Assessment Setup Guide

Introduction

Setting up and configuring On-Demand assessments is a complex process. There are several steps to complete in a specific order to ensure successful assessment setup and execution. This article aims to provide the details required that are applicable across all the On-Demand assessments available on Services Hub.

This article is organized in four major sections which should be followed in order to ensure successful configuration and execution of On-Demand assessments.

Getting Started with On-Demand Assessments

Setting up a data collector machine

Configure Microsoft On-Demand Assessments

Working with assessment results

There are also configuration details applicable to each individual assessment that are referred to in the *Configure Microsoft On-Demand Assessment(s)* section of this article with links to the relevant content.

Ensure that you have reviewed the information in the assessment(s) prerequisites and configuration documentation before continuing the setup in this document. Download the prerequisites for your assessment(s) at On-Demand Assessments Prerequisites if not already downloaded.

For general information about On-Demand assessments, see the On-Demand Assessment FAQs

! Important – Migration: Documentation on how to migrate MMA based Assessments to AMA can be found by accessing the following article: On-Demand Assessments - Migration

This document was last updated on May 30th, 2023. To ensure you have the latest version of this document, check here: Assessment Setup Guide

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Getting Started with On-Demand Assessments

Assessments are available through the Services Hub to help you assess and optimize the availability, security, and performance of your on-premises, hybrid, and cloud Microsoft technology environments. These assessments use Microsoft Azure Log Analytics tables, Azure Workbooks and Azure ARC/Azure VM extensions, which are designed to give you simplified IT and security management across your environment.

Note: *On average, it takes two hours to initially configure your environment to run an On-Demand Assessment. After you run an assessment you can review the recommendations in Azure Workbooks. This will provide you with a prioritized list of recommendations, categorized across six focus areas. This allows you and your team to quickly understand risk levels, the health of your environments, act to decrease risk, and improve your overall IT health.*

Use the following checklist to ensure all steps in this section are completed before moving onto the next section.

- Azure Subscription
- Services Hub Registration
- Link Azure Subscription and Log Analytics Workspace to Services Hub
- Choose your method of configuration (Azure ARC enrollment or Azure VM Extension)
- Add the assessment(s) in your Services Hub workspace
- Provide access to Azure Log Analytics workspace (Required for CSA Delivery only)
- Download your Assessment specific Prerequisite Documentation

Sign up for On-Demand Assessment Initial Setup and Configuration Service

An initial setup and configuration service with a Microsoft engineer is available to simplify the assessment setup process as part of the Microsoft Unified Support base contract offering. We help you link, enable, install, and configure a Services Hub On-Demand Assessment. To learn more, see our Data Sheet. You can get started by clicking 'Sign up' on the top right tile of your Services Hub dashboard under 'Setup & Configuration'. This sends an email to your Microsoft representative to request scheduling of this service.

Whether using the On-Demand Assessment – Setup and Config Service or not, all the steps in this article and the assessment(s) prerequisites documents needs to be completed to ensure successful setup and execution of OnDemand assessments. Complete the steps in this guide, then select an On-Demand Assessment from the table of contents on the left, under Getting Started with On-Demand Assessments, to see details, configuration instructions, and links to download data sheets and detailed prerequisites for selected On-Demand Assessments.

Azure Subscription

On-Demand Assessments ingest their recommendations and supporting details into Azure Log Analytics. The Azure

Log Analytics service requires an Azure subscription owned by the organization. If there is already an Azure subscription, then a customer representative (their registered email address) with the required Azure Log Analytics access and/or Azure Subscription access will need to be invited to the Services Hub workspace by the CSAM.

If there is no Azure subscription, Microsoft will sponsor one for the customer. The ideal owner for the sponsored subscription is the main point of contact IT professional that will be working with the assessment results. There are a couple of options to have a sponsored Azure subscription provisioned.

The preferred option is to share an organizational email address to be provisioned as owner of a no-cost Azure sponsorship with the organization's CSAM. Once the Azure sponsorship is created, an email with an invitation to activate the subscription will be sent to the provided organizational email address. Activate the Azure subscription through the link provided in the email. This account will be invited to the Services Hub workspace by the CSAM.

An alternative option is to request for one directly by creating a support ticket by contacting Services Hub Support and providing an organizational email address to be provisioned as owner of a no-cost Azure sponsorship.

***Note**: Customers can choose to use any Azure Subscription for this purpose as long as the user has the required Azure Subscription and/or Log Analytics role to perform the required actions. The Azure Subscription can be an EA or PayAsYou-Go or trial azure subscriptions. Azure subscriptions created merely due to presence of Office 365 licenses cannot be used as they don't have active azure credits.*

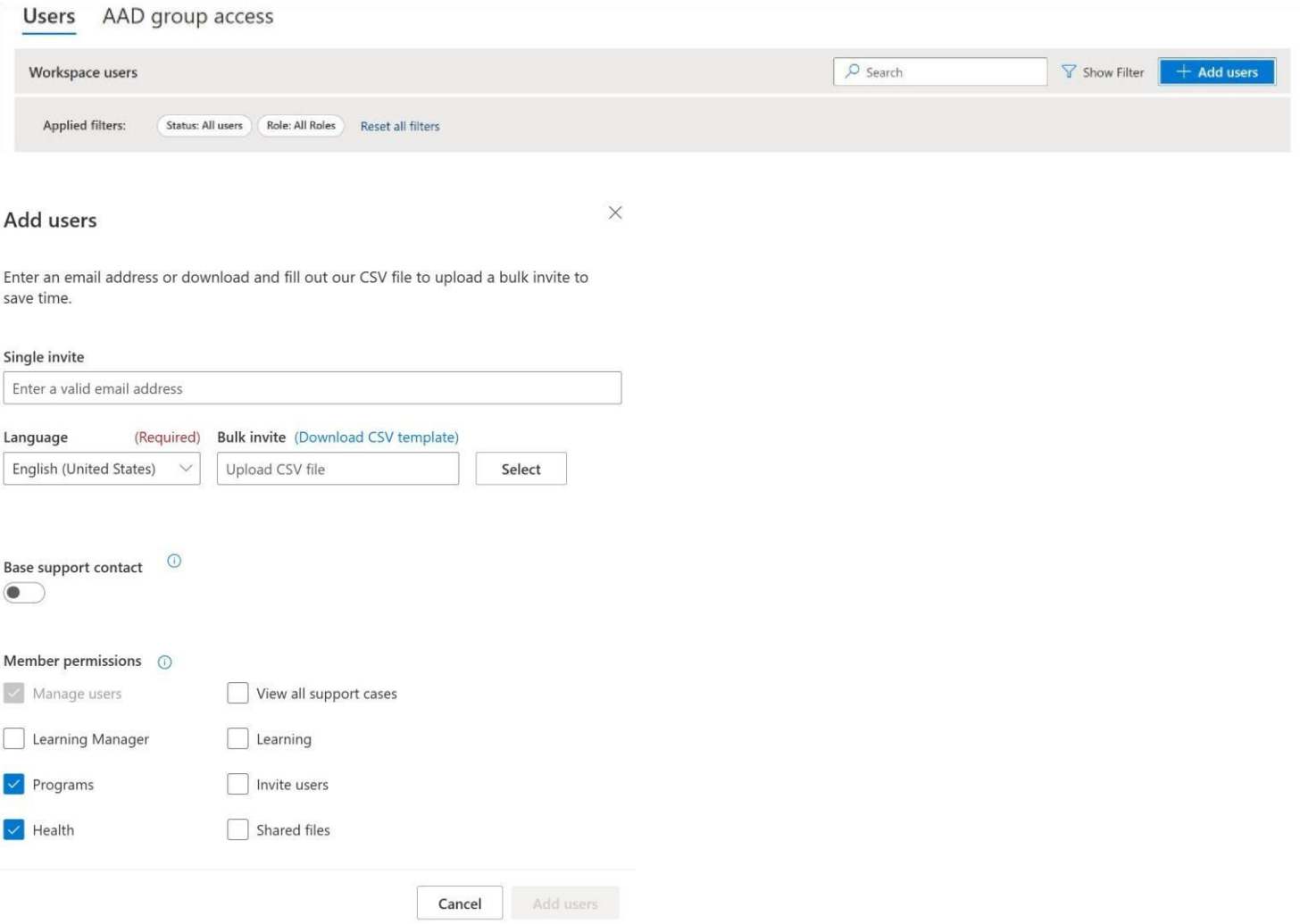
***Tip**: No-cost sponsored Azure subscriptions by default have a validity of 1 year. These subscriptions can be extended before expiry if needed in case of renewals. You can read more about how to manage these subscriptions in this Azure Rollover article.*

Services Hub Registration

The customer with the required access must be registered with the Services hub. Additionally, if the assessment will include a CSA lead delivery, then the CSA must also be registered with the Services Hub.

CSAM tasks:

1. The CSAM invites customer and CSA (for engineer lead assessment deliveries). Log in to Services Hub using Microsoft Edge and go to **Management > Manage Users**.
2. Add customer's email addresses and CSA with alias@Microsoft.com and ensure the **Health** and **Programs** options are selected to allow the user to see the assessment tab and create a remediation plan.



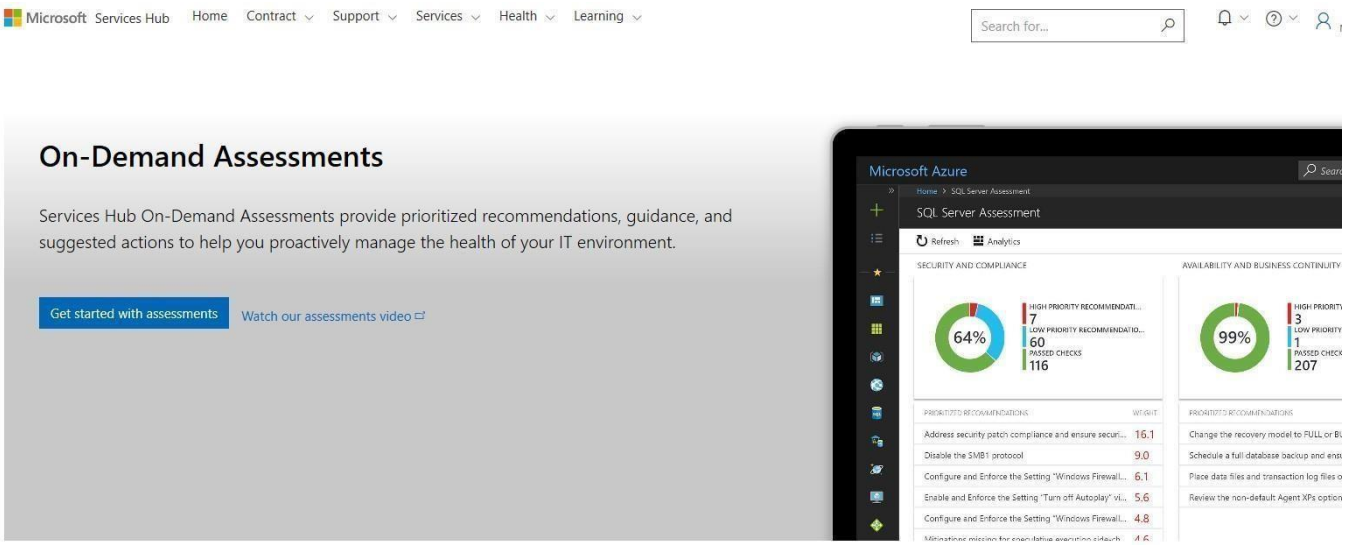
Customer and CSA registration tasks:

1. Review your email inbox for an email from your CSAM inviting you to register on Services Hub
2. Click the link in the email whose URL begins with https://serviceshub.microsoft.com/account/register?registrationId=<uniqueID>

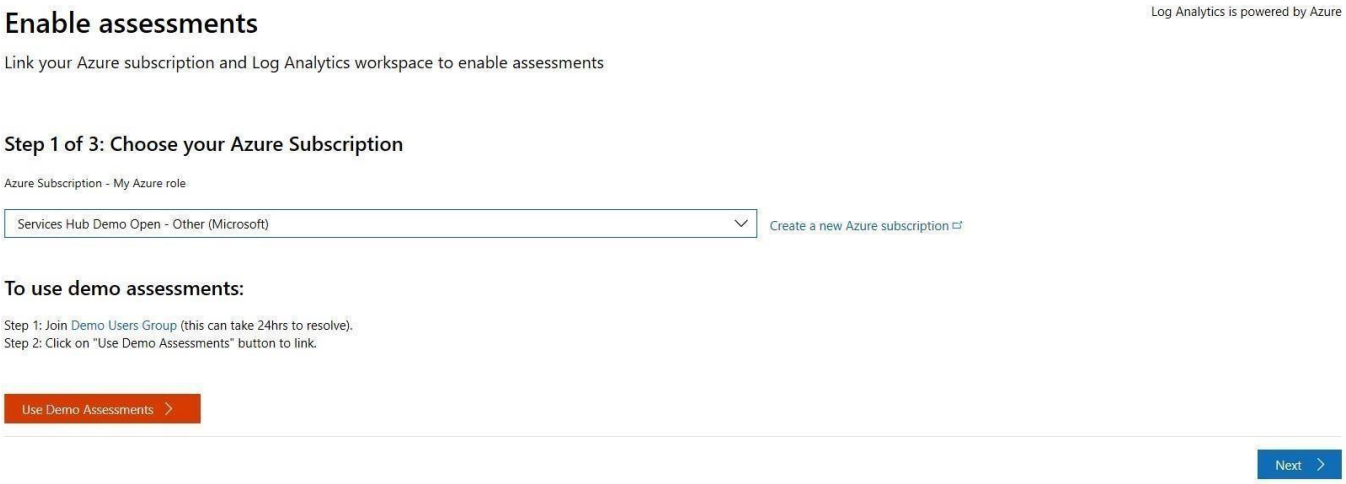
Linking of the Azure Subscription and Log Analytics workspace to Services Hub workspace

1. Log into Services hub with user credentials with the required access. Go to IT Health -> On-Demand Assessments.

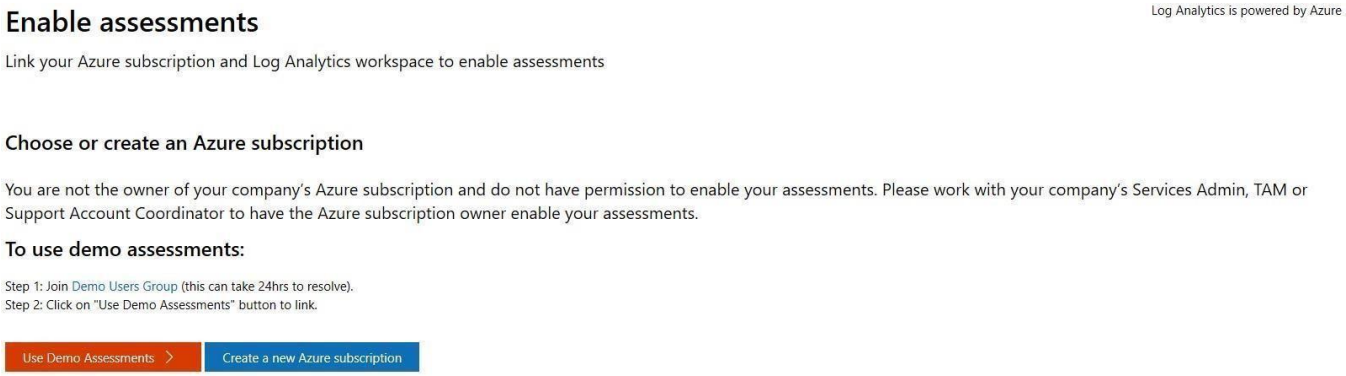
2. Click on **Get started with assessments**



3. Select the desired Azure subscription from the list and choose next.

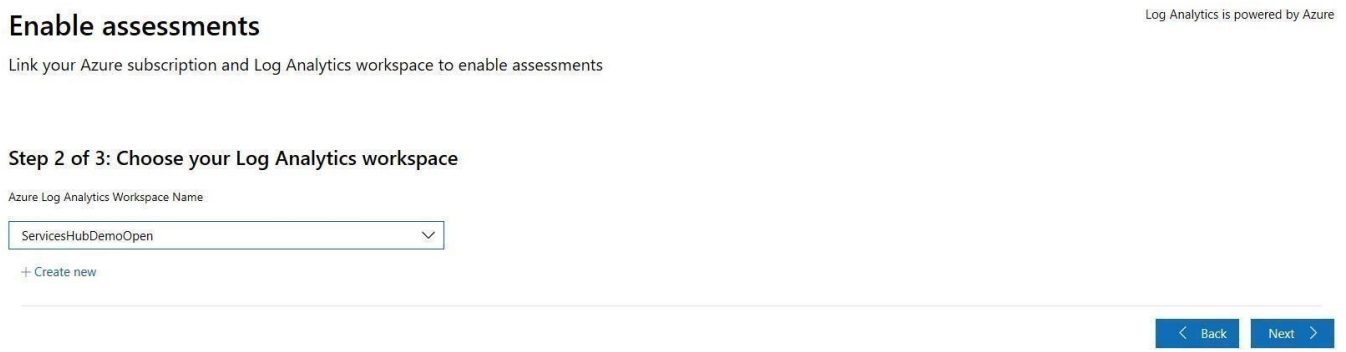


Organizations that have an Azure subscription but lack the required permissions will see:

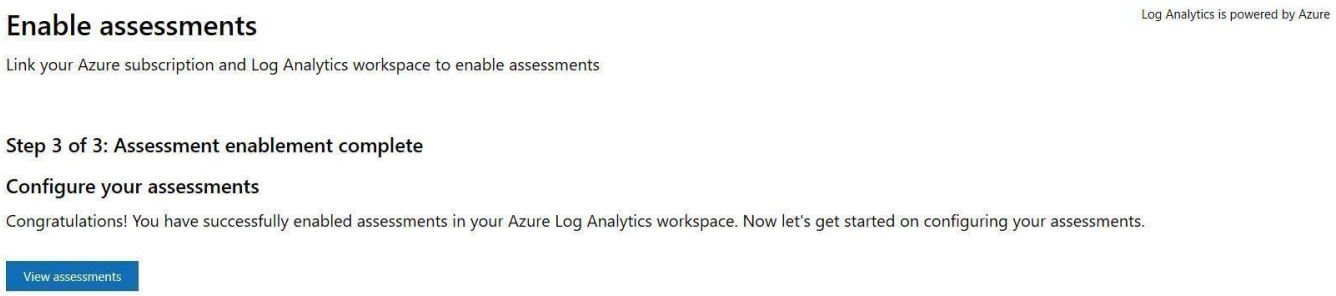


Please work with your company's Services Admin, CSAM, or Support Account Coordinator to have the customer representative with the required permissions within Azure register on Services Hub and pre-configure your assessments. Organizations without an Azure subscription refer to **Azure Subscription** to get your Microsoft sponsored subscription.

4. Choose the Azure Log Analytics workspace that the assessment(s) you choose will be enabled in. Or use the Create New to create a dedicated workspace for the assessment(s) if desired. Then click next.



5. At the conclusion of the linking process, click “View assessments”.



Configuration Methods

There are **3 scenarios** available to configure the assessment. Determine which scenario fits best for your organization.

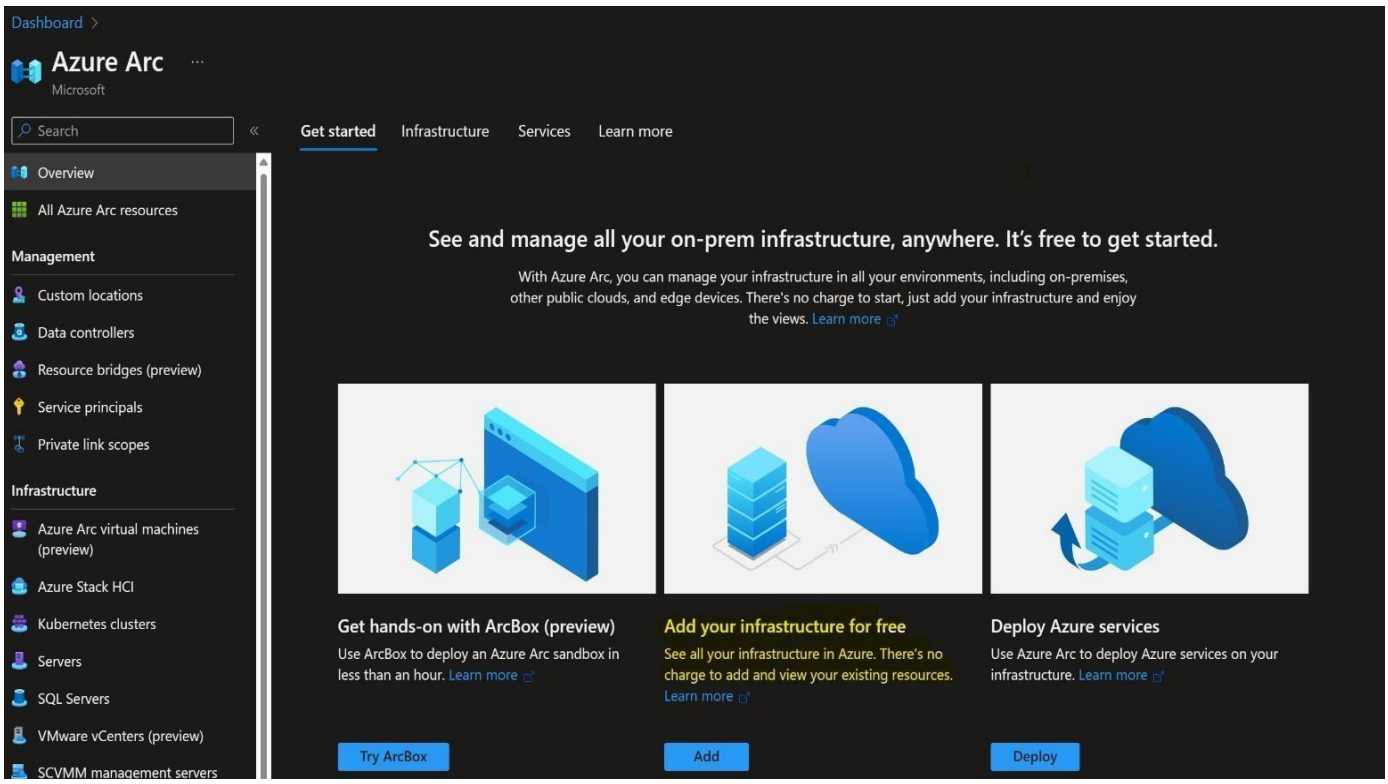
- Azure ARC enrollment
- Azure VM Extension
- Disconnected Environments

Minimum requirements for a successful configuration: Local Administrator on the data collection machine and Azure Contributor role at subscription level

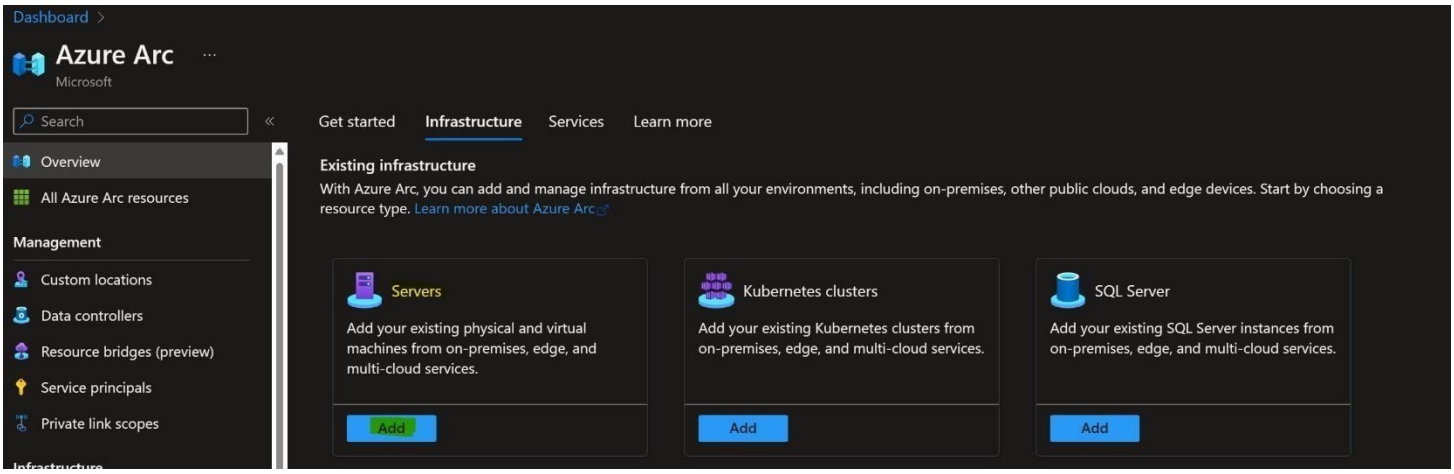
Azure Arc enrollment for on-prem machines

On-premise machines can be easily enrolled to Azure Arc via Azure Portal by following the steps below:

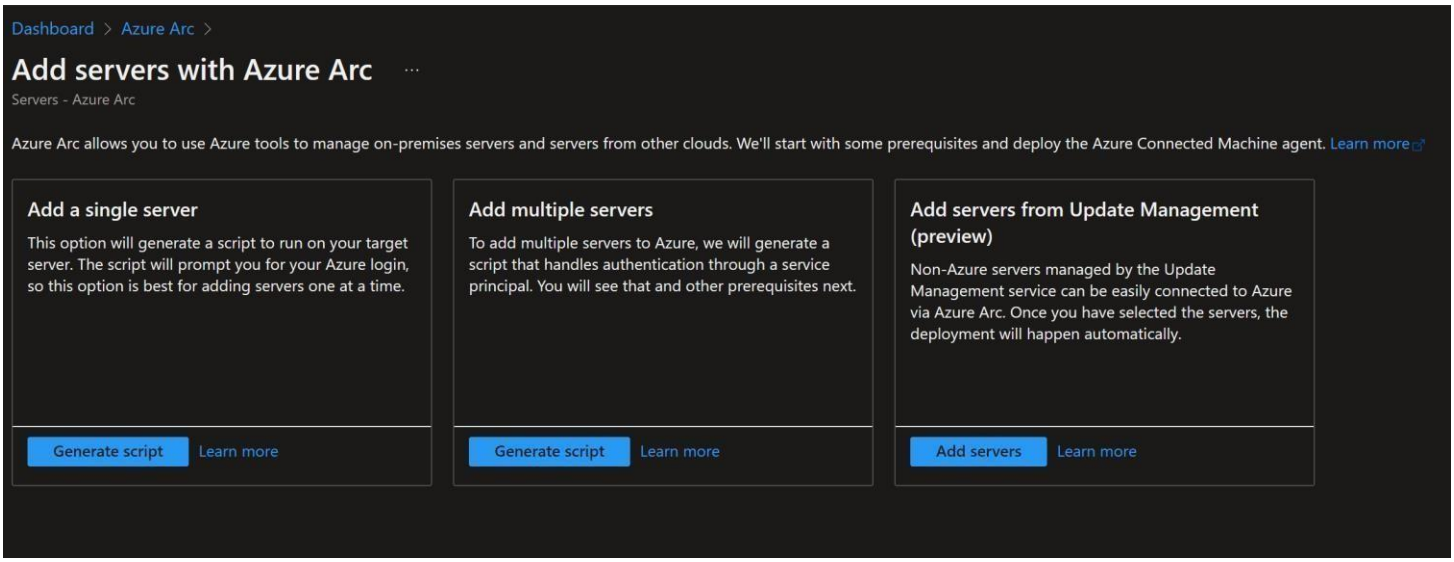
1. Go to the Azure Portal and look for Azure Arc, under **Getting Started**, go to **Add your infrastructure for free and click on the Add button**



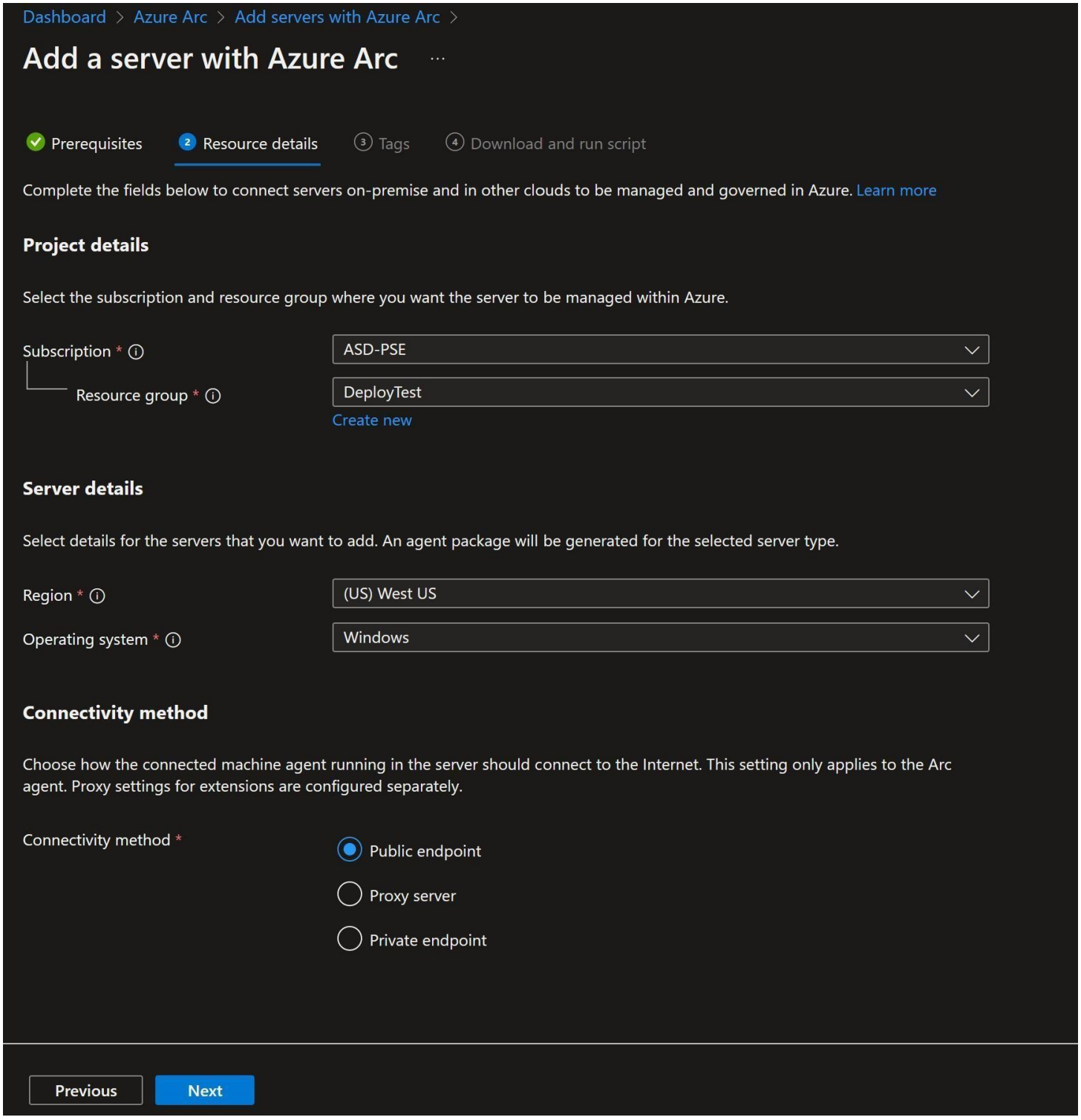
2. Go to Servers and click the Add button



3. You can choose between Add a single server or Add multiple servers and click on the **Generate script** matching your selection

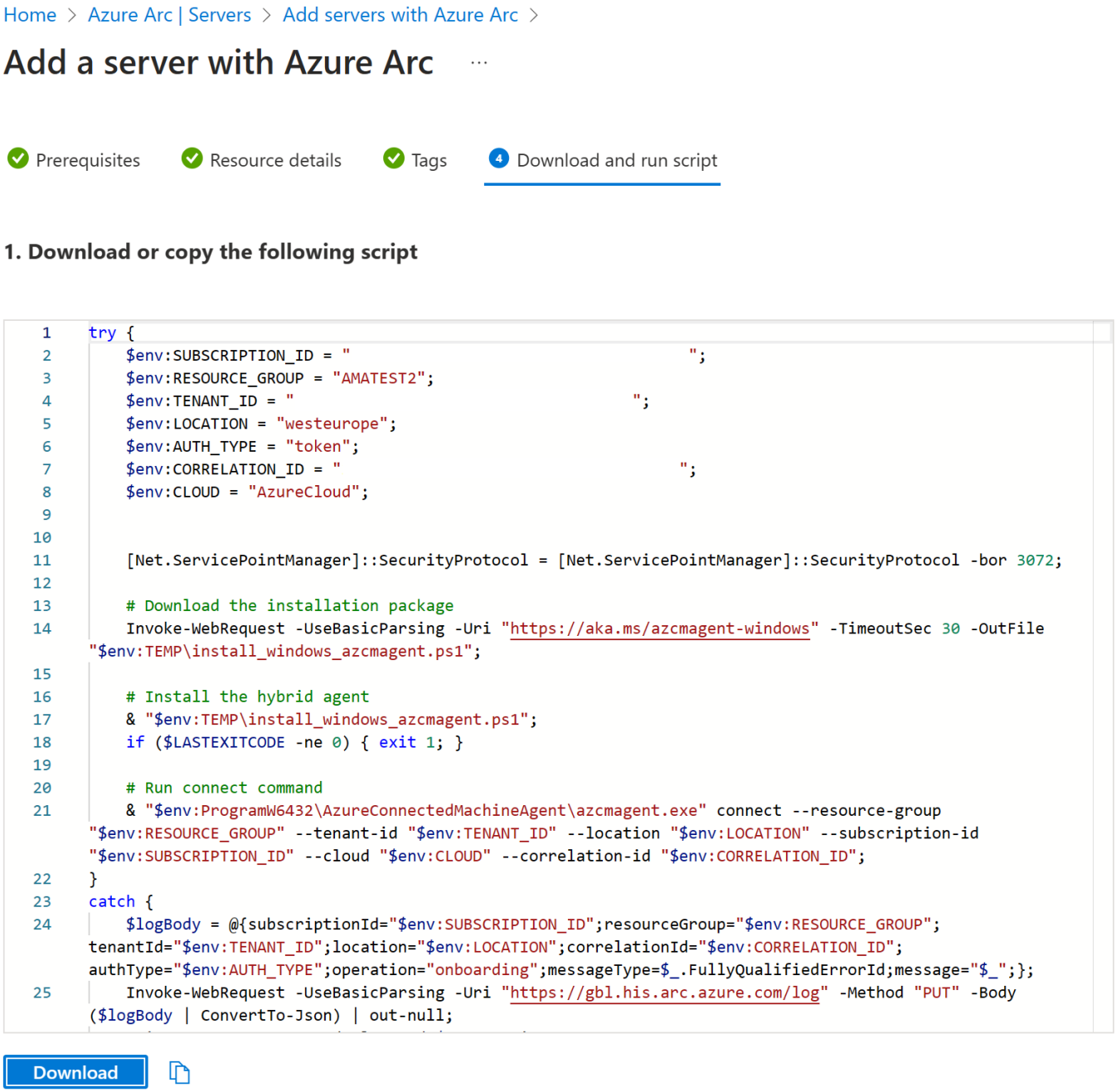


4. Review the prerequisites for adding a machine and click on **Next,** this will take you to the Resource Details screen where you are required to select the subscription you are planning to use for Azure along with the Resource Group Region, Machine OS and the connectivity method

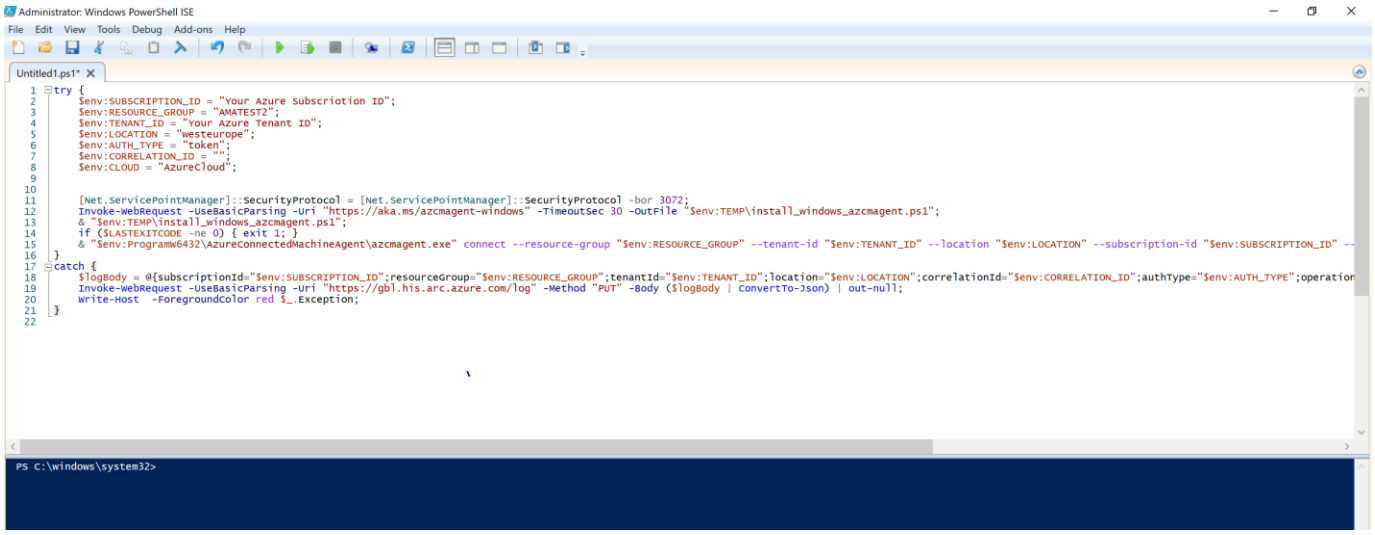


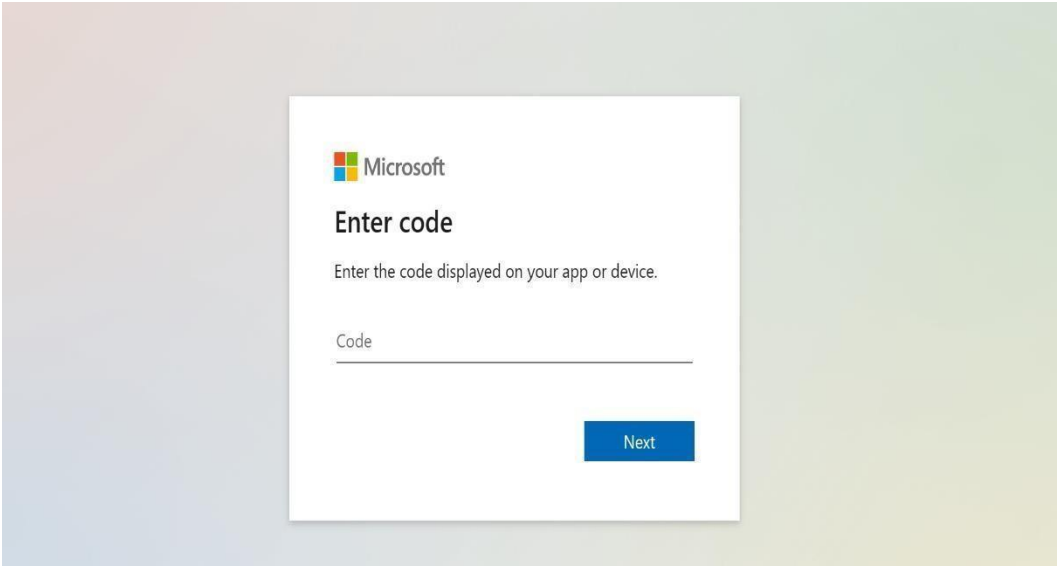
5. Final step requires downloading the PowerShell script that was generated based of your selection to the intended collector machine (close the window and go to the on-prem machine)

Note: *Before running the script, make sure to set your execution policy to remove signed (set-executionpolicy remotesigned)*



6. Run the downloaded script in PowerShell ISE on the machine, this will trigger a device log in session to complete the enrollment (enter the code provided by the script to complete the process

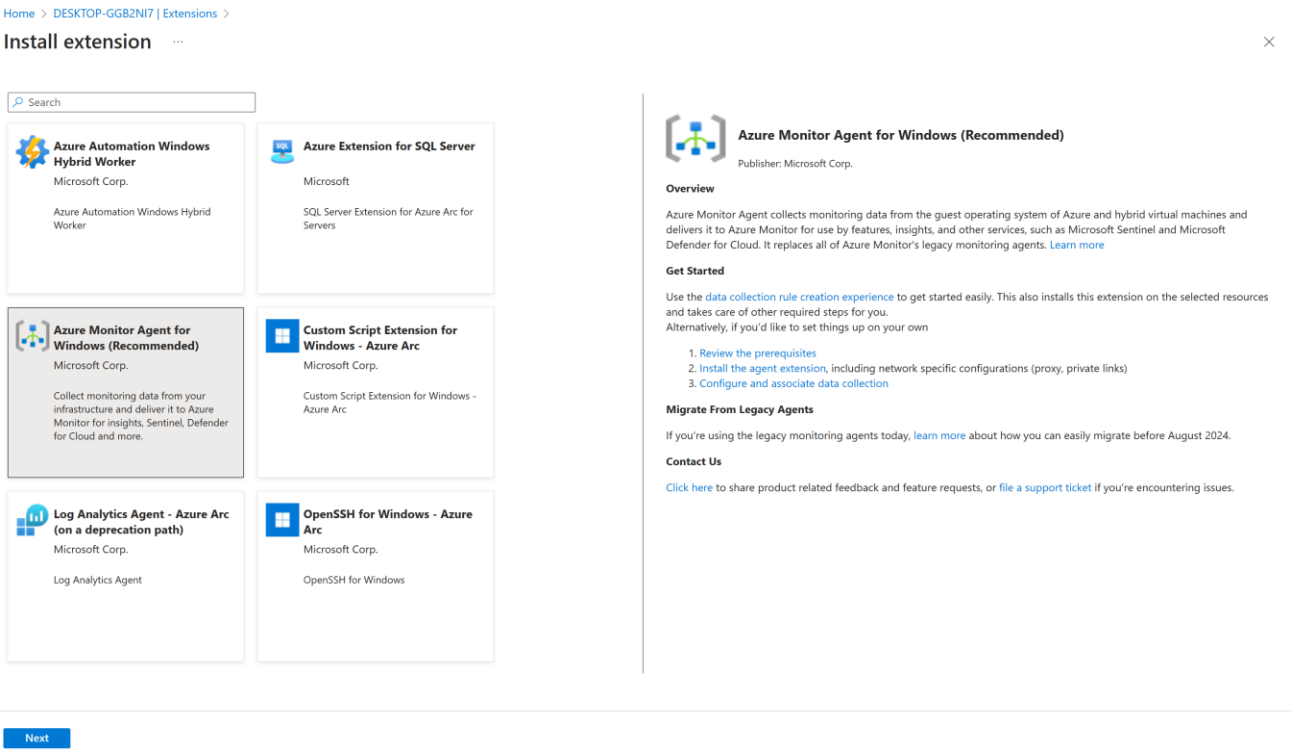




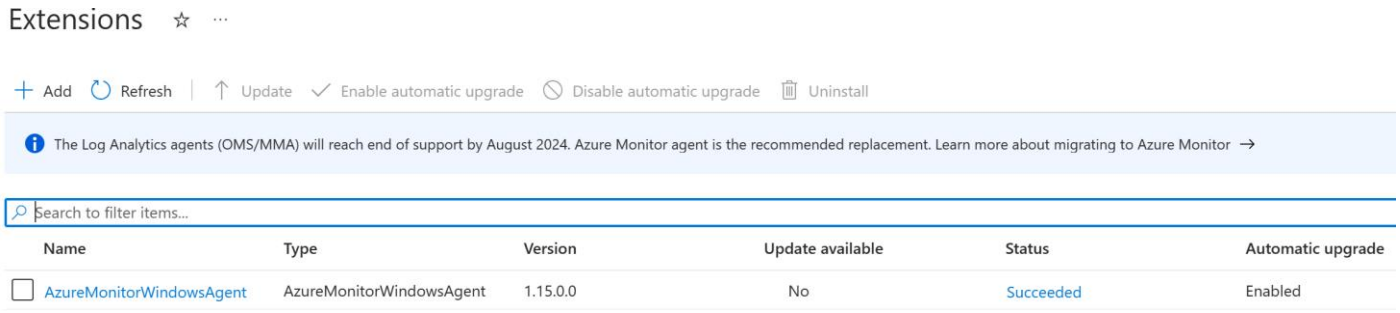
7. Once sign in is complete a confirmation message will be displayed

8. Install Azure Monitoring Agent for Windows

Servers – Azure Arc –> Select your server – > Go to **Extensions** and click on **Add.** Search for Azure Monitoring Agent for Widows:



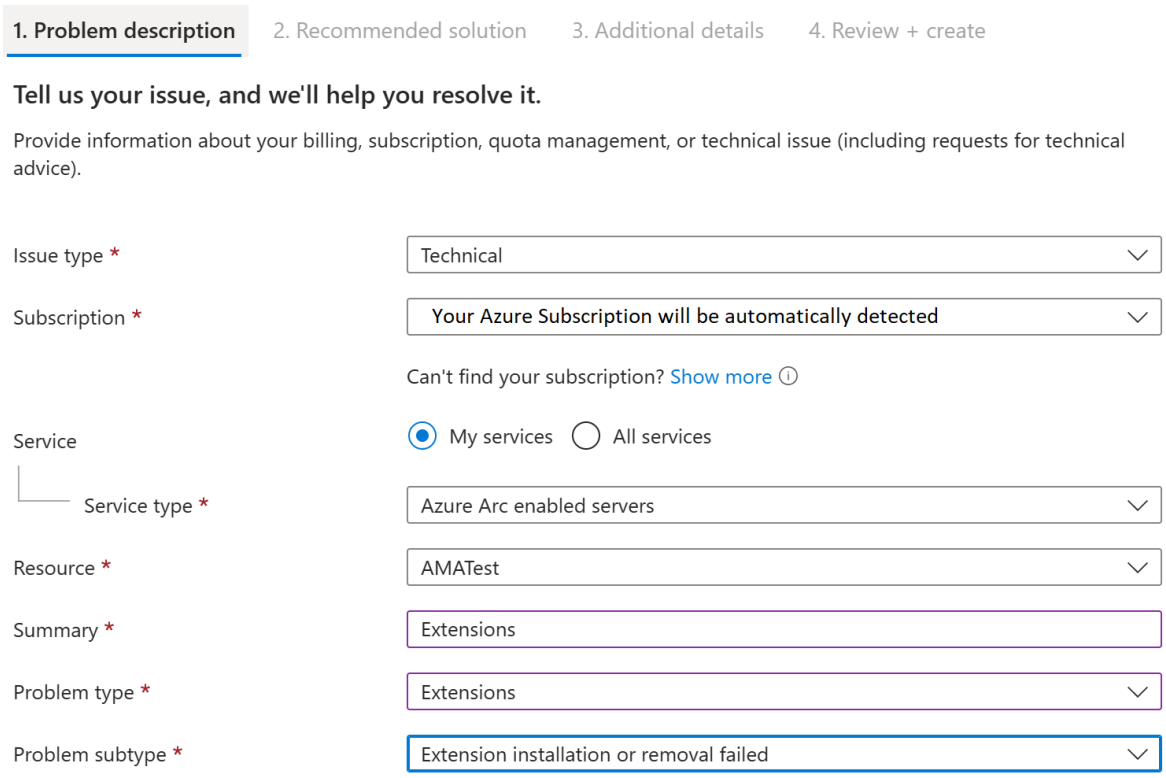
Select **Next –> Review + Create –> Create.** After deployment has been completed, the Agent will show up in the list of installed extensions:



Additional details on the process can be found by accessing the video link below:

Add Server to Azure Arc | Microsoft Learn

! **Note:** Currently the recommendation is to ensure all extensions are uninstalled before disconnecting a machine. If an extension request is stuck with deleting or creating status, please reach out to us and we will investigate. From the Azure Arc Server panel -> Select your Machine -> Scroll down to **New Support Request**:



Networking

During installation and runtime, the agent requires connectivity to Azure Arc service endpoints. If outbound connectivity is blocked by the firewall, make sure that the following URLs are not blocked:

Domain Environment	Required Azure Service Endpoints
management.azure.com	Azure Resource Manager
login.windows.net	Azure Active Directory
dc.services.visualstudio.com	Application Insights
agentserviceapi.azure-automation.net	Guest Configuration
*-agentservice-prod-1.azure-automation.net	Guest Configuration
*.his.hybridcompute.azure-automation.net	Hybrid Identity Service

Addition troubleshooting resources can be found here:

Troubleshoot Azure Arc-enabled servers agent connection issues - Azure Arc | Microsoft Learn

Connected Machine agent network requirements - Azure Arc | Microsoft Learn

Use Azure Monitor Troubleshooter - Azure Monitor | Microsoft Learn

Azure VM as data collector machine

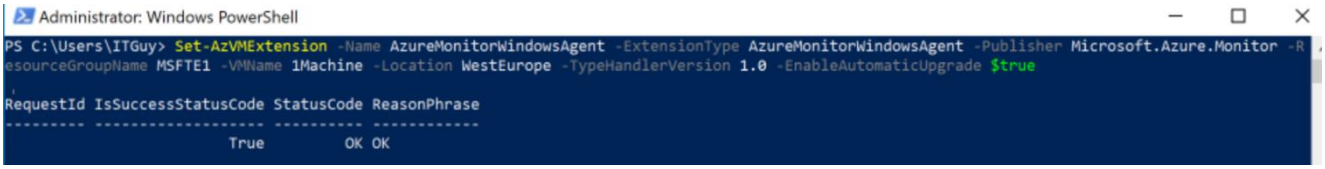
If you are planning to use an Azure VM as a data collector machines for on demand assessments, there is no requirement for the VM to be associated with Azure ARC as the assessment can be activated as a simple extension.

The following article describes how to create a Windows virtual machine in the Azure portal: Quickstart: Create a Windows virtual machine in the Azure portal

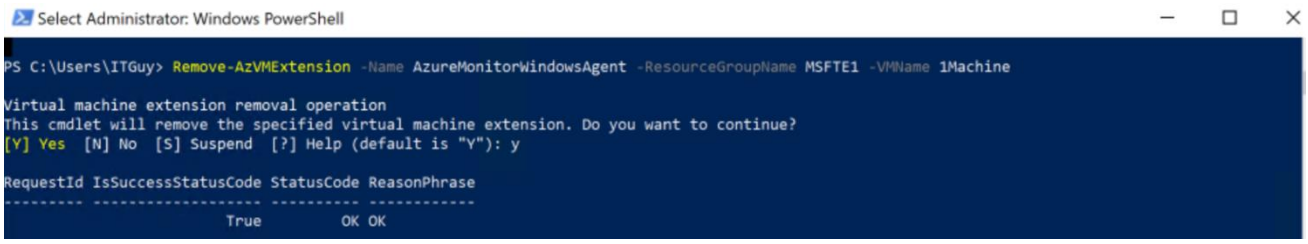
After creating your Azure VM, you'll first need to install the Azure Monitoring Agent for Windows. The following article describes the process: Manage Azure Monitor Agent - Azure Monitor | Microsoft Learn

Example of AMA installation using PowerShell method:

- Connect to the Azure VM and open PowerShell as Administrator
- Run Connect-AzAccount for authentication
- Run the following command in the same PowerShell window:

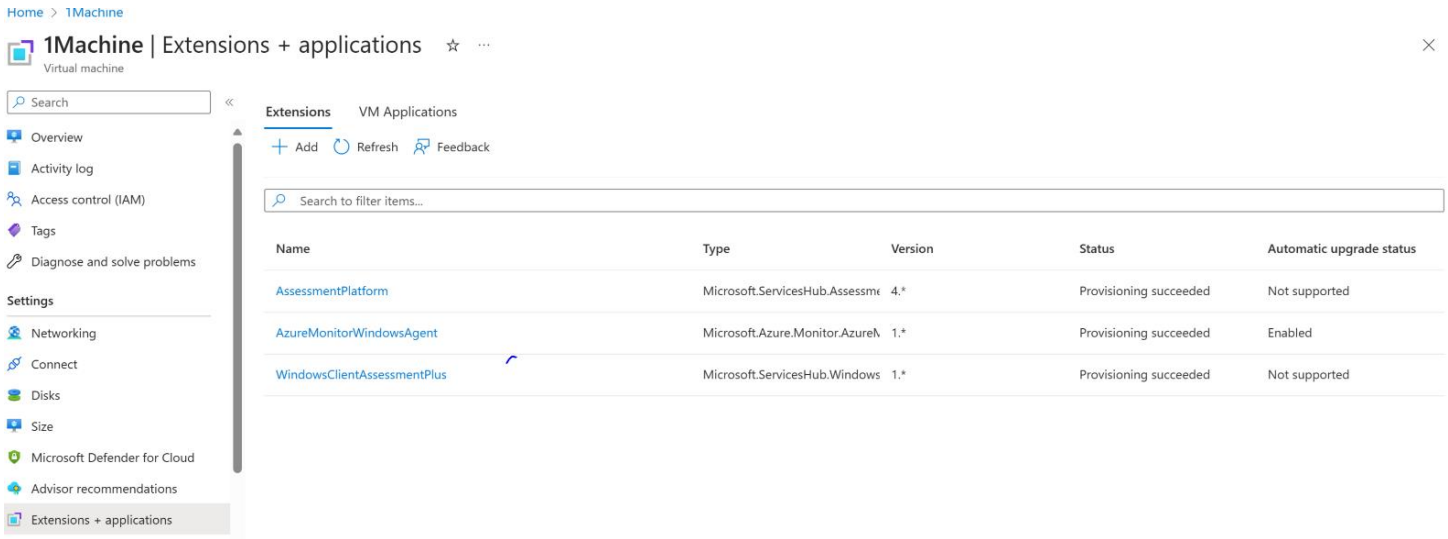


- To remove the AMA extension from your Azure VM, follow the same procedure as above and run the following PS command:



In order to ensure data is uploaded, please verify that system managed identity has been turned on for your Azure VM - https://learn.microsoft.com/en-us/entra/identity/managed-identities-azure-resources/qs-configure-portal-windows-vm

Once you have activated your assessments from Services Hub, simply navigate to the Azure portal, select your Azure VM and got to **Extensions + Application** and view all installed extensions:



More information about Virtual Machine extensions and features for Windows can be found by accessing the following

Article: [Virtual machine extensions and features for Windows]

Offline – Disconnected Environment

Decision points at a glance:

- There is zero connection allowed from the assessed environment to the Internet or to any other machine that has Internet access

In this scenario we require two machines

- One is the data collection machine and needs to fulfill prerequisites from the assessment.
- The other is the machine that has Internet access and can upload data to Azure Log Analytics.
    - This machine needs to be enrolled into Azure Arc in order to upload the batch of data from the first machine that did not have an internet connection.

To successfully execute On-Demand assessments via this method, an offline secure file copy process is necessary to transfer files to and from the Internet connected machine and the environment being assessed.

Internet Access Machine

After the enrolled into Azure Arc and setup of the assessment are completed, follow the next steps on the machine that has Internet access.

- Open Task Manager
- Open scheduled tasks and drill down to the assessment task
- Set the scheduled task to start manually, removing the weekly schedule.
- Start the scheduled task, this will download the assessment executable and the assessment package.
    - Go to the Working Directory that was entered in the assessment setup. <Working Directory>\XXAssessment Where XX is different for each assessment.
    - A numbered folder will appear. As soon as you see this folder, stop the OMSAssessment.exe process in Task Manager.
- Copy the folder "OMSAssessment" folder that is created in "<working directory>\XXAssessment" to a USB drive or other method of your choice to copy content to the data collection machine
- Go to: C:\ODA\Packages
    1. Search for execpkg
    2. Find the assessment package for the technology you need, open the file location and copy that Execpkg file to the same location as where you stored the "OMSAssessment" folder.

This concludes the actions on the machine with Internet access until we want to upload data.

Data Collection Machine

Create a folder on the local drive that has enough free disk space to store all collected data, up to 10GB.

For instance: C:\MicrosoftAssessment

Create a directory for collection of data. For instance:

- C:\MicrosoftAssessment\Collect

Copy the Execpkg file and OMSAssessment folder to the C:\MicrosoftAssessment folder.

- Open an elevated CMD Prompt, go to C:\MicrosoftAssessment\OMSAssessment and run the following command:

- OmsAssessment.exe -execPackage C:\MicrosoftAssessment\ADAssessmentPlus.execpkg" -w " C:\MicrosoftAssessment\Collect" -trace Off -headers False -assessmentname "ADAssessment" discoverysettings "AD" -computername "<DataCollectionMachine>" -target ToolsMachine -op "<Location for the Recommendation files>" Data collection starts and generate few files named:

new.prerequisite<assessmentguid>.assessmentrecs new.recommendations.<assessment guid>.assessmentrecs

When the assessment is finished, the command prompt is back at the input prompt and you should not see anything running.

Copy the files that are named new.* over to the machine with Internet access

Copy the new.* files in the "<working directory>\XXAssessment"

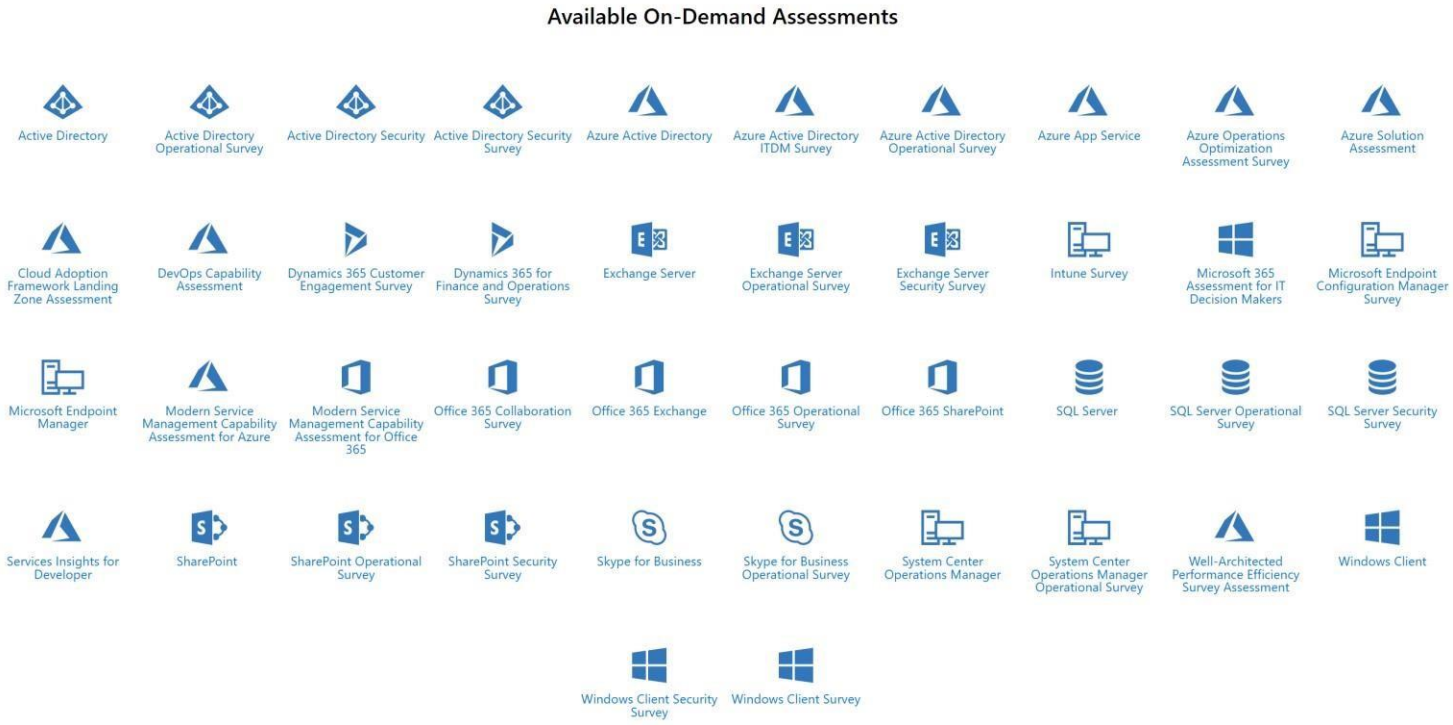
Our Azure DCR (data collection rules) will detect the new set of recommendations and upload the data to the Workbooks as soon as possible.

Review data afterwards on the portal, it may take up to one hour after the data is submitted to show up.

Note: More information regarding our data collection configuration (DCR) can be found by accessing the following article: Data collection rules in Azure Monitor

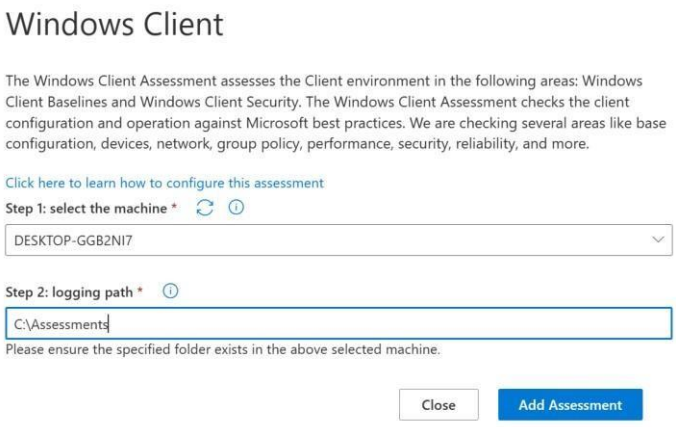
Add the Assessments in Services Hub

To configure an assessment, go to **Services Hub**, **IT Health**, and **On-Demand Assessments**. Browse through the assessment catalog and choose the **Assessments** that best fit your organization's needs.



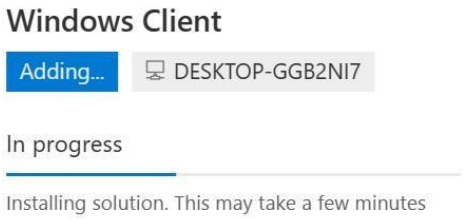
Select an assessment of your choice from the list of available assessments and click on the assessment title. For example, Windows Client.

Choose your data collection machine based on your method of configuration (Azure Arc Server or Azure VM) and input
the logging path:

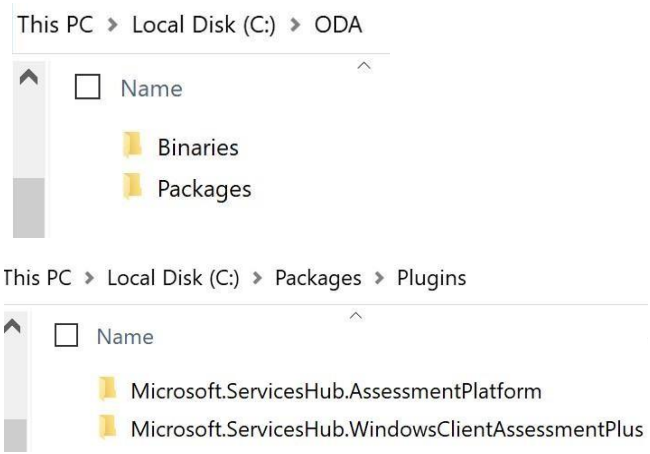


! **Important:** Note the logging path ("C:\Assessessments" – in our demo), you will be required to use the same path when prompted to declare your Working Directory during the Assessment task creation. This step is described in every Assessment specific prerequisites document.

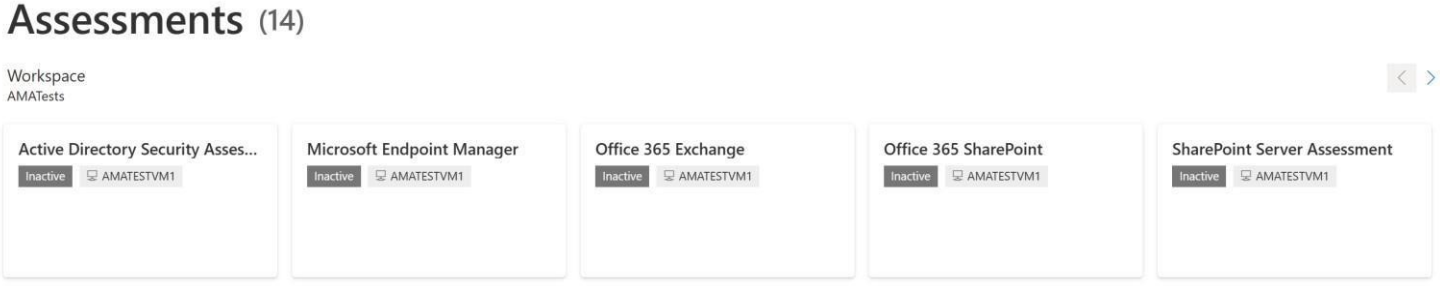
A installation process will start and can be monitored as shown below:



Once the solution has been installed on your data collection machine, you will be able to find the following folders on your Local C:\ drive, these contain the Assessment specific binaries and Solution packages:



Note: *All Azure Arc enrolled machines and VM extensions associated with your Azure Subscription, will show up in your Services Hub Workspace(s), even if these are configured in a different Log Analytics Workspace or Resource Group.*



Providing Access to Azure Log Analytics workspace

Granting access to the Log Analytics workspace to Microsoft personnel is necessary for CSA lead deliveries of OnDemand assessments and must be completed by the Azure subscription owner. We recommended you add users as a Log Analytics Reader to grant @microsoft.com users access to your Azure Log Analytics workspace to view your assessments. They will not have access to your Azure subscription.

Note: This step is not required for self-consumption of assessments without CSA lead delivery.

Provide access to the Log Analytics workspace by adding an account and granting access as mentioned in the following guide: Add Users to Azure Log Analytics through the Azure portal

a. Engineer should be given Log Analytics Reader

b. CSAM optionally should be given Log Analytics Reader

Configure Microsoft On-Demand Assessment(s)

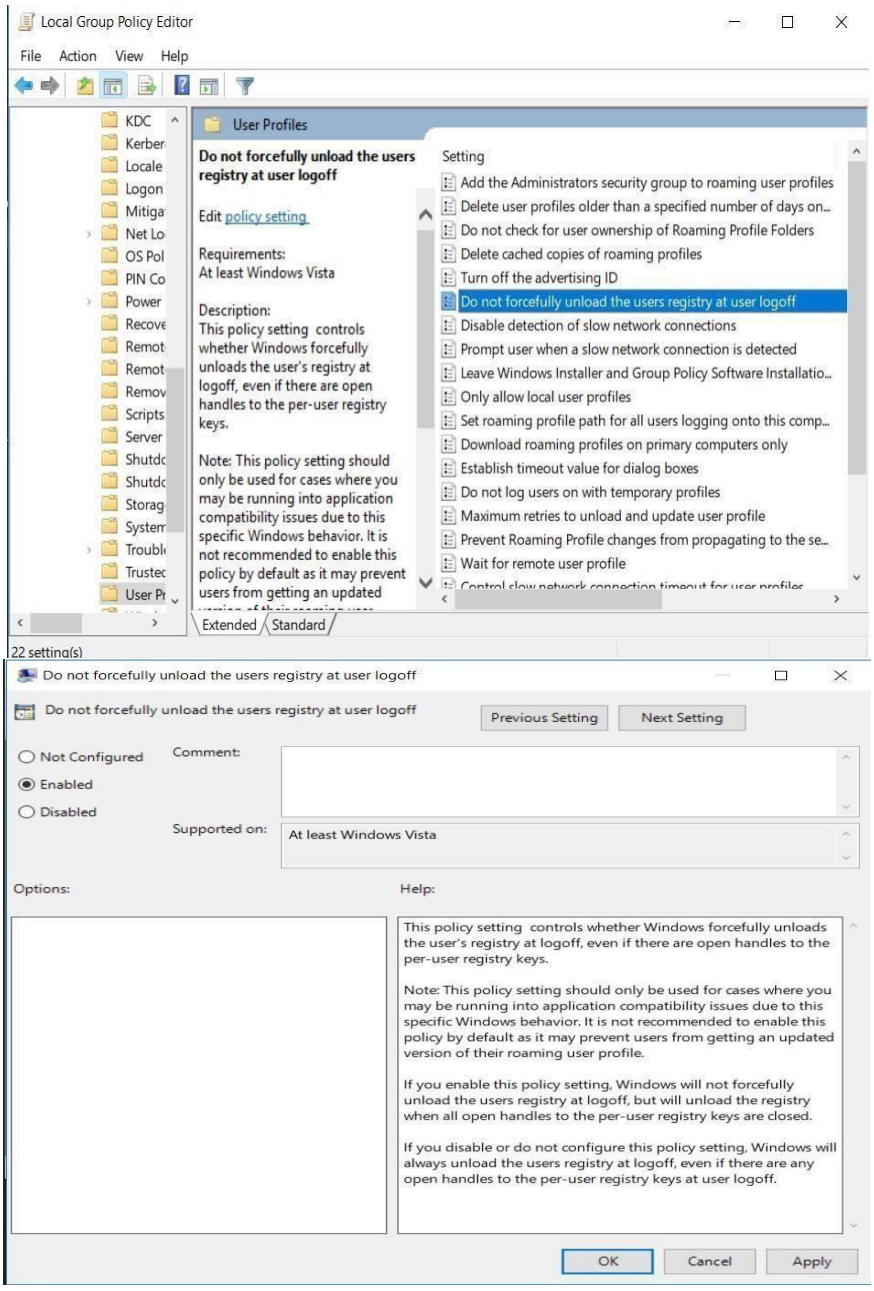
Use the following checklist to ensure all steps in this section are complete.

- Configure required group policy settings
- Verify solution is downloaded on the data collection machine
- Verify environment to be assessment the account running the assessment
- Create assessment scheduled task

Configuring the required Group Policy Objects

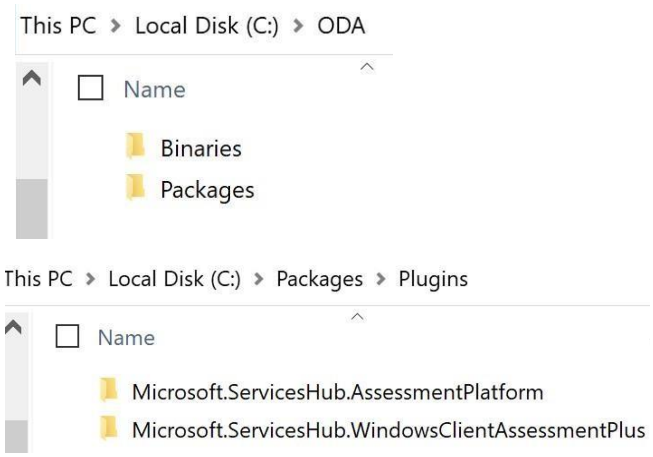
Successful execution of assessment scheduled tasks requires some policy configuration on the data collection machine to mitigate issues/risks known to degrade the successful collection of assessment data from your environment. The following configurations are applicable to all assessments.

Note: there may be policy configuration unique to specific assessments documented in the respective assessment prerequisite documentation. Start -> Run -> gpedit.msc-> Computer Configuration -> Administrative Template -> system -> user profile ->Do not forcefully unload the users registry at user logoff -> Click Enable



Verify the solution is downloaded on the data collection machine

Once the solution has been installed on your data collection machine, you will be able to find the following folders on your Local C:\ drive, these contain the Assessment specific binaries and Solution packages:



Creation of the Assessment Scheduled Task

This step of the assessment setup and configuration is unique per assessment. At a high level, this phase has 2 steps.

1. Validate and configure the environment being assessed and the account and access required for successful collection per prerequisite documents for the respective assessments.
2. Create the assessment scheduled task for the assessments being configured.

The following table illustrates the high-level assessment account permissions required for successful assessment execution:

Assessment		Local Administrator on Data Collection Machine	Enterprise Administrator	Domain Administrator	Local Administrator on targets	SQL SysAdmin	Assessment specific permissions
Active Directory		✔	✔				https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedad#prerequisites
Active Directory Security		✔	✔				https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedadsecurity#prerequisites
SCCM		✔			✔	✔	https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedsccm#prerequisites
Exchange		✔		✔ (Optional)	✔		https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedexchange#prerequisites
SQL		✔			✔	✔	https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedsql#prerequisites
Windows Server		✔			✔		https://docs.microsoft.com/en- us/services-hub/health/getting- started- windowsserver#prerequisites
Windows Client		✔			✔		https://docs.microsoft.com/en- us/services-hub/health/getting- started- windowsclient#prerequisites
SharePoint		✔			✔	✔	https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedsharepoint#prerequisites

Skype for Business		✔		✔ (Optional)	✔	✔ (Optional)	https://docs.microsoft.com/en- us/services- hub/health/gettingstarted-skypeforbusiness#prerequisites
SCOM		✔			✔	✔	https://docs.microsoft.com/en-us/serviceshub/health/gettingstartedscom#prerequisites
Exchange Online		✔					Global Administrator for Office365 with MFA disabled
SharePoint Online		✔					Global Administrator for Office365 with MFA disabled
Skype for Business Online/ Teams		✔					Global Administrator for Office365 with MFA disabled

Complete the assessment setup by following the "Getting Started" documentation for the assessments being configured, then return to this documentation for post setup details below.

On-Demand Assessment - Active Directory

On-Demand Assessment - Active Directory Security

On-Demand Assessment – Exchange

On-Demand Assessment - Office 365 Exchange

On-Demand Assessment - Azure Active Directory

On-Demand Assessment - Microsoft Endpoint Manager

On-Demand Assessment - System Center Operations Manager

On-Demand Assessment – SharePoint

On-Demand Assessment - Office 365 SharePoint

On-Demand Assessment – Skype for Business

On-Demand Assessment – SQL Server

On-Demand Assessment – Windows Client

Download On-Demand Assessment Prerequisites

This page contains prerequisites documents for the various Assessment solutions running on Azure Log Analytics and Microsoft Services Hub. These documents will help you prepare your environment to setup and configure the Assessment solution.

Active Directory

Active Directory Security

Microsoft Azure

Microsoft Endpoint Manager

Exchange Server

SQL Server

Windows Client

Office 365 Exchange Online

Office 365 SharePoint Online

System Center Operations Manager

Skype for Business

SharePoint Server

Working with Assessment Results

Assessment recommendations may be reviewed once an assessment scheduled task has run and its recommendations and supporting details ingested into Azure Log Analytics – Workbooks.

Complete the steps in this section to navigate and work with assessment recommendations

- Validate successful ingestion of recommendations into Azure Log Analytics
- Review assessment results in Azure Log Analytics Workbooks
- Review assessment results on Services Hub assessment dashboard
- Download assessment reports from Services Hub assessment dashboard
- Create remediation plan for assessment results from Services Hub

Validate Successful Assessment

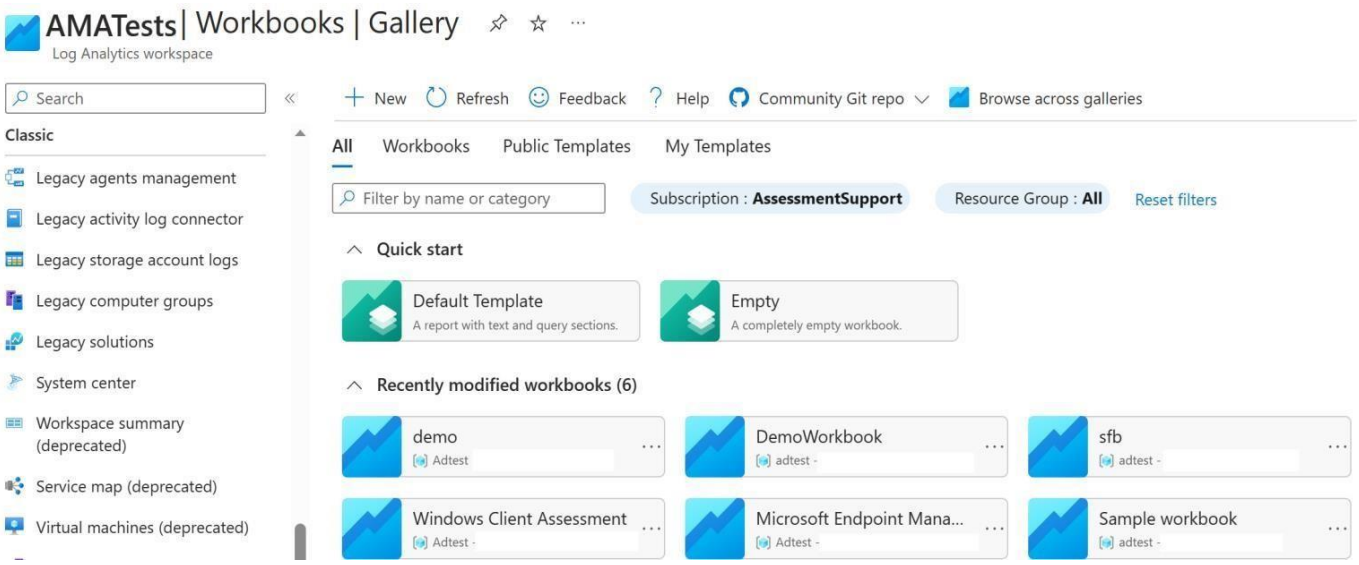
Go to data collection machine On-Demand assessment working directory (e.g. c:\ActiveDirectory for the configured assessment(s) and click on the assessment folder (example: ADAssessment).

After the conclusion of the assessment execution, several files should be observed. For example: *new.prerequisites.37508ed7ad62-485f-9f22-d5d6fae783fd.assessmentadrecs new.processingmodel.37508ed7-ad62485f-9f22d5d6fae783fd.ad.assessmentpm new.rawdata.37508ed7-ad62-485f-9f22-d5d6fae783fd.assessmentadrawdata new.recommendations.37508ed7-ad62-485f-9f22-d5d6fae783fd.assessmentadrecs new.trace.37508ed7-ad62-485f-9f22d5d6fae783fd.adassessment.assessmenttrace*

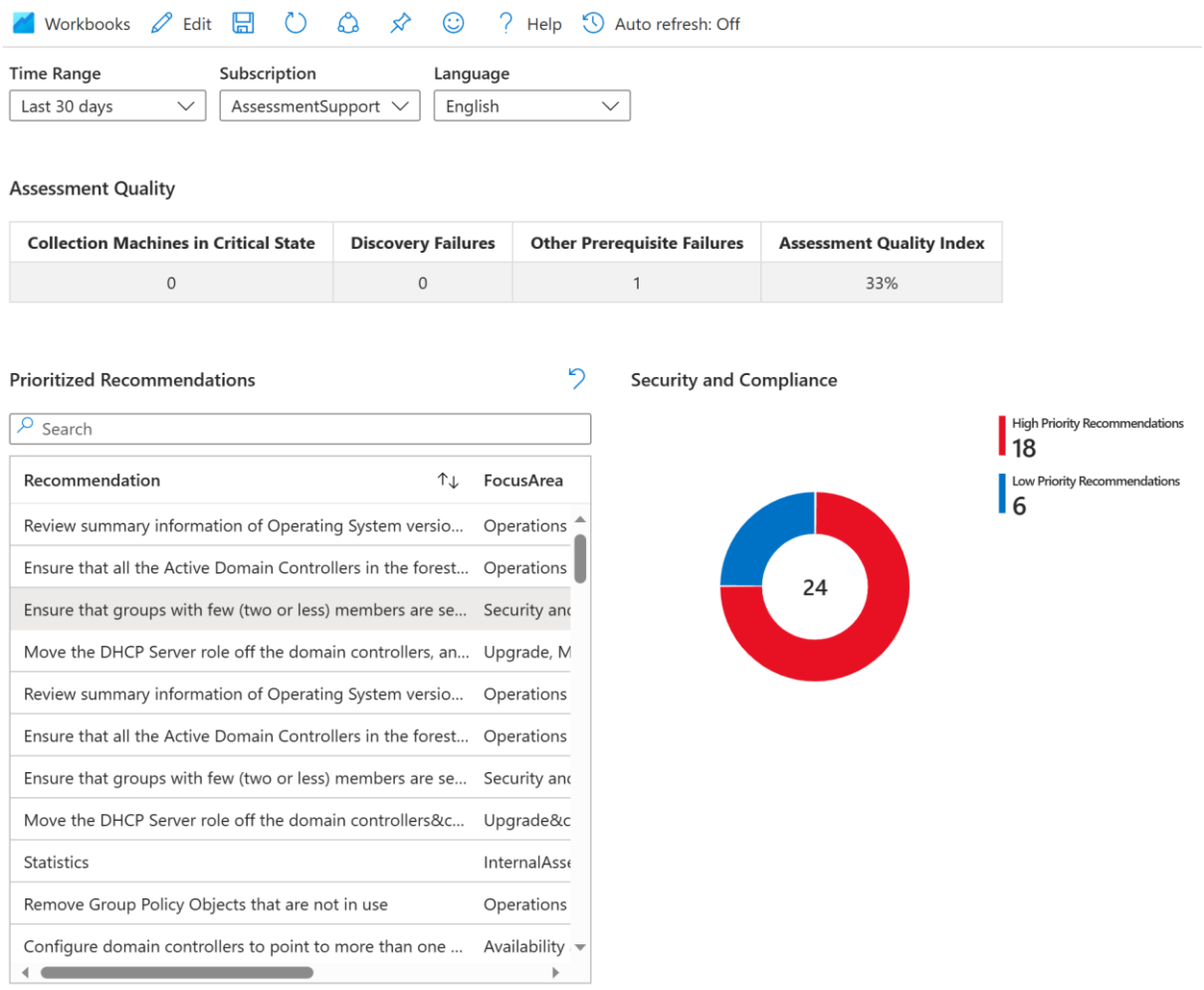
After several minutes, the Azure DCR will begin ingesting these files into Azure Log Analytics.

After 3 to 4 hours, check if you can view the results from the Azure portal.

All resources > Select Azure Log analytics workspace created > Monitoring > Workbooks



Click on the Assessment title to navigate to the recommendation section:



Recommendation

Groups with low numbers of members may be an indication of inefficient Active Directory design and could reduce security, as those groups may have unknown permissions.

Suggested Actions

Review the returned AD_Groups in the collected data to discover groups with low membership count. Identify if these groups are of use and whether they should be removed.

Context

Identify groups you have created that may not be in use anymore and might be a candidate to be cleaned up.

Note that the list can include any Builtin and Administrative group when they have less than two members. Do not remove any Builtin or Administrative groups.

Always ensure to have a valid backup before making changes to Active Directory.

Prioritization Guidance

Impact	Effort	Probability
Moderate Impact	Moderate Effort	Low To Moderate

Learn More

For more information, see The Admin's First Steps: Empty Groups, at https://devblogs.microsoft.com/scripting/the-admins-first-steps-empty-groups/.

AffectedObjects ↑↓
rom366.com
rom366.com

More information regarding Workbooks and features can be found here: Azure Workbooks

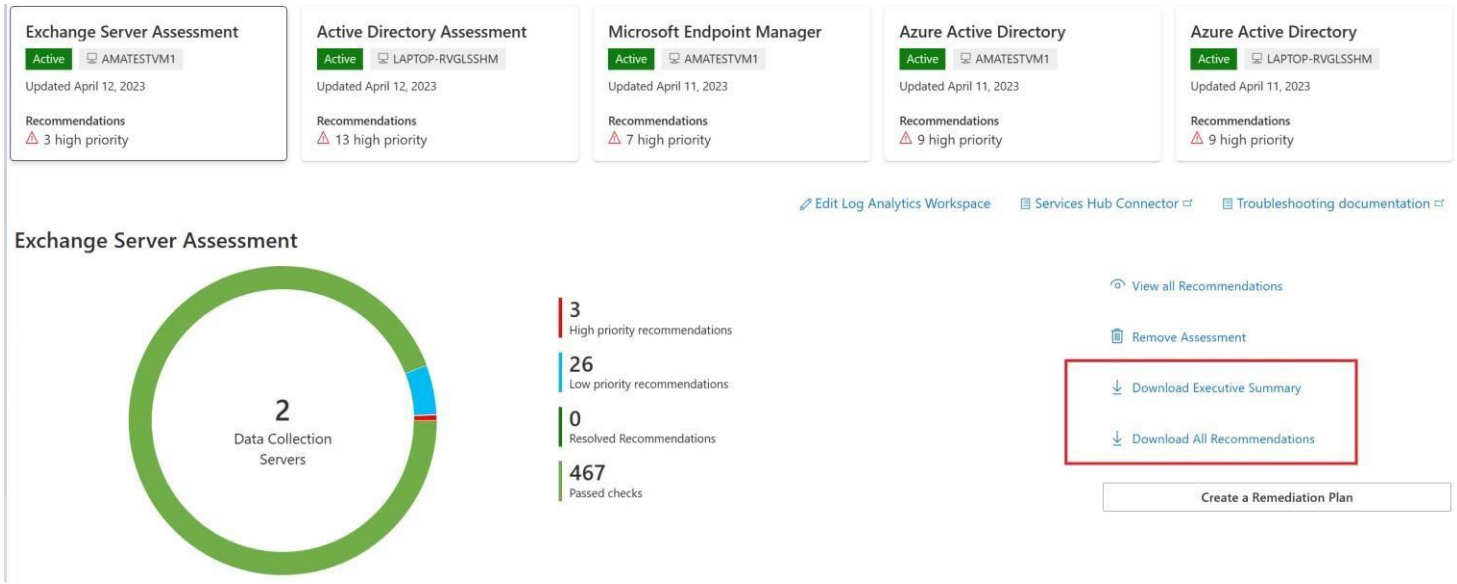
Services Hub Assessment Page

Once you've linked your Services Hub to an Azure Log Analytics workspace and configured an assessment you can access and view your assessment information from the Services Hub. To view your personalized assessment page, select IT Health from the primary navigation, and then click On-Demand Assessments. Here you'll find all your configured assessments with top-level data pulled from Azure Log Analytics.

Note: *Only users that have access to Azure Log Analytics will be able to see the assessment data as we are following the security rules in place for Azure Log Analytics. For access, please contact the Azure owner in your organization.*

Downloading the reports from Services Hub

Download the reports from portal. Serviceshub.microsoft.com->IT Health->On-Demand Assessments

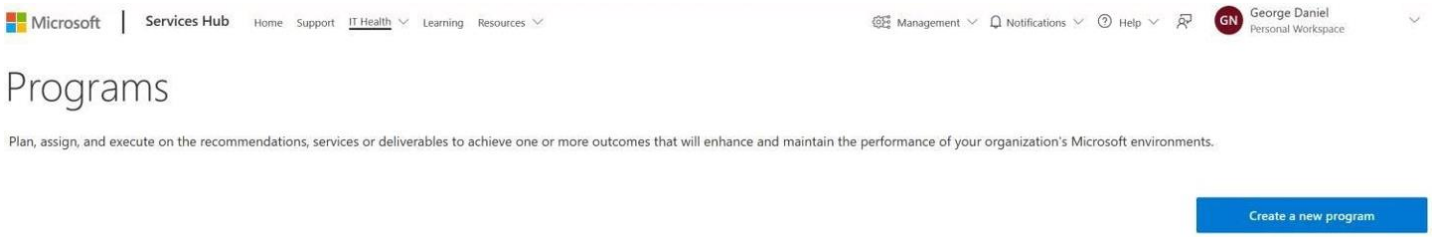


Remediation Plan creation in Service Hub

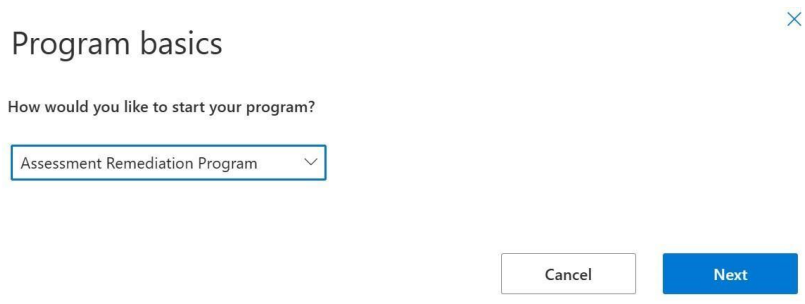
For creating a remediation plan Please follow the below process:

1. Log into the https://serviceshub.microsoft.com/databoard IT Health > Programs

2. Click on the Create a new program



3. Select the type of Program you wish to create and click Next
4. Choose the following for the below attributes:
   a. Plan Template: Select the respective technology
   b. Owner: Your email ID
   c. Add a description and outcome (optional)
   d. Target Date: Select a future Date by which you want to finish the remediation execution and click Save



Your program

Create a new program to track important activities. You can return anytime to update your program.

Template (Required)

Active Directory

Environments

1 of 1 environments selected

Description

AD Assessment Remediation Plan

30 of 2000 (character limit)

Outcome

Improve environment performance and security.

45 of 2000 (character limit)

+ Add another Outcome

Owner

George Daniel Nicolicioiu (@microsoft.com)

Start date

4/19/2023

End date

5/19/2023

Cancel Save

Active Directory

Edit Remove

Program basics Hide basics

Description
AD Remediation Plan

Outcome
Improve environment performance and security.

Owner:	George Daniel Nicolicioiu
Log Analytics Workspace:	ABrinzea
Start Date:	April 19, 2023
Target Date:	May 19, 2023
Progress:	No tasks defined
Status:	Pending

Tasks Documents Members

Tasks

Add Recommendations

Enter text to select a service from the catalog or create a custom task Add task

Show filters

Applied filters: Assigned To: Any Type: Any Recently Added: Any Deleted Tasks: Off Reset all filters

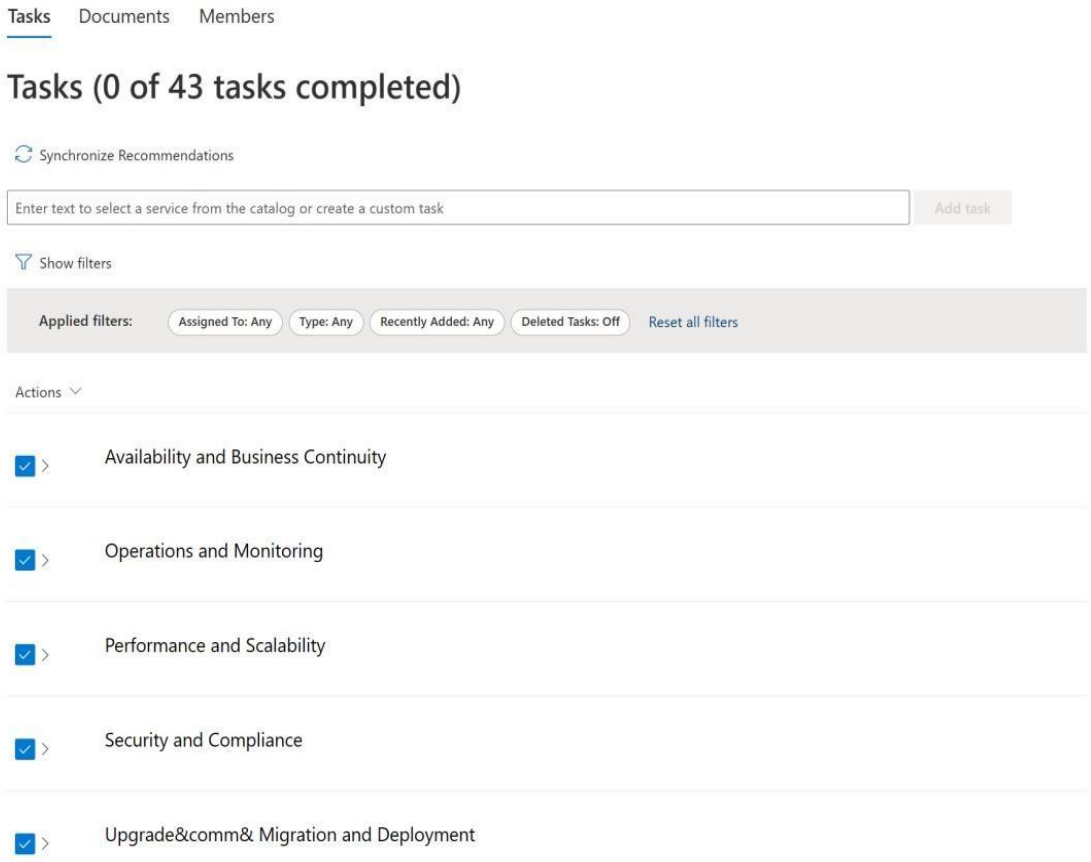
Notes

Type your note here...

0 of 1024 (character limit)

Add note

5. Click Add Recommendations and select from the list of Actions



6. Once the recommendations are added, these will have all the issues from Azure portal with respect to the
   Focus areas.
7. Synchronize Recommendations is an important feature that allows you to sync the latest set of data collection. This will highlight all resolved issues and any new issues found on your environment.

8. The Members section allows you to add people to your Program

9. Now you have a few options that you can use when browsing a specific task. A common practice for complex tasks is to clone it, edit the owner and assign two different stakeholders to complete it.

Configure Multi-homed DNS servers to listen only for DNS resolution queries on the client-accessible interface

Status: Pending Type: Assessment Annotated: No Owner: 0.2

By default, a DNS Server service that is running on a multi-homed computer is configured to listen for DNS queries using all of its IP addresses. It is recommended to not have the DNS server listen on interfaces that are unreachable, i.e. on private networks.

Suggested Actions

To restrict a DNS server to listen only on selected addresses using the Windows interface, carry out the following steps:

1. Click **Start,** point to **Administrative Tools**, and then click **DNS** to open DNS Manager.
2. In the console tree, click the applicable DNS server.
3. On the **Action** menu, click **Properties.**
4. On the **Interfaces** tab, click **Only the following IP addresses**.
5. In **IP address**, type an IP address to be enabled for this DNS server, and then click **Add.**
6. Repeat the previous step as necessary to specify other server IP addresses to be enabled for this DNS server. To remove an IP address from the list, click it, and then clickRemove.

Additional considerations

- Server IP addresses that are added here must be managed statically. If you later change or remove the addresses specified here from the TCP/IP configurations that are maintained at this server, update this list accordingly.
- After you update or revise the list of restricted interfaces, you must stop and restart the DNS server to apply the new list.
- Restricting the DNS Server service to only listen on specific IP addresses is an effective security measure because only hosts on the same network subnet, or hosts with a router that connects them to that same segment, have access to the server.

To restrict a DNS server to listen only on selected addresses using a command line

1. Open an elevated command prompt.
2. Type the following command, and then press ENTER: **dnscmd <ServerName> /ResetListenAddresses [<ListenAddress> ...]**

Prioritization Guidance

Impact: Low
Probability: Very Low
Effort: Low

Context

Consider an Active Directory integrated DNS infrastructure, where Domain Controllers are DNS servers. The DNS server has two NICs, one for the public network (for users & applications) and the other for private/network backup purposes. Both IP addresses (public and private/backup) are registered in DNS.

When a user or application queries for a name, they can get the private and the public IP address for the same server. However, the private/backup interface cannot be reached from the public network. This configuration can cause for connection issues when the server is contacted through an interface that is unreachable.

Learn More

For more information on how to restrict a DNS server to listen only on selected addresses, go to https://learn.microsoft.com/en-us/previous-versions/windows/it-pro/windows-server-2008-r2-and-2008/cc755068(v=ws.11).

10. You can use the Remediation plan for tracking the issues progress, assigning the issues to the respective stakeholder.