**Enable Azure Arc Pre-requisites**

This document provides a step-by-step guide on how to enable Prerequisites for Azure Arc hybrid and multi-cloud scenarios. By following this document, you will be able to assign the Prerequisites needed to deploy Azure Arc agents, register your resources, and apply policies and governance to your hybrid and multi-cloud infrastructure.

1. **Create a security group in Azure AD:** 
   * + Login to Azure using <https://portal.azure.com/>
     + Using search bar at the top search and select Microsoft Entra ID
     + Under manage select groups
     + From the top select +New Group
   * Add Group Name
   * Add Group Description
   * Select owner, from drop down list (optional)
   * A screen shot of a computer

     Description automatically generated with medium confidenceUnder members add users you want to have access to the Security Group here. Select from drop down list. Hit “create” once you add all users.

**Note: If you want to run the arc on multiple servers at once you will need to create a service principal, which will serve as the account used to run with the necessary permissions on all servers listed in script. See Create a service principal for instructions.**

1. **Create a Service Principal:** 
   * + From the Azure portal and navigate to Microsoft Entra ID.
     + From the Manage section in the left-hand menu, select App registrations.
     + Select +New Registration
     + Add Name for service principal
     + Select the supported access for the SP (which tenants can have access to this SP)
     + Register

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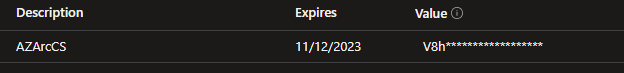
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* + - From the Manage section in the left-hand menu, select Certificates & Secrets.
    - Select +New Client Secret
    - Add a description name and expiration (note once this expires you will have to update with new secret key), add.

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* + - Once added you will see the value and secret id. Copy the “Value” as this will be hidden after you navigate out and will no longer be able to view. Keep in a secure place.



* + - Add the SP to the group you created in step1.
      * From portal, go to Microsoft Entra ID
      * Under manage select groups
      * Search and Find the group you created and select it
      * Under manage select members, search for your Service Principal, and select.

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1. **Create a Resource Group**

Create a resource group that will hold Arc related resources.

* 1. Using search bar at the top search and select Resource Groups
  2. Click + Create

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* 1. Add a name for your resource group.
  2. Select the region closest to you, or closest region where resources reside.
  3. Can apply tags if needed.
  4. Hit review + create.

1. **Assign permissions at Resource Group Level:**

* Select the resource group you created earlier.
* Select “Access Control IAM”
* +Add, Add Role Assignment
* Two options here:

1. Contributor (under privileged administrator roles): gives full access to manage all resources but does not allow them to assign roles in RBAC. (If these are azure admins consider using this option). Will also need “monitoring contributor”.
2. If you want to lock down further, you may only assign the permissions needed (search and select from drop down list):
   * + Log Analytics Contributor
     + Azure Connected Machine Resource Administrator
     + Monitoring Contributor
     + Azure Connected Machine Onboarding Role (if doing multiple servers)



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  Description automatically generatedOnce you select Roles from above step then hit next. From here +select users, groups, or service principal you want to grant this access to. Select the group we added previously as the SP and members are included in this group.
* Next, review and assign.

1. **Assign Azure Resource Providers:** 
   1. Resource Providers are just a collection of REST operations that provide functionality for an azure Service. The following are needed:
      * Microsoft.HybridCompute
      * Microsoft.GuestConfiguration
      * Microsoft.HybridConnectivity
      * Microsoft.AzureArcData (sql server)
   2. From the portal, go to subscriptions, select correct subscription.
   3. Under settings, select resource providers.
   4. Search for providers listed above, if not registered then register the provider.