Authenticate with Azure Container Registry (ACR) from Azure Kubernetes Service (AKS)

When using [Azure Container Registry (ACR)](https://learn.microsoft.com/en-us/azure/container-registry/container-registry-intro) with Azure Kubernetes Service (AKS), you need to establish an authentication mechanism. You can configure the required permissions between ACR and AKS using the Azure CLI, Azure PowerShell, or Azure portal. This article provides examples to configure authentication between these Azure services using the Azure CLI or Azure PowerShell.

The AKS to ACR integration assigns the ACRpull role to the **\*\*Microsoft Entra ID Managed identity associated with your AKS cluster.\*\***

You can do this Integration process using Azure portal, Azure CLI and Azure PowerShell.

Prerequisites:

1. Create an ACR using Terraform, Azure Portal.
2. Create a new AKS cluster.

AKS cluster integrating with an existing ACR

* using the ‘[New-AzAksCluster](https://learn.microsoft.com/en-us/powershell/module/az.aks/new-azakscluster)’ cmdlet with the ‘-AcrNameToAttach’ parameter. This command allows you to authorize an existing ACR in your subscription.

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| --- |
| Azure PowerShellCopy Open Cloud Shell  $MYACR = 'mycontainerregistry'  New-AzAksCluster -Name myAKSCluster -ResourceGroupName myResourceGroup -GenerateSshKey -AcrNameToAttach <acr-name> |

Note

To run the above script/cmdlet User has necessary permissions to establish the Authentication b/w the ACR and AKS.

Import an image from Docker hub into your ACR

* Import an image from Docker Hub into your ACR using the  **[Import-AzContainerRegistryImage]** cmdlet.

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| --- |
| Azure PowerShellCopy Open Cloud Shell  Import-AzContainerRegistryImage -RegistryName <acr-name> -ResourceGroupName <myResourceGroup> -SourceRegistry <image\_name> |