabricApplicationType
- Get-AzServiceFabricApplicationTypeVersion
- Get-AzServiceFabricService
- Remove-AzServiceFabricApplication
- Remove-AzServiceFabricApplicationType
- Remove-AzServiceFabricApplicationTypeVersion
- Remove-AzServiceFabricService
- Upgraded Service Fabric SDK to version 1.2.0 which uses service fabric resource provider api-version 2019-03-01.

## Az.SignalR

- Add Update, Restart, CheckNameAvailability, GetUsage Cmdlets

## Az.Sql

- Update example in reference documentation for 'Get-AzSqlElasticPool'
- Added vCore example to creating an elastic pool (New-AzSqlElasticPool).
- Remove the validation of EmailAddresses and the check that EmailAdmins is not false in case EmailAddresses is empty in Set-AzSqlServerAdvancedThreatProtectionPolicy and Set-AzSqlDatabaseAdvancedThreatProtectionPolicy
- Enabled removal of server/database auditing settings when multiple diagnostic settings that enable audit category exist.
- Fix email addresses validation in multiple Sql Vulnerability Assessment cmdlets (Update-AzSqlDatabaseVulnerabilityAssessmentSetting, Update-AzSqlServerVulnerabilityAssessmentSetting, Update-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting and Update-AzSqlInstanceVulnerabilityAssessmentSetting).

## Az.Storage

- Updated example in reference documentation for 'Get-AzStorageAccountKey'
- In upload/Downalod Azure File,support perserve the source File SMB properties (File Attributtes, File Creation Time, File Last Write Time) in the destination file
  - Set-AzStorageFileContent
  - Get-AzStorageFileContent
- Fix Upload block blob with properties/metadata fail on container enabled ImmutabilityPolicy.
  - Set-AzStorageBlobContent
- Support manage Azure File shares with Management plane API
  - New-AzRmStorageShare
  - Get-AzRmStorageShare
  - Update-AzRmStorageShare
  - Remove-AzRmStorageShare

## Az.Websites

- Fixing issue where webapp Tags were getting deleted when migrating App to new ASP where webapp Tags were getting deleted when migrating App to new ASP
- Fixing the Publish-AzureWebapp to work across Linux and windows
- Update example in 'Get-AzWebAppPublishingProfile' reference documentation

## 2.6.0 - August 2019

### General

- Fixed miscellaneous typos across numerous modules

### Az.Accounts

- Added support for user-assigned MSI in Azure Functions authentication (#9479)

### Az.Aks

- Fixed issue with output for 'Get-AzAks' ([#9847 ↗](#))

### Az.ApiManagement

- Fixed issue with whitespace in `productId`, `apiId`, `groupId`, `userId` ([#9351 ↗](#))
- **Get-AzApiManagementProduct** - Added support for querying products using API ([#9482 ↗](#))
- **New-AzApiManagementApiRevision** - Fixed issue where ApiRevisionDescription was not set when creating new API revision ([#9752 ↗](#))
- Fixed typo in model `PsApiManagementOAuth2AuthroizationServer` to  
`PsApiManagementOAuth2AuthorizationServer`

### Az.Batch

- Fixed typos in help message and documentation

### Az.Cdn

- Fixed a typo in CDN module conversion helper

### Az.Compute

- Added VmssId to **New-AzVMConfig** cmdlet
- Added `TerminateScheduledEvents` and `TerminateScheduledEventNotBeforeTimeoutInMinutes` parameters to **New-AzVmssConfig** and **Update-AzVmss**
- Added `HyperVGeneration` property to VM image object
- Added Host and HostGroup features
  - New cmdlets:

- `New-AzHostGroup`
  - `New-AzHost`
  - `Get-AzHostGroup`
  - `Get-AzHost`
  - `Remove-AzHostGroup`
  - `Remove-AzHost`
- Added `HostId` parameter to `New-AzVMConfig` and `New-AzVM`
- Updated example in `Invoke-AzVMRunCommand` documentation to use correct parameter name
- Updated `-VolumeType` description in `Set-AzVMDiskEncryptionExtension` and `Set-AzVmssDiskEncryptionExtension` reference documentation

## Az.DataFactory

- Fixed typos in `New-AzDataFactoryEncryptValue` documentation
- Updated ADF .Net SDK version to 4.1.2
- Added parameters to `Set-AzureRmDataFactoryV2IntegrationRuntime` to enable Self-Hosted Integration Runtime as a proxy for SSIS Integration Runtime:
  - `DataProxyIntegrationRuntimeName`
  - `DataProxyStagingLinkedServiceName`
  - `DataProxyStagingPath`
- Updated `PSTriggerRun` to show the triggered pipelines, message and properties, and `PSActivityRun` to show the activity type

## Az.DataLakeStore

- Fixed issue where `Get-DataLakeStoreDeletedItem` would hang on errors and remote exceptions

## Az.EventHub

- Fixed typo `VirtualNteworkRule` in `Set-AzEventHubNetworkRuleSet` ([#9658](#))
- Fixed issue where `Set-AzEventHubNamespace` used PATCH instead of PUT ([#9558](#))
- Added `EnableKafka` parameter to `Set-AzEventHubNamespace` cmdlet
- Fixed issue with creating rules with `Listen` rights ([#9786](#))

## Az.MarketplaceOrdering

- Fixed documentation typos

## Az.Monitor

- Fixed incorrect parameter name in help documentation

## Az.Network

- Updated **New-AzPrivateLinkServiceIpConfig**:
  - Deprecated the parameter `PublicIpAddress` since this is never used in the server side.
  - Added optional parameter `Primary` that indicates if the current IP configuration is the primary one
- Improved handling of request error exception from SDK
- Fixed validation logic for Ipv6 IP Prefix to check for correct IPv6 prefix length
- Added parameter set to get by subnet resource id to **Get-AzVirtualNetworkSubnetConfig**
- Updated description of `Location` parameter for **AzNetworkServiceTag**

## Az.OperationalInsights

- Updated documentation for **New-AzOperationalInsightsLinuxSyslogDataSource**:
  - Added example
  - Updated description for `-Name` parameter
- Added an example for **New-AzOperationalInsightsWindowsEventDataSource**
- Changed the description of the `-Name` parameter for **New-AzOperationalInsightsWindowsEventDataSource**

## Az.RecoveryServices

- Updated documentation for **Get-AzRecoveryServicesBackupJobDetail**

## Az.Resources

- Added support for new API version 2019-05-10 for `Microsoft.Resource`
  - Add support for 'copy.count = 0' for variables, resources and properties
  - Resources with 'condition = false' or 'copy.count = 0' will be deleted in complete mode
- Added an example of assigning policy at the subscription level

## Az.ServiceBus

- Fixed typo `VirtualNetworkRule` parameter in **Set-AzServiceBusNetworkRuleSet** Fix for issue #9658 : Typo
- Fixed issue with creating `Listen`-only rules ([#9786](#))
- Added new command **Test-AzServiceBusNameAvailability** to check the name availability for queue and topic

## Az.ServiceFabric

- Fixed NullReferenceException when a resource group has a VMSS not related to the service fabric cluster ([#8681](#))
- Fixed bug where cmdlets failed if virtualNetwork was in a different resource group than the cluster ([#8407](#))

- Deprecated `Add-AzServiceFabricApplicationCertificate` cmdlet

## Az.Sql

- Updated documentation for old Auditing cmdlets

## Az.Storage

- Updated help for `Close-AzStorageFileHandle` and `Get-AzStorageFileHandle`, added more scenarios to cmdlet examples and updated parameter descriptions
- Added support for `StandardBlobTier` in blob uploads and copies
- Added support for `Rehydrate` priority in blob copy

## Az.Websites

- Added clarification around `-AppSettings` parameter for `Set-AzWebApp` and `Set-AzWebAppSlot`

# 2.5.0 - July 2019

## Az.Accounts

- Update common code to use latest version of ClientRuntime

## Az.ApplicationInsights

- Fix example typo in 'Remove-AzApplicationInsightsApiKey' documentation

## Az.Automation

- Fix typo in resource string

## Az.CognitiveServices

- Added NetworkRuleSet support.

## Az.Compute

- Add missing properties (ComputerName, OsName, OsVersion and HyperVGeneration) of VM instance view object.

## Az.ContainerRegistry

- Fix typo in `Remove-AzContainerRegistryReplication` for `Replication` parameter

- More information here <https://github.com/Azure/azure-powershell/issues/9633>

## Az.DataFactory

- Updated ADF .Net SDK version to 4.1.0
- Fix typo in documentation for 'Get-AzDataFactoryV2PipelineRun'

## Az.EventHub

- Added new cmdlet added for generating SAS token : New-AzEventHubAuthorizationRuleSASToken
- added verification and error message for authorizationrules rights if only 'Manage' is assigned

## Az.KeyVault

- Added support to specify the KeySize for Certificate Policies

## Az.LogicApp

- Fix for Get-AzIntegrationAccountMap to list all map types
  - Added new MapType parameter for filtering

## Az.ManagedServices

- Added support for api version 2019-06-01 (GA)

## Az.Network

- Add support for private endpoint and private link service
  - New cmdlets
    - Set-AzPrivateEndpoint
    - Set-AzPrivateLinkService
    - Approve-AzPrivateEndpointConnection
    - Deny-AzPrivateEndpointConnection
    - Get-AzPrivateEndpointConnection
    - Remove-AzPrivateEndpointConnection
    - Test-AzPrivateLinkServiceVisibility
    - Get-AzAutoApprovedPrivateLinkService
- Updated below commands for feature:  
PrivateEndpointNetworkPolicies/PrivateLinkServiceNetworkPolicies flag on Subnet in Virtualnetwork
  - Updated New-AzVirtualNetworkSubnetConfig/Set-AzVirtualNetworkSubnetConfig/Add-AzVirtualNetworkSubnetConfig
    - Added optional parameter -PrivateEndpointNetworkPoliciesFlag to indicate that enable or disable apply network policies on private endpoint in this subnet.

- Added optional parameter -PrivateLinkServiceNetworkPoliciesFlag to indicate that enable or disable apply network policies on private link service in this subnet.
- AzPrivateLinkService's cmdlet parameter 'ServiceName' was renamed to 'Name' with an alias 'ServiceName' for backward compatibility
- Enable ICMP protocol for network security rule configurations
  - Updated cmdlets
    - Add-AzNetworkSecurityRuleConfig
    - New-AzNetworkSecurityRuleConfig
    - Set-AzNetworkSecurityRuleConfig
- Add ConnectionProtocolType (Ikev1/Ikev2) as a configurable parameter for New-AzVirtualNetworkGatewayConnection
- Add PrivateIpAddressVersion in LoadBalancerFrontendIpConfiguration
  - Updated cmdlet:
    - New-AzLoadBalancerFrontendIpConfig
    - Add-AzLoadBalancerFrontendIpConfig
    - Set-AzLoadBalancerFrontendIpConfig
- Application Gateway New-AzApplicationGatewayProbeConfig command update for supporting custom port in Probe
  - Updated New-AzApplicationGatewayProbeConfig: Added optional parameter Port which is used for probing backend server. This parameter is applicable for Standard\_V2 and WAF\_V2 SKU.

## Az.OperationalInsights

- Updated default version for saved searches to be 1.
- Fixed custom log null regex handling

## Az.RecoveryServices

- Update 'Get-AzRecoveryServicesBackupJob.md'
- Update 'Get-AzRecoveryServicesBackupContainer.md'
- Update 'Get-AzRecoveryServicesVault.md'
- Update 'Wait-AzRecoveryServicesBackupJob.md'
- Update 'Set-AzRecoveryServicesVaultContext.md'
- Update 'Get-AzRecoveryServicesBackupItem.md'
- Update 'Get-AzRecoveryServicesBackupRecoveryPoint.md'
- Update 'Restore-AzRecoveryServicesBackupItem.md'
- Updated service call for Unregistering container for Azure File Share
- Update 'Set-AzRecoveryServicesAsrAlertSetting.md'

## Az.Resources

- Remove missing cmdlet referenced in 'New-AzResourceGroupDeployment' documentation
- Updated policy cmdlets to use new api version 2019-01-01

## Az.ServiceBus

- Added new cmdlet added for generating SAS token : New-AzServiceBusAuthorizationRuleSASToken
- added verification and error message for authorizationrules rights if only 'Manage' is assigned

## Az.Sql

- Fix missing examples for Set-AzSqlDatabaseSecondary cmdlet
- Fix set Vulnerability Assessment recurring scans without providing any email addresses
- Fix a small typo in a warning message.

## Az.Storage

- Update example in reference documentation for 'Get-AzStorageAccount' to use correct parameter name

## Az.StorageSync

- Adding Invoke-AzStorageSyncChangeDetection cmdlet.
- Fix Issue 9551 for honoring TierFilesOlderThanDays

## Az.Websites

- Fixing a bug where some SiteConfig properties were not returned by Get-AzWebApp and Set-AzWebApp
- Adds a new Location parameter to Get-AzDeletedWebApp and Restore-AzDeletedWebApp
- Fixes a bug with cloning web app slots using New-AzWebApp -IncludeSourceWebAppSlots

# 2.4.0 - July 2019

## Az.Accounts

- Add support for profile cmdlets
- Add support for environments and data planes in generated cmdlets
- Fix bug where incorrect endpoint was being used in some cases for data plane cmdlets in Windows PowerShell

## Az.Advisor

- GA release of Az.Advisor
- This module is now included as a part of the roll-up Az module

## Az.ApiManagement

- Fix for issue [https://github.com/Azure/azure-powershell/issues/8671 ↗](https://github.com/Azure/azure-powershell/issues/8671)
  - **Get-AzApiManagementSubscription**
    - Added support for querying subscriptions by User and Product
    - Added support for querying using Scope '/', '/apis', '/apis/echo-api'
- Fix for issue [https://github.com/Azure/azure-powershell/issues/9307 ↗](https://github.com/Azure/azure-powershell/issues/9307) and [https://github.com/Azure/azure-powershell/issues/8432 ↗](https://github.com/Azure/azure-powershell/issues/8432)
  - **Import-AzApiManagementApi**
    - Added support for specifying 'ApiVersion' and 'ApiVersionSetId' when importing APIs

## Az.Automation

- Fixed Set-AzAutomationConnectionFieldValue cmdlet bug to handle string value.

## Az.Compute

- Add HyperVGeneration parameter to New-AzImageConfig

## Az.DataFactory

- Updating the output of get activity runs, get pipeline runs, and get trigger runs ADF cmdlets to support Select-Object pipe.

## Az.EventGrid

- Fix typo in 'New-AzEventGridSubscription' documentation

## Az.IotHub

- Add support to regenerate authorization policy keys.

## Az.Network

- Added 'RoutingPreference' to public ip tags
- Improve examples for 'Get-AzNetworkServiceTag' reference documentation

## Az.PolicyInsights

- Fix null reference issue in Get-AzPolicyState
  - More information here: [https://github.com/Azure/azure-powershell/issues/9446 ↗](https://github.com/Azure/azure-powershell/issues/9446)

## Az.OperationalInsights

- Fixed CustomLog datasource model returned in Get-AzOperationalInsightsDataSource

## Az.RecoveryServices

- Fix for get-policy command for IaaSVMs

## Az.Resources

- Fix help text for `Get-AzPolicyState -Top` parameter
- Add client-side paging support for `Get-AzPolicyAlias`
- Add new parameters for `Set-AzPolicyAssignment`, `-PolicyParameters` and `-PolicyParametersObject`
- Handful of doc and example updates for Policy cmdlets

## Az.ServiceBus

- Fix for issue #4938 - New-AzServiceBusQueue returns BadRequest when setting `MaxSizeInMegabytes`

## Az.Sql

- Add Instance Failover Group cmdlets from preview release to public release
- Support Azure SQL Server\Database Auditing with new cmdlets.
  - `Set-AzSqlServerAudit`
  - `Get-AzSqlServerAudit`
  - `Remove-AzSqlServerAudit`
  - `Set-AzSqlDatabaseAudit`
  - `Get-AzSqlDatabaseAudit`
  - `Remove-AzSqlDatabaseAudit`
- Remove email constraints from Vulnerability Assessment settings

## Az.Storage

- Change 2 parameters '`-IndexDocument`' and '`-ErrorDocument404Path`' from required to optional in cmdlet:
  - `Enable-AzStorageStaticWebsite`
- Update help of `Get-AzStorageBlobContent` by add an example
- Show more error information when cmdlet failed with `StorageException`
- Support create or update Storage account with Azure Files AAD DS Authentication
  - `New-AzStorageAccount`
  - `Set-AzStorageAccount`
- Support list or close file handles of a file share, file directory or a file
  - `Get-AzStorageFileHandle`
  - `Close-AzStorageFileHandle`

## Az.StorageSync

- This module is now included as a part of the roll-up `Az` module

## 2.3.2 - June 2019

### Az.Accounts

- Fix bug with incorrect URL being used in some cases for Functions calls
  - More information here: [https://github.com/Azure/azure-powershell/issues/8983 ↗](https://github.com/Azure/azure-powershell/issues/8983)
- Fix Issue with aliases from AzureRM to Az cmdlets
  - Set-AzureRmVMBootDiagnostics -> Set-AzVMBootDiagnostic
  - Export-AzureRMLogAnalyticThrottledRequests -> Export-AzLogAnalyticThrottledRequest

### Az.Compute

- New-AzVm and New-AzVmss simple parameter sets now accept the 'ProximityPlacementGroup' parameter.
- Fix typo in 'New-AzVM' reference documentation

### Az.Dns

- Fixed a typo in 'Set-AzDnsZone' help examples.

### Az.EventGrid

- Updated to use the 2019-06-01 API version.
- New cmdlets:
  - New-AzEventGridDomain
    - Creates a new Azure Event Grid Domain.
  - Get-AzEventGridDomain
    - Gets the details of an Event Grid Domain, or gets a list of all Event Grid Domains in the current Azure subscription.
  - Remove-AzEventGridDomain
    - Removes an Azure Event Grid Domain.
  - New-AzEventGridDomainKey
    - Regenerates the shared access key for an Azure Event Grid Domain.
  - Get-AzEventGridDomainKey
    - Gets the shared access keys used to publish events to an Event Grid Domain.
  - New-AzEventGridDomainTopic:
    - Creates a new Azure Event Grid Domain Topic.
  - Get-AzEventGridDomainTopic
    - Gets the details of an Event Grid Domain Topic, or gets a list of all Event Grid Domain Topics under specific Event Grid Domain in the current Azure
  - Remove-AzEventGridDomainTopic:
    - Removes an existing Azure Event Grid Domain Topic.
- Updated cmdlets:
  - New-AzEventGridSubscription/Update-AzEventGridSubscription:

- Add new mandatory parameters to support piping for the new Event Grid Domain and Event Grid Domain Topic to allow creating new event subscription under these resources.
- Add new mandatory parameters for specifying the new Event Grid Domain name and/or Event Grid Domain Topic name to allow creating new event subscription under these resources.
- Add new Parameter sets for domains and domain topics to allow reusing existing parameters (e.g., EndPointType, SubjectBeginsWith, etc).
- Add new optional parameters for specifying:
  - Event subscription expiration date,
  - Advanced filtering parameters.
- Add new enum for servicebusqueue as destination.
- Disallow usage of 'All' in -IncludedEventType option and replace it with
- Get-AzEventGridTopic, Get-AzEventGridDomain, Get-AzEventGridDomainTopic, Get-AzEventGridSubscription:
- Add new optional parameters (Top, ODataQuery and NextLink) to support results pagination and filtering.
- Remove-AzEventGridSubscription
  - Add new mandatory parameters to support piping for Event Grid Domain and Event Grid Domain Topic to allow removing existing event subscription under these resources.
  - Add new mandatory parameters for specifying the Event Grid Domain name and/or Event Grid Domain Topic name to allow removing existing event subscription under these resources.

## Az.FrontDoor

- New-AzFrontDoorWafMatchConditionObject
  - Add transforms support and new operator auto-complete value (RegEx)
- New-AzFrontDoorWafManagedRuleObject
  - Add new auto-complete values

## Az.Network

- Add support for Virtual Network Gateway Resource
  - New cmdlets
    - Get-AzVirtualNetworkGatewayVpnClientConnectionHealth
- Add AvailablePrivateEndpointType
  - New cmdlets
    - Get-AzAvailablePrivateEndpointType
- Add PrivatePrivateLinkService
  - New cmdlets
    - Get-AzPrivateLinkService
    - New-AzPrivateLinkService
    - Remove-AzPrivateLinkService
    - New-AzPrivateLinkServiceIpConfig
    - Set-AzPrivateEndpointConnection

- Add PrivateEndpoint
  - New cmdlets
    - Get-AzPrivateEndpoint
    - New-AzPrivateEndpoint
    - Remove-AzPrivateEndpoint
    - New-AzPrivateLinkServiceConnection
- Updated below commands for feature: UseLocalAzureIpAddress flag on VpnConnection
  - Updated New-AzVpnConnection: Added optional parameter -UseLocalAzureIpAddress to indicate that local azure ip address should be used as source address while initiating connection.
  - Updated Set-AzVpnConnection: Added optional parameter -UseLocalAzureIpAddress to indicate that local azure ip address should be used as source address while initiating connection.
- Added readonly field PeeredConnections in ExpressRoute peering.
- Added readonly field GlobalReachEnabled in ExpressRoute.
- Added breaking change attribute to call out deprecation of AllowGlobalReach field in ExpressRouteCircuit model
- Fixed Issue 8756 Error using TargetListenerID with AzApplicationGatewayRedirectConfiguration cmdlets
- Fixed bug in New-AzApplicationGatewayPathRuleConfig that prevented the rewrite ruleset from being set.
- Fixed displaying of VirtualNetworkTaps in NetworkInterfaceIpConfiguration
- Fixed Cortex Get cmdlets for list all part
- Fixed VirtualHub reference creation for ExpressRouteGateways, VpnGateway
- Added support for Availability Zones in AzureFirewall and NatGateway
- Added cmdlet Get-AzNetworkServiceTag
- Add support for multiple public IP addresses for Azure Firewall
  - Updated New-AzFirewall cmdlet:
    - Added parameter -PublicIpAddress which accepts one or more Public IP Address objects
    - Added parameter -VirtualNetwork which accepts a Virtual Network object
    - Added methods AddPublicIpAddress and RemovePublicIpAddress on firewall object - these accept a Public IP Address object as input
    - Deprecated parameters -PublicIpName and -VirtualNetworkName
- Updated below commands for feature: Set VpnClient AAD authentication options to Virtual network gateway resource.
  - Updated New-AzVirtualNetworkGateway: Added optional parameters AadTenantUri,AadAudienceId,AadIssuerUri to set VpnClient AAD authentication options on Gateway.
  - Updated Set-AzVirtualNetworkGateway: Added optional parameter AadTenantUri,AadAudienceId,AadIssuerUri to set VpnClient AAD authentication options on Gateway.
  - Updated Set-AzVirtualNetworkGateway: Added optional switch parameter RemoveAadAuthentication to remove VpnClient AAD authentication options from Gateway.

## Az.OperationalInsights

- Enable pergb2018 pricing tier in 'New-AzOperationalInsightsWorkspace' command

## Az.Resources

- Support for additional Template Export options
  - Add '-SkipResourceNameParameterization' parameter to Export-AzResourceGroup
  - Add '-SkipAllParameterization' parameter to Export-AzResourceGroup
  - Add '-Resource' parameter to Export-AzResourceGroup for exported resource filtering

## Az.ServiceFabric

- Fix add certificate ByExistingKeyVault getting the wrong thumbprint in some cases

## Az.Sql

- Fix Advanced Threat Protection storage endpoint suffix
- Fix Advanced Data Security enable overrides Advanced Threat Protection policy
- New Cmdlets for Management.Sql to allow customers to add TDE keys and set TDE protector for managed instances
  - Add-AzSqlInstanceKeyVaultKey
  - Get-AzSqlInstanceKeyVaultKey
  - Remove-AzSqlInstanceKeyVaultKey
  - Get-AzSqlInstanceTransparentDataEncryptionProtector
  - Set-AzSqlInstanceTransparentDataEncryptionProtector

## Az.Storage

- Support Kind FileStorage and SkuName Premium\_ZRS when create Storage account
  - New-AzStorageAccount
- Clarified description of blob immutability cmdlet
  - Remove-AzRmStorageContainerImmutabilityPolicy

## Az.Websites

- Optimizes Get-AzWebAppCertificate to filter by resource group on the server instead of the client
- Adds -UseDisasterRecovery switch parameter to Get-AzWebAppSnapshot

# 2.2.0 - June 2019

## Az.Cdn

- Updated cmdlets to support rulesEngine feature based on API version 2019-04-15.

## Az.Compute

- Added `NoWait` parameter that starts the operation and returns immediately, before the operation is completed.
  - Updated cmdlets: Export-AzLogAnalyticRequestRateByInterval Export-AzLogAnalyticThrottledRequest Remove-AzVM Remove-AzVMAccessExtension Remove-AzVMAEMExtension Remove-AzVMChefExtension Remove-AzVMCustomScriptExtension Remove-AzVMDiagnosticsExtension Remove-AzVMDiskEncryptionExtension Remove-AzVMDscExtension Remove-AzVMSqlServerExtension Restart-AzVM Set-AzVM Set-AzVMAccessExtension Set-AzVMADDomainExtension Set-AzVMAEMExtension Set-AzVMBinfoExtension Set-AzVMChefExtension Set-AzVMCustomScriptExtension Set-AzVMDiagnosticsExtension Set-AzVMDscExtension Set-AzVMExtension Start-AzVM Stop-AzVM Update-AzVM

## Az.EventHub

- Fix for #9231 - Get-AzEventHubNamespace does not return tags
- Fix for #9230 - Get-AzEventHubNamespace returns ResourceGroup instead of ResourceGroupName

## Az.Network

- Update ResourceId and InputObject for Nat Gateway
  - Add alias for ResourceId and InputObject

## Az.PolicyInsights

- Fix Null reference issue in Get-AzPolicyEvent

## Az.RecoveryServices

- IaaSVM policy minimum retention in days changed to 7 from 1

## Az.ServiceBus

- Fix for issue #9182 - Get-AzServiceBusNamespace returns ResourceGroup instead of ResourceGroupName

## Az.ServiceFabric

- Fix typo in error message for 'Update-AzServiceFabricReliability'
- Fix missing character in Service Fabric cmdlines

## Az.Sql

- Add DnsZonePartner Parameter for New-AzureSqlInstance cmdlet to support AutoDr for Managed Instance.
- Deprecating Get-AzSqlDatabaseSecureConnectionPolicy cmdlet
- Rename Threat Detection cmdlets to Advanced Threat Protection
- New-AzSqlInstance -StorageSizeInGB and -LicenseType parameters are now optional.

## Az.Websites

- fixes the issue where using Set-AzWebApp and Set-AzWebAppSlot with -WebApp property was removing the tags

## 2.1.0 - May 2019

## Az.ApiManagement

- Created new Cmdlets for managing diagnostics at the global and API Scope
  - **Get-AzApiManagementDiagnostic** - Get the diagnostics configured a global or api Scope
  - **New-AzApiManagementDiagnostic** - Create new diagnostics at the global scope or api Scope
  - **New-AzApiManagementHttpMessageDiagnostic** - Create diagnostic setting for which Headers to log and the size of Body Bytes
  - **New-AzApiManagementPipelineDiagnosticSetting** - Create Diagnostic settings for incoming/outgoing HTTP messages to the Gateway.
  - **New-AzApiManagementSamplingSetting** - Create Sampling Setting for the requests/response for a diagnostic
  - **Remove-AzApiManagementDiagnostic** - Remove a diagnostic entity at global or api scope
  - **Set-AzApiManagementDiagnostic** - Update a diagnostic Entity at global or api scope
- Created new Cmdlets for managing Cache in ApiManagement service
  - **Get-AzApiManagementCache** - Get the details of the Cache specified by identifier or all caches
  - **New-AzApiManagementCache** - Create a new 'default' Cache or Cache in a particular azure 'region'
  - **Remove-AzApiManagementCache** - Remove a cache
  - **Update-AzApiManagementCache** - Update a cache
- Created new Cmdlets for managing API Schema
  - **New-AzApiManagementSchema** - Create a new Schema for an API
  - **Get-AzApiManagementSchema** - Get the schemas configured in the API
  - **Remove-AzApiManagementSchema** - Remove the schema configured in the API
  - **Set-AzApiManagementSchema** - Update the schema configured in the API
- Created new Cmdlet for generating a User Token.
  - **New-AzApiManagementUserToken** - Generate a new User Token valid for 8 hours by default.Token for the 'GIT' user can be generated using this cmdlet./
- Created a new cmdlet to retrieving the Network Status
  - **Get-AzApiManagementNetworkStatus** - Get the Network status connectivity of resources on which API Management service depends on. This is useful when deploying

ApiManagement service into a Virtual Network and validating whether any of the dependencies are broken.

- Updated cmdlet **New-AzApiManagement** to manage ApiManagement service
  - Added support for the new 'Consumption' SKU
  - Added support to turn the 'EnableClientCertificate' flag on for 'Consumption' SKU
  - The new cmdlet **New-AzApiManagementSslSetting** allows configuring 'TLS/SSL' setting on the 'Backend' and 'Frontend'. This can also be used to configure 'Ciphers' like '3DES' and 'ServerProtocols' like 'Http2' on the 'Frontend' of an ApiManagement service.
  - Added support for configuring the 'DeveloperPortal' hostname on ApiManagement service.
- Updated cmdlets **Get-AzApiManagementSsoToken** to take 'PsApiManagement' object as input
- Updated the cmdlet to display Error Messages inline
  - ```
PS D:\github\azure-powershell> Set-AzApiManagementPolicy -Context -PolicyFilePath C:\wrongpolicy.xml -ApiId httpbin
```

    - **Set-AzApiManagementPolicy :**
    - **Error Code:** ValidationError
    - **Error Message:** One or more fields contain incorrect values:
    - **Error Details:** [Code=ValidationError, Message=Error in element 'log-to-eventhub' on line 3, column 10: Logger not found, Target=log-to-eventhub]
- Updated cmdlet **Export-AzApiManagementApi** to export APIs in 'OpenApi 3.0' format
- Updated cmdlet **Import-AzApiManagementApi**
  - To import Api from 'OpenApi 3.0' document specification
  - To override the 'PsApiManagementSchema' property specified in any ('Swagger', 'Wadl', 'Wsdl', 'OpenApi') document.
  - To override the 'ServiceUrl' property specified in any document.
- Updated cmdlet **Get-AzApiManagementPolicy** to return policy in Non-Xml escaped 'format' using 'rawxml'
- Updated cmdlet **Set-AzApiManagementPolicy** to accept policy in Non-Xml escaped 'format' using 'rawxml' and Xml escaped using 'xml'
- Updated cmdlet **New-AzApiManagementApi**
  - To configure API with 'OpenId' authorization server.
  - To create an API in an 'ApiVersionSet'
  - To clone an API using 'SourceApild' and 'SourceApiRevision'.
  - Ability to configure 'SubscriptionRequired' at the Api scope.
- Updated cmdlet **Set-AzApiManagementApi**
  - To configure API with 'OpenId' authorization server.
  - To updated an API into an 'ApiVersionSet'
  - Ability to configure 'SubscriptionRequired' at the Api scope.
- Updated cmdlet **New-AzApiManagementRevision**
  - To clone (copy tags, products, operations and policies) an existing revision using 'SourceApiRevision'. The new Revision assumes the 'Apild' of the parent.
  - To provide an 'ApiRevisionDescription'
  - To override the 'ServiceUrl' when cloning an API.
- Updated cmdlet **New-AzApiManagementIdentityProvider**
  - To configure 'AAD' or 'AADB2C' with an 'Authority'
  - To setup 'SignupPolicy', 'SigninPolicy', 'ProfileEditingPolicy' and 'PasswordResetPolicy'

- Updated cmdlet **New-AzApiManagementSubscription**
  - To account for the new SubscriptionModel using 'Scope' and 'UserId'
  - To account for the old subscription model using 'ProductId' and 'UserId'
  - Add support to enable 'AllowTracing' at the subscription level.
- Updated cmdlet **Set-AzApiManagementSubscription**
  - To account for the new SubscriptionModel using 'Scope' and 'UserId'
  - To account for the old subscription model using 'ProductId' and 'UserId'
  - Add support to enable 'AllowTracing' at the subscription level.
- Updated following cmdlets to accept 'ResourceId' as input
  - 'New-AzApiManagementContext'
    - `New-AzApiManagementContext -ResourceId`  
`/subscriptions/subid/resourceGroups/rgName/providers/Microsoft.ApiManagement/service`  
`/contoso`
  - 'Get-AzApiManagementApiRelease'
    - `Get-AzApiManagementApiRelease -ResourceId`  
`/subscriptions/subid/resourceGroups/rgName/providers/Microsoft.ApiManagement/service`  
`/contoso/apis/echo-api/releases/releaseId`
  - 'Get-AzApiManagementApiVersionSet'
    - `Get-AzApiManagementApiVersionSet -ResourceId`  
`/subscriptions/subid/resourceGroups/rgName/providers/Microsoft.ApiManagement/service`  
`/constoso/apiversionsets/pathversionset`
  - 'Get-AzApiManagementAuthorizationServer'
  - 'Get-AzApiManagementBackend'
    - `Get-AzApiManagementBackend -ResourceId`  
`/subscriptions/subid/resourceGroups/rgName/providers/Microsoft.ApiManagement/service`  
`/contoso/backends/servicefabric`
  - 'Get-AzApiManagementCertificate'
  - 'Remove-AzApiManagementApiVersionSet'
  - 'Remove-AzApiManagementSubscription'

## Az.Automation

- Updated Get-AzAutomationJobOutputRecord to handle JSON and Text record values.
  - Fix for issue <https://github.com/Azure/azure-powershell/issues/7977>
  - Fix for issue <https://github.com/Azure/azure-powershell/issues/8600>
- Changed behavior for Start-AzAutomationDscCompilationJob to just start the job instead of waiting for its completion.
  - Fix for issue <https://github.com/Azure/azure-powershell/issues/8347>
- Fix for Get-AzAutomationDscNode when using -Name returns all node. Now it returns matching node only.

## Az.Compute

- Add ProtectFromScaleIn and ProtectFromScaleSetAction parameters to Update-AzVmssVM cmdlet.
- New-AzVM wimble parameter set now uses by default an available location if 'East US' is not supported

## Az.DataLakeStore

- Update the ADLS sdk to use httpclient, integrate dataplane testing with azure framework

## Az.Monitor

- Fixed incorrect parameter names in help examples

## Az.Network

- Add DisableBgpRoutePropagation flag to Effective Route Table output
  - Updated cmdlet:
    - Get-AzEffectiveRouteTable
- Fix double dash in New-AzApplicationGatewayTrustedRootCertificate documentation

## Az.Resources

- Add new cmdlet Get-AzDenyAssignment for retrieving deny assignments

## Az.Sql

- Rename Advanced Threat Protection cmdlets to Advanced Data Security and enable Vulnerability Assessment by default

# 2.0.0 - May 2019

## Az.Accounts

- Update Authentication Library to fix ADFS issues with username/password auth

## Az.CognitiveServices

- Only display Bing disclaimer for Bing Search Services.
- Improve error when create account failed.

## Az.Compute

- Proximity placement group feature.

- The following new cmdlets are added: New-AzProximityPlacementGroup Get-AzProximityPlacementGroup Remove-AzProximityPlacementGroup
- The new parameter, ProximityPlacementGroupId, is added to the following cmdlets: New-AzAvailabilitySet New-AzVMConfig New-AzVmssConfig
- StorageAccountType parameter is added to New-AzGalleryImageVersion.
- TargetRegion of New-AzGalleryImageVersion can contain StorageAccountType.
- SkipShutdown switch parameter is added to Stop-AzVM and Stop-AzVmss
- Breaking changes
  - Set-AzVMBootDiagnostics is changed to Set-AzVMBootDiagnostic.
  - Export-AzLogAnalyticThrottledRequests is changed to Export-AzLogAnalyticThrottledRequests.

## Az.DeploymentManager

- First Generally Available release of Azure Deployment Manager cmdlets

## Az.Dns

- Automatic DNS NameServer Delegation
  - Create DNS zone cmdlet accepts parent zone name as additional optional parameter.
  - Adds NS records in the parent zone for newly created child zone.

## Az.FrontDoor

- First Generally Available Release of Azure FrontDoor cmdlets
- Rename WAF cmdlets to include 'Waf'
  - `Get-AzFrontDoorFireWallPolicy` --> `Get-AzFrontDoorWafPolicy`
  - `New-AzFrontDoorCustomRuleObject` --> `New-AzFrontDoorWafCustomRuleObject`
  - `New-AzFrontDoorFireWallPolicy` --> `New-AzFrontDoorWafPolicy`
  - `New-AzFrontDoorManagedRuleObject` --> `New-AzFrontDoorWafManagedRuleObject`
  - `New-AzFrontDoorManagedRuleOverrideObject` --> `New-AzFrontDoorWafManagedRuleOverrideObject`
  - `New-AzFrontDoorMatchConditionObject` --> `New-AzFrontDoorWafMatchConditionObject`
  - `New-AzFrontDoorRuleGroupOverrideObject` --> `New-AzFrontDoorWafRuleGroupOverrideObject`
  - `Remove-AzFrontDoorFireWallPolicy` --> `Remove-AzFrontDoorWafPolicy`
  - `Update-AzFrontDoorFireWallPolicy` --> `Update-AzFrontDoorWafPolicy`

## Az.HDInsight

- Removed two cmdlets:
  - `Grant-AzHDInsightHttpServicesAccess`
  - `Revoke-AzHDInsightHttpServicesAccess`
- Added a new cmdlet `Set-AzHDInsightGatewayCredential` to replace `Grant-AzHDInsightHttpServicesAccess`

- Update cmdlet Get-AzHDInsightJobOutput to distinguish reader role and hdinsight operator role:
  - Users with reader role need to specify 'DefaultStorageAccountKey' parameter explicitly, otherwise error occurs.
  - Users with hdinsight operator role will not be affected.

## Az.Monitor

- New cmdlets for SQR API (Scheduled Query Rule)
  - New-AzScheduledQueryRuleAlertingAction
  - New-AzScheduledQueryRuleAznsActionGroup
  - New-AzScheduledQueryRuleLogMetricTrigger
  - New-AzScheduledQueryRuleSchedule
  - New-AzScheduledQueryRuleSource
  - New-AzScheduledQueryRuleTriggerCondition
  - New-AzScheduledQueryRule
  - Get-AzScheduledQueryRule
  - Set-AzScheduledQueryRule
  - Update-AzScheduledQueryRule
  - Remove-AzScheduledQueryRule
  - [More](#) information about SQR API
  - Updated Az.Monitor.md to include cmdlets for GenV2(non classic) metric-based alert rule

## Az.Network

- Add support for Nat Gateway Resource
  - New cmdlets
    - New-AzNatGateway
    - Get-AzNatGateway
    - Set-AzNatGateway
    - Remove-AzNatGateway
  - Updated cmdlets - New-AzureVirtualNetworkSubnetConfigCommand - Add-AzureVirtualNetworkSubnetConfigCommand
- Updated below commands for feature: Custom routes set/remove on Brooklyn Gateway.
  - Updated New-AzVirtualNetworkGateway: Added optional parameter -CustomRoute to set the address prefixes as custom routes to set on Gateway.
  - Updated Set-AzVirtualNetworkGateway: Added optional parameter -CustomRoute to set the address prefixes as custom routes to set on Gateway.

## Az.PolicyInsights

- Support for querying policy evaluation details.
  - Add '-Expand' parameter to Get-AzPolicyState. Support '-Expand PolicyEvaluationDetails'.

## Az.RecoveryServices

- Support for Cross subscription Azure to Azure site recovery.
- Marking upcoming breaking changes for Azure Site Recovery.
- Fix for Azure Site Recovery recovery plan end action plan.
- Fix for Azure Site Recovery Update network mapping for Azure to Azure.
- Fix for Azure Site Recovery update protection direction for Azure to Azure for managed disk.
- Other minor fixes.

## Az.Relay

- Fix typos in customer-facing messages

## Az.ServiceBus

- Added new cmdlets for NetworkRuleSet of Namespace

## Az.Storage

- Upgrade to Storage Client Library 10.0.1 (the namespace of all objects from this SDK change from 'Microsoft.WindowsAzure.Storage.' to 'Microsoft.Azure.Storage.')
- Upgrade to Microsoft.Azure.Management.Storage 11.0.0, to support new API version 2019-04-01.
- The default Storage account Kind in Create Storage account change from 'Storage' to 'StorageV2'
  - New-AzStorageAccount
- Change the Storage account cmdlet output Sku.Name to be aligned with input SkuName by add '-', like 'StandardLRS' change to 'Standard\_LRS'
  - New-AzStorageAccount
  - Get-AzStorageAccount
  - Set-AzStorageAccount

## Az.Websites

- 'Kind' property will now be set for PSSite objects returned by Get-AzWebApp
- Get-AzWebApp\*Metrics and Get-AzAppServicePlanMetrics marked deprecated

# 1.8.0 - April 2019

## Highlights since the last major release

- General availability of Az module
- For more information about the Az module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added wildcard support to Get cmdlets for Az.Compute and Az.Network

- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation
- Az.LogicApp: New cmdlets for Integration Account Assemblies and Batch Configuration

## Az.Accounts

- Update Uninstall-AzureRm to correctly delete modules in Mac

## Az.Batch

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.Cdn

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.CognitiveServices

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.Compute

- Fix issue with AEM installation if resource ids of disks had lowercase resourcegroups in resource id
- Updated cmdlets with plural nouns to singular, and deprecated plural names.
- Fix documentation for wildcards

## Az.DataFactory

- Add SsisProperties if NodeCount not null for managed integration runtime.

## Az.DataLakeStore

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.EventGrid

- Updated the help text for endpoint to indicate that resources should be created before using the create/update event subscription cmdlets.

## Az.EventHub

- Added new cmdlets for NetworkRuleSet of Namespace

## Az.HDInsight

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.IotHub

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.KeyVault

- Updated cmdlets with plural nouns to singular, and deprecated plural names.
- Fix documentation for wildcards

## Az.MachineLearning

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.Media

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.Monitor

- New cmdlets for GenV2(non classic) metric-based alert rule
  - New-AzMetricAlertRuleV2DimensionSelection
  - New-AzMetricAlertRuleV2Criteria
  - Remove-AzMetricAlertRuleV2
  - Get-AzMetricAlertRuleV2
  - Add-AzMetricAlertRuleV2
- Updated Monitor SDK to version 0.22.0-preview

## Az.Network

- Updated cmdlets with plural nouns to singular, and deprecated plural names.
- Fix documentation for wildcards

## Az.NotificationHubs

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.OperationalInsights

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.PowerBIEmbedded

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.RecoveryServices

- Updated cmdlets with plural nouns to singular, and deprecated plural names.
- Updated table format for SQL in azure VM
- Added alternate method to fetch location in AzureFileShare
- Updated ScheduleRunDays in SchedulePolicy object according to timezone

## Az.RedisCache

- Updated cmdlets with plural nouns to singular, and deprecated plural names.

## Az.Resources

- Fix documentation for wildcards

## Az.Sql

- Replace dependency on Monitor SDK with common code
- Updated cmdlets with plural nouns to singular, and deprecated plural names.
- Enhanced process of multiple columns classification.
- Include sku properties (sku name, family, capacity) in response from Get-AzSqlServerServiceObjective and format as table by default.
- Ability to Get-AzSqlServerServiceObjective by location without needing a preexisting server in the region.
- Support for time zone parameter in Managed Instance create.
- Fix documentation for wildcards

## Az.Websites

- fixes the Set-AzWebApp and Set-AzWebAppSlot to not remove the tags on execution
- Updated cmdlets with plural nouns to singular, and deprecated plural names.
- Updated the WebSites SDK.
- Removed the AdminSiteName property from PSAppServicePlan.

# 1.7.0 - April 2019

## Highlights since the last major release

- General availability of `Az` module
- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.

- Added wildcard support to Get cmdlets for Az.Compute and Az.Network
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation
- Az.LogicApp: New cmdlets for Integration Account Assemblies and Batch Configuration

## Az.Accounts

- Updated Add-AzEnvironment and Set-AzEnvironment to accept parameter AzureAnalysisServicesEndpointResourceId

## Az.AnalysisServices

- Using ServiceClient in dataplane cmdlets and removing the original authentication logic
- Making Add-AzureASAccount a wrapper of Connect-AzAccount to avoid a breaking change

## Az.Automation

- Fixed New-AzAutomationSoftwareUpdateConfiguration cmdlet bug for Inclusions. Now parameter IncludedKbNumber and IncludedPackageNameMask should work.
- Bug fix for azure automation update management dynamic group

## Az.Compute

- Add HyperVGeneration parameter to New-AzDiskConfig and New-AzSnapshotConfig
- Allow VM creation with galley image from other tenants.

## Az.ContainerInstance

- Fixed issue in the -Command parameter of New-AzContainerGroup which added a trailing empty argument

## Az.DataFactory

- Updated ADF .Net SDK version to 3.0.2
- Updated Set-AzDataFactoryV2 cmdlet with extra parameters for RepoConfiguration related settings.

## Az.Resources

- Improve handling of providers for 'Get-AzResource' when providing '-ResourceId' or '-ResourceGroupName', '-Name' and '-ResourceType' parameters
- Improve error handling for 'Test-AzDeployment' and 'Test-AzResourceGroupDeployment'
  - Handle errors thrown outside of deployment validation and include them in output of command instead
  - More information here: <https://github.com/Azure/azure-powershell/issues/6856>

- Add '-IgnoreDynamicParameters' switch parameter to set of deployment cmdlets to skip prompt in script and job scenarios
  - More information here: <https://github.com/Azure/azure-powershell/issues/6856>

## Az.Sql

- Support Database Data Classification.

## Az.Storage

- Report detail error when create Storage context with parameter -UseConnectedAccount, but without login Azure account
  - New-AzStorageContext
- Support Manage Blob Service Properties of a specified Storage account with Management plane API
  - Update-AzStorageBlobServiceProperty
  - Get-AzStorageBlobServiceProperty
  - Enable-AzStorageBlobDeleteRetentionPolicy
  - Disable-AzStorageBlobDeleteRetentionPolicy
- -AsJob support for Blob and file upload and download cmdlets
  - Get-AzStorageBlobContent
  - Set-AzStorageBlobContent
  - Get-AzStorageFileContent
  - Set-AzStorageFileContent

## 1.6.0 - March 2019

### Highlights since the last major release

- General availability of `Az` module
- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added wildcard support to Get cmdlets for Az.Compute and Az.Network
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation
- Az.LogicApp: New cmdlets for Integration Account Assemblies and Batch Configuration

## Az.Automation

- Azure automation update management change to support the following new features :
  - Dynamic grouping
  - Pre-Post script
  - Reboot Setting

## Az.Compute

- Fix issue with path resolution in Get-AzVmBootDiagnosticsData
- Update Compute client library to 25.0.0.

## Az.KeyVault

- Added wildcard support to KeyVault cmdlets

## Az.Network

- Add Threat Intelligence support for Azure Firewall
- Add Application Gateway Firewall Policy top level resource and Custom Rules
- Add Alert action type for Azure Firewall Network and Application Rule Collections
- Added support for conditions in RewriteRules in the Application Gateway
  - New cmdlets added:
    - New-AzApplicationGatewayRewriteRuleCondition
    - Cmdlets updated with optional parameter - RuleSequence and Condition
    - New-AzApplicationGatewayRewriteRule

## Az.RecoveryServices

- Added SnapshotRetentionInDays in Azure VM policy to support Instant RP
- Added pipe support for unregister container

## Az.Resources

- Update wildcard support for Get-AzResource and Get-AzResourceGroup
- Update credentials used when making generic calls to ARM

## Az.Sql

- changed Threat Detection's cmdlets param (ExcludeDetectionType) from DetectionType to string[] to make it future proof when new DetectionTypes are added and to support autocomplete as well.
- Add Vulnerability Assessment cmdlets on Server and Managed Instance

## Az.Storage

- Support Get/Set/Remove Management Policy on a Storage account
  - Set-AzStorageAccountManagementPolicy
  - Get-AzStorageAccountManagementPolicy
  - Remove-AzStorageAccountManagementPolicy
  - Add-AzStorageAccountManagementPolicyAction
  - New-AzStorageAccountManagementPolicyFilter

- New-AzStorageAccountManagementPolicyRule

## Az.Websites

- Fix ARM template bug that breaks cloning all slots using 'New-AzWebApp - IncludeSourceWebAppSlots'

## 1.5.0 - March 2019

### Highlights since the last major release

- General availability of `Az` module
- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added wildcard support to Get cmdlets for Az.Compute and Az.Network
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation
- Az.LogicApp: New cmdlets for Integration Account Assemblies and Batch Configuration

## Az.Accounts

- Add 'Register-AzModule' command to support AutoRest generated cmdlets
- Update examples for Connect-AzAccount

## Az.Automation

- Fixed issue when retrieving certain monthly schedules in several Azure Automation cmdlets
- Fix Get-AzAutomationDscNode returning just top 20 nodes. Now it returns all nodes

## Az.Cdn

- Added new Powershell cmdlets for Enable/Disable Custom Domain Https and deprecated the old ones

## Az.Compute

- Add wildcard support to Get cmdlets

## Az.DataFactory

- Updated ADF .Net SDK version to 3.0.1

## Az.LogicApp

- Fix for ListWorkflows only retrieving the first page of results

## Az.Network

- Add wildcard support to Network cmdlets

## Az.RecoveryServices

- Added Sql server in Azure VM support
- SDK Update
- Removed VMAppContainer check in Get-ProtectableItem
- Added Name and ServerName as parameters for Get-ProtectableItem

## Az.Resources

- Add `-TemplateObject` parameter to deployment cmdlets
  - More information here: <https://github.com/Azure/azure-powershell/issues/2933>
- Fix issue when piping the result of `Get-AzResource` to `Set-AzResource`
  - More information here: <https://github.com/Azure/azure-powershell/issues/8240>
- Fix issue with JSON data type change when running `Set-AzResource`
  - More information here: <https://github.com/Azure/azure-powershell/issues/7930>

## Az.Sql

- Updating AuditingEndpointsCommunicator.
  - Fixing the behavior of an edge case while creating new diagnostic settings.

## Az.Storage

- Support Kind BlockBlobStorage when create Storage account - New-AzStorageAccount

## 1.4.0 - February 2019

### Highlights since the last major release

- General availability of `Az` module
- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation
- Az.LogicApp: New cmdlets for Integration Account Assemblies and Batch Configuration

## Az.AnalysisServices

- Deprecated AddAzureASAccount cmdlet

## Az.Automation

- Update help for Import-AzAutomationDscNodeConfiguration
- Added configuration name validation to Import-AzAutomationDscConfiguration cmdlet
- Improved error handling for Import-AzAutomationDscConfiguration cmdlet

## Az.CognitiveServices

- Added CustomSubdomainName as a new optional parameter for New-AzCognitiveServicesAccount which is used to specify subdomain for the resource.

## Az.Compute

- Fix issue with ID parameter sets
- Update Get-AzVMExtension to list all installed extension if Name parameter is not provided
- Add Tag and ResourceId parameters to Update-AzImage cmdlet
- Get-AzVmssVM without instance ID and with InstanceView can list VMSS VMs with instance view.

## Az.DataLakeStore

- Add cmdlets for ADL deleted item enumerate and restore

## Az.EventHub

- Added new boolean property SkipEmptyArchives to Skip Empty Archives in CaptureDescription class of Eventhub

## Az.KeyVault

- Fix tagging on Set-AzKeyVaultSecret

## Az.LogicApp

- Add in Basic sku for Integration Accounts
- Add in XSLT 2.0, XSLT 3.0 and Liquid Map Types
- New cmdlets for Integration Account Assemblies
  - Get-AzIntegrationAccountAssembly
  - New-AzIntegrationAccountAssembly
  - Remove-AzIntegrationAccountAssembly
  - Set-AzIntegrationAccountAssembly
- New cmdlets for Integration Account Batch Configuration
  - Get-AzIntegrationAccountBatchConfiguration

- New-AzIntegrationAccountBatchConfiguration
- Remove-AzIntegrationAccountBatchConfiguration
- Set-AzIntegrationAccountBatchConfiguration
- Update Logic App SDK to version 4.1.0

## Az.Monitor

- Update help for Get-AzMetric

## Az.Network

- Update help example for Add-AzApplicationGatewayCustomError

## Az.OperationalInsights

- Additional support for New and Get ApplicationInsights data source.
  - Added new 'ApplicationInsights' kind to support Get specific and Get all ApplicationInsights data sources for given workspace.
  - Added New-AzOperationalInsightsApplicationInsightsDataSource cmdlet for creating data source by given Application-Insights resource parameters: subscription Id, resourceGroupName and name.

## Az.Resources

- Fix for issue [https://github.com/Azure/azure-powershell/issues/8166 ↗](https://github.com/Azure/azure-powershell/issues/8166)
- Fix for issue [https://github.com/Azure/azure-powershell/issues/8235 ↗](https://github.com/Azure/azure-powershell/issues/8235)
- Fix for issue [https://github.com/Azure/azure-powershell/issues/6219 ↗](https://github.com/Azure/azure-powershell/issues/6219)
- Fix bug preventing repeat creation of KeyCredentials

## Az.Sql

- Add support for SQL DB Hyperscale tier
- Fixed bug where restore could fail due to setting unnecessary properties in restore request

## Az.Websites

- Correct example in Get-AzWebAppSlotMetrics

# 1.3.0 - February 2019

## Highlights since the last major release

- General availability of Az module

- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation

## Az.Accounts

- Update to latest version of ClientRuntime

## Az.AnalysisServices

General availability for Az.AnalysisServices module.

## Az.Compute

- AEM extension: Add support for UltraSSD and P60,P70 and P80 disks
- Update help description for Set-AzVMBootDiagnostics
- Update help description and example for Update-AzImage

## Az.RecoveryServices

General availability for Az.RecoveryServices module.

## Az.Resources

- Fix tagging for resource groups
  - More information here: <https://github.com/Azure/azure-powershell/issues/8166>
- Fix issue where `Get-AzRoleAssignment` doesn't respect -ErrorAction
  - More information here: <https://github.com/Azure/azure-powershell/issues/8235>

## Az.Sql

- Add Get/Set AzSqlDatabaseBackupShortTermRetentionPolicy
- Fix issue where not being logged into Azure account would result in nullref exception when executing SQL cmdlets
- Fixed null ref exception in Get-AzSqlCapability

## 1.2.1 - January 2019

### Highlights since the last major release

- General availability of `Az` module

- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation

## Az.Accounts

- Release with correct version of Authentication

## Az.AnalysisServices

- Release with updated Authentication dependency

## Az.RecoveryServices

- Release with updated Authentication dependency

# 1.2.0 - January 2019

## Highlights since the last major release

- General availability of `Az` module
- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.
- Added interactive and username/password authentication for Windows PowerShell 5.1 only
- Added support for Python 2 runbooks in Az.Automation

## Az.Accounts

- Add interactive and username/password authentication for Windows PowerShell 5.1 only
- Update incorrect online help URLs
- Add warning message in PS Core for Uninstall-AzureRm

## Az.Aks

- Update incorrect online help URLs

## Az.Automation

- Added support for Python 2 runbooks
- Update incorrect online help URLs

## Az.Cdn

- Update incorrect online help URLs

## Az.Compute

- Add Invoke-AzVMReimage cmdlet
- Add TempDisk parameter to Set-AzVmss
- Fix the warning message of New-AzVM

## Az.ContainerRegistry

- Update incorrect online help URLs

## Az.DataFactory

- Updated ADF .Net SDK version to 3.0.0

## Az.DataLakeStore

- Fix issue with ADLS endpoint when using MSI
  - More information here: [https://github.com/Azure/azure-powershell/issues/7462 ↗](https://github.com/Azure/azure-powershell/issues/7462)
- Update incorrect online help URLs

## Az.IotHub

- Add Encoding format to Add-IotHubRoutingEndpoint cmdlet.

## Az.KeyVault

- Update incorrect online help URLs

## Az.Network

- Update incorrect online help URLs

## Az.Resources

- Fix incorrect examples in 'New-AzADAppCredential' and 'New-AzADSpCredential' reference documentation
- Fix issue where path for '-TemplateFile' parameter was not being resolved before executing resource group deployment cmdlets
- Az.Resources: Correct documentation for New-AzPolicyDefinition -Mode default value
- Az.Resources: Fix for issue [https://github.com/Azure/azure-powershell/issues/7522 ↗](https://github.com/Azure/azure-powershell/issues/7522)
- Az.Resources: Fix for issue [https://github.com/Azure/azure-powershell/issues/5747 ↗](https://github.com/Azure/azure-powershell/issues/5747)

- Fix formatting issue with 'PSResourceGroupDeployment' object
  - More information here: <https://github.com/Azure/azure-powershell/issues/2123>

## Az.ServiceFabric

- Rollback when a certificate is added to VMSS model but an exception is thrown this is to fix bug: <https://github.com/Azure/service-fabric-issues/issues/932>
- Fix some error messages.
- Fix create cluster with default ARM template for New-AzServiceFabricCluster which was not working with migration to Az.
- Fix add cluster/application certificate to only add to VM Scale Sets that correspond to the cluster by checking cluster id in the extension.

## Az.SignalR

- Update incorrect online help URLs

## Az.Sql

- Update incorrect online help URLs
- Updated parameter description for LicenseType parameter with possible values
- Fix for updating managed instance identity not working when it is the only updated property
- Support for custom collation on managed instance

## Az.Storage

- Update incorrect online help URLs
- Give detail error message when get/set classic Logging/Metric on Premium Storage Account, since Premium Storage Account not support classic Logging/Metric.
  - Get/Set-AzStorageServiceLoggingProperty
  - Get/Set-AzStorageServiceMetricsProperty

## Az.TrafficManager

- Update incorrect online help URLs

## Az.Websites

- Update incorrect online help URLs
- Fixes 'New-AzWebAppSSLBinding' to upload the certificate to the correct resourcegroup+location if the app is hosted on an ASE.
- Fixes 'New-AzWebAppSSLBinding' to not overwrite the tags on binding an SSL certificate to an app

# 1.1.0 - January 2019

## Highlights since the last major release

- General availability of `Az` module
- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce> ↗
- Added Location, ResourceGroup, and ResourceName completers.

### Az.Accounts

- Add 'Local' Scope to Enable-AzureRmAlias

### Az.Compute

- Name is now optional in ID parameter set for Restart/Start/Stop/Remove/Set-AzVM and Save-AzVmImage
- Updated the description of ID in help files
- Fix backward compatibility issue with Az.Accounts module

### Az.DataLakeStore

- Update the sdk version of dataplane to 1.1.14 for SDK fixes.
  - Fix handling of negative acesstime and modificationtime for getfilestatus and liststatus, Fix async cancellation token

### Az.EventGrid

- Updated to use the 2019-01-01 API version.
- Update the following cmdlets to support new scenario in 2019-01-01 API version
  - New-AzEventGridSubscription: Add new optional parameters for specifying:
    - Event Time-To-Live,
    - Maximum number of delivery attempts for the events,
    - Dead letter endpoint.
  - Update-AzEventGridSubscription: Add new optional parameters for specifying:
    - Event Time-To-Live,
    - Maximum number of delivery attempts for the events,
    - Dead letter endpoint.
- Add new enum values (namely, storageQueue and hybridConnection) for EndpointType option in New-AzEventGridSubscription and Update-AzEventGridSubscription cmdlets.
- Show warning message if creating or updating the event subscription is expected to entail manual action from user.

### Az.IotHub

- Updated to the latest version of the IoT Hub SDK

## Az.LogicApp

- Get-AzLogicApp lists all without specified Name

## Az.Resources

- Fix parameter set issue when providing '-ODataQuery' and '-ResourceId' parameters for 'Get-AzResource'
  - More information here: [https://github.com/Azure/azure-powershell/issues/7875 ↗](https://github.com/Azure/azure-powershell/issues/7875)
- Fix handling of the -Custom parameter in New/Set-AzPolicyDefinition
- Fix typo in New-AzDeployment documentation
- Made '-MailNickname' parameter mandatory for 'New-AzADUser'
  - More information here: [https://github.com/Azure/azure-powershell/issues/8220 ↗](https://github.com/Azure/azure-powershell/issues/8220)

## Az.SignalR

- Fix backward compatibility issue with Az.Accounts module

## Az.Sql

- Converted the Storage management client dependency to the common SDK implementation.

## Az.Storage

- Set the StorageAccountName of Storage context as the real Storage Account Name, when it's created with Sas Token, OAuth or Anonymous
  - New-AzStorageContext
- Create Sas Token of Blob Snapshot Object with '-FullUri' parameter, fix the returned Uri to be the sanpshot Uri
  - New-AzStorageBlobSASToken

## Az.Websites

- Fixed a date parsing bug in 'Get-AzDeletedWebApp'
- Fix backward compatibility issue with Az.Accounts module

# Version 1.0.0 - December 2018

## Highlights since the last major release

- General availability of `Az` module

- For more information about the `Az` module, please visit the following: <https://aka.ms/azps-announce>
- Added Location, ResourceGroup, and ResourceName completers.

# Upcoming breaking changes in Azure PowerShell

Article • 09/27/2023

## Az.Aks

### New-AzAksCluster

- Parameter breaking-change will happen to all parameter sets
  - `-DockerBridgeCidr`
    - DockerBridgeCidr parameter will be deprecated in Az 11.0.0 without being replaced.
    - This change is expected to take effect from Az.Aks version: 6.0.0 and Az version: 11.0.0

## Az.Compute

### New-AzDisk

- Cmdlet breaking-change will happen to all parameter sets
  - Starting in November 2023 the "New-AzDisk" cmdlet will deploy with the Trusted Launch configuration by default. This includes defaulting the "HyperVGeneration" parameter to "v2". To know more about Trusted Launch, please visit <https://aka.ms/TLaD>
  - This change is expected to take effect from Az.Compute version: 7.0.0 and Az version: 11.0.0

### New-AzVM

- Cmdlet breaking-change will happen to all parameter sets
  - Consider using the image alias including the version of the distribution you want to use in the "-Image" parameter of the "New-AzVM" cmdlet. On April 30, 2023, the image deployed using `UbuntuLTS` will reach its end of life. In October 2023, the aliases `UbuntuLTS`, `CentOS`, `Debian`, and `RHEL` will be removed.
  - This change is expected to take effect from Az.Compute version: 7.0.0 and Az version: 11.0.0
  - Starting in November 2023 the "New-AzVM" cmdlet will deploy with the Trusted Launch configuration by default. To know more about Trusted Launch, please visit <https://aka.ms/TLaD>
  - This change is expected to take effect from Az.Compute version: 7.0.0 and Az version: 11.0.0

### New-AzVmss

- Cmdlet breaking-change will happen to all parameter sets
  - Starting November 2023, the "New-AzVmss" cmdlet will default to Trusted Launch VMSS. For more info, visit <https://aka.ms/TLaD>.
  - This change is expected to take effect from Az.Compute version: 7.0.0 and Az version: 11.0.0

- Starting November 2023, the "New-AzVmss" cmdlet will use new defaults: Flexible orchestration mode and enable NATv2 configuration for Load Balancer. To learn more about Flexible Orchestration modes, visit <https://aka.ms/orchestrationModeVMSS>.
- This change is expected to take effect from Az.Compute version: 7.0.0 and Az version: 11.0.0
- Consider using the image alias including the version of the distribution you want to use in the "-ImageName" parameter of the "New-AzVmss" cmdlet. On April 30, 2023, the image deployed using `UbuntuLTS` will reach its end of life. In November 2023, the aliases `UbuntuLTS`, `CentOS`, `Debian`, and `RHEL` will be removed.
- This change is expected to take effect from Az.Compute version: 7.0.0 and Az version: 11.0.0

## Az.ContainerInstance

### Get-AzContainerGroup

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.PowerShell.Cmdlets.ContainerInstance.Models.Api20221001Preview.IContainerGroup' is changing
  - The following properties in the output type are being deprecated : 'PreviouState' 'PreviouStateDetailStatus' 'PreviouStateExitCode' 'PreviouStateFinishTime' 'PreviouStateStartTime'
  - The following properties are being added to the output type : 'PreviousState' 'PreviousStateDetailStatus' 'PreviousStateExitCode' 'PreviousStateFinishTime' 'PreviousStateStartTime'
  - Change description : The parameters starts with PreviouState will be corrected as PreviousState.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.ContainerInstance version : '4.0.0'

### Remove-AzContainerGroup

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.PowerShell.Cmdlets.ContainerInstance.Models.Api20221001Preview.IContainerGroup' is changing
  - The following properties in the output type are being deprecated : 'PreviouState' 'PreviouStateDetailStatus' 'PreviouStateExitCode' 'PreviouStateFinishTime' 'PreviouStateStartTime'
  - The following properties are being added to the output type : 'PreviousState' 'PreviousStateDetailStatus' 'PreviousStateExitCode' 'PreviousStateFinishTime' 'PreviousStateStartTime'
  - Change description : The parameters starts with PreviouState will be corrected as PreviousState.

- This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
- The change is expected to take effect in Az.ContainerInstance version : '4.0.0'

## Restart-AzContainerGroup

- Cmdlet breaking-change will happen to all parameter sets
  - The output type 'bool' is changing
  - The following properties in the output type are being deprecated : 'PreviouState' 'PreviouStateDetailStatus' 'PreviouStateExitCode' 'PreviouStateFinishTime' 'PreviouStateStartTime'
  - The following properties are being added to the output type : 'PreviousState' 'PreviousStateDetailStatus' 'PreviousStateExitCode' 'PreviousStateFinishTime' 'PreviousStateStartTime'
  - Change description : The parameters starts with PreviouState will be corrected as PreviousState.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.ContainerInstance version : '4.0.0'

## Start-AzContainerGroup

- Cmdlet breaking-change will happen to all parameter sets
  - The output type 'bool' is changing
  - The following properties in the output type are being deprecated : 'PreviouState' 'PreviouStateDetailStatus' 'PreviouStateExitCode' 'PreviouStateFinishTime' 'PreviouStateStartTime'
  - The following properties are being added to the output type : 'PreviousState' 'PreviousStateDetailStatus' 'PreviousStateExitCode' 'PreviousStateFinishTime' 'PreviousStateStartTime'
  - Change description : The parameters starts with PreviouState will be corrected as PreviousState.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.ContainerInstance version : '4.0.0'

## Stop-AzContainerGroup

- Cmdlet breaking-change will happen to all parameter sets
  - The output type 'bool' is changing
  - The following properties in the output type are being deprecated : 'PreviouState' 'PreviouStateDetailStatus' 'PreviouStateExitCode' 'PreviouStateFinishTime' 'PreviouStateStartTime'
  - The following properties are being added to the output type : 'PreviousState' 'PreviousStateDetailStatus' 'PreviousStateExitCode' 'PreviousStateFinishTime' 'PreviousStateStartTime'

- Change description : The parameters starts with PreviouState will be corrected as PreviousState.
- This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
- The change is expected to take effect in Az.ContainerInstance version : '4.0.0'

## Update-AzContainerGroup

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.PowerShell.Cmdlets.ContainerInstance.Models.Api20221001Preview.IContainerGroup' is changing
  - The following properties in the output type are being deprecated : 'PreviouState' 'PreviouStateDetailStatus' 'PreviouStateExitCode' 'PreviouStateFinishTime' 'PreviouStateStartTime'
  - The following properties are being added to the output type : 'PreviousState' 'PreviousStateDetailStatus' 'PreviousStateExitCode' 'PreviousStateFinishTime' 'PreviousStateStartTime'
  - Change description : The parameters starts with PreviouState will be corrected as PreviousState.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.ContainerInstance version : '4.0.0'

# Az.DesktopVirtualization

## New-AzWvdScalingPlan

- Parameter breaking-change will happen to all parameter sets
  - `-HostPoolType`
    - The parameter : 'HostPoolType' is changing.
    - Change description : The allowed value of this parameter changed from 'BYODesktop, Personal, Pooled' to 'Pooled'
    - The change is expected to take effect in Az.DesktopVirtualization the version : '4.0.0'

# Az.HDInsight

## Add-AzHDInsightClusterIdentity

- Cmdlet breaking-change will happen to all parameter sets
  - The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
  - The following properties in the output type are being deprecated :
   
`Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions`

- The following properties are being added to the output type :

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
```

```
    ScriptActions
```

- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Add-AzHDInsightComponentVersion

- Cmdlet breaking-change will happen to all parameter sets
- The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
- The following properties in the output type are being deprecated :
 

```
Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions
```
- The following properties are being added to the output type :
 

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
```
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Add-AzHDInsightConfigValue

- Cmdlet breaking-change will happen to all parameter sets
- The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
- The following properties in the output type are being deprecated :
 

```
Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions
```
- The following properties are being added to the output type :
 

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
```
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Add-AzHDInsightMetastore

- Cmdlet breaking-change will happen to all parameter sets
- The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
- The following properties in the output type are being deprecated :
 

```
Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions
```
- The following properties are being added to the output type :
 

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
```
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Add-AzHDInsightScriptAction

- Parameter breaking-change will happen to all parameter sets
  - -NodeType

- The parameter : 'NodeType' is changing. The type of the parameter is changing from 'Microsoft.Azure.Management.HDInsight.Models.ClusterNodeType' to 'RuntimeScriptActionClusterNodeType'.
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Add-AzHDInsightSecurityProfile

- Cmdlet breaking-change will happen to all parameter sets
  - The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
  - The following properties in the output type are being deprecated :
 

```
Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions
```
  - The following properties are being added to the output type :
 

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
ScriptActions
```
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Add-AzHDInsightStorage

- Cmdlet breaking-change will happen to all parameter sets
  - The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
  - The following properties in the output type are being deprecated :
 

```
Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions
```
  - The following properties are being added to the output type :
 

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
ScriptActions
```
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Disable-AzHDInsightAzureMonitor

- Cmdlet breaking-change will happen to all parameter sets
  - The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Enable-AzHDInsightAzureMonitor

- Cmdlet breaking-change will happen to all parameter sets

- The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Get-AzHDInsightAzureMonitor

- Cmdlet breaking-change will happen to all parameter sets
  - The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Get-AzHDInsightCluster

- Cmdlet breaking-change will happen to all parameter sets
  - The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Get-AzHDInsightClusterAutoscaleConfiguration

- Cmdlet breaking-change will happen to all parameter sets
  - The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Get-AzHDInsightHost

- Cmdlet breaking-change will happen to all parameter sets
  - The type of property 'DiskEncryption' of type '`Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster`' will change from '`Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties`' to '`Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties`'.The type of property 'WorkerNodeDataDisksGroups' will change from '`List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>`' to '`List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>`'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Get-AzHDInsightProperty

- Cmdlet breaking-change will happen to all parameter sets
  - The generic type for 'property ComponentVersions' will change from '`System.Collections.Generic.IDictionary<System.String, System.String>`' to '`System.Collections.Generic.IReadOnlyDictionary<System.String, System.String>`'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## New-AzHDInsightCluster

- Cmdlet breaking-change will happen to all parameter sets
  - The type of property 'DiskEncryption' of type '`Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster`' will change from '`Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties`' to '`Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties`'.The type of property 'WorkerNodeDataDisksGroups' will change from '`List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>`' to '`List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>`'.
  - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0
- Parameter breaking-change will happen to all parameter sets
  - `-ScriptActions`
    - The parameter : 'NodeType' is changing. The type of the parameter is changing from '`Microsoft.Azure.Management.HDInsight.Models.ClusterNodeType`' to '`RuntimeScriptActionClusterNodeType`'.
    - This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## New-AzHDInsightClusterConfig

- Cmdlet breaking-change will happen to all parameter sets
  - The output type '`Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig`' is changing
  - The following properties in the output type are being deprecated :
    - `Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions`

- The following properties are being added to the output type :

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
ScriptActions
```

- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Remove-AzHDInsightClusterAutoscaleConfiguration

- Cmdlet breaking-change will happen to all parameter sets
- The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Set-AzHDInsightClusterAutoscaleConfiguration

- Cmdlet breaking-change will happen to all parameter sets
- The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Set-AzHDInsightClusterDiskEncryptionKey

- Cmdlet breaking-change will happen to all parameter sets
- The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'.The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Set-AzHDInsightClusterSize

- Cmdlet breaking-change will happen to all parameter sets
- The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' is changing

- The following properties in the output type are being deprecated :
 

```
'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties DiskEncryption'
'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>
WorkerNodeDataDisksGroups'
```
- The following properties are being added to the output type :
 

```
'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties DiskEncryption'
'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>
WorkerNodeDataDisksGroups'
```
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Set-AzHDInsightDefaultStorage

- Cmdlet breaking-change will happen to all parameter sets
- The output type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightConfig' is changing
- The following properties in the output type are being deprecated :
 

```
Dictionary<ClusterNodeType, List<AzureHDInsightScriptAction>> ScriptActions
```
- The following properties are being added to the output type :
 

```
Dictionary<RuntimeScriptActionClusterNodeType, List<AzureHDInsightScriptAction>>
ScriptActions
```
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

## Set-AzHDInsightGatewayCredential

- Cmdlet breaking-change will happen to all parameter sets
- The type of property 'DiskEncryption' of type 'Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster' will change from 'Microsoft.Azure.Management.HDInsight.Models.DiskEncryptionProperties' to 'Azure.ResourceManager.HDInsight.Models.HDInsightDiskEncryptionProperties'. The type of property 'WorkerNodeDataDisksGroups' will change from 'List<Microsoft.Azure.Management.HDInsight.Models.DataDisksGroups>' to 'List<Azure.ResourceManager.HDInsight.Models.HDInsightClusterDataDiskGroup>'.
- This change is expected to take effect from Az.HDInsight version: 7.0.0 and Az version: 11.0.0

# Az.Maintenance

## New-AzMaintenanceConfiguration

- Parameter breaking-change will happen to all parameter sets
  - `-PostTask`
    - Parameter is being deprecated without being replaced
    - This change is expected to take effect from Az.Maintenance version: 2.0.0 and Az version: 11.0.0
  - `-PreTask`
    - Parameter is being deprecated without being replaced

- This change is expected to take effect from Az.Maintenance version: 2.0.0 and Az version: 11.0.0

## Az.Monitor

### Get-AzDataCollectionRule

- Cmdlet breaking-change will happen to all parameter sets
  - Parameter set ByResourceId will be deprecated
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

### New-AzActionGroupReceiver

- Cmdlet breaking-change will happen to all parameter sets
  - Parameters about receiver will be replaced by child types.
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

### New-AzDataCollectionRule

- Cmdlet breaking-change will happen to all parameter sets
  - Parameter RuleFile will be replaced by JsonFilePath.
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

### Remove-AzActionGroup

- Cmdlet breaking-change will happen to all parameter sets
  - Parameter set ByResourceId will be deprecated
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

### Remove-AzDataCollectionRule

- Cmdlet breaking-change will happen to all parameter sets
  - Parameter set ByResourceId will be deprecated
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

### Remove-AzDataCollectionRuleAssociation

- Cmdlet breaking-change will happen to all parameter sets
  - Parameter set ByResourceId will be deprecated
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

### Set-AzActionGroup

- Parameter breaking-change will happen to all parameter sets
  - -DisableGroup

- Parameter DisableGroup will be replaced by Enabled
- This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0
- `-Receiver`
  - Parameters receiver will be replaced by child parameters.
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0
- `-ResourceId`
  - Parameter set ByResourceId will be deprecated
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0
- `-Tag`
  - The parameter : 'Tag' is changing. The type of the parameter is changing from 'System.Collections.IDictionary' to 'Hashtable'.
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

## **Set-AzDataCollectionRule**

- Cmdlet breaking-change will happen to all parameter sets
  - Parameter set ByResourceId will be deprecated
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

## **Test-AzActionGroup**

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet 'New-AzActionGroupNotification' is replacing this cmdlet.
  - This change is expected to take effect from Az.Monitor version: 5.0.0 and Az version: 11.0.0

# **Az.Network**

## **New-AzApplicationGatewayFirewallCustomRuleGroupByVariable**

- Parameter breaking-change will happen to all parameter sets
  - `-VariableName`
    - Geo would be invalid for parameter VariableName
    - This change is expected to take effect from Az.Network version: 7.0.0 and Az version: 11.0.0

# **Az.PowerBIEmbedded**

## **Get-AzPowerBIWorkspace**

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet is being deprecated. There will be no replacement for it.
  - This change is expected to take effect from Az.PowerBIEmbedded version: 2.0.0 and Az version: 11.0.0

## **Get-AzPowerBIworkspaceCollection**

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet is being deprecated. There will be no replacement for it.
  - This change is expected to take effect from Az.PowerBIEmbedded version: 2.0.0 and Az version: 11.0.0

## Get-AzPowerBIworkspaceCollectionAccessKey

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet is being deprecated. There will be no replacement for it.
  - This change is expected to take effect from Az.PowerBIEmbedded version: 2.0.0 and Az version: 11.0.0

## New-AzPowerBIworkspaceCollection

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet is being deprecated. There will be no replacement for it.
  - This change is expected to take effect from Az.PowerBIEmbedded version: 2.0.0 and Az version: 11.0.0

## Remove-AzPowerBIworkspaceCollection

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet is being deprecated. There will be no replacement for it.
  - This change is expected to take effect from Az.PowerBIEmbedded version: 2.0.0 and Az version: 11.0.0

## Reset-AzPowerBIworkspaceCollectionAccessKey

- Cmdlet breaking-change will happen to all parameter sets
  - The cmdlet is being deprecated. There will be no replacement for it.
  - This change is expected to take effect from Az.PowerBIEmbedded version: 2.0.0 and Az version: 11.0.0

# Az.RecoveryServices

## Get-AzRecoveryServicesVaultSettingsFile

- Parameter breaking-change will happen to all parameter sets
  - `-Certificate`
    - Parameter is being deprecated without being replaced
    - This change is expected to take effect from Az.RecoveryServices version: 7.0.0 and Az version: 11.0.0

# Az.Resources

## Get-AzPolicyAssignment

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyAssignment' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'EnforcementMode' 'Metadata' 'NonComplianceMessages' 'NotScopes' 'Parameters' 'PolicyDefinitionId' 'Scope'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Get-AzPolicyDefinition

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyDefinition' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'Metadata' 'Mode' 'Parameters' 'PolicyRule' 'PolicyType'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Get-AzPolicyExemption

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyExemption' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'ExemptionCategory' 'ExpiresOn' 'Metadata' 'PolicyAssignmentId' 'PolicyDefinitionReferencelds'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Get-AzPolicySetDefinition

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicySetDefinition' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'Metadata' 'Parameters' 'PolicyDefinitionGroups' 'PolicyDefinitions' 'PolicyType'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## New-AzPolicyAssignment

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
     'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyAssignment' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'EnforcementMode' 'Metadata' 'NonComplianceMessages' 'NotScopes' 'Parameters' 'PolicyDefinitionId' 'Scope'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## New-AzPolicyDefinition

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
     'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyDefinition' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'Metadata' 'Mode' 'Parameters' 'PolicyRule' 'PolicyType'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## New-AzPolicyExemption

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
     'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyExemption' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'ExemptionCategory' 'ExpiresOn' 'Metadata' 'PolicyAssignmentId' 'PolicyDefinitionReferencelds'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## New-AzPolicySetDefinition

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
     'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicySetDefinition' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'Metadata' 'Parameters' 'PolicyDefinitionGroups' 'PolicyDefinitions' 'PolicyType'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Set-AzPolicyAssignment

- Cmdlet breaking-change will happen to all parameter sets

- The output type  
 'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyAssignment' is changing
- The following properties in the output type are being deprecated : 'Properties'
- The following properties are being added to the output type : 'Description' 'DisplayName' 'EnforcementMode' 'Metadata' 'NonComplianceMessages' 'NotScopes' 'Parameters' 'PolicyDefinitionId' 'Scope'
- This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Set-AzPolicyDefinition

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
 'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyDefinition' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'Metadata' 'Mode' 'Parameters' 'PolicyRule' 'PolicyType'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Set-AzPolicyExemption

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
 'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyExemption' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'ExemptionCategory' 'ExpiresOn' 'Metadata' 'PolicyAssignmentId' 'PolicyDefinitionReferencelds'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

## Set-AzPolicySetDefinition

- Cmdlet breaking-change will happen to all parameter sets
  - The output type  
 'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicySetDefinition' is changing
  - The following properties in the output type are being deprecated : 'Properties'
  - The following properties are being added to the output type : 'Description' 'DisplayName' 'Metadata' 'Parameters' 'PolicyDefinitionGroups' 'PolicyDefinitions' 'PolicyType'
  - This change is expected to take effect from Az.Resources version: 7.0.0 and Az version: 11.0.0

# Az.SecurityInsights

## Get-AzSentinelBookmarkRelation

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Get-AzSentinelEnrichment

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Get-AzSentinelEntity

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Get-AzSentinelEntityActivity

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Get-AzSentinelEntityInsight

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Get-AzSentinelEntityQuery

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Get-AzSentinelEntityQueryTemplate**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Get-AzSentinelEntityRelation**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Get-AzSentinelEntityTimeline**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Get-AzSentinelIncidentEntity**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Get-AzSentinelSetting**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **New-AzSentinelAlertRule**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - Change description : Parameters of NRT set will be deprecated.

- This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
- The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelAutomationRule

- Cmdlet breaking-change will happen to parameter set `NewAzSentinelAutomationRule_Create` The cmdlet parameter set is being deprecated. There will be no replacement for it.
  - Change description : ParameterSet Create will be deprecated.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'
- Parameter breaking-change will happen to parameter set `NewAzSentinelAutomationRule_CreateExpanded`
  - `-Action`
    - The parameter : 'Action' is becoming mandatory.
    - Change description : Action is required.
    - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
    - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'
  - `-DisplayName`
    - The parameter : 'DisplayName' is becoming mandatory.
    - Change description : DisplayName is required.
    - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
    - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'
  - `-Order`
    - The parameter : 'Order' is becoming mandatory.
    - Change description : Order is required.
    - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
    - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelBookmark

- Cmdlet breaking-change will happen to all parameter sets The cmdlet parameter set is being deprecated. There will be no replacement for it.
  - Change description : ParameterSet Create will be deprecated.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelBookmarkRelation

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelDataConnector

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - Change description : ParameterSets AmazonWebServicesS3, Dynamics365, MicrosoftThreatIntelligence, MicrosoftThreatProtection, OfficeATP, OfficeIRM, ThreatIntelligenceTaxii will be deprecated.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelEntityQuery

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelIncident

- Cmdlet breaking-change will happen to all parameter sets The cmdlet parameter set is being deprecated. There will be no replacement for it.
  - Change description : ParameterSet Create will be deprecated.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## New-AzSentinelIncidentTeam

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Remove-AzSentinelBookmarkRelation

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.

- This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
- The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Remove-AzSentinelEntityQuery

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Test-AzSentinelDataConnectorCheckRequirement

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Update-AzSentinelAlertRule

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - Change description : Parameters of NRT set will be deprecated.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## Update-AzSentinelAutomationRule

- Parameter breaking-change will happen to all parameter sets
  - `-Action`
    - The parameter : 'Action' is becoming mandatory.
    - Change description : Action is required.
    - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
    - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'
  - `-DisplayName`
    - The parameter : 'DisplayName' is becoming mandatory.
    - Change description : DisplayName is required.
    - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
    - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'
  - `-Order`
    - The parameter : 'Order' is becoming mandatory.

- Change description : Order is required.
- This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
- The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Update-AzSentinelBookmarkRelation**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Update-AzSentinelDataConnector**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - Change description : ParameterSets AmazonWebServicesS3, Dynamics365, MicrosoftThreatIntelligence, MicrosoftThreatProtection, OfficeATP, OfficeIRM, ThreatIntelligenceTaxii will be deprecated.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Update-AzSentinelEntityQuery**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

## **Update-AzSentinelSetting**

- Cmdlet breaking-change will happen to all parameter sets The cmdlet is being deprecated. There will be no replacement for it.
  - This change will take effect on '11/15/2023'- The change is expected to take effect in Az version : '11.0.0'
  - The change is expected to take effect in Az.SecurityInsights version : '4.0.0'

# **Az.Storage**

## **Get-AzStorageQueueStoredAccessPolicy**

- Cmdlet breaking-change will happen to all parameter sets

- Permissions in the output access policy will be changed to a string like "raup" in a future release.
- This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzDataLakeGen2SasToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageAccount

- Cmdlet breaking-change will happen to all parameter sets
  - Default value of AllowBlobPublicAccess and AllowCrossTenantReplication settings on storage account will be changed to False in the future release. When AllowBlobPublicAccess is False on a storage account, container ACLs cannot be configured to allow anonymous access to blobs within the storage account. When AllowCrossTenantReplication is False on a storage account, cross AAD tenant object replication is not allowed when setting up Object Replication policies.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageAccountSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageBlobSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageContainerSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageContext

- Parameter breaking-change will happen to all parameter sets
  - -SasToken
    - The SAS token in created Storage context properties 'ConnectionString' and 'StorageAccount.Credentials' won't have the leading question mark '?' in a future release.
    - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageFileSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageQueueSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageShareSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## New-AzStorageTableSASToken

- Cmdlet breaking-change will happen to all parameter sets
  - The leading question mark '?' of the created SAS token will be removed in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## Set-AzStorageAccount

- Parameter breaking-change will happen to all parameter sets
  - `-EnableLargeFileShare`
    - `EnableLargeFileShare` parameter will be deprecated in a future release.
    - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

## Set-AzStorageQueueStoredAccessPolicy

- Cmdlet breaking-change will happen to all parameter sets
  - Permissions in the output access policy will be changed to a string like "raup" in a future release.
  - This change is expected to take effect from Az.Storage version: 6.0.0 and Az version: 11.0.0

# Configure Azure PowerShell global settings

Article • 09/27/2023

Azure PowerShell supports several global settings like disabling breaking change warning messages. Before Az PowerShell module version 9, there wasn't a centralized or granular way to configure global settings for Azure PowerShell.

## Centralized configuration

The Az PowerShell module version 9 and higher includes cmdlets for managing the configuration of global settings for Azure PowerShell. These `*-AzConfig` cmdlets are part of the Az.Accounts PowerShell module:

- [Get-AzConfig](#)
- [Update-AzConfig](#)
- [Export-AzConfig](#)
- [Import-AzConfig](#)
- [Clear-AzConfig](#)

## Granular settings

You can apply settings that are only effective in a particular scope. The valid values for the `Scope` parameter are:

- `CurrentUser`. The default when applying a setting.
- `Process`. Setting is only applied to the current PowerShell session.
- `Default`. Readonly scope where the default value hasn't been changed.
- `Environment`. Readonly scope where the value has been configured via an environment variable.

Besides scopes, you can apply the settings to all Az PowerShell modules or only a single module. With the `AppliesTo` parameter, you can specify how broad you want the setting applied. The value `Az` indicates the setting is applied to all modules available that are part of Azure PowerShell.

To disable the breaking change warning message for cmdlets in the `Az.Compute` module, use the `Update-AzConfig` cmdlet with the `DisplayBreakingChangeWarning` and `AppliesTo` parameters as shown in the following example.

Azure PowerShell

```
Update-AzConfig -DisplayBreakingChangeWarning $false -AppliesTo Az.Compute
```

In this scenario, the breaking change warning message remains active for cmdlets in all Az PowerShell modules except **Az.Compute**.

## Default subscription

By default, when you authenticate to Azure, all subscriptions that you can access are retrieved. The first subscription that's returned by Azure is used unless you specify a subscription with `Connect-AzAccount`. This behavior can be dangerous, for example if the first subscription returned is a production environment.

To configure your default subscription, you use the `Update-AzConfig` cmdlet with the **DefaultSubscriptionForLogin** parameter as shown in the following example.

Azure PowerShell

```
Update-AzConfig -DefaultSubscriptionForLogin <Subscription ID or Name>
```

### ⓘ Note

Not to be confused with the **subscription of the default context**, the **DefaultSubscriptionForLogin** configuration takes effect only when authenticating to Azure.

## Upgrade notifications

In-tool notifications for version upgrades of Azure PowerShell is a feature released in Az PowerShell module version 10.3.0. When a new version of Azure PowerShell is available, an upgrade notification is displayed in your interactive PowerShell session.

To determine if upgrade notifications are enabled, use the `Get-AzConfig` cmdlet with the **CheckForUpgrade** parameter, as shown in the following example.

Azure PowerShell

```
Get-AzConfig -CheckForUpgrade
```

To enable upgrade notifications for Azure PowerShell, use the `Update-AzConfig` cmdlet with the `CheckForUpgrade` parameter and `$true` for its value, as shown in the following example.

```
Azure PowerShell
```

```
Update-AzConfig -CheckForUpgrade $true
```

To turn off upgrade notifications, use the `Update-AzConfig` cmdlet with the `CheckForUpgrade` parameter and `$false` for its value, as shown in the following example.

```
Azure PowerShell
```

```
Update-AzConfig -CheckForUpgrade $false
```

## Azure region identification

Azure customers can choose to deploy resources in many different regions. In some cases, customers may be able to reduce costs by selecting nearby regions offering the same services. If a nearby region is identified, a message will display the region to select for future deployments.

## Disabling region recommendation message

In the following example, the `Update-AzConfig` cmdlet is used to disable the region recommendation message:

```
Azure PowerShell
```

```
Update-AzConfig -DisplayRegionIdentified $false
```

For more information about Azure regions, see [choose the right Azure region for you](#).

## Replicating settings

To replicate your settings from one environment to another, you use the `Export-AzConfig` cmdlet to export the settings to a JSON file.

```
Azure PowerShell
```

```
Export-AzConfig -Path $HOME\AzConfig.json
```

To import your settings, use the `Import-AzConfig` cmdlet and reference the previously exported JSON file.

Azure PowerShell

```
Import-AzConfig -Path $HOME\AzConfig.json
```

## Clearing configuration

To reset the configuration setting of one or more Azure PowerShell global settings to the default, use the `Clear-AzConfig` cmdlet. In the following example, the `DefaultSubscriptionForLogin` setting is cleared.

Azure PowerShell

```
Clear-AzConfig -DefaultSubscriptionForLogin
```

# Intelligent context-aware command completion with Az Predictor

Article • 09/27/2023

## Overview

[Az Predictor](#) is a PowerShell module that helps you navigate the cmdlets and parameters of the [Az PowerShell module](#). It provides intelligent context-aware suggestions for command completion when using Azure PowerShell.

Az Predictor uses the [subsystem plugin model](#) available in PowerShell 7.2. This updated version requires [PSReadLine 2.2.2](#) or higher to display suggestions.

## Requirements

Required configuration for Az Predictor:

- [PowerShell 7.2](#) or higher
- [PSReadline 2.2.2](#) or higher

Install the latest version of PSReadLine:

```
PowerShell  
Install-Module -Name PSReadline
```

## Getting started

### Install Az Predictor

Install the Az.Tools.Predictor PowerShell module

```
PowerShell  
Install-Module -Name Az.Tools.Predictor
```

### Enable Az Predictor

1. Enable Az Predictor for the current and future PowerShell sessions.

```
PowerShell
```

```
Enable-AzPredictor -AllSession
```

2. Set your preferred view for suggestions.

Enable list view:

```
PowerShell
```

```
Set-PSReadLineOption -PredictionViewStyle ListView
```

Enable inline view:

```
PowerShell
```

```
Set-PSReadLineOption -PredictionViewStyle InlineView
```

ⓘ Note

You can switch between view modes with the `F2` key.

## Uninstallation

Once installed and enabled, Az Predictor is loaded in the PowerShell profile. To uninstall the `Az.Tools.Predictor` module:

1. Close **all** PowerShell sessions including VS Code.

2. Launch a PowerShell session with no profile.

```
PowerShell
```

```
pwsh -noprofile
```

3. Uninstall Az Predictor

```
PowerShell
```

```
Uninstall-Module -Name Az.Tools.Predictor -Force
```

## Privacy and data collection

### Privacy

Az predictor uses the previous two Az cmdlets to make suggestions and ignores any cmdlet that's not part of the [Az PowerShell](#) module. Only the names of cmdlets and parameters are sent to our API to obtain the suggestion. Parameter values are discarded. The resource group name and location used are kept locally and reused with subsequent cmdlets for convenience but are never sent to the API. In the preview version, the module generates and sends anonymized information about the current session used for predictions to the API. This information is used to assess the quality of suggestions.

### Data collection

The current version of Az Predictor collects anonymized information about its usage to identify common issues and improve the experience of future releases. Az Predictor doesn't collect any private or personal data.

For example, the usage data helps identify inaccurate suggestions and issues like interferences with PSReadLine. While we appreciate the insights this data provides, we understand not everyone wants to send usage data. You can disable data collection with the [Disable-AzDataCollection](#) cmdlet. You can also read our [privacy statement](#) to learn more.

# Use the Az PowerShell module behind a proxy

Article • 09/27/2023

If a proxy is necessary for HTTP request, the Azure PowerShell team recommends the following proxy configuration for different platforms:

| Platform                   | Recommended Proxy Settings                                                                                               | Comment                                                                                                               |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Windows<br>PowerShell 5.1  | System proxy settings                                                                                                    | Use the system proxy settings (internet options).                                                                     |
| PowerShell 7<br>on Windows | System proxy settings                                                                                                    | Proxy could be configured by setting both <code>HTTP_PROXY</code> and <code>HTTPS_PROXY</code> environment variables. |
| PowerShell 7<br>on macOS   | System proxy settings                                                                                                    | Proxy could be configured by setting both <code>HTTP_PROXY</code> and <code>HTTPS_PROXY</code> environment variables. |
| PowerShell 7<br>on Linux   | Set both <code>HTTP_PROXY</code> and <code>HTTPS_PROXY</code> environment variables, plus optional <code>NO_PROXY</code> | The environment variables should be set before starting PowerShell, otherwise they may not be respected.              |

The environment variables used are:

- `HTTP_PROXY`: the proxy server used on HTTP requests.
- `HTTPS_PROXY`: the proxy server used on HTTPS requests.
- `NO_PROXY`: a comma-separated list of hostnames that should be excluded from proxying.

On systems where environment variables are case-sensitive, the variable names may be all lowercase or all uppercase. The lowercase names are checked first.

# Sign in with Azure PowerShell

Article • 09/27/2023

Azure PowerShell supports several authentication methods. The easiest way to get started is with [Azure Cloud Shell](#), which automatically logs you in. With a local install, you can sign in interactively through your browser. When writing scripts for automation, the recommended approach is to use a [service principal](#) with the necessary permissions. When you restrict sign-in permissions as much as possible for your use case, you help keep your Azure resources secure.

Initially, you're signed into the first subscription Azure returns if you have access to more than one subscription. Commands are run against this subscription by default. To change your active subscription for a session, use the [Set-AzContext](#) cmdlet. To change your active subscription and have it persist between sessions on the same system, use the [Select-AzContext](#) cmdlet.

## ⓘ Important

Your credentials are shared among multiple PowerShell sessions as long as you remain signed in. For more information, see [Azure PowerShell context objects](#).

## Sign in interactively

To sign in interactively, use the [Connect-AzAccount](#) cmdlet.

```
Azure PowerShell
```

```
Connect-AzAccount
```

This cmdlet presents an interactive browser based login prompt by default.

Use the [Get-AzContext](#) cmdlet to store your tenant ID in a variable to be used in the next two sections of this article.

```
Azure PowerShell
```

```
$tenantId = (Get-AzContext).Tenant.Id
```

## Device code authentication

You can specify the `UseDeviceAuthentication` parameter to use device code authentication instead of a browser control.

Azure PowerShell

```
Connect-AzAccount -UseDeviceAuthentication
```

## Sign in with a service principal

Service principals are non-interactive Azure accounts. Like other user accounts, their permissions are managed with Azure Active Directory. By granting a service principal only the permissions it needs, your automation scripts stay secure.

To learn how to create a service principal for use with Azure PowerShell, see [Create an Azure service principal with Azure PowerShell](#).

To sign in with a service principal, use the `ServicePrincipal` parameter of the `Connect-AzAccount` cmdlet. You'll also need the service principal's `AppId`, sign-in credentials, and the tenant ID associate with the service principal. How you sign in with a service principal depends on whether it's configured for password-based or certificate-based authentication.

## Password-based authentication

Create a service principal to be used in the examples in this section. For more information on creating service principals, see [Create an Azure service principal with Azure PowerShell](#).

Azure PowerShell

```
$sp = New-AzADServicePrincipal -DisplayName ServicePrincipalName
```

### ⚠️ Warning

The provided service principal secret is stored in the `AzureRmContext.json` file in your user profile (`$env:USERPROFILE\.Azure`). Ensure this directory has appropriate protections.

To get the service principal's credentials as the appropriate object, use the [Get-Credential](#) cmdlet. This cmdlet presents a prompt for a username and password. Use the

service principal's `AppId` for the username and convert its `secret` to plain text for the password.

Azure PowerShell

```
# Retrieve the plain text password for use with `Get-Credential` in the next command.  
$sp.PasswordCredentials.SecretText  
  
$pscredential = Get-Credential -UserName $sp.AppId  
Connect-AzAccount -ServicePrincipal -Credential $pscredential -Tenant  
$tenantId
```

For automation scenarios, you need to create credentials from a service principal's `AppId` and `SecretText`:

Azure PowerShell

```
$SecureStringPwd = $sp.PasswordCredentials.SecretText | ConvertTo-SecureString -AsPlainText -Force  
$pscredential = New-Object -TypeName System.Management.Automation.PSCredential -ArgumentList $sp.AppId,  
$SecureStringPwd  
Connect-AzAccount -ServicePrincipal -Credential $pscredential -Tenant  
$tenantId
```

Make sure that you use good password storage practices when automating service principal connections.

## Certificate-based authentication

Certificate-based authentication requires that Azure PowerShell can retrieve information from a local certificate store based on a certificate thumbprint.

Azure PowerShell

```
Connect-AzAccount -ApplicationId $appId -Tenant $tenantId -  
CertificateThumbprint <thumbprint>
```

When using a service principal instead of a registered application, specify the `ServicePrincipal` parameter and provide the service principal's `AppId` as the value for the `ApplicationId` parameter.

Azure PowerShell

```
Connect-AzAccount -ServicePrincipal -ApplicationId $servicePrincipalId -  
Tenant $tenantId -CertificateThumbprint <thumbprint>
```

In Windows PowerShell 5.1, the certificate store can be managed and inspected with the **PKI** module. For PowerShell 7.x and later, the process is more complicated. The following scripts show you how to import an existing certificate into the certificate store accessible by PowerShell.

## Import a certificate in Windows PowerShell 5.1

PowerShell

```
# Import a PFX  
$credentials = Get-Credential -Message 'Provide PFX private key password'  
Import-PfxCertificate -FilePath <path to certificate> -Password  
$credentials.Password -CertStoreLocation cert:\CurrentUser\My
```

## Import a certificate in PowerShell 7.x and later

PowerShell

```
# Import a PFX  
$storeName = [System.Security.Cryptography.X509Certificates.StoreName]::My  
$storeLocation =  
[System.Security.Cryptography.X509Certificates.StoreLocation]::CurrentUser  
$store =  
[System.Security.Cryptography.X509Certificates.X509Store]::new($storeName,  
$storeLocation)  
$certPath = <path to certificate>  
$credentials = Get-Credential -Message "Provide PFX private key password"  
$flag =  
[System.Security.Cryptography.X509Certificates.X509KeyStorageFlags]::Exportable  
$certificate =  
[System.Security.Cryptography.X509Certificates.X509Certificate2]::new($certPath,  
$credentials.Password, $flag)  
$store.Open([System.Security.Cryptography.X509Certificates.OpenFlags]::ReadWrite)  
$store.Add($certificate)  
$store.Close()
```

## Sign in using a managed identity

Managed identities are a feature of Azure Active Directory. Managed identities are service principals assigned to resources that run in Azure. You can use a managed identity service principal for sign-in, and an app-only access token to access other resources. Managed identities are only available on resources running in an Azure cloud.

This example connects using a system-assigned managed identity of the host environment. For example, if executed on a VirtualMachine with an assigned Managed Service Identity, this allows the code to sign in using that assigned identity.

```
Azure PowerShell
```

```
Connect-AzAccount -Identity
```

When using a user-assigned managed identity, you must specify the **AccountId** parameter in addition to the **Identity** parameter as shown in the following example.

```
Azure PowerShell
```

```
Connect-AzAccount -Identity -AccountId <user-assigned-identity-clientId-or-resourceId>
```

The following example connects using the Managed Service Identity of `myUserAssignedIdentity`. It adds the user assigned identity to the virtual machine, then connects using the `ClientId` of the user assigned identity. For more information, see [Configure managed identities for Azure resources on an Azure VM](#).

```
Azure PowerShell
```

```
$identity = Get-AzUserAssignedIdentity -ResourceGroupName 'myResourceGroup' -Name 'myUserAssignedIdentity'  
Get-AzVM -ResourceGroupName contoso -Name testvm | Update-AzVM -IdentityType UserAssigned -IdentityId $identity.Id  
Connect-AzAccount -Identity -AccountId $identity.ClientId # Run on the virtual machine
```

| Account             | SubscriptionName | TenantId            | Environment |
|---------------------|------------------|---------------------|-------------|
| -----               | -----            | -----               | -----       |
| yyyy-yyyy-yyyy-yyyy | Subscription1    | xxxx-xxxx-xxxx-xxxx | AzureCloud  |

## Sign in with a non-default tenant or as a Cloud Solution Provider (CSP)

If your account is associated with more than one tenant, sign-in requires the **Tenant** parameter to be specified when connecting. This parameter works with any sign-in method. When logging in, this parameter value can either be the Azure object ID of the tenant (Tenant ID) or the fully qualified domain name of the tenant.

If you're a [Cloud Solution Provider \(CSP\)](#), the value for the **Tenant** parameter must be a tenant ID.

```
Azure PowerShell
```

```
Connect-AzAccount -Tenant '00000000-0000-0000-0000-000000000000'
```

## Sign in to another Cloud

Azure cloud services offer environments compliant with regional data-handling laws. For accounts in a regional cloud, set the environment when you sign in with the **Environment** parameter. This parameter works with any sign-in method. For example, if your account is in Azure China 21Vianet:

```
Azure PowerShell
```

```
Connect-AzAccount -Environment AzureChinaCloud
```

The following command returns a list of available environments:

```
Azure PowerShell
```

```
Get-AzEnvironment | Select-Object -Property Name
```

# Create an Azure service principal with Azure PowerShell

Article • 09/27/2023

Automated tools that use Azure services should always have restricted permissions. Instead of having applications sign in as a fully privileged user, Azure offers service principals.

An Azure service principal is an identity created for use with applications, hosted services, and automated tools to access Azure resources. This access is restricted by the roles assigned to the service principal, giving you control over which resources can be accessed and at which level. For security reasons, it's always recommended to use service principals with automated tools rather than allowing them to log in with a user identity.

This article shows you the steps for creating, getting information about, and resetting a service principal with Azure PowerShell.

## ⚠️ Warning

When you create a service principal using the [New-AzADServicePrincipal](#) command, the output includes credentials that you must protect. As an alternative, consider using [managed identities](#) to avoid the need to use credentials.

## Prerequisites

- If you choose to use Azure PowerShell locally:
  - [Install the Az PowerShell module](#).
  - Connect to your Azure account using the [Connect-AzAccount](#) cmdlet.
- If you choose to use Azure Cloud Shell:
  - See [Overview of Azure Cloud Shell](#) for more information.

## Create a service principal

Create a service principal with the [New-AzADServicePrincipal](#) cmdlet. When creating a service principal, you choose the type of sign-in authentication it uses.

## ⓘ Important

Beginning with Az PowerShell module version 7.x, `New-AzADServicePrincipal` no longer assigns the **Contributor** role to the service principal by default. To assign a specific role to a service principal, see [Steps to add a role assignment](#).

### ⓘ Note

If your account doesn't have permission to create a service principal, `New-AzADServicePrincipal` returns an error message containing "Insufficient privileges to complete the operation". Contact your Azure Active Directory admin to create a service principal.

There are two types of authentication available for service principals: Password-based authentication, and certificate-based authentication.

## Password-based authentication

### ⓘ Important

The default role for a password-based authentication service principal is **Contributor**. This role has full permissions to read and write to an Azure account. For information on managing role assignments, see [Manage service principal roles](#).

Without any other authentication parameters, password-based authentication is used and a random password created for you. If you want password-based authentication, this method is recommended.

Azure PowerShell

```
$sp = New-AzADServicePrincipal -DisplayName ServicePrincipalName
```

The returned object contains the `PasswordCredentials.SecretText` property containing the generated password. Make sure that you store this value somewhere secure to authenticate with the service principal. Its value *won't* be displayed in the console output. If you lose the password, [reset the service principal credentials](#).

The following code allows you to export the secret:

Azure PowerShell

```
$sp.PasswordCredentials.SecretText
```

The object returned from `New-AzADServicePrincipal` contains the `Id` and `DisplayName` members, either of which can be used for sign in with the service principal.

#### ⓘ Important

Signing in with a service principal requires the tenant ID which the service principal was created under. To get the active tenant when the service principal was created, run the following command *immediately after* service principal creation:

Azure PowerShell

```
(Get-AzContext).Tenant.Id
```

## Certificate-based authentication

#### ⓘ Important

There is no default role assigned when creating a certificate-based authentication service principal. For information on managing role assignments, see [Manage service principal roles](#).

Service principals using certificate-based authentication are created with the `CertValue` parameter. This parameter takes a base64-encoded ASCII string of the public certificate. This is represented by a PEM file, or a text-encoded CRT or CER. Binary encodings of the public certificate aren't supported. These instructions assume that you already have a certificate available.

Azure PowerShell

```
$cert = <public certificate as base64-encoded string>
$sp = New-AzADServicePrincipal -DisplayName ServicePrincipalName -CertValue
$cert
```

The object returned from `New-AzADServicePrincipal` contains the `Id` and `DisplayName` properties, either of which can be used for sign in with the service principal. Clients which sign in with the service principal also need access to the certificate's private key.

## ⓘ Important

Signing in with a service principal requires the tenant ID which the service principal was created under. To get the active tenant when the service principal was created, run the following command *immediately after* service principal creation:

Azure PowerShell

```
(Get-AzContext).Tenant.Id
```

## Get an existing service principal

A list of service principals for the active tenant can be retrieved with [Get-AzADServicePrincipal](#). By default this command returns *all* service principals in a tenant. For large organizations, it may take a long time to return results. Instead, using one of the optional server-side filtering arguments is recommended:

- `DisplayNameBeginsWith` requests service principals that have a *prefix* that match the provided value. The display name of a service principal is the value set with `DisplayName` during creation.
- `DisplayName` requests an *exact match* of a service principal name.

## Manage service principal roles

Azure PowerShell has the following cmdlets to manage role assignments:

- [Get-AzRoleAssignment](#)
- [New-AzRoleAssignment](#)
- [Remove-AzRoleAssignment](#)

For more information on Role-Based Access Control (RBAC) and roles, see [RBAC: Built-in roles](#).

The following example adds the **Reader** role and removes the **Contributor** role:

Azure PowerShell

```
New-AzRoleAssignment -ApplicationId <service principal application ID> -  
RoleDefinitionName 'Reader'  
Remove-AzRoleAssignment -ObjectId <service principal object ID> -  
RoleDefinitionName 'Contributor'
```

## ⓘ Important

Role assignment cmdlets don't take the service principal object ID. They take the associated application ID, which is generated at creation time. To get the application ID for a service principal, use `Get-AzADServicePrincipal`.

## ⓘ Note

If your account doesn't have permission to assign a role, you see an error message that your account "doesn't have authorization to perform action 'Microsoft.Authorization/roleAssignments/write'". Contact your Azure Active Directory admin to manage roles.

Adding a role *doesn't* restrict previously assigned permissions. When restricting a service principal's permissions, the **Contributor** role should be removed.

The changes can be verified by listing the assigned roles:

Azure PowerShell

```
Get-AzRoleAssignment -ServicePrincipalName ServicePrincipalName
```

## Sign in using a service principal

Test the new service principal's credentials and permissions by signing in. To sign in with a service principal, you need the `applicationId` value associated with it, and the tenant it's created under.

To sign in with a service principal using a password:

Azure PowerShell

```
# Use the application ID as the username, and the secret as password
$credentials = Get-Credential
Connect-AzAccount -ServicePrincipal -Credential $credentials -Tenant <tenant
ID>
```

Certificate-based authentication requires that Azure PowerShell can retrieve information from a local certificate store based on a certificate thumbprint.

Azure PowerShell

```
Connect-AzAccount -ServicePrincipal -Tenant <TenantId> -  
CertificateThumbprint <Thumbprint> -ApplicationId <ApplicationId>
```

For instructions on importing a certificate into a credential store accessible by PowerShell, see [Sign in with Azure PowerShell](#)

## Reset credentials

If you forget the credentials for a service principal, use [New-AzADSpCredential](#) to add a new credential with a random password. This cmdlet doesn't support user-defined credentials when resetting the password.

### Important

Before assigning any new credentials, you may want to remove existing credentials to prevent sign in with them. To do so, use the [Remove-AzADSpCredential](#) cmdlet:

Azure PowerShell

```
Remove-AzADSpCredential -DisplayName ServicePrincipalName
```

Azure PowerShell

```
$newCredential = New-AzADSpCredential -ServicePrincipalName  
ServicePrincipalName
```

## Troubleshooting

If you receive the error: "*New-AzADServicePrincipal: Another object with the same value for property identifierUris already exists.*", verify that a service principal with the same name doesn't already exist.

Azure PowerShell

```
Get-AzAdServicePrincipal -DisplayName ServicePrincipalName
```

If the existing service principal is no longer needed, you can remove it using the following example.

Azure PowerShell

```
Remove-AzAdServicePrincipal -DisplayName ServicePrincipalName
```

This error can also occur when you've previously created a service principal for an Azure Active Directory application. If you remove the service principal, the application is still available. This application prevents you from creating another service principal with the same name.

You can use the following example to verify that an Azure Active Directory application with the same name doesn't exist:

Azure PowerShell

```
Get-AzADApplication -DisplayName ServicePrincipalName
```

If an application with the same name does exist and is no longer needed, it can be removed using the following example.

Azure PowerShell

```
Remove-AzADApplication -DisplayName ServicePrincipalName
```

Otherwise, choose an alternate name for the new service principal that you're attempting to create.

# Azure PowerShell context objects

Article • 09/27/2023

Azure PowerShell uses *Azure PowerShell context objects* (Azure contexts) to hold subscription and authentication information. If you have more than one subscription, Azure contexts let you select the subscription to run Azure PowerShell cmdlets on. Azure contexts are also used to store sign-in information across multiple PowerShell sessions and run background tasks.

This article covers managing Azure contexts, not the management of subscriptions or accounts. If you're looking to manage users, subscriptions, tenants, or other account information, see the [Azure Active Directory](#) documentation. To learn about using contexts for running background or parallel tasks, see [Run Azure PowerShell cmdlets in PowerShell Jobs](#) after becoming familiar with Azure contexts.

## Overview of Azure context objects

Azure contexts are PowerShell objects representing your active subscription to run commands against, and the authentication information needed to connect to an Azure cloud. With Azure contexts, Azure PowerShell doesn't need to reauthenticate your account each time you switch subscriptions. An Azure context consists of:

- The *account* that was used to sign in to Azure with [Connect-AzAccount](#). Azure contexts treat users, application IDs, and service principals the same from an account perspective.
- The active *subscription*, a service agreement with Microsoft to create and run Azure resources, which are associated with a *tenant*. Tenants are often referred to as *organizations* in documentation or when working with Active Directory.
- A reference to a *token cache*, a stored authentication token for accessing an Azure cloud. Where this token is stored and how long it persists for is determined by the [context autosave settings](#).

For more information on these terms, see [Azure Active Directory Terminology](#).

Authentication tokens used by Azure contexts are the same as other stored tokens that are part of a persistent session.

When you sign in with `Connect-AzAccount`, at least one Azure context is created for your default subscription. The object returned by `Connect-AzAccount` is the default Azure context used for the rest of the PowerShell session.

# Get Azure contexts

Available Azure contexts are retrieved with the [Get-AzContext](#) cmdlet. List the available contexts with the **ListAvailable** parameter:

```
Azure PowerShell
```

```
Get-AzContext -ListAvailable
```

Or get a context by name:

```
Azure PowerShell
```

```
Get-AzContext -Name 'mycontext'
```

Context names may be different from the name of the associated subscription.

 **Important**

The available Azure contexts aren't always your available subscriptions. Azure contexts only represent locally stored information. You can get your subscriptions with the [Get-AzSubscription](#) cmdlet.

## Create a new Azure context from subscription information

The [Set-AzContext](#) cmdlet is used to both create new Azure contexts and set them as the active context. The easiest way to create a new Azure context is to use existing subscription information. The cmdlet is designed to take the output object from [Get-AzSubscription](#) as a piped value and configure a new Azure context:

```
Azure PowerShell
```

```
Get-AzSubscription -SubscriptionName 'MySubscriptionName' |  
Set-AzContext -Name 'MyContextName'
```

Or give the subscription name or ID and the tenant ID if necessary:

```
Azure PowerShell
```

```
Set-AzContext -Name 'MyContextName' -Subscription 'MySubscriptionName' -  
Tenant '00000000-0000-0000-0000-000000000000'
```

If the **Name** parameter is omitted, then the subscription's name and ID are used as the context name in the format **Subscription Name (subscription-id)**.

## Change the active Azure context

Both `Set-AzContext` and `Select-AzContext` can be used to change the active Azure context. As described in [Create a new Azure context](#), `Set-AzContext` creates a new Azure context for a subscription if one doesn't exist, and then switches the active context to that one.

`Select-AzContext` is meant to be used only with existing Azure contexts and works similarly to using `Set-AzContext -Context`, but is designed for use with piping:

Azure PowerShell

```
Set-AzContext -Context $(Get-AzContext -Name 'mycontext') # Set a context  
with an inline Azure context object  
Get-AzContext -Name 'mycontext' | Select-AzContext # Set a context with a  
piped Azure context object
```

Like many other account and context management commands in Azure PowerShell, `Set-AzContext` and `Select-AzContext` support the **Scope** parameter so that you can control how long the context is active. **Scope** lets you change a single session's active context without changing your default:

Azure PowerShell

```
Get-AzContext -Name 'mycontext' | Select-AzContext -Scope Process
```

To avoid switching contexts for a whole PowerShell session, Azure PowerShell commands with an **AzContext** parameter can be run against a given context:

Azure PowerShell

```
$context = Get-AzContext -Name "mycontext"  
New-AzVM -Name ExampleVM -AzContext $context
```

The other main use of contexts with Azure PowerShell cmdlets is to run background commands. To learn more about running PowerShell Jobs using Azure PowerShell, see

## Save Azure contexts across PowerShell sessions

By default, Azure contexts are saved for use between PowerShell sessions. You change this behavior in the following ways:

- Sign in using `-Scope Process` with `Connect-AzAccount`.

```
Azure PowerShell  
Connect-AzAccount -Scope Process
```

The Azure context returned as part of this sign in is valid for the current session *only* and won't be saved automatically, regardless of the Azure PowerShell context autosave setting.

- Disable context autosave in Azure PowerShell with the [Disable-AzContextAutosave](#) cmdlet. Disabling context autosave doesn't clear any stored tokens. To learn how to clear stored Azure context information, see [Remove Azure contexts and credentials](#).
- Explicitly enable Azure context autosave can be enabled with the [Enable-AzContextAutosave](#) cmdlet. With autosave enabled, a user's contexts are stored locally for later PowerShell sessions.
- Manually save contexts with [Save-AzContext](#) to be used in future PowerShell sessions, where they can be loaded with [Import-AzContext](#):

```
Azure PowerShell  
Save-AzContext -Path current-context.json # Save the current context  
Save-AzContext -Profile $profileObject -Path other-context.json # Save  
a context object  
Import-AzContext -Path other-context.json # Load the context from a  
file and set it to the current context
```

### ⚠ Warning

Disabling context autosave doesn't clear any stored context information that was saved. To remove stored information, use the [Clear-AzContext](#) cmdlet. For more on removing saved contexts, see [Remove contexts and credentials](#).

Each of these commands supports the **Scope** parameter, which can take a value of **Process** to only apply to the current running process. For example, to ensure that newly created contexts aren't saved after exiting a PowerShell session:

```
Azure PowerShell
```

```
Disable-AzContextAutosave -Scope Process  
$context2 = Set-AzContext -Subscription 'sub-id' -Tenant 'other-tenant'
```

Context information and tokens are stored in the `$env:USERPROFILE\.Azure` directory on Windows, and on `$HOME/.Azure` on other platforms. Sensitive information such as subscription IDs and tenant IDs may still be exposed in stored information, through logs, or saved contexts. To learn how to clear stored information, see the [Remove contexts and credentials](#) section.

## Remove Azure contexts and stored credentials

To clear Azure contexts and credentials:

- Sign out of an account with [Disconnect-AzAccount](#). You can sign out of any account either by account or context:

```
Azure PowerShell
```

```
Disconnect-AzAccount # Disconnect active account  
Disconnect-AzAccount -Username 'user@contoso.com' # Disconnect by account name  
  
Disconnect-AzAccount -ContextName 'subscription2' # Disconnect by context name  
Disconnect-AzAccount -AzureContext $contextObject # Disconnect using context object information
```

Disconnecting always removes stored authentication tokens and clears saved contexts associated with the disconnected user or context.

- Use [Clear-AzContext](#). This cmdlet always removes stored contexts, authentication tokens, and signs you out.
- Remove a context with [Remove-AzContext](#):

```
Azure PowerShell
```

```
Remove-AzContext -Name 'mycontext' # Remove by name  
Get-AzContext -Name 'mycontext' | Remove-AzContext # Remove by piping
```

## Azure context object

If you remove the active context, you'll be disconnected from Azure and need to reauthenticate with `Connect-AzAccount`.

## See also

- [Run Azure PowerShell cmdlets in PowerShell Jobs](#)
- [Azure Active Directory Terminology](#)
- [Az.Accounts reference documentation](#)

# Use multiple Azure subscriptions

Article • 09/27/2023

Most Azure users only have a single subscription. However, if you are part of more than one organization or your organization has divided up access to certain resources across groupings, you may have multiple subscriptions within Azure.

For detailed information on subscriptions, billing, and cost management, see the [billing and cost management documentation](#).

## Tenants, users, and subscriptions

You might have some confusion over the difference between tenants, users, and subscriptions within Azure. A *tenant* is the Azure Active Directory entity that encompasses a whole organization. This tenant has at least one *subscription* and *user*. A user is an individual and is associated with only one tenant, the organization that they belong to. Users are those accounts that sign in to Azure to create, manage, and use resources. A user may have access to multiple *subscriptions*, which are the agreements with Microsoft to use cloud services, including Azure. Every resource is associated with a subscription.

To learn more about the differences between tenants, users, and subscriptions, see the [Azure cloud terminology dictionary](#). To learn how to add a new subscription to your Azure Active Directory tenant, see [Associate or add an Azure subscription to your Azure Active Directory tenant](#). To learn how to sign in to a specific tenant, see [Sign in with Azure PowerShell](#).

## Change the active subscription

In Azure PowerShell, accessing the resources for a subscription requires changing the subscription associated with your current Azure session. This is done by modifying the active session context, the information about which tenant, subscription, and user cmdlets should be run against. In order to change subscriptions, you use the [Set-AzContext](#) cmdlet to change the current context.

The following example shows how to change the context in your current Azure session:

Azure PowerShell

```
Set-AzContext -Subscription <subscription name or id>
```

You can use the [Get-AzSubscription](#) cmdlet to retrieve a list of your Azure subscriptions.

To learn more about Azure PowerShell contexts, including how to save them and switch between them for working with multiple subscriptions, see [Persist credentials with Azure PowerShell contexts](#).

# Manage Azure resources with Invoke-AzRestMethod

Article • 09/27/2023

[Invoke-AzRestMethod](#) is an Azure PowerShell cmdlet that was introduced in Az PowerShell module version 4.4.0. It allows you to make custom HTTP requests to the Azure Resource Manager (ARM) endpoint using the Az context.

This cmdlet is useful when you want to manage Azure services for features that aren't yet available in the Az PowerShell module.

## How to use Invoke-AzRestMethod

As an example, you can allow access to Azure Container Registry (ACR) only for specific networks or deny public access. As of Az PowerShell module version 4.5.0, that feature isn't available yet in the [Az.ContainerRegistry PowerShell module](#). However, it can be managed in the interim with `Invoke-AzRestMethod`.

## Using Invoke-AzRestMethod with GET operations

The following example demonstrates how to use the `Invoke-AzRestMethod` cmdlet with a GET operation:

Azure PowerShell

```
$getParams = @{
    ResourceGroupName = 'myresourcegroup'
    ResourceProviderName = 'Microsoft.ContainerRegistry'
    ResourceType = 'registries'
    Name = 'myacr'
    ApiVersion = '2019-12-01-preview'
    Method = 'GET'
}
Invoke-AzRestMethod @getParams
```

To allow maximum flexibility, most of the parameters for `Invoke-AzRestMethod` are optional. However, when you're managing resources within a resource group, you'll need to provide either the full ID to the resource or parameters like resource group, resource provider, and resource type.

The  `ResourceType` and `Name` parameters can take multiple values when targeting resources that require more than one name. For example, to manipulate a saved search in a Log Analytics workspace, the parameters look like the following example:

```
 ResourceType @('workspaces', 'savedsearches') -Name @('my-la', 'my-search').
```

Using a mapping based on the position in the array, the cmdlet constructs the following resource: `Id: '/workspaces/my-la/savedsearches/my-search'`.

The  `APIVersion` parameter allows you to use a specific API version, including preview ones. The supported API versions for Azure Resource providers can be found in the [azure-rest-api-specs](#) GitHub repository.

You can find the definition for the `2019-12-01-preview` ACR API version in the following location: [azure-rest-api-specs/specification/containerregistry/resource-manager/Microsoft.ContainerRegistry/preview/](#).

## Using `Invoke-AzRestMethod` with **PATCH** operations

You can disable public access to the existing ACR named `myacr` in the `myresourcegroup` resource group using the `Invoke-AzRestMethod` cmdlet.

To disable the public network access, you need to make a **PATCH** call to the API that changes the value of the `publicNetworkAccess` parameter as shown in the following example:

Azure PowerShell

```
$patchParams = @{
    ResourceGroupName = 'myresourcegroup'
    Name = 'myacr'
    ResourceProviderName = 'Microsoft.ContainerRegistry'
    ResourceType = 'registries'
    ApiVersion = '2019-12-01-preview'
    Payload = '{ "properties": {
        "publicNetworkAccess": "Disabled"
    } }'
    Method = 'PATCH'
}
Invoke-AzRestMethod @patchParams
```

The `Payload` property is a JSON string that shows the path of the property to be modified.

All the parameters for this API are described in the `rest-api-spec` file associated with this API. The specific definition for the `publicNetworkAccess` parameter can be found in the [container registry JSON file](#) for the `2019-12-01-preview` API version.

To only allow access to the registry from a specific IP address, the payload needs to be modified as shown in the following example:

```
Azure PowerShell

$specificIpParams = @{
    ResourceGroupName = 'myresourcegroup'
    Name = 'myacr'
    ResourceProviderName = 'Microsoft.ContainerRegistry'
    ResourceType = 'registries'
    ApiVersion = '2019-12-01-preview'
    Payload = '{ "properties": {
        "networkRuleSet": {
            "defaultAction": "Deny",
            "ipRules": [ {
                "action": "Allow",
                "value": "24.22.123.123"
            } ]
        }
    } }'
    Method = 'PATCH'
}
Invoke-AzRestMethod @specificIpParams
```

## Comparison to Get-AzResource, New-AzResource, and Remove-AzResource

The `*-AzResource` cmdlets allow you to customize the REST API call to Azure by specifying the resource type, the API version, and the properties to be updated. However, the properties need to be created first as a `PSObject`. This process adds an additional level of complexity and can become complicated.

`Invoke-AzRestMethod` offers a way to manage Azure resources. As shown in the previous example, you can build a JSON string and use it to customize the REST API call without having to pre-create any `PSObjects`.

If you're already familiar with the `*-AzResource` cmdlets, you can continue using them. We've no plans to stop supporting them. With `Invoke-AzRestMethod`, we've added a new cmdlet to your toolkit.

## See Also

- [Get-AzResource](#)
- [New-AzResource](#)
- [Remove-AzResource](#)

# Query output of Azure PowerShell

Article • 09/27/2023

The results of each Azure PowerShell cmdlet are an Azure PowerShell object. Even cmdlets that aren't explicitly `Get-` operations might return a value that can be inspected, to give information about a resource that was created or modified. While most cmdlets return a single object, some return an array that should be iterated through.

Usually, you query output from Azure PowerShell with the [Select-Object](#) cmdlet. Output can be filtered with [Where-Object](#).

## Select simple properties

In the default table format, Azure PowerShell cmdlets don't display all their available properties. You can get the full properties using the [Format-List](#) cmdlet, or by piping output to `Select-Object -Property *`:

Azure PowerShell

```
Get-AzVM -Name TestVM -ResourceGroupName TestGroup |  
    Select-Object -Property *
```

Output

```
ResourceGroupName      : TESTGROUP  
Id                  : /subscriptions/00000000-0000-0000-0000-  
000000000000/resourceGroups/TESTGROUP/providers/Micro  
soft.Compute/virtualMachines/TestVM  
VmId                : 00000000-0000-0000-000000000000  
Name                : TestVM  
Type                : Microsoft.Compute/virtualMachines  
Location             : westus2  
LicenseType          :  
Tags                : {}  
AvailabilitySetReference :  
DiagnosticsProfile   :  
Extensions           : {}  
HardwareProfile       :  
Microsoft.Azure.Management.Compute.Models.HardwareProfile  
InstanceView          :  
NetworkProfile        :  
Microsoft.Azure.Management.Compute.Models.NetworkProfile  
OSProfile            :  
Microsoft.Azure.Management.Compute.Models.OSProfile  
Plan                 :  
ProvisioningState     : Succeeded
```

```
StorageProfile      : Microsoft.Azure.Management.Compute.Models.StorageProfile
DisplayHint        : Compact
Identity           :
Zones              : {}
FullyQualifiedDomainName :
AdditionalCapabilities :
RequestId          : 00000000-0000-0000-0000-000000000000
StatusCode         : OK
```

Once you know the names of the properties that you're interested in, you can use those property names with `Select-Object` to get them directly:

Azure PowerShell

```
Get-AzVM -Name TestVM -ResourceGroupName TestGroup |  
Select-Object -Property Name, VmId, ProvisioningState
```

Output

| Name   | VmId                                 | ProvisioningState |
|--------|--------------------------------------|-------------------|
| TestVM | 00000000-0000-0000-0000-000000000000 | Succeeded         |

Output from using `Select-Object` is always formatted to display the requested information. To learn about using formatting as part of querying cmdlet results, see [Format Azure PowerShell cmdlet output](#).

## Select nested properties

Some properties in Azure PowerShell cmdlet output use nested objects, like the `StorageProfile` property of `Get-AzVM` output. To get a value from a nested property, provide a display name and the full path to the value you want to inspect as part of a dictionary argument to `Select-Object`:

Azure PowerShell

```
Get-AzVM -ResourceGroupName TestGroup |  
Select-Object -Property Name, @{label='OSType'; expression=  
{$_._.StorageProfile.OSDisk.OSType}}
```

Output

| Name | OSType |
|------|--------|
|      | -----  |

```
TestVM    Linux
TestVM2   Linux
WinVM    Windows
```

Each dictionary argument selects one property from the object. The property to extract must be part of an expression.

## Filter results

The `Where-Object` cmdlet allows you to filter the result based on any property value, including nested properties. The next example shows how to use `Where-Object` to find the Linux VMs in a resource group.

Azure PowerShell

```
Get-AzVM -ResourceGroupName TestGroup |
  Where-Object {$_['StorageProfile.OSDisk.OsType -eq 'Linux']}
```

Output

| ResourceGroupName | Name    | Location | VmSize          | OsType | NIC        |
|-------------------|---------|----------|-----------------|--------|------------|
| ProvisioningState | Zone    |          |                 |        |            |
| TestGroup         | TestVM  | westus2  | Standard_D2s_v3 | Linux  | testvm299  |
| Succeeded         |         |          |                 |        |            |
| TestGroup         | TestVM2 | westus2  | Standard_D2s_v3 | Linux  | testvm2669 |
| Succeeded         |         |          |                 |        |            |

You can pipe the results of `Select-Object` and `Where-Object` to each other. For performance purposes, it's always recommended to put the `Where-Object` operation before `Select-Object`:

Azure PowerShell

```
Get-AzVM -ResourceGroupName TestGroup |
  Where-Object {$_['StorageProfile.OSDisk.OsType -eq 'Linux']} |
  Select-Object -Property Name, VmID, ProvisioningState
```

Output

| Name | VmId | ProvisioningState |
|------|------|-------------------|
|      |      |                   |

TestVM 00000000-0000-0000-0000-000000000000 Succeeded  
TestVM2 00000000-0000-0000-0000-000000000000 Succeeded

# Format Azure PowerShell cmdlet output

Article • 09/27/2023

By default each Azure PowerShell cmdlet formats output to be easy to read. PowerShell allows you to convert or format cmdlet output by piping to one of the following cmdlets:

| Formatting    | Conversion     |
|---------------|----------------|
| Format-Custom | ConvertTo-Csv  |
| Format-List   | ConvertTo-Html |
| Format-Table  | ConvertTo-Json |
| Format-Wide   | ConvertTo-Xml  |

Formatting is used for display in the PowerShell console, and conversion is used for generating data to be consumed by other scripts or programs.

## Table output format

By default, Azure PowerShell cmdlets output in the table format. This format doesn't display all information of the requested resource:

| Azure PowerShell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |           |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------|-----------------|---------|--------|----------------------------|--|--|--|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------------------|----------------|---------|----------|-------|--|--|-----------|--|--|-----------------------------|-------------|---------|----------------|-------|--|--|-----------|--|--|------------------------------|--------------|---------|-----------------|---------|--|--|-----------|--|--|
| <code>Get-AzVM</code>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   |           |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| Output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |           |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| <table><thead><tr><th>ResourceGroupName</th><th>Name</th><th>Location</th><th>VmSize</th><th>OsType</th></tr></thead><tbody><tr><td>NIC ProvisioningState Zone</td><td></td><td></td><td></td><td></td></tr><tr><td>-----</td><td>-----</td><td>-----</td><td>-----</td><td>-----</td></tr><tr><td>-----</td><td>-----</td><td>-----</td><td>-----</td><td>-----</td></tr><tr><td>QueryExample examplelinuxvm916</td><td>ExampleLinuxVM</td><td>westus2</td><td>Basic_A0</td><td>Linux</td></tr><tr><td></td><td></td><td>Succeeded</td><td></td><td></td></tr><tr><td>QueryExample rhelexample469</td><td>RHELExample</td><td>westus2</td><td>Standard_D2_v3</td><td>Linux</td></tr><tr><td></td><td></td><td>Succeeded</td><td></td><td></td></tr><tr><td>QueryExample winexamplevm268</td><td>WinExampleVM</td><td>westus2</td><td>Standard_DS1_v2</td><td>Windows</td></tr><tr><td></td><td></td><td>Succeeded</td><td></td><td></td></tr></tbody></table> | ResourceGroupName | Name      | Location        | VmSize  | OsType | NIC ProvisioningState Zone |  |  |  |  | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | QueryExample examplelinuxvm916 | ExampleLinuxVM | westus2 | Basic_A0 | Linux |  |  | Succeeded |  |  | QueryExample rhelexample469 | RHELExample | westus2 | Standard_D2_v3 | Linux |  |  | Succeeded |  |  | QueryExample winexamplevm268 | WinExampleVM | westus2 | Standard_DS1_v2 | Windows |  |  | Succeeded |  |  |
| ResourceGroupName                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Name              | Location  | VmSize          | OsType  |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| NIC ProvisioningState Zone                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |           |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| -----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -----             | -----     | -----           | -----   |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| -----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -----             | -----     | -----           | -----   |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| QueryExample examplelinuxvm916                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ExampleLinuxVM    | westus2   | Basic_A0        | Linux   |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   | Succeeded |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| QueryExample rhelexample469                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RHELExample       | westus2   | Standard_D2_v3  | Linux   |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   | Succeeded |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
| QueryExample winexamplevm268                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WinExampleVM      | westus2   | Standard_DS1_v2 | Windows |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   | Succeeded |                 |         |        |                            |  |  |  |  |       |       |       |       |       |       |       |       |       |       |                                |                |         |          |       |  |  |           |  |  |                             |             |         |                |       |  |  |           |  |  |                              |              |         |                 |         |  |  |           |  |  |

The amount of data displayed by `Format-Table` can be affected by the width of your PowerShell session window. To restrict the output to specific properties and order them,

property names can be provided as arguments to `Format-Table`:

Azure PowerShell

```
Get-AzVM -ResourceGroupName QueryExample |  
    Format-Table -Property Name, ResourceGroupName, Location
```

Output

| Name           | ResourceGroupName | Location |
|----------------|-------------------|----------|
| ExampleLinuxVM | QueryExample      | westus2  |
| RHELExample    | QueryExample      | westus2  |
| WinExampleVM   | QueryExample      | westus2  |

## List output format

List output format produces two columns, property names followed by the value. For complex objects, the type of the object is displayed instead.

Azure PowerShell

```
Get-AzVM | Format-List
```

The following output has some fields removed.

Output

|                                                                                                           |   |                                   |
|-----------------------------------------------------------------------------------------------------------|---|-----------------------------------|
| ResourceGroupName                                                                                         | : | QueryExample                      |
| Id                                                                                                        | : |                                   |
| /subscriptions/.../resourceGroups/QueryExample/providers/Microsoft.Compute/virtualMachines/ExampleLinuxVM | : |                                   |
| VmId                                                                                                      | : | ...                               |
| Name                                                                                                      | : | ExampleLinuxVM                    |
| Type                                                                                                      | : | Microsoft.Compute/virtualMachines |
| Location                                                                                                  | : | westus2                           |
| ...                                                                                                       | : |                                   |
| HardwareProfile                                                                                           | : |                                   |
| Microsoft.Azure.Management.Compute.Models.HardwareProfile                                                 | : |                                   |
| InstanceView                                                                                              | : |                                   |
| NetworkProfile                                                                                            | : |                                   |
| Microsoft.Azure.Management.Compute.Models.NetworkProfile                                                  | : |                                   |
| OSProfile                                                                                                 | : |                                   |
| Microsoft.Azure.Management.Compute.Models.OSProfile                                                       | : |                                   |
| ...                                                                                                       | : |                                   |
| StatusCodes                                                                                               | : | OK                                |

```
ResourceGroupName      : QueryExample
Id                   :
/subscriptions/.../resourceGroups/QueryExample/providers/Microsoft.Compute/v
irtualMachines/RHELEexample
VmId                : ...
Name                 : RHELEexample
Type                : Microsoft.Compute/virtualMachines
Location             : westus2
...
```

Like `Format-Table`, property names can be provided to order and restrict the output:

Azure PowerShell

```
Get-AzVM | Format-List -Property ResourceGroupName, Name, Location
```

Output

```
ResourceGroupName : QueryExample
Name            : ExampleLinuxVM
Location         : westus2

ResourceGroupName : QueryExample
Name            : RHELEexample
Location         : westus2

ResourceGroupName : QueryExample
Name            : WinExampleVM
Location         : westus2
```

## Wide output format

Wide output format produces only one property name per query. Which property is displayed can be controlled by giving a property as an argument.

Azure PowerShell

```
Get-AzVM | Format-Wide
```

Output

|                |              |
|----------------|--------------|
| ExampleLinuxVM | RHELEexample |
| WinExampleVM   |              |

Azure PowerShell

```
Get-AzVM | Format-Wide -Property ResourceGroupName
```

Output

```
QueryExample  
QueryExample
```

```
QueryExample
```

## Custom output format

The `Custom-Format` output type is meant for formatting custom objects. Without any parameters, it behaves like `Format-List` but displays the property names of custom classes.

Azure PowerShell

```
Get-AzVM | Format-Custom
```

The following output has some fields removed.

Output

```
ResourceGroupName : QueryExample  
Id              :  
/subscriptions/.../resourceGroups/QueryExample/providers/Microsoft.Compute/v  
irtualMachines/ExampleLinuxVM  
VmId            : ...  
Name             : ExampleLinuxVM  
Type             : Microsoft.Compute/virtualMachines  
Location         : westus2  
Tags             : {}  
HardwareProfile  : {VmSize}  
NetworkProfile   : {NetworkInterfaces}  
OSProfile        : {ComputerName, AdminUsername, LinuxConfiguration,  
Secrets,  
AllowExtensionOperations}  
ProvisioningState : Succeeded  
StorageProfile   : {ImageReference, OsDisk, DataDisks}  
...
```

Giving property names as arguments to `Custom-Format` displays the property/value pairs for custom objects set as values:

Azure PowerShell

```
Get-AzVM | Format-Custom -Property Name, ResourceGroupName, Location,  
OSProfile
```

The following output has some fields removed.

Output

```
class PSVirtualMachineList  
{  
    Name = ExampleLinuxVM  
    ResourceGroupName = QueryExample  
    Location = westus2  
    OSProfile =  
        class OSProfile  
        {  
            ComputerName = ExampleLinuxVM  
            AdminUsername = ...  
            AdminPassword =  
            CustomData =  
            WindowsConfiguration =  
            LinuxConfiguration =  
                class LinuxConfiguration  
                {  
                    DisablePasswordAuthentication = False  
                    Ssh =  
                    ProvisionVMAgent = True  
                }  
            Secrets =  
            [  
            ]  
  
            AllowExtensionOperations = True  
        }  
    }  
  
    ...  
  
    class PSVirtualMachineList  
    {  
        Name = WinExampleVM  
        ResourceGroupName = QueryExample  
        Location = westus2  
        OSProfile =  
            class OSProfile  
            {  
                ComputerName = WinExampleVM  
                AdminUsername = ...  
                AdminPassword =  
                CustomData =  
                WindowsConfiguration =  
                    class WindowsConfiguration  
                    {
```

```
    ProvisionVMAgent = True
    EnableAutomaticUpdates = True
    TimeZone =
    AdditionalUnattendContent =
    WinRM =
}
LinuxConfiguration =
Secrets =
[
]

AllowExtensionOperations = True
}
}
```

## Conversion to other data formats

The `ConvertTo-*` family of cmdlets allows for converting the results of Azure PowerShell cmdlets to machine-readable formats. To get only some properties from the Azure PowerShell results, pipe to the `Select-Object` cmdlet before performing the conversion. The following examples demonstrate the different kinds of output that each conversion produces.

## Conversion to CSV

Azure PowerShell

```
Get-AzVM | ConvertTo-Csv
```

Output

```
#TYPE Microsoft.Azure.Commands.Compute.Models.PSVirtualMachineList
"ResourceGroupName","Id","VmId","Name","Type","Location","LicenseType","Tags",
,"AvailabilitySetReference","DiagnosticsProfile","Extensions","HardwareProfile",
,"InstanceView","NetworkProfile","OSProfile","Plan","ProvisioningState",
,"StorageProfile","DisplayHint","Identity","Zones","FullyQualifiedDomainName",
,"AdditionalCapabilities","RequestId","StatusCode"
"QUERYEXAMPLE","/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compute/virtualMachines/ExampleLinuxVM",...,"ExampleLinuxVM","Microsoft.Compute/virtualMachines","westus2",,"System.Collections.Generic.Dictionary`2[System.String,System.String]","",,"System.Collections.Generic.List`1[Microsoft.Azure.Management.Compute.Models.VirtualMachineExtension]",,"Microsoft.Azure.Management.Compute.Models.HardwareProfile",,"Microsoft.Azure.Management.Compute.Models.NetworkProfile",,"Microsoft.Azure.Management.Compute.Models.OSProfile",,"Succeeded",,"Microsoft.Azure.Management.Compute.Models.StorageProfile",,"Compact",,"System.Collections.Generic.List`1[System.String]","","..." ,
,"OK"
```

```
"QUERYEXAMPLE","/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compute/virtualMachines/RHELEExample","","","RHELEExample","Microsoft.Compute/virtualMachines","westus2","","System.Collections.Generic.Dictionary`2[System.String,System.String]","",,"System.Collections.Generic.List`1[Microsoft.Azure.Management.Compute.Models.VirtualMachineExtension]","Microsoft.Azure.Management.Compute.Models.HardwareProfile","","Microsoft.Azure.Management.Compute.Models.NetworkProfile","Microsoft.Azure.Management.Compute.Models.OSProfile","","Succeeded","Microsoft.Azure.Management.Compute.Models.StorageProfile","Compact","","System.Collections.Generic.List`1[System.String]","",,"...","OK"  
"QUERYEXAMPLE","/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compute/virtualMachines/WinExampleVM","","","WinExampleVM","Microsoft.Compute/virtualMachines","westus2","","System.Collections.Generic.Dictionary`2[System.String,System.String]","",,"System.Collections.Generic.List`1[Microsoft.Azure.Management.Compute.Models.VirtualMachineExtension]","Microsoft.Azure.Management.Compute.Models.HardwareProfile","","Microsoft.Azure.Management.Compute.Models.NetworkProfile","Microsoft.Azure.Management.Compute.Models.OSProfile","","Succeeded","Microsoft.Azure.Management.Compute.Models.StorageProfile","Compact","","System.Collections.Generic.List`1[System.String]","",,"...","OK"
```

## Conversion to JSON

JSON output doesn't expand all properties by default. To change the depth of properties expanded, use the `Depth` parameter. By default, the expansion depth is `2`.

```
Azure PowerShell
```

```
Get-AzVM | ConvertTo-JSON
```

The following output has some fields removed.

```
Output
```

```
[  
  {  
    "ResourceGroupName": "QUERYEXAMPLE",  
    "Id":  
      "/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compute/virtualMachines/ExampleLinuxVM",  
      "VmId": "...",  
      "Name": "ExampleLinuxVM",  
      "Type": "Microsoft.Compute/virtualMachines",  
      "Location": "westus2",  
      ...  
      "OSProfile": {  
        "ComputerName": "ExampleLinuxVM",  
        "AdminUsername": "...",  
        "AdminPassword": null,  
        "CustomData": null,  
        "WindowsConfiguration": null,
```

```
        "LinuxConfiguration":  
    "Microsoft.Azure.Management.Compute.Models.LinuxConfiguration",  
        "Secrets": "",  
        "AllowExtensionOperations": true  
    },  
    "Plan": null,  
    "ProvisioningState": "Succeeded",  
    "StorageProfile": {  
        "ImageReference":  
    "Microsoft.Azure.Management.Compute.Models.ImageReference",  
        "OsDisk":  
    "Microsoft.Azure.Management.Compute.Models.OSDisk",  
        "DataDisks": ""  
    },  
    "DisplayHint": 0,  
    "Identity": null,  
    "Zones": [  
  
    ],  
    "FullyQualifiedDomainName": null,  
    "AdditionalCapabilities": null,  
    "RequestId": "...",  
    "StatusCode": 200  
},  
...  
]
```

## Conversion to XML

The `ConvertTo-XML` cmdlet converts the Azure PowerShell response object into a pure XML object, which can be handled like any other XML object within PowerShell.

Azure PowerShell

```
Get-AzVM | ConvertTo-XML
```

Output

```
xml                               Objects  
---                               -----  
version="1.0" encoding="utf-8" Objects
```

## Conversion to HTML

Converting an object to HTML produces output that's rendered as an HTML table. Rendering of the HTML depends on your browser behavior for rendering tables which contain no width information. No custom class objects are expanded.

## Azure PowerShell

```
Get-AzVM | ConvertTo-HTML
```

## Output

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>HTML TABLE</title>
</head><body>
<table>
<colgroup><col/><col/><col/><col/><col/><col/><col/><col/><col/><col/>
<col/><col/><col/><col/><col/><col/><col/><col/><col/><col/><col/>
<col/><col/></colgroup>
<tr><th>ResourceGroupName</th><th>Id</th><th>VmId</th><th>Name</th>
<th>Type</th><th>Location</th><th>LicenseType</th><th>Tags</th>
<th>AvailabilitySetReference</th><th>DiagnosticsProfile</th>
<th>Extensions</th><th>HardwareProfile</th><th>InstanceView</th>
<th>NetworkProfile</th><th>OSProfile</th><th>Plan</th>
<th>ProvisioningState</th><th>StorageProfile</th><th>DisplayHint</th>
<th>Identity</th><th>Zones</th><th>FullyQualifiedDomainName</th>
<th>AdditionalCapabilities</th><th>RequestId</th><th>StatusCode</th></tr>
<tr><td>QUERYEXAMPLE</td>
<td>/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compute/virtualMachines/ExampleLinuxVM</td><td>...</td><td>ExampleLinuxVM</td>
<td>Microsoft.Compute/virtualMachines</td><td>westus2</td><td></td>
<td>System.Collections.Generic.Dictionary`2[System.String,System.String]</td>
</td><td></td><td></td>
<td>System.Collections.Generic.List`1[Microsoft.Azure.Management.Compute.Models.VirtualMachineExtension]</td>
<td>Microsoft.Azure.Management.Compute.Models.HardwareProfile</td><td></td>
<td>Microsoft.Azure.Management.Compute.Models.NetworkProfile</td>
<td>Microsoft.Azure.Management.Compute.Models.OSProfile</td><td></td>
<td>Succeeded</td>
<td>Microsoft.Azure.Management.Compute.Models.StorageProfile</td>
<td>Compact</td><td></td>
<td>System.Collections.Generic.List`1[System.String]</td><td></td><td></td><td></td>
<td>...</td><td>OK</td></tr>
<tr><td>QUERYEXAMPLE</td>
<td>/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compute/virtualMachines/RHELExample</td><td>...</td><td>RHELExample</td>
<td>Microsoft.Compute/virtualMachines</td><td>westus2</td><td></td>
<td>System.Collections.Generic.Dictionary`2[System.String,System.String]</td>
</td><td></td><td></td>
<td>System.Collections.Generic.List`1[Microsoft.Azure.Management.Compute.Models.VirtualMachineExtension]</td>
<td>Microsoft.Azure.Management.Compute.Models.HardwareProfile</td><td></td>
<td>Microsoft.Azure.Management.Compute.Models.NetworkProfile</td>
<td>Microsoft.Azure.Management.Compute.Models.OSProfile</td><td></td>
<td>Succeeded</td>
<td>Microsoft.Azure.Management.Compute.Models.StorageProfile</td>
```

```
<td>Compact</td><td></td>
<td>System.Collections.Generic.List`1[System.String]</td><td></td><td></td>
<td>...</td><td>OK</td></tr>
<tr><td>QUERYEXAMPLE</td>
<td>/subscriptions/.../resourceGroups/QUERYEXAMPLE/providers/Microsoft.Compu
te/virtualMachines/WinExampleVM</td><td>...</td><td>WinExampleVM</td>
<td>Microsoft.Compute/virtualMachines</td><td>westus2</td><td></td>
<td>System.Collections.Generic.Dictionary`2[System.String,System.String]
</td><td></td><td></td>
<td>System.Collections.Generic.List`1[Microsoft.Azure.Management.Compute.Mod
els.VirtualMachineExtension]</td>
<td>Microsoft.Azure.Management.Compute.Models.HardwareProfile</td><td></td>
<td>Microsoft.Azure.Management.Compute.Models.NetworkProfile</td>
<td>Microsoft.Azure.Management.Compute.Models.OSProfile</td><td></td>
<td>Succeeded</td>
<td>Microsoft.Azure.Management.Compute.Models.StorageProfile</td>
<td>Compact</td><td></td>
<td>System.Collections.Generic.List`1[System.String]</td><td></td><td></td>
<td>...</td><td>OK</td></tr>
</table>
</body></html>
```

# Run Azure PowerShell cmdlets in PowerShell Jobs

Article • 09/27/2023

Azure PowerShell depends on connecting to an Azure cloud and waiting for responses, so most of these cmdlets block your PowerShell session until they get a response from the cloud. PowerShell Jobs let you run cmdlets in the background or do multiple tasks on Azure at once, from inside a single PowerShell session.

This article is a brief overview of how to run Azure PowerShell cmdlets as PowerShell Jobs and check for completion. Running commands in Azure PowerShell requires the use of Azure PowerShell contexts, which are covered in detail in [Azure contexts and sign-in credentials](#). To learn more about PowerShell Jobs, see [About PowerShell Jobs](#).

## Azure contexts with PowerShell jobs

PowerShell Jobs are run as separate processes without an attached PowerShell session, so your Azure credentials must be shared with them. Credentials are passed as Azure context objects, using one of these methods:

- Automatic context persistence. Context persistence is enabled by default and preserves your sign-in information across multiple sessions. With context persistence enabled, the current Azure context is passed to the new process:

```
Azure PowerShell

Enable-AzContextAutosave # Enables context autosave if not already on
$vmauth = Get-Credential

Start-Job {
    New-AzVM -Name MyVm -Credential $Using:vmauth
}
```

- Provide an Azure context object with any Azure PowerShell cmdlet that has an **AzContext** parameter:

```
Azure PowerShell

$context = Get-AzContext -Name 'mycontext' # Get an Azure context
object
$vmauth = Get-Credential

$job = Start-Job {
```

```
New-AzVM -Name MyVm -AzContext $Using:context -Credential  
$Using:vmadmin  
}
```

If context persistence is disabled, the **AzContext** parameter is required.

- Use the **AsJob** parameter provided by some Azure PowerShell cmdlets. This switch automatically starts the cmdlet as a PowerShell Job, using the active Azure context:

Azure PowerShell

```
$vmadmin = Get-Credential  
$job = New-AzVM -Name MyVm -Credential $vmadmin -AsJob
```

To see if a cmdlet supports **AsJob**, check its reference documentation. The **AsJob** parameter doesn't require context autosave to be enabled.

You can check the status of a running job with the [Get-Job](#) cmdlet. To get the output from a job so far, use the [Receive-Job](#) cmdlet.

To check an operation's progress remotely on Azure, use the [Get](#) cmdlets associated with the type of resource being modified by the job:

Azure PowerShell

```
$vmadmin = Get-Credential  
$context = Get-AzContext -Name 'mycontext'  
$vmName = 'MyVm'  
  
$job = Start-Job {  
    New-AzVM -Name $Using:vmName -AzContext $Using:context -Credential  
    $Using:vmadmin  
}  
  
Get-Job -Id $job.Id  
Get-AzVM -Name $vmName
```

## See Also

- [Azure PowerShell contexts](#)
- [About PowerShell Jobs](#)
- [Get-Job](#)
- [Receive-Job](#)
- [The Using: scope modifier](#)

# Deploy resources with ARM templates and Azure PowerShell

Article • 05/22/2023

This article explains how to use Azure PowerShell with Azure Resource Manager templates (ARM templates) to deploy your resources to Azure. If you aren't familiar with the concepts of deploying and managing your Azure solutions, see [template deployment overview](#).

## Tip

We recommend **Bicep** because it offers the same capabilities as ARM templates and the syntax is easier to use. To learn more, see [Deploy resources with Bicep and Azure PowerShell](#).

## Prerequisites

You need a template to deploy. If you don't already have one, download and save an [example template](#) from the Azure Quickstart templates repo. The local file name used in this article is `C:\MyTemplates\azureddeploy.json`.

You need to install Azure PowerShell and connect to Azure:

- **Install Azure PowerShell cmdlets on your local computer.** For more information, see [Get started with Azure PowerShell](#).
- **Connect to Azure by using `Connect-AZAccount`.** If you have multiple Azure subscriptions, you might also need to run `Set-AzContext`. For more information, see [Use multiple Azure subscriptions](#).

If you don't have PowerShell installed, you can use Azure Cloud Shell. For more information, see [Deploy ARM templates from Azure Cloud Shell](#).

## Required permissions

To deploy a Bicep file or ARM template, you need write access on the resources you're deploying and access to all operations on the `Microsoft.Resources/deployments` resource type. For example, to deploy a virtual machine, you need

`Microsoft.Compute/virtualMachines/write` and `Microsoft.Resources/deployments/*` permissions. The what-if operation has the same permission requirements.

For a list of roles and permissions, see [Azure built-in roles](#).

## Deployment scope

You can target your deployment to a resource group, subscription, management group, or tenant. Depending on the scope of the deployment, you use different commands.

- To deploy to a **resource group**, use [New-AzResourceGroupDeployment](#):

Azure PowerShell

```
New-AzResourceGroupDeployment -ResourceGroupName <resource-group-name>
-TemplateFile <path-to-template>
```

- To deploy to a **subscription**, use [New-AzSubscriptionDeployment](#) which is an alias of the `New-AzDeployment` cmdlet:

Azure PowerShell

```
New-AzSubscriptionDeployment -Location <location> -TemplateFile <path-
to-template>
```

For more information about subscription level deployments, see [Create resource groups and resources at the subscription level](#).

- To deploy to a **management group**, use [New-AzManagementGroupDeployment](#).

Azure PowerShell

```
New-AzManagementGroupDeployment -Location <location> -TemplateFile
<path-to-template>
```

For more information about management group level deployments, see [Create resources at the management group level](#).

- To deploy to a **tenant**, use [New-AzTenantDeployment](#).

Azure PowerShell

```
New-AzTenantDeployment -Location <location> -TemplateFile <path-to-
template>
```

For more information about tenant level deployments, see [Create resources at the tenant level](#).

For every scope, the user deploying the template must have the required permissions to create resources.

## Deployment name

When deploying an ARM template, you can give the deployment a name. This name can help you retrieve the deployment from the deployment history. If you don't provide a name for the deployment, the name of the template file is used. For example, if you deploy a template named `azuredeploy.json` and don't specify a deployment name, the deployment is named `azuredeploy`.

Every time you run a deployment, an entry is added to the resource group's deployment history with the deployment name. If you run another deployment and give it the same name, the earlier entry is replaced with the current deployment. If you want to maintain unique entries in the deployment history, give each deployment a unique name.

To create a unique name, you can assign a random number.

Azure PowerShell

```
$suffix = Get-Random -Maximum 1000
$deploymentName = "ExampleDeployment" + $suffix
```

Or, add a date value.

Azure PowerShell

```
$today=Get-Date -Format "MM-dd-yyyy"
$deploymentName="ExampleDeployment"+$today"
```

If you run concurrent deployments to the same resource group with the same deployment name, only the last deployment is completed. Any deployments with the same name that haven't finished are replaced by the last deployment. For example, if you run a deployment named `newStorage` that deploys a storage account named `storage1`, and at the same time run another deployment named `newStorage` that deploys a storage account named `storage2`, you deploy only one storage account. The resulting storage account is named `storage2`.

However, if you run a deployment named `newStorage` that deploys a storage account named `storage1`, and immediately after it completes you run another deployment named `newStorage` that deploys a storage account named `storage2`, then you have two

storage accounts. One is named `storage1`, and the other is named `storage2`. But, you only have one entry in the deployment history.

When you specify a unique name for each deployment, you can run them concurrently without conflict. If you run a deployment named `newStorage1` that deploys a storage account named `storage1`, and at the same time run another deployment named `newStorage2` that deploys a storage account named `storage2`, then you have two storage accounts and two entries in the deployment history.

To avoid conflicts with concurrent deployments and to ensure unique entries in the deployment history, give each deployment a unique name.

## Deploy local template

You can deploy a template from your local machine or one that is stored externally. This section describes deploying a local template.

If you're deploying to a resource group that doesn't exist, create the resource group. The name of the resource group can only include alphanumeric characters, periods, underscores, hyphens, and parenthesis. It can be up to 90 characters. The name can't end in a period.

```
Azure PowerShell  
New-AzResourceGroup -Name ExampleGroup -Location "Central US"
```

To deploy a local template, use the `-TemplateFile` parameter in the deployment command. The following example also shows how to set a parameter value that comes from the template.

```
Azure PowerShell  
New-AzResourceGroupDeployment `  
-Name ExampleDeployment `  
-ResourceGroupName ExampleGroup `  
-TemplateFile <path-to-template>
```

The deployment can take several minutes to complete.

## Deploy remote template

Instead of storing ARM templates on your local machine, you may prefer to store them in an external location. You can store templates in a source control repository (such as GitHub). Or, you can store them in an Azure storage account for shared access in your organization.

 **Note**

To deploy a template or reference a linked template that is stored in a private GitHub repo, see a custom solution documented in [Creating a Custom and Secure Azure Portal Offering](#). You can create an Azure function that pulls the GitHub token out of Azure Key Vault.

If you're deploying to a resource group that doesn't exist, create the resource group. The name of the resource group can only include alphanumeric characters, periods, underscores, hyphens, and parenthesis. It can be up to 90 characters. The name can't end in a period.

Azure PowerShell

```
New-AzResourceGroup -Name ExampleGroup -Location "Central US"
```

To deploy an external template, use the `-TemplateUri` parameter.

Azure PowerShell

```
New-AzResourceGroupDeployment ` 
-Name remoteTemplateDeployment ` 
-ResourceGroupName ExampleGroup ` 
-TemplateUri https://raw.githubusercontent.com/Azure/azure-quickstart- 
templates/master/quickstarts/microsoft.storage/storage-account- 
create/azuredeploy.json
```

The preceding example requires a publicly accessible URI for the template, which works for most scenarios because your template shouldn't include sensitive data. If you need to specify sensitive data (like an admin password), pass that value as a secure parameter. However, if you want to manage access to the template, consider using [template specs](#).

To deploy remote linked templates with relative path that are stored in a storage account, use `QueryString` to specify the SAS token:

Azure PowerShell

```
New-AzResourceGroupDeployment ` 
-Name linkedTemplateWithRelativePath `
```

```
-ResourceGroupName "myResourceGroup"
-TemplateUri "https://stage20210126.blob.core.windows.net/template-
staging/mainTemplate.json"
-QueryString "$sasToken"
```

For more information, see [Use relative path for linked templates](#).

## Deploy template spec

Instead of deploying a local or remote template, you can create a [template spec](#). The template spec is a resource in your Azure subscription that contains an ARM template. It makes it easy to securely share the template with users in your organization. You use Azure role-based access control (Azure RBAC) to grant access to the template spec. This feature is currently in preview.

The following examples show how to create and deploy a template spec.

First, create the template spec by providing the ARM template.

Azure PowerShell

```
New-AzTemplateSpec
-Name storageSpec
-Version 1.0
-ResourceGroupName templateSpecsRg
-Location westus2
-TemplateJsonFile ./mainTemplate.json
```

Then, get the ID for template spec and deploy it.

Azure PowerShell

```
$id = (Get-AzTemplateSpec -Name storageSpec -ResourceGroupName
templateSpecsRg -Version 1.0).Versions.Id

New-AzResourceGroupDeployment
-ResourceGroupName demoRG
-TemplateSpecId $id
```

For more information, see [Azure Resource Manager template specs](#).

## Preview changes

Before deploying your template, you can preview the changes the template will make to your environment. Use the [what-if operation](#) to verify that the template makes the

changes that you expect. What-if also validates the template for errors.

## Pass parameter values

To pass parameter values, you can use either inline parameters or a parameter file.

### Inline parameters

To pass inline parameters, provide the names of the parameter with the `New-AzResourceGroupDeployment` command. For example, to pass a string and array to a template, use:

PowerShell

```
$arrayParam = "value1", "value2"  
New-AzResourceGroupDeployment -ResourceGroupName testgroup `  
-TemplateFile <path-to-template> `  
-exampleString "inline string" `  
-exampleArray $arrayParam
```

You can also get the contents of file and provide that content as an inline parameter.

PowerShell

```
$arrayParam = "value1", "value2"  
New-AzResourceGroupDeployment -ResourceGroupName testgroup `  
-TemplateFile <path-to-template> `  
-exampleString $(Get-Content -Path c:\MyTemplates\stringcontent.txt -Raw) `  
-exampleArray $arrayParam
```

Getting a parameter value from a file is helpful when you need to provide configuration values. For example, you can provide [cloud-init values for a Linux virtual machine](#).

If you need to pass in an array of objects, create hash tables in PowerShell and add them to an array. Pass that array as a parameter during deployment.

PowerShell

```
$hash1 = @{ Name = "firstSubnet"; AddressPrefix = "10.0.0.0/24"}  
$hash2 = @{ Name = "secondSubnet"; AddressPrefix = "10.0.1.0/24"}  
$subnetArray = $hash1, $hash2  
New-AzResourceGroupDeployment -ResourceGroupName testgroup `  
-TemplateFile <path-to-template> `  
-exampleArray $subnetArray
```

## Parameter files

Rather than passing parameters as inline values in your script, you may find it easier to use a JSON file that contains the parameter values. The parameter file can be a local file or an external file with an accessible URI.

For more information about the parameter file, see [Create Resource Manager parameter file](#).

To pass a local parameter file, use the `TemplateParameterFile` parameter:

PowerShell

```
New-AzResourceGroupDeployment -Name ExampleDeployment -ResourceGroupName  
ExampleResourceGroup  
-TemplateFile <path-to-template>  
-TemplateParameterFile c:\MyTemplates\storage.parameters.json
```

To pass an external parameter file, use the `TemplateParameterUri` parameter:

PowerShell

```
New-AzResourceGroupDeployment -Name ExampleDeployment -ResourceGroupName  
ExampleResourceGroup  
-TemplateUri https://raw.githubusercontent.com/Azure/azure-quickstart-  
templates/master/quickstarts/microsoft.storage/storage-account-  
create/azuredeploy.json  
-TemplateParameterUri https://raw.githubusercontent.com/Azure/azure-  
quickstart-templates/master/quickstarts/microsoft.storage/storage-account-  
create/azuredeploy.parameters.json
```

## Next steps

- To roll back to a successful deployment when you get an error, see [Rollback on error to successful deployment](#).
- To specify how to handle resources that exist in the resource group but aren't defined in the template, see [Azure Resource Manager deployment modes](#).
- To understand how to define parameters in your template, see [Understand the structure and syntax of ARM templates](#).
- For information about deploying a template that requires a SAS token, see [Deploy private ARM template with SAS token](#).

# Manage Azure resources by using Azure PowerShell

Article • 04/09/2023

Learn how to use Azure PowerShell with [Azure Resource Manager](#) to manage your Azure resources. For managing resource groups, see [Manage Azure resource groups by using Azure PowerShell](#).

Other articles about managing resources:

- [Manage Azure resources by using the Azure portal](#)
- [Manage Azure resources by using Azure CLI](#)

## Deploy resources to an existing resource group

You can deploy Azure resources directly by using Azure PowerShell, or deploy a Resource Manager template to create Azure resources.

### Deploy a resource

The following script creates a storage account.

```
Azure PowerShell

$resourceGroupName = Read-Host -Prompt "Enter the Resource Group name"
.setLocation = Read-Host -Prompt "Enter the location (i.e. centralus)"
$storageAccountName = Read-Host -Prompt "Enter the storage account name"

# Create the storage account.
$storageAccount = New-AzStorageAccount -ResourceGroupName $resourceGroupName
`-Name $storageAccountName `
`-Location $location `
`-SkuName "Standard_LRS"

# Retrieve the context.
$ctx = $storageAccount.Context
```

### Deploy a template

The following script deploys a Quickstart template to create a storage account. For more information, see [Quickstart: Create Azure Resource Manager templates by using Visual Studio Code](#).

Studio Code.

Azure PowerShell

```
$resourceGroupName = Read-Host -Prompt "Enter the Resource Group name"  
$location = Read-Host -Prompt "Enter the location (i.e. centralus)"  
$templateUri = "https://raw.githubusercontent.com/Azure/azure-quickstart-  
templates/master/quickstarts/microsoft.storage/storage-account-  
create/azuredeploy.json"  
New-AzResourceGroupDeployment -ResourceGroupName $resourceGroupName -  
TemplateUri $templateUri -Location $location
```

For more information, see [Deploy resources with Resource Manager templates and Azure PowerShell](#).

## Deploy a resource group and resources

You can create a resource group and deploy resources to the group. For more information, see [Create resource group and deploy resources](#).

## Deploy resources to multiple subscriptions or resource groups

Typically, you deploy all the resources in your template to a single resource group. However, there are scenarios where you want to deploy a set of resources together but place them in different resource groups or subscriptions. For more information, see [Deploy Azure resources to multiple subscriptions or resource groups](#).

## Delete resources

The following script shows how to delete a storage account.

Azure PowerShell

```
$resourceGroupName = Read-Host -Prompt "Enter the Resource Group name"  
$storageAccountName = Read-Host -Prompt "Enter the storage account name"  
  
Remove-AzStorageAccount -ResourceGroupName $resourceGroupName -AccountName  
$storageAccountName
```

For more information about how Azure Resource Manager orders the deletion of resources, see [Azure Resource Manager resource group deletion](#).

# Move resources

The following script shows how to remove a storage account from one resource group to another resource group.

Azure PowerShell

```
$srcResourceGroupName = Read-Host -Prompt "Enter the source Resource Group name"  
$destResourceGroupName = Read-Host -Prompt "Enter the destination Resource Group name"  
$storageAccountName = Read-Host -Prompt "Enter the storage account name"  
  
$storageAccount = Get-AzResource -ResourceGroupName $srcResourceGroupName -  
    ResourceName $storageAccountName  
Move-AzResource -DestinationResourceGroupName $destResourceGroupName -  
    ResourceId $storageAccount.ResourceId
```

For more information, see [Move resources to new resource group or subscription](#).

# Lock resources

Locking prevents other users in your organization from accidentally deleting or modifying critical resources, such as Azure subscription, resource group, or resource.

The following script locks a storage account so the account can't be deleted.

Azure PowerShell

```
$resourceGroupName = Read-Host -Prompt "Enter the Resource Group name"  
$storageAccountName = Read-Host -Prompt "Enter the storage account name"  
  
New-AzResourceLock -LockName LockStorage -LockLevel CanNotDelete -  
    ResourceGroupName $resourceGroupName -ResourceName $storageAccountName -  
    ResourceType Microsoft.Storage/storageAccounts
```

The following script gets all locks for a storage account:

Azure PowerShell

```
$resourceGroupName = Read-Host -Prompt "Enter the Resource Group name"  
$storageAccountName = Read-Host -Prompt "Enter the storage account name"  
  
Get-AzResourceLock -ResourceGroupName $resourceGroupName -ResourceName  
    $storageAccountName -ResourceType Microsoft.Storage/storageAccounts
```

The following script deletes a lock of a storage account:

#### Azure PowerShell

```
$resourceGroupName = Read-Host -Prompt "Enter the Resource Group name"  
$storageAccountName = Read-Host -Prompt "Enter the storage account name"  
  
$lockId = (Get-AzResourceLock -ResourceGroupName $resourceGroupName -  
    ResourceName $storageAccountName -ResourceType  
    Microsoft.Storage/storageAccounts).LockId  
Remove-AzResourceLock -LockId $lockId
```

For more information, see [Lock resources with Azure Resource Manager](#).

## Tag resources

Tagging helps organizing your resource group and resources logically. For information, see [Using tags to organize your Azure resources](#).

## Manage access to resources

Azure role-based access control (Azure RBAC) is the way that you manage access to resources in Azure. For more information, see [Add or remove Azure role assignments using Azure PowerShell](#).

## Next steps

- To learn Azure Resource Manager, see [Azure Resource Manager overview](#).
- To learn the Resource Manager template syntax, see [Understand the structure and syntax of Azure Resource Manager templates](#).
- To learn how to develop templates, see the [step-by-step tutorials](#).
- To view the Azure Resource Manager template schemas, see [template reference](#).

# How to deploy private ARM template with SAS token

Article • 05/23/2023

When your Azure Resource Manager template (ARM template) is located in a storage account, you can restrict access to the template to avoid exposing it publicly. You access a secured template by creating a shared access signature (SAS) token for the template, and providing that token during deployment. This article explains how to use Azure PowerShell or Azure CLI to securely deploy an ARM template with a SAS token.

You will find information on how to protect and manage access to your private ARM templates with directions on how to do the following:

- Create storage account with secured container
- Upload template to storage account
- Provide SAS token during deployment

## ⓘ Important

Instead of securing your private template with a SAS token, consider using [template specs](#). With template specs, you can share your templates with other users in your organization and manage access to the templates through Azure RBAC.

## Create storage account with secured container

The following script creates a storage account and container with public access turned off for template security.

PowerShell

Azure PowerShell

```
New-AzResourceGroup  
  -Name ExampleGroup  
  -Location "Central US"  
New-AzStorageAccount  
  -ResourceGroupName ExampleGroup  
  -Name {your-unique-name}  
  -Type Standard_LRS  
  -Location "Central US"
```

```
Set-AzCurrentStorageAccount ` 
-ResourceGroupName ExampleGroup ` 
-Name {your-unique-name} 
New-AzStorageContainer ` 
-Name templates ` 
-Permission Off
```

## Upload private template to storage account

Now, you're ready to upload your template to the storage account. Provide the path to the template you want to use.

PowerShell

```
Azure PowerShell

Set-AzStorageBlobContent ` 
-Container templates ` 
-File c:\Templates\azuredeploy.json
```

## Provide SAS token during deployment

To deploy a private template in a storage account, generate a SAS token and include it in the URI for the template. Set the expiry time to allow enough time to complete the deployment.

### ⓘ Important

The blob containing the private template is accessible to only the account owner. However, when you create a SAS token for the blob, the blob is accessible to anyone with that URI. If another user intercepts the URI, that user is able to access the template. A SAS token is a good way of limiting access to your templates, but you should not include sensitive data like passwords directly in the template.

PowerShell

```
Azure PowerShell

# get the URI with the SAS token
$templateuri = New-AzStorageBlobSASToken `
```

```
-Container templates `
-Blob azuredeploy.json `
-Permission r `
-ExpiryTime (Get-Date).AddHours(2.0) -FullUri

# provide URI with SAS token during deployment
New-AzResourceGroupDeployment `
-ResourceGroupName ExampleGroup `
-TemplateUri $templateuri
```

For an example of using a SAS token with linked templates, see [Using linked templates with Azure Resource Manager](#).

## Next steps

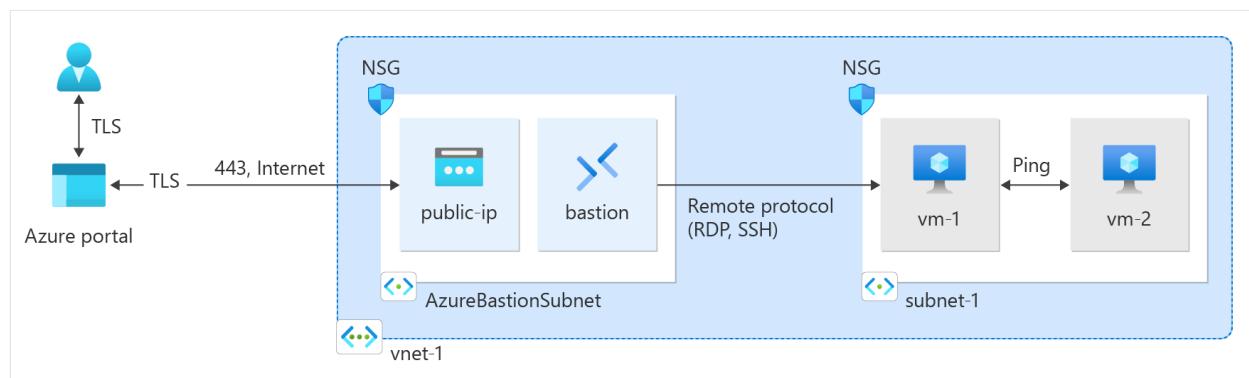
- For an introduction to deploying templates, see [Deploy resources with ARM templates and Azure PowerShell](#).
- To define parameters in template, see [Authoring templates](#).

# Quickstart: Use Azure PowerShell to create a virtual network

Article • 06/19/2023

This quickstart shows you how to create a virtual network by using Azure PowerShell. You then create two virtual machines (VMs) in the network, securely connect to the VMs from the internet, and communicate privately between the VMs.

A virtual network is the fundamental building block for private networks in Azure. Azure Virtual Network enables Azure resources like VMs to securely communicate with each other and the internet.



## Prerequisites

- An Azure account with an active subscription. You can [create an account for free](#).
- Azure Cloud Shell or Azure PowerShell.

The steps in this quickstart run the Azure PowerShell cmdlets interactively in [Azure Cloud Shell](#). To run the commands in the Cloud Shell, select **Open Cloudshell** at the upper-right corner of a code block. Select **Copy** to copy the code and then paste it into Cloud Shell to run it. You can also run the Cloud Shell from within the Azure portal.

You can also [install Azure PowerShell locally](#) to run the cmdlets. The steps in this article require Azure PowerShell module version 5.4.1 or later. Run `Get-Module -ListAvailable Az` to find your installed version. If you need to upgrade, see [Update the Azure PowerShell module](#).

If you run PowerShell locally, run `Connect-AzAccount` to connect to Azure.

# Create a resource group

1. Use [New-AzResourceGroup](#) to create a resource group to host the virtual network.  
Run the following code to create a resource group named **test-rg** in the **eastus2** Azure region.

```
Azure PowerShell
```

```
$rg = @{
    Name = 'test-rg'
    Location = 'eastus2'
}
New-AzResourceGroup @rg
```

# Create a virtual network

1. Use [New-AzVirtualNetwork](#) to create a virtual network named **vnet-1** with IP address prefix **10.0.0.0/16** in the **test-rg** resource group and **eastus2** location.

```
Azure PowerShell
```

```
$vnet = @{
    Name = 'vnet-1'
    ResourceGroupName = 'test-rg'
    Location = 'eastus2'
    AddressPrefix = '10.0.0.0/16'
}
$virtualNetwork = New-AzVirtualNetwork @vnet
```

2. Azure deploys resources to a subnet within a virtual network. Use [Add-AzVirtualNetworkSubnetConfig](#) to create a subnet configuration named **subnet-1** with address prefix **10.0.0.0/24**.

```
Azure PowerShell
```

```
$subnet = @{
    Name = 'subnet-1'
    VirtualNetwork = $virtualNetwork
    AddressPrefix = '10.0.0.0/24'
}
$subnetConfig = Add-AzVirtualNetworkSubnetConfig @subnet
```

3. Then associate the subnet configuration to the virtual network with [Set-AzVirtualNetwork](#).

```
Azure PowerShell
```

```
$virtualNetwork | Set-AzVirtualNetwork
```

## Deploy Azure Bastion

Azure Bastion uses your browser to connect to VMs in your virtual network over secure shell (SSH) or remote desktop protocol (RDP) by using their private IP addresses. The VMs don't need public IP addresses, client software, or special configuration. For more information about Azure Bastion, see [Azure Bastion](#).

Hourly pricing starts from the moment Bastion is deployed, regardless of outbound data usage. For more information, see [Pricing](#) and [SKUs](#). If you're deploying Bastion as part of a tutorial or test, we recommend that you delete this resource once you've finished using it.

1. Configure an Azure Bastion subnet for your virtual network. This subnet is reserved exclusively for Azure Bastion resources and must be named **AzureBastionSubnet**.

```
Azure PowerShell
```

```
$subnet = @{
    Name = 'AzureBastionSubnet'
    VirtualNetwork = $virtualNetwork
    AddressPrefix = '10.0.1.0/26'
}
$subnetConfig = Add-AzVirtualNetworkSubnetConfig @subnet
```

2. Set the configuration.

```
Azure PowerShell
```

```
$virtualNetwork | Set-AzVirtualNetwork
```

3. Create a public IP address for Azure Bastion. The bastion host uses the public IP to access secure shell (SSH) and remote desktop protocol (RDP) over port 443.

```
Azure PowerShell
```

```
$ip = @{
    ResourceGroupName = 'test-rg'
    Name = 'public-ip'
    Location = 'eastus2'
    AllocationMethod = 'Static'
    Sku = 'Standard'
```

```
    Zone = 1,2,3
}
New-AzPublicIpAddress @ip
```

4. Use the [New-AzBastion](#) command to create a new Standard SKU Azure Bastion host in the AzureBastionSubnet.

Azure PowerShell

```
$bastion = @{
    Name = 'bastion'
    ResourceGroupName = 'test-rg'
    PublicIpAddressRgName = 'test-rg'
    PublicIpAddressName = 'public-ip'
    VirtualNetworkRgName = 'test-rg'
    VirtualNetworkName = 'vnet-1'
    Sku = 'Basic'
}
New-AzBastion @bastion
```

It takes about 10 minutes for the Bastion resources to deploy. You can create VMs in the next section while Bastion deploys to your virtual network.

## Create virtual machines

Use [New-AzVM](#) to create two VMs named **vm-1** and **vm-2** in the **subnet-1** subnet of the virtual network. When you're prompted for credentials, enter user names and passwords for the VMs.

1. To create the first VM, use the following code:

Azure PowerShell

```
# Set the administrator and password for the VMs. ##
$cred = Get-Credential

## Place the virtual network into a variable. ##
$vnet = Get-AzVirtualNetwork -Name 'vnet-1' -ResourceGroupName 'test-rg'

## Create network interface for virtual machine. ##
$nic = @{
    Name = "nic-1"
    ResourceGroupName = 'test-rg'
    Location = 'eastus2'
    Subnet = $vnet.Subnets[0]
}
$nicVM = New-AzNetworkInterface @nic
```

```

## Create a virtual machine configuration for VMs ##
$vmsz = @{
    VMName = "vm-1"
    VMSize = 'Standard_DS1_v2'
}
$vmos = @{
    ComputerName = "vm-1"
    Credential = $cred
}
$vmimage = @{
    PublisherName = 'Canonical'
    Offer = '0001-com-ubuntu-server-jammy'
    Skus = '22_04-lts-gen2'
    Version = 'latest'
}
$vmConfig = New-AzVMConfig @vmsz ` 
    | Set-AzVMOperatingSystem @vmos -Linux ` 
    | Set-AzVMSourceImage @vmimage ` 
    | Add-AzVMNetworkInterface -Id $nicVM.Id

## Create the virtual machine for VMs ##
$vm = @{
    ResourceGroupName = 'test-rg'
    Location = 'eastus2'
    VM = $vmConfig
}
New-AzVM @vm

```

2. To create the second VM, use the following code:

Azure PowerShell

```

# Set the administrator and password for the VMs. ##
$cred = Get-Credential

## Place the virtual network into a variable. ##
$vnet = Get-AzVirtualNetwork -Name 'vnet-1' -ResourceGroupName 'test-rg'

## Create network interface for virtual machine. ##
$nic = @{
    Name = "nic-2"
    ResourceGroupName = 'test-rg'
    Location = 'eastus2'
    Subnet = $vnet.Subnets[0]
}
$nicVM = New-AzNetworkInterface @nic

## Create a virtual machine configuration for VMs ##
$vmsz = @{
    VMName = "vm-2"
    VMSize = 'Standard_DS1_v2'
}

```

```

}
$vmos = @{
    ComputerName = "vm-2"
    Credential = $cred
}
$vmimage = @{
    PublisherName = 'Canonical'
    Offer = '0001-com-ubuntu-server-jammy'
    Skus = '22_04-lts-gen2'
    Version = 'latest'
}
$vmConfig = New-AzVMConfig @vmsz ` 
    | Set-AzVMOperatingSystem @vmos -Linux ` 
    | Set-AzVMSourceImage @vmimage ` 
    | Add-AzVMNetworkInterface -Id $nicVM.Id

## Create the virtual machine for VMs ##
$vm = @{
    ResourceGroupName = 'test-rg'
    Location = 'eastus2'
    VM = $vmConfig
}
New-AzVM @vm

```

## 💡 Tip

You can use the `-AsJob` option to create a VM in the background while you continue with other tasks. For example, run `New-AzVM @vm1 -AsJob`. When Azure starts creating the VM in the background, you get something like the following output:

PowerShell

Id	Name	PSJobTypeName	State	HasMoreData
Location		Command		
--	---	-----	-----	-----
1	Long Running...	AzureLongRun...	Running	True
localhost		New-AzVM		

Azure takes a few minutes to create the VMs. When Azure finishes creating the VMs, it returns output to PowerShell.

## ⓘ Note

VMs in a virtual network with a Bastion host don't need public IP addresses. Bastion provides the public IP, and the VMs use private IPs to communicate within the

network. You can remove the public IPs from any VMs in Bastion-hosted virtual networks. For more information, see [Dissociate a public IP address from an Azure VM](#).

## ⓘ Note

Azure provides a default outbound access IP for VMs that either aren't assigned a public IP address or are in the back-end pool of an internal basic Azure load balancer. The default outbound access IP mechanism provides an outbound IP address that isn't configurable.

The default outbound access IP is disabled when one of the following events happens:

- A public IP address is assigned to the VM.
- The VM is placed in the back-end pool of a standard load balancer, with or without outbound rules.
- An [Azure Virtual Network NAT gateway](#) resource is assigned to the subnet of the VM.

VMs that you create by using virtual machine scale sets in flexible orchestration mode don't have default outbound access.

For more information about outbound connections in Azure, see [Default outbound access in Azure](#) and [Use Source Network Address Translation \(SNAT\) for outbound connections](#).

# Connect to a virtual machine

1. In the portal, search for and select **Virtual machines**.
2. On the **Virtual machines** page, select **vm-1**.
3. In the **Overview** of **vm-1**, select **Connect**.
4. In the **Connect to virtual machine** page, select the **Bastion** tab.
5. Select **Use Bastion**.
6. Enter the username and password you created when you created the VM, and then select **Connect**.

# Communicate between VMs

1. At the bash prompt for **vm-1**, enter `ping -c 4 vm-2`.

You get a reply similar to the following message:

Output

```
azureuser@vm-1:~$ ping -c 4 vm-2
PING vm-2.3bnkevn3313ujpr5l1kqop4n4d.cx.internal.cloudapp.net
(10.0.0.5) 56(84) bytes of data.
64 bytes from vm-2.internal.cloudapp.net (10.0.0.5): icmp_seq=1 ttl=64
time=1.83 ms
64 bytes from vm-2.internal.cloudapp.net (10.0.0.5): icmp_seq=2 ttl=64
time=0.987 ms
64 bytes from vm-2.internal.cloudapp.net (10.0.0.5): icmp_seq=3 ttl=64
time=0.864 ms
64 bytes from vm-2.internal.cloudapp.net (10.0.0.5): icmp_seq=4 ttl=64
time=0.890 ms
```

2. Close the Bastion connection to VM1.
3. Repeat the steps in [Connect to a virtual machine](#) to connect to VM2.
4. At the bash prompt for **vm-2**, enter `ping -c 4 vm-1`.

You get a reply similar to the following message:

Output

```
azureuser@vm-2:~$ ping -c 4 vm-1
PING vm-1.3bnkevn3313ujpr5l1kqop4n4d.cx.internal.cloudapp.net
(10.0.0.4) 56(84) bytes of data.
64 bytes from vm-1.internal.cloudapp.net (10.0.0.4): icmp_seq=1 ttl=64
time=0.695 ms
64 bytes from vm-1.internal.cloudapp.net (10.0.0.4): icmp_seq=2 ttl=64
time=0.896 ms
64 bytes from vm-1.internal.cloudapp.net (10.0.0.4): icmp_seq=3 ttl=64
time=3.43 ms
64 bytes from vm-1.internal.cloudapp.net (10.0.0.4): icmp_seq=4 ttl=64
time=0.780 ms
```

5. Close the Bastion connection to VM2.

## Clean up resources

When you're done with the virtual network and the VMs, use [Remove-AzResourceGroup](#) to remove the resource group and all its resources.

Azure PowerShell

```
Remove-AzResourceGroup -Name 'test-rg' -Force
```

## Next steps

In this quickstart, you created a virtual network with a default subnet that contains two VMs. You deployed Azure Bastion and used it to connect to the VMs, and securely communicated between the VMs. To learn more about virtual network settings, see [Create, change, or delete a virtual network](#).

Private communication between VMs in a virtual network is unrestricted. Continue to the next article to learn more about configuring different types of VM network communications.

[Filter network traffic](#)

# Create a storage account

Article • 08/22/2023

An Azure storage account contains all of your Azure Storage data objects: blobs, files, queues, and tables. The storage account provides a unique namespace for your Azure Storage data that is accessible from anywhere in the world over HTTP or HTTPS. For more information about Azure storage accounts, see [Storage account overview](#).

In this how-to article, you learn to create a storage account using the [Azure portal](#), [Azure PowerShell](#), [Azure CLI](#), or an [Azure Resource Manager template](#).

## Prerequisites

If you don't have an Azure subscription, create a [free account](#) before you begin.

PowerShell

To create an Azure storage account with PowerShell, make sure you have installed the latest [Azure Az PowerShell module](#). See [Install the Azure PowerShell module](#).

Next, sign in to Azure.

PowerShell

Sign in to your Azure subscription with the `Connect-AzAccount` command and follow the on-screen directions to authenticate.

PowerShell

`Connect-AzAccount`

## Create a storage account

A storage account is an Azure Resource Manager resource. Resource Manager is the deployment and management service for Azure. For more information, see [Azure Resource Manager overview](#).

Every Resource Manager resource, including an Azure storage account, must belong to an Azure resource group. A resource group is a logical container for grouping your

Azure services. When you create a storage account, you have the option to either create a new resource group, or use an existing resource group. This how-to shows how to create a new resource group.

## Storage account type parameters

When you create a storage account using PowerShell, the Azure CLI, Bicep, or Azure Templates, the storage account type is specified by the `kind` parameter (for example, `StorageV2`). The performance tier and redundancy configuration are specified together by the `sku` or `SkuName` parameter (for example, `Standard_GRS`). The following table shows which values to use for the `kind` parameter and the `sku` or `SkuName` parameter to create a particular type of storage account with the desired redundancy configuration.

Type of storage account	Supported redundancy configurations	Supported values for the kind parameter	Supported values for the sku or SkuName parameter	Supports hierarchical namespace
Standard general-purpose v2	LRS / GRS / RA-GRS / ZRS / GZRS / RA-GZRS	StorageV2	Standard_LRS / Standard_GRS / Standard_RAGRS / Standard_ZRS / Standard_GZRS / Standard_RAGZRS	Yes
Premium block blobs	LRS / ZRS	BlockBlobStorage	Premium_LRS / Premium_ZRS	Yes
Premium file shares	LRS / ZRS	FileStorage	Premium_LRS / Premium_ZRS	No
Premium page blobs	LRS	StorageV2	Premium_LRS	No
Legacy standard general-purpose v1	LRS / GRS / RA-GRS	Storage	Standard_LRS / Standard_GRS / Standard_RAGRS	No
Legacy blob storage	LRS / GRS / RA-GRS	BlobStorage	Standard_LRS / Standard_GRS / Standard_RAGRS	No

PowerShell

To create a general-purpose v2 storage account with PowerShell, first create a new resource group by calling the [New-AzResourceGroup](#) command:

```
Azure PowerShell

$resourceGroup = "<resource-group>"
.setLocation = "<location>"`n
New-AzResourceGroup -Name $resourceGroup -Location $location
```

If you're not sure which region to specify for the `-Location` parameter, you can retrieve a list of supported regions for your subscription with the [Get-AzLocation](#) command:

```
Azure PowerShell

Get-AzLocation | select Location
```

Next, create a standard general-purpose v2 storage account with read-access geo-redundant storage (RA-GRS) by using the [New-AzStorageAccount](#) command. Remember that the name of your storage account must be unique across Azure, so replace the placeholder value in brackets with your own unique value:

```
Azure PowerShell

New-AzStorageAccount -ResourceGroupName $resourceGroup `n
    -Name <account-name> `n
    -Location $location `n
    -SkuName Standard_RAGRS `n
    -Kind StorageV2
```

To create an account with Azure DNS zone endpoints (preview), follow these steps:

1. Register for the preview as described in [Azure DNS zone endpoints \(preview\)](#).
2. Make sure you have the latest version of PowerShellGet installed.

```
Azure PowerShell

Install-Module PowerShellGet -Repository PSGallery -Force
```

3. Close and reopen the PowerShell console.
4. Install version [4.4.2-preview ↗](#) or later of the Az.Storage PowerShell module.  
You may need to uninstall other versions of the PowerShell module. For more

information about installing Azure PowerShell, see [Install Azure PowerShell with PowerShellGet](#).

```
Azure PowerShell
```

```
Install-Module Az.Storage -Repository PsGallery -RequiredVersion  
4.4.2-preview -AllowClobber -AllowPrerelease -Force
```

Next, create the account, specifying `AzureDnsZone` for the `-DnsEndpointType` parameter. After the account is created, you can see the service endpoints by getting the `PrimaryEndpoints` and `SecondaryEndpoints` properties for the storage account.

```
Azure PowerShell
```

```
$rgName = "<resource-group>"  
$accountName = "<storage-account>"  
  
$account = New-AzStorageAccount -ResourceGroupName $rgName `  
    -Name $accountName `  
    -SkuName Standard_RAGRS `  
    -Location <location> `  
    -Kind StorageV2 `  
    -DnsEndpointType AzureDnsZone  
  
$account.PrimaryEndpoints  
$account.SecondaryEndpoints
```

To enable a hierarchical namespace for the storage account to use [Azure Data Lake Storage](#), set the `EnableHierarchicalNamespace` parameter to `$True` on the call to the `New-AzStorageAccount` command.

The following table shows which values to use for the `SkuName` and `Kind` parameters to create a particular type of storage account with the desired redundancy configuration.

## Delete a storage account

Deleting a storage account deletes the entire account, including all data in the account. Be sure to back up any data you want to save before you delete the account.

Under certain circumstances, a deleted storage account may be recovered, but recovery is not guaranteed. For more information, see [Recover a deleted storage account](#).

If you try to delete a storage account associated with an Azure virtual machine, you may get an error about the storage account still being in use. For help troubleshooting this error, see [Troubleshoot errors when you delete storage accounts](#).

#### PowerShell

To delete the storage account, use the [Remove-AzStorageAccount](#) command:

#### PowerShell

```
Remove-AzStorageAccount -Name <storage-account> -ResourceGroupName  
<resource-group>
```

Alternately, you can delete the resource group, which deletes the storage account and any other resources in that resource group. For more information about deleting a resource group, see [Delete resource group and resources](#).

## Create a general purpose v1 storage account

#### Note

Although Microsoft recommends general-purpose v2 accounts for most scenarios, Microsoft will continue to support general-purpose v1 accounts for new and existing customers. You can create general-purpose v1 storage accounts in new regions whenever Azure Storage is available in those regions. Microsoft does not currently have a plan to deprecate support for general-purpose v1 accounts and will provide at least one year's advance notice before deprecating any Azure Storage feature. Microsoft will continue to provide security updates for general-purpose v1 accounts, but no new feature development is expected for this account type.

For new Azure regions that have come online after October 1, 2020, pricing for general-purpose v1 accounts has changed and is equivalent to pricing for general-purpose v2 accounts in those regions. Pricing for general-purpose v1 accounts in Azure regions that existed prior to October 1, 2020 has not changed. For pricing details for general-purpose v1 accounts in a specific region, see the Azure Storage pricing page. Choose your region, and then next to **Pricing offers**, select **Other**.

General purpose v1 (GPv1) storage accounts can no longer be created from the Azure portal. If you need to create a GPv1 storage account, follow the steps in section [Create a](#)

[storage account](#) for PowerShell, the Azure CLI, Bicep, or Azure Templates. For the `kind` parameter, specify `Storage`, and choose a `sku` or `SkuName` from the [table of supported values](#).

## Next steps

- [Storage account overview](#)
- [Upgrade to a general-purpose v2 storage account](#)
- [Move a storage account to another region](#)
- [Recover a deleted storage account](#)
- [Migrate a classic storage account](#)

# Configure a Log Analytics workspace in Azure Monitor using PowerShell

Article • 07/02/2023

The following sample script configures the workspace to collect multiple types of logs from virtual machines by using the [Log Analytics agent](#).

This script performs the following functions:

1. Create a workspace.
2. Enable collection of IIS logs from computers with the Windows agent installed.
3. Collect Logical Disk perf counters from Linux computers (% Used Inodes; Free Megabytes; % Used Space; Disk Transfers/sec; Disk Reads/sec; Disk Writes/sec).
4. Collect Syslog events from Linux computers.
5. Collect Error and Warning events from the Application Event Log from Windows computers.
6. Collect Memory Available Mbytes performance counter from Windows computers.
7. Collect a custom log.

PowerShell

```
$ResourceGroup = "my-resource-group"
$WorkspaceName = "log-analytics-" + (Get-Random -Maximum 99999) # workspace names need to be unique in
resource group - Get-Random helps with this for the example code
$Location = "westeurope"

# Create the resource group if needed
try {
    Get-AzResourceGroup -Name $ResourceGroup -ErrorAction Stop
} catch {
    New-AzResourceGroup -Name $ResourceGroup -Location $Location
}

# Create the workspace
New-AzOperationalInsightsWorkspace -Location $Location -Name $WorkspaceName -Sku PerGB2018 -
ResourceGroupName $ResourceGroup

# Enable IIS Log Collection using agent
Enable-AzOperationalInsightsIISLogCollection -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName

# Linux Perf
New-AzOperationalInsightsLinuxPerformanceObjectDataSource -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName -ObjectName "Logical Disk" -InstanceId "*" -CounterNames @("% Used Inodes", "Free
Megabytes", "% Used Space", "Disk Transfers/sec", "Disk Reads/sec", "Disk Writes/sec") -IntervalSeconds 20
-Name "Example Linux Disk Performance Counters"
Enable-AzOperationalInsightsLinuxPerformanceCollection -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName

# Linux Syslog
New-AzOperationalInsightsLinuxSyslogDataSource -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName -Facility "kern" -CollectEmergency -CollectAlert -CollectCritical -CollectError -
CollectWarning -Name "Example kernel syslog collection"
Enable-AzOperationalInsightsLinuxSyslogCollection -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName

# Windows Event
New-AzOperationalInsightsWindowsEventDataSource -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName -EventLogName "Application" -CollectErrors -CollectWarnings -Name "Example Application Event
Log"

# Windows Perf
New-AzOperationalInsightsWindowsPerformanceCounterDataSource -ResourceGroupName $ResourceGroup -
WorkspaceName $WorkspaceName -ObjectName "Memory" -InstanceId "*" -CounterName "Available MBytes" -
IntervalSeconds 20 -Name "Example Windows Performance Counter"

# Custom Logs
```

```
New-AzOperationalInsightsCustomLogDataSource -ResourceGroupName $ResourceGroup -WorkspaceName
$WorkspaceName -CustomLogRawJson "$CustomLog" -Name "Example Custom Log Collection"
```

### ⓘ Note

The format for the `CustomLogRawJson` parameter that defines the configuration for a custom log can be complex. Use `Get-AzOperationalInsightsDataSource` to retrieve the configuration for an existing custom log. The `Properties` property is the configuration required for the `CustomLogRawJson` parameter.

In the preceding example, `regexDelimiter` was defined as `\n` for newline. The log delimiter might also be a timestamp. The following table lists the formats that are supported.

Format	JSON RegEx format uses two \\ for every \ in a standard RegEx, so if testing in a RegEx app, reduce \\ to \
YYYY-MM-DD HH:MM:SS	((\\d{2}) ((\\d{4})))-([0-1]\\d)-(([0-3]\\d) (\\d))\\s((\\d) ([0-1]\\d) (2[0-4])):[0-5][0-9]:[0-5][0-9]
M/D/YYYY HH:MM:SS AM/PM	(([0-1]\\d [0-9])/(([0-3]\\d) (\\d))/(([\\d{2}] ((\\d{4})))\\s((\\d) ([0-1]\\d) (2[0-4])):[0-5][0-9]:[0-5][0-9]\\s(AM PM am pm)
dd/MMM/yyyy HH:MM:SS	([[0-2][1-9] [3][0-1]])\\/(Jan Feb Mar May Apr Jul Jun Aug Oct Sep Nov Dec jan feb mar may apr jul jun aug oct sep nov dec)\\/((19 20)[0-9][0-9])\\s((\\d) ([0-1]\\d) (2[0-4])):[0-5][0-9]:[0-5][0-9]
MMM dd yyyy HH:MM:SS	((?:Jan(?:uary)? Feb(?:bruary)? Mar(?:ch)? Apr(?:il)? May Jun(?:e)? Jul(?:y)? Aug(?:ust)? Sep(?:tember)? Sept Oct(?:ober)? Nov(?:ember)? Dec(?:ember)?)).*?(?:(?:[0-2]?\\d{1}) (:[3][01]{1})))(?!\\d).*?(?:(?:[1]{1}\\d{1}\\d{1}\\d{1}) (:[2]{1}\\d{3})))(?!\\d).*?(?:(?:[0-1][0-9]) (:[2][0-3]) (:[0-9])):(?:[0-5][0-9])(?:[0-5][0-9])?(?:\\s(?:am AM pm PM)))
yyMMdd HH:mm:ss	([0-9]{2})([0][1-9]  [1][0-2])([0-2][0-9]  [3][0-1])\\s\\s?([0-1]?[0-9]  [2][0-3]):[0-5][0-9]:[0-5][0-9]
ddMMyy HH:mm:ss	([0-2][0-9]  [3][0-1])([0][1-9]  [1][0-2])[0-9]{2}\\s\\s?([0-1]?[0-9]  [2][0-3]):[0-5][0-9]:[0-5][0-9]
MMM d HH:mm:ss	(Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec)\\s\\s?([0]?[1-9]  [1-2][0-9]  [3][0-1])\\s([0-1]?[0-9]  [2][0-3]):[0-5][0-9]:[0-5][0-9]
MMM d HH:mm:ss two spaces after MMM	(Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec)\\s\\s?([0]?[1-9]  [1-2][0-9]  [3][0-1])\\s([0][0-9]  [1][0-2]):([0-5][0-9]):([0-5][0-9])
MMM d HH:mm:ss	(Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec)\\s\\s?([0]?[1-9]  [1-2][0-9]  [3][0-1])\\s([0][0-9]  [1][0-2]):([0-5][0-9]):([0-5][0-9])
dd/MMM/yyyy:HH:mm:ss +zzzz	([[0-2][1-9]  [3][0-1]])\\/(Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec)\\/((19 20)[0-9][0-9]):([0][0-9]  [1][0-2]):([0-5][0-9]):([0-5][0-9]):([0-5][0-9]):([0-5][0-9])\\s[\\+ \\-][0-9]{4})
where + is + or a - where zzzz time offset	
yyyy-MM-ddTHH:mm:ss The T is a literal letter T	((\\d{2}) ((\\d{4})))-( [0-1]\\d)-(([0-3]\\d) (\\d))T((\\d) ([0-1]\\d) (2[0-4])):[0-5][0-9]:[0-5][0-9]

## Troubleshooting

When you create a workspace that was deleted in the last 14 days and is in a [soft-delete state](#), the operation could have a different outcome depending on your workspace configuration. For example:

- If you provide the same workspace name, resource group, subscription, and region as in the deleted workspace, your workspace will be recovered. The recovered workspace includes data, configuration, and connected agents.

- A workspace name must be unique per resource group. If you use a workspace name that already exists and is also in soft delete in your resource group, you'll get an error. The error will state "The workspace name 'workspace-name' is not unique" or "conflict." To override the soft delete, permanently delete your workspace, and create a new workspace with the same name, follow these steps to recover the workspace first and then perform a permanent delete:
  - [Recover](#) your workspace.
  - [Permanently delete](#) your workspace.
  - Create a new workspace by using the same workspace name.

## Next steps

Review [Log Analytics PowerShell cmdlets](#) for more information on using PowerShell for configuration of Log Analytics.

# Tutorial: Deploy an Azure Kubernetes Service (AKS) cluster

Article • 08/09/2023

Kubernetes provides a distributed platform for containerized applications. With AKS, you can quickly create a production ready Kubernetes cluster. In this tutorial, part three of seven, you deploy a Kubernetes cluster in AKS. You learn how to:

- Deploy a Kubernetes AKS cluster that can authenticate to an Azure Container Registry (ACR).
- Install the Kubernetes CLI, `kubectl`.
- Configure `kubectl` to connect to your AKS cluster.

In later tutorials, you'll deploy the Azure Vote application to your AKS cluster and scale and update your application.

## Before you begin

In previous tutorials, you created a container image and uploaded it to an ACR instance. If you haven't done these steps and would like to follow along, start with [Tutorial 1: Prepare an application for AKS](#).

- If you're using Azure CLI, this tutorial requires that you're running the Azure CLI version 2.0.53 or later. Run `az --version` to find the version. If you need to install or upgrade, see [Install Azure CLI](#).
- If you're using Azure PowerShell, this tutorial requires that you're running Azure PowerShell version 5.9.0 or later. Run `Get-InstalledModule -Name Az` to find the version. If you need to install or upgrade, see [Install Azure PowerShell](#).

## Create a Kubernetes cluster

AKS clusters can use [Kubernetes role-based access control \(Kubernetes RBAC\)](#), which allows you to define access to resources based on roles assigned to users. If a user is assigned multiple roles, permissions are combined. Permissions can be scoped to either a single namespace or across the whole cluster.

To learn more about AKS and Kubernetes RBAC, see [Control access to cluster resources using Kubernetes RBAC and Azure Active Directory identities in AKS](#).

## Azure PowerShell

Create an AKS cluster using [New-AzAksCluster](#). The following example creates a cluster named *myAKSCluster* in the resource group named *myResourceGroup*. This resource group was created in the [previous tutorial](#) in the *eastus* region. The AKS cluster will also be created in the *eastus* region.

For more information about AKS resource limits and region availability, see [Quotas](#), [virtual machine size restrictions](#), and [region availability in AKS](#).

To allow an AKS cluster to interact with other Azure resources, a cluster identity is automatically created. In this example, the cluster identity is [granted the right to pull images](#) from the ACR instance you created in the previous tutorial. To execute the command successfully, you're required to have an **Owner** or **Azure account administrator** role in your Azure subscription.

## Azure PowerShell

```
New-AzAksCluster -ResourceGroupName myResourceGroup -Name myAKSCluster -  
NodeCount 2 -GenerateSshKey -AcrNameToAttach <acrName>
```

### ⓘ Note

If you've already generated SSH keys, you may encounter an error similar to `linuxProfile.ssh.publicKeys.keyData is invalid`. To proceed, retry the command without the `-GenerateSshKey` parameter.

To avoid needing an **Owner** or **Azure account administrator** role, you can also manually configure a service principal to pull images from ACR. For more information, see [ACR authentication with service principals](#) or [Authenticate from Kubernetes with a pull secret](#). Alternatively, you can use a [managed identity](#) instead of a service principal for easier management.

After a few minutes, the deployment completes and returns JSON-formatted information about the AKS deployment.

### ⓘ Note

To ensure your cluster operates reliably, you should run at least two nodes.

# Install the Kubernetes CLI

Use the Kubernetes CLI, [kubectl](#), to connect to the Kubernetes cluster from your local computer.

Azure PowerShell

If you use the Azure Cloud Shell, `kubectl` is already installed. You can also install it locally using the [Install-AzAksKubectl](#) cmdlet.

Azure PowerShell

```
Install-AzAksKubectl
```

## Connect to cluster using kubectl

Azure PowerShell

To configure `kubectl` to connect to your Kubernetes cluster, use the [Import-AzAksCredential](#) cmdlet. The following example gets credentials for the AKS cluster named *myAKSCluster* in *myResourceGroup*.

Azure PowerShell

```
Import-AzAksCredential -ResourceGroupName myResourceGroup -Name myAKScluster
```

To verify connection to your cluster, run [kubectl get nodes](#) to return a list of cluster nodes.

Azure CLI

```
kubectl get nodes
```

The following example output shows the list of cluster nodes.

```
$ kubectl get nodes
```

NAME	STATUS	ROLES	AGE	VERSION
------	--------	-------	-----	---------

aks-nodepool1-19366578-vmss000002	Ready	agent	47h	v1.25.6
aks-nodepool1-19366578-vmss000003	Ready	agent	47h	v1.25.6

## Next steps

In this tutorial, you deployed a Kubernetes cluster in AKS and configured `kubectl` to connect to the cluster. You learned how to:

- ✓ Deploy an AKS cluster that can authenticate to an ACR.
- ✓ Install the Kubernetes CLI, `kubectl`.
- ✓ Configure `kubectl` to connect to your AKS cluster.

In the next tutorial, you'll learn how to deploy an application to your cluster.

[Deploy an application in AKS](#)

# Quickstart: Create a private container registry using Azure PowerShell

Article • 05/11/2023

Azure Container Registry is a private registry service for building, storing, and managing container images and related artifacts. In this quickstart, you create an Azure container registry instance with Azure PowerShell. Then, use Docker commands to push a container image into the registry, and finally pull and run the image from your registry.

## Prerequisites

### ⓘ Note

We recommend that you use the Azure Az PowerShell module to interact with Azure. See [Install Azure PowerShell](#) to get started. To learn how to migrate to the Az PowerShell module, see [Migrate Azure PowerShell from AzureRM to Az](#).

This quickstart requires Azure PowerShell module. Run `Get-Module -ListAvailable Az` to determine your installed version. If you need to install or upgrade, see [Install Azure PowerShell module](#).

You must also have Docker installed locally. Docker provides packages for [macOS](#), [Windows](#), and [Linux](#) systems.

Because the Azure Cloud Shell doesn't include all required Docker components (the `dockerd` daemon), you can't use the Cloud Shell for this quickstart.

## Sign in to Azure

Sign in to your Azure subscription with the `Connect-AzAccount` command, and follow the on-screen directions.

PowerShell

`Connect-AzAccount`

## Create resource group

Once you're authenticated with Azure, create a resource group with [New-AzResourceGroup](#). A resource group is a logical container in which you deploy and manage your Azure resources.

PowerShell

```
New-AzResourceGroup -Name myResourceGroup -Location EastUS
```

## Create container registry

Next, create a container registry in your new resource group with the [New-AzContainerRegistry](#) command.

The registry name must be unique within Azure, and contain 5-50 alphanumeric characters. The following example creates a registry named "mycontainerregistry." Replace *mycontainerregistry* in the following command, then run it to create the registry:

PowerShell

```
$registry = New-AzContainerRegistry -ResourceGroupName "myResourceGroup" -Name "mycontainerregistry" -EnableAdminUser -Sku Basic
```

### 💡 Tip

In this quickstart, you create a *Basic* registry, which is a cost-optimized option for developers learning about Azure Container Registry. Choose other tiers for increased storage and image throughput, and capabilities such as connection using a [private endpoint](#). For details on available service tiers (SKUs), see [Container registry service tiers](#).

## Log in to registry

Before pushing and pulling container images, you must log in to your registry with the [Connect-AzContainerRegistry](#) cmdlet. The following example uses the same credentials you logged in with when authenticating to Azure with the [Connect-AzAccount](#) cmdlet.

### ⓘ Note

In the following example, the value of `$registry.Name` is the resource name, not the fully qualified registry name.

PowerShell

```
Connect-AzContainerRegistry -Name $registry.Name
```

The command returns `Login Succeeded` once completed.

## Push image to registry

To push an image to an Azure Container registry, you must first have an image. If you don't yet have any local container images, run the following [docker pull](#) command to pull an existing public image. For this example, pull the `hello-world` image from Microsoft Container Registry.

```
docker pull mcr.microsoft.com/hello-world
```

Before you can push an image to your registry, you must tag it with the fully qualified name of your registry login server. The login server name is in the format `<registry-name>.azurecr.io` (must be all lowercase), for example, `mycontainerregistry.azurecr.io`.

Tag the image using the [docker tag](#) command. Replace `<login-server>` with the login server name of your ACR instance.

```
docker tag mcr.microsoft.com/hello-world <login-server>/hello-world:v1
```

Example:

```
docker tag mcr.microsoft.com/hello-world  
mycontainerregistry.azurecr.io/hello-world:v1
```

Finally, use [docker push](#) to push the image to the registry instance. Replace `<login-server>` with the login server name of your registry instance. This example creates the `hello-world` repository, containing the `hello-world:v1` image.

```
docker push <login-server>/hello-world:v1
```

After pushing the image to your container registry, remove the `hello-world:v1` image from your local Docker environment. (Note that this [docker rmi](#) command does not remove the image from the `hello-world` repository in your Azure container registry.)

```
docker rmi <login-server>/hello-world:v1
```

## Run image from registry

Now, you can pull and run the `hello-world:v1` container image from your container registry by using [docker run](#):

```
docker run <login-server>/hello-world:v1
```

Example output:

```
Unable to find image 'mycontainerregistry.azurecr.io/hello-world:v1' locally
v1: Pulling from hello-world
Digest:
sha256:662dd8e65ef7ccf13f417962c2f77567d3b132f12c95909de6c85ac3c326a345
Status: Downloaded newer image for mycontainerregistry.azurecr.io/hello-
world:v1

Hello from Docker!
This message shows that your installation appears to be working correctly.

[...]
```

## Clean up resources

Once you're done working with the resources you created in this quickstart, use the [Remove-AzResourceGroup](#) command to remove the resource group, the container registry, and the container images stored there:

PowerShell

```
Remove-AzResourceGroup -Name myResourceGroup
```

## Next steps

In this quickstart, you created an Azure Container Registry with Azure PowerShell, pushed a container image, and pulled and ran the image from the registry. Continue to the Azure Container Registry tutorials for a deeper look at ACR.

[Azure Container Registry tutorials](#)

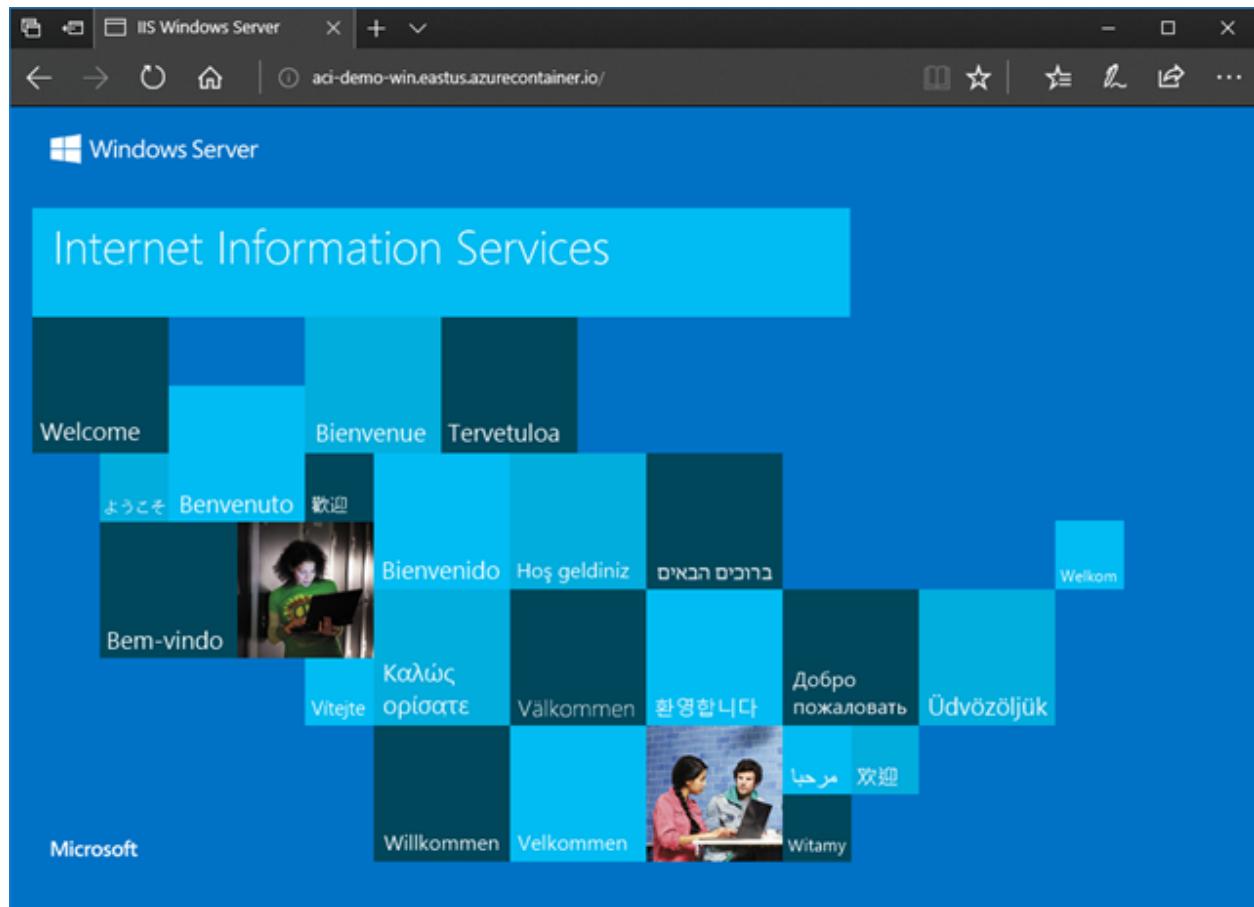
[Azure Container Registry Tasks tutorials](#)

# Quickstart: Deploy a container instance in Azure using Azure PowerShell

Article • 05/11/2023

Use Azure Container Instances to run serverless Docker containers in Azure with simplicity and speed. Deploy an application to a container instance on-demand when you don't need a full container orchestration platform like Azure Kubernetes Service.

In this quickstart, you use Azure PowerShell to deploy an isolated Windows container and make its application available with a fully qualified domain name (FQDN). A few seconds after you execute a single deployment command, you can browse to the application running in the container:



If you don't have an Azure subscription, create a [free account](#) before you begin.

## ⓘ Note

We recommend that you use the Azure Az PowerShell module to interact with Azure. See [Install Azure PowerShell](#) to get started. To learn how to migrate to the Az PowerShell module, see [Migrate Azure PowerShell from AzureRM to Az.](#)

# Azure Cloud Shell

Azure hosts Azure Cloud Shell, an interactive shell environment that you can use through your browser. You can use either Bash or PowerShell with Cloud Shell to work with Azure services. You can use the Cloud Shell preinstalled commands to run the code in this article, without having to install anything on your local environment.

To start Azure Cloud Shell:

Option	Example/Link
Select Try It in the upper-right corner of a code or command block. Selecting Try It doesn't automatically copy the code or command to Cloud Shell.	
Go to <a href="https://shell.azure.com">https://shell.azure.com</a> , or select the Launch Cloud Shell button to open Cloud Shell in your browser.	
Select the Cloud Shell button on the menu bar at the upper right in the Azure portal.	

To use Azure Cloud Shell:

1. Start Cloud Shell.
2. Select the **Copy** button on a code block (or command block) to copy the code or command.
3. Paste the code or command into the Cloud Shell session by selecting **Ctrl+Shift+V** on Windows and Linux, or by selecting **Cmd+Shift+V** on macOS.
4. Select **Enter** to run the code or command.

If you choose to install and use the PowerShell locally, this tutorial requires the Azure PowerShell module. Run `Get-Module -ListAvailable Az` to find the version. If you need to upgrade, see [Install Azure PowerShell module](#). If you are running PowerShell locally, you also need to run `Connect-AzAccount` to create a connection with Azure.

## Create a resource group

Azure container instances, like all Azure resources, must be deployed into a resource group. Resource groups allow you to organize and manage related Azure resources.

First, create a resource group named *myResourceGroup* in the *eastus* location with the following [New-AzResourceGroup](#) command:

```
Azure PowerShell
```

```
New-AzResourceGroup -Name myResourceGroup -Location EastUS
```

## Create a container

Now that you have a resource group, you can run a container in Azure. To create a container instance with Azure PowerShell, provide a resource group name, container instance name, and Docker container image to the [New-AzContainerGroup cmdlet](#). In this quickstart, you use the public

`mcr.microsoft.com/windows/servercore/iis:nanoserver` image. This image packages Microsoft Internet Information Services (IIS) to run in Nano Server.

You can expose your containers to the internet by specifying one or more ports to open, a DNS name label, or both. In this quickstart, you deploy a container with a DNS name label so that IIS is publicly reachable.

Execute a command similar to the following to start a container instance. Set a `-DnsNameLabel` value that's unique within the Azure region where you create the instance. If you receive a "DNS name label not available" error message, try a different DNS name label.

```
Azure PowerShell
```

```
New-AzContainerGroup -ResourceGroupName myResourceGroup -Name mycontainer -  
Image mcr.microsoft.com/windows/servercore/iis:nanoserver -OsType Windows -  
DnsNameLabel aci-demo-win
```

Within a few seconds, you should receive a response from Azure. The container's `ProvisioningState` is initially **Creating**, but should move to **Succeeded** within a minute or two. Check the deployment state with the [Get-AzContainerGroup cmdlet](#):

```
Azure PowerShell
```

```
Get-AzContainerGroup -ResourceGroupName myResourceGroup -Name mycontainer
```

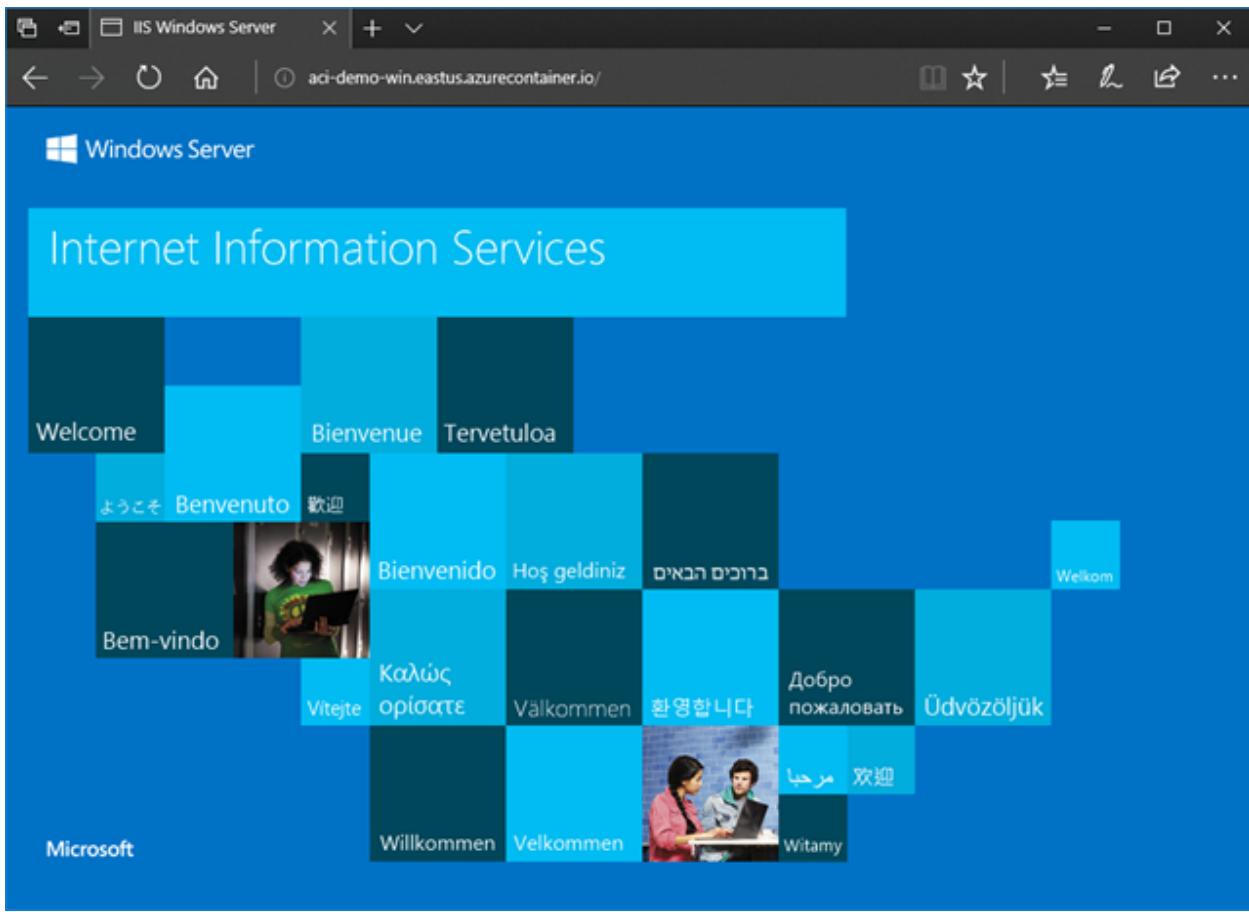
The container's provisioning state, fully qualified domain name (FQDN), and IP address appear in the cmdlet's output:

```
Console
```

```
PS Azure:\> Get-AzContainerGroup -ResourceGroupName myResourceGroup -Name mycontainer
```

```
ResourceGroupName      : myResourceGroup
Id                   : /subscriptions/<Subscription
ID>/resourceGroups/myResourceGroup/providers/Microsoft.ContainerInstance/containerGroups/mycontainer
Name                 : mycontainer
Type                : Microsoft.ContainerInstance/containerGroups
Location             : eastus
Tags                :
ProvisioningState    : Creating
Containers           : {mycontainer}
ImageRegistryCredentials :
RestartPolicy        : Always
IpAddress            : 52.226.19.87
DnsNameLabel         : aci-demo-win
Fqdn                : aci-demo-win.eastus.azurecontainer.io
Ports               : {80}
OsType              : Windows
Volumes             :
State               : Pending
Events              : {}
```

Once the container's `ProvisioningState` is **Succeeded**, navigate to its `Fqdn` in your browser. If you see a web page similar to the following, congratulations! You've successfully deployed an application running in a Docker container to Azure.



## Clean up resources

When you're done with the container, remove it with the [Remove-AzContainerGroup](#) cmdlet:

Azure PowerShell

```
Remove-AzContainerGroup -ResourceGroupName myResourceGroup -Name mycontainer
```

## Next steps

In this quickstart, you created an Azure container instance from an image in the public Docker Hub registry. If you'd like to build a container image and deploy it from a private Azure container registry, continue to the [Azure Container Instances tutorial](#).

[Azure Container Instances tutorial](#)

# Quickstart: Set and retrieve a secret from Azure Key Vault using PowerShell

Article • 05/11/2023

Azure Key Vault is a cloud service that works as a secure secrets store. You can securely store keys, passwords, certificates, and other secrets. For more information on Key Vault, you may review the [Overview](#). In this quickstart, you use PowerShell to create a key vault. You then store a secret in the newly created vault.

If you don't have an Azure subscription, create a [free account](#) before you begin.

## Azure Cloud Shell

Azure hosts Azure Cloud Shell, an interactive shell environment that you can use through your browser. You can use either Bash or PowerShell with Cloud Shell to work with Azure services. You can use the Cloud Shell preinstalled commands to run the code in this article, without having to install anything on your local environment.

To start Azure Cloud Shell:

Option	Example/Link
Select Try It in the upper-right corner of a code or command block. Selecting Try It doesn't automatically copy the code or command to Cloud Shell.	
Go to <a href="https://shell.azure.com">https://shell.azure.com</a> , or select the Launch Cloud Shell button to open Cloud Shell in your browser.	
Select the Cloud Shell button on the menu bar at the upper right in the <a href="#">Azure portal</a> .	

To use Azure Cloud Shell:

1. Start Cloud Shell.
2. Select the **Copy** button on a code block (or command block) to copy the code or command.
3. Paste the code or command into the Cloud Shell session by selecting **Ctrl+Shift+V** on Windows and Linux, or by selecting **Cmd+Shift+V** on macOS.
4. Select **Enter** to run the code or command.

If you choose to install and use PowerShell locally, this tutorial requires Azure PowerShell module version 5.0.0 or later. Type `Get-Module az -ListAvailable` to find the version. If you need to upgrade, see [Install Azure PowerShell module](#). If you are running PowerShell locally, you also need to run `Connect-AzAccount` to create a connection with Azure.

```
Azure PowerShell
```

```
Connect-AzAccount
```

## Create a resource group

A resource group is a logical container into which Azure resources are deployed and managed. Use the Azure PowerShell `New-AzResourceGroup` cmdlet to create a resource group named *myResourceGroup* in the *eastus* location.

```
Azure PowerShell
```

```
New-AzResourceGroup -Name "myResourceGroup" -Location "EastUS"
```

## Create a key vault

Use the Azure PowerShell `New-AzKeyVault` cmdlet to create a Key Vault in the resource group from the previous step. You will need to provide some information:

- Key vault name: A string of 3 to 24 characters that can contain only numbers (0-9), letters (a-z, A-Z), and hyphens (-)

 **Important**

Each key vault must have a unique name. Replace <your-unique-keyvault-name> with the name of your key vault in the following examples.

- Resource group name: **myResourceGroup**.
- The location: **EastUS**.

```
Azure PowerShell
```

```
New-AzKeyVault -Name "<your-unique-keyvault-name>" -ResourceGroupName
```

```
"myResourceGroup" -Location "EastUS"
```

The output of this cmdlet shows properties of the newly created key vault. Take note of the two properties listed below:

- **Vault Name:** The name you provided to the `-Name` parameter above.
- **Vault URI:** In the example, this is `https://<your-unique-keyvault-name>.vault.azure.net/`. Applications that use your vault through its REST API must use this URI.

At this point, your Azure account is the only one authorized to perform any operations on this new vault.

## Give your user account permissions to manage secrets in Key Vault

Use the Azure PowerShell [Set-AzKeyVaultAccessPolicy](#) cmdlet to update the Key Vault access policy and grant secret permissions to your user account.

Azure PowerShell

```
Set-AzKeyVaultAccessPolicy -VaultName "<your-unique-keyvault-name>" -UserPrincipalName "user@domain.com" -PermissionsToSecrets get, set, delete
```

## Adding a secret to Key Vault

To add a secret to the vault, you just need to take a couple of steps. In this case, you add a password that could be used by an application. The password is called **ExamplePassword** and stores the value of **hVFkk965BuUv** in it.

First convert the value of **hVFkk965BuUv** to a secure string by typing:

Azure PowerShell

```
$secretvalue = ConvertTo-SecureString "hVFkk965BuUv" -AsPlainText -Force
```

Then, use the Azure PowerShell [Set-AzKeyVaultSecret](#) cmdlet to create a secret in Key Vault called **ExamplePassword** with the value **hVFkk965BuUv**:

Azure PowerShell

```
$secret = Set-AzKeyVaultSecret -VaultName "<your-unique-keyvault-name>" -  
Name "ExamplePassword" -SecretValue $secretvalue
```

## Retrieve a secret from Key Vault

To view the value contained in the secret as plain text, use the Azure PowerShell [Get-AzKeyVaultSecret](#) cmdlet:

Azure PowerShell

```
$secret = Get-AzKeyVaultSecret -VaultName "<your-unique-keyvault-name>" -  
Name "ExamplePassword" -AsPlainText
```

Now, you have created a Key Vault, stored a secret, and retrieved it.

## Clean up resources

Other quickstarts and tutorials in this collection build upon this quickstart. If you plan to continue on to work with other quickstarts and tutorials, you may want to leave these resources in place.

When no longer needed, you can use the [Remove-AzResourceGroup](#) command to remove the resource group, Key Vault, and all related resources.

Azure PowerShell

```
Remove-AzResourceGroup -Name myResourceGroup
```

## Next steps

In this quickstart you created a Key Vault and stored a secret in it. To learn more about Key Vault and how to integrate it with your applications, continue on to the articles below.

- Read an [Overview of Azure Key Vault](#)
- Learn how to [store multiline secrets in Key Vault](#)
- See the reference for the [Azure PowerShell Key Vault cmdlets](#)
- Review the [Key Vault security overview](#)

# Azure AD to Microsoft Graph migration changes in Azure PowerShell

Article • 09/27/2023

The `Az.Resources` PowerShell module version 5.1.0 of Azure PowerShell introduces changes to the identity-related cmdlets. The cmdlets that rely on Azure AD Graph are transitioning to Microsoft Graph. This change is occurring to ensure a smooth transition in light of the [announcement of the retirement of Azure AD Graph](#). For more information, see [Azure AD to Microsoft Graph migration for Azure command line tools](#).

The following example installs the latest version of the `Az.Resources` Azure PowerShell module.

PowerShell

```
Install-Module -Name Az.Resources -Repository PSGallery -Scope CurrentUser
```

See the following information for a list of changes.

## Application

### Get-AzAdApplication

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`
- Parameter `IncludeTotalCount` is not supported and has been removed

### New-AzAdApplication

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`

- Parameter `Password` has been removed, customized password is not supported anymore, server assigns secret text when creation

## Remove-AzAdApplication

- Input type of parameter `InputObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`

## Update-AzAdApplication

- Input type of parameter `InputObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`
- Output type has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to `System.Boolean`

## Changes to Application Object

- `ObjectId` has been replaced by `Id`
- `HomePage` has been replaced by `HomepageUrl` in the `Web` element
- `ApplicationId` has been replaced by `AppId`
- `AvailableToOtherTenants` (boolean) has been replaced by `SignInAudience` (string with 4 values: 'AzureADMyOrg', 'AzureADMultipleOrgs', 'AzureADandPersonalMicrosoftAccount', 'PersonalMicrosoftAccount')
  - AzureADMultipleOrgs is equivalent to AvailableToOtherTenants:\$true
  - AzureADMyOrg is equivalent to AvailableToOtherTenants:\$false or \$null
- `ApiPermissions` has been replaced by `RequiredResourceAccess`
- `ReplyUrls` has been replaced by `RedirectUris` in the `Web` element
- `ObjectType` has been replaced by `OdataType`

# Application Credential

## Get-AzAdAppCredential

- Input type of parameter `ApplicationObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`
- Output type has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADCredential` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphKeyCredential` and `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphPasswordCredential`

## New-AzAdAppCredential

- Input type of parameter `ApplicationObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`
- Output type has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADCredential` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphKeyCredential` and `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphPasswordCredential`
- Parameter `Password` has been removed, customized password is not supported anymore, server will assign secret text when creation

## Remove-AzAdAppCredential

- Input type of parameter `ApplicationObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`

# Changes to App Credential Object

## Password Credential

- `Password` has been replaced by `SecretText`

## Key Credential

- `CertValue` has been Removed

# ServicePrincipal

## Get-AzAdServicePrincipal

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`
- Parameter `IncludeTotalCount` is not supported and has been removed.

## New-AzAdServicePrincipal

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`
- Parameter set `ApplicationWithoutCredentialParameterSet`,  
`ApplicationWithPasswordPlainParameterSet`,  
`DisplayNameWithoutCredentialParameterSet`,  
`DisplayNameWithPasswordPlainParameterSet` have been removed because those original parameter sets were not functioning.
- Role `contributor` is not assigned as default when parameter `-Role` is not provided due to security consideration.
- Parameter `SkipAssignment` has been removed.

## Remove-AzAdServicePrincipal

- Input type of parameter `ApplicationObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADApplication` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphApplication`
- Input type of parameter `InputObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`

## Update-AzAdServicePrincipal

- Input type of parameter `InputObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`
- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`System.Boolean`

## Changes to Service Principal Object

- `ApplicationId` has been replaced by `AppId`
- `ObjectType` has been replaced by `OdataType`

## ServicePrincipal Credential

### Get-AzAdSpCredential

- Input type of parameter `ServicePrincipalObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`

- Output type has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADCredential` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphKeyCredential` and  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphPasswordCredential`

## New-AzAdSpCredential

- Input type of parameter `ServicePrincipalObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`
- Output type has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADCredential` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphKeyCredential` and  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphPasswordCredential`

## Remove-AzAdSpCredential

- Input type of parameter `ServicePrincipalObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADServicePrincipal` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphServicePrincipal`

## Changes to ServicePrincipal Credential Object

### Password Credential

- `Password` has been replaced by `SecretText`

### Key Credential

- `CertValue` has been Removed

# User

## Get-AzAdUser

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADUser` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphUser`
- Parameter `IncludeTotalCount` is not supported and has been removed

## New-AzAdUser

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADUser` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphUser`

## Remove-AzAdUser

- Input type of parameter `InputObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADUser` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphUser`

## Update-AzAdUser

- Input type of parameter `InputObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADUser` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphUser`
- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADUser` to `System.Boolean`

## Changes to User Object

- `ObjectType` has been replaced by `OdataType`

- `ImmutableId` has been replaced by `OnpremisesImmutableId`

# Group

## Get-AzAdGroup

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADGroup` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphGroup`
- Parameter `IncludeTotalCount` is not supported and has been removed

## New-AzAdGroup

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADGroup` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphGroup`

## Remove-AzAdGroup

- Input type of parameter `InputObject` has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADGroup` to  
`Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftGraphGroup`

# Changes of Group Object

- `ObjectType` has been replaced by `OdataType`

# Group member

## Get-AzAdGroupMember

- Output type has been changed from  
`Microsoft.Azure.Commands.ActiveDirectory.PSADObject` to

```
Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftG  
raphDirectoryObject
```

- Parameter `IncludeTotalCount` was removed
- Input type of parameter `GroupObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADGroup` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftG  
raphGroup`

### ⓘ Important

Due to limitations with the current Graph API, service principals are not returned by `Get-AzAdGroupMember` in Az 7.x. For a workaround, see [Troubleshooting the Azure Az PowerShell module](#).

## Add-AzAdGroupMember

- Input type of parameter `GroupObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADGroup` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftG  
raphGroup`

## Remove-AzAdGroupMember

- Input type of parameter `GroupObject` has been changed from `Microsoft.Azure.Commands.ActiveDirectory.PSADGroup` to `Microsoft.Azure.PowerShell.Cmdlets.Resources.MSGraph.Models.ApiV10.IMicrosoftG  
raphGroup`

# Migration Guide for Az 10.0.0

Article • 09/27/2023

## Az.Cdn

### Update-AzFrontDoorCdnProfile

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### Update-AzCdnProfile

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### Update-AzCdnOriginGroup

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### Update-AzCdnOrigin

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### Update-AzCdnEndpoint

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### Stop-AzCdnEndpoint

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### Start-AzCdnEndpoint

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### New-AzFrontDoorCdnProfile

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

### New-AzCdnProfile

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## New-AzCdnOriginGroup

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## New-AzCdnOrigin

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## New-AzCdnEndpoint

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## New-AzCdnCustomDomain

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzFrontDoorCdnProfile

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnSubscriptionResourceUsage

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnProfileResourceUsage

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnProfile

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnOriginGroup

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnOrigin

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnEndpointResourceUsage

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnEndpoint

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Get-AzCdnCustomDomain

- The output type is changed from 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20210601.IProfile' to 'Microsoft.Azure.PowerShell.Cmdlets.Cdn.Models.Api20221101Preview.IProfile' without properties changed.

## Enable-AzCdnCustomDomainCustomHttps

- The cmdlet 'Enable-AzCdnCustomDomainCustomHttps' no longer supports the parameter 'PassThru' and no alias was found for the original parameter name.

### Before

```
PowerShell

$customDomainHttpsParameter = New-AzCdnManagedHttpsParametersObject -  
CertificateSourceParameterCertificateType Dedicated -CertificateSource Cdn -ProtocolType  
ServerNameIndication  
Enable-AzCdnCustomDomainCustomHttps -ResourceGroupName testps-rg-da16jm -ProfileName cdn001 -  
EndpointName endptest001 -CustomDomainName customdomain001 -CustomDomainHttpsParameter  
$customDomainHttpsParameter -PassThru

Output:  
True
```

### After

```
PowerShell

$customDomainHttpsParameter = New-AzCdnManagedHttpsParametersObject -  
CertificateSourceParameterCertificateType Dedicated -CertificateSource Cdn -ProtocolType  
ServerNameIndication  
Enable-AzCdnCustomDomainCustomHttps -ResourceGroupName testps-rg-da16jm -ProfileName cdn001 -  
EndpointName endptest001 -CustomDomainName customdomain001 -CustomDomainHttpsParameter  
$customDomainHttpsParameter

Output:  
Null
```

## Disable-AzCdnCustomDomainCustomHttps

- The cmdlet 'Disable-AzCdnCustomDomainCustomHttps' no longer supports the parameter 'PassThru' and no alias was found for the original parameter name.

### Before

```
PowerShell
```

```
Disable-AzCdnCustomDomainCustomHttps -ResourceGroupName testps-rg-da16jm -ProfileName cdn001 -  
EndpointName endptest001 -CustomDomainName customdomain001 -PassThru
```

Output:  
True

## After

PowerShell

```
Disable-AzCdnCustomDomainCustomHttps -ResourceGroupName testps-rg-da16jm -ProfileName cdn001 -  
EndpointName endptest001 -CustomDomainName customdomain001
```

OutPut:  
Null

# Az.Compute

## Get-AzVM

- The cmdlet 'Get-AzVM' no longer supports the parameter 'NextLink' and no alias was found for the original parameter name.

## Before

PowerShell

```
Get-AzVM -NextLink $myUri
```

## After

PowerShell

```
Get-AzVM -ResourceGroupName $rgname -Name $vmName
```

# Az.ContainerRegistry

## Update-AzContainerRegistryWebhook

- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'WebhookUri' for parameter 'Uri'.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'WebhookActions' for parameter 'Action'.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'WebhookHeaders' for parameter 'Header'.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'WebhookStatus' for parameter 'Status'.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'WebhookScope' for parameter 'Scope'.

- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzContainerRegistryWebhook' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Update-AzContainerRegistryWebhook -ResourceId
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re
gistries/MyRegistry/webhooks/webhook001 -Uri http://www.bing.com -Action Delete,Push -Header
@{SpecialHeader='headerVal'} -Tag @{Key='val'} -Status Enabled -Scope 'foo:'*
```

## After

PowerShell

```
Update-AzContainerRegistryWebhook -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample"
-Name "webhook001" -Uri http://www.bing.com -Action Delete,Push -Header @{SpecialHeader='headerVal'} -
Tag @{Key='val'} -Status Enabled -Scope 'foo:'*
```

## Update-AzContainerRegistryCredential

- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the alias 'RegistryName' for parameter 'Name'.
- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistry' for parameter 'Registry'.
- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the type 'Microsoft.Azure.Management.ContainerRegistry.Models.PasswordName' for parameter 'PasswordName'.
- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzContainerRegistryCredential' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Update-AzContainerRegistryCredential -ResourceId
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re
gistries/MyRegistry -PasswordName password
```

## After

PowerShell

```
Update-AzContainerRegistryCredential -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample" -PasswordName Password
```

## Update-AzContainerRegistry

- The cmdlet 'Update-AzContainerRegistry' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistry'.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the alias 'EnableAdmin' for parameter 'EnableAdminUser'.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the parameter 'DisableAdminUser' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the parameter 'StorageAccountName' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the parameter 'NetworkRuleSet' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the alias 'ContainerRegistrySku' for parameter 'Sku'.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the alias 'RegistrySku' for parameter 'Sku'.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzContainerRegistry' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Update-AzContainerRegistry -ResourceId /subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/registries/MyRegistry -EnableAdmin
```

## After

PowerShell

```
Update-AzContainerRegistry -ResourceGroupName "MyResourceGroup" -Name "RegistryExample" -EnableAdminUser
```

## Test-AzContainerRegistryWebhook

- The cmdlet 'Test-AzContainerRegistryWebhook' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryEventInfo'.
- The cmdlet 'Test-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryWebhook' for parameter 'Webhook'.

- The cmdlet 'Test-AzContainerRegistryWebhook' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Test-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Test-AzContainerRegistryWebhook' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Test-AzContainerRegistryWebhook' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Test-AzContainerRegistryWebhook -ResourceId
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re
gistries/MyRegistry/webhooks/webhook001
```

## After

PowerShell

```
Test-AzContainerRegistryWebhook -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample" -
Name "webhook001"
```

## Test-AzContainerRegistryNameAvailability

- The cmdlet 'Test-AzContainerRegistryNameAvailability' no longer supports the alias 'ContainerRegistryName' for parameter 'Name'.
- The cmdlet 'Test-AzContainerRegistryNameAvailability' no longer supports the alias 'RegistryName' for parameter 'Name'.
- The cmdlet 'Test-AzContainerRegistryNameAvailability' no longer supports the alias 'ResourceName' for parameter 'Name'.
- The cmdlet 'Test-AzContainerRegistryNameAvailability' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Test-AzContainerRegistryNameAvailability' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Test-AzContainerRegistryNameAvailability' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Test-AzContainerRegistryNameAvailability -ContainerRegistryName 'SomeRegistryName'
```

## After

PowerShell

```
Test-AzContainerRegistryNameAvailability -Name 'SomeRegistryName'
```

## Set-AzContainerRegistryNetworkRuleSet

- The cmdlet 'Set-AzContainerRegistryNetworkRuleSet' has been removed and no alias was found for the original cmdlet name.

## Remove-AzContainerRegistryWebhook

- The cmdlet 'Remove-AzContainerRegistryWebhook' no longer supports the parameter 'Webhook' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzContainerRegistryWebhook' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzContainerRegistryWebhook' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzContainerRegistryWebhook' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Remove-AzContainerRegistryWebhook -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistries/MyRegistry/webhooks/webhook001
```

## After

PowerShell

```
Remove-AzContainerRegistryWebhook -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample"  
-Name "webhook001"
```

## Remove-AzContainerRegistryReplication

- The cmdlet 'Remove-AzContainerRegistryReplication' no longer supports the parameter 'Replication' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzContainerRegistryReplication' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzContainerRegistryReplication' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzContainerRegistryReplication' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzContainerRegistryReplication' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Remove-AzContainerRegistryReplication -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistries/MyRegistry/replications/westus
```

## After

PowerShell

```
Remove-AzContainerRegistryReplication -Name "NewReplication" -ResourceGroupName "MyResourceGroup" -  
RegistryName "RegistryExample"
```

## Remove-AzContainerRegistry

- The cmdlet 'Remove-AzContainerRegistry' no longer supports the parameter 'Registry' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzContainerRegistry' no longer supports the parameter 'Resourceid' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzContainerRegistry' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzContainerRegistry' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzContainerRegistry' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Remove-AzContainerRegistry -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistries/MyRegistry
```

## After

PowerShell

```
Remove-AzContainerRegistry -ResourceGroupName "MyResourceGroup" -Name "MyRegistry"
```

## New-AzContainerRegistryWebhook

- The cmdlet 'New-AzContainerRegistryWebhook' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryWebhook'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'WebhookUri' for parameter 'Uri'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'WebhookActions' for parameter 'Action'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'WebhookHeaders' for parameter 'Header'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'WebhookStatus' for parameter 'Status'.

- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'WebhookScope' for parameter 'Scope'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'WebhookLocation' for parameter 'Location'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzContainerRegistryWebhook' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
New-AzContainerRegistryWebhook -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample" -  
Name "webhook001" -Uri http://www.bing.com -Action Delete,Push -Header @{SpecialHeader='headerVal'} -  
Tag @{Key="val"} -Location "east us" -Status WebhookStatus -WebhookScope "foo:*
```

## After

PowerShell

```
New-AzContainerRegistryWebhook -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample" -  
Name "webhook001" -Uri http://www.bing.com -Action Delete,Push -Header @{SpecialHeader='headerVal'} -  
Tag @{Key="val"} -Location "east us" -Status Enabled -Scope "foo:*
```

## New-AzContainerRegistryReplication

- The cmdlet 'New-AzContainerRegistryReplication' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryReplication'.
- The cmdlet 'New-AzContainerRegistryReplication' no longer supports the type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistry' for parameter 'Registry'.
- The cmdlet 'New-AzContainerRegistryReplication' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'New-AzContainerRegistryReplication' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzContainerRegistryReplication' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzContainerRegistryReplication' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
New-AzContainerRegistryReplication -Name replication001 -Location 'west us' -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistries/MyRegistry
```

## After

PowerShell

```
New-AzContainerRegistryReplication -ResourceGroupName "MyResourceGroup" -RegistryName "MyRegistry" -  
Name replication001 -Location 'west us'
```

## New-AzContainerRegistryNetworkRule

- The cmdlet 'New-AzContainerRegistryNetworkRule' has been removed and no alias was found for the original cmdlet name.

## New-AzContainerRegistry

- The cmdlet 'New-AzContainerRegistry' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistry'.
- The cmdlet 'New-AzContainerRegistry' no longer supports the alias 'ContainerRegistrySku' for parameter 'Sku'.
- The cmdlet 'New-AzContainerRegistry' no longer supports the alias 'RegistrySku' for parameter 'Sku'.
- The cmdlet 'New-AzContainerRegistry' no longer supports the alias 'EnableAdmin' for parameter 'EnableAdminUser'.
- The cmdlet 'New-AzContainerRegistry' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzContainerRegistry' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzContainerRegistry' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
New-AzContainerRegistry -ResourceGroupName "MyResourceGroup" -Name "RegistryExample" -  
ContainerRegistrySku "Basic" -Location "west us" -EnableAdmin
```

## After

PowerShell

```
New-AzContainerRegistry -ResourceGroupName "MyResourceGroup" -Name "RegistryExample" -Sku "Basic" -  
Location "west us" -EnableAdminUser
```

## Import-AzContainerRegistryImage

- The cmdlet 'Import-AzContainerRegistryImage' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Import-AzContainerRegistryImage' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Import-AzContainerRegistryImage' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzContainerRegistryWebhookEvent

- The cmdlet 'Get-AzContainerRegistryWebhookEvent' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryWebhookEvent'.
- The cmdlet 'Get-AzContainerRegistryWebhookEvent' no longer supports the type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryWebhook' for parameter 'Webhook'.
- The cmdlet 'Get-AzContainerRegistryWebhookEvent' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzContainerRegistryWebhookEvent' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryWebhookEvent' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryWebhookEvent' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzContainerRegistryWebhookEvent -ResourceId
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re
gistries/MyRegistry/webhooks/webhook001
```

## After

PowerShell

```
Get-AzContainerRegistryWebhookEvent -ResourceGroupName MyResourceGroup -RegistryName RegistryExample -
WebhookName webhook001
```

## Get-AzContainerRegistryWebhook

- The cmdlet 'Get-AzContainerRegistryWebhook' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryWebhook'.
- The cmdlet 'Get-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistry' for parameter 'Registry'.
- The cmdlet 'Get-AzContainerRegistryWebhook' no longer supports the parameter 'IncludeConfiguration' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzContainerRegistryWebhook' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzContainerRegistryWebhook' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryWebhook' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryWebhook' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzContainerRegistryWebhook -ResourceId
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re
```

```
gistries/MyRegistry/webhooks/webhook001
```

## After

PowerShell

```
Get-AzContainerRegistryWebhook -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample" -Name "webhook001"
```

## Get-AzContainerRegistryUsage

- The cmdlet 'Get-AzContainerRegistryUsage' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.Models.PSRegistryUsage'.
- The cmdlet 'Get-AzContainerRegistryUsage' no longer supports the alias 'RegistryName' for parameter 'Name'.
- The cmdlet 'Get-AzContainerRegistryUsage' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryUsage' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryUsage' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzContainerRegistryUsage -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistries/MyRegistry
```

## After

PowerShell

```
Get-AzContainerRegistryUsage -ResourceGroupName "MyResourceGroup" -Name "MyRegistry"
```

## Get-AzContainerRegistryReplication

- The cmdlet 'Get-AzContainerRegistryReplication' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistryReplication'.
- The cmdlet 'Get-AzContainerRegistryReplication' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzContainerRegistryReplication' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryReplication' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryReplication' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzContainerRegistryReplication -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistrries/MyRegistry/replications/westus
```

## After

PowerShell

```
Get-AzContainerRegistryReplication -ResourceGroupName "MyResourceGroup" -RegistryName  
"RegistryExample"
```

## Get-AzContainerRegistryCredential

- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the alias 'ContainerRegistryName' for parameter 'Name'.
- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the alias 'RegistryName' for parameter 'Name'.
- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the alias 'ResourceName' for parameter 'Name'.
- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistryCredential' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzContainerRegistryCredential -ResourceId  
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re  
gistrries/MyRegistry
```

## After

PowerShell

```
Get-AzContainerRegistryCredential -ResourceGroupName "MyResourceGroup" -RegistryName "RegistryExample"
```

## Get-AzContainerRegistry

- The cmdlet 'Get-AzContainerRegistry' no longer has output type 'Microsoft.Azure.Commands.ContainerRegistry.PSContainerRegistry'.
- The cmdlet 'Get-AzContainerRegistry' no longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.

- The cmdlet 'Get-AzContainerRegistry' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistry' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzContainerRegistry' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzContainerRegistry -ResourceId
/subscriptions/{subscriptionID}/resourceGroups/MyResourceGroup/providers/Microsoft.ContainerRegistry/re
gistries/MyRegistry
```

## After

PowerShell

```
Get-AzContainerRegistry -ResourceGroupName "MyResourceGroup" -Name "MyRegistry"
```

## Az.DataProtection

### Initialize-AzDataProtectionBackupInstance

- The parameter 'BackupConfiguration' is changed from 'Microsoft.Azure.PowerShell.Cmdlets.DataProtection.Models.Api202301.KubernetesClusterBackupDatasourceParameters' to its base class type 'Microsoft.Azure.PowerShell.Cmdlets.DataProtection.Models.Api202301.IBackupDatasourceParameters'. The usage remains unchanged.

## Az.DesktopVirtualization

### Update-AzWvdScalingPlan

- The cmdlet 'Update-AzWvdScalingPlan' no longer supports the parameter 'HostPoolType' and no alias was found for the original parameter name.

## Before

PowerShell

```
Update-AzWvdScalingPlan ` 
    -ResourceGroupName ResourceGroupName ` 
    -Name 'scalingPlan1' ` 
    -Description 'Description' ` 
    -FriendlyName 'Friendly Name' ` 
    -HostPoolType 'Pooled' ` 
    -TimeZone '(UTC-08:00) Pacific Time (US & Canada)' ` 
    -Schedule @(
        @{
            'name' = 'Work Week';
            'daysOfWeek' = @('Monday', 'Tuesday', 'Wednesday', 'Thursday',
            'Friday');
        }
    )
```

```

        'rampUpStartTime'          = '1900-01-01T06:00:00Z';
        'rampUpLoadBalancingAlgorithm' = 'BreadthFirst';
        'rampUpMinimumHostsPct'      = 20;
        'rampUpCapacityThresholdPct' = 20;
        'peakStartTime'             = '1900-01-01T08:00:00Z';
        'peakLoadBalancingAlgorithm' = 'DepthFirst';
        'RampDownStartTime'         = '1900-01-01T18:00:00Z';
        'rampDownLoadBalancingAlgorithm' = 'BreadthFirst';
        'rampDownMinimumHostsPct'      = 20;
        'rampDownCapacityThresholdPct' = 20;
        'rampDownForceLogoffUser'     = $true;
        'rampDownWaitTimeMinute'      = 30;
        'rampDownNotificationMessage' = 'Log out now, please.';
        'rampDownStopHostsWhen'       = 'ZeroSessions';
        'offPeakStartTime'           = '1900-01-01T20:00:00Z';
        'offPeakLoadBalancingAlgorithm' = 'DepthFirst';
    }
}
)
-HostPoolReference @(
{
    'hostPoolArmPath' =
'/subscriptions/SubscriptionId/resourceGroups/ResourceGroupName/providers/Microsoft.DesktopVirtualization/hostPools/HostPoolName1';
    'scalingPlanEnabled' = $false;
},
{
    'hostPoolArmPath' =
'/subscriptions/SubscriptionId/resourceGroups/ResourceGroupName/providers/Microsoft.DesktopVirtualization/hostPools/HostPoolName2';
    'scalingPlanEnabled' = $false;
}
)

```

## After

```

PowerShell

Update-AzWvdScalingPlan ` 
    -ResourceGroupName ResourceGroupName ` 
    -Name 'scalingPlan1' ` 
    -Description 'Description' ` 
    -FriendlyName 'Friendly Name' ` 
    -TimeZone '(UTC-08:00) Pacific Time (US & Canada)' ` 
    -Schedule @(
{
    'name'                  = 'Work Week';
    'daysOfWeek'            = @('Monday', 'Tuesday', 'Wednesday', 'Thursday',
'Friday');
        'rampUpStartTime'          = '1900-01-01T06:00:00Z';
        'rampUpLoadBalancingAlgorithm' = 'BreadthFirst';
        'rampUpMinimumHostsPct'      = 20;
        'rampUpCapacityThresholdPct' = 20;
        'peakStartTime'             = '1900-01-01T08:00:00Z';
        'peakLoadBalancingAlgorithm' = 'DepthFirst';
        'RampDownStartTime'         = '1900-01-01T18:00:00Z';
        'rampDownLoadBalancingAlgorithm' = 'BreadthFirst';
        'rampDownMinimumHostsPct'      = 20;
        'rampDownCapacityThresholdPct' = 20;
        'rampDownForceLogoffUser'     = $true;
        'rampDownWaitTimeMinute'      = 30;
        'rampDownNotificationMessage' = 'Log out now, please.';
        'rampDownStopHostsWhen'       = 'ZeroSessions';
        'offPeakStartTime'           = '1900-01-01T20:00:00Z';
        'offPeakLoadBalancingAlgorithm' = 'DepthFirst';
}
)
-HostPoolReference @(

```

```

@{
    'hostPoolArmPath' =
'/subscriptions/SubscriptionId/resourceGroups/ResourceGroupName/providers/Microsoft.DesktopVirtualization/hostPools/HostPoolName1';
        'scalingPlanEnabled' = $false;
},
@{
    'hostPoolArmPath' =
'/subscriptions/SubscriptionId/resourceGroups/ResourceGroupName/providers/Microsoft.DesktopVirtualization/hostPools/HostPoolName2';
        'scalingPlanEnabled' = $false;
}

)

```

## General

We upgraded the API version of the Az.DesktopVirtualization module from 2021-07-12 to 2022-09-09. It caused breaking changes as we include the version in the namespace of the models, for example, 'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20210712.IHostPool'. If your script depends on the namespace, please replace "Api20210712" with "Api202209".

## New-AzWvdScalingPlan

- The cmdlet 'New-AzWvdScalingPlan' no longer supports the type 'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Support.HostPoolType' for parameter 'HostPoolType'.

## Before

PowerShell

```

New-AzWvdScalingPlan ` 
    -ResourceGroupName ResourceGroupName ` 
    -Name 'scalingPlan1' ` 
    -Location 'westcentralus' ` 
    -Description 'Description' ` 
    -FriendlyName 'Friendly Name' ` 
    -HostPoolType 'Pooled' ` 
    -TimeZone '(UTC-08:00) Pacific Time (US & Canada)' ` 
    -Schedule @(
        @{
            'name'                      = 'Work Week';
            'daysOfWeek'                = @('Monday', 'Tuesday', 'Wednesday', 'Thursday',
'Friday');
            'rampUpStartTime'           = '1900-01-01T06:00:00Z';
            'rampUpLoadBalancingAlgorithm' = 'BreadthFirst';
            'rampUpMinimumHostsPct'     = 20;
            'rampUpCapacityThresholdPct' = 20;
            'peakStartTime'             = '1900-01-01T08:00:00Z';
            'peakLoadBalancingAlgorithm' = 'DepthFirst';
            'RampDownStartTime'         = '1900-01-01T18:00:00Z';
            'rampDownLoadBalancingAlgorithm' = 'BreadthFirst';
            'rampDownMinimumHostsPct'   = 20;
            'rampDownCapacityThresholdPct' = 20;
            'rampDownForceLogoffUser'   = $true;
            'rampDownWaitTimeMinute'    = 30;
            'rampDownNotificationMessage' = 'Log out now, please.';
            'rampDownStopHostsWhen'      = 'ZeroSessions';
            'offPeakStartTime'          = '1900-01-01T20:00:00Z';
            'offPeakLoadBalancingAlgorithm' = 'DepthFirst';
        }
    )
    -HostPoolReference @(
        @{

```

```

        'hostPoolArmPath' =
        '/subscriptions/SubscriptionId/resourceGroups/ResourceGroupName/providers/Microsoft.DesktopVirtualizati
on/hostPools/HostPoolName';
        'scalingPlanEnabled' = $false;
    }
)

```

## After

PowerShell

```

New-AzWvdScalingPlan `

    -ResourceGroupName ResourceGroupName `

    -Name 'scalingPlan1' `

    -Location 'westcentralus' `

    -Description 'Description' `

    -FriendlyName 'Friendly Name' `

    -TimeZone '(UTC-08:00) Pacific Time (US & Canada)' `

    -Schedule @(
        @{
            'name' = 'Work Week';
            'daysOfWeek' = @('Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday');
            'rampUpStartTime' = '1900-01-01T06:00:00Z';
            'rampUpLoadBalancingAlgorithm' = 'BreadthFirst';
            'rampUpMinimumHostsPct' = 20;
            'rampUpCapacityThresholdPct' = 20;
            'peakStartTime' = '1900-01-01T08:00:00Z';
            'peakLoadBalancingAlgorithm' = 'DepthFirst';
            'RampDownStartTime' = '1900-01-01T18:00:00Z';
            'rampDownLoadBalancingAlgorithm' = 'BreadthFirst';
            'rampDownMinimumHostsPct' = 20;
            'rampDownCapacityThresholdPct' = 20;
            'rampDownForceLogoffUser' = $true;
            'rampDownWaitTimeMinute' = 30;
            'rampDownNotificationMessage' = 'Log out now, please.';
            'rampDownStopHostsWhen' = 'ZeroSessions';
            'offPeakStartTime' = '1900-01-01T20:00:00Z';
            'offPeakLoadBalancingAlgorithm' = 'DepthFirst';
        }
    )
    -HostPoolReference @(
        @{
            'hostPoolArmPath' =
            '/subscriptions/SubscriptionId/resourceGroups/ResourceGroupName/providers/Microsoft.DesktopVirtualizati
on/hostPools/HostPoolName';
            'scalingPlanEnabled' = $false;
        }
    )
)

```

## New-AzWvdHostPool

- The cmdlet 'New-AzWvdHostPool' no longer supports the parameter 'MigrationRequestMigrationPath' and no alias was found for the original parameter name.
- The cmdlet 'New-AzWvdHostPool' no longer supports the parameter 'MigrationRequestOperation' and no alias was found for the original parameter name.

## Before

PowerShell

```

New-AzWvdHostpool -hostpoolName hpName -location westus -resourceGroupName rgName -friendlyName
"friendly" -description "des1" -hostPoolType Pooled -personalDesktopAssignmentType Automatic -

```

```

customRdpProperty null -maxSessionLimit 999999 -loadBalancerType BreadthFirst -registrationInfo @{
    "expirationTime"= "2020-10-01T14:01:54.9571247Z",
    "registrationTokenOperation":="Update"
}
-vmTemplate "{json:json}"
-ssoadfsAuthority "https://adfs"
-ssoClientId "client"
-ssoClientSecretKeyVaultPath "https://keyvault/secret"
-ssoSecretType "SharedKey"
-preferredAppGroupType Desktop
-startVMOnConnect $false
-migrationRequest @{
    "migrationPath"=
    "TenantGroups/{defaultV1TenantGroup.Name}/Tenants/{defaultV1Tenant.Name}/HostPools/{sessionHostPool.Nam
e}",
        "operation"= "Start"
}

```

## After

PowerShell

```

New-AzWvdHostpool -hostpoolName hpName -location westus -resourceGroupName rgName -friendlyName
"friendly" -description "des1" -hostPoolType Pooled -personalDesktopAssignmentType Automatic -
customRdpProperty null -maxSessionLimit 999999 -loadBalancerType BreadthFirst -registrationInfo @{
    "expirationTime"= "2020-10-01T14:01:54.9571247Z",
    "registrationTokenOperation":="Update"
}
-vmTemplate "{json:json}"
-ssoadfsAuthority https://adfs
-ssoClientId "client"
-ssoClientSecretKeyVaultPath https://keyvault/secret
-ssoSecretType "SharedKey"
-preferredAppGroupType Desktop
-startVMOnConnect $false
-agentUpdate @{
    "type"= "Scheduled",
    "useSessionHostLocalTime": $false,
    "maintenanceWindowTimeZone"= "Alaskan Standard Time",
    "maintenanceWindows"= "{json:json"
}

```

## New-AzWvdApplicationGroup

- The cmdlet 'New-AzWvdApplicationGroup' no longer supports the parameter 'MigrationRequestMigrationPath' and no alias was found for the original parameter name.
- The cmdlet 'New-AzWvdApplicationGroup' no longer supports the parameter 'MigrationRequestOperation' and no alias was found for the original parameter name.

## Before

PowerShell

```

New-AzWvdApplicationGroup -resourceGroupName "rgName" -applicationGroupName "appName" -applicationGroup
@{ "description"= "des1",
    "friendlyName"= "friendly",
    "hostPoolArmPath"= "/subscriptions/daefabc0-95b4-48b3-b645-
8a753a63c4fa/resourceGroups/resourceGroup1/providers/Microsoft.DesktopVirtualization/hostPools/hostPool
1",
        "applicationGroupType"= "RemoteApp",
        "migrationRequest"= @{

    "migrationPath"="TenantGroups/{defaultV1TenantGroup.Name}/Tenants/{defaultV1Tenant.Name}/HostPools/{ses

```

```
sionHostPool.Name}",
    "operation"= "Start"
}
```

## After

PowerShell

```
New-AzWvdApplicationGroup -resourceGroupName -applicationGroupName -applicationGroup @{"description"=
"des1",
    "friendlyName"= "friendly",
    "hostPoolArmPath"= "/subscriptions/daefabc0-95b4-48b3-b645-
8a753a63c4fa/resourceGroups/resourceGroup1/providers/Microsoft.DesktopVirtualization/hostPools/hostPool
1",
    "applicationGroupType"= "RemoteApp"
}
```

# Az.EventHub

## Set-AzEventHubNamespace

- The cmdlet 'Set-AzEventHubNamespace' has undergone several changes, including changes to the output type and default parameter set.
- The cmdlet no longer supports certain aliases and parameter types, including 'NamespaceName', 'System.String' for 'SkuName', and 'System.Nullable`1[System.Int32]' for 'SkuCapacity'. Additionally, the parameters 'MaximumThroughputUnits', 'EnableKafka', 'ClusterARMId', 'IdentityId', and 'EncryptionConfig' are no longer supported, and no aliases were found for the original parameter names.
- The cmdlet also no longer supports the 'IAzureContextContainer' type for the 'DefaultProfile' parameter, and the 'AzContext' and 'AzureRmContext' aliases for 'DefaultProfile' are no longer supported. Finally, several parameter sets, including '\_AllParameterSets', 'NamespaceParameterSet', and 'AutoInflateParameterSet', have been removed.

## Set-AzEventHub

- 'MessageRetentionInDays' has been deprecated and replaced by '-RetentionTimeInHours'.

## Before

PowerShell

```
$eventhub = Get-AzEventHub -Name myEventHub -ResourceGroupName myResourceGroup -NamespaceName
myNamespace
Set-AzEventHub -InputObject $eventhub -MessageRetentionInDays 3
```

## After

PowerShell

```
Set-AzEventHub -Name myEventHub -ResourceGroupName myResourceGroup -NamespaceName myNamespace -
ArchiveNameFormat "{Namespace}/{EventHub}/{PartitionId}/{Year}/{Month}/{Day}/{Hour}/{Minute}/{Second}"
-BlobContainer container -CaptureEnabled -DestinationName EventHubArchive.AzureBlockBlob -Encoding
Avro -IntervalInSeconds 600 -SizeLimitInBytes 11000000 -SkipEmptyArchive -StorageAccountResourceId
```

```
"/subscriptions/subscriptionId/resourceGroups/myResourceGroup/providers/Microsoft.Storage/storageAccounts/myStorageAccount"
```

## Remove-AzEventHubVirtualNetworkRule

- The cmdlet 'Remove-AzEventHubVirtualNetworkRule' has been removed. Please use 'Set-AzEventHubNetworkRuleSet'.

### Before

PowerShell

```
Remove-AzEventHubVirtualNetworkRule -ResourceGroupName v-ajnavtest -Name Eventhub-Namespace1-2389 -  
SubnetId "/subscriptions/SubscriptionId/resourcegroups/ResourceGroup/v-  
ajnavtest/providers/Microsoft.Network/virtualNetworks/sbehvnettest1/subnets/sbdefault01"
```

### After

PowerShell

```
$virtualNetworkRule1 = New-AzEventHubVirtualNetworkRuleConfig -SubnetId  
'/subscriptions/subscriptionId/resourcegroups/myResourceGroup/providers/Microsoft.Network/virtualNetworks/myVirtualNetwork/subnets/default'  
Set-AzEventHubNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -  
VirtualNetworkRule $virtualNetworkRule1
```

## Remove-AzEventHubNetworkRuleSet

- The cmdlet 'Remove-AzEventHubNetworkRuleSet' has been removed. Please use 'Set-AzEventHubNetworkRuleSet'.

### Before

PowerShell

```
Remove-AzEventHubNetworkRuleSet -ResourceGroupName v-ajnavtest -Name Eventhub-Namespace1-1375 -  
PassThru
```

### After

PowerShell

```
Set-AzEventHubNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -  
VirtualNetworkRule @()
```

## Remove-AzEventHubNamespace

- The cmdlet 'Remove-AzEventHubNamespace' has undergone several changes, including type change for parameter 'InputObject' and 'DefaultProfile', but the usage remains the same, including piping.

## Remove-AzEventHubIPRule

- The cmdlet 'Remove-AzEventHubIPRule' has been removed. Please use 'Set-AzEventHubNetworkRuleSet'.

## Before

PowerShell

```
Remove-AzEventHubIPRule -ResourceGroupName v-ajnavtest -Name Eventhub-Namespace1-2389 -IpMask "11.22.33.44"
```

## After

PowerShell

```
$ipRule1 = New-AzEventHubIPRuleConfig -IPMask 2.2.2.2 -Action Allow
$ipRule2 = New-AzEventHubIPRuleConfig -IPMask 3.3.3.3 -Action Allow
Set-AzEventHubNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -IPRule $ipRule1,$ipRule2
```

## New-AzEventHubNamespace

- The cmdlet 'New-AzEventHubNamespace' has undergone several changes, including changes to the output type and default parameter set.
- The cmdlet no longer supports certain aliases and parameter types, including 'NamespaceName', 'System.String' for 'SkuName', and 'System.Nullable`1[System.Int32]' for 'SkuCapacity'. Additionally, the parameters 'MaximumThroughputUnits', 'EnableKafka', 'ClusterARMId', 'IdentityId', and 'EncryptionConfig' are no longer supported, and no aliases were found for the original parameter names.
- The cmdlet also no longer supports the 'IAzureContextContainer' type for the 'DefaultProfile' parameter, and the 'AzContext' and 'AzureRmContext' aliases for 'DefaultProfile' are no longer supported. Finally, several parameter sets, including '\_AllParameterSets', 'NamespaceParameterSet', and 'AutoInflateParameterSet', have been removed.

## New-AzEventHubEncryptionConfig

- The cmdlet 'New-AzEventHubEncryptionConfig' has been replaced by 'New-AzEventHubKeyVaultPropertiesObject'.

## Before

PowerShell

```
New-AzEventHubEncryptionConfig -KeyName key1 -KeyVaultUri https://myvaultname.vault.azure.net -UserAssignedIdentity '/subscriptions/{subscriptionId}/resourceGroups/{resourceGroup}/providers/Microsoft.ManagedIdentity/userAssignedIdentities/MSIName2'
```

## After

PowerShell

```
$keyVaultProperty1 = New-AzEventHubKeyVaultPropertiesObject -KeyName key1 -KeyVaultUri https://testkeyvault.vault.azure.net -UserAssignedIdentity '/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/userAssignedIdentities/myFirstIdentity'
$keyVaultProperty2 = New-AzEventHubKeyVaultPropertiesObject -KeyName key2 -KeyVaultUri
```

```

https://testkeyvault.vault.azure.net -UserAssignedIdentity
"/subscriptions/0000000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/user
AssignedIdentities/mySecondIdentity"

New-AzEventHubNamespace -ResourceGroupName myResourceGroup -Name myNamespace -SkuName Premium -Location
northeurope -IdentityType UserAssigned -UserAssignedIdentityId
"/subscriptions/0000000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/user
AssignedIdentities/myFirstIdentity","/subscriptions/0000000000000000/resourceGroups/myResourceGroup/prov
iders/Microsoft.ManagedIdentity/userAssignedIdentities/mySecondIdentity" -KeyVaultProperty
$keyVaultProperty1,$keyVaultProperty2

```

## New-AzEventHub

-MessageRetentionInDays' has been deprecated and replaced by '-RetentionTimeInHours'.

### Before

PowerShell

```

New-AzEventHub -Name myEventHub -ResourceGroupName myResourceGroup -NamespaceName myNamespace -
MessageRetentionInDays 6 -PartitionCount 5

```

### After

PowerShell

```

New-AzEventHub -Name myEventHub -ResourceGroupName myResourceGroup -NamespaceName myNamespace -
RetentionTimeInHour 168 -PartitionCount 5 -CleanupPolicy Delete

```

## Get-AzEventHubNamespace

- The output type and the properties has been changed. See the example for more information.

### Before

PowerShell

```

Name          : MyNamespaceName
Id           : /subscriptions/{subscriptionId}/resourceGroups/Default-EventHub-
WestCentralUS/providers/Microsoft.EventHub/namespaces/MyNamespaceName
ResourceGroupName : Default-EventHub-WestCentralUS
Location      : West US
Sku           : Name : Standard , Capacity : 1 , Tier : Standard
Tags          :
ProvisioningState : Succeeded
Status         : Active
CreatedAt     : 5/24/2019 12:47:27 AM
UpdatedAt     : 5/24/2019 12:48:14 AM
ServiceBusEndpoint : #####
Enabled        : True
KafkaEnabled   : True
IsAutoInflateEnabled : True
MaximumThroughputUnits : 10

```

### After

PowerShell

```

AlternateName          :
ClusterArmId          :
CreatedAt             : 11/17/2022 3:14:09 PM
DisableLocalAuth       : True
EnableAutoInflate      : True
Id                    :
/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.EventHub/namespaces/m
yNamespace
IdentityType          :
KafkaEnabled           : True
KeySource              :
KeyVaultProperty       :
Location               : South Central US
MaximumThroughputUnit : 0
MetricId               : 0000000000000000:myNamespace
MinimumTlsVersion      : 1.2
Name                  : myNamespace
PrincipalId            : 0000000000000000
PrivateEndpointConnection :
ProvisioningState      : Succeeded
PublicNetworkAccess     : Enabled
RequireInfrastructureEncryption :
ResourceGroupName       : myResourceGroup
ServiceBusEndpoint      : https://myNamespace.servicebus.windows.net:443/
SkuCapacity             : 1
SkuName                : Standard
SkuTier                : Standard
Status                 : Active
Tag                   :
TenantId               : 00000000000
Type                  : Microsoft.EventHub/Namespace
UpdatedAt              : 11/17/2022 3:21:19 PM
UserAssignedIdentity    :
ZoneRedundant           : True

```

## Get-AzEventHub

- The cmdlet 'Get-AzEventHub' no longer has output type 'Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub'. (Yeming: namespace changed, not considered a breaking change. should be removed)

## Add-AzEventHubVirtualNetworkRule

- The cmdlet 'Add-AzEventHubVirtualNetworkRule' has been removed. Please use 'Set-AzEventHubNetworkRuleSet'.

## Before

PowerShell

```

Add-AzEventHubVirtualNetworkRule -ResourceGroupName v-ajnavtest -Name Eventhub-Namespace1-2389 -
SubnetId "/subscriptions/SubscriptionId/resourcegroups/ResourceGroup/v-
ajnavtest/providers/Microsoft.Network/virtualNetworks/sbehvnettest1/subnets/sbdefault01" -
IgnoreMissingVnetServiceEndpoint

```

## After

PowerShell

```
$virtualNetworkRule1 = New-AzEventHubVirtualNetworkRuleConfig -SubnetId  
'/subscriptions/subscriptionId/resourcegroups/myResourceGroup/providers/Microsoft.Network/virtualNetwor  
ks/myVirtualNetwork/subnets/default'  
Set-AzEventHubNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -  
VirtualNetworkRule $virtualNetworkRule1
```

## Add-AzEventHubIPRule

- The cmdlet 'Add-AzEventHubIPRule' has been removed. Please use 'Set-AzEventHubNetworkRuleSet'.

### Before

PowerShell

```
Add-AzEventHubIPRule -ResourceGroupName v-ajnavtest -Name Eventhub-Namespace1-2389 -IpMask  
"11.22.33.44" -Action Allow
```

### After

PowerShell

```
$ipRule1 = New-AzEventHubIPRuleConfig -IPMask 2.2.2.2 -Action Allow  
$ipRule2 = New-AzEventHubIPRuleConfig -IPMask 3.3.3.3 -Action Allow  
Set-AzEventHubNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -IPRule  
$ipRule1,$ipRule2
```

## Az.HDInsight

### New-AzHDInsightCluster

- The cmdlet 'New-AzHDInsightCluster' no longer supports the parameter 'RdpCredential' and no alias was found for the original parameter name.
- The cmdlet 'New-AzHDInsightCluster' no longer supports the parameter 'RdpAccessExpiry' and no alias was found for the original parameter name.

### Before

PowerShell

```
Customer didn't use the two parameters for a very long time. There is not old usage.
```

### After

PowerShell

```
Don't use the two parameters any more.
```

## Az.Relay

### Test-AzRelayName

- The cmdlet 'Test-AzRelayName' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Test-AzRelayName' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Test-AzRelayName' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Set-AzWcfRelay

- The cmdlet 'Set-AzWcfRelay' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSWcfRelayAttributes'.
- The cmdlet 'Set-AzWcfRelay' no longer supports the type 'Microsoft.Azure.Commands.Relay.Models.PSWcfRelayAttributes' for parameter 'InputObject'.
- The cmdlet 'Set-AzWcfRelay' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzWcfRelay' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzWcfRelay' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Set-AzRelayNamespace

- The cmdlet 'Set-AzRelayNamespace' has been removed and no alias was found for the original cmdlet name.

### Before

```
PowerShell

Set-AzRelayNamespace -ResourceGroupName Default-ServiceBus-WestUS -Name TestNameSpace-Relay1 -Tag
@{Tag2="Tag2Value"}
```

### After

```
PowerShell

Update-AzRelayNamespace -ResourceGroupName Default-ServiceBus-WestUS -Name TestNameSpace-Relay1 -Tag
@{Tag2="Tag2Value"}
```

## Set-AzRelayNamespace

- The cmdlet 'Set-AzRelayNamespace' has been removed and no alias was found for the original cmdlet name.

### Before

```
PowerShell

$relayNamespace = new RelayNamespaceAttributesUpdateParameter()
Update-AzRelayNamespace -InputObject $relayNamespace -Tag @{ 'k'='v'}
```

### After

```
PowerShell
```

```
$relayNamespace = Get-AzRelayNamespace -ResourceGroupName lucas-relay-rg -Name namespace-pwsh01
Update-AzRelayNamespace -InputObject $relayNamespace -Tag @{ 'k'='v' }
```

## Set-AzRelayHybridConnection

- The cmdlet 'Set-AzRelayHybridConnection' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSHybridConnectionAttributes'.
- The cmdlet 'Set-AzRelayHybridConnection' no longer supports the type 'Microsoft.Azure.Commands.Relay.Models.PSHybridConnectionAttributes' for parameter 'InputObject'.
- The cmdlet 'Set-AzRelayHybridConnection' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzRelayHybridConnection' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzRelayHybridConnection' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Set-AzRelayAuthorizationRule

- The cmdlet 'Set-AzRelayAuthorizationRule' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSAuthorizationRuleAttributes'. The parameter set 'NamespaceAuthorizationRuleSet' for cmdlet 'Set-AzRelayAuthorizationRule' is no longer the default parameter set.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Relay.Models.PSAuthorizationRuleAttributes' for parameter 'InputObject'. The element type for parameter 'Rights' has been changed from 'System.String' to 'Microsoft.Azure.PowerShell.Cmdlets.Relay.Support.AccessRights'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Set-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -WcfRelay TestWCFRelay1 -Name AuthoRule1 -Rights "Send"
```

## After

PowerShell

```
Set-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -WcfRelay TestWCFRelay1 -Name AuthoRule1 -Rights "Send"
```

## Set-AzRelayAuthorizationRule

- The cmdlet 'Set-AzRelayAuthorizationRule' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSAuthorizationRuleAttributes'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Relay.Models.PSAuthorizationRuleAttributes' for parameter 'InputObject'. The element type for parameter 'Rights' has been changed from 'System.String' to 'Microsoft.Azure.PowerShell.Cmdlets.Relay.Support.AccessRights'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Set-AzRelayAuthorizationRule' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

```
PowerShell

$GetHybirdAutho = Get-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -HybridConnection TestHybridConnection -Name AuthoRule1
Set-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -HybridConnection TestHybridConnection -Name AuthoRule1 -InputObject $GetHybirdAutho -Rights {"Listen", "Send"}
```

## After

```
PowerShell

$GetHybirdAutho = Get-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -HybridConnection TestHybridConnection -Name AuthoRule1
$GetHybirdAutho.Rights.Add("Send")
Set-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -HybridConnection TestHybridConnection -Name AuthoRule1 -InputObject $GetHybirdAutho
```

## Remove-AzWcfRelay

- The cmdlet 'Remove-AzWcfRelay' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzWcfRelay' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzWcfRelay' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Remove-AzRelayNamespace

- The cmdlet 'Remove-AzRelayNamespace' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzRelayNamespace' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzRelayNamespace' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Remove-AzRelayHybridConnection

- The cmdlet 'Remove-AzRelayHybridConnection' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzRelayHybridConnection' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzRelayHybridConnection' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Remove-AzRelayAuthorizationRule

- The cmdlet 'Remove-AzRelayAuthorizationRule' no longer supports the parameter 'Force' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzRelayAuthorizationRule' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzRelayAuthorizationRule' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Remove-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -WcfRelay TestWcfRelay -Name AuthoRule1
```

## After

PowerShell

```
Remove-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -WcfRelay TestWcfRelay -Name AuthoRule1
```

## New-AzWcfRelay

- The cmdlet 'New-AzWcfRelay' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSWcfRelayAttributes'.
- The cmdlet 'New-AzWcfRelay' no longer supports the type 'Microsoft.Azure.Commands.Relay.Models.PSWcfRelayAttributes' for parameter 'InputObject'.
- The cmdlet 'New-AzWcfRelay' no longer supports the type 'System.String' for parameter 'WcfRelayType'.
- The cmdlet 'New-AzWcfRelay' no longer supports the type 'System.Nullable`1[System.Boolean]' for parameter 'RequiresClientAuthorization'.
- The cmdlet 'New-AzWcfRelay' no longer supports the type 'System.Nullable`1[System.Boolean]' for parameter 'RequiresTransportSecurity'.
- The cmdlet 'New-AzWcfRelay' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzWcfRelay' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzWcfRelay' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## New-AzRelayNamespace

- The cmdlet 'New-AzRelayNamespace' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSRelayNamespaceAttributes'.
- The cmdlet 'New-AzRelayNamespace' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzRelayNamespace' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzRelayNamespace' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## New-AzRelayKey

- The cmdlet 'New-AzRelayKey' no longer supports the type 'System.String' for parameter 'RegenerateKey'.
- The cmdlet 'New-AzRelayKey' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzRelayKey' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzRelayKey' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
New-AzRelayKey -ResourceGroupName Default-ServiceBus-WestUS -Name AuthoRule1 -HybridConnection
TestHybridConnection -RegenerateKey PrimaryKey
```

## After

PowerShell

```
New-AzRelayKey -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -Name
AuthoRule1 -HybridConnection TestHybridConnection -RegenerateKey PrimaryKey
```

## New-AzRelayHybridConnection

- The cmdlet 'New-AzRelayHybridConnection' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSHybridConnectionAttributes'.
- The cmdlet 'New-AzRelayHybridConnection' no longer supports the type 'Microsoft.Azure.Commands.Relay.Models.PSHybridConnectionAttributes' for parameter 'InputObject'.
- The cmdlet 'New-AzRelayHybridConnection' no longer supports the type 'System.Nullable`1[System.Boolean]' for parameter 'RequiresClientAuthorization'.
- The cmdlet 'New-AzRelayHybridConnection' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzRelayHybridConnection' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzRelayHybridConnection' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## New-AzRelayAuthorizationRule

- The cmdlet 'New-AzRelayAuthorizationRule' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSAuthorizationRuleAttributes'. The element type for parameter

- 'Rights' has been changed from 'System.String' to 'Microsoft.Azure.PowerShell.Cmdlets.Relay.Support.AccessRights'.
- The cmdlet 'New-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
  - The cmdlet 'New-AzRelayAuthorizationRule' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
  - The cmdlet 'New-AzRelayAuthorizationRule' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

```
PowerShell

New-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -WcfRelay TestWCFRelay1 -Name
AuthoRule1 -Rights "Listen"
```

## After

```
PowerShell

New-AzRelayAuthorizationRule -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-
Relay1 -WcfRelay TestWCFRelay1 -Name AuthoRule1 -Rights "Listen"
```

## Get-AzWcfRelay

- The cmdlet 'Get-AzWcfRelay' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSWcfRelayAttributes'.
- The cmdlet 'Get-AzWcfRelay' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzWcfRelay' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzWcfRelay' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzRelayOperation

- The cmdlet 'Get-AzRelayOperation' has been removed and no alias was found for the original cmdlet name.

## Get-AzRelayNamespace

- The cmdlet 'Get-AzRelayNamespace' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSRelayNamespaceAttributes'.
- The cmdlet 'Get-AzRelayNamespace' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayNamespace' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayNamespace' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzRelayKey

- The cmdlet 'Get-AzRelayKey' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayKey' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayKey' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
Get-AzRelayKey -ResourceGroupName Default-ServiceBus-WestUS -HybridConnection TestHybridConnection -Name AuthoRule1
```

## After

PowerShell

```
Get-AzRelayKey -ResourceGroupName Default-ServiceBus-WestUS -Namespace TestNameSpace-Relay1 -HybridConnection TestHybridConnection -Name AuthoRule1
```

## Get-AzRelayHybridConnection

- The cmdlet 'Get-AzRelayHybridConnection' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSHybridConnectionAttributes'.
- The cmdlet 'Get-AzRelayHybridConnection' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayHybridConnection' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayHybridConnection' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzRelayAuthorizationRule

- The cmdlet 'Get-AzRelayAuthorizationRule' no longer has output type 'Microsoft.Azure.Commands.Relay.Models.PSAuthorizationRuleAttributes'.
- The cmdlet 'Get-AzRelayAuthorizationRule' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayAuthorizationRule' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzRelayAuthorizationRule' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Az.ServiceBus

### Set-AzServiceBusNamespace

- The cmdlet 'Set-AzServiceBusNamespace' has undergone several changes, including changes to the output type and default parameter set.

- The cmdlet no longer supports certain aliases and parameter types, including 'NamespaceName', 'System.String' for 'SkuName', and 'System.Nullable`1[System.Int32]' for 'SkuCapacity'. Additionally, the parameters 'MaximumThroughputUnits', 'EnableKafka', 'ClusterARMId', 'IdentityId', and 'EncryptionConfig' are no longer supported, and no aliases were found for the original parameter names.
- The cmdlet also no longer supports the 'IAzureContextContainer' type for the 'DefaultProfile' parameter, and the 'AzContext' and 'AzureRmContext' aliases for 'DefaultProfile' are no longer supported.

## Remove-AzServiceBusVirtualNetworkRule

- The cmdlet 'Remove-AzServiceBusVirtualNetworkRule' has been removed. Use 'Set-AzServiceBusNetworkRuleSet' instead.

### Before

PowerShell

```
Remove-AzServiceBusVirtualNetworkRule -ResourceGroupName v-ajnavtest -Name ServiceBus-Namespace1-2389 -  
SubnetId "/subscriptions/SubscriptionId/resourcegroups/ResourceGroup/v-  
ajnavtest/providers/Microsoft.Network/virtualNetworks/sbehvnettest1/subnets/sbdefault01"
```

### After

PowerShell

```
$virtualNetworkRule1 = New-AzServiceBusVirtualNetworkRuleConfig -SubnetId  
/subscriptions/subscriptionId/resourcegroups/myResourceGroup/providers/Microsoft.Network/virtualNetwork  
s/myVirtualNetwork/subnets/default  
Set-AzServiceBusNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -IPRule  
$ipRule1,$ipRule2 -VirtualNetworkRule $virtualNetworkRule1,$virtualNetworkRule2,$virtualNetworkRule3
```

## Remove-AzServiceBusNetworkRuleSet

- The cmdlet 'Remove-AzServiceBusNetworkRuleSet' has been removed. Use 'Set-AzServiceBusNetworkRuleSet' instead.

### Before

PowerShell

```
Remove-AzServiceBusNetworkRuleSet -ResourceGroupName v-ajnavtest -Name ServiceBus-Namespace1-1375
```

### After

PowerShell

```
Set-AzServiceBusNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -IPRule  
@() -VirtualNetworkRule @()
```

## Remove-AzServiceBusNamespace

- The cmdlet 'Remove-AzServiceBusNamespace' no longer supports the alias 'ResourceGroup' for parameter 'ResourceGroupName'.

## Before

PowerShell

```
Remove-AzServiceBusNamespace -ResourceGroup Default-ServiceBus-WestUS -NamespaceName SB-Example1
```

## After

PowerShell

```
Remove-AzServiceBusNamespace -ResourceGroupName Default-ServiceBus-WestUS -NamespaceName SB-Example1
```

## Remove-AzServiceBusIPRule

- The cmdlet 'Remove-AzServiceBusIPRule' has been removed. Use 'Set-AzServiceBusNetworkRuleSet' instead.

## Before

PowerShell

```
Remove-AzServiceBusIPRule -ResourceGroupName v-ajnavtest -Name ServiceBus-Namespace1-2389 -IpMask "11.22.33.44"
```

## After

PowerShell

```
Set-AzServiceBusNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -IPRule @()
```

## New-AzServiceBusNamespace

- The cmdlet 'New-AzServiceBusNamespace' has undergone several changes.
- The cmdlet no longer supports certain aliases and parameter types, including 'NamespaceName', 'System.String' for 'SkuName', and 'System.Nullable`1[System.Int32]' for 'SkuCapacity'. Additionally, the parameters 'MaximumThroughputUnits', 'EnableKafka', 'ClusterARMId', 'IdentityId', and 'EncryptionConfig' are no longer supported, and no aliases were found for the original parameter names.
- The cmdlet also no longer supports the 'IAzureContextContainer' type for the 'DefaultProfile' parameter, and the 'AzContext' and 'AzureRmContext' aliases for 'DefaultProfile' are no longer supported.

## New-AzServiceBusGeoDRConfiguration

- The cmdlet 'New-AzServiceBusGeoDRConfiguration' no longer supports the parameter 'PassThru' and no alias was found for the original parameter name.

## Before

PowerShell

```
New-AzServiceBusGeoDRConfiguration -Name myAlias -ResourceGroupName myResourceGroup -NamespaceName myPrimaryNamespace -PartnerNamespace
```

```
"/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ServiceBus/namespaces/  
mySecondaryNamespace" -PassThru
```

## After

PowerShell

```
New-AzServiceBusGeoDRConfiguration -Name myAlias -ResourceGroupName myResourceGroup -NamespaceName  
myPrimaryNamespace -PartnerNamespace  
"/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ServiceBus/namespaces/  
mySecondaryNamespace"
```

## New-AzServiceBusEncryptionConfig

- The cmdlet 'New-AzServiceBusEncryptionConfig' has been removed. Use 'New-AzServiceBusNamespace' and 'Set-AzServiceBusNamespace' to enable encryption.

## Before

PowerShell

```
New-AzServiceBusEncryptionConfig -KeyName key1 -KeyVaultUri https://myvaultname.vault.azure.net -  
UserAssignedIdentity  
'/subscriptions/{subscriptionId}/resourceGroups/{resourceGroup}/providers/Microsoft.ManagedIdentity/use  
rAssignedIdentities/MSIName2'
```

## After

PowerShell

```
$id1 =  
"/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/user  
AssignedIdentities/myFirstIdentity"  
$id2 =  
"/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/user  
AssignedIdentities/mySecondIdentity"  
$keyVaultProperty1 = New-AzServiceBusKeyVaultPropertiesObject -KeyName key4 -KeyVaultUri  
https://testkeyvault.vault.azure.net/ -UserAssignedIdentity  
"/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/user  
AssignedIdentities/myFirstIdentity"  
$keyVaultProperty2 = New-AzServiceBusKeyVaultPropertiesObject -KeyName key5 -KeyVaultUri  
https://testkeyvault.vault.azure.net/ -UserAssignedIdentity  
"/subscriptions/000000000000/resourceGroups/myResourceGroup/providers/Microsoft.ManagedIdentity/user  
AssignedIdentities/myFirstIdentity"  
New-AzServiceBusNamespace -ResourceGroupName myResourceGroup -Name myNamespace -SkuName Premium -  
Location northeurope -IdentityType UserAssigned -UserAssignedIdentityID $id1,$id2 -KeyVaultProperty  
$keyVaultProperty1,$keyVaultProperty2
```

## Get-AzServiceBusOperation

- The cmdlet 'Get-AzServiceBusOperation' has been removed.

## Get-AzServiceBusNamespace

- The cmdlet 'Get-AzServiceBusNamespace' no longer supports the alias 'ResourceGroup' for parameter 'ResourceGroupName'.

## Before

PowerShell

```
Get-AzServiceBusNamespace -ResourceGroup Default-ServiceBus-WestUS -NamespaceName SB-Example1
```

## After

PowerShell

```
Get-AzServiceBusNamespace -ResourceGroupName Default-ServiceBus-WestUS -NamespaceName SB-Example1
```

## Add-AzServiceBusVirtualNetworkRule

- The cmdlet 'Add-AzServiceBusVirtualNetworkRule' has been removed. Use 'Set-AzServiceBusNetworkRuleSet' instead.

## Before

PowerShell

```
Add-AzServiceBusVirtualNetworkRule -ResourceGroupName v-ajnavtest -Name ServiceBus-Namespace1-2389 -  
SubnetId "/subscriptions/SubscriptionId/resourcegroups/ResourceGroup/v-  
ajnavtest/providers/Microsoft.Network/virtualNetworks/sbehvnettest1/subnets/sbdefault01" -  
IgnoreMissingVnetServiceEndpoint
```

## After

PowerShell

```
$virtualNetworkRule1 = New-AzServiceBusVirtualNetworkRuleConfig -SubnetId  
/subscriptions/subscriptionId/resourcegroups/myResourceGroup/providers/Microsoft.Network/virtualNetwork  
s/myVirtualNetwork/subnets/default  
Set-AzServiceBusNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -  
VirtualNetworkRule $virtualNetworkRule1
```

## Add-AzServiceBusIPRule

- The cmdlet 'Add-AzServiceBusIPRule' has been removed. Use 'Set-AzServiceBusNetworkRuleSet' instead.

## Before

PowerShell

```
Add-AzServiceBusIPRule -ResourceGroupName v-ajnavtest -Name ServiceBus-Namespace1-2389 -IpMask  
"11.22.33.44" -Action Allow
```

## After

PowerShell

```
$ipRule1 = New-AzServiceBusIPRuleConfig -IPMask 2.2.2.2 -Action Allow  
$ipRule2 = New-AzServiceBusIPRuleConfig -IPMask 3.3.3.3 -Action Allow
```

```
Set-AzServiceBusNetworkRuleSet -ResourceGroupName myResourceGroup -NamespaceName myNamespace -IPRule $ipRule1,$ipRule2
```

## Az.SignalR

### Update-AzSignalRNetworkAcl

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

### Update-AzSignalR

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.
- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

## Before

PowerShell

```
$hostNamePrefix = $(Update-AzSignalR -ResourceGroupName myResourceGroup -Name mysignalr1 -UnitCount 5).HostNamePrefix
```

## After

PowerShell

```
$hostNamePrefix = $(Update-AzSignalR -ResourceGroupName myResourceGroup -Name mysignalr1 -UnitCount 5).Name
```

### Set-AzSignalRUpstream

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

### Restart-AzSignalR

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

### Remove-AzSignalR

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

### New-AzSignalRKey

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

## New-AzSignalR

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

### Before

PowerShell

```
$hostNamePrefix = $(New-AzSignalR -ResourceGroupName myResourceGroup1 -Name mysignalr1 -Location eastus -Sku Standard_S1).HostNamePrefix
```

### After

PowerShell

```
$hostNamePrefix = $(New-AzSignalR -ResourceGroupName myResourceGroup1 -Name mysignalr1 -Location eastus -Sku Standard_S1).Name
```

## Get-AzSignalRKey

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

## Get-AzSignalR

- The property 'HostNamePrefix' of type 'Microsoft.Azure.Commands.SignalR.Models.PSSignalRResource' has been removed.

### Before

PowerShell

```
$hostNamePrefix = $($Get-AzSignalR -ResourceGroupName myResourceGroup -Name mysignalr1).HostNamePrefix
```

### After

PowerShell

```
$hostNamePrefix = $($Get-AzSignalR -ResourceGroupName myResourceGroup -Name mysignalr1).Name
```

## Az.SqlVirtualMachine

### Update-AzSqlVmGroup

- The cmdlet 'Update-AzSqlVmGroup' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVmGroupModel'.
- The cmdlet 'Update-AzSqlVmGroup' no longer supports the type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVmGroupModel' for parameter 'InputObject'.

- The cmdlet 'Update-AzSqlVMGroup' no longer supports the alias 'SqlVMGroup' for parameter 'InputObject'.
- The cmdlet 'Update-AzSqlVMGroup' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzSqlVMGroup' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzSqlVMGroup' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzSqlVMGroup' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
$group = Get-AzSqlVMGroup -ResourceGroupName "ResourceGroup01" -Name "test-group"
Update-AzSqlVMGroup -SqlVMGroup $group -Tag @{ 'key'='value'}
```

## After

PowerShell

```
$group = Get-AzSqlVMGroup -ResourceGroupName 'ResourceGroup01' -Name 'sqlvmgrou01'
$group | Update-AzSqlVMGroup -Tag @{ 'key'='value'}
```

## Update-AzSqlVM

- The cmdlet 'Update-AzSqlVM' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVMMModel'.
- The cmdlet 'Update-AzSqlVM' no longer supports the type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVMMModel' for parameter 'InputObject'.
- The cmdlet 'Update-AzSqlVM' no longer supports the alias 'SqlVM' for parameter 'InputObject'.
- The cmdlet 'Update-AzSqlVM' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Update-AzSqlVM' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzSqlVM' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Update-AzSqlVM' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Update-AzAvailabilityGroupListener

- The cmdlet 'Update-AzAvailabilityGroupListener' has been removed and no alias was found for the original cmdlet name.

## Set-AzSqlVMConfigGroup

- The cmdlet 'Set-AzSqlVMConfigGroup' has been removed and no alias was found for the original cmdlet name.

## Remove-AzSqlVMGroup

- The cmdlet 'Remove-AzSqlVMGroup' has undergone changes and no longer supports certain parameters and output types. Specifically, the 'InputObject' parameter no longer supports the 'AzureSqlVMGroupModel' type or its 'SqlVMGroup' alias, and the 'ResourceId' parameter has been removed entirely. Additionally, the 'DefaultProfile' parameter no longer supports the 'IAzureContextContainer' type, and its aliases 'AzContext' and 'AzureRmContext'.

## Before

PowerShell

```
$group = Get-AzSqlVMGroup -ResourceGroupName 'ResourceGroup01' -Name 'sqlvmgroup01'
Remove-AzSqlVMGroup -SqlVMGroup $group
```

## After

PowerShell

```
$group = Get-AzSqlVMGroup -ResourceGroupName 'ResourceGroup01' -Name 'sqlvmgroup01'
$group | Remove-AzSqlVMGroup
```

## Remove-AzSqlVM

- The cmdlet 'Remove-AzSqlVM' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVMMModel'.
- The cmdlet 'Remove-AzSqlVM' no longer supports the type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVMMModel' for parameter 'InputObject'.
- The cmdlet 'Remove-AzSqlVM' no longer supports the alias 'SqlVM' for parameter 'InputObject'.
- The cmdlet 'Remove-AzSqlVM' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Remove-AzSqlVM' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzSqlVM' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Remove-AzSqlVM' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
$sqlVM = Get-AzSqlVM -ResourceGroupName 'ResourceGroup01' -Name 'sqlvm1'
Remove-AzSqlVM -SqlVM $sqlVM
```

## After

PowerShell

```
$sqlVM = Get-AzSqlVM -ResourceGroupName 'ResourceGroup01' -Name 'sqlvm1'
$sqlVM | Remove-AzSqlVM
```

## Remove-AzAvailabilityGroupListener

- The cmdlet 'Remove-AzAvailabilityGroupListener' has undergone changes and some features have been removed. Specifically, the output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureAvailabilityGroupListenerModel' is no longer supported. Additionally, the parameter 'InputObject' no longer supports this type. The 'ResourceId' and 'SqlVMGroupObject' parameters have also been removed without any alias found. The 'DefaultProfile' parameter no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' and its aliases 'AzContext' and 'AzureRmContext'.

## Before

PowerShell

```
$SqlVmGroupObject = Get-AzSqlVMGroup -ResourceGroupName ResourceGroup01 -SqlVMGroupName SqlVmGroup01
Remove-AzAvailabilityGroupListener -Name AgListener01 -SqlVMGroupObject $SqlVmGroupObject
```

## After

PowerShell

```
Remove-AzAvailabilityGroupListener -ResourceGroupName 'ResourceGroup01' -SqlVMGroupName 'SqlVmGroup01'
-Name 'AgListener01'
```

## New-AzSqlVMGroup

- The cmdlet 'New-AzSqlVMGroup' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVMGroupModel'.
- The cmdlet 'New-AzSqlVMGroup' no longer supports the type 'System.String' for parameter 'Sku'.
- The cmdlet 'New-AzSqlVMGroup' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzSqlVMGroup' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzSqlVMGroup' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## New-AzSqlVMConfig

- The cmdlet 'New-AzSqlVMConfig' has been removed and no alias was found for the original cmdlet name.

## Before

PowerShell

```
$config = New-AzSqlVMConfig -LicenseType "PAYG"
New-AzSqlVM -ResourceGroupName "ResourceGroup01" -Name "vm" -SqlVM $config
```

## After

PowerShell

```
New-AzSqlVM -ResourceGroupName 'ResourceGroup01' -Name 'sqlvm1' -Location 'eastus' -Sku 'Developer' -
LicenseType 'PAYG'
```

## New-AzSqlVM

- The cmdlet 'New-AzSqlVM' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVmModel'.
- The cmdlet 'New-AzSqlVM' no longer supports the parameter 'SqlVm' and no alias was found for the original parameter name.
- The cmdlet 'New-AzSqlVM' no longer supports the type 'System.String' for parameter 'LicenseType'.
- The cmdlet 'New-AzSqlVM' no longer supports the type 'System.String' for parameter 'Sku'.
- The cmdlet 'New-AzSqlVM' no longer supports the type 'System.String' for parameter 'SqlManagementType'.
- The cmdlet 'New-AzSqlVM' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzSqlVM' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzSqlVM' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Before

PowerShell

```
$config = New-AzSqlVMConfig -LicenseType "PAYG"
New-AzSqlVM -ResourceGroupName "ResourceGroup01" -Name "vm" -SqlVm $config
```

## After

PowerShell

```
New-AzSqlVM -ResourceGroupName 'ResourceGroup01' -Name 'sqlvm1' -Location 'eastus' -Sku 'Developer' -
LicenseType 'PAYG'
```

## New-AzAvailabilityGroupListener

- The cmdlet 'New-AzAvailabilityGroupListener' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureAvailabilityGroupListenerModel'.
- The cmdlet 'New-AzAvailabilityGroupListener' no longer supports the type 'System.Nullable`1[System.Int32]' for parameter 'Port'.
- The cmdlet 'New-AzAvailabilityGroupListener' no longer supports the type 'System.Nullable`1[System.Int32]' for parameter 'ProbePort'.
- The cmdlet 'New-AzAvailabilityGroupListener' no longer supports the parameter 'SqlVmGroupObject' and no alias was found for the original parameter name.
- The cmdlet 'New-AzAvailabilityGroupListener' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzAvailabilityGroupListener' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'New-AzAvailabilityGroupListener' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzSqlVmGroup

- The cmdlet 'Get-AzSqlVmGroup' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVmGroupModel'.

- The cmdlet 'Get-AzSqlVMGroup' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzSqlVMGroup' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzSqlVMGroup' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzSqlVMGroup' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzSqlVM

- The cmdlet 'Get-AzSqlVM' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureSqlVmModel'.
- The cmdlet 'Get-AzSqlVM' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- The cmdlet 'Get-AzSqlVM' no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzSqlVM' no longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- The cmdlet 'Get-AzSqlVM' no longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.

## Get-AzAvailabilityGroupListener

- The cmdlet 'Get-AzAvailabilityGroupListener' has been updated and some features have been removed.
- The cmdlet 'Get-AzAvailabilityGroupListener' no longer has output type 'Microsoft.Azure.Commands.SqlVirtualMachine.SqlVirtualMachine.Model.AzureAvailabilityGroupListenerModel'. The 'ResourceId' and 'SqlVmGroupObject' parameters have been removed without any alias found. The 'DefaultProfile' parameter no longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' and its aliases 'AzContext' and 'AzureRmContext'.

## Before

```
PowerShell

$SqlVmGroupObject = Get-AzSqlVMGroup -ResourceGroupName ResourceGroup01 -SqlVmGroupName SqlVmGroup01
Get-AzAvailabilityGroupListener -Name AgListener01 -SqlVmGroupObject $SqlVmGroupObject
```

## After

```
PowerShell

Get-AzAvailabilityGroupListener -ResourceGroupName 'ResourceGroup01' -SqlVmGroupName 'SqlVmGroup01' -
Name 'AgListener01'
```

## Az.StackHCI

### Unregister-AzStackHCI

- The cmdlet 'Unregister-AzStackHCI' no longer supports the parameter 'GraphAccessToken' and no alias was found for the original parameter name.

## Before

PowerShell

Customers had an option to pass GraphAccessToken parameter [in Unregister-AzStackHCI](#), which used to be ignored by the cmdlet

## After

PowerShell

[Unregister-AzStackHCI](#) won't support GraphAccessToken as a parameter

## Test-AzStackHCIConnection

- The cmdlet 'Test-AzStackHCIConnection' has been removed and no alias was found for the original cmdlet name.

## Before

PowerShell

Customers used [Test-AzStackHCIConnection](#) for connectivity verification tests

## After

PowerShell

Customers can use [Invoke-AzStackHciConnectivityValidation](#) from AzStackHCI.EnvironmentChecker module for enhanced connectivity verification tests

## Set-AzStackHCI

- The cmdlet 'Set-AzStackHCI' no longer supports the parameter 'GraphAccessToken' and no alias was found for the original parameter name.

## Before

PowerShell

Customers had an option to pass GraphAccessToken parameter [in Set-AzStackHCI](#), which used to be ignored by the cmdlet

## After

PowerShell

[Set-AzStackHCI](#) won't support GraphAccessToken as a parameter

## Register-AzStackHCI

- The cmdlet 'Register-AzStackHCI' no longer supports the parameter 'GraphAccessToken' and no alias was found for the original parameter name.
- The cmdlet 'Register-AzStackHCI' no longer supports the parameter 'EnableAzureArcServer' and no alias was found for the original parameter name.

## Before

PowerShell

```
Customers had an option to pass GraphAccessToken parameter in Register-AzStackHCI, which used to be ignored by the cmdlet. Customers had an option to pass EnableAzureArcServer as true or false. Register-AzStackHCI used to fail for customers who passed EnableAzureArcServer as false. Customers used to get a confirmation prompt if they didn't pass the Region parameter in Register-AzStackHCI
```

## After

PowerShell

```
Register-AzStackHCI won't support GraphAccessToken and EnableAzureArcServer as parameters, and will make Region parameter as mandatory.
```

# Az.StorageSync

## Set-AzStorageSyncServerEndpoint

- The cmdlet 'Set-AzStorageSyncServerEndpoint' no longer supports the alias 'RegisteredServer' for parameter 'InputObject'.

## Before

PowerShell

```
Set-AzStorageSyncServerEndpoint -RegisteredServer $inputObject
```

## After

PowerShell

```
Set-AzStorageSyncServerEndpoint -ServerEndpoint $inputObject
```

# Az.Synapse

## Update-AzSynapseSparkPool

- The cmdlet 'Update-AzSynapseSparkPool' no longer supports the parameter 'SparkConfigFilePath' and no alias was found for the original parameter name.

## Before

PowerShell

```
Update-AzSynapseSparkPool -WorkspaceName $wsname -Name $sparkpoolname -SparkConfigFilePath $path
```

## After

PowerShell

```
Update-AzSynapseSparkPool -WorkspaceName $wsname -Name $sparkpoolname -SparkConfiguration $config
```

## New-AzSynapseSparkPool

- The cmdlet 'New-AzSynapseSparkPool' no longer supports the parameter 'SparkConfigFilePath' and no alias was found for the original parameter name.

## Before

PowerShell

```
New-AzSynapseSparkPool -WorkspaceName $wsname -Name $sparkpoolname -SparkConfigFilePath $path
```

## After

PowerShell

```
New-AzSynapseSparkPool -WorkspaceName $wsname -Name $sparkpoolname -SparkConfiguration $config
```

## Az.Websites

### New-AzWebAppContainerPSSession

- The cmdlet 'New-AzWebAppContainerPSSession' has been removed and no alias was found for the original cmdlet name.

## Before

PowerShell

Opens a remote PowerShell session into the windows container specified [in](#) a given site or slot and given resource group

## After

PowerShell

N/A

### Enter-AzWebAppContainerPSSession

- The cmdlet 'Enter-AzWebAppContainerPSSession' has been removed and no alias was found for the original cmdlet name.

## Before

PowerShell

```
Create new remote PowerShell Session into the windows container specified in a given site or slot and  
given resource group
```

## After

PowerShell

```
N/A
```

# Migration Guide for Az 9.0.1

Article • 09/27/2023

## Az.Advisor

### Set-AzAdvisorConfiguration

- No longer has output type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorConfigurationData'.
- No longer supports the type 'System.Int32' for parameter 'LowCpuThreshold'.
- No longer supports the type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorConfigurationData' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'InputObjectRgExcludeParameterSet' is no longer the default parameter set.
- The parameter set 'InputObjectLowCpuExcludeParameterSet' has been removed.
- The parameter set 'InputObjectRgExcludeParameterSet' has been removed.

### Enable-AzAdvisorRecommendation

- No longer has output type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorResourceRecommendationBase'.
- No longer supports the type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorResourceRecommendationBase' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'NameParameterSet' is no longer the default parameter set.
- The parameter set 'IdParameterSet' has been removed.
- The parameter set 'InputObjectParameterSet' has been removed.
- The parameter set 'NameParameterSet' has been removed.

### Disable-AzAdvisorRecommendation

- No longer has output type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorSuppressionContract'.
- No longer supports the parameter 'Days' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorResourceRecommendationBase' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'IdParameterSet' has been removed.
- The parameter set 'NameParameterSet' has been removed.
- The parameter set 'InputObjectParameterSet' has been removed.

### Get-AzAdvisorRecommendation

- No longer has output type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorResourceRecommendationBase'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'NameParameterSet' is no longer the default parameter set.
- The parameter set 'IdParameterSet' has been removed.
- The parameter set 'NameParameterSet' has been removed.

## **Get-AzAdvisorConfiguration**

- No longer has output type 'Microsoft.Azure.Commands.Advisor.Cmdlets.Models.PsAzureAdvisorConfigurationData'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'RgParameterSet' has been removed.

# Az.Aks

## **Install-AzAksKubectl**

Replaced by Install-AzAksCliTool

### Before

PowerShell

[Install-AzAksKubectl](#)

### After

PowerShell

[Install-AzAksCliTool](#)

# Az.ApiManagement

## **Get-AzApiManagement**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

## **Set-AzApiManagement**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

## **Restore-AzApiManagement**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

## **Get-AzApiManagementSsoToken**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

## **Update-AzApiManagementRegion**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- No longer supports the type 'PsApiManagementSku' for parameter 'Sku'.

## **Backup-AzApiManagement**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

## **Add-AzApiManagementRegion**

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- The type of property 'Sku' of type 'PsApiManagementRegion' has changed from 'PsApiManagementSku' to 'System.String'.
- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- No longer supports the type 'System.Nullable`1[Microsoft.Azure.Commands.ApiManagement.Models.PsApiManagementSku]' for parameter 'Sku'.

## New-AzApiManagement

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- No longer supports the type 'System.Nullable`1[Microsoft.Azure.Commands.ApiManagement.Models.PsApiManagementSku]' for parameter 'Sku'.

## New-AzApiManagementRegion

- The type of property 'Sku' of type 'PsApiManagementRegion' has changed from 'PsApiManagementSku' to 'System.String'.

## Remove-AzApiManagementRegion

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.
- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

## Get-AzApiManagementNetworkStatus

- The type of property 'Sku' of type 'PsApiManagement' has changed from 'PsApiManagementSku' to 'System.String'.

# Az.Attestation

## Get-AzAttestation

- Replaced by 'Get-AzAttestationProvider'.

### Before

```
PowerShell

Get-AzAttestation -Name testprovider1 -ResourceGroupName test-rg
Get-AzAttestation -DefaultProvider
```

### After

```
PowerShell

Get-AzAttestationProvider -Name testprovider1 -ResourceGroupName test-rg
Get-AzAttestationDefaultProvider
```

## New-AzAttestation

- Replaced by 'New-AzAttestationProvider'.

### Before

```
PowerShell

New-AzAttestation -Name testprovider2 -ResourceGroupName test-rg -Location "East US" -PolicySignersCertificateFile
.\cert1.pem
```

### After

```
PowerShell
```

```
New-AzAttestationProvider -Name testprovider2 -ResourceGroupName test-rg -Location "East US" -  
PolicySigningCertificateKeyPath .\cert1.pem
```

## Remove-AzAttestation

- Replaced by 'Remove-AzAttestationProvider'.

### Before

PowerShell

```
Remove-AzAttestation -Name testprovider -ResourceGroupName test-rg
```

### After

PowerShell

```
Remove-AzAttestationProvider -Name testprovider -ResourceGroupName test-rg
```

# Az.EventHub

## Get-AzEventHubAuthorizationRule

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'.

## Get-AzEventHubKey

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'.

## New-AzEventHubAuthorizationRule

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'.

## New-AzEventHubKey

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'

## Remove-AzEventHubAuthorizationRule

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been changed to 'EventHubName'.

## Set-AzEventHubAuthorizationRule

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'

## Get-AzEventHubConsumerGroup

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'

## New-AzEventHubConsumerGroup

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been changed to 'EventHubName'.

## Set-AzEventHubConsumerGroup

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'

## **Remove-AzEventHubConsumerGroup**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. The parameter 'EventHub' has been renamed to 'EventHubName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'

## **Get-AzEventHub**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **New-AzEventHub**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Set-AzEventHub**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Remove-AzEventHub**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Get-AzEventHubNetworkRuleSet**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Set-AzEventHubNetworkRuleSet**

- Parameter 'Name' has been renamed to 'NamespaceName'.

## **New-AzEventHubSchemaGroup**

Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Remove-AzEventHubSchemaGroup**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Get-AzEventHubSchemaGroup**

Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Get-AzEventHubGeoDRConfiguration**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Set-AzEventHubGeoDRConfigurationBreakPair**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Set-AzEventHubGeoDRConfigurationFailOver**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Remove-AzEventHubGeoDRConfiguration**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

### New-AzEventHubGeoDRConfiguration

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

### Test-AzEventHubName

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## Az.MarketplaceOrdering

### Get-AzMarketplaceTerms

Add OfferType parameter

#### Before

PowerShell

```
Get-AzMarketplaceTerms -Publisher "microsoft-ads" -Product "windows-data-science-vm" -Name "windows2016"

Publisher      : microsoft-ads
Product       : windows-data-science-vm
Plan          : windows2016
LicenseTextLink : <LicenseTextLink>
PrivacyPolicyLink : <PrivacyPolicyLink>
Signature      : <Signature>
Accepted       : True
RetrieveDatetime : <RetrieveDatetime>
```

#### After

PowerShell

```
Get-AzMarketplaceTerms -Publisher "microsoft-ads" -Product "windows-data-science-vm" -Name "windows2016" -OfferType
'virtualmachine'
```

### Set-AzMarketplaceTerms

Remove parameter 'Term'

#### Before

PowerShell

```
$agreementTerms = Get-AzMarketplaceTerms -Publisher "microsoft-ads" -Product "windows-data-science-vm" -Name "windows2016"
Set-AzMarketplaceTerms -Publisher "microsoft-ads" -Product "windows-data-science-vm" -Name "windows2016" -Terms
$agreementTerms -Accept
```

#### After

PowerShell

```
Set-AzMarketplaceTerms -Publisher "microsoft-ads" -Product "windows-data-science-vm" -Name "windows2016" -Accept
```

## Az.Migrate

### New-AzMigrateReplicationVaultSetting

- Has been removed and no alias was found for the original cmdlet name.

### **Get-AzMigrateReplicationVaultSetting**

- Has been removed and no alias was found for the original cmdlet name.

### **Get-AzMigrateReplicationProtectionIntent**

- Has been removed and no alias was found for the original cmdlet name.

### **Get-AzMigrateSupportedOperatingSystem**

- Has been removed and no alias was found for the original cmdlet name.

### **Get-AzMigrateReplicationEligibilityResult**

- Has been removed and no alias was found for the original cmdlet name.

### **New-AzMigrateReplicationProtectionIntent**

- Has been removed and no alias was found for the original cmdlet name.

## Az.Monitor

### **Get-AzActivityLogAlert**

- New API version with new set of input/output, please see cmdlet help for detail

### **Remove-AzActivityLogAlert**

- New API version with new set of input/output, please see cmdlet help for detail

### **Set-AzActivityLogAlert**

- Replaced by New-AzActivityLogAlert

### **Disable-AzActivityLogAlert**

- Replaced by Update-AzActivityLogAlert

### **Enable-AzActivityLogAlert**

- Replaced by Update-AzActivityLogAlert

### **New-AzActionGroup**

- Replaced by New-AzActivityLogAlertActionGroupObject

### **Get-AzDiagnosticSettingCategory**

- New API version with new set of input/output, please see cmdlet help for detail

### **Get-AzDiagnosticSetting**

- New API version with new set of input/output, please see cmdlet help for detail

### **New-AzDiagnosticSetting**

- New API version with new set of input/output, please see cmdlet help for detail

## **Remove-AzDiagnosticSetting**

- New API version with new set of input/output, please see cmdlet help for detail

## **Set-AzDiagnosticSetting**

- Replaced by New-AzDiagnosticSetting

## **New-AzDiagnosticDetailSetting**

- Replaced by New-AzDiagnosticSettingLogSettingsObject and New-AzDiagnosticSettingMetricSettingsObject

## **Get-AzSubscriptionDiagnosticSettingCategory**

- Replaced by Get-AzEventCategory

## **Get-AzAutoscaleSetting**

- New API version with new set of input/output, please see cmdlet help for detail

## **Remove-AzAutoscaleSetting**

- New API version with new set of input/output, please see cmdlet help for detail

## **Add-AzAutoscaleSetting**

- Replaced by New-AzAutoscaleSetting

## **New-AzAutoscaleNotification**

- Replaced by New-AzAutoscaleNotificationObject

## **New-AzAutoscaleProfile**

- Replaced by New-AzAutoscaleProfileObject

## **New-AzAutoscaleRule**

- Replaced by New-AzAutoscaleScaleRuleObject

## **New-AzAutoscaleWebhook**

- Replaced by New-AzAutoscaleWebhookNotificationObject

## **Get-AzScheduledQueryRule**

- New API version with new set of input/output, please see cmdlet help for detail

## **New-AzScheduledQueryRuleAlertingAction**

- Removed due to new API version

## **New-AzScheduledQueryRuleAznActionGroup**

- Removed due to new API version

## **New-AzScheduledQueryRule**

- New API version with new set of input/output, please see cmdlet help for detail

### **New-AzScheduledQueryRuleLogMetricTrigger**

- Removed due to new API version

### **New-AzScheduledQueryRuleSchedule**

- Removed due to new API version

### **New-AzScheduledQueryRuleSource**

- Removed due to new API version

### **New-AzScheduledQueryRuleTriggerCondition**

- Removed due to new API version

### **Remove-AzScheduledQueryRule**

- New API version with new set of input/output, please see cmdlet help for detail

### **Set-AzScheduledQueryRule**

- Removed and no replacement.

### **Update-AzScheduledQueryRule**

- New API version with new set of input/output, please see cmdlet help for detail

## **Az.Network**

### **New-AzFirewall**

- The property 'IdentifyTopFatFlow' of type 'PSAzureFirewall' has been removed.
- The property 'publicIPAddresses' of type 'PSAzureFirewallHubIpAddresses' has been removed.
- No longer supports the parameter 'IdentifyTopFatFlow' and no alias was found for the original parameter name.
- The parameter set '\_AllParameterSets' has been removed.
- The parameter set 'OldIpConfigurationParameterValues' has been removed.
- The parameter set 'IpConfigurationParameterValues' has been removed.

### **New-AzFirewallHubIpAddress**

- The property 'publicIPAddresses' of type 'PSAzureFirewallHubIpAddresses' has been removed.

### **Set-AzFirewall**

- The property 'IdentifyTopFatFlow' of type 'PSAzureFirewall' has been removed.

### **New-AzNetworkManagerAddressPrefixItem**

- A validate set has been added for parameter 'AddressPrefixType'.

### **New-AzNetworkManagerSecurityAdminConfiguration**

- The element type for parameter 'ApplyOnNetworkIntentPolicyBasedService' has been changed from 'System.String' to 'Microsoft.Azure.Commands.Network.NewAzNetworkManagerSecurityAdminConfigurationCommand.NetworkIntentPolicyBasedServiceType'.

### **New-AzNetworkManager**

- The element type for parameter 'NetworkManagerScopeAccess' has been changed from 'System.String' to 'Microsoft.Azure.Commands.Network.NewAzNetworkManagerCommand.NetworkManagerScopeAccessType'.

## **Get-AzFirewall**

- The property 'publicIPAddresses' of type 'PSAzureFirewallHubIpAddresses' has been removed.
- The property 'IdentifyTopFatFlow' of type 'PSAzureFirewall' has been removed.
- The property 'IdentifyTopFatFlow' of type 'PSAzureFirewall' has been removed.

## **New-AzNetworkManagerConnectivityConfiguration**

- A validate set has been added for parameter 'ConnectivityTopology'.

## **Deploy-AzNetworkManagerCommit**

- A validate set has been added for parameter 'CommitType'.

## **New-AzNetworkManagerConnectivityGroupItem**

- A validate set has been added for parameter 'GroupConnectivity'.

## **New-AzNetworkManagerSecurityAdminRule**

- A validate set has been added for parameter 'Protocol'.
- A validate set has been added for parameter 'Direction'.
- A validate set has been added for parameter 'Access'.

# Az.RecoveryServices

## **Get-AzRecoveryServicesBackupContainer**

- No longer supports the parameter 'Status' and no alias was found for the original parameter name. The parameter set 'AllParameterSets' has been removed.

# Az.SecurityInsights

## **Update-AzSentinelAlertRuleAction**

- No longer has output type 'PSSentinelActionResponse'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'PSSentinelActionResponse' for parameter 'InputObject'.
- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'ActionId' has been removed.
- The parameter set 'ResourceId' has been removed.

## **New-AzSentinelIncidentOwner**

- Has been removed and no alias was found for the original cmdlet name.

## **New-AzSentinelIncidentComment**

- No longer has output type 'PSSentinelIncidentComment'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.

- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set '\_AllParameterSets' has been removed.

## **Get-AzSentinelBookmark**

- No longer has output type 'PSSentinelBookmark'.
- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'BookmarkId.' has been removed.
- The parameter set 'ResourceId' has been removed.

## **Update-AzSentinelAlertRule**

- No longer has output type 'PSSentinelAlertRule'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'System.String' for parameter 'ProductFilter'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'DisplayNamesExcludeFilter'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'DisplayNamesFilter'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'SeveritiesFilter'.
- No longer supports the parameter 'SuppressionDisabled' and no alias was found for the original parameter name.
- No longer supports the type 'System.Nullable`1[System.TimeSpan]' for parameter 'QueryFrequency'.
- No longer supports the type 'System.Nullable`1[System.TimeSpan]' for parameter 'QueryPeriod'.
- No longer supports the type 'System.String' for parameter 'Severity'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'Tactic'.
- No longer supports the type 'Microsoft.Azure.Management.SecurityInsights.Models.TriggerOperator' for parameter 'TriggerOperator'.
- No longer supports the type 'System.Nullable`1[System.Int32]' for parameter 'TriggerThreshold'.
- No longer supports the type 'PSSentinelAlertRule' for parameter 'InputObject'.
- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'AlertRuleId' has been removed.
- The parameter set '\_AllParameterSets' has been removed.
- The parameter set 'InputObject' has been removed.
- The parameter set 'ResourceId' has been removed.

## **Get-AzSentinelIncidentComment**

- No longer has output type 'PSSentinelIncidentComment'.
- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'ResourceId' has been removed.

## **Get-AzSentinelAlertRuleAction**

- No longer has output type 'PSSentinelActionResponse'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'AlertRuleId' has been removed.

- The parameter set 'ActionId' has been removed.

## **Remove-AzSentinelIncident**

- No longer supports the type 'PSSentinelIncident' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'IncidentId' has been removed.

## **New-AzSentinelBookmark**

- No longer has output type 'PSSentinelBookmark'.
- No longer supports the parameter 'IncidentInfo' and no alias was found for the original parameter name.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'Label'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'BookmarkId.' has been removed.
- The parameter set '\_\_AllParameterSets' has been removed.

## **Remove-AzSentinelAlertRule**

- No longer has output type 'PSSentinelAlertRule'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'PSSentinelAlertRule' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'AlertRuleId' has been removed.

## **Remove-AzSentinelAlertRuleAction**

- No longer has output type 'PSSentinelActionResponse'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'PSSentinelActionResponse' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'ActionId' has been removed.

## **Get-AzSentinelAlertRule**

- No longer has output type 'PSSentinelAlertRule'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'AlertRuleId' has been removed.
- The parameter set 'Resourceld' has been removed.

## **Update-AzSentinelDataConnector**

- No longer has output type 'PSSentinelDataConnector'.

- No longer supports the parameter 'DataConnectorId' and no alias was found for the original parameter name.
- No longer supports the type 'PSSentinelDataConnector' for parameter 'InputObject'.
- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the parameter 'AwsRoleArn' and no alias was found for the original parameter name.
- No longer supports the parameter 'Logs' and no alias was found for the original parameter name.
- No longer supports the parameter 'DiscoveryLogs' and no alias was found for the original parameter name.
- No longer supports the parameter 'Indicators' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'DataConnectorId' has been removed.
- The parameter set 'InputObject' has been removed.
- The parameter set 'ResourceId' has been removed.
- The parameter set '\_\_AllParameterSets' has been removed.

## **Remove-AzSentinelBookmark**

- No longer has output type 'PSSentinelBookmark'.
- No longer supports the type 'PSSentinelBookmark' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'BookmarkId.' has been removed.

## **New-AzSentinelIncident**

- No longer has output type 'PSSentinelIncident'.
- No longer supports the parameter 'Classificaton' and no alias was found for the original parameter name.
- No longer supports the type 'System.String' for parameter 'ClassificationReason'.
- No longer supports the type 'System.Collections.Generic.IList`1[Microsoft.Azure.Commands.SecurityInsights.Models.Incidents.PSSentinelIncidentLabel]' for parameter 'Label'.
- No longer supports the parameter 'Owner' and no alias was found for the original parameter name.
- No longer supports the type 'System.String' for parameter 'Severity'.
- No longer supports the type 'System.String' for parameter 'Status'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'IncidentId' has been removed.
- The parameter set '\_\_AllParameterSets' has been removed.

## **New-AzSentinelAlertRuleAction**

- No longer has output type 'PSSentinelActionResponse'.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'ActionId' has been removed.
- The parameter set '\_\_AllParameterSets' has been removed.

## **Get-AzSentinelIncident**

- No longer has output type 'PSSentinelIncident'.
- No longer supports the parameter 'OrderBy' and no alias was found for the original parameter name.
- No longer supports the parameter 'Max' and no alias was found for the original parameter name.

- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'WorkspaceScope' has been removed.
- The parameter set 'IncidentId' has been removed.
- The parameter set 'ResourceId' has been removed.

## **Remove-AzSentinelDataConnector**

- No longer has output type 'PSSentinelDataConnector'.
- No longer supports the type 'PSSentinelDataConnector' for parameter 'InputObject'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'DataConnectorId' has been removed.

## **New-AzSentinelDataConnector**

- No longer has output type 'PSSentinelDataConnector'.
- No longer supports the parameter 'DataConnectorId' and no alias was found for the original parameter name.
- No longer supports the parameter 'AzureActiveDirectory' and no alias was found for the original parameter name.
- No longer supports the parameter 'AzureAdvancedThreatProtection' and no alias was found for the original parameter name.
- No longer supports the parameter 'AzureSecurityCenter' and no alias was found for the original parameter name.
- No longer supports the parameter 'AmazonWebServicesCloudTrail' and no alias was found for the original parameter name.
- No longer supports the parameter 'MicrosoftCloudAppSecurity' and no alias was found for the original parameter name.
- No longer supports the parameter 'MicrosoftDefenderAdvancedThreatProtection' and no alias was found for the original parameter name.
- No longer supports the parameter 'Office365' and no alias was found for the original parameter name.
- No longer supports the parameter 'ThreatIntelligence' and no alias was found for the original parameter name.
- No longer supports the parameter 'AwsRoleArn' and no alias was found for the original parameter name.
- No longer supports the parameter 'Logs' and no alias was found for the original parameter name.
- No longer supports the parameter 'DiscoveryLogs' and no alias was found for the original parameter name.
- No longer supports the parameter 'Indicators' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'AzureActiveDirectory' has been removed.
- The parameter set 'AzureAdvancedThreatProtection' has been removed.
- The parameter set 'AzureSecurityCenter' has been removed.
- The parameter set 'AmazonWebServicesCloudTrail' has been removed.
- The parameter set 'MicrosoftCloudAppSecurity' has been removed.
- The parameter set 'MicrosoftDefenderAdvancedThreatProtection' has been removed.
- The parameter set 'Office365' has been removed.
- The parameter set 'ThreatIntelligence' has been removed.
- The parameter set '\_\_AllParameterSets' has been removed.

## **New-AzSentinelAlertRule**

- No longer has output type 'PSSentinelAlertRule'.
- No longer supports the parameter 'Scheduled' and no alias was found for the original parameter name.
- No longer supports the parameter 'MicrosoftSecurityIncidentCreation' and no alias was found for the original parameter name.
- No longer supports the parameter 'Fusion' and no alias was found for the original parameter name.
- No longer supports the parameter 'AlertRuleId' and no alias was found for the original parameter name.
- No longer supports the type 'System.String' for parameter 'ProductFilter'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'DisplayNamesExcludeFilter'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'DisplayNamesFilter'.

- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'SeveritiesFilter'.
- No longer supports the type 'System.Nullable`1[System.TimeSpan]' for parameter 'QueryFrequency'.
- No longer supports the type 'System.Nullable`1[System.TimeSpan]' for parameter 'QueryPeriod'.
- No longer supports the type 'System.String' for parameter 'Severity'.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'Tactic'.
- No longer supports the type 'Microsoft.Azure.Management.SecurityInsights.Models.TriggerOperator' for parameter 'TriggerOperator'.
- No longer supports the type 'System.Nullable`1[System.Int32]' for parameter 'TriggerThreshold'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'FusionAlertRule' has been removed.
- The parameter set 'MicrosoftSecurityIncidentCreationRule' has been removed.
- The parameter set 'ScheduledAlertRule' has been removed.
- The parameter set '\_AllParameterSets' has been removed.

## **Get-AzSentinelAlertRuleTemplate**

- No longer has output type 'PSSentinelAlertRuleTemplate'.
- No longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'AlertRuleTemplateId' has been removed.
- The parameter set 'Resourceld' has been removed.

## **Update-AzSentinelIncident**

- No longer has output type 'PSSentinelIncident'.
- No longer supports the parameter 'IncidentID' and no alias was found for the original parameter name.
- No longer supports the type 'PSSentinelIncident' for parameter 'InputObject'.
- No longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.
- No longer supports the type 'System.String' for parameter 'Classification'.
- No longer supports the type 'System.String' for parameter 'ClassificationReason'.
- No longer supports the type  
'System.Collections.Generic.IList`1[Microsoft.Azure.Commands.SecurityInsights.Models.Incidents.PSSentinelIncidentLabel]' for parameter 'Label'.
- No longer supports the parameter 'Owner' and no alias was found for the original parameter name.
- No longer supports the type 'System.String' for parameter 'Severity'.
- No longer supports the type 'System.String' for parameter 'Status'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'IncidentId' has been removed.
- The parameter set 'InputObject' has been removed.
- The parameter set 'Resourceld' has been removed.
- The parameter set '\_AllParameterSets' has been removed.

## **Get-AzSentinelDataConnector**

- No longer has output type 'PSSentinelDataConnector'.
- No longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'Resourceld' has been removed.

## **Update-AzSentinelBookmark**

- No longer has output type 'PSSentinelBookmark'.
- No longer supports the type 'PSSentinelBookmark' for parameter 'InputObject'.
- No longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.
- No longer supports the parameter 'IncidentInfo' and no alias was found for the original parameter name.
- No longer supports the type 'System.Collections.Generic.IList`1[System.String]' for parameter 'Label'.
- No longer supports the type 'Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzContext' for parameter 'DefaultProfile'.
- No longer supports the alias 'AzureRmContext' for parameter 'DefaultProfile'.
- The parameter set 'BookmarkId.' has been removed.
- The parameter set 'InputObject' has been removed.
- The parameter set 'ResourceId' has been removed.
- The parameter set '\_AllParameterSets' has been removed.

# Az.ServiceBus

## **Get-AzServiceBusAuthorizationRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Queue' has been renamed to 'QueueName'. Parameter 'Topic' has been renamed to 'TopicName'.

## **Get-AzServiceBusKey**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Queue' has been renamed to 'QueueName'. Parameter 'Topic' has been renamed to 'TopicName'.

## **New-AzServiceBusAuthorizationRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Queue' has been renamed to 'QueueName'. Parameter 'Topic' has been renamed to 'TopicName'.

## **New-AzServiceBusKey**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Queue' has been renamed to 'QueueName'. Parameter 'Topic' has been renamed to 'TopicName'.

## **Remove-AzServiceBusAuthorizationRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Queue' has been renamed to 'QueueName'. Parameter 'Topic' has been renamed to 'TopicName'.

## **Set-AzServiceBusAuthorizationRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Queue' has been renamed to 'QueueName'. Parameter 'Topic' has been renamed to 'TopicName'.

## **Test-AzServiceBusName**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Set-AzServiceBusGeoDRConfigurationBreakPair**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Stop-AzServiceBusMigration**

- Parameter 'Name' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Get-AzServiceBusNetworkRuleSet**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Set-AzServiceBusNetworkRuleSet**

- Parameter 'Name' has been replaced by 'NamespaceName'.

## **Get-AzServiceBusQueue**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **New-AzServiceBusQueue**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Set-AzServiceBusQueue**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Remove-AzServiceBusQueue**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Get-AzServiceBusRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been renamed to 'TopicName'. Parameter 'Subscription' has been renamed to 'SubscriptionName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **New-AzServiceBusRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been renamed to 'TopicName'. Parameter 'Subscription' has been renamed to 'SubscriptionName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Set-AzServiceBusRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been renamed to 'TopicName'. Parameter 'Subscription' has been renamed to 'SubscriptionName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Remove-AzServiceBusRule**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been renamed to 'TopicName'. Parameter 'Subscription' has been renamed to 'SubscriptionName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Get-AzServiceBusTopic**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **New-AzServiceBusTopic**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Set-AzServiceBusTopic**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Remove-AzServiceBusTopic**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Get-AzServiceBusSubscription**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been removed to 'TopicName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **New-AzServiceBusSubscription**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been removed to 'TopicName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Set-AzServiceBusSubscription**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been removed to 'TopicName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Remove-AzServiceBusSubscription**

- Parameter 'Namespace' has been renamed to 'NamespaceName'. Parameter 'Topic' has been removed to 'TopicName'. Parameter 'ResourceGroupName' would no longer support alias 'ResourceGroup'.

## **Get-AzServiceBusGeoDRConfiguration**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Set-AzServiceBusGeoDRConfigurationFailOver**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **New-AzServiceBusGeoDRConfiguration**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Remove-AzServiceBusGeoDRConfiguration**

- Parameter 'Namespace' has been renamed to 'NamespaceName'.

## **Start-AzServiceBusMigration**

- Parameter 'Name' has been replaced by 'NamespaceName'.

## **Get-AzServiceBusMigration**

- Parameter 'Name' has been replaced by 'NamespaceName'.

## **Complete-AzServiceBusMigration**

- Parameter 'Name' has been replaced by 'NamespaceName'.

## **Remove-AzServiceBusMigration**

- Parameter 'Name' has been replaced by 'NamespaceName'.

# **Az.Sql**

## **Update-AzSqlServerAdvancedThreatProtectionSetting**

- No longer has output type 'Microsoft.Azure.Commands.Sql.ThreatDetection.Model.ServerThreatDetectionPolicyModel'.
- No longer supports the parameter 'NotificationRecipientsEmails' and no alias was found for the original parameter name.
- No longer supports the parameter 'EmailAdmins' and no alias was found for the original parameter name.
- No longer supports the parameter 'ExcludedDetectionType' and no alias was found for the original parameter name.
- No longer supports the parameter 'StorageAccountName' and no alias was found for the original parameter name.
- No longer supports the parameter 'RetentionInDays' and no alias was found for the original parameter name.
- The parameter set '\_AllParameterSets' has been removed.

## **Get-AzSqlServerAdvancedThreatProtectionSetting**

- No longer has output type 'Microsoft.Azure.Commands.Sql.ThreatDetection.Model.ServerThreatDetectionPolicyModel'.

## **Clear-AzSqlDatabaseAdvancedThreatProtectionSetting**

- Has been removed and no alias was found for the original cmdlet name.

## **Update-AzSqlDatabaseAdvancedThreatProtectionSetting**

- No longer has output type 'Microsoft.Azure.Commands.Sql.ThreatDetection.Model.DatabaseThreatDetectionPolicyModel'.
- No longer supports the parameter 'NotificationRecipientsEmails' and no alias was found for the original parameter name.
- No longer supports the parameter 'EmailAdmins' and no alias was found for the original parameter name.
- No longer supports the parameter 'ExcludedDetectionType' and no alias was found for the original parameter name.
- No longer supports the parameter 'StorageAccountName' and no alias was found for the original parameter name.
- No longer supports the parameter 'RetentionInDays' and no alias was found for the original parameter name.
- The parameter set '\_AllParameterSets' has been removed.

## **Clear-AzSqlServerAdvancedThreatProtectionSetting**

- Has been removed and no alias was found for the original cmdlet name.

## **Disable-AzSqlServerAdvancedDataSecurity**

- No longer supports the alias 'Disable-AzSqlServerAdvancedThreatProtection'.

## **Get-AzSqlDatabaseAdvancedThreatProtectionSetting**

- No longer has output type 'Microsoft.Azure.Commands.Sql.ThreatDetection.Model.DatabaseThreatDetectionPolicyModel'.

## **Enable-AzSqlServerAdvancedDataSecurity**

- No longer supports the alias 'Enable-AzSqlServerAdvancedThreatProtection'.

# **Az.Storage**

## **Get-AzStorageFileCopyState**

- No longer has output type 'Microsoft.Azure.Storage.File.CopyState'.

## Az.Synapse

### **Get-AzSynapseLinkConnectionLinkTableStatus**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Remove-AzSynapseLinkConnection**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Update-AzSynapseLinkConnectionLandingZoneCredential1**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Get-AzSynapseLinkConnectionLinkTable**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Stop-AzSynapseLinkConnection**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Set-AzSynapseLinkConnection**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Get-AzSynapseLinkConnection**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Start-AzSynapseLinkConnection**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

### **Set-AzSynapseLinkConnectionLinkTable**

- The type of property 'Properties' of type 'PSLinkConnectionResource' has changed from 'Azure.Analytics.Synapse.Artifacts.Models.LinkConnection' to 'PSLinkConnection'.

# Migration Guide for latest Az.EventHub PowerShell Module

Article • 09/27/2023

The `Az.EventHub` PowerShell module version 9.0.1 of Azure PowerShell that would be released in October introduces improvised cmdlets for public use.

These changes are focused towards making the PowerShell use more productive and seamless for the end users.

The following example installs the latest version of the `Az.Eventhub` Azure PowerShell module.

PowerShell

```
Install-Module -Name Az.EventHub -Repository PSGallery -Scope CurrentUser
```

## Major Changes:

### Behavior of -InputObject:

Until Module 8.3.0, -InputObject supports passing an in memory object to additional cmdlet in pipeline. Due to above design, updating resources becomes a multi step approach.

With the new module release, -InputObject parameter set would be changing for a seamless experience.

In contrast to earlier approach, -InputObject would now support object of corresponding input type as well as resource Id directly to the cmdlet. This would make cmdlet usage fairly easy and faster as compared to the old approach.

Below example shows the difference in -InputObject Usage:

### Before

Below example shows how to update capture description on existing event hub with Module version 8.3.0 or older

```

$createdEventHub = Get-AzEventHub -ResourceGroupName MyResourceGroupName -
Namespace MyNamespaceName -Name MyCreatedEventHub
$createdEventHub.CaptureDescription = New-Object -TypeName
Microsoft.Azure.Commands.EventHub.Models.PSCaptureDescriptionAttributes
$createdEventHub.CaptureDescription.Enabled = $true
$createdEventHub.CaptureDescription.IntervalInSeconds = 120
$createdEventHub.CaptureDescription.Encoding = "Avro"
$createdEventHub.CaptureDescription.SizeLimitInBytes = 10485763
$createdEventHub.CaptureDescription.Destination.Name =
"EventHubArchive.AzureBlockBlob"
$createdEventHub.CaptureDescription.Destination.BlobContainer = "container"
$createdEventHub.CaptureDescription.Destination.ArchiveNameFormat =
"{Namespace}/{EventHub}/{PartitionId}/{Year}/{Month}/{Day}/{Hour}/{Minute}/{S
econd}"
$createdEventHub.CaptureDescription.Destination.StorageAccountResourceId =
"/subscriptions/{SubscriptionId}/resourceGroups/MyResourceGroupName/providers/Microsoft.ClassicStorage/storageAccounts/teststorage"
Set-AzEventHub -ResourceGroupName MyResourceGroupName -Namespace
MyNamespaceName -Name MyEventHubName -InputObject $createdEventHub

```

## After

Below example shows how to update capture description on existing event hub with starting with / after Module version 9.0.1

```

$eventhub = Get-AzEventHub -InputObject <ResourceID of event hub>

Set-AzEventHub -InputObject $eventhub -CaptureEnabled -SizeLimitInBytes
10485763 -IntervalInSeconds 120 -Encoding Avro -DestinationName
EventHubArchive.AzureBlockBlob -BlobContainer container -ArchiveNameFormat "
{Namespace}/{EventHub}/{PartitionId}/{Year}/{Month}/{Day}/{Hour}/{Minute}/{S
econd}" -StorageAccountResourceId
"/subscriptions/{SubscriptionId}/resourceGroups/MyResourceGroupName/providers/Microsoft.ClassicStorage/storageAccounts/teststorage"

```

## Pipelining support

- Accept pipeline Input for InputObject (InputObject pipelining) can be implemented in the following manner:

```
Get-AzEventHub -InputObject <ResourceId of the eventhub> | Set-AzEventHub -
```

```
MessageRetentionInDays 6
```

- Property pipelining would be disabled. In other words, none of the cmdlet parameters apart from `-InputObject` would accept pipeline input.
- `-InputObject` parameter would no longer support parameter aliasing.

## Positional Binding

- Positional binding is not supported.

## Deprecation Announcements

With new release, below cmdlets are marked to be deprecated:

- Add-AzEventHubIPRule
- Add-AzEventHubVirtualNetworkRule
- Remove-AzEventHubIPRule
- Remove-AzEventHubVirtualNetworkRule
- Remove-AzEventHubNetworkRuleSet

Use `Set-AzEventHubNetworkRuleSet` to add/remove IP or virtual network rules.

## Changes to existing cmdlets

Below list talks about the changes to existing cmdlets in detailed manner:

## Application Groups

### Get-AzEventHubApplicationGroup

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.
- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubApplicationGroupAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IApplicati onGroup`.

### New-AzEventHubApplicationGroup

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubApplicationGroupAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IApplicationGroup`.
- `-ThrottlingPolicyConfig` would be renamed to `-Policy` and type would change from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubThrottlingPolicyConfigAttributes[]` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IApplicationGroupPolicy[]`. `New-AzEventHubThrottlingPolicyConfig` can still be used to construct this object.

## Set-AzEventHubApplicationGroup

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubApplicationGroupAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IApplicationGroup`.
- `-ThrottlingPolicyConfig` would be renamed to `-Policy` and type would change from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubThrottlingPolicyConfigAttributes[]` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IApplicationGroupPolicy[]`. `New-AzEventHubThrottlingPolicyConfig` can still be used to construct this object.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## New-AzEventHubThrottlingPolicyConfig

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubThrottlingPolicyConfigAttributes`  
to

```
Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IThrottlingPolicy.
```

## Remove-AzEventHubApplicationGroup

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubApplicationGroupAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IApplicationGroup`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Network Rule Sets

### Set-AzEventHubNetworkRuleSet

- Input type of parameter `-InputObject` and Output type has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSNetworkRuleSetAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.INetworkRuleSet`.
- Parameter `-IPRule` is changing type from `Microsoft.Azure.Commands.EventHub.Models.PSNWRuleSetIpRulesAttributes[]` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.INwRuleSetIPRules[]`. Please use `New-AzEventHubIPRuleConfig` cmdlet to construct an in-memory object which can be fed as input to `-IPRule`.
- Parameter `-VirtualNetworkRule` is changing type from `Microsoft.Azure.Commands.EventHub.Models.PSNWRuleSetVirtualNetworkRulesAttributes[]` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.INwRuleSetVirtualNetworkRules[]`. Please use `New-AzEventHubVirtualNetworkRuleConfig` cmdlet to construct an in-memory object which can then be fed as input to `-VirtualNetworkRule`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided to `-InputObject` parameter.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.

## Get-AzEventHubNetworkRuleSet

- Output type has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSNetworkRuleSetAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.INetworkRuleSet`.

## Authorization Rules and SAS Keys

### New-AzEventHubAuthorizationRule

- Output type has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSSharedAccessAuthorizationRuleAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IAuthorizationRule`.

### Set-AzEventHubAuthorizationRule

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSSharedAccessAuthorizationRuleAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IAuthorizationRule`.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.
- `-InputObject` parameter would no longer support alias `-AuthRuleObj`.

### Get-AzEventHubAuthorizationRule

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSSharedAccessAuthorizationRuleAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IAuthorizationRule`.

### New-AzEventHubKey

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSListKeysAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IAccessKey`s.
- Parameter `-ResourceGroupName` would no longer support alias `-ResourceGroup`.

## Get-AzEventHubKey

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSListKeysAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IAccessKey`s.

## Consumer Groups

### New-AzEventHubConsumerGroup

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSConsumerGroupAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IConsumerGroup`.

### Set-AzEventHubConsumerGroup

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSConsumerGroupAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IConsumerGroup`.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.

### Get-AzEventHubConsumerGroup

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSConsumerGroupAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IConsumerGroup`.
- Parameter `-MaxCount` has been removed. Use `-Skip` and `-Top` pagination use case.

## Remove-AzEventHubConsumerGroup

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSConsumerGroupAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IConsumerGroup`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Clusters

### New-AzEventHubCluster

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubClusterAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ICluster`.
- `-ResourceId` would be removed as it is not supported for Creation operation and is available for use after resource is created.

### Set-AzEventHubCluster

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubClusterAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ICluster`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.

### Get-AzEventHubCluster

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubClusterAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ICluster`.

### Remove-AzEventHubCluster

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubClusterAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ICluster`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Get-AzEventHubClustersAvailableRegion

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubsAvailableCluster[]` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IAvailableCluster`.

## EventHub

### New-AzEventHub

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub`.
- `-InputObject` would be removed as it is not supported for Creation operation and is available for use after resource is created.

### Set-AzEventHub

- Input type of parameter `-InputObject` and output type of the cmdlet have been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub`. CaptureDescription class data members would be flattened and would directly be accessible as data members within `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub`. Please refer to example on top to know more.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.
- `-InputObject` parameter would no longer support alias `-EventHubObj`.

### Remove-AzEventHub

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Get-AzEventHub

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub`.
- Parameter `-MaxCount` has been removed. Use `-Skip` and `-Top` for pagination use case.
- Parameter `-NamespaceObject` is being replaced by `-InputObject` of type `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IEventhub`.

## Private Endpoints

### Approve-AzEventHubPrivateEndpointConnection

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubPrivateEndpointConnectionAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IPrivateEndpointConnection`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

### Deny-AzEventHubPrivateEndpointConnection

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.EventHub.Models.PSEventHubPrivateEndpointConnectionAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IPrivateEndpointConnection`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Remove-AzEventHubPrivateEndpointConnection

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Get-AzEventHubPrivateEndpointConnection

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubPrivateEndpointConnectionAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IPrivateEndpointConnection`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Private Links

## Get-AzEventHubPrivateLink

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubPrivateLinkResourceAttributes[]` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IPrivateLinkResourcesListResult`.

## Disaster Recovery Configs

## Get-AzEventHubGeoDRConfiguration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSNamespaceAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IArmDisasterRecovery`.
- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSNamespaceAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IArmDisasterRecovery`.

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## New-AzEventHubGeoDRConfiguration

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubDRConfigurationAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IArmDisasterRecovery`.
- `-InputObject` and `-ResourceId` are not supported during resource creation, hence are being removed.

## Remove-AzEventHubGeoDRConfiguration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubDRConfigurationAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IArmDisasterRecovery`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Set-AzEventHubGeoDRConfigurationBreakPair

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.
- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubDRConfigurationAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IArmDisasterRecovery`.

## Set-AzEventHubGeoDRConfigurationFailOver

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubDRConfigurationAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.IArmDisasterRecovery.`

## Schema Groups

### New-AzEventHubSchemaGroup

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubsSchemaRegistryAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ISchemaGroup.`

### Get-AzEventHubSchemaGroup

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubsSchemaRegistryAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ISchemaGroup.`
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

### Remove-AzEventHubSchemaGroup

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.EventHub.Models.PSEventHubsSchemaRegistryAttributes`  
to  
`Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ISchemaGroup.`

## CheckNameAvailability

### Test-AzEventHubName

- Output type of the cmdlet has been changed from

```
Microsoft.Azure.Commands.EventHub.Models.
```

```
PSCheckNameAvailabilityResultAttributes to
```

```
Microsoft.Azure.PowerShell.Cmdlets.EventHub.Models.Api202201Preview.ICheckName
```

```
AvailabilityResult.
```

# Migration Guide for latest Az.ServiceBus PowerShell Module

Article • 09/27/2023

The `Az.ServiceBus` PowerShell module version 9.0.1 of Azure PowerShell that would be released in October introduces improvised cmdlets for public use.

These changes are focused towards making the PowerShell use seamless for the end users.

The following example installs the latest version of the `Az.ServiceBus` Azure PowerShell module.

PowerShell

```
Install-Module -Name Az.ServiceBus -Repository PSGallery -Scope CurrentUser
```

## Major Changes:

### Behavior of `-InputObject`:

Until Module 8.3.0, `-InputObject` supports passing an in memory object to additional cmdlet in pipeline. Due to above design, updating resources becomes a multi step approach.

With the new module release, `-InputObject` parameter set would be changing for a seamless experience.

In contrast to earlier approach, `-InputObject` would now support object of corresponding input type as well as resource Id directly to the cmdlet. This would make cmdlet usage fairly easy and faster as compared to the old approach.

Below example shows the difference in `-InputObject` Usage:

### Before

Below example shows how to update queue properties on existing service bus namespace with Module version 8.3.0 or older

```
$QueueObj = Get-AzServiceBusQueue -ResourceGroup Default-ServiceBus-WestUS -
NamespaceName SB-Example1 -QueueName SB-Queue_example1

$QueueObj.ForwardTo = "q1"
$QueueObj.ForwardDeadLetteredMessagesTo = "q1"
$QueueObj.DefaultMessageTimeToLive = "P1YT3H11M2S"

Set-AzServiceBusQueue -ResourceGroup Default-ServiceBus-WestUS -
NamespaceName SB-Example1 -QueueName SB-Queue_example1 -InputObject
$QueueObj
```

## After

Below example shows how to update queue properties starting with / after Module version 9.0.1

```
$queue = Get-AzServiceBusQueue -InputObject <ResourceId of ServiceBus Queue>

Set-AzServiceBusQueue -InputObject $queue -ForwardTo q1 -
ForwardDeadLetteredMessagesTo q2 -DefaultMessageTimeToLive (New-Timespan -
Days 365 -Hours 3 -Minutes 11 -Seconds 2)
```

- Input type of parameters `-DefaultMessageTimeToLive`, `-AutoDeleteOnIdle`, `-LockDuration`, `-DuplicateDetectionHistoryTimeWindow` has been changed from System.String to System.Timespan. Hence, ISO 8601 format for timespan can NO longer be fed as input to these parameters. Please use New-TimeSpan cmdlet object to construct Timespan variables as shown in the example above. Please refer [New-TimeSpan](#) to know more about New-TimeSpan.

## Pipelining support

- Accept pipeline Input for InputObject (InputObject pipelining) can be implemented in the following manner:

```
Get-AzServiceBusQueue -InputObject <ResourceId of the queue> | Set-
AzServiceBusQueue -MessageRetentionInDays 6
```

- Property pipelining would be disabled. In other words, None of the cmdlet parameters apart from `-InputObject` would accept pipeline input.

- `-InputObject` parameter would no longer support parameter aliasing.

## Positional Binding

- Positional binding is not supported.

## Deprecation Announcements

With new release,below cmdlets are marked to be deprecated:

- Add-AzServiceBusIPRule
- Add-AzServiceBusVirtualNetworkRule
- Remove-AzServiceBusIPRule
- Remove-AzServiceBusVirtualNetworkRule
- Remove-AzServiceBusNetworkRuleSet

Use `Set-AzServiceBusNetworkRuleSet` to add/remove multiple IP/ virtual network rules.

## Changes to existing Cmdlets

### Network Rule Sets

#### Set-AzServiceBusNetworkRuleSet

- Input type of parameter `-InputObject` and Output type of the cmdlet have been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSNetworkRuleSetAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.INetworkRuleSet`.
- Parameter `-IPRule` is changing type from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSNWRuleSetIpRulesAttributes[]` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.INwRulesetIPRules[]`.Please use `New-AzServiceBusIPRuleConfig` cmdlet to construct an in-memory object which can then be fed as input to `-IPRule`.
- Parameter `-VirtualNetworkRule` is changing type from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSNWRuleSetVirtualNetworkRulesAttributes[]` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.INwRulesetVirtualNetworkRules`

`etVirtualNetworkRules[]`.Please use `New-AzServiceBusVirtualNetworkRuleConfig` cmdlet to construct an in-memory object which can then be fed as input to `-VirtualNetworkRule`.

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided to `-InputObject` parameter.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.

## Get-AzServiceBusNetworkRuleSet

- Input type of parameter `-InputObject` and Output type of the cmdlet have been changed from

`Microsoft.Azure.Commands.ServiceBus.Models.PSNetworkRuleSetAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.INetworkRuleSet`.

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided to `-InputObject` parameter.

## Authorization Rules and SAS Keys

### New-AzServiceBusAuthorizationRule

- Output type of the cmdlet has been changed from

`Microsoft.Azure.Commands.ServiceBus.Models.PSSharedAccessAuthorizationRuleAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbAuthorizationRule`.

### Set-AzServiceBusAuthorizationRule

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from

`Microsoft.Azure.Commands.ServiceBus.Models.PSSharedAccessAuthorizationRuleAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbAuthorizationRule`.

- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.

- `-InputObject` parameter would no longer support alias `-AuthRuleObj`.

## Get-AzServiceBusAuthorizationRule

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from

```
Microsoft.Azure.Commands.ServiceBus.Models.PSSharedAccessAuthorizationRuleAttrib
ibutes to
Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbAutho
rizationRule.
```

## New-AzServiceBusKey

- Output type of the cmdlet has been changed from

```
Microsoft.Azure.Commands.ServiceBus.Models.PSListKeysAttributes to
Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IAccessK
eys.
```

## Get-AzServiceBusKey

- Output type of the cmdlet has been changed from

```
Microsoft.Azure.Commands.ServiceBus.Models.PSListKeysAttributes to
Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IAccessK
eys.
```

## Queue Entity

### New-AzServiceBusQueue

- Output type of the cmdlet has been changed from

```
Microsoft.Azure.Commands.ServiceBus.Models.PSQueueAttributes to
Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbQueu
e.
```

- `-SizeInBytes` and `-MessageCount` are readonly parameters and are getting removed.
- Parameter `-EnableBatchedOperations` is renamed to `-EnableBatchedOperation`.
- Input type of parameters `-DefaultMessageTimeToLive`, `-AutoDeleteOnIdle`, `-LockDuration`, `-DuplicateDetectionHistoryTimeWindow` has been changed from

`System.String` to `System.Timespan`. Hence, ISO 8601 format for timespan can NO longer be fed as input to these parameters. Please use `New-TimeSpan` cmdlet object to construct Timespan variables. Please refer [New-TimeSpan](#) to know more about `New-TimeSpan`.

## Set-AzServiceBusQueue

- Input type of parameter `-InputObject` and of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSQueueAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbQueue`.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.
- `-InputObject` parameter would no longer support alias `-QueueObj`.

## Remove-AzServiceBusQueue

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSQueueAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbQueue`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Get-AzServiceBusQueue

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSQueueAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbQueue`.
- Parameter `-MaxCount` has been removed. Use `-Skip` and `-Top` for pagination use cases.

## Topic Entity

### Get-AzServiceBusTopic

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSTopicAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbTopic`.
- Parameter `-MaxCount` has been removed. Use `-Skip` and `-Top` for pagination use cases.
- Parameter `-ResourceGroupName` would no longer support alias `-ResourceGroup`.

## Set-AzServiceBusTopic

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSTopicAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbTopic`.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.
- `-InputObject` parameter would no longer support alias `-TopicObj`.
- Parameter `-ResourceGroupName` would no longer support alias `-ResourceGroup`.

## New-AzServiceBusTopic

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSTopicAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbTopic`.
- `-SizeInBytes` is readonly parameter and is getting removed.
- Parameter `-EnableBatchedOperations` would be renamed to `-EnableBatchedOperation`.
- Input type of parameters `-DefaultMessageTimeToLive`, `-AutoDeleteOnIdle`, `-DuplicateDetectionHistoryTimeWindow` has been changed from `System.String` to `System.Timespan`. Hence, ISO 8601 format for timespan can NO longer be fed as input to these parameters. Please use `New-TimeSpan` cmdlet object to construct Timespan variables. Please refer [New-TimeSpan](#) to know more about `New-TimeSpan`.
- Parameter `-ResourceGroupName` would no longer support alias `-ResourceGroup`.

## Remove-AzServiceBusTopic

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSTopicAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbTopic`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.
- Parameter `-ResourceGroupName` would no longer support alias `-ResourceGroup`.

## Rule Entity

### Get-AzServiceBusRule

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSRulesAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IRule`.
- Parameter `-MaxCount` has been removed. Use `-Skip` and `-Top` for pagination use cases.

### Set-AzServiceBusRule

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSRulesAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IRule`.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.

### New-AzServiceBusRule

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSRulesAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IRule`.
- Parameter `-RequiresPreprocessing` is being renamed to `-ActionRequiresPreprocessing`.

### Remove-AzServiceBusRule

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSRulesAttributes` to

`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IRule`.

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Subscription Entity

### Get-AzServiceBusSubscription

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSSubscriptionAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbSubscription`.
- Parameter `-MaxCount` has been removed. Use `-Skip` and `-Top` for pagination use cases.

### New-AzServiceBusSubscription

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSSubscriptionAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbSubscription`.
- Input type of parameters `-DefaultMessageTimeToLive`, `-AutoDeleteOnIdle`, `-LockDuration`, `-DuplicateDetectionHistoryTimeWindow` has been changed from System.String to System.Timespan. Hence, ISO 8601 format for timespan can NO longer be fed as input to these parameters. Please use New-TimeSpan cmdlet object to construct Timespan variables. Please refer [New-TimeSpan](#) to know more about New-TimeSpan.

### Set-AzServiceBusSubscription

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSSubscriptionAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbSubscription`.
- `-InputObject` parameter set would have a change in behaviour. Refer the [section](#) to know more.
- `-InputObject` parameter would no longer support alias `-SubscriptionObj`.

## Remove-AzServiceBusSubscription

- Input type of parameter `-InputObject` and Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSSubscriptionAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ISbSubscription`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Private Endpoints

### Approve-AzServiceBusPrivateEndpointConnection

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusPrivateEndpointConnectionAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IPrivateEndpointConnection`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

### Deny-AzServiceBusPrivateEndpointConnection

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusPrivateEndpointConnectionAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IPrivateEndpointConnection`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

### Remove-AzServiceBusPrivateEndpointConnection

- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

### Get-AzServiceBusPrivateEndpointConnection

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusPrivateEndpointConnectionAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IPrivateEndpointConnection`.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Private Links

### Get-AzServiceBusPrivateLink

- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusPrivateLinkResourceAttributes[]` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IPrivateLinkResourcesListResult`.

## Disaster Recovery Configs

### Get-AzServiceBusGeoDRConfiguration

- Input type of parameter `-InputObject` has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSNamespaceAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IArmDisasterRecovery`.
- Output type of the cmdlet has been changed from `Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttributes` to `Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IArmDisasterRecovery`.
- `-Name` parameter would be removed from `-InputObject` parameter set. Henceforth, `-InputObject` must contain the ResourceId of Disaster Recovery Configuration alias.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## New-AzServiceBusGeoDRConfiguration

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttribut`  
es to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IArmDisa`  
sterRecovery.
- `-InputObject` and `-ResourceId` are not supported during resource creation, hence are being removed.

## Remove-AzServiceBusGeoDRConfiguration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttribut`  
es to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IArmDisa`  
sterRecovery.
- `-ResourceId` parameter would be deprecated. Henceforth, resource id can be provided as input to `-InputObject` parameter.

## Set-AzServiceBusGeoDRConfigurationBreakPair

- Parameter `-ResourceId` is being removed. Henceforth, resource id can be provided as input to `-InputObject`.
- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttribut`  
es to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IArmDisa`  
sterRecovery.

## Set-AzServiceBusGeoDRConfigurationFailOver

- Parameter `-ResourceId` is being removed. Henceforth, resource id can be provided as input to `-InputObject`.
- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttribut`  
es to

```
Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IArmDisasterRecovery.
```

# Migration Configurations

## Complete-AzServiceBusMigration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IMigrationConfigProperties`.
- Parameter `-ResourceId` is being removed. Henceforth, resource id can be provided as input to `-InputObject`.

## Get-AzServiceBusMigration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusMigrationConfigurationAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IMigrationConfigProperties`.
- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusMigrationConfigurationAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IMigrationConfigProperties`.

## Start-AzServiceBusMigration

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusMigrationConfigurationAttributes` to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IMigrationConfigProperties`.

## Remove-AzServiceBusMigration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttribut`  
es to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IMigrati`  
`onConfigProperties.`

## Stop-AzServiceBusMigration

- Input type of parameter `-InputObject` has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSServiceBusDRConfigurationAttribut`  
es to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.IMigrati`  
`onConfigProperties.`
- Parameter `-ResourceId` is being removed. Henceforth, resource id can be provided as input to `-InputObject`.

## CheckNameAvailability

### Test-AzServiceBusName

- Output type of the cmdlet has been changed from  
`Microsoft.Azure.Commands.ServiceBus.Models.PSCheckNameAvailabilityResultAttrib`  
utes to  
`Microsoft.Azure.PowerShell.Cmdlets.ServiceBus.Models.Api202201Preview.ICheckNa`  
`meAvailabilityResult.`

# Migration Guide for Az 8.0.0

Article • 09/27/2023

## Az.Aks

### Get-AzAks

Alias `Get-AzAks` is removed. Please use `Get-AzAksCluster` instead.

#### Before

PowerShell

```
Get-AzAks -ResourceGroupName $resourceGroupName -Name $name
```

#### After

PowerShell

```
Get-AzAksCluster -ResourceGroupName $resourceGroupName -Name $name
```

### New-AzAks

Alias `New-AzAks` is removed. Please use `New-AzAksCluster` instead.

#### Before

PowerShell

```
New-AzAks -ResourceGroupName $resourceGroupName -Name $name -Location  
$location
```

#### After

PowerShell

```
New-AzAksCluster -ResourceGroupName $resourceGroupName -Name $name -Location
```

```
$location
```

## Set-AzAks

Alias `Set-AzAks` is removed. Please use `Set-AzAksCluster` instead.

### Before

```
PowerShell
```

```
Set-AzAks -ResourceGroupName $resourceGroupName -Name $name
```

### After

```
PowerShell
```

```
Set-AzAksCluster -ResourceGroupName $resourceGroupName -Name $name
```

## Remove-AzAks

Alias `Remove-AzAks` is removed. Please use `Remove-AzAksCluster` instead.

### Before

```
PowerShell
```

```
Remove-AzAks -ResourceGroupName $resourceGroupName -Name $name
```

### After

```
PowerShell
```

```
Remove-AzAksCluster -ResourceGroupName $resourceGroupName -Name $name
```

## Az.Cdn

## New-AzCdnProfile

Changed the type of parameter `Sku` to `SkuName` Changed the type of parameter `ProfileName` to `Name`

## Before

PowerShell

```
$profileSku = "Standard_Microsoft";
$cdnProfileName = "profileNameXXXX";
$resourceGroupName = "myresourcegroup"
New-AzCdnProfile -Sku $profileSku -ProfileName $cdnProfileName -
ResourceGroupName $resourceGroupName -Location Global
```

## After

PowerShell

```
$profileSku = "Standard_Microsoft";
$cdnProfileName = "profileNameXXXX";
$resourceGroupName = "myresourcegroup"
New-AzCdnProfile -SkuName $profileSku -Name $cdnProfileName -
ResourceGroupName $resourceGroupName -Location Global
```

## New-AzCdnEndpoint

Changed parameter `EndpointName` to `Name` Changed parameter `GeoFilters` to `GeoFilter` Changed parameter `DefaultOriginGroup` to `DefaultOriginGroupId` Merge parameters

`OriginHostName, OriginId, OriginName, Priority, PrivateLinkApprovalMessage, PrivateLinkLocation, PrivateLinkResourceId, Weight, HttpPort,HttpsPort` into parameter `Origin`  
Merge parameters

`OriginGroupName, OriginGroupProbeIntervalInSeconds, OriginGroupProbePath, OriginGroupProbeProtocol, OriginGroupProbeRequestType` into parameter `OriginGroup` Split parameter `DeliveryPolicy` in to parameters `DeliveryPolicyDescription, DeliveryPolicyRule` Add parameters `SubscriptionId, UrlSigningKey, WebApplicationFirewallPolicyLinkId` Delete parameter `CdnProfile`

## Before

PowerShell

```
New-AzCdnEndpoint -ResourceGroupName myresourcegroup -ProfileName  
mycdnprofile -Location westus -EndpointName myendpoint `  
-OriginName mystorage -OriginHostName  
mystorage.blob.core.windows.net `  
-OriginHostHeader mystorage.blob.core.windows.net -  
IsHttpAllowed $false
```

## After

PowerShell

```
$origin = @{  
    Name = "origin1"  
    HostName = "host1.hello.com"  
};  
$location = "westus"  
  
$endpoint = New-AzCdnEndpoint -Name $endpointName -ResourceGroupName  
$ResourceGroupName -ProfileName $cdnProfileName -Location $location -Origin  
$origin
```

## New-AzCdnDeliveryPolicy

Delete command `New-AzCdnDeliveryPolicy`. Use `New-AzCdnDeliveryRuleObject` create rule object and used it in `New-AzCdnEndpoint` directly

## New-AzCdnDeliveryRule

Changed command name to `New-AzCdnDeliveryRuleObject`

## Before

PowerShell

```
New-AzCdnDeliveryRule -Name "rule1" -Order 1 -Condition $cond1 -Action  
$action1
```

## After

PowerShell

```
$cond1 = New-AzCdnDeliveryRuleIsDeviceConditionObject -Name "IsDevice" -  
ParameterMatchValue "Desktop"  
$action1 = New-AzCdnUrlRewriteActionObject -Name "UrlRewrite" -  
ParameterDestination "/def" -ParameterSourcePattern "/abc" -  
ParameterPreserveUnmatchedPath $true  
$rule1 = New-AzCdnDeliveryRuleObject -Name "Rule1" -Action $action1,$action2  
-Condition $cond1 -Order 1
```

## New-AzCdnCustomDomain

Changed the type of parameter `CustomDomainName` to `Name` Add parameter

`SubscriptionId` Delete parameter `CdnEndpoint`

### Before

PowerShell

```
New-AzCdnCustomDomain -ResourceGroupName $resourceGroupName -ProfileName  
$cdnProfileName -EndpointName $endpointName -CustomDomainName  
$customDomainName -HostName $customDomainHostName
```

### After

PowerShell

```
New-AzCdnCustomDomain -ResourceGroupName $resourceGroupName -ProfileName  
$cdnProfileName -EndpointName $endpointName -Name $customDomainName -  
HostName $customDomainHostName -SubscriptionId $subId
```

## Set-AzCdnProfile

Replaced by command `Update-AzCdnProfile`

### Before

PowerShell

```
$profileObject = Get-AzCdnProfile -ResourceGroupName myresourcegroup -  
ProfileName mycdnprofile  
$profileObject.Tags = @{"key"="value"}  
Set-AzCdnProfile -CdnProfile $profileObject
```

## After

PowerShell

```
$profileSku = "Standard_Microsoft";
$cdnProfileName = "profileNameXXXX";
$resourceGroupName = "myresourcegroup"
New-AzCdnProfile -SkuName $profileSku -Name $cdnProfileName -
ResourceGroupName $resourceGroupName -Location Global

$tags = @{
    Tag1 = 11
    Tag2 = 22
}
Update-AzCdnProfile -Name $cdnProfileName -ResourceGroupName
$resourceGroupName -Tag $tags
```

## Set-AzCdnEndpoint

Replaced by command `Update-AzCdnEndpoint` `DeliveryPolicyDescription` and `DeliveryPolicyRule` should be provided together when you want to update one of them.

## Before

PowerShell

```
$endpointObject = Get-AzCdnEndpoint -ResourceGroupName myresourcegroup -
(ProfileName mycdnprofile -EndpointName myendpoint
$endpointObject.IsHttpAllowed = $false
Set-AzCdnEndpoint -CdnEndpoint $endpointObject
```

## After

PowerShell

```
$tags = @{
    Tag1 = 11
    Tag2 = 22
}

//Update tags
Update-AzCdnEndpoint -Name $endpointName -ProfileName $cdnProfileName -
ResourceGroupName $resourceGroupName -Tag $tags

//Update DeliveryPolicyDescription or DeliveryPolicyRule
```

```
Update-AzCdnEndpoint -Name $endpointName -ProfileName $cdnProfileName -  
ResourceGroupName $resourceGroupName `  
-DeliveryPolicyDescription $descprption -DeliveryPolicyRule $rule
```

## Set-AzCdnOriginGroup

Replaced by command `Update-AzCdnOriginGroup`

### Before

PowerShell

```
Set-AzCdnOriginGroup -ResourceGroupName $resourceGroupName -ProfileName  
$profileName -EndpointName $endpointName -OriginGroupName $originGroupName -  
OriginId $originIds -ProbeIntervalInSeconds $probeInterval
```

### After

PowerShell

```
Update-AzCdnOriginGroup -EndpointName $endpointName -Name $originGroup.Name  
-ProfileName $cdnProfileName -ResourceGroupName $ResourceGroupName `  
-HealthProbeSetting $healthProbeParametersObject2 -Origin  
@(@{ Id = $originId })
```

## Set-AzCdnOrigin

Replaced by command `Update-AzCdnOrigin`

### Before

PowerShell

```
Set-AzCdnOrigin -ResourceGroupName $resourceGroupName -ProfileName  
$cdnProfileName -EndpointName $endpointName `  
-OriginName $originName -HostName "mystorage2.blob.core.windows.net"
```

### After

PowerShell

```
Update-AzCdnOrigin -ResourceGroupName $resourceGroupName -ProfileName  
$cdnProfileName -EndpointName $endpointName `  
-Name $originName -HostName "mystorage2.blob.core.windows.net" -  
HttpPort 456 -HttpsPort 789
```

## Unpublish-AzCdnEndpointContent

Replaced by command `Clear-AzCdnEndpointContent`

### Before

PowerShell

```
Unpublish-AzCdnEndpointContent -ResourceGroupName $resourceGroupName -  
ProfileName $cdnProfileName -EndpointName $endpointName `  
-PurgeContent $PurgeContent
```

### After

PowerShell

```
Clear-AzCdnEndpointContent -ResourceGroupName $resourceGroupName -  
ProfileName $cdnProfileName -EndpointName $endpointName `  
-ContentPath $PurgeContent
```

## Publish-AzCdnEndpointContent

Replaced by command `Import-AzCdnEndpointContent`

### Before

PowerShell

```
Publish-AzCdnEndpointContent -ResourceGroupName $resourceGroupName -  
ProfileName $cdnProfileName -EndpointName $endpointName `  
-LoadContent $LoadContent
```

### After

PowerShell

```
Import-AzCdnEndpointContent -ResourceGroupName $resourceGroupName -  
ProfileName $cdnProfileName -EndpointName $endpointName `  
-ContentPath $LoadContent
```

## Az.EventHub

### New-AzEventHubNamespace

Parameter `Identity` is removed.

#### Before

PowerShell

```
New-AzEventHubNamespace -ResourceGroupName myresourcegroup -Name  
MyNamespaceName -Location northeurope -SkuName Premium -IdentityType  
SystemAssigned -Identity
```

#### After

PowerShell

```
New-AzEventHubNamespace -ResourceGroupName myresourcegroup -Name  
MyNamespaceName -Location northeurope -SkuName Premium -IdentityType  
SystemAssigned
```

### Set-AzEventHubNamespace

Parameter `Identity` is removed.

#### Before

PowerShell

```
Set-AzEventHubNamespace -ResourceGroupName myresourcegroup -Name  
MyNamespaceName -EncryptionConfig $ec1,$ec2 -Identity
```

#### After

PowerShell

```
Set-AzEventHubNamespace -ResourceGroupName myresourcegroup -Name MyNamespaceName -EncryptionConfig $ec1,$ec2
```

## Az.HealthcareApis

### Set-AzHealthcareApisService

Combine New-AzHealthcareApisService and Set-AzHealthcareApisService into New-AzHealthcareApisService

#### Before

PowerShell

```
Set-AzHealthcareApisService -Name MyService -ResourceGroupName MyResourceGroup -CosmosOfferThroughput 500
```

#### After

PowerShell

```
New-AzHealthcareApisService -Name MyService -ResourceGroupName MyResourceGroup -Location MyLocation -Kind fhir-R4 -CosmosOfferThroughput 500
```

### Get-AzHealthcareApisService

-ResourceId is removed

#### Before

PowerShell

```
Get-AzHealthcareApisService -ResourceId $ResourceId
```

#### After

PowerShell

```
Get-AzHealthcareApisService -ResourceGroupName $ResourceGroup -Name $Name
```

## Remove-AzHealthcareApisService

-ResourceId is removed

### Before

PowerShell

```
Remove-AzHealthcareApisService -ResourceId $ResourceId
```

### After

PowerShell

```
Remove-AzHealthcareApisService -ResourceGroupName $ResourceGroup -Name $Name
```

## New-AzHealthcareApisService

-ManagedIdentity is renamed to -IdentityType -FhirVersion is removed and the desired content can be selected with the parameter -Kind -DisableCorsCredential and -AllowCorsCredential: now uniformly named as -AllowCorsCredential, example: -AllowCorsCredential:\$false or -AllowCorsCredential:\$true -DisableSmartProxy and -EnableSmartProxy: now uniformly named as -EnableSmartProxy, example: -EnableSmartProxy:\$false or -EnableSmartProxy:\$true

### Before

PowerShell

```
New-AzHealthcareApisService -Name MyService -ResourceGroupName MyResourceGroup -Location MyLocation -FhirVersion fhir-R4 -CosmosOfferThroughput 500 -ManagedIdentity $IdentityType -DisableCorsCredential -DisableSmartProxy
```

### After

## PowerShell

```
New-AzHealthcareApisService -Name MyService -ResourceGroupName  
MyResourceGroup -Location MyLocation -Kind fhir-R4 -CosmosOfferThroughput  
500 -IdentityType $IdentityType -AllowCorsCredential:$false -  
EnableSmartProxy:$false
```

# Migration Guide for Az 7.0.0

Article • 09/27/2023

## Az.Accounts

### Context and account cmdlets

Output of the following cmdlets have been changed:

- Get-AzContext
- Remove-AzContext
- Rename-AzContext
- Select-AzContext
- Connect-AzAccount
- Disconnect-AzAccount
- Import-AzContext
- Save-AzContext

Removed `ServicePrincipalSecret` and `CertificatePassword` in `PSAzureRmAccount`

### Before

PowerShell

```
PS C:\> $cred = Get-Credential
PS C:\> Connect-AzAccount -ServicePrincipal -Tenant 54826b22-xxxx-xxxx-xxxx-
xxxxxxxxxxxx -Credential $cred
PS C:\> (Get-AzContext).Account.ExtendedProperties

Key          Value
---          -----
CertificatePath      C:\certificate.pfx
CertificatePassword    password****
Tenants          54826b22-xxxx-xxxx-xxxx-xxxxxxxxxxxx
ServicePrincipalSecret 7QK7Q*****7QK7Q*****
Subscriptions      0b1f6471-xxxx-xxxx-xxxx-xxxxxxxxxxxx
```

### After

PowerShell

```

PS C:\> $cred = Get-Credential
PS C:\> Connect-AzAccount -ServicePrincipal -Tenant 54826b22-xxxx-xxxx-xxxx-
xxxxxxxxxxxx -Credential $cred
PS C:\> (Get-AzContext).Account.ExtendedProperties

Key          Value
---          -----
CertificatePath C:\certificate.pfx
Tenants       54826b22-xxxx-xxxx-xxxx-xxxxxxxxxxxx
Subscriptions 0b1f6471-xxxx-xxxx-xxxx-xxxxxxxxxxxx

```

## Az.Aks

### Get-AzAksVersion

Property `Upgrades` in output changed to `Upgrade`.

### Before

PowerShell

```

PS C:\> (Get-AzAksVersion -location eastus).Upgrades

OrchestratorType OrchestratorVersion IsPreview
-----  -----
Kubernetes      1.19.13
Kubernetes      1.20.7
Kubernetes      1.20.9
Kubernetes      1.20.7
Kubernetes      1.20.9
Kubernetes      1.20.9
Kubernetes      1.21.1
Kubernetes      1.21.2
Kubernetes      1.21.1
Kubernetes      1.21.2
Kubernetes      1.21.2
Kubernetes      1.22.1        True
Kubernetes      1.22.2        True
Kubernetes      1.22.1        True
Kubernetes      1.22.2        True
Kubernetes      1.22.2        True

```

### After

PowerShell

```
PS C:\> (Get-AzAksVersion -location eastus).Upgrade
```

OrchestratorType	OrchestratorVersion	IsPreview
Kubernetes	1.19.13	
Kubernetes	1.20.7	
Kubernetes	1.20.9	
Kubernetes	1.20.7	
Kubernetes	1.20.9	
Kubernetes	1.20.9	
Kubernetes	1.21.1	
Kubernetes	1.21.2	
Kubernetes	1.21.1	
Kubernetes	1.21.2	
Kubernetes	1.21.2	
Kubernetes	1.22.1	True
Kubernetes	1.22.2	True
Kubernetes	1.22.1	True
Kubernetes	1.22.2	True
Kubernetes	1.22.2	True

## Az.ContainerInstance

### New-AzContainerGroup

Removed parameter NetworkProfileId, added SubnetId as its alternative

#### Before

PowerShell

```
PS C:\> $containerGroup = New-AzContainerGroup -ResourceGroupName test-rg -  
Name test-cg -Location eastus -Container $container -OsType Linux -  
NetworkProfileId  
"/subscriptions/{subId}/resourceGroups/{rg}/providers/Microsoft.Network/virt  
ualNetworks/{vnetName}/subnets/{subnetName}"  
PS C:\> $containerGroup.NetworkProfileId  
  
/subscriptions/{subId}/resourceGroups/{rg}/providers/Microsoft.Network/virt  
ualNetworks/{vnetName}/subnets/{subnetName}
```

#### After

PowerShell

```

PS C:\> $container = New-AzContainerInstanceObject -Name test-container -
Image nginx
PS C:\> $containerGroup = New-AzContainerGroup -ResourceGroupName test-rg -
Name test-cg -Location eastus -Container $container -OsType Linux -
RestartPolicy "Never" -IpAddressType 'Private' -SubnetId
@{"Id"="/subscriptions/{subId}/resourceGroups/{rg}/providers/Microsoft.Network/virtualNetworks/{vnetName}/subnets/{subnetName}"; "Name"="subnet"}
PS C:\> $containerGroup.SubnetId | fl

Id :
/subscriptions/{subId}/resourceGroups/{rg}/providers/Microsoft.Network/virtualNetworks/{vnetName}/subnets/{subnetName}
Name : subnet

```

## Invoke-AzContainerInstanceCommand

Displayed command execution result as the cmdlet output by connecting websocket in backend

### Before

PowerShell

```

PS C:\> $websocket = Invoke-AzContainerInstanceCommand -ContainerGroupName
test-cg -ContainerName test-container -ResourceGroupName test-rg -Command
"echo hello" -TerminalSizeCol 12 -TerminalSizeRow 12
PS C:\> $websocket

Password                               WebSocketUri
-----                                 -----
***** wss://bridge-linux-
xx.eastus.management.azurecontainer.io/exec/caas-
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx?rows=12&cols=12api-
version=2018-02-01-preview

```

User needs connect websocket using password to fetch command execution result

### After

PowerShell

```

PS C:\> Invoke-AzContainerInstanceCommand -ContainerGroupName test-cg -
ContainerName test-container -ResourceGroupName test-rg -Command "echo
hello"

```

```
hello
```

## Az.Functions

### Update-AzFunctionApp, Update-AzFunctionAppPlan

`Update-AzFunctionApp` will prompt for confirmation. This behavior can be bypassed by specifying `-Force`.

#### Before

```
PowerShell
```

```
Update-AzFunctionApp -Name MyUniqueFunctionAppName -ResourceGroupName  
MyResourceGroupName -PlanName NewPlanName
```

#### After

```
PowerShell
```

```
Update-AzFunctionApp -Name MyUniqueFunctionAppName -ResourceGroupName  
MyResourceGroupName -PlanName NewPlanName -Force
```

### New-AzFunctionApp

If `FunctionsVersion` parameter is not specified when executing the `New-AzFunctionApp` cmdlet, then the default Functions version will be set to `4`.

There is no change to the usage.

### Remove-AzFunctionApp

If this is the last app in the app service plan, then the plan will not be deleted. Before this release, the app plan will also be deleted.

There is no change to the usage.

## Az.HDInsight

### New-AzHDInsightCluster

Changed the type of parameter "OSType" from

`Microsoft.Azure.Management.HDInsight.Models.OSType` to `System.string`

There is no change to the usage.

### New-AzHDInsightCluster, New-AzHDInsightClusterConfig

Changed the type of parameter "ClusterTier" from

`Microsoft.Azure.Management.HDInsight.Models.ClusterTier` to `System.string`

There is no change to the usage.

### Set-AzHDInsightClusterDiskEncryptionKey, Set-AzHDInsightClusterSize

The output type has changed from

'`Microsoft.Azure.Management.HDInsight.Models.Cluster`' to

'`Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightCluster`'.

All properties remain the same, so there is no change to the usage.

### Cluster cmdlets

The type of property 'AssignedIdentity' has changed from

'`Microsoft.Azure.Management.HDInsight.Models.ClusterIdentity`' to

'`Microsoft.Azure.Commands.HDInsight.Models.AzureHDInsightClusterIdentity`'.

All properties remain the same, so there is no change to the usage.

## Get-AzHDInsightProperties

The generic type for output 'property VmSizes' has been changed from

```
System.Collections.Generic.IDictionary2[System.String,Microsoft.Azure.Commands.HDInsight.Models.Management.AzureHDInsightVmSizesCapability]
```

 to  

```
System.Collections.Generic.IList1[System.String].
```

### Before

PowerShell

```
PS C:\> $result = Get-AzHDInsightProperty -Location "South Central us"  
PS C:\> $availableVmSizes = $result.VmSizes['iaas'].AvailableVmSizes
```

### After

PowerShell

```
PS C:\> $result = Get-AzHDInsightProperty -Location "South Central us"  
PS C:\> $availableVmSizes = $result.VmSizes
```

## Az.KeyVault

### New-AzKeyVaultRoleDefinition, Get-AzKeyVaultRoleDefinition

The following properties in `PSKeyVaultPermission` model are renamed:

- `AllowedActions` -> `Actions`
- `DeniedActions` -> `NotActions`
- `AllowedDataActions` -> `DataActions`
- `DeniedDataActions` -> `NotDataActions`

### Before

PowerShell

```
PS C:\> $backupRole = Get-AzKeyVaultRoleDefinition -HsmName myHsm -  
RoleDefinitionName "Managed HSM Backup User"  
  
PS C:\> $backupRole.Permissions  
  
AllowedActions DeniedActions AllowedDataActions DeniedDataActions  
-----  
0 action(s) 0 action(s) 3 action(s) 0 action(s)  
  
PS C:\> $backupRole.Permissions.AllowedDataActions  
  
Microsoft.KeyVault/managedHsm/backup/start/action  
Microsoft.KeyVault/managedHsm/backup/status/action  
Microsoft.KeyVault/managedHsm/keys/backup/action
```

## After

PowerShell

```
PS C:\> $backupRole = Get-AzKeyVaultRoleDefinition -HsmName myHsm -  
RoleDefinitionName "Managed HSM Backup User"  
  
PS C:\> $backupRole.Permissions  
  
Actions NotActions DataActions NotDataActions  
-----  
0 action(s) 0 action(s) 3 action(s) 0 action(s)  
  
PS C:\> $backupRole.Permissions.DataActions  
  
Microsoft.KeyVault/managedHsm/backup/start/action  
Microsoft.KeyVault/managedHsm/backup/status/action  
Microsoft.KeyVault/managedHsm/keys/backup/action
```

## Az.ManagedServices

### New-AzManagedServicesDefinition

The `-DisplayName` parameter was removed.

## Before

PowerShell

```
PS C:\> New-AzManagedServicesDefinition -DisplayName "MyTestDefinition" -  
ManagedByTenantId 72f9acbf-86f1-41af-91ab-2d7ef011db47 -RoleDefinitionId  
acdd72a7-3385-48ef-bd42-f606fba81ae7 -PrincipalId 714160ec-87d5-42bb-8b17-  
287c0dd7417d
```

## After

PowerShell

```
PS C:\> $permantAuth = New-AzManagedServicesAuthorizationObject -PrincipalId  
"xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx" -RoleDefinitionId "xxxxxxxx-xxxx-  
xxxx-xxxx-xxxxxxxxxxxx" -PrincipalIdDisplayName "Test user" -  
DelegatedRoleDefinitionId "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "xxxxxxxx-  
xxxx-xxxx-xxxx-xxxxxxxxxxxx"  
PS C:\> New-AzManagedServicesDefinition -Name xxxxxxxx-xxxx-xxxx-xxxx-  
xxxxxxxxxxxx -RegistrationDefinitionName "Test definition" -  
ManagedByTenantId "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx" -Authorization  
$permantAuth -Description "Test definition desc" -Scope  
"/subscriptions/xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx"
```

# Az.Monitor

## Get-AzLog

The type of the properties 'EventName', 'Category', 'ResourceProviderName',  
'OperationName', 'Status', 'SubStatus has changed from

Microsoft.Azure.Management.Monitor.Models.LocalizableString to System.String

## Before

PowerShell

```
PS C:\> $log = Get-AzLog -MaxRecord 1  
PS C:\> $eventName = $log.EventName.LocalizedValue  
PS C:\> $category = $log.Category.LocalizedValue  
PS C:\> $resourceProviderName = $log.ResourceProviderName.LocalizedValue  
PS C:\> $operationName = $log.OperationName.LocalizedValue  
PS C:\> $status = $log.Status.LocalizedValue  
PS C:\> $subStatus = $log.SubStatus.LocalizedValue
```

## After

PowerShell

```
PS C:\> $log = Get-AzLog -MaxRecord 1
PS C:\> $eventName = $log.EventName
PS C:\> $category = $log.Category
PS C:\> $resourceProviderName = $log.ResourceProviderName
PS C:\> $operationName = $log.OperationName
PS C:\> $status = $log.Status
PS C:\> $subStatus = $log.SubStatus
```

## Get-AzMetric, Get-AzMetricDefinition

The type of property 'Unit' has changed to `System.String`

There is no change to the usage.

## New-AzMetricAlertRuleV2Criteria

The type of property 'TimeAggregation' has changed to `System.String`

There is no change to the usage.

# Az.OperationalInsights

## Get-AzOperationalInsightsCluster

Made "list" the default parameter set.

### Before

PowerShell

There is no default parameter set.

### After

PowerShell

```
Default parameter set is now "list", when providing resource group name -  
return all clusters for the given resource group.
```

## Update-AzOperationalInsightsCluster

Made "UpdateByNameParameterSet" the default parameter set.

### Before

PowerShell

```
There is no default parameter set.
```

### After

PowerShell

```
Default parameter set is now "UpdateByNameParameterSet".
```

## Az.RecoveryServices

### Get-AzRecoveryServicesBackupContainer

Changed the BackupManagementType from MARS to MAB. Functionality remains same, this is to bring consistency across cmdlets.

### Before

PowerShell

```
$containers = Get-AzRecoveryServicesBackupContainer -ContainerType Windows -  
BackupManagementType MARS -VaultId $vault.ID
```

### After

PowerShell

```
$cont = Get-AzRecoveryServicesBackupContainer -ContainerType Windows -  
BackupManagementType MAB -VaultId $vault.ID
```

## Get-AzRecoveryServicesBackupItem

Changed the BackupManagementType from MARS to MAB. Functionality remains same, this is to bring consistency across cmdlets

### Before

PowerShell

```
Get-AzRecoveryServicesBackupItem -BackupManagementType MARS -VaultId  
$vault.ID -WorkloadType FileFolder
```

### After

PowerShell

```
Get-AzRecoveryServicesBackupItem -BackupManagementType MAB -VaultId  
$vault.ID -WorkloadType FileFolder
```

## Get-AzRecoveryServicesBackupJob

Changed the BackupManagementType from MARS to MAB. Functionality remains same, this is to bring consistency across cmdlets

### Before

PowerShell

```
Get-AzRecoveryServicesBackupJob -BackupManagementType MARS -VaultId  
$vault.ID
```

### After

PowerShell

```
Get-AzRecoveryServicesBackupJob -BackupManagementType MAB -VaultId $vault.ID
```

## Az.Resources

### AzAD cmdlets

Please refer to the [migration guide](#) of the Active Directory cmdlets.

### PolicyAssignment cmdlets

The type of property 'Identity' of type 'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyAssignment' has changed from 'System.Management.Automation.PSObject' to 'Microsoft.Azure.Commands.ResourceManager.Cmdlets.Implementation.Policy.PsPolicyId entity'.

#### Before

PowerShell

```
PS C:\> $v = Get-AzPolicyAssignment -Id $someId
PS C:\> Write-Host $v.type, $v.principalId, $v.tenantId
```

#### After

PowerShell

```
PS C:\> $v = Get-AzPolicyAssignment -Id $someId
PS C:\> Write-Host $v.IdentityType, $v.PrincipalId, $v.TenantId,
$v.UserAssignedIdentities
```

## Az.Storage

### Get-AzRmStorageShare

Parameter "Name" has been removed from parameter set "ShareResourceId", since name can be inferred from the resource ID.

## Before

```
PowerShell
```

```
$StorageShare = Get-AzRmStorageShare -ResourceId "/subscriptions/..." -Name  
"MyStorageShare"
```

## After

```
PowerShell
```

```
$StorageShare = Get-AzRmStorageShare -ResourceId "/subscriptions/..."
```

# Migration Guide for Az 6.0.0

Article • 09/27/2023

This document describes the changes between the 5.0.0 and 6.0.0 versions of Az.

- Migration Guide for Az 6.0.0
  - Supported versions of PowerShell
  - [Az.Accounts](#)
    - [Connect-AzAccount](#)
  - [Az.ContainerInstance](#)
    - [New-AzContainerGroup](#)
    - [Remove-AzContainerGroup](#)
    - [Get-AzContainerGroup](#)
    - [Get-AzContainerInstanceLog](#)
  - [Az.DesktopVirtualization](#)
    - [New-AzWvdHostPool](#)
    - [Expand-AzWvdMsixImage](#)
    - [New-AzWvdMsixPackage](#)
    - [Update-AzWvdHostPool](#)
  - [Az.StreamAnalytics](#)
    - [Get-AzStreamAnalyticsDefaultFunctionDefinition](#)
    - [New-AzStreamAnalyticsJob](#)
    - [New-AzStreamAnalyticsTransformation](#)
  - [Az.RecoveryServices](#)
    - [Set-AzRecoveryServicesBackupProperty](#)
    - [Get-AzRecoveryServicesBackupJobDetail](#)
  - [Az.Storage](#)
    - [Remove-AzRmStorageShare](#)
  - [Az.ServiceFabric](#)
    - [Add-AzServiceFabricClusterCertificate](#)
    - [Get-AzServiceFabricManagedClusterService](#)
    - [New-AzServiceFabricManagedCluster](#)
    - [New-AzServiceFabricManagedClusterService](#)
    - [Remove-AzServiceFabricClusterCertificate](#)
    - [Remove-AzServiceFabricManagedClusterService](#)
    - [Set-AzServiceFabricManagedCluster](#)
    - [Set-AzServiceFabricManagedClusterService](#)

## Supported versions of PowerShell

Due to [CVE-2021-26701](#) Az 6 is only supported on the following platforms:

- PowerShell 7.1: version 7.1.3 or above
- PowerShell 7.0: version 7.0.6 or above
- Windows PowerShell 5.1

For further details, refer to the [Azure PowerShell support lifecycle](#)

## Az.Accounts

### Connect-AzAccount

Removed obsolete parameters ManagedServiceHostName, ManagedServicePort and ManagedServiceSecret.

#### Before

PowerShell

```
Connect-AzAccount -Identity -ManagedServiceSecret $secret
```

#### After

PowerShell

```
#To use customized MSI endpoint, please set environment variable  
MSI_ENDPOINT, e.g. "http://localhost:50342/oauth2/token"; to use customized  
MSI secret, please set environment variable MSI_SECRET.  
Connect-AzAccount -Identity
```

## Az.ContainerInstance

### New-AzContainerGroup

No longer supports the parameter `Image`, `RegistryCredential`,  
`AzureFileVolumeShareName`, `AzureFileVolumeAccountCredential`,  
`AzureFileVolumeMountPath`, `IdentityId`, `AssignIdentity`, `OsType`, `Cpu`, `MemoryInGB`,  
`IpAddressType`, `DnsNameLabel`, `Port`, `Command`, `EnvironmentVariable`,  
`RegistryServerDomain` and no alias was found for the original parameter name.

## Before

PowerShell

```
PS C:\> New-AzContainerGroup -ResourceGroupName demo -Name mycontainer -  
Image nginx -OsType Linux -IpAddressType Public -Port @(8000)  
  
ResourceGroupName      : demo  
Id                   : /subscriptions/00000000-0000-0000-0000-  
000000000000/resourceGroups/demo/providers/Microsoft.ContainerInstance/conta  
inerGroups/mycontainer  
Name                 : mycontainer  
Type                 : Microsoft.ContainerInstance/containerGroups  
Location             : westus  
Tags                :  
ProvisioningState    : Creating  
Containers           : {mycontainer}  
ImageRegistryCredentials :  
RestartPolicy         :  
IpAddress            : 13.88.10.240  
Ports               : {8000}  
OsType               : Linux  
Volumes              :  
State                : Running  
Events               : {}
```

## After

PowerShell

```
PS C:\> $port1 = New-AzContainerInstancePortObject -Port 8000 -Protocol TCP  
PS C:\> $port2 = New-AzContainerInstancePortObject -Port 8001 -Protocol TCP  
PS C:\> $container = New-AzContainerInstanceObject -Name test-container -  
Image nginx -RequestCpu 1 -RequestMemoryInGb 1.5 -Port @($port1, $port2)  
PS C:\> $containerGroup = New-AzContainerGroup -ResourceGroupName test-rg -  
Name test-cg -Location eastus -Container $container -OsType Linux -  
RestartPolicy "Never" -IpAddressType Public  
  
Location Name      Type  
----- ----  
eastus   test-cg  Microsoft.ContainerInstance/containerGroups
```

## Remove-AzContainerGroup

The cmdlet 'Remove-AzContainerGroup' no longer supports the parameter 'Resourceld' and no alias was found for the original parameter name.

## Before

PowerShell

```
PS C:\> Find-AzResource -ResourceGroupEquals MyResourceGroup -  
ResourceNameEquals MyContainer | Remove-AzContainerGroup
```

## After

PowerShell

```
PS C:\> Remove-AzContainerGroup -Name test-cg -ResourceGroupName test-rg  
  
Location Name Type  
----- -- --  
eastus test-cg Microsoft.ContainerInstance/containerGroups
```

## Get-AzContainerGroup

The cmdlet 'Get-AzContainerGroup' no longer supports the parameter 'ResourceId' and no alias was found for the original parameter name.

## Before

PowerShell

```
PS C:\> Find-AzResource -ResourceGroupEquals demo -ResourceNameEquals  
mycontainer | Get-AzContainerGroup  
  
ResourceGroupName : demo  
Id : /subscriptions/00000000-0000-0000-0000-  
000000000000/resourceGroups/demo/providers/Microsoft.ContainerInstance/conta  
inerGroups/mycontainer  
Name : mycontainer  
Type : Microsoft.ContainerInstance/containerGroups  
Location : westus  
Tags :  
ProvisioningState : Succeeded  
Containers : {mycontainer}  
ImageRegistryCredentials :  
RestartPolicy :  
IpAddress : 13.88.10.240  
Ports : {8000}  
OsType : Linux  
Volumes :
```

```
State : Running
Events : {}
```

## After

PowerShell

```
PS C:\> Get-AzContainerGroup

Location Name Type
----- ----
eastus   bez-cg1 Microsoft.ContainerInstance/containerGroups
eastus   bez-cg2 Microsoft.ContainerInstance/containerGroups
```

## Get-AzContainerInstanceLog

The cmdlet 'Get-AzContainerInstanceLog' no longer supports the parameter 'Resourceld' and no alias was found for the original parameter name. The cmdlet 'Get-AzContainerInstanceLog' no longer supports the parameter 'Name' and no alias was found for the original parameter name.

## Before

PowerShell

```
PS C:\> Get-AzContainerGroup -ResourceGroupName demo -Name mycontainer |  
Get-AzContainerInstanceLog

Log line 1.  
Log line 2.  
Log line 3.  
Log line 4.
```

## After

PowerShell

```
PS C:\> Get-AzContainerInstanceLog -ContainerGroupName test-cg -  
ContainerName test-container -ResourceGroupName test-rg
```

# Az.DesktopVirtualization

## New-AzWvdHostPool

The cmdlet 'New-AzWvdHostPool' no longer supports the parameter 'SsoContext' and no alias was found for the original parameter name.

## Expand-AzWvdMsixImage

The cmdlet 'Expand-AzWvdMsixImage' no longer supports the type 'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20201102Preview. IMsixImageUri' for parameter 'MsixImageUri'.

### Before

PowerShell

```
$MsixImageUri =
[Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20201102
Preview.IMsixImageUri]::New()
Get-AzWvdDesktop -ResourceGroupName ResourceGroupName -ApplicationGroupName
ApplicationGroupName -Name DesktopName | Expand-AzWvdMsixImage -MsixImageUri
$MsixImageUri
```

### After

PowerShell

```
$MsixImageUri =
[Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20210201
Preview.IMsixImageUri]::New()
Get-AzWvdDesktop -ResourceGroupName ResourceGroupName -ApplicationGroupName
ApplicationGroupName -Name DesktopName | Expand-AzWvdMsixImage -MsixImageUri
$MsixImageUri
```

## New-AzWvdMsixPackage

The element type for parameter 'PackageApplication' has been changed from 'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20201102Preview. IMsixPackageApplications' to 'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20210201Preview. IMsixPackageApplications'. The element type for parameter 'PackageDependency' has been changed from 'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20201102Preview.

IMsixPackageDependencies' to  
'Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api20210201Preview.  
IMsixPackageDependencies'.

## Before

PowerShell

```
PS C:\> $apps =
@([Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api202011
02Preview.IMsixPackageApplications]::New())
PS C:\> $deps =
@([Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api202011
02Preview.IMsixPackageDependencies]::New())
PS C:\> New-AzWvdMsixPackage -FullName PackageFullName ` 
    -HostPoolName HostPoolName ` 
    -ResourceGroupName ResourceGroupName ` 
    -SubscriptionId SubscriptionId ` 
    -DisplayName displayname ` 
    -ImagePath imageURI ` 
    -IsActive:$false ` 
    -IsRegularRegistration:$false ` 
    -LastUpdated datelastupdated ` 
    -PackageApplication $apps ` 
    -PackageDependency $deps ` 
    -PackageFamilyName packagefamilyname ` 
    -PackageName packagename ` 
    -PackageRelativePath packagerelativepath ` 
    -Version packageversion `
```

## After

PowerShell

```
PS C:\> $apps =
@([Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api202102
01Preview.IMsixPackageApplications]::New())
PS C:\> $deps =
@([Microsoft.Azure.PowerShell.Cmdlets.DesktopVirtualization.Models.Api202102
01Preview.IMsixPackageDependencies]::New())
PS C:\> New-AzWvdMsixPackage -FullName PackageFullName ` 
    -HostPoolName HostPoolName ` 
    -ResourceGroupName ResourceGroupName ` 
    -SubscriptionId SubscriptionId ` 
    -DisplayName displayname ` 
    -ImagePath imageURI ` 
    -IsActive:$false ` 
    -IsRegularRegistration:$false ` 
    -LastUpdated datelastupdated `
```

```
-PackageApplication $apps ` 
-PackageDependency $deps ` 
-PackageFamilyName packagefamilyname ` 
-PackageName packagename ` 
-PackageRelativePath packagerelativepath ` 
-Version packageversion `
```

## Update-AzWvdHostPool

The cmdlet 'Update-AzWvdHostPool' no longer supports the parameter 'SsoContext' and no alias was found for the original parameter name.

# Az.StreamAnalytics

## Get-AzStreamAnalyticsDefaultFunctionDefinition

The cmdlet 'Get-AzStreamAnalyticsDefaultFunctionDefinition' no longer supports the parameter 'File' and no alias was found for the original parameter name.

### Before

PowerShell

```
Get-AzStreamAnalyticsDefaultFunctionDefinition -ResourceGroupName 
"StreamAnalytics-Default-West-US" -JobName "StreamJob22" -File 
"C:\RetrieveDefaultDefinitionRequest.json" -Name "ScoreTweet"
```

### After

PowerShell

```
Get-AzStreamAnalyticsDefaultFunctionDefinition -ResourceGroupName azure-rg-
test -JobName sajob-01-pwsh -Name mlsfunction-01 -BindingType 
Microsoft.MachineLearningServices -Endpoint "http://875da830-4d5f-44f1-b221-
718a5f26a21d.eastus.azurecontainer.io/score"-UdfType Scalar
Input is specified in flattened parameters instead from the input file.
```

## New-AzStreamAnalyticsJob

The cmdlet 'New-AzStreamAnalyticsJob' no longer supports the parameter 'File' and no alias was found for the original parameter name.

## Before

PowerShell

```
New-AzStreamAnalyticsJob -ResourceGroupName "StreamAnalytics-Default-West-US" -File "C:\JobDefinition.json"
```

## After

PowerShell

```
New-AzStreamAnalyticsJob -ResourceGroupName azure-rg-test -Name sajob-02-pwsh -Location westcentralus -SkuName Standard  
Input is specified in flattened parameters instead from the input file.
```

## New-AzStreamAnalyticsTransformation

The cmdlet 'New-AzStreamAnalyticsTransformation' no longer supports the parameter 'File' and no alias was found for the original parameter name.

## Before

PowerShell

```
New-AzStreamAnalyticsTransformation -ResourceGroupName "StreamAnalytics-Default-West-US" -File "C:\Transformation.json" -JobName "StreamingJob" -Name "StreamingJobTransform"
```

## After

PowerShell

```
New-AzStreamAnalyticsTransformation -ResourceGroupName azure-rg-test -JobName sajob-01-pwsh -Name tranf-01 -StreamingUnit 6 -Query "Select Id, Name from input-01"  
Input is specified in flattened parameters instead from the input file.
```

## Az.RecoveryServices

### Set-AzRecoveryServicesBackupProperty

Removed Set-AzRecoveryServicesBackupProperties plural alias, use Set-AzRecoveryServicesBackupProperty cmdlet name going forward

## Get-AzRecoveryServicesBackupJobDetail

Removed Get-AzRecoveryServicesBackupJobDetails plural alias, use Get-AzRecoveryServicesBackupJobDetail cmdlet name going forward

### Before

PowerShell

```
$jobDetails = Get-AzRecoveryServicesBackupJobDetails -VaultId $vault.ID -Job  
$job  
$jobDetails2 = Get-AzRecoveryServicesBackupJobDetails -VaultId $vault.ID -  
JobId $job.JobId
```

### After

PowerShell

```
$jobDetails = Get-AzRecoveryServicesBackupJobDetail -VaultId $vault.ID -Job  
$job  
$jobDetails2 = Get-AzRecoveryServicesBackupJobDetail -VaultId $vault.ID -  
JobId $job.JobId
```

## Az.Storage

### Remove-AzRmStorageShare

The cmdlet 'Remove-AzRmStorageShare' can remove share with snapshots by default before; but after the change remove share with snapshots will fail by default, need add parameter "-Include Snapshots" to make remove success.

### Before

PowerShell

```
Remove-AzRmStorageShare -ResourceGroupName $resourceGroupName -  
StorageAccountName $accountName -Name $shareName
```

## After

PowerShell

```
Remove-AzRmStorageShare -ResourceGroupName $resourceGroupName -  
StorageAccountName $accountName -Name $shareName -Force -Include Snapshots
```

# Az.ServiceFabric

## Add-AzServiceFabricClusterCertificate

this cmdlet has been removed completely. please follow instructions [here](#) to add cluster certificates.

## Get-AzServiceFabricManagedClusterService

Change PSManagedService model to avoid using the properties parameter directly from sdk. Now all the properties are in the first level of the object. And remove deprecated parameters InstanceCloseDelayDuration, DropSourceReplicaOnMove and ServiceDnsName

## Before

PowerShell

```
$service = Get-AzServiceFabricManagedClusterService -ResourceId $resourceId  
$statelessService.Properties.ProvisioningState
```

## After

PowerShell

```
$service = Get-AzServiceFabricManagedClusterService -ResourceId $resourceId  
$statelessService.ProvisioningState
```

## New-AzServiceFabricManagedCluster

Remove deprecated parameter ReverseProxyEndpointPort.

## New-AzServiceFabricManagedClusterService

Change PSManagedService model to avoid using the properties parameter directly from sdk. Now all the properties are in the first level of the object. And remove deprecated parameters InstanceCloseDelayDuration, DropSourceReplicaOnMove and ServiceDnsName

### Before

PowerShell

```
$service = New-AzServiceFabricManagedClusterService -ResourceGroupName $resourceGroupName -ClusterName $clusterName -ApplicationName $appName -Name $serviceName -Type $serviceTypeName -Stateless -InstanceCount -1 - PartitionSchemaSingleton  
$statelessService.Properties.ProvisioningState
```

### After

PowerShell

```
$service = New-AzServiceFabricManagedClusterService -ResourceGroupName $resourceGroupName -ClusterName $clusterName -ApplicationName $appName -Name $serviceName -Type $serviceTypeName -Stateless -InstanceCount -1 - PartitionSchemaSingleton  
$statelessService.Properties.ProvisioningState
```

## Remove-AzServiceFabricClusterCertificate

this cmdlet has been removed completely. please follow instructions [here](#) to add cluster certificates.

## Remove-AzServiceFabricManagedClusterService

Change PSManagedService model to avoid using the properties parameter directly from sdk. Now all the properties are in the first level of the object.

## Set-AzServiceFabricManagedCluster

Remove deprecated parameter ReverseProxyEndpointPort.

## Set-AzServiceFabricManagedClusterService

Change PSManagedService model to avoid using the properties parameter directly from sdk. Now all the properties are in the first level of the object. And remove deprecated parameters InstanceCloseDelayDuration, DropSourceReplicaOnMove and ServiceDnsName

### Before

PowerShell

```
$service = Get-AzServiceFabricManagedClusterService -ResourceId $resourceId  
$statelessService.Properties.MinInstanceCount = 3  
service | Set-AzServiceFabricManagedClusterService
```

### After

PowerShell

```
$service = Get-AzServiceFabricManagedClusterService -ResourceId $resourceId  
$statelessService.MinInstanceCount = 3  
service | Set-AzServiceFabricManagedClusterService
```

# Migration Guide for Az 5.0.0

Article • 09/27/2023

This document describes the changes between the 4.0.0 and 5.0.0 versions of Az.

- Migration Guide for Az 5.0.0
  - [Az.Aks](#)
    - [New-AzAksCluster](#)
    - [Set-AzAksCluster](#)
  - [Az.ContainerRegistry](#)
    - [New-AzContainerRegistry](#)
  - [Az.Functions](#)
    - [Get-AzFunctionApp](#)
    - [New-AzFunctionApp](#)
  - [Az.KeyVault](#)
    - [New-AzKeyVault](#)
    - [Update-AzKeyVault](#)
    - [Get-AzKeyVaultSecret](#)
  - [Az.ManagedServices](#)
    - [Get-AzManagedServicesDefinition](#)
    - [New-AzManagedServicesAssignment](#)
    - [Remove-AzManagedServicesAssignment](#)
    - [Remove-AzManagedServicesDefinition](#)
  - [Az.ResourceManager](#)
    - [Get-AzManagementGroupDeployment](#)
    - [Get-AzManagementGroupDeploymentOperation](#)
    - [Get-AzDeployment](#)
    - [Get-AzDeploymentOperation](#)
    - [Get-AzDeploymentWhatIfResult](#)
    - [Get-AzTenantDeployment](#)
    - [Get-AzTenantDeploymentOperation](#)
    - [New-AzManagementGroupDeployment](#)
    - [New-AzDeployment](#)
    - [New-AzTenantDeployment](#)
    - [Remove-AzManagementGroupDeployment](#)
    - [Remove-AzDeployment](#)
    - [Remove-AzTenantDeployment](#)
    - [Save-AzManagementGroupDeploymentTemplate](#)
    - [Save-AzDeploymentTemplate](#)
    - [Save-AzTenantDeploymentTemplate](#)

- Stop-AzManagementGroupDeployment
- Stop-AzDeployment
- Stop-AzTenantDeployment
- Test-AzManagementGroupDeployment
- Test-AzDeployment
- Test-AzTenantDeployment
- Get-AzResourceGroupDeployment
- Get-AzResourceGroupDeploymentOperation
- Get-AzResourceGroupDeploymentWhatIfResult
- New-AzResourceGroupDeployment
- Remove-AzResourceGroupDeployment
- Save-AzResourceGroupDeploymentTemplate
- Stop-AzResourceGroupDeployment
- Test-AzResourceGroupDeployment
- Get-AzManagementGroupDeploymentWhatIfResult
- Get-AzTenantDeploymentWhatIfResult
- Az.Sql
  - Set-AzSqlServerActiveDirectoryAdministrator
- Az.Synapse
  - New-AzSynapseSqlPool
  - Update-AzSynapseSqlPool
- Az.Network
  - Approve-AzPrivateEndpointConnection
  - Deny-AzPrivateEndpointConnection
  - Get-AzPrivateEndpointConnection
  - Remove-AzPrivateEndpointConnection
  - Set-AzPrivateEndpointConnection
  - New-AzNetworkWatcherConnectionMonitorEndpointObject

## Az.Aks

### New-AzAksCluster

- No longer supports the parameter `NodeOsType` and no alias was found for the original parameter name, it will always be `Linux`.
- No longer supports the alias `ClientIdAndSecret` for parameter `ServicePrincipalIdAndSecret`.
- The default value of `NodeVmSetType` is changed from `AvailabilitySet` to `VirtualMachineScaleSets`.

- The default value of `NetworkPlugin` is changed from `none` to `azure`.

## Before

PowerShell

```
New-AzAksCluster -ResourceGroupName myResourceGroup -Name myCluster -  
WindowsProfileAdminUserName azureuser -WindowsProfileAdminUserPassword $cred  
-NetworkPlugin azure -NodeOsType Linux -ClientIdAndSecret xxx
```

## After

PowerShell

```
New-AzAksCluster -ResourceGroupName myResourceGroup -Name myCluster -  
WindowsProfileAdminUserName azureuser -WindowsProfileAdminUserPassword $cred  
-NodeVmSetType AvailabilitySet -ServicePrincipalIdAndSecret xxx
```

## Set-AzAksCluster

No longer supports the alias `ClientIdAndSecret` for parameter  
`ServicePrincipalIdAndSecret`.

## Before

PowerShell

```
Get-AzAksCluster -ResourceGroupName xxx -Name xxx | Set-AzAksCluster -  
ClientIdAndSecret xxx
```

## After

PowerShell

```
Get-AzAksCluster -ResourceGroupName xxx -Name xxx | Set-AzAksCluster -  
ServicePrincipalIdAndSecret xxx
```

## Az.ContainerRegistry

## New-AzContainerRegistry

No longer supports the parameter `StorageAccountName` and no alias was found for the original parameter name.

### Before

PowerShell

```
New-AzContainerRegistry -Name $name -ResourceGroupName $rg -Location  
$location -SKU Classic -StorageAccountName $storage
```

### After

`Classic` was deprecated and `StorageAccountName` was removed since it only works with Classic Container Registry.

## Az.Functions

### Get-AzFunctionApp

Removed `IncludeSlot` switch parameter from all but one parameter set of `Get-AzFunctionApp`. The cmdlet now supports retrieving deployment slots in the results when `-IncludeSlot` is specified. This functionality was broken in the previous cmdlet version. However, this is now fixed.

### New-AzFunctionApp

- Fixed `-DisableApplicationInsights` in `New-AzFunctionApp` so that no application insights project is created when this option is specified.
- Removed support to create PowerShell 6.2 function apps since PowerShell 6.2 is EOL. The current guidance for customers is to create PowerShell 7.0 function apps instead.
- Changed the default runtime version in Functions version 3 on Windows for PowerShell function apps from 6.2 to 7.0 when the `RuntimeVersion` parameter is not specified.
- Changed the default runtime version in Functions version 3 on Windows and Linux for Node function apps from 10 to 12 when the `RuntimeVersion` parameter is not specified. However, users can still create Node 10 function apps by specifying `-`

`Runtime Node` and `-RuntimeVersion 10`. Changed the default runtime version in Functions version 3 on Linux for Python function apps from 3.7 to 3.8 when the `RuntimeVersion` parameter is not specified. However, users can still create Python 3.7 function apps by specifying `-Runtime Python` and `-RuntimeVersion 3.7`.

## Before

PowerShell

```
# Create a Node 10 function app on Linux
New-AzFunctionApp -ResourceGroupName $rd `
    -Name $functionAppName `
    -StorageAccountName $storageAccountName `
    -Location $location `
    -OSType Linux `
    -Runtime Node

# Create a Node 10 function app on Windows
New-AzFunctionApp -ResourceGroupName $rd `
    -Name $functionAppName `
    -StorageAccountName $storageAccountName `
    -Location $location `
    -OSType Windows `
    -Runtime Node

# Create a Python 3.7 function app on Linux
New-AzFunctionApp -ResourceGroupName $rd `
    -Name $functionAppName `
    -StorageAccountName $storageAccountName `
    -Location $location `
    -OSType Linux `
    -Runtime Python
```

## After

PowerShell

```
# Create a Node 10 function app on Linux
New-AzFunctionApp -ResourceGroupName $rd `
    -Name $functionAppName `
    -StorageAccountName $storageAccountName `
    -Location $location `
    -OSType Linux `
    -Runtime Node `
    -RuntimeVersion 10

# Create a Node 10 function app on Windows
New-AzFunctionApp -ResourceGroupName $rd `
    -Name $functionAppName `
```

```
-StorageAccountName $storageAccountName ` 
-Location $location ` 
-OSType Windows ` 
-Runtime Node 

# Create a Python 3.7 function app on Linux
New-AzFunctionApp -ResourceGroupName $rd ` 
-Name $functionAppName ` 
-StorageAccountName $storageAccountName ` 
-Location $location ` 
-OSType Linux ` 
-Runtime Python ` 
-RuntimeVersion 3.7
```

## Az.KeyVault

### New-AzKeyVault

No longer supports the parameter `DisableSoftDelete` and no alias was found for the original parameter name.

#### Before

PowerShell

```
# Opt out soft delete while creating a key vault
New-AzKeyVault -VaultName 'Contoso03Vault' -ResourceGroupName 'Group14' - 
Location 'East US' -DisableSoftDelete
```

#### After

The ability to update soft-delete setting is deprecated in Az.KeyVault 3.0.0. Read more [here](#)

### Update-AzKeyVault

No longer supports the parameter `EnableSoftDelete`, `SoftDeleteRetentionInDays`, and no alias was found for the original parameter name.

#### Before

PowerShell

```
Update-AzKeyVault -VaultName 'Contoso03Vault' -ResourceGroupName 'Group14' -  
EnableSoftDelete -SoftDeleteRetentionInDays 15
```

## After

The ability to update soft-delete setting is deprecated in Az.KeyVault 3.0.0. [Read more](#)

## Get-AzKeyVaultSecret

The property `SecretValueText` of type

`Microsoft.Azure.Commands.KeyVault.Models.PSKeyVaultSecret` has been removed. Either apply a `-AsPlainText` to the call to get the plain text secret, or use `$secret.SecretValue` of type `SecureString` in your script.

## Before

PowerShell

```
$secret = Get-AzKeyVaultSecret -VaultName myVault -Name mySecret  
$secretInPlainText = $secret.SecretValueText
```

## After

PowerShell

```
$secretInPlainText = Get-AzKeyVaultSecret -VaultName myVault -Name mySecret  
-AsPlainText
```

## Az.ManagedServices

### Get-AzManagedServicesDefinition

No longer supports the parameter `ResourceId` and no alias was found for the original parameter name.

## Before

PowerShell

```
Get-AzManagedServicesDefinition -ResourceId xxx
```

## After

PowerShell

```
Get-AzManagedServicesDefinition -Id xxx
```

## New-AzManagedServicesAssignment

No longer supports the parameter `RegistrationDefinitionName`, `RegistrationDefinitionResourceId`, and no alias was found for the original parameter name.

## Before

PowerShell

```
New-AzManagedServicesAssignment -RegistrationDefinitionName xxx -Scope xxx
```

## After

PowerShell

```
New-AzManagedServicesAssignment -Scope xxx -RegistrationDefinition xxx
```

## Remove-AzManagedServicesAssignment

No longer supports the parameter `Id`, `ResourceId`, and no alias was found for the original parameter name.

## Before

PowerShell

```
Remove-AzManagedServicesAssignment -ResourceId xxx
```

## After

PowerShell

```
Get-AzManagedServicesAssignment -Scope xxx | Remove-AzManagedServicesAssignment
```

## Remove-AzManagedServicesDefinition

No longer supports the parameter `Id`, `ResourceId`, and no alias was found for the original parameter name.

## Before

PowerShell

```
Remove-AzManagedServicesDefinition -ResourceId xxx
```

## After

PowerShell

```
Get-AzManagedServicesDefinition -Scope xxx | Remove-AzManagedServicesDefinition
```

## Az.ResourceManager

### Get-AzManagementGroupDeployment

No longer supports the parameter `ApiVersion` and no alias was found for the original parameter name.

## Before

PowerShell

```
Get-AzManagementGroupDeployment -ManagementGroupId xxx -Name xxx -ApiVersion xxx
```

## After

PowerShell

```
Get-AzManagementGroupDeployment -ManagementGroupId xxx -Name xxx
```

## Get-AzManagementGroupDeploymentOperation

Same with `Get-AzManagementGroupDeployment`.

## Get-AzDeployment

Same with `Get-AzManagementGroupDeployment`.

## Get-AzDeploymentOperation

Same with `Get-AzManagementGroupDeployment`.

## Get-AzDeploymentWhatIfResult

Same with `Get-AzManagementGroupDeployment`.

## Get-AzTenantDeployment

Same with `Get-AzManagementGroupDeployment`.

## Get-AzTenantDeploymentOperation

Same with `Get-AzManagementGroupDeployment`.

## New-AzManagementGroupDeployment

Same with `Get-AzManagementGroupDeployment`.

## New-AzDeployment

Same with `Get-AzManagementGroupDeployment`.

## New-AzTenantDeployment

Same with `Get-AzManagementGroupDeployment`.

## **Remove-AzManagementGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Remove-AzDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Remove-AzTenantDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Save-AzManagementGroupDeploymentTemplate**

Same with `Get-AzManagementGroupDeployment`.

## **Save-AzDeploymentTemplate**

Same with `Get-AzManagementGroupDeployment`.

## **Save-AzTenantDeploymentTemplate**

Same with `Get-AzManagementGroupDeployment`.

## **Stop-AzManagementGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Stop-AzDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Stop-AzTenantDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Test-AzManagementGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Test-AzDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Test-AzTenantDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Get-AzResourceGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Get-AzResourceGroupDeploymentOperation**

Same with `Get-AzManagementGroupDeployment`.

## **Get-AzResourceGroupDeploymentWhatIfResult**

Same with `Get-AzManagementGroupDeployment`.

## **New-AzResourceGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Remove-AzResourceGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Save-AzResourceGroupDeploymentTemplate**

Same with `Get-AzManagementGroupDeployment`.

## **Stop-AzResourceGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## **Test-AzResourceGroupDeployment**

Same with `Get-AzManagementGroupDeployment`.

## Get-AzManagementGroupDeploymentWhatIfResult

Same with `Get-AzManagementGroupDeployment`.

## Get-AzTenantDeploymentWhatIfResult

Same with `Get-AzManagementGroupDeployment`.

# Az.Sql

## Set-AzSqlServerActiveDirectoryAdministrator

No longer supports the parameter `IsAzureADOnlyAuthentication` and no alias was found for the original parameter name.

### Before

PowerShell

```
Set-AzSqlServerActiveDirectoryAdministrator -ResourceGroupName  
'ResourceGroup01' -ServerName 'Server01' -DisplayName 'DBAs' -  
IsAzureADOnlyAuthentication
```

### After

PowerShell

```
Set-AzSqlServerActiveDirectoryAdministrator -ResourceGroupName  
'ResourceGroup01' -ServerName 'Server01' -DisplayName 'DBAs'
```

# Az.Synapse

## New-AzSynapseSqlPool

No longer supports the parameter `FromBackup`, `FromRestorePoint`,  
`BackupResourceGroupName`, `BackupWorkspaceName`, `BackupSqlPoolName`,

`BackupSqlPoolObject`, `BackupResourceId`, `SourceResourceGroupName`,  
`SourceWorkspaceName`, `SourceSqlPoolName`, `SourceSqlPoolObject`, `SourceResourceId`,  
`RestorePoint`, and no alias was found for the original parameter name.

## Before

PowerShell

```
New-AzSynapseSqlPool -FromBackup -WorkspaceName ContosoWorkspace -Name  
ContosoSqlPool -BackupWorkspaceName ContosoWorkspace -BackupSqlPoolName  
ExistingContosoSqlPool
```

## After

PowerShell

```
PS C:\> New-AzSynapseSqlPool -WorkspaceName ContosoWorkspace -Name  
ContosoSqlPool -PerformanceLevel DW200c
```

## Update-AzSynapseSqlPool

No longer supports the parameter `Suspend`, `Resume`, and no alias was found for the original parameter name.

## Az.Network

### Approve-AzPrivateEndpointConnection

No longer supports the parameter `PrivateLink ResourceType` and no alias was found for the original parameter name.

## Before

PowerShell

```
Approve-AzPrivateEndpointConnection -ResourceGroupName xxx -ServiceName xxx  
-Name xxx -PrivateLink ResourceType 'Microsoft.Network/privateLinkServices' -  
Description xxx
```

## After

PowerShell

```
Approve-AzPrivateEndpointConnection -ResourceGroupName xxx -ServiceName xxx  
-Name xxx -Description xxx
```

## Deny-AzPrivateEndpointConnection

Same with [Approve-AzPrivateEndpointConnection](#).

## Get-AzPrivateEndpointConnection

Same with [Approve-AzPrivateEndpointConnection](#).

## Remove-AzPrivateEndpointConnection

Same with [Approve-AzPrivateEndpointConnection](#).

## Set-AzPrivateEndpointConnection

Same with [Approve-AzPrivateEndpointConnection](#).

## New- AzNetworkWatcherConnectionMonitorEndpointObject

No longer supports the parameter `FilterType`, `FilterItem`, and no alias was found for the original parameter name.

## Before

PowerShell

```
$MySrcResourceId1 = '/subscriptions/00000000-0000-0000-0000-  
000000000000/resourcegroups/myresourceGroup/providers/Microsoft.OperationalI  
nsights/workspaces/myworkspace'  
$SrcEndpointFilterItem1 =New-  
AzNetworkWatcherConnectionMonitorEndpointFilterItemObject -Type  
'AgentAddress' -Address 'WIN-P0HGND02S1B'  
$SourceEndpointObject1 = New-AzNetworkWatcherConnectionMonitorEndPointObject
```

```
-Name 'workspaceEndpoint' -ResourceId $MySrcResourceId1 -FilterType Include  
-FilterItem $SrcEndpointFilterItem1
```

## After

PowerShell

```
MySrcResourceId1 = '/subscriptions/00000000-0000-0000-0000-  
0000000000/resourcegroups/myresourceGroup/providers/Microsoft.OperationalI  
nsights/workspaces/myworkspace'  
$SourceEndpointObject1 = New-AzNetworkWatcherConnectionMonitorEndPointObject  
-Name 'workspaceEndpoint' -ResourceId $MySrcResourceId1
```

# Migration Guide for Az 4.1.0

Article • 09/27/2023

This document describes the changes between the 3.0.0 and 4.1.0 versions of Az.

- Migration Guide for Az 4.1.0
  - [Az.ApiManagement](#)
    - [Add-AzApiManagementRegion](#)
    - [New-AzApiManagement](#)
    - [Set-AzApiManagement](#)
    - [Get-AzApiManagementProperty](#)
    - [New-AzApiManagementProperty](#)
    - [Remove-AzApiManagementProperty](#)
    - [Set-AzApiManagementProperty](#)
  - [Az.Batch](#)
    - [Get-AzBatchApplication](#), [New-AzBatchApplication](#)
    - [Get-AzBatchComputeNode](#), [New-AzBatchPool](#)
    - [Get-AzBatchApplicationPackage](#), [New-AzBatchApplicationPackage](#)
  - [Az.Compute](#)
    - [Remove-AzVmssDiagnosticsExtension](#)
    - [Get-AzVMIImage](#)
    - [New-AzVMConfig](#)
    - [Update-AzVM](#)
    - [New-AzProximityPlacementGroup](#)
    - [Remove-AzProximityPlacementGroup](#)
    - [Get-AzProximityPlacementGroup](#)
    - [Add-AzVmssAdditionalUnattendContent](#)
    - [Add-AzVmssDataDisk](#)
    - [Add-AzVmssExtension](#)
    - [Add-AzVmssNetworkInterfaceConfiguration](#)
    - [Add-AzVmssSecret](#)
    - [Add-AzVmssSshPublicKey](#)
    - [Add-AzVmssWinRMLListener](#)
    - [New-AzVmssConfig](#)
    - [Remove-AzVmssDataDisk](#)
    - [Remove-AzVmssExtension](#)
    - [Remove-AzVmssNetworkInterfaceConfiguration](#)
    - [Set-AzVmssBootDiagnostic](#)
    - [Set-AzVmssOsProfile](#)
    - [Set-AzVmssRollingUpgradePolicy](#)

- [Set-AzVmssStorageProfile](#)
- [New-AzVmss](#)
- [Repair-AzVmssServiceFabricUpdateDomain](#)
- [Get-AzVmss](#)
- [Set-AzVmssOrchestrationServiceState](#)
- [Update-AzVmss](#)
- [Add-AzVmssDiagnosticsExtension](#)
- [Disable-AzVmssDiskEncryption](#)
- [Az.KeyVault](#)
  - [New-AzKeyVaultCertificateOrganizationDetail](#)
  - [New-AzKeyVaultCertificateAdministratorDetail](#)
  - [New-AzKeyVault](#)
- [Az.Monitor](#)
  - [Add-AzLogProfile](#)
  - [Get-AzLogProfile](#)
  - [New-AzMetricAlertRuleV2Criteria](#)
- [Az.Network](#)
  - [Get-AzNetworkWatcherConnectionMonitor](#)
  - [New-AzNetworkWatcherConnectionMonitorTestConfigurationObject](#)
- [Az.OperationalInsights](#)
  - [Get-AzOperationalInsightsDataSource](#)
  - [New-AzOperationalInsightsApplicationInsightsDataSource](#)
  - [New-AzOperationalInsightsAzureActivityLogDataSource](#)
  - [New-AzOperationalInsightsCustomLogDataSource](#)
  - [New-AzOperationalInsightsLinuxPerformanceObjectDataSource](#)
  - [New-AzOperationalInsightsLinuxSyslogDataSource](#)
  - [New-AzOperationalInsightsWindowsEventDataSource](#)
  - [New-AzOperationalInsightsWindowsPerformanceCounterDataSource](#)
  - [Remove-AzOperationalInsightsDataSource](#)
  - [Disable-AzOperationalInsightsIISLogCollection](#)
  - [Disable-AzOperationalInsightsLinuxCustomLogCollection](#)
  - [Disable-AzOperationalInsightsLinuxPerformanceCollection](#)
  - [Disable-AzOperationalInsightsLinuxSyslogCollection](#)
  - [Enable-AzOperationalInsightsIISLogCollection](#)
  - [Enable-AzOperationalInsightsLinuxCustomLogCollection](#)
  - [Enable-AzOperationalInsightsLinuxPerformanceCollection](#)
  - [Enable-AzOperationalInsightsLinuxSyslogCollection](#)
  - [Get-AzOperationalInsightsSavedSearch](#)
  - [Get-AzOperationalInsightsSavedSearchResult](#)
  - [Get-AzOperationalInsightsSearchResult](#)

- [Get-AzOperationalInsightsStorageInsight](#)
- [New-AzOperationalInsightsStorageInsight](#)
- [Remove-AzOperationalInsightsStorageInsight](#)
- [Set-AzOperationalInsightsStorageInsight](#)
- [Get-AzOperationalInsightsLinkTarget](#)
- [Get-AzOperationalInsightsWorkspace](#)
- [New-AzOperationalInsightsWorkspace](#)
- [Set-AzOperationalInsightsWorkspace](#)
- [Invoke-AzOperationalInsightsQuery](#)
- [Az.Resources](#)
  - [Get-AzDeploymentScript](#)
  - [Get-AzDeploymentScriptLog](#)
  - [Save-AzDeploymentScriptLog](#)
  - [Get-AzResourceLock, New-AzResourceLock, Remove-AzResourceLock, Set-AzResourceLock](#)
  - [Get-AzPolicyAlias](#)
  - [New-AzPolicyAssignment](#)
  - [Remove-AzDeploymentScript](#)
- [Az.Storage](#)
  - [Update-AzStorageAccountNetworkRuleSet, Get-AzStorageAccountNetworkRuleSet](#)
  - [New-AzStorageTable, Get-AzStorageTable](#)
  - [Get-AzStorageFile, Remove-AzStorageFile, Get-AzStorageFileContent, Set-AzStorageFileContent, Start-AzStorageFileCopy](#)
  - [Get-AzStorageFile, New-AzStorageDirectory, Remove-AzStorageDirectory](#)
  - [Get-AzStorageShare, New-AzStorageShare, Remove-AzStorageShare](#)
  - [Set-AzStorageShareQuota](#)
  - [Remove-AzStorageDirectory](#)

## Az.ApiManagement

### Add-AzApiManagementRegion

The type of property `Type` of type

`Microsoft.Azure.Commands.ApiManagement.Models.PsApiManagementServiceIdentity` has changed from

`Microsoft.Azure.Commands.ApiManagement.Models.PsApiManagementServiceIdentityType` to `System.String`.

## New-AzApiManagement

- The cmdlet `New-AzApiManagement` no longer supports the parameter `AssignIdentity` and no alias was found for the original parameter name.
- The parameter set `AllParameterSets` for cmdlet `New-AzApiManagement` has been removed.

## Set-AzApiManagement

- The cmdlet `Set-AzApiManagement` no longer supports the parameter `AssignIdentity` and no alias was found for the original parameter name.
- The parameter set `AllParameterSets` for cmdlet `Set-AzApiManagement` has been removed.

## Get-AzApiManagementProperty

The cmdlet `Get-AzApiManagementProperty` has been replaced by `Get-AzApiManagementNamedValue`.

## New-AzApiManagementProperty

The cmdlet `New-AzApiManagementProperty` has been replaced by `New-AzApiManagementNamedValue`.

## Remove-AzApiManagementProperty

The cmdlet `Remove-AzApiManagementProperty` has been replaced by `Remove-AzApiManagementNamedValue`.

## Set-AzApiManagementProperty

The cmdlet `Set-AzApiManagementProperty` has been replaced by `Set-AzApiManagementNamedValue`.

# Az.Batch

## Get-AzBatchApplication, New-AzBatchApplication

The property `ApplicationPackages` of type `Microsoft.Azure.Commands.Batch.Models.PSApplication` has been removed.

## **Get-AzBatchComputeNode , New-AzBatchPool**

The property `PublicIPs` of type `Microsoft.Azure.Commands.Batch.Models.PSNetworkConfiguration` has been removed

## **Get-AzBatchApplicationPackage , New-AzBatchApplicationPackage**

The type of property `StorageUrlExpiry` of type `Microsoft.Azure.Commands.Batch.Models.PSApplicationPackage` has changed from `System.DateTime` to `System.DateTime?`.

# **Az.Compute**

## **Remove-AzVmssDiagnosticsExtension**

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## **Get-AzVMImage**

- The cmdlet `Get-AzVMImage` no longer supports the parameter `FilterExpression` and no alias was found for the original parameter name.
- The parameter set `ListVMImage` for cmdlet `Get-AzVMImage` has been removed.

## **New-AzVMConfig**

- The cmdlet `New-AzVMConfig` no longer supports the parameter `AssignIdentity` and no alias was found for the original parameter name.
- The parameter set `AssignIdentityParameterSet` for cmdlet `New-AzVMConfig` has been removed.

## Update-AzVM

- The cmdlet `Update-AzVM` no longer supports the parameter `AssignIdentity` and no alias was found for the original parameter name.
- The parameter set `AssignIdentityParameterSet` for cmdlet `Update-AzVM` has been removed.

## New-AzProximityPlacementGroup

- The generic type for property `VirtualMachines`, `VirtualMachineScaleSets`, and `AvailabilitySets` has been changed from `System.Collections.Generic.IList1[Microsoft.Azure.Management.Compute.Models.Su  
bResource]` to `System.Collections.Generic.IList1[Microsoft.Azure.Management.Compute.Models.Su  
bResourceWithColocationStatus]`.
- The property `VirtualMachinesColocationStatus`, `VirtualMachineScaleSetsColocationStatus`, and `AvailabilitySetsColocationStatus` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSProximityPlacementGroup` has been removed.

## Before

PowerShell

```
PS C:\> New-AzProximityPlacementGroup -ResourceGroupName $resourceGroupName  
-Name $proximityPlacementGroupName -Location $location -Tag @{key1 = 'val1'}  
| Format-List

ResourceGroupName : $resourceGroupName
ProximityPlacementGroupType : Standard
VirtualMachinesColocationStatus : {}
VirtualMachineScaleSetsColocationStatus : {}
AvailabilitySetsColocationStatus : {}
ColocationStatus :
Id : /subscriptions/9e223dbe-3399-4e19-  
88eb-
0975f02ac87f/resourceGroups/$resourceGroupName/providers/Microsoft.Compute/p  
roximityPlacementGroups/$proximityPlacementGroupName
Name : $proximityPlacementGroupName
Type :
Microsoft.Compute/proximityPlacementGroups
Location : $location
Tags : {[key1, val1]}
VirtualMachines : {}
```

```
VirtualMachineScaleSets : {}
AvailabilitySets : {}
```

## After

PowerShell

```
PS C:\> New-AzProximityPlacementGroup -ResourceGroupName $resourceGroupName
-Name $proximityPlacementGroupName -Location $location -Tag @{key1 = 'val1'}
| Format-List

ResourceGroupName : $resourceGroupName
ProximityPlacementGroupType : StandardColocationStatus
:
Id : /subscriptions/9e223dbe-3399-4e19-
88eb-
0975f02ac87f/resourceGroups/$resourceGroupName/providers/Microsoft.Compute/p
roximityPlacementGroups/$proximityPlacementGroupName
Name : $proximityPlacementGroupName
Type :
Microsoft.Compute/proximityPlacementGroups
Location : $location
Tags : {[key1, val1]}
VirtualMachines : {}
VirtualMachineScaleSets : {}
AvailabilitySets : {}
```

## Remove-AzProximityPlacementGroup

- The generic type for property `VirtualMachines`, `VirtualMachineScaleSets`, and `AvailabilitySets` has been changed from `System.Collections.Generic.IList1[Microsoft.Azure.Management.Compute.Models.Su
bResource]` to `System.Collections.Generic.IList1[Microsoft.Azure.Management.Compute.Models.Su
bResourceWithColocationStatus]`.
- The property `VirtualMachinesColocationStatus`, `VirtualMachineScaleSetsColocationStatus`, and `AvailabilitySetsColocationStatus` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSProximityPlacementGroup` has been removed.

## Before

PowerShell

```
PS C:\> Get-AzProximityPlacementGroup -ResourceGroupName $resourceGroupName  
-Name $proximityPlacementGroupName | Remove-AzProximityPlacementGroup |  
Format-List

ResourceGroupName : $resourceGroupName
ProximityPlacementGroupType : Standard
VirtualMachinesColocationStatus : {}
VirtualMachineScaleSetsColocationStatus : {}
AvailabilitySetsColocationStatus : {}
ColocationStatus :
Id : /subscriptions/9e223dbe-3399-4e19-  
88eb-
0975f02ac87f/resourceGroups/$resourceGroupName/providers/Microsoft.Compute/p
roximityPlacementGroups/$proximityPlacementGroupName
Name : $proximityPlacementGroupName
Type :
Microsoft.Compute/proximityPlacementGroups
Location : $location
Tags : {[key1, val1]}
VirtualMachines : {}
VirtualMachineScaleSets : {}
AvailabilitySets : {}
```

## After

```
PowerShell

PS C:\> Get-AzProximityPlacementGroup -ResourceGroupName $resourceGroupName  
-Name $proximityPlacementGroupName | Remove-AzProximityPlacementGroup |  
Format-List

ResourceGroupName : $resourceGroupName
ProximityPlacementGroupType : StandardColocationStatus
:
Id : /subscriptions/9e223dbe-3399-4e19-  
88eb-
0975f02ac87f/resourceGroups/$resourceGroupName/providers/Microsoft.Compute/p
roximityPlacementGroups/$proximityPlacementGroupName
Name : $proximityPlacementGroupName
Type :
Microsoft.Compute/proximityPlacementGroups
Location : $location
Tags : {[key1, val1]}
VirtualMachines : {}
VirtualMachineScaleSets : {}
AvailabilitySets : {}
```

## Get-AzProximityPlacementGroup

- The generic type for property `VirtualMachines`, `VirtualMachineScaleSets`, and `AvailabilitySets` has been changed from `System.Collections.Generic.IList1[Microsoft.Azure.Management.Compute.Models.Su  
bResource]` to `System.Collections.Generic.IList1[Microsoft.Azure.Management.Compute.Models.Su  
bResourceWithColocationStatus]`.
- The property `VirtualMachinesColocationStatus`, `VirtualMachineScaleSetsColocationStatus`, and `AvailabilitySetsColocationStatus` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSProximityPlacementGroup` has been removed.

## Before

PowerShell

```
PS C:\> Get-AzProximityPlacementGroup -ResourceGroupName $resourceGroupName  
-Name $proximityPlacementGroupName | Format-List

ResourceGroupName : $resourceGroupName
ProximityPlacementGroupType : Standard
VirtualMachinesColocationStatus : {}
VirtualMachineScaleSetsColocationStatus : {}
AvailabilitySetsColocationStatus : {}
ColocationStatus :
Id : /subscriptions/9e223dbe-3399-4e19-  
88eb-
0975f02ac87f/resourceGroups/$resourceGroupName/providers/Microsoft.Compute/p  
roximityPlacementGroups/$proximityPlacementGroupName
Name : $proximityPlacementGroupName
Type :
Microsoft.Compute/proximityPlacementGroups
Location : $location
Tags : {[key1, val1]}
VirtualMachines : {}
VirtualMachineScaleSets : {}
AvailabilitySets : {}
```

## After

PowerShell

```
PS C:\> Get-AzProximityPlacementGroup -ResourceGroupName $resourceGroupName  
-Name $proximityPlacementGroupName | Format-List

ResourceGroupName : $resourceGroupName
```

```
ProximityPlacementGroupType      : StandardColocationStatus
:
Id                               : /subscriptions/9e223dbe-3399-4e19-
88eb-
0975f02ac87f/resourceGroups/$resourceGroupName/providers/Microsoft.Compute/p
roximityPlacementGroups/$proximityPlacementGroupName
Name                           : $proximityPlacementGroupName
Type                           :
Microsoft.Compute/proximityPlacementGroups
Location                      : $location
Tags                           : {[key1, val1]}
VirtualMachines                :
VirtualMachineScaleSets        :
AvailabilitySets               :
```

## Add-AzVmssAdditionalUnattendContent

The type of property `AutomaticRepairsPolicy` of type

`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Add-AzVmssDataDisk

The type of property `AutomaticRepairsPolicy` of type

`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Add-AzVmssExtension

The type of property `AutomaticRepairsPolicy` of type

`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Add-AzVmssNetworkInterfaceConfiguration

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Add-AzVmssSecret

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Add-AzVmssSshPublicKey

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Add-AzVmssWinRMListener

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## New-AzVmssConfig

- The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

- No longer supports the parameter `AutomaticRepairMaxInstanceRepairsPercent` and no alias was found for the original parameter name.
- No longer supports the parameter `AssignIdentity` and no alias was found for the original parameter name.
- The parameter set `_AllParameterSets` has been removed.
- The parameter set `ExplicitIdentityParameterSet` has been removed.
- The parameter set `AssignIdentityParameterSet` has been removed.

## Remove-AzVmssDataDisk

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Remove-AzVmssExtension

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Remove-AzVmssNetworkInterfaceConfiguration

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Set-AzVmssBootDiagnostic

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from

`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## **Set-AzVmssOsProfile**

The type of property `AutomaticRepairsPolicy` of type  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has  
changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## **Set-AzVmssRollingUpgradePolicy**

The type of property `AutomaticRepairsPolicy` of type  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has  
changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## **Set-AzVmssStorageProfile**

The type of property `AutomaticRepairsPolicy` of type  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has  
changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## **New-AzVmss**

The type of property `AutomaticRepairsPolicy` of type  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has  
changed from  
`Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to  
`Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## **Repair-AzVmssServiceFabricUpdateDomain**

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Get-AzVmss

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Set-AzVmssOrchestrationServiceState

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.

## Update-AzVmss

- The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has changed from `Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy` to `Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy`.
- No longer supports the parameter `AutomaticRepairMaxInstanceRepairsPercent` and no alias was found for the original parameter name.
- The parameter set `__AllParameterSets` has been removed.
- The parameter set `ExplicitIdentityParameterSet` has been removed.

## Add-AzVmssDiagnosticsExtension

The type of property `AutomaticRepairsPolicy` of type `Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet` has

changed from

```
Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy to  
Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy.
```

## Disable-AzVmssDiskEncryption

The type of property `AutomaticRepairsPolicy` of type

```
Microsoft.Azure.Commands.Compute.Automation.Models.PSVirtualMachineScaleSet has  
changed from  
Microsoft.Azure.Commands.Compute.Automation.Models.PSAutomaticRepairsPolicy to  
Microsoft.Azure.Management.Compute.Models.AutomaticRepairsPolicy.
```

# Az.KeyVault

## New-AzKeyVaultCertificateOrganizationDetail

The alias `New-AzKeyVaultCertificateOrganizationDetails` is removed. Please use `New-AzKeyVaultCertificateOrganizationDetail`.

### Before

PowerShell

```
PS C:\> New-AzKeyVaultCertificateOrganizationDetails -AdministratorDetails  
$AdminDetails
```

### After

PowerShell

```
PS C:\> New-AzKeyVaultCertificateOrganizationDetail -AdministratorDetails  
$AdminDetails
```

## New-AzKeyVaultCertificateAdministratorDetail

The alias `New-AzKeyVaultCertificateAdministratorDetails` is removed. Please use `New-AzKeyVaultCertificateAdministratorDetail`.

## Before

PowerShell

```
PS C:\> $AdminDetails = New-AzKeyVaultCertificateAdministratorDetails -  
FirstName 'Patti' -LastName 'Fuller' -EmailAddress  
'patti.fuller@contoso.com' -PhoneNumber '5553334444'
```

## After

PowerShell

```
PS C:\> $AdminDetails = New-AzKeyVaultCertificateAdministratorDetail -  
FirstName 'Patti' -LastName 'Fuller' -EmailAddress  
'patti.fuller@contoso.com' -PhoneNumber '5553334444'
```

## New-AzKeyVault

`-EnableSoftDelete` is removed, as soft delete is enabled by default. Please use `-DisableSoftDelete` if you do not want this behavior.

## Before

PowerShell

```
PS C:\> New-AzKeyVault -VaultName 'Contoso03Vault' -ResourceGroupName  
'Group14' -Location 'East US' -EnableSoftDelete
```

## After

PowerShell

```
PS C:\> New-AzKeyVault -VaultName 'Contoso03Vault' -ResourceGroupName  
'Group14' -Location 'East US'
```

## Az.Monitor

### Add-AzLogProfile

The type of property `RetentionPolicy` of type `Microsoft.Azure.Commands.Insights.OutputClasses.PSLogProfile` has changed from `Microsoft.Azure.Management.Monitor.Management.Models.RetentionPolicy` to `Microsoft.Azure.Management.Monitor.Models.RetentionPolicy`.

## Get-AzLogProfile

The type of property `RetentionPolicy` of type `Microsoft.Azure.Commands.Insights.OutputClasses.PSLogProfile` has changed from `Microsoft.Azure.Management.Monitor.Management.Models.RetentionPolicy` to `Microsoft.Azure.Management.Monitor.Models.RetentionPolicy`.

## New-AzMetricAlertRuleV2Criteria

The parameter set `_AllParameterSets` for cmdlet `New-AzMetricAlertRuleV2Criteria` has been removed.

# Az.Network

## Get-AzNetworkWatcherConnectionMonitor

The generic type for property `RoundTripTimeMs` has been changed from `System.Nullable1[System.Int32]` to `System.Nullable1[System.Double]`.

## New-

## AzNetworkWatcherConnectionMonitorTestConfigurationObject

The generic type for parameter `SuccessThresholdRoundTripTimeMs` has been changed from `System.Nullable1[System.Int32]` to `System.Nullable1[System.Double]`.

# Az.OperationalInsights

## Get-AzOperationalInsightsDataSource

The property `PortalUrl` of type `Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsApplicationDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsAzureActivityLogDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsCustomLogDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

**New-**

## **AzOperationalInsightsLinuxPerformanceObjectDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsLinuxSyslogDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsWindowsEventDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

**New-**

## **AzOperationalInsightsWindowsPerformanceCounterDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Remove-AzOperationalInsightsDataSource**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Disable-AzOperationalInsightsIISLogCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Disable-AzOperationalInsightsLinuxCustomLogCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Disable-AzOperationalInsightsLinuxPerformanceCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Disable-AzOperationalInsightsLinuxSyslogCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Enable-AzOperationalInsightsIISLogCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Enable-AzOperationalInsightsLinuxCustomLogCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Enable-AzOperationalInsightsLinuxPerformanceCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Enable-AzOperationalInsightsLinuxSyslogCollection**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Get-AzOperationalInsightsSavedSearch**

The property `Metadata` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSSearchListSavedSearchResponse` has been removed.

## **Get-AzOperationalInsightsSavedSearchResult**

The cmdlet `Get-AzOperationalInsightsSavedSearchResult` was not supported by SDK anymore and has been removed.

## **Get-AzOperationalInsightsSearchResult**

The cmdlet `Get-AzOperationalInsightsSearchResult` was not supported by SDK anymore and has been removed.

## **Get-AzOperationalInsightsStorageInsight**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsStorageInsight**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Remove-AzOperationalInsightsStorageInsight**

The property `PortalUrl` of type

`Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Set-AzOperationalInsightsStorageInsight**

The property `PortalUrl` of type `Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Get-AzOperationalInsightsLinkTarget**

The cmdlet `Get-AzOperationalInsightsLinkTarget` was not supported by SDK anymore and has been removed.

## **Get-AzOperationalInsightsWorkspace**

The property `PortalUrl` of type `Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **New-AzOperationalInsightsWorkspace**

- The property `PortalUrl` of type `Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.
- The cmdlet `New-AzOperationalInsightsWorkspace` no longer supports the parameter `CustomerId` and no alias was found for the original parameter name.
- The parameter set `__AllParameterSets` for cmdlet `New-AzOperationalInsightsWorkspace` has been removed.

## **Set-AzOperationalInsightsWorkspace**

The property `PortalUrl` of type `Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

## **Invoke-AzOperationalInsightsQuery**

The property `PortalUrl` of type `Microsoft.Azure.Commands.OperationalInsights.Models.PSWorkspace` has been removed.

# **Az.Resources**

## **Get-AzDeploymentScript**

The type of property `Status` of type

`Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsDeploymentScript` has changed from `Microsoft.Azure.Management.ResourceManager.Models.ScriptStatus` to `Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsScriptStatus`.

## Get-AzDeploymentScriptLog

The type of property `Status` of type

`Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsDeploymentScript` has changed from `Microsoft.Azure.Management.ResourceManager.Models.ScriptStatus` to `Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsScriptStatus`.

## Save-AzDeploymentScriptLog

The type of property `Status` of type

`Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsDeploymentScript` has changed from `Microsoft.Azure.Management.ResourceManager.Models.ScriptStatus` to `Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsScriptStatus`.

## Get-AzResourceLock, New-AzResourceLock, Remove-AzResourceLock, Set-AzResourceLock

Parameter `TenantLevel` has been removed.

## Get-AzPolicyAlias

The generic type for property `Aliases` has been changed from

`System.Collections.Generic.IList1[Microsoft.Azure.Management.ResourceManager.Models.AliasType]` to  
`System.Collections.Generic.IList1[Microsoft.Azure.Management.ResourceManager.Models.Alias]`.

## New-AzPolicyAssignment

- The cmdlet `New-AzPolicyAssignment` no longer supports the type `System.Management.Automation.PSObject` for parameter `PolicyDefinition`.
- The cmdlet `New-AzPolicyAssignment` no longer supports the type `System.Management.Automation.PSObject` for parameter `PolicySetDefinition`.

## **Remove-AzDeploymentScript**

The type of property `Status` of type

`Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsDeploymentScript` has changed from `Microsoft.Azure.Management.ResourceManager.Models.ScriptStatus` to `Microsoft.Azure.Commands.ResourceManager.Cmdlets.SdkModels.PsScriptStatus`.

## **Az.Storage**

### **Update-AzStorageAccountNetworkRuleSet , Get-AzStorageAccountNetworkRuleSet**

Changed NetWorkRule DefaultAction value from: Allow = 1, Deny = 0, to: Allow = 0, Deny = 1.

### **New-AzStorageTable , Get-AzStorageTable**

Output object AzureStorageTable.CloudTable.ServiceClient have 2 properties removed: ConnectionPolicy, ConsistencyLevel.

### **Get-AzStorageFile , Remove-AzStorageFile , Get-AzStorageFileContent , Set-AzStorageFileContent , Start-AzStorageFileCopy**

Change output type from CloudFile to AzureStorageFile, the original output will become child property "CloudFile" of the new output

## **Before**

PowerShell

```
PS C:\> $file = Get-AzStorageFile -ShareName $shareName -Path testfile -Context $ctx

PS C:\> Remove-AzStorageFile -File $file
```

## **After**

PowerShell

```
PS C:\> $file = Get-AzStorageFile -ShareName $shareName -Path testfile -  
Context $ctx  
  
PS C:\> Remove-AzStorageFile -File $file.CloudFile
```

## Get-AzStorageFile , New-AzStorageDirectory , Remove-AzStorageDirectory

Change output type from CloudFileDialog to AzureStorageFileDialog, the original output will become child property "CloudFileDialog" of the new output

### Before

```
PowerShell  
  
PS C:\> $dir = Get-AzStorageFile -ShareName $shareName -Path testdir -  
Context $ctx  
  
PS C:\> Remove-AzStorageDirectory -Directory $dir
```

### After

```
PowerShell  
  
PS C:\> $dir = Get-AzStorageFile -ShareName $shareName -Path testdir -  
Context $ctx  
  
PS C:\> Remove-AzStorageDirectory -Directory $dir.CloudFileDialog
```

## Get-AzStorageShare , New-AzStorageShare , Remove-AzStorageShare

Change output type from FileShareProperties to AzureStorageFileShare, the original output will become child property "CloudFileShare" of the new output

### Before

```
PowerShell  
  
PS C:\> $share = Get-AzStorageShare -Name $shareName -Context $ctx
```

```
PS C:\> Remove-AzStorageShare -Share $share
```

## After

```
PowerShell
```

```
PS C:\> $share = Get-AzStorageShare -Name $shareName -Context $ctx  
PS C:\> Remove-AzStorageShare -Share $share.CloudFileShare
```

## Set-AzStorageShareQuota

Change output type from FileShareProperties to AzureStorageFileShare, the original output will become sub child property ""CloudFileShare.Properties"" of the new output

## Before

```
PowerShell
```

```
PS C:\> $shareProperties = Set-AzStorageShareQuota -Name $shareName -Quota 100 -Context $ctx  
PS C:\> $shareProperties  
  
ETag           LastModified          Quota  
----           -----              ----  
"0x8D7F5BC7789FC63" 5/11/2020 3:03:30 PM +00:00    100
```

## After

```
PowerShell
```

```
PS C:\> $share = Set-AzStorageShareQuota -Name $shareName -Quota 100 -Context $ctx  
PS C:\> $share  
  
File End Point: https://weiors1.file.core.windows.net/  
  
Name      QuotaGiB LastModified          IsSnapshot SnapshotTime  
----      ----- -----              ----          -----  
weitest1 100      5/11/2020 3:03:30 PM +00:00 False  
  
PS C:\> $share.CloudFileShare.Properties
```

ETag	LastModified	Quota
-----	-----	-----

```
"0x8D7F5BC7789FC63" 5/11/2020 3:03:30 PM +00:00 100
```

## Remove-AzStorageDirectory

When removing sub File Directories with parent Directory object and -Path, Can't input -Path from pipeline with type (string) match anymore.

### Before

PowerShell

```
PS C:\> $dir = Get-AzStorageFile -ShareName $shareName -Path testdir -Context $ctx
PS C:\> @('dir1', 'dir2') | Remove-AzStorageDirectory -Directory $dir
```

### After

PowerShell

```
PS C:\> $dir = Get-AzStorageFile -ShareName $shareName -Path testdir -Context $ctx
PS C:\> $paths = @(
    [PSCustomObject]@{ Path = 'dir1' }
    [PSCustomObject]@{ Path = 'dir2' }
)
PS C:\> $paths | Remove-AzStorageDirectory -Directory
$dir.CloudFileDirectory
```

# Migration Guide for Az 3.0.0

Article • 09/27/2023

This document describes the changes between the 2.0.0 and 3.0.0 versions of Az

- Migration Guide for Az 3.0.0
  - Batch
    - [Get-AzBatchNodeAgentSku](#)
    - Incompatibility with previous versions of Az.Resources
  - Compute
    - [New-AzDiskConfig](#)
  - HDInsight
    - [Get-AzHDInsightJobOutput](#)
    - [Add-AzHDInsightConfigValues](#)
    - [Disable-AzHDInsightMonitoring](#)
    - [Enable-AzHDInsightMonitoring](#)
    - [Get-AzHDInsightMonitoring](#)
    - [Get-AzHDInsightProperty](#)
    - [Grant-AzHDInsightRdpServicesAccess](#)
    - [Remove-AzHDInsightCluster](#)
    - [Revoke-AzHDInsightRdpServicesAccess](#)
    - [Set-AzHDInsightGatewayCredential](#)
  - IoTHub
    - [New-AzlotHubImportDevices](#)
    - [New-AzlotHubExportDevices](#)
    - [Add-AzlotHubEventHubConsumerGroup](#)
    - [Get-AzlotHubEventHubConsumerGroup](#)
    - [Remove-AzlotHubEventHubConsumerGroup](#)
    - [Set-AzlotHub](#)
  - RecoveryServices
    - [Edit-AzRecoveryServicesAsrRecoveryPlan](#)
    - [Get-AzRecoveryServicesAsrRecoveryPlan](#)
    - [New-AzRecoveryServicesAsrReplicationProtectedItem](#)
  - Resources
    - Incompatibility with previous versions of Az.Batch
  - ServiceFabric
    - [Add-ServiceFabricApplicationCertificate](#)
  - Sql
    - [Get-AzSqlDatabaseSecureConnectionPolicy](#)
    - [Get-AzSqlDatabaseIndexRecommendations](#)

- [Get-AzSqlDatabaseRestorePoints](#)
- [Get-AzSqlDatabaseAuditing](#)
- [Set-AzSqlDatabaseAuditing](#)
- [Get-AzSqlServerAuditing](#)
- [Set-AzSqlServerAuditing](#)
- [Get-AzSqlServerAdvancedThreatProtectionSettings](#)
- [Clear-AzSqlServerAdvancedThreatProtectionSettings](#)
- [Update-AzSqlServerAdvancedThreatProtectionSettings](#)
- [Get-AzSqlDatabaseAdvancedThreatProtectionSettings](#)
- [Update-AzSqlDatabaseAdvancedThreatProtectionSettings](#)
- [Clear-AzSqlDatabaseAdvancedThreatProtectionSettings](#)
- [Update-AzSqlDatabaseVulnerabilityAssessmentSettings](#)
- [Get-AzSqlDatabaseVulnerabilityAssessmentSettings](#)
- [Clear-AzSqlDatabaseVulnerabilityAssessmentSettings](#)
- [Update-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings](#)
- [Get-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings](#)
- [Clear-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings](#)
- [Update-AzSqlInstanceVulnerabilityAssessmentSettings](#)
- [Get-AzSqlInstanceVulnerabilityAssessmentSettings](#)
- [Clear-AzSqlInstanceVulnerabilityAssessmentSettings](#)
- [Update-AzSqlServerVulnerabilityAssessmentSettings](#)
- [Get-AzSqlServerVulnerabilityAssessmentSettings](#)
- [Clear-AzSqlServerVulnerabilityAssessmentSettings](#)
- [Get-AzSqlServerAdvancedThreatProtectionPolicy](#)
- [Get-AzSqlServerThreatDetectionPolicy](#)
- [Remove-AzSqlServerThreatDetectionPolicy](#)
- [Set-AzSqlServerThreatDetectionPolicy](#)
- [Get-AzSqlDatabaseThreatDetectionPolicy](#)
- [Set-AzSqlDatabaseThreatDetectionPolicy](#)
- [Remove-AzSqlDatabaseThreatDetectionPolicy](#)

## Batch

### **Get-AzBatchNodeAgentSku**

- Removed `Get-AzBatchNodeAgentSku` and replaced it with `Get-AzBatchSupportedImage`.
- `Get-AzBatchSupportedImage` returns the same data as `Get-AzBatchNodeAgentSku` but in a more friendly format.

- New non-verified images are also now returned. Additional information about `Capabilities` and `BatchSupportEndOfLife` for each image is also included.

## Before

PowerShell

```
$Context = Get-AzBatchAccountKeys -AccountName "ContosoBatchAccount"  
Get-AzBatchNodeAgentSku -BatchContext $Context
```

## After

PowerShell

```
$Context = Get-AzBatchAccountKey -AccountName "ContosoBatchAccount"  
Get-AzBatchSupportedImage -BatchContext $Context
```

## Previous Version Incompatibility with Az.Resources Module

Version 2.0.1 of the 'Az.Batch' module is incompatible with earlier versions (version 1.7.0 or earlier) of the 'Az.Resources' module. This will result in being unable to import version 1.7.0 of the 'Az.Resources' module when version 2.0.1 of the 'Az.Batch' module is imported. To fix this issue, simply update the 'Az.Resources' module to version 1.7.1 or greater, or simply install the latest version of the 'Az' module.

## Compute

### New-AzDiskConfig

`UploadSizeInBytes` parameter is used instead of `DiskSizeGB` for `New-AzDiskConfig` when `CreateOption` is `Upload`

## Before

PowerShell

```
$diskconfig = New-AzDiskConfig -Location 'Central US' -DiskSizeGB 1023 -  
SkuName Standard_LRS -OsType Windows -CreateOption Upload -DiskIOPSReadWrite
```

```
500 -DiskMBpsReadWrite 8
```

## After

PowerShell

```
$diskconfig = New-AzDiskConfig -Location 'Central US' -UploadSizeInBytes  
1023 * 1024 * 1024 * 1024 -SkuName Standard_LRS -OsType Windows -  
CreateOption Upload -DiskIOPSReadWrite 500 -DiskMBpsReadWrite 8
```

# HDInsight

### Get-AzHDInsightJobOutput

- Updated the `Get-AzHDInsightJobOutput` cmdlet to support granular role-based access to the storage key.
- Users with HDInsight Cluster Operator, Contributor, or Owner roles will not be affected.
- Users with only the Reader role will need to specify `DefaultStorageAccountKey` parameter explicitly.

## Before

PowerShell

```
Get-AzHDInsightJobOutput -ClusterName $clusterName -JobId $jobId
```

## After

PowerShell

```
Get-AzHDInsightJobOutput -ClusterName $clusterName -JobId $jobId -  
DefaultStorageAccountKey $storageAccountKey
```

### Add-AzHDInsightConfigValues

Cmdlet `Add-AzHDInsightConfigValue` removed alias to `Add-AzHDInsightConfigValues`.

## Before

Using deprecated alias

```
PowerShell
```

```
Add-AzHDInsightConfigValues
```

## After

```
PowerShell
```

```
Add-AzHDInsightConfigValue
```

## Disable-AzHDInsightMonitoring

Added a new `Disable-AzHDInsightMonitoring` cmdlet. Use this cmdlet to disable monitoring in a HDInsight cluster (replaces `Disable-AzHDInsightOperationsManagementSuite` and `Disable-AzHDInsightOMS`).

## Before

```
PowerShell
```

```
Disable-AzHDInsightOMS -Name testcluster
```

```
PowerShell
```

```
Disable-AzHDInsightOperationsManagementSuite -Name testcluster
```

## After

```
PowerShell
```

```
Disable-AzHDInsightMonitoring -Name testcluster
```

## Enable-AzHDInsightMonitoring

Added a new `Enable-AzHDInsightMonitoring` cmdlet. Use this cmdlet to enable monitoring in a HDInsight cluster (replaces `Enable-AzHDInsightOperationsManagementSuite` and `Enable-AzHDInsightOMS`).

## Before

PowerShell

```
Enable-AzHDInsightOMS Enable-AzHDInsightMonitoring -Name testcluster -  
    WorkspaceId 1d364e89-bb71-4503-aa3d-a23535aea7bd -PrimaryKey <key for  
    workspace 1d364e89-bb71-4503-aa3d-a23535aea7bd>
```

PowerShell

```
Enable-AzHDInsightOperationsManagementSuite Enable-AzHDInsightMonitoring -  
    Name testcluster -WorkspaceId 1d364e89-bb71-4503-aa3d-a23535aea7bd -  
    PrimaryKey <key for workspace 1d364e89-bb71-4503-aa3d-a23535aea7bd>
```

## After

PowerShell

```
Enable-AzHDInsightMonitoring Enable-AzHDInsightMonitoring -Name testcluster -  
    WorkspaceId 1d364e89-bb71-4503-aa3d-a23535aea7bd -PrimaryKey <key for  
    workspace 1d364e89-bb71-4503-aa3d-a23535aea7bd>
```

## Get-AzHDInsightMonitoring

Added a new `Get-AzHDInsightMonitoring` cmdlet. Use this cmdlet to get the status of monitoring installation in an Azure HDInsight cluster (replaces `Get-AzHDInsightOperationsManagementSuite` and `Get-AzHDInsightOMS`).

## Before

PowerShell

```
Get-AzHDInsightOMS -Name testcluster
```

PowerShell

```
Get-AzHDInsightOperationsManagementSuite -Name testcluster
```

## After

PowerShell

```
Get-AzHDInsightMonitoring -Name testcluster
```

## Get-AzHDInsightProperty

Cmdlet `Get-HDInsightProperty` removed alias to `Get-AzHDInsightProperties`.

## Before

Using deprecated alias

PowerShell

```
Get-AzHDInsightProperties -Location "East US 2"
```

## After

PowerShell

```
Get-AzHDInsightProperty -Location "East US 2"
```

## Grant-AzHDInsightRdpServicesAccess

Removed the `Grant-AzHDInsightRdpServicesAccess` and `Revoke-AzHDInsightRdpServicesAccess` cmdlets. These are no longer necessary because clusters using Windows OS type are not supported. Please create a cluster using Linux OS type instead.

## Remove-AzHDInsightCluster

The output type of `Remove-AzHDInsightCluster` changed from `Microsoft.Azure.Management.HDInsight.Models.ClusterGetResponse` to `bool`.

## Before

PowerShell

```
$cluster = Remove-AzHDInsightCluster -ClusterName "your-hadoop-001"
```

## After

PowerShell

```
Remove-AzHDInsightCluster -ClusterName "your-hadoop-001" -PassThru  
True
```

## Revoke-AzHDInsightRdpServicesAccess

The cmdlet is deprecated. There is no replacement for it.

## Set-AzHDInsightGatewayCredential

The output type of `Set-AzHDInsightGatewayCredential` changed from `HttpConnectivitySettings` to `AzureHDInsightGatewaySettings`.

## IotHub

## New-AzIotHubImportDevices

This alias is removed, please use `New-AzIotHubImportDevice` instead.

## Before

PowerShell

```
New-AzIotHubImportDevices -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -InputBlobContainerUri  
"https://mystorageaccount.blob.core.windows.net/mystoragecontainer?sv=2015-  
04-05&ss=bfqt&sr=c&srt=sco&sp=rw&se=2016-10-27T04:01:48Z&st=2016-10-  
26T20:01:48Z&spr=https&sig=QqpIhHsIMF8hNuF0%3D" -OutputBlobContainerUri  
"https://mystorageaccount.blob.core.windows.net/?sv=2015-04-  
05&ss=bfqt&sr=c&srt=sco&sp=rw&se=2016-10-27T04:01:48Z&st=2016-10-  
26T20:01:48Z&spr=https&sig=QqpIhHsIMF8hNuF0%3D"
```

## After

PowerShell

```
New-AzIotHubImportDevice -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -InputBlobContainerUri  
"https://mystorageaccount.blob.core.windows.net/mystoragecontainer?sv=2015-  
04-05&ss=bfqt&sr=c&srt=sco&sp=rwdl&se=2016-10-27T04:01:48Z&st=2016-10-  
26T20:01:48Z&spr=https&sig=QqpIhHsIMF8hNuFO%3D" -OutputBlobContainerUri  
"https://mystorageaccount.blob.core.windows.net/?sv=2015-04-  
05&ss=bfqt&sr=c&srt=sco&sp=rwdl&se=2016-10-27T04:01:48Z&st=2016-10-  
26T20:01:48Z&spr=https&sig=QqpIhHsIMF8hNuFO%3D"
```

## New-AzIotHubExportDevices

This alias is removed, please use `New-AzIotHubExportDevice` instead.

## Before

PowerShell

```
New-AzIotHubExportDevices -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -ExportBlobContainerUri  
"https://mystorageaccount.blob.core.windows.net/mystoragecontainer?sv=2015-  
04-05&ss=bfqt&sr=c&srt=sco&sp=rwdl&se=2016-10-27T04:01:48Z&st=2016-10-  
26T20:01:48Z&spr=https&sig=QqpIhHsIMF8hNuFO%3D" -ExcludeKeys
```

## After

PowerShell

```
New-AzIotHubExportDevice -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -ExportBlobContainerUri  
"https://mystorageaccount.blob.core.windows.net/mystoragecontainer?sv=2015-  
04-05&ss=bfqt&sr=c&srt=sco&sp=rwdl&se=2016-10-27T04:01:48Z&st=2016-10-  
26T20:01:48Z&spr=https&sig=QqpIhHsIMF8hNuFO%3D" -ExcludeKeys
```

## Add-AzIotHubEventHubConsumerGroup

Parameter `EventHubEndPointName` is deprecated without being replaced as IoT Hub comes with only one built-in endpoint("events") which could handle system and device messages.

## Before

PowerShell

```
Add-AzIotHubEventHubConsumerGroup -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -EventHubConsumerGroupName "myconsumergroup" -  
EventHubEndpointName "/EventHubEndpointName"
```

## After

PowerShell

```
Add-AzIotHubEventHubConsumerGroup -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -EventHubConsumerGroupName "myconsumergroup"
```

## Get-AzIotHubEventHubConsumerGroup

Parameter `EventHubEndPointName` is deprecated without being replaced as IoT Hub comes with only one built-in endpoint("events") which could handle system and device messages.

## Before

PowerShell

```
Get-AzIotHubEventHubConsumerGroup -ResourceGroupName "myresourcegroup" -Name  
"myiothub" -EventHubEndpointName "/EventHubEndpointName"
```

## After

PowerShell

```
Get-AzIotHubEventHubConsumerGroup -ResourceGroupName "myresourcegroup" -Name  
"myiothub"
```

## Remove-AzIotHubEventHubConsumerGroup

Parameter `EventHubEndPointName` is deprecated without being replaced as IoT Hub comes with only one built-in endpoint("events") which could handle system and device messages.

## Before

PowerShell

```
Remove-AzIotHubEventHubConsumerGroup -ResourceGroupName "myresourcegroup" -  
Name "myiothub" -EventHubConsumerGroupName myconsumergroup -  
EventHubEndpointName "/EventHubEndpointName"
```

## After

PowerShell

```
Remove-AzIotHubEventHubConsumerGroup -ResourceGroupName "myresourcegroup" -  
Name "myiothub" -EventHubConsumerGroupName myconsumergroup
```

## Set-AzIotHub

Parameter `OperationsMonitoringProperties` is deprecated without being replaced as IotHub is no longer using built-in endpoint("operationsMonitoringEvents").

## RecoveryServices

### Edit-AzRecoveryServicesAsrRecoveryPlan

`ASRRecoveryPlanGroup.ReplicationProtectedItems`, `ASRRecoveryPlanGroup.StartGroupActions` and `ASRRecoveryPlanGroup.EndGroupActions` is removed from output.

### Get-AzRecoveryServicesAsrRecoveryPlan

`ASRRecoveryPlanGroup.ReplicationProtectedItems`, `ASRRecoveryPlanGroup.StartGroupActions` and `ASRRecoveryPlanGroup.EndGroupActions` is removed from output.

### New-AzRecoveryServicesAsrReplicationProtectedItem

Parameter `IncludeDiskId` is changed to support directly writing to a managed disk in Azure Site Recovery.

## Before

PowerShell

```
$job = New-AzRecoveryServicesAsrReplicationProtectedItem -  
RecoveryAzureStorageAccountId $recoveryAzureStorageAccountId -IncludeDiskId  
$includeDiskId -VmwareToAzure -Account  
$fabric.FabricSpecificDetails.RunAsAccounts[0] -RecoveryResourceGroupId  
$RecoveryResourceGroupId -RecoveryAzureNetworkId $RecoveryAzureNetworkId -  
Name $name -ProcessServer $fabric.FabricSpecificDetails.ProcessServers[0] -  
ProtectableItem $protectableItem -ProtectionContainerMapping $pcm -  
RecoveryAzureSubnetName $RecoveryAzureSubnetName -RecoveryVmName  
$RecoveryVmName -LogStorageAccountId $LogStorageAccountId
```

## After

PowerShell

```
$disk1 = New-AzRecoveryServicesAsrInMageAzureV2DiskInput -DiskId $diskId -  
LogStorageAccountId $logStorageAccountId -DiskType $diskType  
$disk2 = New-AzRecoveryServicesAsrInMageAzureV2DiskInput -DiskId $diskId2 -  
LogStorageAccountId $logStorageAccountId -DiskType $diskType2  
$job = New-AzRecoveryServicesAsrReplicationProtectedItem -VmwareToAzure -  
Account $fabric.FabricSpecificDetails.RunAsAccounts[0] -  
RecoveryResourceGroupId $RecoveryResourceGroupId -RecoveryAzureNetworkId  
$RecoveryAzureNetworkId -Name $name -ProcessServer  
$fabric.FabricSpecificDetails.ProcessServers[0] -ProtectableItem  
$protectableItem -ProtectionContainerMapping $pcm -RecoveryAzureSubnetName  
$RecoveryAzureSubnetName -RecoveryVmName $RecoveryVmName -  
LogStorageAccountId $LogStorageAccountId -InMageAzureV2DiskInput  
$disk1,$disk2
```

## Resources

### Previous Version Incompatibility with Az.Batch Module

Version 1.7.1 of the 'Az.Resources' module is incompatible with earlier versions (version 1.1.2 or earlier) of the 'Az.Batch' module. This will result in being unable to import version 1.1.2 of the 'Az.Batch' module when version 1.7.1 of the 'Az.Resources' module is imported. To fix this issue, update the 'Az.Batch' module to version 2.0.1 or greater, or simply install the latest version of the 'Az' module.

## ServiceFabric

## Add-ServiceFabricApplicationCertificate

Removed `Add-ServiceFabricApplicationCertificate` as this scenario is covered by `Add-AzVmssSecret`.

### Before

PowerShell

```
Add-AzServiceFabricApplicationCertificate -ResourceGroupName "Group1" -Name "Contoso01SFCluster" -SecretIdentifier "http://keyVaultName.vault.contoso.net/secrets/secretName/secretVersion"
```

### After

PowerShell

```
$Vault = Get-AzKeyVault -VaultName "ContosoVault"
$CertConfig = New-AzVmssVaultCertificateConfig -CertificateUrl "http://keyVaultName.vault.contoso.net/secrets/secretName/secretVersion" -CertificateStore "Certificates"
$VMSS = New-AzVmssConfig
Add-AzVmssSecret -VirtualMachineScaleSet $VMSS -SourceVaultId $Vault.ResourceId -VaultCertificate $CertConfig
```

## Sql

### Get-AzSqlDatabaseSecureConnectionPolicy

Note that secure connection is deprecated and so command is removed. Please use the SQL database blade in the Azure portal to view the connection strings

### Get-AzSqlDatabaseIndexRecommendations

`Get-AzSqlDatabaseIndexRecommendations` alias is removed. Use `Get-AzSqlDatabaseIndexRecommendation` instead.

### Get-AzSqlDatabaseRestorePoints

`Get-AzSqlDatabaseRestorePoints` alias is removed. Use `Get-AzSqlDatabaseRestorePoint` instead.

## Get-AzSqlDatabaseAuditing

- The cmdlet `Get-AzSqlDatabaseAudit` is replacing this cmdlet.
- The output type is changing from the existing type  
`: 'Microsoft.Azure.Commands.Sql.Auditing.Model.DatabaseBlobAuditingSettingsModel'`  
to the new type  
`: 'Microsoft.Azure.Commands.Sql.Auditing.Model.DatabaseAuditingSettingsModel'`,  
removing properties `AuditState` and `StorageAccountName`. and  
`StorageAccountSubscriptionId`. Scripts can retrieve storage account information  
from the new `StorageAccountResourceId` property.

## Before

PowerShell

```
PS C:\> Get-AzSqlDatabaseAuditing -ResourceGroupName "ResourceGroup01" -  
ServerName "Server01" -DatabaseName "Database01"  
DatabaseName : database01  
AuditAction : {}  
AuditActionGroup : {SUCCESSFUL_DATABASE_AUTHENTICATION_GROUP,  
FAILED_DATABASE_AUTHENTICATION_GROUP,  
BATCH_COMPLETED_GROUP, ...}  
ResourceGroupName : resourcegroup01  
ServerName : server01  
AuditState : Enabled  
StorageAccountName : mystorage  
StorageKeyType : Primary  
RetentionInDays : 0  
StorageAccountSubscriptionId : 7fe3301d-31d3-4668-af5e-211a890ba6e3  
PredicateExpression : statement <> 'select 1'
```

## After

PowerShell

```
PS C:\> Get-AzSqlDatabaseAudit -ResourceGroupName "ResourceGroup01" -  
ServerName "Server01" -DatabaseName "Database01"  
ServerName : server01  
DatabaseName : database01  
AuditAction : {}  
ResourceGroupName : resourcegroup01  
AuditActionGroup :
```

```

{SUCCESSFUL_DATABASE_AUTHENTICATION_GROUP,
FAILED_DATABASE_AUTHENTICATION_GROUP,
                                BATCH_COMPLETED_GROUP, ...}
PredicateExpression           : statement <> 'select 1'
BlobStorageTargetState       : Enabled
StorageAccountResourceId     : /subscriptions/7fe3301d-31d3-4668-
af5e-
211a890ba6e3/resourceGroups/resourcegroup01/providers/Microsoft.Storage/stor
ageAccounts/mystorage
StorageKeyType                : Primary
RetentionInDays              : 0
EventHubTargetState          : Enabled
EventHubName                 : eventHubName
EventHubAuthorizationRuleResourceId : EventHubAuthorizationRuleResourceId
LogAnalyticsTargetState      : Enabled
WorkspaceResourceId          : "/subscriptions/4b9e8510-67ab-4e9a-
95a9-e2f1e570ea9c/resourceGroups/insights-
integration/providers/Microsoft.OperationalInsights/workspaces/viruela2"

```

## Set-AzSqlDatabaseAuditing

- The cmdlet `Set-AzSqlDatabaseAudit` is replacing this cmdlet.
- The output type is changing from the existing type  
`:Microsoft.Azure.Commands.Sql.Auditing.Model.DatabaseBlobAuditingSettingsModel`  
to the new type `:bool`

## Before

PowerShell

```

Set-AzSqlDatabaseAuditing -State Enabled -ResourceGroupName
"ResourceGroup01" -ServerName "Server01" -StorageAccountName "Storage22" -
DatabaseName "Database01"

```

## After

PowerShell

```

Set-AzSqlDatabaseAudit -ResourceGroupName "ResourceGroup01" -ServerName
"Server01" -DatabaseName "Database01" -BlobStorageTargetState Enabled -
StorageAccountResourceId "/subscriptions/7fe3301d-31d3-4668-af5e-
211a890ba6e3/resourceGroups/resourcegroup01/providers/Microsoft.Storage/stor
ageAccounts/mystorage"

```

## Get-AzSqlServerAuditing

- The cmdlet `Get-AzSqlServerAudit` is replacing this cmdlet.
- The output type is changing from the existing type  
`'Microsoft.Azure.Commands.Sql.Auditing.Model.DatabaseBlobAuditingSettingsModel'`  
 to the new type  
`'Microsoft.Azure.Commands.Sql.Auditing.Model.ServerAuditingSettingsModel'`.  
 Properties `AuditState`, `StorageAccountName`, and `StorageAccountSubscriptionId` are removed. Scripts that use `StorageAccountName` and `StorageAccountSubscriptionId` properties can retrieve this information from the new `StorageAccountResourceId` property.

## Before

```
PowerShell

PS C:\> Get-AzSqlServerAuditing -ResourceGroupName "resourcegroup01" -  
      ServerName "server01"  
AuditActionGroup          : {SUCCESSFUL_DATABASE_AUTHENTICATION_GROUP,  
                           FAILED_DATABASE_AUTHENTICATION_GROUP, BATCH_COMPLETED_GROUP, ...}  
ResourceGroupName         : resourcegroup01  
ServerName                : server01  
AuditState                 : Enabled  
StorageAccountName        : mystorage  
StorageKeyType             : Primary  
RetentionInDays           : 0  
StorageAccountSubscriptionId : 7fe3301d-31d3-4668-af5e-211a890ba6e3  
PredicateExpression        : statement <> 'select 1'
```

## After

```
PowerShell

PS C:\> Get-AzSqlServerAudit -ResourceGroupName "resourcegroup01" -  
      ServerName "server01"  
ServerName                  : server01  
ResourceGroupName            : resourcegroup01  
AuditActionGroup            :  
{SUCCESSFUL_DATABASE_AUTHENTICATION_GROUP,  
   FAILED_DATABASE_AUTHENTICATION_GROUP, BATCH_COMPLETED_GROUP, ...}  
PredicateExpression          : statement <> 'select 1'  
BlobStorageTargetState       : Enabled  
StorageAccountResourceId     : /subscriptions/7fe3301d-31d3-4668-  
af5e-  
211a890ba6e3/resourceGroups/resourcegroup01/providers/Microsoft.Storage/stor  
ageAccounts/mystorage  
StorageKeyType               : Primary  
RetentionInDays              : 0  
EventHubTargetState          : Enabled
```

```
EventHubName : eventHubName
EventHubAuthorizationRuleResourceId : EventHubAuthorizationRuleResourceId
LogAnalyticsTargetState : Enabled
WorkspaceResourceId : "/subscriptions/4b9e8510-67ab-4e9a-95a9-e2f1e570ea9c/resourceGroups/insights-integration/providers/Microsoft.OperationalInsights/workspaces/viruela2"
```

## Set-AzSqlServerAuditing

- The cmdlet `Set-AzSqlServerAudit` is replacing this cmdlet.
- The output type is changing from the existing type `:Microsoft.Azure.Commands.Sql.Auditing.Model.DatabaseBlobAuditingSettingsModel` to the new type `:bool`

### Before

PowerShell

```
Set-AzSqlServerAuditing -State Enabled -ResourceGroupName "ResourceGroup01" -ServerName "Server01" -StorageAccountName "Storage22"
```

### After

PowerShell

```
PS C:\> Set-AzSqlServerAudit -ResourceGroupName "ResourceGroup01" -ServerName "Server01" -BlobStorageTargetState Enabled -StorageAccountResourceId "/subscriptions/7fe3301d-31d3-4668-af5e-211a890ba6e3/resourceGroups/resourcegroup01/providers/Microsoft.Storage/storageAccounts/mystorage"
```

## Get-AzSqlServerAdvancedThreatProtectionSettings

Cmdlet `Get-AzSqlServerAdvancedThreatProtectionSettings` is replaced by `Get-AzSqlServerAdvancedThreatProtectionSetting`

### Before

PowerShell

```
Get-AzSqlServerAdvancedThreatProtectionSettings -ResourceGroupName
```

```
"ResourceGroup11" -ServerName "Server01"
```

## After

PowerShell

```
Get-AzSqlServerAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01"
```

## Clear-AzSqlServerAdvancedThreatProtectionSettings

Cmdlet `Clear-AzSqlServerAdvancedThreatProtectionSettings` is replaced by `Clear-AzSqlServerAdvancedThreatProtectionSetting`

## Before

PowerShell

```
Clear-AzSqlServerAdvancedThreatProtectionSettings -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01"
```

## After

PowerShell

```
Clear-AzSqlServerAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01"
```

## Update-AzSqlServerAdvancedThreatProtectionSettings

Cmdlet `Update-AzSqlServerAdvancedThreatProtectionSettings` is replaced by `Update-AzSqlServerAdvancedThreatProtectionSetting`

## Before

PowerShell

```
Update-AzSqlServerAdvancedThreatProtectionSettings -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -NotificationRecipientsEmails  
"admin01@contoso.com;secadmin@contoso.com" -EmailAdmins $False -
```

```
ExcludedDetectionType "Sql_Injection_Vulnerability", "SQL_Injection" -  
StorageAccountName "mystorageAccount"
```

## After

PowerShell

```
Update-AzSqlServerAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -NotificationRecipientsEmails  
"admin01@contoso.com; secadmin@contoso.com" -EmailAdmins $False -  
ExcludedDetectionType "Sql_Injection_Vulnerability", "SQL_Injection" -  
StorageAccountName "mystorageAccount"
```

## Get-AzSqlDatabaseAdvancedThreatProtectionSettings

Cmdlet `Get-AzSqlDatabaseAdvancedThreatProtectionSettings` is replaced by `Get-AzSqlDatabaseAdvancedThreatProtectionSetting`

## Before

PowerShell

```
Get-AzSqlDatabaseAdvancedThreatProtectionSettings -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"
```

## After

PowerShell

```
Get-AzSqlDatabaseAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"
```

## Update-AzSqlDatabaseAdvancedThreatProtectionSettings

Cmdlet `Update-AzSqlDatabaseAdvancedThreatProtectionSettings` is replaced by `Update-AzSqlDatabaseAdvancedThreatProtectionSetting`

## Before

PowerShell

```
Update-AzSqlDatabaseAdvancedThreatProtectionSettings -ResourceGroupName "ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01" -NotificationRecipientsEmails "admin01@contoso.com;secadmin@contoso.com" -EmailAdmins $False -ExcludedDetectionType "Sql_Injection_Vulnerability", "SQL_Injection" -StorageAccountName "mystorageAccount"
```

## After

PowerShell

```
Update-AzSqlDatabaseAdvancedThreatProtectionSetting -ResourceGroupName "ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01" -NotificationRecipientsEmails "admin01@contoso.com;secadmin@contoso.com" -EmailAdmins $False -ExcludedDetectionType "Sql_Injection_Vulnerability", "SQL_Injection" -StorageAccountName "mystorageAccount"
```

## Clear-AzSqlDatabaseAdvancedThreatProtectionSettings

Cmdlet `Clear-AzSqlDatabaseAdvancedThreatProtectionSettings` is replaced by `Clear-AzSqlDatabaseAdvancedThreatProtectionSetting`

## Before

PowerShell

```
Clear-AzSqlDatabaseAdvancedThreatProtectionSettings -ResourceGroupName "ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"
```

## After

PowerShell

```
Clear-AzSqlDatabaseAdvancedThreatProtectionSetting -ResourceGroupName "ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"
```

## Update-AzSqlDatabaseVulnerabilityAssessmentSettings

Cmdlet `Update-AzSqlDatabaseVulnerabilityAssessmentSettings` is replaced by `Update-AzSqlDatabaseVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Update-AzSqlDatabaseVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"  
  -StorageAccountName "mystorage"  
  -ScanResultsContainerName "vulnerability-assessment"  
  -RecurringScansInterval Weekly  
  -EmailSubscriptionAdmins $true  
  -NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## After

PowerShell

```
Update-AzSqlDatabaseVulnerabilityAssessmentSetting  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"  
  -StorageAccountName "mystorage"  
  -ScanResultsContainerName "vulnerability-assessment"  
  -RecurringScansInterval Weekly  
  -EmailSubscriptionAdmins $true  
  -NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## Get-AzSqlDatabaseVulnerabilityAssessmentSettings

Cmdlet `Get-AzSqlDatabaseVulnerabilityAssessmentSettings` is replaced by `Get-AzSqlDatabaseVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Get-AzSqlDatabaseVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## After

PowerShell

```
Get-AzSqlDatabaseVulnerabilityAssessmentSetting  
-ResourceGroupName "ResourceGroup01"  
-ServerName "Server01"  
-DatabaseName "Database01"
```

## Clear-AzSqlDatabaseVulnerabilityAssessmentSettings

Cmdlet `Clear-AzSqlDatabaseVulnerabilityAssessmentSettings` is replaced by `Clear-AzSqlDatabaseVulnerabilityAssessmentSetting`

### Before

PowerShell

```
Clear-AzSqlDatabaseVulnerabilityAssessmentSettings  
-ResourceGroupName "ResourceGroup01"  
-ServerName "Server01"  
-DatabaseName "Database01"
```

### After

PowerShell

```
Clear-AzSqlDatabaseVulnerabilityAssessmentSetting  
-ResourceGroupName "ResourceGroup01"  
-ServerName "Server01"  
-DatabaseName "Database01"
```

## Update-

## AzSqlInstanceDatabaseVulnerabilityAssessmentSettings

Cmdlet `Update-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings` is replaced by `Update-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting`

### Before

PowerShell

```
Update-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings  
    -ResourceGroupName "ResourceGroup01"  
    -InstanceName "ManagedInstance01"  
    -DatabaseName "Database01"  
    -StorageAccountName "mystorage"  
    -ScanResultsContainerName "vulnerability-assessment"  
    -RecurringScansInterval Weekly  
    -EmailSubscriptionAdmins $true  
    -NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## After

PowerShell

```
Update-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting  
    -ResourceGroupName "ResourceGroup01"  
    -InstanceName "ManagedInstance01"  
    -DatabaseName "Database01"  
    -StorageAccountName "mystorage"  
    -ScanResultsContainerName "vulnerability-assessment"  
    -RecurringScansInterval Weekly  
    -EmailSubscriptionAdmins $true  
    -NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## Get-

### AzSqlInstanceDatabaseVulnerabilityAssessmentSettings

Cmdlet `Get-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings` is replaced by  
`Get-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Get-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings  
    -ResourceGroupName "ResourceGroup01"  
    -ServerName "Server01"  
    -DatabaseName "Database01"
```

## After

PowerShell

```
Get-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## Clear-

### AzSqlInstanceDatabaseVulnerabilityAssessmentSettings

Cmdlet `Clear-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings` is replaced by `Clear-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Clear-AzSqlInstanceDatabaseVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## After

PowerShell

```
Clear-AzSqlInstanceDatabaseVulnerabilityAssessmentSetting  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

### Update-AzSqlInstanceVulnerabilityAssessmentSettings

Cmdlet `Update-AzSqlInstanceVulnerabilityAssessmentSettings` is replaced by `Update-AzSqlInstanceVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Update-AzSqlInstanceVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -InstanceId "ManagedInstance01"
```

```
-StorageAccountName "mystorage"
-ScanResultsContainerName "vulnerability-assessment"
-RecurringScansInterval Weekly
-EmailSubscriptionAdmins $true
-NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## After

PowerShell

```
Update-AzSqlInstanceVulnerabilityAssessmentSetting
-ResourceGroupName "ResourceGroup01"
-InstanceName "ManagedInstance01"
-StorageAccountName "mystorage"
-ScanResultsContainerName "vulnerability-assessment"
-RecurringScansInterval Weekly
-EmailSubscriptionAdmins $true
-NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## Get-AzSqlInstanceVulnerabilityAssessmentSettings

Cmdlet `Get-AzSqlInstanceVulnerabilityAssessmentSettings` is replaced by `Get-AzSqlInstanceVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Get-AzSqlInstanceVulnerabilityAssessmentSettings
-ResourceGroupName "ResourceGroup01"
-ServerName "Server01"
-DatabaseName "Database01"
```

## After

PowerShell

```
Get-AzSqlInstanceVulnerabilityAssessmentSetting
-ResourceGroupName "ResourceGroup01"
-ServerName "Server01"
-DatabaseName "Database01"
```

## Clear-AzSqlInstanceVulnerabilityAssessmentSettings

Cmdlet `Clear-AzSqlInstanceVulnerabilityAssessmentSettings` is replaced by `Clear-AzSqlInstanceVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Clear-AzSqlInstanceVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## After

PowerShell

```
Clear-AzSqlInstanceVulnerabilityAssessmentSetting  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## Update-AzSqlServerVulnerabilityAssessmentSettings

Cmdlet `Update-AzSqlServerVulnerabilityAssessmentSettings` is replaced by `Update-AzSqlServerVulnerabilityAssessmentSetting`

## Before

PowerShell

```
Update-AzSqlServerVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -StorageAccountName "mystorage"  
  -ScanResultsContainerName "vulnerability-assessment"  
  -RecurringScansInterval Weekly  
  -EmailSubscriptionAdmins $true  
  -NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## After

PowerShell

```
Update-AzSqlServerVulnerabilityAssessmentSetting  
    -ResourceGroupName "ResourceGroup01"  
    -ServerName "Server01"  
    -StorageAccountName "mystorage"  
    -ScanResultsContainerName "vulnerability-assessment"  
    -RecurringScansInterval Weekly  
    -EmailSubscriptionAdmins $true  
    -NotificationEmail @("mail1@mail.com" , "mail2@mail.com")
```

## Get-AzSqlServerVulnerabilityAssessmentSettings

Cmdlet `Get-AzSqlServerVulnerabilityAssessmentSettings` is replaced by `Get-AzSqlServerVulnerabilityAssessmentSetting`

### Before

PowerShell

```
Get-AzSqlServerVulnerabilityAssessmentSettings  
    -ResourceGroupName "ResourceGroup01"  
    -ServerName "Server01"  
    -DatabaseName "Database01"
```

### After

PowerShell

```
Get-AzSqlServerVulnerabilityAssessmentSetting  
    -ResourceGroupName "ResourceGroup01"  
    -ServerName "Server01"  
    -DatabaseName "Database01"
```

## Clear-AzSqlServerVulnerabilityAssessmentSettings

Cmdlet `Clear-AzSqlServerVulnerabilityAssessmentSettings` is replaced by `Clear-AzSqlServerVulnerabilityAssessmentSetting`

### Before

PowerShell

```
Clear-AzSqlServerVulnerabilityAssessmentSettings  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## After

PowerShell

```
Clear-AzSqlDatabaseVulnerabilityAssessmentSetting  
  -ResourceGroupName "ResourceGroup01"  
  -ServerName "Server01"  
  -DatabaseName "Database01"
```

## Get-AzSqlServerAdvancedThreatProtectionPolicy

Cmdlet `Get-AzSqlServerAdvancedThreatProtectionPolicy` is deleted and no cmdlet is replaced it

## Get-AzSqlServerThreatDetectionPolicy

Cmdlet `Get-AzSqlServerThreatDetectionPolicy` is replaced by `Get-AzSqlServerThreatDetectionSetting`

## Before

PowerShell

```
PS C:\> Get-AzSqlServerThreatDetectionPolicy -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01"  
ResourceGroupName : ResourceGroup11  
ServerName : Server01  
ThreatDetectionState : Enabled  
NotificationRecipientsEmails : admin@myCompany.com  
StorageAccountName : mystorage  
EmailAdmins : True  
ExcludedDetectionTypes : {}  
RetentionInDays : 0
```

## After

PowerShell

```
PS C:\> Get-AzSqlServerAdvancedThreatProtectionSetting -ResourceGroupName "ResourceGroup11" -ServerName "Server01"
ResourceGroupName : ResourceGroup11
ServerName : Server01
ThreatDetectionState : Enabled
NotificationRecipientsEmails : admin@myCompany.com
StorageAccountName : mystorage
EmailAdmins : True
ExcludedDetectionTypes : {}
RetentionInDays : 0
```

## Remove-AzSqlServerThreatDetectionPolicy

Cmdlet `Remove-AzSqlServerThreatDetectionPolicy` is replaced by `Clear-AzSqlServerAdvancedThreatProtectionSetting`

### Before

PowerShell

```
Remove-AzSqlServerThreatDetectionPolicy -ResourceGroupName "ResourceGroup11" -ServerName "Server01"
```

### After

PowerShell

```
Clear-AzSqlServerAdvancedThreatProtectionSetting -ResourceGroupName "ResourceGroup11" -ServerName "Server01"
```

## Set-AzSqlServerThreatDetectionPolicy

Cmdlet `Set-AzSqlServerThreatDetectionPolicy` is replaced by `Update-AzSqlServerAdvancedThreatProtectionSetting`

### Before

PowerShell

```
Set-AzSqlServerThreatDetectionPolicy -ResourceGroupName "ResourceGroup11" -ServerName "Server01" -NotificationRecipientsEmails "admin01@contoso.com;secadmin@contoso.com" -EmailAdmins $False -
```

```
ExcludedDetectionType "Sql_Injection_Vulnerability", "SQL_Injection" -  
StorageAccountName "mystorageAccount"
```

## After

PowerShell

```
Update-AzSqlServerAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -NotificationRecipientsEmails  
"admin01@contoso.com; secadmin@contoso.com" -EmailAdmins $False -  
ExcludedDetectionType "Sql_Injection_Vulnerability", "SQL_Injection" -  
StorageAccountName "mystorageAccount"
```

## Get-AzSqlDatabaseThreatDetectionPolicy

Cmdlet `Get-AzSqlDatabaseThreatDetectionPolicy` is replaced by `Get-AzSqlDatabaseThreatDetectionSetting`

## Before

PowerShell

```
PS C:\> Get-AzSqlDatabaseThreatDetectionPolicy -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"  
DatabaseName : Database01  
ResourceGroupName : ResourceGroup11  
ServerName : Server01  
ThreatDetectionState : Enabled  
NotificationRecipientsEmails : admin@myCompany.com  
StorageAccountName : mystorage  
EmailAdmins : True  
ExcludedDetectionTypes : {}  
RetentionInDays : 0
```

## After

PowerShell

```
PS C:\> Get-AzSqlDatabaseAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"  
DatabaseName : Database01  
ResourceGroupName : ResourceGroup11  
ServerName : Server01  
ThreatDetectionState : Enabled  
NotificationRecipientsEmails : admin@myCompany.com
```

```
StorageAccountName      : mystorage
EmailAdmins              : True
ExcludedDetectionTypes   : {}
RetentionInDays          : 0
```

## Set-AzSqlDatabaseThreatDetectionPolicy

Cmdlet `Set-AzSqlDatabaseThreatDetectionPolicy` is replaced by `Update-AzSqlDatabaseAdvancedThreatProtectionSetting`

### Before

PowerShell

```
Set-AzSqlDatabaseThreatDetectionPolicy -ResourceGroupName "ResourceGroup11"
-ServerName "Server01" -DatabaseName "Database01" -
NotificationRecipientsEmails "admin01@contoso.com;secadmin@contoso.com" -
EmailAdmins $False -ExcludedDetectionType "Sql_Injection_Vulnerability",
"SQL_Injection" -StorageAccountName "mystorageAccount"
```

### After

PowerShell

```
Update-AzSqlDatabaseAdvancedThreatProtectionSetting -ResourceGroupName
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01" -
NotificationRecipientsEmails "admin01@contoso.com;secadmin@contoso.com" -
EmailAdmins $False -ExcludedDetectionType "Sql_Injection_Vulnerability",
"SQL_Injection" -StorageAccountName "mystorageAccount"
```

## Remove-AzSqlDatabaseThreatDetectionPolicy

Cmdlet `Remove-AzSqlDatabaseThreatDetectionPolicy` is replaced by `Clear-AzSqlDatabaseAdvancedThreatProtectionSetting`

### Before

PowerShell

```
Remove-AzSqlDatabaseThreatDetectionPolicy -ResourceGroupName
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"
```

## After

PowerShell

```
Clear-AzSqlDatabaseAdvancedThreatProtectionSetting -ResourceGroupName  
"ResourceGroup11" -ServerName "Server01" -DatabaseName "Database01"
```

# Migration Guide for Az 2.0.0

Article • 09/27/2023

This document describes the changes between the 1.0.0 and 2.0.0 versions of Az

## Table of Contents

- [Module breaking changes](#)
  - [Az.Compute](#)
  - [Az.HDInsight](#)
  - [Az.Storage](#)

## Module breaking changes

### Az.Compute

- Removed `Managed` Parameter from `New-AzAvailabilitySet` and `Update-AzAvailabilitySet` cmdlets in favor of using `Sku = Aligned`

#### Before

```
PowerShell
Update-AzAvailabilitySet -Managed
```

#### After

```
PowerShell
Update-AzAvailabilitySet -Sku Aligned
```

- For consistency, removed `Image` parameter from 'ByName' and 'ByResourceId' parameter sets in `Update-AzImage`

#### Before

Note that the below code is functional, but the passed-in `ImageName` is not used, so removing this parameter has no functional impact.

PowerShell

```
Update-AzImage -ResourceGroupName $Rg -ImageName $Name -Image $Image -  
Tag $tags  
  
Update-AzImage -ResourceId $Id -Image $Image -Tag $tags
```

## After

PowerShell

```
Update-AzImage -ResourceGroupName $Rg -ImageName $Name -Tag $tags  
  
Update-AzImage -ResourceId $Id -Tag $tags
```

- For consistency, removed `Name` parameter from 'ByObject' and 'ByResourceId' parameter sets in `Restart-AzVM`

## Before

Note that the below code is functional, but the passed-in Name is not used, so removing this parameter has no functional impact.

PowerShell

```
Restart-AzVM -InputObject $VM -Name $Name  
  
Restart-AzVM -ResourceId $Id -Name $Name
```

## After

PowerShell

```
Restart-AzVM -InputObject $VM  
  
Restart-AzVM -ResourceId $Id
```

- For consistency, removed `Name` parameter from 'ByObject' and 'ByResourceId' parameter sets in `Start-AzVM`

## Before

Note that the below code is functional, but the passed-in Name is not used, so removing this parameter has no functional impact.

PowerShell

```
Start-AzVM -InputObject $VM -Name $Name  
Start-AzVM -ResourceId $Id -Name $Name
```

## After

PowerShell

```
Start-AzVM -InputObject $VM  
Start-AzVM -ResourceId $Id
```

- For consistency, removed `Name` parameter from 'ByObject' and 'ByResourceId' parameter sets in `Stop-AzVM`

## Before

Note that the below code is functional, but the passed-in Name is not used, so removing this parameter has no functional impact.

PowerShell

```
Stop-AzVM -InputObject $VM -Name $Name  
Stop-AzVM -ResourceId $Id -Name $Name
```

## After

PowerShell

```
Stop-AzVM -InputObject $VM  
Stop-AzVM -ResourceId $Id
```

- For consistency, removed `Name` parameter from 'ByObject' and 'ByResourceId' parameter sets in `Remove-AzVM`

## Before

Note that the below code is functional, but the passed-in Name is not used, so removing this parameter has no functional impact.

```
PowerShell
```

```
Remove-AzVM -InputObject $VM -Name $Name  
Remove-AzVM -ResourceId $Id -Name $Name
```

## After

```
PowerShell
```

```
Remove-AzVM -InputObject $VM  
Remove-AzVM -ResourceId $Id
```

- For consistency, removed `Name` parameter from 'ByObject' and 'ByResourceId' parameter sets in `Set-AzVM`

## Before

Note that the below code is functional, but the passed-in Name is not used, so removing this parameter has no functional impact.

```
PowerShell
```

```
Set-AzVM -InputObject $VM -Name $Name ...  
Set-AzVM -ResourceId $Id -Name $Name ...
```

## After

```
PowerShell
```

```
Set-AzVM -InputObject $VM ...  
Set-AzVM -ResourceId $Id ...
```

- For consistency, removed `Name` parameter from 'ByObject' and 'ByResourceId' parameter sets in `Save-AzVMImage`

## Before

Note that the below code is functional, but the passed-in Name is not used, so removing this parameter has no functional impact.

PowerShell

```
Save-AzVMImage -InputObject $VM -Name $Name ...
Save-AzVMImage -ResourceId $Id -Name $Name ...
```

## After

PowerShell

```
Save-AzVMImage -InputObject $VM ...
Save-AzVMImage -ResourceId $Id ...
```

- Added `ProtectionPolicy` property to encapsulate `ProtectFromScaleIn` property in `PSVirtualMachineScaleSetVM`

## Before

PowerShell

```
$vmss = Get-AzVMssVM ...
$vmss.ProtectFromScaleIn = $true

$vmss = Update-AzVMssVM ...
$vmss.ProtectFromScaleIn = $true

$vmss = Remove-AzVMssVMDataDisk ...
$vmss.ProtectFromScaleIn = $true
```

## After

PowerShell

```

$vmss = Get-AzVMssVM ...
$vmss.ProtectionPolicy.ProtectFromScaleIn = $true

$vmss = Update-AzVMssVM ...
$vmss.ProtectionPolicy.ProtectFromScaleIn = $true

$vmss = Remove-AzVMssVMDataDisk ...
$vmss.ProtectionPolicy.ProtectFromScaleIn = $true

```

- Added `EncryptionSettingsCollection` Property to enclose `EncryptionSettings` property in `PSDisk`

## Before

PowerShell

```

$disk = New-AzDisk ... | Set-AzDiskDiskEncryptionKey ...
$disk.EncryptionSettings

$disk = New-AzDisk ... | Set-AzDiskKeyEncryptionKey ...
$disk.EncryptionSettings

$update = New-AzDiskUpdateConfig | Set-AzDiskUpdateDiskEncryptionKey
...
$update.EncryptionSettings

$update = New-AzDiskUpdateConfig | Set-AzDiskUpdateKeyEncryptionKey ...
$update.EncryptionSettings

```

## After

PowerShell

```

$disk = New-AzDisk ... | Set-AzDiskDiskEncryptionKey ...
$disk.EncryptionSettingsCollection.EncryptionSettings

$disk = New-AzDisk ... | Set-AzDiskKeyEncryptionKey ...
$disk.EncryptionSettingsCollection.EncryptionSettings

$update = New-AzDiskUpdateConfig | Set-AzDiskUpdateDiskEncryptionKey
...
$update.EncryptionSettingsCollection.EncryptionSettings

$update = New-AzDiskUpdateConfig | Set-AzDiskUpdateKeyEncryptionKey ...
$update.EncryptionSettingsCollection.EncryptionSettings

```

- Added `EncryptionSettingsCollection` Property to enclose `EncryptionSettings` property in `PSSnapshot`

## Before

PowerShell

```
$snap = New-AzSnapshotConfig ... | Set-AzSnapshotDiskEncryptionKey ...
$snap.EncryptionSettings

$snap = New-AzSnapshotConfig ... | Set-AzSnapshotKeyEncryptionKey ...
$snap.EncryptionSettings

$update = New-AzSnapshotUpdateConfig ... | Set-
AzSnapshotUpdateDiskEncryptionKey ...
$update.EncryptionSettings

$update = New-AzSnapshotUpdateConfig ... | Set-
AzSnapshotUpdateKeyEncryptionKey ...
$update.EncryptionSettings
```

## After

PowerShell

```
$snap = New-AzSnapshotConfig ... | Set-AzSnapshotDiskEncryptionKey ...
$snap.EncryptionSettingsCollection.EncryptionSettings

$snap = New-AzSnapshotConfig ... | Set-AzSnapshotKeyEncryptionKey ...
$snap.EncryptionSettingsCollection.EncryptionSettings

$update = New-AzSnapshotUpdateConfig ... | Set-
AzSnapshotUpdateDiskEncryptionKey ...
$update.EncryptionSettingsCollection.EncryptionSettings

$update = New-AzSnapshotUpdateConfig ... | Set-
AzSnapshotUpdateKeyEncryptionKey ...
$update.EncryptionSettingsCollection.EncryptionSettings
```

- Removed `VirtualMachineProfile` property from `PSVirtualMachineScaleSet`

## Before

PowerShell

```
$vmss = New-AzVMSSConfig ...
$vmss.VirtualMachineProfile.AdditionalCapabilities.UltraSSDEnabled =
```

```
$true
```

## After

```
PowerShell
```

```
$vmss = New-AzVMSSConfig ...
$vmss.AdditionalCapabilities.UltraSSDEnabled = $true
```

- Cmdlet `Set-AzVMBootDiagnostic` removed alias to `Set-AzVMBootDiagnostics`

## Before

Using deprecated alias

```
PowerShell
```

```
Set-AzVMBootDiagnostics
```

## After

```
PowerShell
```

```
Set-AzVMBootDIagnostic
```

- Cmdlet `Export-AzLogAnalyticThrottledRequest` removed alias to `Export-AzLogAnalyticThrottledRequests`

## Before

Using deprectaed alias

```
PowerShell
```

```
Export-AzLogAnalyticThrottledRequests
```

## After

```
PowerShell
```

## Export-AzLogAnalyticThrottledRequest

## Az.HDInsight

- Removed the `Grant-AzHDInsightHttpServicesAccess` and `Revoke-AzHDInsightHttpServicesAccess` cmdlets. These are no longer necessary because HTTP access is always enabled on all HDInsight clusters.
- Added a new `Set-AzHDInsightGatewayCredential` cmdlet. Use this cmdlet to change the gateway HTTP username and password (replaces `Grant-AzHDInsightHttpServicesAccess`).
- Updated the `Get-AzHDInsightJobOutput` cmdlet to support granular role-based access to the storage key.
  - Users with HDInsight Cluster Operator, Contributor, or Owner roles will not be affected.
  - Users with only the Reader role will need to specify `DefaultStorageAccountKey` parameter explicitly.

For more information about these role-based access changes, see [aka.ms/hdi-config-update](https://aka.ms/hdi-config-update)

## Before

PowerShell

```
Grant-AzHDInsightHttpServicesAccess -ClusterName $cluster -HttpCredential  
$credential
```

## After

PowerShell

```
Set-AzHDInsightGatewayCredential -ClusterName $cluster -HttpCredential  
$credential
```

## Users with only Reader role for cmdlet Get-AzHDInsightJobOutput

## Before

PowerShell

```
Get-AzHDInsightJobOutput -ClusterName $clusterName -JobId $jobId
```

## After

PowerShell

```
Get-AzHDInsightJobOutput -ClusterName $clusterName -JobId $jobId -  
DefaultStorageAccountKey $storageAccountKey
```

## Az.Storage

- Namespaces for types returned from Blob, Queue, and File cmdlets have changed their namespace from `Microsoft.WindowsAzure.Storage` to `Microsoft.Azure.Storage`. While this is not technically a breaking change according to the breaking change policy, it may require some changes in code that uses the methods from the Storage .Net SDK to interact with the objects returned from these cmdlets.

### Example 1: Add a message to a Queue (change CloudQueueMessage object namespace)

Before:

PowerShell

```
$queue = Get-AzStorageQueue -Name $queueName -Context $ctx  
$queueMessage = New-Object -TypeName  
"Microsoft.WindowsAzure.Storage.Queue.CloudQueueMessage,$($queue.CloudQ  
ueue.GetType().Assembly.FullName)" -ArgumentList "This is message 1"  
$queue.CloudQueue.AddMessageAsync($queueMessage)
```

After:

PowerShell

```
$queue = Get-AzStorageQueue -Name $queueName -Context $ctx  
$queueMessage = New-Object -TypeName  
"Microsoft.Azure.Storage.Queue.CloudQueueMessage,$($queue.CloudQueue.Ge  
tType().Assembly.FullName)" -ArgumentList "This is message 1"  
$queue.CloudQueue.AddMessageAsync($queueMessage)
```

## Example 2: Fetch Blob/File Attributes with AccessCondition (change AccessCondition object namespace)

Before:

```
PowerShell

$accessCondition= New-Object
Microsoft.WindowsAzure.Storage.AccessCondition

$blob = Get-AzureStorageBlob -Container $containerName -Blob $blobName
blob.ICloudBlob.FetchAttributes($accessCondition)

$file = Get-AzureStorageFile -ShareName $shareName -Path $filepath
$file.FetchAttributes($accessCondition)
```

After:

```
PowerShell

$accessCondition= New-Object Microsoft.Azure.Storage.AccessCondition

blob = Get-AzureStorageBlob -Container $containerName -Blob $blobName
blob.ICloudBlob.FetchAttributes($accessCondition)

$file = Get-AzureStorageFile -ShareName $shareName -Path $filepath
$file.FetchAttributes($accessCondition)
```

- While not technically a breaking change, you will notice output differences in the Sku.Name property of Storage Accounts returned from `New/Get/Set-AzStorageAccount` changes are as follows. (After the change, output and input SkuName are aligned.)
  - "StandardLRS" -> "Standard\_LRS";
  - "StandardGRS" -> "Standard\_GRS";
  - "StandardRAGRS" -> "Standard\_RAGRS";
  - "StandardZRS" -> "Standard\_ZRS";
  - "PremiumLRS" -> "Premium\_LRS";
- The default service behavior when creating a storage account without specifying a Kind has changed. In previous versions, when a storage account was created with no `Kind` specified, the Storage account Kind of `Storage` was used, in the new version `StorageV2` is the default `Kind` value. If you need to create a V1 Storage account with Kind 'Storage', add parameter '-Kind Storage'

**Example : Create a storage Account (Default Kind change)**

Before:

PowerShell

```
PS c:\> New-AzStorageAccount -ResourceGroupName groupname -Name accountname -SkuName Standard_LRS -Location "westus"

StorageAccountName ResourceGroupName Location SkuName      Kind
AccessTier CreationTime          ProvisioningState
EnableHttpsTrafficOnly

-----
-----
accountname      groupname      westus   StandardLRS Storage   Hot
4/17/2018 10:34:32 AM Succeeded      False
```

After:

PowerShell

```
PS c:\> New-AzStorageAccount -ResourceGroupName groupname -Name accountname -SkuName Standard_LRS -Location "westus"

StorageAccountName ResourceGroupName Location SkuName      Kind
AccessTier CreationTime          ProvisioningState
EnableHttpsTrafficOnly

-----
-----
-
accountname      groupname      westus   Standard_LRS StorageV2
Hot            4/17/2018 10:34:32 AM Succeeded      False
```

# Introducing the Azure Az PowerShell module

Article • 09/27/2023

## Overview

The Az PowerShell module is a set of cmdlets for managing Azure resources directly from PowerShell. PowerShell provides powerful features for automation that can be leveraged for managing your Azure resources, for example in the context of a CI/CD pipeline.

The Az PowerShell module is the replacement of AzureRM and is the recommended version to use for interacting with Azure.

### ⊗ Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

You can use the Az PowerShell module with one of the following methods:

- [Install the Az PowerShell module via PowerShellGet](#) (recommended option).
- [Install the Az PowerShell module with MSI](#).
- [Use Azure Cloud Shell](#).
- [Use the Az PowerShell Docker container](#).

## Features

The Az PowerShell module features the following benefits:

- Security and stability
  - Token cache encryption
  - Prevention of man-in-the-middle attack type
  - Support authentication with ADFS 2019

- Username and password authentication in PowerShell 7
- Support for features like continuous access evaluation
- Support for all Azure services
  - All generally available Azure services have a corresponding supported PowerShell module
  - Multiple bug fixes and API version upgrades since AzureRM
- New capabilities
  - Support in Cloud Shell and cross-platform
  - Can get and use access token to access Azure resources
  - Cmdlet available for advanced REST operations with Azure resources

### ① Note

PowerShell 7.0.6 LTS, PowerShell 7.1.3, or higher is the recommended version of PowerShell for use with the Azure Az PowerShell module on all platforms.

The Az PowerShell module is based on the .NET Standard library and works with PowerShell 7 and later on all platforms including Windows, Linux, and macOS. It's also compatible with Windows PowerShell 5.1.

We're committed to bringing Azure support to all platforms and all Az PowerShell modules are cross-platforms.

## Upgrade your environment to Az

To keep up with the latest Azure features in PowerShell, you should migrate to the Az module. If you're not ready to install the Az module as a replacement for AzureRM, you have a couple of options available to experiment with Az:

- Use a `PowerShell` environment with [Azure Cloud Shell](#). Azure Cloud Shell is a browser-based shell environment that comes with the Az module installed and `Enable-AzureRM` compatibility aliases enabled.
- Keep the AzureRM module installed in Windows PowerShell 5.1 and install the Az module in PowerShell 7 or later. Windows PowerShell 5.1 and PowerShell 7 and later use separate collections of modules. Follow the instructions to install the [latest version of PowerShell](#) and then [install the Az module](#) from PowerShell 7 or later.

To upgrade from an existing AzureRM install:

1. [Uninstall the Azure PowerShell AzureRM module](#)

2. [Install the Azure PowerShell Az module](#)
3. **OPTIONAL:** Enable compatibility mode to add aliases for AzureRM cmdlets with [Enable-AzureRMAlias](#) while you become familiar with the new command set. For more information, see the next section or [Start migration from AzureRM to Az](#).

## Migrate existing scripts from AzureRM to Az

If your scripts are still based on the AzureRM module, we have several resources to help you with the migration:

- [Get started with migration from AzureRM to Az](#)
- [Full list of breaking changes from AzureRM to Az 1.0.0](#)
- The [Enable-AzureRmAlias](#) cmdlet

## Supportability

Az is the most current PowerShell module for Azure. Issues or feature requests can be logged directly on the [GitHub repository](#), or via Microsoft support if you have a support contract. Feature requests are implemented in the latest version of Az. Critical issues are implemented on the last two versions of Az.

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on February 29, 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by February 29, 2024. To automatically update your scripts, follow the [quickstart guide](#).

## Data collection

Azure PowerShell collects telemetry data by default. Microsoft aggregates collected data to identify patterns of usage to identify common issues and to improve the experience of Azure PowerShell. Microsoft Azure PowerShell doesn't collect any private or personal data. For example, the usage data helps identify issues such as cmdlets with low success and helps prioritize our work.

While we appreciate the insights this data provides, we also understand that not everyone wants to send usage data. You can disable data collection with the [Disable-AzDataCollection](#) cmdlet. You can also read our [privacy statement](#) to learn more.

# Breaking changes for Az 1.0.0

Article • 09/27/2023

This document provides detailed information on the changes between AzureRM 6.x and the new Az module, version 1.x and later. The table of contents will help guide you through a full migration path, including module-specific changes that may affect your scripts.

For general advice on getting started with a migration from AzureRM to Az, see [Start migration from AzureRM to Az](#).

## ⓘ Important

There have been breaking changes between Az 1.0.0 and Az 2.0.0 as well. After following this guide for updating from AzureRM to Az, see the [Az 2.0.0 breaking changes](#) to find out if you need to make additional changes.

## Table of Contents

- General breaking changes
  - Cmdlet noun prefix changes
  - Module name changes
  - Removed modules
  - Windows PowerShell 5.1 and .NET 4.7.2
  - Temporary removal of user login using PSCredential
  - Default device code login instead of web browser prompt
- Module breaking changes
  - Az.ApiManagement (previously AzureRM.ApiManagement)
  - Az.Billing (previously AzureRM.Billing, AzureRM.Consumption, and AzureRM.UsageAggregates)
  - Az.CognitiveServices (previously AzureRM.CognitiveServices)
  - Az.Compute (previously AzureRM.Compute)
  - Az.DataFactory (previously AzureRM.DataFactories and AzureRM.DataFactoryV2)
  - Az.DataLakeAnalytics (previously AzureRM.DataLakeAnalytics)
  - Az.DataLakeStore (previously AzureRM.DataLakeStore)
  - Az.KeyVault (previously AzureRM.KeyVault)
  - Az.Media (previously AzureRM.Media)
  - Az.Monitor (previously AzureRM.Insights)
  - Az.Network (previously AzureRM.Network)

- [Az.OperationalInsights](#) (previously AzureRM.OperationalInsights)
- [Az.RecoveryServices](#) (previously AzureRM.RecoveryServices, AzureRM.RecoveryServices.Backup, and AzureRM.RecoveryServices.SiteRecovery)
- [Az.Resources](#) (previously AzureRM.Resources)
- [Az.ServiceFabric](#) (previously AzureRM.ServiceFabric)
- [Az.Sql](#) (previously AzureRM.Sql)
- [Az.Storage](#) (previously Azure.Storage and AzureRM.Storage)
- [Az.Websites](#) (previously AzureRM.Websites)

## General breaking changes

This section details the general breaking changes that are part of the redesign of the Az module.

### Cmdlet Noun Prefix Changes

In the AzureRM module, cmdlets used either `AzureRM` or `Azure` as a noun prefix. Az simplifies and normalizes cmdlet names, so that all cmdlets use 'Az' as their cmdlet noun prefix. For example:

```
Azure PowerShell

Get-AzureRMVM
Get-AzureKeyVaultSecret
```

Has changed to:

```
Azure PowerShell

Get-AzVM
Get-AzKeyVaultSecret
```

To make the transition to these new cmdlet names simpler, Az introduces two new cmdlets, [Enable-AzureRmAlias](#) and [Disable-AzureRmAlias](#). `Enable-AzureRmAlias` creates aliases for the older cmdlet names in AzureRM that map to the newer Az cmdlet names. Using the `-Scope` argument with `Enable-AzureRmAlias` allows you to choose where aliases are enabled.

For example, the following script in AzureRM:

```
Azure PowerShell
```

```
#Requires -Modules AzureRM.Storage  
Get-AzureRmStorageAccount | Get-AzureStorageContainer | Get-AzureStorageBlob
```

Can be run with minimal changes using `Enable-AzureRmAlias`:

Azure PowerShell

```
#Requires -Modules Az.Storage  
Enable-AzureRmAlias -Scope Process  
Get-AzureRmStorageAccount | Get-AzureStorageContainer | Get-AzureStorageBlob
```

Running `Enable-AzureRmAlias -Scope CurrentUser` will enable the aliases for all PowerShell sessions you open, so that after executing this cmdlet, a script like this would not need to be changed at all:

Azure PowerShell

```
Get-AzureRmStorageAccount | Get-AzureStorageContainer | Get-AzureStorageBlob
```

For complete details on the usage of the alias cmdlets, see the [Enable-AzureRmAlias reference](#).

When you're ready to disable aliases, `Disable-AzureRmAlias` removes the created aliases. For complete details, see the [Disable-AzureRmAlias reference](#).

### ⓘ Important

When disabling aliases, make sure that they are disabled for *all* scopes which had aliases enabled.

## Module Name Changes

The module names have changed from `AzureRM.*` to `Az.*`, except for the following modules:

AzureRM module	Az module
Azure.Storage	Az.Storage
Azure.AnalysisServices	Az.AnalysisServices
AzureRM.Profile	Az.Accounts

AzureRM module	Az module
AzureRM.Insights	Az.Monitor
AzureRM.DataFactories	Az.DataFactory
AzureRM.DataFactoryV2	Az.DataFactory
AzureRM.RecoveryServices.Backup	Az.RecoveryServices
AzureRM.RecoveryServices.SiteRecovery	Az.RecoveryServices
AzureRM.Tags	Az.Resources
AzureRM.MachineLearningCompute	Az.MachineLearning
AzureRM.UsageAggregates	Az.Billing
AzureRM.Consumption	Az.Billing

The changes in module names mean that any script that uses `#Requires` or `Import-Module` to load specific modules will need to be changed to use the new module instead. For modules where the cmdlet suffix has not changed, this means that although the module name has changed, the suffix indicating the operation space has *not*.

## Migrating `#Requires` and `Import-Module` Statements

Scripts that use `#Requires` or `Import-Module` to declare a dependency on AzureRM modules must be updated to use the new module names. For example:

Azure PowerShell

```
#Requires -Module AzureRM.Compute
```

Should be changed to:

Azure PowerShell

```
#Requires -Module Az.Compute
```

For `Import-Module`:

Azure PowerShell

```
Import-Module -Name AzureRM.Compute
```

Should be changed to:

```
Azure PowerShell
```

```
Import-Module -Name Az.Compute
```

## Migrating Fully-Qualified Cmdlet Invocations

Scripts that use module-qualified cmdlet invocations, such as:

```
Azure PowerShell
```

```
AzureRM.Compute\Get-AzureRmVM
```

Must be changed to use the new module and cmdlet names:

```
Azure PowerShell
```

```
Az.Compute\Get-AzVM
```

## Migrating module manifest dependencies

Modules that express dependencies on AzureRM modules through a module manifest (.psd1) file will need to update the module names in their `RequiredModules` section:

```
PowerShell
```

```
RequiredModules = @(@{ModuleName="AzureRM.Profile"; ModuleVersion="5.8.2"})
```

Must be changed to:

```
PowerShell
```

```
RequiredModules = @(@{ModuleName="Az.Profile"; ModuleVersion="1.0.0"})
```

## Removed modules

The following modules have been removed:

- `AzureRM.Backup`
- `AzureRM.Compute.ManagedService`

- `AzureRM.Scheduler`

The tools for these services are no longer actively supported. Customers are encouraged to move to alternative services as soon as it is convenient.

## Windows PowerShell 5.1 and .NET 4.7.2

Using Az with PowerShell 5.1 for Windows requires the installation of .NET Framework 4.7.2. Using PowerShell Core 6.x or later does not require .NET Framework.

## Temporary removal of User login using PSCredential

Due to changes in the authentication flow for .NET Standard, we are temporarily removing user login via PSCredential. This capability will be re-introduced in the 1/15/2019 release for PowerShell 5.1 for Windows. This is discussed in detail in [this GitHub issue](#).

## Default device code login instead of web browser prompt

Due to changes in the authentication flow for .NET Standard, we are using device login as the default login flow during interactive login. Web browser based login will be re-introduced for PowerShell 5.1 for Windows as the default in the 1/15/2019 release. At that time, users will be able to choose device login using a Switch parameter.

## Module breaking changes

This section details specific breaking changes for individual modules and cmdlets.

### Az.ApiManagement (previously AzureRM.ApiManagement)

- Removed the following cmdlets:
  - `New-AzureRmApiManagementHostnameConfiguration`
  - `Set-AzureRmApiManagementHostnames`
  - `Update-AzureRmApiManagementDeployment`
  - `Import-AzureRmApiManagementHostnameCertificate`
  - Use `Set-AzApiManagement` cmdlet to set these properties instead
- Removed the following properties:
  - Removed property `PortalHostnameConfiguration`, `ProxyHostnameConfiguration`, `ManagementHostnameConfiguration` and `ScmHostnameConfiguration` of type

`PsApiManagementHostnameConfiguration` from `PsApiManagementContext`. Instead use `PortalCustomHostnameConfiguration`, `ProxyCustomHostnameConfiguration`, `ManagementCustomHostnameConfiguration` and `ScmCustomHostnameConfiguration` of type `PsApiManagementCustomHostNameConfiguration`.

- Removed property `StaticIPs` from `PsApiManagementContext`. The property has been split into `PublicIPAddresses` and `PrivateIPAddresses`.
- Removed required property `Location` from New-`AzureApiManagementVirtualNetwork` cmdlet.

## Az.Billing (previously AzureRM.Billing, AzureRM.Consumption, and AzureRM.UsageAggregates)

- The `InvoiceName` parameter was removed from the `Get-AzConsumptionUsageDetail` cmdlet. Scripts will need to use other identity parameters for the invoice.

## Az.CognitiveServices (previously AzureRM.CognitiveServices)

- Removed `GetSkusWithAccountParamSetName` parameter set from `Get-AzCognitiveServicesAccountSkus` cmdlet. You must get Skus by Account Type and Location, instead of using ResourceGroupName and Account Name.

## Az.Compute (previously AzureRM.Compute)

- `IdentityIds` are removed from `Identity` property in `PSVirtualMachine` and `PSVirtualMachineScaleSet` objects. Scripts should no longer use the value of this field to make processing decisions.
- The type of `InstanceView` property of `PSVirtualMachineScaleSetVM` object is changed from `VirtualMachineInstanceView` to `VirtualMachineScaleSetVMInstanceView`
- `AutoOSUpgradePolicy` and `AutomaticOSUpgrade` properties are removed from `UpgradePolicy` property
- The type of `Sku` property in `PSSnapshotUpdate` object is changed from `DiskSku` to `SnapshotSku`
- `VmScaleSetVMParameterSet` is removed from `Add-AzVMDataDisk` cmdlet, you can no longer add a data disk individually to a ScaleSet VM.

## Az.DataFactory (previously AzureRM.DataFactories and AzureRM.DataFactoryV2)

- The `GatewayName` parameter has become mandatory in the `New-AzDataFactoryEncryptValue` cmdlet
- Removed `New-AzDataFactoryGatewayKey` cmdlet
- Removed `LinkedServiceName` parameter from `Get-AzDataFactoryV2ActivityRun` cmdlet Scripts should no longer use the value of this field to make processing decisions.

## Az.DataLakeAnalytics (previously AzureRM.DataLakeAnalytics)

- Removed deprecated cmdlets: `New-AzDataLakeAnalyticsCatalogSecret`, `Remove-AzDataLakeAnalyticsCatalogSecret`, and `Set-AzDataLakeAnalyticsCatalogSecret`

## Az.DataLakeStore (previously AzureRM.DataLakeStore)

- The following cmdlets have had the `Encoding` parameter changed from the type `FileSystemCmdletProviderEncoding` to `System.Text.Encoding`. This change removes the encoding values `String` and `Oem`. All the other prior encoding values remain.
  - `New-AzureRmDataLakeStoreItem`
  - `Add-AzureRmDataLakeStoreItemContent`
  - `Get-AzureRmDataLakeStoreItemContent`
- Removed deprecated `Tags` property alias from `New-AzDataLakeStoreAccount` and `Set-AzDataLakeStoreAccount` cmdlets

Scripts using

Azure PowerShell

```
New-AzureRMDataLakeStoreAccount -Tags @{TagName="TagValue"}
```

Should be changed to

Azure PowerShell

```
New-AzDataLakeStoreAccount -Tag @{TagName="TagValue"}
```

- Removed deprecated properties `Identity`, `EncryptionState`, `EncryptionProvisioningState`, `EncryptionConfig`, `FirewallState`, `FirewallRules`, `VirtualNetworkRules`, `TrustedIdProviderState`, `TrustedIdProviders`, `DefaultGroup`, `NewTier`, `CurrentTier`, `FirewallAllowAzureIps` from `PSDataLakeStoreAccountBasic` object. Any script that uses the `PSDataLakeStoreAccount` returned from `Get-AzDataLakeStoreAccount` should not reference these properties.

## Az.KeyVault (previously AzureRM.KeyVault)

- The `PurgeDisabled` property was removed from the `PSKeyVaultKeyAttributes`, `PSKeyVaultKeyIdentityItem`, and `PSKeyVaultSecretAttributes` objects Scripts should no longer reference the `PurgeDisabled` property to make processing decisions.

## Az.Media (previously AzureRM.Media)

- Remove deprecated `Tags` property alias from `New-AzMediaService` cmdlet Scripts using

```
Azure PowerShell
New-AzureRMMediaService -Tags @{TagName="TagValue"}
```

Should be changed to

```
Azure PowerShell
New-AzMediaService -Tag @{TagName="TagValue"}
```

## Az.Monitor (previously AzureRM.Insights)

- Removed plural names `Categories` and `Timegrains` parameter in favor of singular parameter names from `Set-AzDiagnosticSetting` cmdlet Scripts using

```
Azure PowerShell
Set-AzureRmDiagnosticSetting -Timegrains PT1M -Categories Category1, Category2
```

Should be changed to

Azure PowerShell

```
Set-AzDiagnosticSetting -Timegrain PT1M -Category Category1, Category2
```

## Az.Network (previously AzureRM.Network)

- Removed deprecated `ResourceId` parameter from `Get-AzServiceEndpointPolicyDefinition` cmdlet
- Removed deprecated `EnableVmProtection` property from `PSVirtualNetwork` object
- Removed deprecated `Set-AzVirtualNetworkGatewayVpnClientConfig` cmdlet

Scripts should no longer make processing decisions based on the values fo these fields.

## Az.OperationalInsights (previously AzureRM.OperationalInsights)

- Default parameter set for `Get-AzOperationalInsightsDataSource` is removed, and `ByWorkspaceNameByKind` has become the default parameter set

Scripts that listed data sources using

Azure PowerShell

```
Get-AzureRmOperationalInsightsDataSource
```

Should be changed to specify a Kind

Azure PowerShell

```
Get-AzOperationalInsightsDataSource -Kind AzureActivityLog
```

## Az.RecoveryServices (previously AzureRM.RecoveryServices, AzureRM.RecoveryServices.Backup, and AzureRM.RecoveryServices.SiteRecovery)

- Removed `Encryption` parameter from `New/Set-AzRecoveryServicesAsrPolicy` cmdlet
- `TargetStorageAccountName` parameter is now mandatory for managed disk restores in `Restore-AzRecoveryServicesBackupItem` cmdlet

- Removed `StorageAccountName` and `StorageAccountResourceGroupName` parameters in `Restore-AzRecoveryServicesBackupItem` cmdlet
- Removed `Name` parameter in `Get-AzRecoveryServicesBackupContainer` cmdlet

## Az.Resources (previously AzureRM.Resources)

- Removed `Sku` parameter from `New/Set-AzPolicyAssignment` cmdlet
- Removed `Password` parameter from `New-AzADServicePrincipal` and `New-AzADSpCredential` cmdlet Passwords are automatically generated, scripts that provided the password:

Azure PowerShell

```
New-AzAdSpCredential -ObjectId 1f99cf81-0146-4f4e-beae-2007d0668476 -  
Password $secPassword
```

Should be changed to retrieve the password from the output:

Azure PowerShell

```
$credential = New-AzAdSpCredential -ObjectId 1f99cf81-0146-4f4e-beae-  
2007d0668476  
$secPassword = $credential.Secret
```

## Az.ServiceFabric (previously AzureRM.ServiceFabric)

- The following cmdlet return types have been changed:
  - The property `ServiceTypeHealthPolicies` of type `ApplicationHealthPolicy` has been removed.
  - The property `ApplicationHealthPolicies` of type `ClusterUpgradeDeltaHealthPolicy` has been removed.
  - The property `OverrideUserUpgradePolicy` of type `clusterUpgradePolicy` has been removed.
  - These changes affect the following cmdlets:
    - `Add-AzServiceFabricClientCertificate`
    - `Add-AzServiceFabricClusterCertificate`
    - `Add-AzServiceFabricNode`
    - `Add-AzServiceFabricNodeType`
    - `Get-AzServiceFabricCluster`
    - `Remove-AzServiceFabricClientCertificate`

- Remove-AzServiceFabricClusterCertificate
- Remove-AzServiceFabricNode
- Remove-AzServiceFabricNodeType
- Remove-AzServiceFabricSetting
- Set-AzServiceFabricSetting
- Set-AzServiceFabricUpgradeType
- Update-AzServiceFabricDurability
- Update-AzServiceFabricReliability

## Az.Sql (previously AzureRM.Sql)

- Removed `State` and `ResourceId` parameters from `Set-AzSqlDatabaseBackupLongTermRetentionPolicy` cmdlet
- Removed deprecated cmdlets: `Get/Set-AzSqlServerBackupLongTermRetentionVault`, `Get/Start/Stop-AzSqlServerUpgrade`, `Get/Set-AzSqlDatabaseAuditingPolicy`, `Get/Set-AzSqlServerAuditingPolicy`, `Remove-AzSqlDatabaseAuditing`, `Remove-AzSqlServerAuditing`
- Removed deprecated parameter `Current` from `Get-AzSqlDatabaseBackupLongTermRetentionPolicy` cmdlet
- Removed deprecated parameter `DatabaseName` from `Get-AzSqlServerServiceObjective` cmdlet
- Removed deprecated parameter `PrivilegedLogin` from `Set-AzSqlDatabaseDataMaskingPolicy` cmdlet

## Az.Storage (previously Azure.Storage and AzureRM.Storage)

- To support creating an Oauth storage context with only the storage account name, the default parameter set has been changed to `OAuthParameterSet`
  - Example: `$ctx = New-AzureStorageContext -StorageAccountName $accountName`
- The `Location` parameter has become mandatory in the `Get-AzStorageUsage` cmdlet
- The Storage API methods now use the Task-based Asynchronous Pattern (TAP), instead of synchronous API calls. The following examples demonstrate the new asynchronous commands:

### Blob Snapshot

AzureRM:

Azure PowerShell

```
$b = Get-AzureStorageBlob -Container $containerName -Blob $blobName -Context $ctx  
$b.ICloudBlob.Snapshot()
```

Az:

Azure PowerShell

```
$b = Get-AzStorageBlob -Container $containerName -Blob $blobName -Context $ctx  
$task = $b.ICloudBlob.SnapshotAsync()  
$task.Wait()  
$snapshot = $task.Result
```

## Share Snapshot

AzureRM:

Azure PowerShell

```
$Share = Get-AzureStorageShare -Name $containerName -Context $ctx  
$snapshot = $Share.Snapshot()
```

Az:

Azure PowerShell

```
$Share = Get-AzStorageShare -Name $containerName -Context $ctx  
$task = $Share.SnapshotAsync()  
$task.Wait()  
$snapshot = $task.Result
```

## Undelete soft-deleted blob

AzureRM:

Azure PowerShell

```
$b = Get-AzureStorageBlob -Container $containerName -Blob $blobName -  
IncludeDeleted -Context $ctx  
$b.ICloudBlob.Undelete()
```

Az:

```
Azure PowerShell

$b = Get-AzStorageBlob -Container $containerName -Blob $blobName -
    IncludeDeleted -Context $ctx
$task = $b.ICloudBlob.UndeleteAsync()
$task.Wait()
```

## Set Blob Tier

AzureRM:

```
Azure PowerShell

$blockBlob = Get-AzureStorageBlob -Container $containerName -Blob
$blockBlobName -Context $ctx
$blockBlob.ICloudBlob.SetStandardBlobTier("hot")

$pageBlob = Get-AzureStorageBlob -Container $containerName -Blob
$pageBlobName -Context $ctx
$pageBlob.ICloudBlob.SetPremiumBlobTier("P4")
```

Az:

```
Azure PowerShell

$blockBlob = Get-AzStorageBlob -Container $containerName -Blob
$blockBlobName -Context $ctx
$task = $blockBlob.ICloudBlob.SetStandardBlobTierAsync("hot")
$task.Wait()

$pageBlob = Get-AzStorageBlob -Container $containerName -Blob $pageBlobName
-Context $ctx
$task = $pageBlob.ICloudBlob.SetPremiumBlobTierAsync("P4")
$task.Wait()
```

## Az.Websites (previously AzureRM.Websites)

- Removed deprecated properties from the `PSAppServicePlan`, `PSCertificate`, `PSCloningInfo`, and `PSSite` objects

# Migrate Azure PowerShell from AzureRM to Az

Article • 09/27/2023

All versions of the AzureRM PowerShell module are outdated. The [Az PowerShell module](#) is now the recommended PowerShell module for interacting with Azure.

## ⊗ Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

## Why a new module?

The biggest and most important change is that [PowerShell](#), being based on the .NET Standard library, has been a cross-platform product since its introduction.

Like the PowerShell language, we're committed to bringing Azure support to all platforms. Our commitment meant that the Azure PowerShell modules needed to be updated to use .NET Standard and be compatible with PowerShell Core. Rather than modifying the existing AzureRM module and introducing complex changes to add this support, the Az module was created.

Creating a new module also allowed our engineers to make the design, naming of cmdlets, and modules consistent. All modules now start with the `Az.` prefix and cmdlets all use the `Verb-AzNoun` naming convention. Previously, cmdlet names were longer and inconsistent.

The number of modules were also reduced: Some modules that worked with the same services have been combined. Management plane and data plane cmdlets for the same service are now contained within a single module. For those of you who manually manage dependencies and imports, this consolidation makes things much simpler.

By making these important changes, the team has committed to making it easier than ever before and on more platforms than previously possible to use Azure with

PowerShell cmdlets.

## Upgrading to Az PowerShell

Scripts written for the AzureRM cmdlets won't automatically work with Az. To make the transition easier, the [AzureRM to Az migration toolkit](#) was developed. No migration to a new command set is ever convenient, but this article will help you get started on transitioning to the Az PowerShell module. To learn more about why the Az PowerShell module was created, see [Introducing the new Azure PowerShell Az module](#).

The new cmdlet names have been designed to be easy to learn. Instead of using `AzureRm` or `Azure` in cmdlet names, use `Az`. For example, the old cmdlet `New-AzureRmVm` has become `New-AzVm`. However, migration is more than becoming familiar with the new cmdlet names, though. There are renamed modules, parameters, and other important changes.

To see the full list of breaking changes between AzureRM and Az, see the [full changes from AzureRM to Az](#).

## Ensure existing scripts work with the latest AzureRM release

Before taking any migration steps, determine what versions of AzureRM are installed on your system. Doing so allows you to make sure scripts are already running on the latest release and let you know what versions of AzureRM must be uninstalled.

To determine what versions of AzureRM you have installed, run the following example:

```
PowerShell  
Get-Module -Name AzureRM -ListAvailable -All
```

The **latest** available release of AzureRM is **6.13.2**. If you don't have this version installed, your existing scripts may need additional modifications to work with the Az module beyond the scope of what's described in this article and in the [breaking changes list](#).

If your scripts don't work with AzureRM 6.13.2, update them according to the [AzureRM 5.x to 6.x migration guide](#). If you use an earlier version of the AzureRM module, there are migration guides available for each major version.

# Option 1 (recommended): Automatically migrate your PowerShell scripts

This recommended option minimizes the effort required to migrate AzureRM scripts to Az.

## Install the AzureRM to Az migration toolkit

PowerShell

```
Install-Module -Name Az.Tools.Migration
```

## Convert your scripts automatically

With the AzureRM to Az migration toolkit, you can generate a plan to determine what changes will be performed on your scripts before making any modifications to them and before installing the Az PowerShell module.

The [Automatically migrate PowerShell scripts from AzureRM to the Az PowerShell module](#) quickstart walks you through the entire process of automatically updating your PowerShell scripts from AzureRM to the Az PowerShell module.

## Option 2: Use compatibility mode with Enable-AzureRmAlias

The Az module has a compatibility mode to help you use existing scripts while you update to the new syntax. The [Enable-AzureRmAlias](#) cmdlet enables a compatibility mode through aliases. This mode allows you to use existing scripts with minimal modification while working towards a full migration to Az. By default, `Enable-AzureRmAlias` only enables compatibility aliases for the current PowerShell session. Use its `Scope` parameter to persist compatibility aliases across PowerShell sessions. For more information, see [the Enable-AzureRmAlias reference documentation](#).

### ⓘ Important

Even though the cmdlet names are aliased, there may still be new (or renamed) parameters or changed return values for the Az cmdlets. Don't expect enabling

aliases to take care of the migration for you. See the [full breaking changes list](#) to find where your scripts may require updates.

Support for `Enable-AzureRmAlias` will not be deprecated with the deprecation of the AzureRM PowerShell module.

## Next steps

- [Uninstall AzureRM](#)
- [Install Azure PowerShell](#)

# Quickstart: Automatically migrate PowerShell scripts from AzureRM to the Az PowerShell module

Article • 09/27/2023

In this article, you'll learn how to use the Az.Tools.Migration PowerShell module to automatically upgrade your PowerShell scripts and script modules from AzureRM to the Az PowerShell module. For additional migration options, see [Migrate Azure PowerShell from AzureRM to Az](#).

## ⊗ Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

## Requirements

- Update your existing PowerShell scripts to the latest version of the [AzureRM PowerShell module \(6.13.1\)](#).
- Install the Az.Tools.Migration PowerShell module.

```
PowerShell  
Install-Module -Name Az.Tools.Migration
```

## Step 1: Generate an upgrade plan

You use the `New-AzUpgradeModulePlan` cmdlet to generate an upgrade plan for migrating your scripts and modules to the Az PowerShell module. This cmdlet doesn't make any changes to your existing scripts. Use the `FilePath` parameter for targeting a specific script or the `DirectoryPath` parameter for targeting all scripts in a specific folder.

## ⚠ Note

The `New-AzUpgradeModulePlan` cmdlet doesn't execute the plan, it only generates the upgrade steps.

The following example generates a plan for all the scripts in the `C:\Scripts` folder. The `OutVariable` parameter is specified so the results are returned and simultaneously stored in a variable named `Plan`.

### PowerShell

```
# Generate an upgrade plan for all the scripts and module files in the
# specified folder and save it to a variable.
New-AzUpgradeModulePlan -FromAzureRmVersion 6.13.1 -ToAzVersion 8.0.0 -
    DirectoryPath 'C:\Scripts' -OutVariable Plan
```

As shown in the following output, the upgrade plan details the specific file and offset points that require changes when moving from AzureRM to the Az PowerShell cmdlets.

### Output

Order	Location	PlanResult	UpgradeType
-----	-----	Original	-----
-----	-----		
1	compute-create-dockerhost.ps1:59:24		
CmdletParameter ReadyToUpgrade	ExtensionName		
2	compute-create-dockerhost.ps1:59:1		Cmdlet
ReadyToUpgrade	Set-AzureRmVM...		
3	compute-create-dockerhost.ps1:54:1		Cmdlet
ReadyToUpgrade	New-AzureRmVM		
4	compute-create-dockerhost.ps1:51:1		Cmdlet
ReadyToUpgrade	Add-AzureRmVM...		
5	compute-create-dockerhost.ps1:47:1		Cmdlet
ReadyToUpgrade	Add-AzureRmVM...		
6	compute-create-dockerhost.ps1:46:1		Cmdlet
ReadyToUpgrade	Set-AzureRmVM...		
7	compute-create-dockerhost.ps1:45:1		Cmdlet
ReadyToUpgrade	Set-AzureRmVM...		
8	compute-create-dockerhost.ps1:44:13		Cmdlet
ReadyToUpgrade	New-AzureRmVM...		
9	compute-create-dockerhost.ps1:40:8		Cmdlet
ReadyToUpgrade	New-AzureRmNe...		
10	compute-create-dockerhost.ps1:36:8		Cmdlet
ReadyToUpgrade	New-AzureRmNe...		
11	compute-create-dockerhost.ps1:31:16		Cmdlet
ReadyToUpgrade	New-AzureRmNe...		
12	compute-create-dockerhost.ps1:26:15		Cmdlet

```

ReadyToUpgrade           New-AzureRmNe...
13      compute-create-dockerhost.ps1:22:8          Cmdlet
ReadyToUpgrade           New-AzureRmPu...
14      compute-create-dockerhost.ps1:18:9          Cmdlet
ReadyToUpgrade           New-AzureRmVi...
15      compute-create-dockerhost.ps1:15:17         Cmdlet
ReadyToUpgrade           New-AzureRmVi...
16      compute-create-dockerhost.ps1:12:1          Cmdlet
ReadyToUpgrade           New-AzureRmRe...
17      compute-create-windowsvm-quick.ps1:18:3       ...
CmdletParameter ReadyToUpgrade           ImageName
18      compute-create-windowsvm-quick.ps1:14:1         Cmdlet
ReadyToUpgrade           New-AzureRmVM
19      compute-create-windowsvm-quick.ps1:11:1         Cmdlet
ReadyToUpgrade           New-AzureRmRe...
20      compute-create-wordpress-mysql.ps1:59:24        ...
CmdletParameter ReadyToUpgrade           ExtensionName
...

```

Before performing the upgrade, you need to view the results of the plan for problems. The following example returns a list of scripts and the items in those scripts that will prevent them from being upgraded automatically.

#### PowerShell

```

# Filter plan results to only warnings and errors
$Plan | Where-Object PlanResult -ne ReadyToUpgrade | Format-List

```

The items shown in the following output won't be upgraded automatically without manually correcting the issues first.

#### Output

```

Order          : 42
UpgradeType    : CmdletParameter
PlanResult     : ErrorParameterNotFound
PlanSeverity   : Error
PlanResultReason: Parameter was not found in Get-AzResource or it's
aliases.
SourceCommand   : CommandReference
SourceCommandParameter: CommandReferenceParameter
Location        : devtestlab-add-marketplace-image-to-lab.ps1:14:74
FullPath        : C:\Scripts\devtestlab-add-marketplace-image-to-
lab.ps1
StartOffset     : 556
Original        : ResourceNameEquals
Replacement     :

```

## Step 2: Perform the upgrade

### ✖ Caution

There is no undo operation. Always ensure that you have a backup copy of your PowerShell scripts and modules that you're attempting to upgrade.

After you're satisfied with the plan, the upgrade is performed with the `Invoke-AzUpgradeModulePlan` cmdlet. Specify `SaveChangesToNewFiles` for the `FileEditMode` parameter value to prevent changes from being made to your original scripts. When using this mode, the upgrade is performed by creating a copy of each script targeted with `_az_upgraded` appended to the filenames.

### ⚠ Warning

The `Invoke-AzUpgradeModulePlan` cmdlet is destructive when the `-FileEditMode` `ModifyExistingFiles` option is specified! It modifies your scripts and functions in place according to the module upgrade plan generated by the `New-AzUpgradeModulePlan` cmdlet. For the non-destructive option specify `-FileEditMode` `SaveChangesToNewFiles` instead.

#### PowerShell

```
# Execute the automatic upgrade plan and save the results to a variable.  
Invoke-AzUpgradeModulePlan -Plan $Plan -FileEditMode SaveChangesToNewFiles -  
OutVariable Results
```

#### Output

Order	Location	UpgradeType
UpgradeResult	Original	
1	compute-create-dockerhost.ps1:59:24	
CmdletParameter	UpgradeCompleted ExtensionName	
2	compute-create-dockerhost.ps1:59:1	Cmdlet
UpgradeCompleted	Set-AzureRmVMExtens...	
3	compute-create-dockerhost.ps1:54:1	Cmdlet
UpgradeCompleted	New-AzureRmVM	
4	compute-create-dockerhost.ps1:51:1	Cmdlet
UpgradeCompleted	Add-AzureRmVMSshPub...	
5	compute-create-dockerhost.ps1:47:1	Cmdlet
UpgradeCompleted	Add-AzureRmVMNetwor...	

```

6      compute-create-dockerhost.ps1:46:1          Cmdlet
UpgradeCompleted Set-AzureRmVMSource...
7      compute-create-dockerhost.ps1:45:1          Cmdlet
UpgradeCompleted Set-AzureRmVMOperat...
8      compute-create-dockerhost.ps1:44:13         Cmdlet
UpgradeCompleted New-AzureRmVMConfig
9      compute-create-dockerhost.ps1:40:8          Cmdlet
UpgradeCompleted New-AzureRmNetworkI...
10     compute-create-dockerhost.ps1:36:8          Cmdlet
UpgradeCompleted New-AzureRmNetworkS...
11     compute-create-dockerhost.ps1:31:16         Cmdlet
UpgradeCompleted New-AzureRmNetworkS...
12     compute-create-dockerhost.ps1:26:15         Cmdlet
UpgradeCompleted New-AzureRmNetworkS...
13     compute-create-dockerhost.ps1:22:8          Cmdlet
UpgradeCompleted New-AzureRmPublicIp...
14     compute-create-dockerhost.ps1:18:9          Cmdlet
UpgradeCompleted New-AzureRmVirtualN...
15     compute-create-dockerhost.ps1:15:17         Cmdlet
UpgradeCompleted New-AzureRmVirtualN...
16     compute-create-dockerhost.ps1:12:1          Cmdlet
UpgradeCompleted New-AzureRmResource...
17     compute-create-windowsvm-quick.ps1:18:3       CmdletParameter
UpgradeCompleted ImageName
18     compute-create-windowsvm-quick.ps1:14:1       Cmdlet
UpgradeCompleted New-AzureRmVM
19     compute-create-windowsvm-quick.ps1:11:1       Cmdlet
UpgradeCompleted New-AzureRmResource...
20     compute-create-wordpress-mysql.ps1:59:24      CmdletParameter
UpgradeCompleted ExtensionName
...

```

If any errors are returned, you can take a closer look at the error results with the following command:

PowerShell

```
# Filter results to show only errors
$Results | Where-Object UpgradeResult -ne UpgradeCompleted | Format-List
```

Output

```

Order          : 42
UpgradeType    : CmdletParameter
UpgradeResult   : UnableToUpgrade
UpgradeSeverity : Error
UpgradeResultReason : Parameter was not found in Get-AzResource or it's
                     aliases.
SourceCommand   : CommandReference
SourceCommandParameter : CommandReferenceParameter
Location        : devtestlab-add-marketplace-image-to-lab.ps1:14:74

```

```
FullPath          : C:\Scripts\devtestlab-add-marketplace-image-to-
lab.ps1
StartOffset      : 556
Original         : ResourceNameEquals
Replacement      :
```

## Limitations

- File I/O operations use default encoding. Unusual file encoding situations may cause problems.
- AzureRM cmdlets passed as arguments to Pester unit test mock statements aren't detected.

## How to report issues

Report feedback and issues about the Az.Tools.Migration PowerShell module via [a GitHub issue](#) in the `azure-powershell-migration` repository.

## Next steps

To learn more about the Az PowerShell module, see the [Azure PowerShell documentation](#)

# PowerShell samples for Azure App Service

Article • 04/09/2023

The following table includes links to PowerShell scripts built using the Azure PowerShell.

Script	Description
<a href="#">Create app</a>	
<a href="#">Create an app with deployment from GitHub</a>	Creates an App Service app that pulls code from GitHub.
<a href="#">Create an app with continuous deployment from GitHub</a>	Creates an App Service app that continuously deploys code from GitHub.
<a href="#">Create an app and deploy code with FTP</a>	Creates an App Service app and upload files from a local directory using FTP.
<a href="#">Create an app and deploy code from a local Git repository</a>	Creates an App Service app and configures code push from a local Git repository.
<a href="#">Create an app and deploy code to a staging environment</a>	Creates an App Service app with a deployment slot for staging code changes.
<a href="#">Create an app and expose your app with a Private Endpoint</a>	Creates an App Service app with a Private Endpoint.
<a href="#">Configure app</a>	
<a href="#">Map a custom domain to an app</a>	Creates an App Service app and maps a custom domain name to it.
<a href="#">Bind a custom TLS/SSL certificate to an app</a>	Creates an App Service app and binds the TLS/SSL certificate of a custom domain name to it.
<a href="#">Scale app</a>	
<a href="#">Scale an app manually</a>	Creates an App Service app and scales it across 2 instances.
<a href="#">Scale an app worldwide with a high-availability architecture</a>	Creates two App Service apps in two different geographical regions and makes them available through a single endpoint using Azure Traffic Manager.
<a href="#">Connect app to resources</a>	

<b>Script</b>	<b>Description</b>
<a href="#">Connect an app to a SQL Database</a>	Creates an App Service app and a database in Azure SQL Database, then adds the database connection string to the app settings.
<a href="#">Connect an app to a storage account</a>	Creates an App Service app and a storage account, then adds the storage connection string to the app settings.
<b>Back up and restore app</b>	
<a href="#">Back up an app</a>	Creates an App Service app and creates a one-time backup for it.
<a href="#">Create a scheduled backup for an app</a>	Creates an App Service app and creates a scheduled backup for it.
<a href="#">Delete a backup for an app</a>	Deletes an existing backup for an app.
<a href="#">Restore an app from backup</a>	Restores an app from a previously completed backup.
<a href="#">Restore a backup across subscriptions</a>	Restores a web app from a backup in another subscription.
<b>Monitor app</b>	
<a href="#">Monitor an app with web server logs</a>	Creates an App Service app, enables logging for it, and downloads the logs to your local machine.

# Azure PowerShell samples for Azure SQL Database and Azure SQL Managed Instance

Article • 03/30/2023

Applies to: Azure SQL Database Azure SQL Managed Instance

Azure SQL Database and Azure SQL Managed Instance enable you to configure your databases, instances, and pools using Azure PowerShell.

If you don't have an [Azure subscription](#), create an [Azure free account](#) before you begin.

## Use Azure Cloud Shell

Azure hosts Azure Cloud Shell, an interactive shell environment that you can use through your browser. You can use either Bash or PowerShell with Cloud Shell to work with Azure services. You can use the Cloud Shell preinstalled commands to run the code in this article, without having to install anything on your local environment.

To start Azure Cloud Shell:

Option	Example/Link
Select Try It in the upper-right corner of a code block. Selecting Try It doesn't automatically copy the code to Cloud Shell.	
Go to <a href="https://shell.azure.com">https://shell.azure.com</a> , or select the Launch Cloud Shell button to open Cloud Shell in your browser.	
Select the Cloud Shell button on the menu bar at the upper right in the <a href="#">Azure portal</a> .	

To run the code in this article in Azure Cloud Shell:

1. Start Cloud Shell.
2. Select the **Copy** button on a code block to copy the code.
3. Paste the code into the Cloud Shell session by selecting **Ctrl+Shift+V** on Windows and Linux, or by selecting **Cmd+Shift+V** on macOS.
4. Select **Enter** to run the code.

If you choose to install and use the PowerShell locally, this tutorial requires AZ PowerShell 1.4.0 or later. If you need to upgrade, see [Install Azure PowerShell module](#). If you are running PowerShell locally, you also need to run `Connect-AzAccount` to create a connection with Azure.

## Azure SQL Database

The following table includes links to sample Azure PowerShell scripts for Azure SQL Database.

Link	Description
<a href="#">Create and configure single databases and elastic pools</a>	
<a href="#">Create a single database and configure a server-level firewall rule</a>	This PowerShell script creates a single database and configures a server-level IP firewall rule.
<a href="#">Create elastic pools and move pooled databases</a>	This PowerShell script creates elastic pools, moves pooled databases, and changes compute sizes.
<a href="#">Configure geo-replication and failover</a>	
<a href="#">Configure and fail over a single database using active geo-replication</a>	This PowerShell script configures active geo-replication for a single database and fails it over to the secondary replica.
<a href="#">Configure and fail over a pooled database using active geo-replication</a>	This PowerShell script configures active geo-replication for a database in an elastic pool and fails it over to the secondary replica.
<a href="#">Configure a failover group</a>	
<a href="#">Configure a failover group for a single database</a>	This PowerShell script creates a database and a failover group, adds the database to the failover group, and tests failover to the secondary server.
<a href="#">Configure a failover group for an elastic pool</a>	This PowerShell script creates a database, adds it to an elastic pool, adds the elastic pool to the failover group, and tests failover to the secondary server.
<a href="#">Scale a single database and an elastic pool</a>	
<a href="#">Scale a single database</a>	This PowerShell script monitors the performance metrics of a single database, scales it to a higher compute size, and creates an alert rule on one of the performance metrics.

Link	Description
<a href="#">Scale an elastic pool</a>	This PowerShell script monitors the performance metrics of an elastic pool, scales it to a higher compute size, and creates an alert rule on one of the performance metrics.
<a href="#">Restore, copy, and import a database</a>	
<a href="#">Restore a database</a>	This PowerShell script restores a database from a geo-redundant backup and restores a deleted database to the latest backup.
<a href="#">Copy a database to a new server</a>	This PowerShell script creates a copy of an existing database in a new server.
<a href="#">Import a database from a bacpac file</a>	This PowerShell script imports a database into Azure SQL Database from a bacpac file.
<a href="#">Sync data between databases</a>	
<a href="#">Sync data between databases</a>	This PowerShell script configures Data Sync to sync between multiple databases in Azure SQL Database.
<a href="#">Sync data between SQL Database and SQL Server on-premises</a>	This PowerShell script configures Data Sync to sync between a database in Azure SQL Database and a SQL Server on-premises database.
<a href="#">Update the SQL Data Sync sync schema</a>	This PowerShell script adds or removes items from the Data Sync sync schema.

Learn more about the [Single-database Azure PowerShell API](#).

## Next steps

The examples listed on this page use [az.sql PowerShell cmdlets](#) for creating and managing Azure SQL resources. Additional cmdlets for running queries and performing many database tasks are located in the [SqlServer PowerShell cmdlets](#). For more information, see [SQL Server PowerShell](#).

# Azure PowerShell samples for Azure Cosmos DB for NoSQL

Article • 04/13/2023

APPLIES TO:  NoSQL

The following table includes links to commonly used Azure PowerShell scripts for Azure Cosmos DB. Use the links on the right to navigate to API specific samples. Common samples are the same across all APIs. Reference pages for all Azure Cosmos DB PowerShell cmdlets are available in the [Azure PowerShell Reference](#). The `Az.CosmosDB` module is now part of the `Az` module. [Download and install](#) the latest version of Az module to get the Azure Cosmos DB cmdlets. You can also get the latest version from the [PowerShell Gallery](#). You can also fork these PowerShell samples for Azure Cosmos DB from our GitHub repository, [Azure Cosmos DB PowerShell Samples on GitHub](#).

For PowerShell cmdlets for other APIs see [PowerShell Samples for Cassandra](#), [PowerShell Samples for API for MongoDB](#), [PowerShell Samples for Gremlin](#), [PowerShell Samples for Table](#)

## Common Samples

Task	Description
<a href="#">Update an account</a>	Update an Azure Cosmos DB account's default consistency level.
<a href="#">Update an account's regions</a>	Update an Azure Cosmos DB account's regions.
<a href="#">Change failover priority or trigger failover</a>	Change the regional failover priority of an Azure Cosmos DB account or trigger a manual failover.
<a href="#">Account keys or connection strings</a>	Get primary and secondary keys, connection strings or regenerate an account key of an Azure Cosmos DB account.
<a href="#">Create an Azure Cosmos DB Account with IP Firewall</a>	Create an Azure Cosmos DB account with IP Firewall enabled.

## API for NoSQL Samples

Task	Description
<a href="#">Create an account, database and container</a>	Create an Azure Cosmos DB account, database and container.
<a href="#">Create an account, database and container with autoscale</a>	Create an Azure Cosmos DB account, database and container with autoscale.
<a href="#">Create a container with a large partition key</a>	Create a container with a large partition key.
<a href="#">Create a container with no index policy</a>	Create an Azure Cosmos DB container with index policy turned off.
<a href="#">List or get databases or containers</a>	List or get database or containers.
<a href="#">Perform throughput operations</a>	Perform throughput operations for a database or container including get, update and migrate between autoscale and standard throughput.
<a href="#">Lock resources from deletion</a>	Prevent resources from being deleted with resource locks.

# Azure command line tools survey guidance

Article • 09/27/2023

When using Azure PowerShell, you may be invited to participate in a survey to tell us about your experience. By responding to the survey, you help to identify common issues and areas for improvement. Understanding your experiences and opinions helps to make future releases of Azure command line tools better for you and others.

## What data is collected

The survey collects anonymized feedback about your satisfaction with Azure command line tools and doesn't collect any private or personal data.

While we appreciate the insights this data provides, we understand not everyone wants to be prompted to complete a survey. You can disable being prompted to participate in surveys with the `Update-AzConfig` cmdlet or via an environment variable.

## Disable the survey

In the following example, the `Update-AzConfig` cmdlet is used to disable the survey message.

```
Azure PowerShell
```

```
Update-AzConfig -DisplaySurveyMessage $false
```

You can also use the `$Env:AzSurveyMessage` environment variable to disable the survey message.

```
Azure PowerShell
```

```
Set-Item -Path Env:\AzSurveyMessage -Value $false
```

## Compatibility with third-party tools

The survey message is displayed using PowerShell's information stream to prevent it from altering the returned object-based output. Although we've made every effort to

ensure the survey doesn't impact your experience, there are some scenarios where the survey may affect the usage of third-party tools such as Ansible. If you experience issues, we recommend that you [disable the survey](#) in those scenarios.

## Privacy statement

Your privacy is important to us. [Microsoft's Privacy Statement](#)  explains the personal data Microsoft processes, how Microsoft processes it, and for what purposes.

# Azure PowerShell docs style guide

Article • 09/28/2023

The following checklist helps ensure scripts and samples that use Azure PowerShell are consistent.

## Version

Because most Microsoft Learn documentation doesn't support multiple product versions, the latest version of the Az PowerShell module should be referenced in articles. Documentation referencing a specific version number can become outdated because Azure PowerShell is updated monthly. Only the last two major versions of the Az PowerShell module are supported by Microsoft. For more information, see [Azure PowerShell support lifecycle](#)

If cmdlets used in the article are part of a preview module, that module must be explicitly installed because only GA modules ship as part of the Az PowerShell module.

### ⓘ Important

Do not use commands from the AzureRM PowerShell module in articles. AzureRM is deprecated.

## Prerequisites

### Include files

- Use one of three Azure PowerShell include files when the article contains commands from the Az PowerShell module.
  - [No header ↗](#)
  - [H2 header ↗](#)
  - [H3 header ↗](#)
- Always place Azure service prerequisites first, followed by Azure PowerShell and Azure Cloud Shell instructions. For example, "You must have `Microsoft.Authorization/roleAssignments/write` permissions to complete the instructions in this tutorial" should come before `azure-powershell-requirements-no-header.md`.

If all commands aren't compatible with Cloud Shell, don't use the include files. Instead, instruct the user to install Azure PowerShell locally. Include the following text in an H2 Prerequisites section.

markdown

- This tutorial requires that you run Azure PowerShell locally:
  - [Install the latest version of the Az PowerShell module](/powershell/azure/install-azure-powershell).
  - Connect to your Azure account using the [Connect-AzAccount](/powershell/module/az.accounts/connect-azaccount) cmdlet.

## Formatting syntax elements in a paragraph

Follow the [PowerShell-Docs style guide](#) and [Editor's checklist](#) for formatting command syntax elements in Azure PowerShell documentation.

The first mention of a cmdlet name should be a link to the cmdlet documentation, for example:

markdown

The [Get-AzVM](/powershell/module/az.compute/get-azvm) cmdlet uses the \*\*Location\*\* parameter to ...

### ⓘ Note

Do not format text inside the brackets of a hyperlink. For more information about linking to Azure PowerShell content, see [Linking to other documents](#).

## Parameter order

Parameters for an Azure PowerShell cmdlet should appear in the order defined by the cmdlet help. A cmdlet can have multiple ways to provide the required parameters. When it does, follow the parameter set for the usage you're demonstrating. An example of a cmdlet with multiple ways to invoke it is [Connect-AzAccount](#).

## Variables

Avoid reusing variables across multiple code blocks.

The reader may complete the article steps in different sessions. Using variables across code blocks may cause errors if they're not set correctly. If you must use the variables across steps, make it clear that variables are reused in later steps.

## Randomize passwords for new resources

If you're creating a resource that has a password associated with it, **don't** use a hardcoded password. Checking passwords into source control, even examples, is a security risk.

If the Azure resources in your article require a plain text password, use `Read-Host` to allow users to define their password. The `MaskInput` parameter prevents the password from being recorded in PowerShell's history.

PowerShell

```
$password = Read-Host 'Enter a Password' -MaskInput
```

## Avoid naming conflicts

Some Azure resources, like Azure Container Registry and Key Vault, have resources tied to domain names. Those resources must have a globally unique name. For that reason, use a random value as part of names when uniqueness is required. If you don't, scripts fail to create required resources when multiple people run them. Randomness doesn't prevent conflict but can mitigate it.

Use `Get-Random` to add a random number to a name, for example:

PowerShell

```
$newAcrName = "myacr-$($Get-Random)"
```

## Interactive code snippets (Try It)

### When to use Try It

If Cloud Shell supports *every* Azure PowerShell command in your article, tag your code blocks with `azurepowershell-interactive` to add the *Try It* button to the snippets:

```
```azurepowershell-interactive
Get-AzResourceGroup | Select-Object -Property ResourceGroupName, Location
````
```

## When NOT to use Try It

Don't use `azurepowershell-interactive` if your article includes *any* Azure PowerShell commands that don't work in Cloud Shell. Use `azurepowershell` only. For example, the `Install-AzAksCliTool` cmdlet is unsupported in Cloud Shell:

Azure PowerShell

`Install-AzAksCliTool`

If you mix Cloud Shell functional commands with commands that don't work in Cloud Shell, you risk frustrating customers when only *some* commands work. Instead, stick with the `azurepowershell` language tag for all code blocks to help avoid confusion.

Because users are already authenticated when logging into Cloud Shell, don't use the `azurepowershell-interactive` tag for code blocks containing only `Connect-AzAccount`. Use the `azurepowershell` language tag instead.

## Update AzureRM to the Az PowerShell module

See [Migrate Azure PowerShell from AzureRM to Az](#) for information on how to update commands that use the AzureRM PowerShell module to the Az PowerShell module.

# Troubleshooting the Azure Az PowerShell module

Article • 09/27/2023

## Enable debug logging

One of the first steps you should take in troubleshooting a problem with the Azure Az PowerShell module is to enable debug logging.

To enable debug logging on a per command basis, specify the **Debug** parameter.

Azure PowerShell

```
Get-AzResource -Name 'DoesNotExist' -Debug
```

To enable debug logging for an entire PowerShell session, you set the value of the **DebugPreference** variable to `Continue`.

PowerShell

```
$DebugPreference = 'Continue'
```

## Installation

This section contains a list of solutions to common problems when installing the Azure Az PowerShell module.

## Az and AzureRM coexistence

### Warning

We do not support having both the AzureRM and Az PowerShell modules installed in Windows PowerShell 5.1 at the same time.

In a scenario where you need to install both the AzureRM and Az PowerShell module on the same Windows system:

- AzureRM must be installed only in the current user scope of Windows PowerShell 5.1.
- Install the Az PowerShell module in PowerShell 7.0.6 LTS, PowerShell 7.1.3, or higher.

### ⊗ Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

## Visual Studio

Older versions of Visual Studio may install Azure PowerShell as part of the Azure development workload, which installs the AzureRM module. Azure PowerShell can be removed using the Visual Studio installer or by using "Uninstall" in Apps & features. If you have already installed PowerShell 7.x, you may need to [manually install](#) the Azure Az PowerShell module.

## Proxy blocks connection

If you get errors from `Install-Module` that the PowerShell Gallery is unreachable, you may be behind a proxy. Different operating systems and network environment have different requirements for configuring a system-wide proxy. Contact your system administrator for your proxy settings and how to configure them for your environment.

PowerShell itself may not be configured to use this proxy automatically. With PowerShell 5.1 and later, configure the PowerShell session to use a proxy using the following commands:

PowerShell

```
$webClient = New-Object -TypeName System.Net.WebClient  
$webClient.Proxy.Credentials =  
[System.Net.CredentialCache]::DefaultNetworkCredentials
```

If your operating system credentials are configured correctly, this configuration routes PowerShell requests through the proxy. To have this setting persist between sessions, add the commands to your [PowerShell profile](#).

To install the package, your proxy needs to allow HTTPS connections to [www.powershellgallery.com](http://www.powershellgallery.com).

## Object reference not set to an instance of an object

The message "*object reference not set to an instance of an object*" means that you are referring to an object that's null or an Azure resource that doesn't exist or that you don't have permissions to access.

Azure PowerShell

```
$resourceId = '/subscriptions/00000000-0000-0000-0000-  
000000000000/resourceGroups/<resource-group-  
name>/providers/Microsoft.Web/sites/<webapp-  
name>/privateEndpointConnections/<endpoint-name>'  
Get-AzPrivateEndpointConnection -ResourceId $resourceId
```

Output

```
Get-AzPrivateEndpointConnection: Object reference not set to an instance of  
an object.
```

You can use the `Get-AzResource` cmdlet to verify that the specified Azure resource exists.

Azure PowerShell

```
Get-AzResource -ResourceId $resourceId
```

## Permission issues with AzAD cmdlets

The Az PowerShell module uses the Microsoft Graph API. Administering or managing resources in Azure with the Az PowerShell module requires the same permissions as performing the identical task from Azure portal or any other Azure command-line tool. For specific questions about permissions see the [Microsoft Graph permissions reference](#).

## Microsoft Graph query parameters

AzAd cmdlets under Az.Resources now support [query parameters](#) and [search query parameters](#). For details about the syntax, see the previously referenced links.

## Get-AzAdGroupMember doesn't return service principals

Due to limitations with the current Graph API, service principals aren't returned by [Get-AzAdGroupMember](#) in Az 7.x. As a workaround, [Invoke-AzRestMethod](#) can be used with the beta version of the Microsoft Graph API.

The following example requires the Az PowerShell module. Replace `myGroupName` in the first line with the name of your group.

Azure PowerShell

```
$Group = Get-AzADGroup -DisplayName myGroupName
((Invoke-AzRestMethod -Uri
"https://graph.microsoft.com/beta/groups/$($Group.id)/members").Content |
    ConvertFrom-Json).value |
    Select-Object -Property DisplayName, Id, @{label='OdataType';expression=
{$_. '@odata.type'}}
```

## Command found but could not be loaded

The following message is returned by PowerShell when you attempt to run any of the Az PowerShell commands.

Output

```
Connect-AzAccount: The 'Connect-AzAccount' command was found in the module
'Az.Accounts', but the module could not be loaded. For more information, run
'Import-Module Az.Accounts'.
```

This message occurs when you have both the Az and AzureRM PowerShell modules installed on the same Windows-based system and they exist in the [\\$env:PSModulePath](#) for the same version of PowerShell.

 **Important**

When AzureRM is installed in the `AllUsers` scope of Windows PowerShell, it's installed in a location that's part of the `$env:PSModulePath` for PowerShell 7. This isn't supported due to conflicts between the AzureRM and Az PowerShell modules.

Both Az and AzureRM may coexist on the same Windows system, but only if AzureRM is installed in the `CurrentUser` scope of Windows PowerShell and Az installed in PowerShell 7. For more information, see [Install the Azure Az PowerShell module](#).

### ⊗ Caution

Because Az PowerShell modules now have all the capabilities of AzureRM PowerShell modules and more, we'll retire AzureRM PowerShell modules on 29 February 2024.

To avoid service interruptions, [update your scripts](#) that use AzureRM PowerShell modules to use Az PowerShell modules by 29 February 2024. To automatically update your scripts, follow the [quickstart guide](#).

## On MacOS, an error returns when KeyChain authorization fails

When running Azure PowerShell on MacOS, you might encounter an error message while attempting to sign in to your Azure account from a PowerShell session.

txt

```
DeviceCodeCredential authentication failed: Persistence check failed.  
Reason: KeyChain authorization/authentication failed. .Error code: -25293.  
OS error code -25293.
```

As a workaround for this issue, you can disable storing credentials between sessions by running the following command. After making this change however, you need to run `Connect-AzAccount` each time you start a new PowerShell session.

Azure PowerShell

```
Disable-AzContextAutosave
```

## The connection for this site is not secure

When your default browser is Microsoft Edge, you might encounter the following error when attempting to login to Azure interactively with `Connect-AzAccount`: "The connection for this site is not secure." To resolve this issue, visit <edge://net-internals/#hsts> in Microsoft Edge. Add `localhost` under "Delete domain security policy" and click `Delete`.

## Service Principal IdentifierUri verified domain error

Error: *Values of identifierUris property must use a verified domain of the organization or its subdomain* is displayed when running `New-AzADServicePrincipal` or `New-AzADApplication`.

Due to the Azure Active Directory breaking change requiring [AppId Uri in single tenant applications to require use of default scheme or verified domains](#) you must upgrade the `Az.Resources` module to version 4.1.0 or later to continue using `New-AzADServicePrincipal` or `New-AzADApplication` cmdlets.

You can also upgrade to Az PowerShell module version 6.0 or greater.

## Timeline

The requirement went into effect October 15, 2021.

## Impacted versions

The following versions of Azure PowerShell are affected by the AzureAD breaking change:

- `Az.Resources` PowerShell module version 3.5.1-preview or lesser.
- `Az` PowerShell module version 5.9.0 or lesser.

If you are still encountering issues after upgrading, feel free to open an [issue](#).

## Workaround

If you can't upgrade to the PowerShell modules described previously, you may follow those steps when creating a service principal:

- If needed, [add your custom domain name using Azure Active Directory portal](#)
- Create an application with an accepted IdentifierUri
- Create a service principal referring this application

## Other issues

If you experience a product issue with Azure PowerShell not listed in this article or require further assistance, [file an issue on GitHub ↗](#).

# Frequently asked questions about Azure PowerShell

FAQ

## What is Azure PowerShell?

Azure PowerShell is a set of cmdlets that allows you to manage Azure resources directly with PowerShell. In December 2018, the Az PowerShell module became generally available. It's now the recommended PowerShell module for interacting with Azure. To learn more about the Az PowerShell module, see [Introducing the new Azure PowerShell Az module](#).

## How do I disable breaking change warning messages in Azure PowerShell?

To suppress the breaking change warning messages in Azure PowerShell, you'll need to set the environment variable `SuppressAzurePowerShellBreakingChangeWarnings` to `true`.

Azure PowerShell

```
Set-Item -Path Env:\SuppressAzurePowerShellBreakingChangeWarnings -Value  
$true
```

## How do I disable the AzureRM retirement warning message in Azure PowerShell?

To suppress the AzureRM retirement warning message in Azure PowerShell, you'll need to set the environment variable `SuppressAzureRmModulesRetiringWarning` to `true`.

Azure PowerShell

```
Set-Item -Path Env:\SuppressAzureRmModulesRetiringWarning -Value $true
```

One disadvantage of the previous example is you'll need to run the command for each new PowerShell session unless you add it to your PowerShell profile.

To set the environment variable permanently, you can also use the following example.

```
Azure PowerShell
```

```
[System.Environment]::SetEnvironmentVariable('SuppressAzureRmModulesRetiringWarning', 'true', [System.EnvironmentVariableTarget]::User)
```

## How do I determine the max HTTP retry times in Azure PowerShell?

For general HTTP response (except response status code is 429), Azure PowerShell uses the value defined in the `AZURE_PS_HTTP_MAX_RETRIES` environment variable. Its minimum value is 0. If not specified, Azure PowerShell uses the SDK default value.

```
Azure PowerShell
```

```
[System.Environment]::SetEnvironmentVariable('AZURE_PS_HTTP_MAX_RETRIES', 3, [System.EnvironmentVariableTarget]::User)
```

If the HTTP response status code is 429, Azure PowerShell uses the value defined in the `AZURE_PS_HTTP_MAX_RETRIES_FOR_429` environment variable. Its minimum value is 1. The total retry times of status code 429 is (`AZURE_PS_HTTP_MAX_RETRIES` + 1) \* `AZURE_PS_HTTP_MAX_RETRIES_FOR_429` - 1. If not specified, Azure PowerShell uses the SDK default value.

```
Azure PowerShell
```

```
[System.Environment]::SetEnvironmentVariable('AZURE_PS_HTTP_MAX_RETRIES_FOR_429', 3, [System.EnvironmentVariableTarget]::User)
```