LAB GUIDE

MSP Foundations

The Nerdio Optimization Journey

Foundational MSPs

1. Define a Sales process
2. Configure UX settings
3. Create Desktop Images
4. Implement automations
5. Create Host Pools
6. Leverage UAM
7. Configure Auto-Scale

Optimized MSPs

8. Extend beyond AVD with Modern Work
9. Deliver updates via Foundations Pipeline
10. Add new customers using Foundations framework
11. Make iterative changes
12. Implement Nerdio API

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Nerdio Adoption & Management Framework

Foundations

Golden Image
- OS Selection
- VM config

Scripted Actions
- VM Customizations
- Updates

Unified App Management
- App installs / updates
- Policy-driven automation

RDP Profile Settings
- User experience settings
- Session security settings

FSLogix Profile Settings
- Profile management
- Profile portability

1

2

Host Pool Provisioning

Create Host Pool

↓

Configure / Enable Auto-scale

Session Host Provisioning

Done!
NMM Deploys Hosts

3

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Identity Cheat Sheet

New Customer (Greenfield)

If the customer doesn't have need for physical hardware or domain services, try **Microsoft Entra ID** with **Entra Join**.

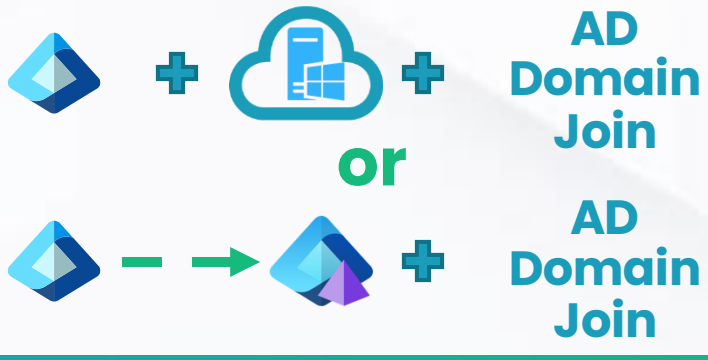
Customer has a physical domain controller already.

If the customer has a physical domain controller and can't / won't move away from it, use **Entra Connect** to create synchronization with **Microsoft Entra ID**. You can then **hybrid Entra join** or use **AD domain join** to join virtual machines to the domain.

Customer has no infrastructure but needs a domain controller

If the customer has no physical infrastructure but needs a domain controller, try **Microsoft Entra ID**, **Active Directory Domain Services (VM DC)**, **or** **Microsoft Entra Domain Services**.

If you choose Microsoft Entra Domain Services, Microsoft will create a managed virtual domain controller for you. Microsoft Entra is then used to manage users / groups / access. Your AVD machines can be joined to the domain via AD Join and physical endpoints can be directly Entra joined to Entra ID.



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VM Series Use Cases

B-Series

Accrues credits for capacity bursting.
Use for:
Web servers, small databases, development environments.

D-Series

For general computing requiring consistent CPU and low memory usage.
Use for:
Enterprise apps, app servers, medium-traffic web servers.

E-Series

For RAM-intensive general computing.
Use for:
Database servers, RDS Session Hosts.

DI-Series

Offers virtual cores for CPU-intensive workloads with less of a need for RAM.
Use for:
Web servers, gaming, video encoding.

F-Series

Offers non-virtual cores for CPU-intensive workloads.
Use for:
Web servers, gaming, video encoding.

N-Series

These series families include GPUs.
Use for:
If you need a dedicated GPU, start here!

Azure Storage Use Cases

Standard HDD

- *For low disk I/O applications.*

Use for:

- ***Test Environments***
- ***Proxy Servers***
- ***Archived Servers***

Standard SSD

- *For non-disk I/O-heavy applications.*

Use for:

- ***Domain Controllers***
- ***File Servers***
- ***Most VDI Workloads***

Premium SSD

- *For disk I/O-intensive applications.*

Use for:

- ***Virtual Desktops***
- ***SQL Servers***
- ***Application Development***

Ultra SSD

- *For disk-intensive workloads.*

Use for:

- ***SAP HANA***
- ***Top-tier Databases***
- ***Transaction-heavy workloads***

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LAB GUIDE

MSP Foundations – Day 1

Day 1 – Lab 1 | Walkthrough
AD User Management (hybrid)

Nerdio Manager allows you to create a connection between Nerdio Manager and Active Directory.

The installation process has the following workflow:

1. Create an AD User Management Connection
2. Install the Hybrid Connection Manager (HCM)
3. Configure the Hybrid Connection's Credentials

Notes: *There is no additional Nerdio cost to utilize AD User Management, but Service Bus Relay Hybrid Connections do have an additional Azure cost for each connection.*

Each domain controller connected to Nerdio Manager counts as a single connection.

https://azure.microsoft.com/en-us/pricing/details/service-bus/

App Service Plan	Hybrid Connection Limit
Basic (Nerdio Default)	5
Standard	25
Premium (v1-v3)	220
Isolated (v1-v2)	220

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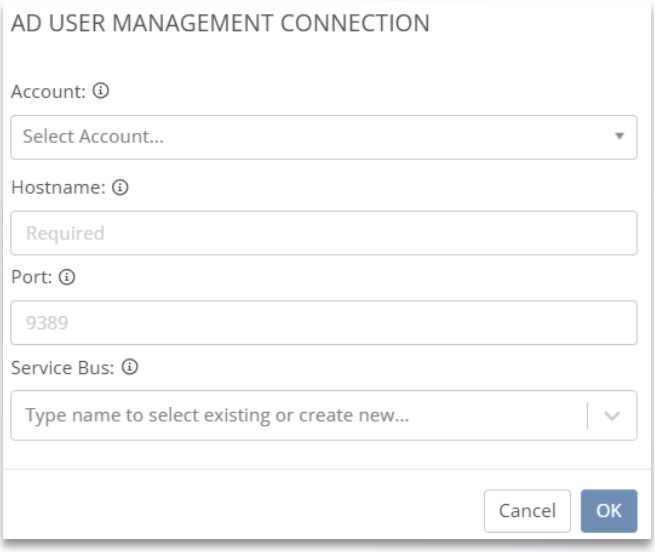
Day 1 – Lab 1.1 | Walkthrough
Create an AD User Management connection

1. In Nerdio Manager, at the MSP level, navigate to Settings > AD User Management.

2. Select Add.

3. Enter the necessary info.
   - **Account:** From the drop-down list, select the account that uses this connection.
   - **Hostname:** Type the fully qualified domain name for the domain controller where the hybrid connection manager will be installed. (***note*** – domain controller must have internet access).
   - **Port**: Type the destination port for the hybrid connection. (***note*** – it is recommended that you use the default port 9389).
   - **Service Bus:** From the drop-down list, select an existing service bus relay or create a new one.

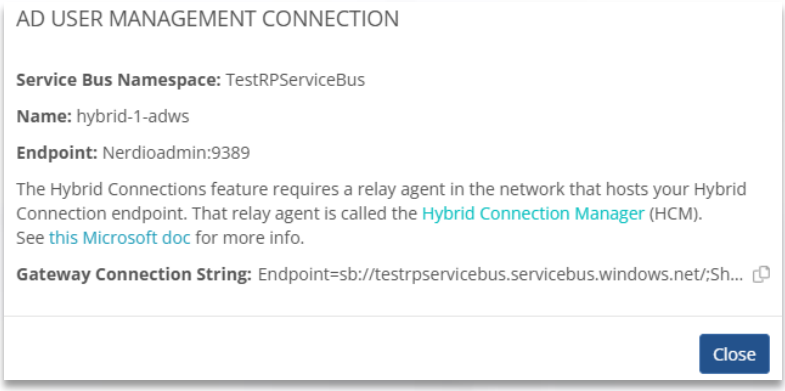


4. Click OK.

Day 1 – Lab 1.2 | Walkthrough
Install the Hybrid Connection Manager

1. In Nerdio Manager, at the MSP level, navigate to Settings > AD User Management.

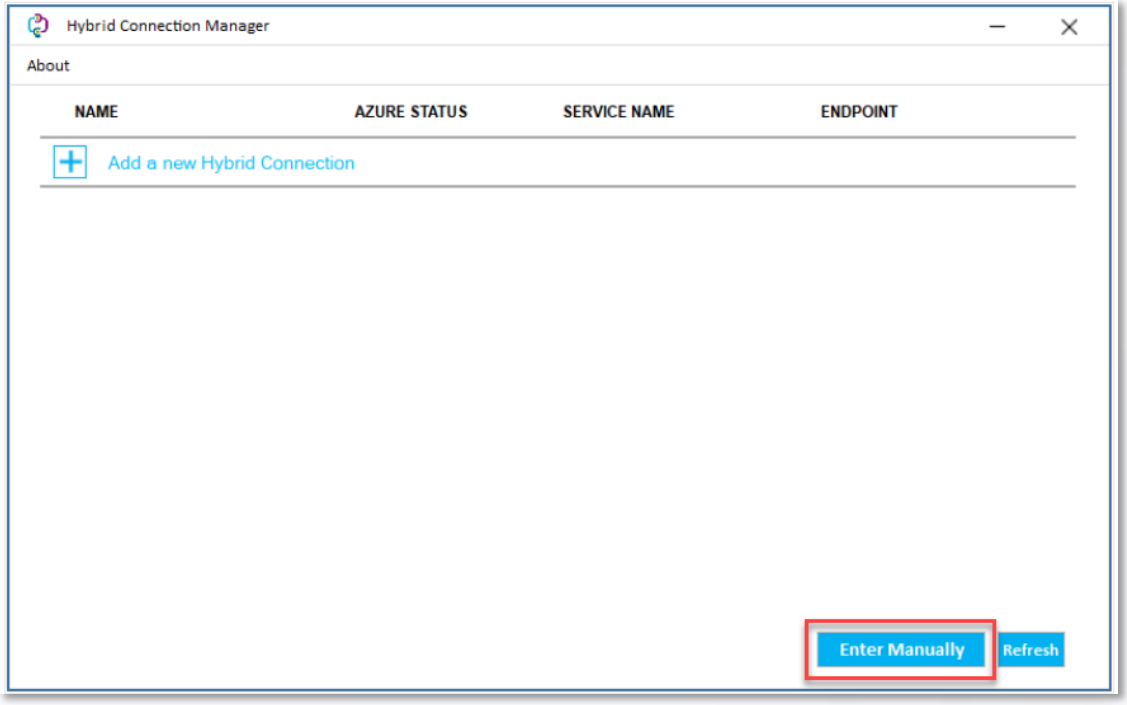
2. Locate the AD User Management connection you wish to work with and select continue configuration.



3. Make a note of the connect information, which is needed in the next step. In addition, use the copy icon to copy the Gateway Connection String to the clipboard.

4. See this Microsoft article for full details about how to install HCM.

https://learn.microsoft.com/en-us/azure/app-service/app-service-hybrid-connections#hybrid-connection-manager



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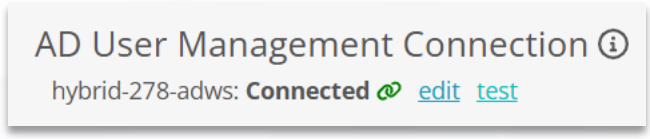
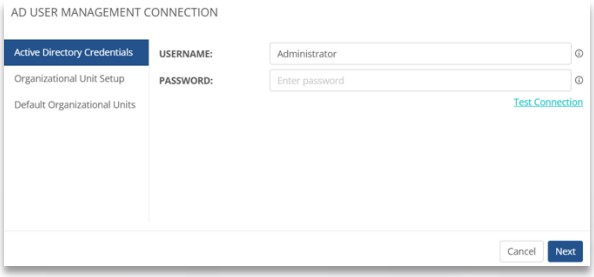
Day 1 – Lab 1.3 | Walkthrough
Configure the Hybrid Connection's Creds

1. In Nerdio Manager, at the Account level, navigate to Settings > Integrations.

2. In the AD User Management Connection tile, select edit.



3. In the Active Directory Credentials tab, enter the following information:

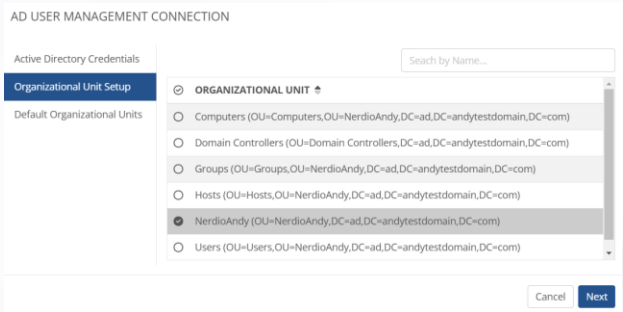


- Username: Type the username.
- Password: Type the password.

4. Click Next.

5. In the Organizational Unit Setup tab, enter the following information:

Organizational Unit: From the list, select the Organizational Unit.

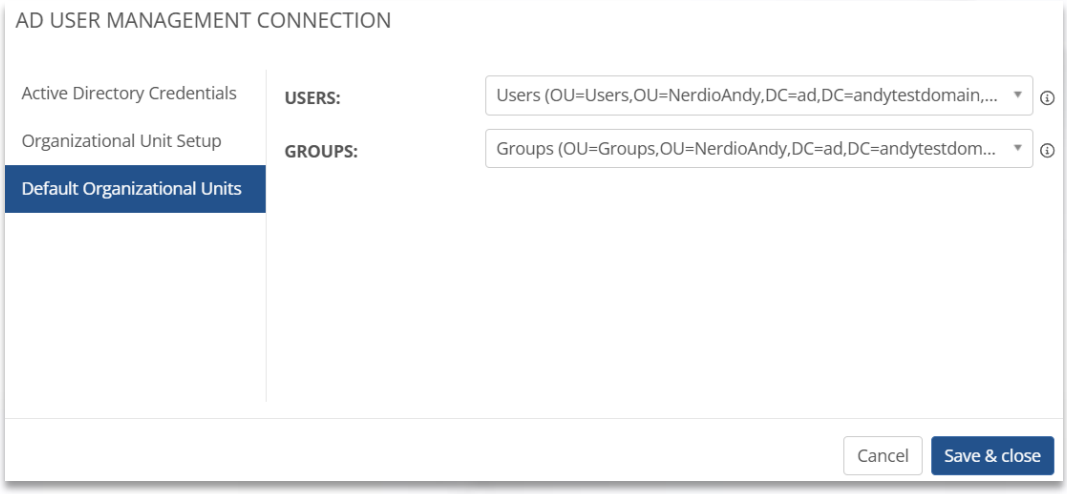


Day 1 – Lab 1.3 | Walkthrough
Configure the Hybrid Connection's Creds

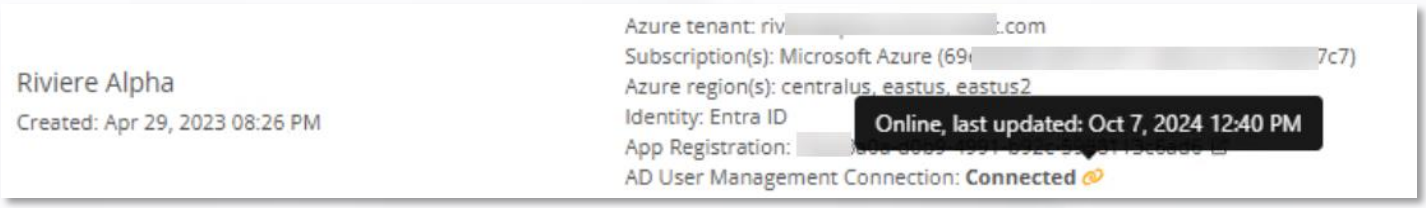
6. Once you have entered all the desired information, click Next.

7. In the Default Organization Units tab, enter the following information:

- Users: From the drop-down list, select the OU that is the default when new users are created.
- Groups: From the drop-down list, select the OU that is the default when new groups are created.



8. Once you have entered all the desired information, select Save & close. *Nerdio Manager attempts to make the connection. You can see the task's status in Integrations Tasks.*



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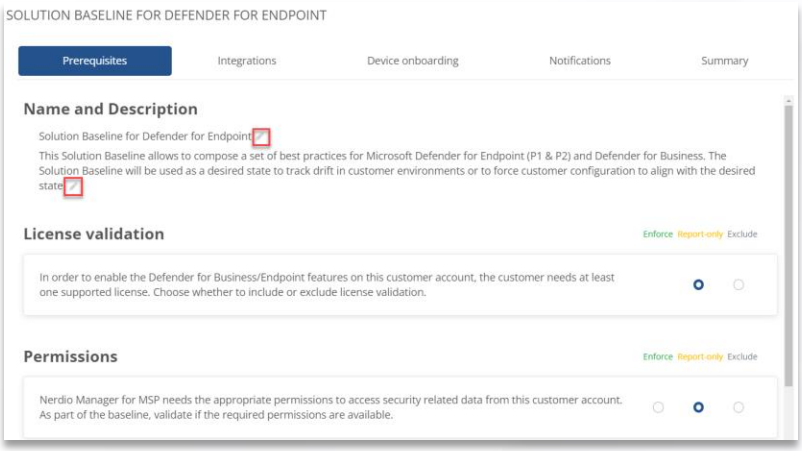
Day 1 – Lab 2.1 | Walkthrough
Configure Solution Baselines

1. In Nerdio Manager, at the MSP level, navigate to Solution Baselines.

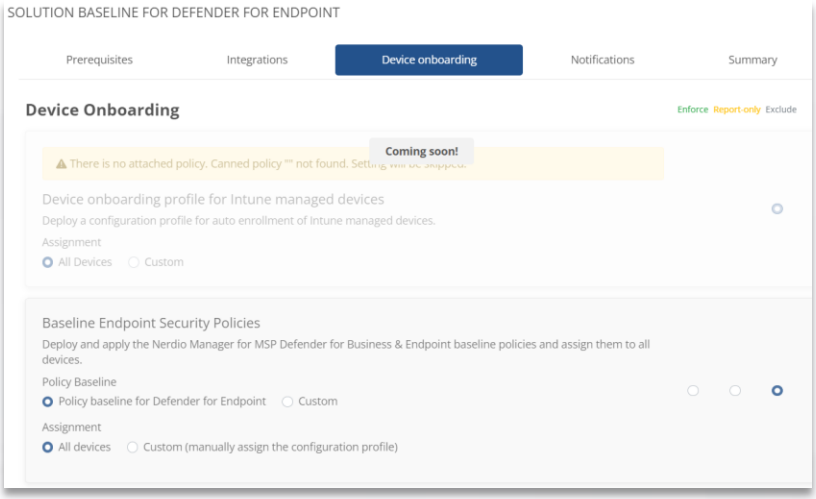
2. Locate the Solution Baseline you wish to work with.

3. From the action menu, select Configure baseline.

4. In the Prerequisites tab, enter the needed information.



5. In the Integrations tab, enter the needed information.



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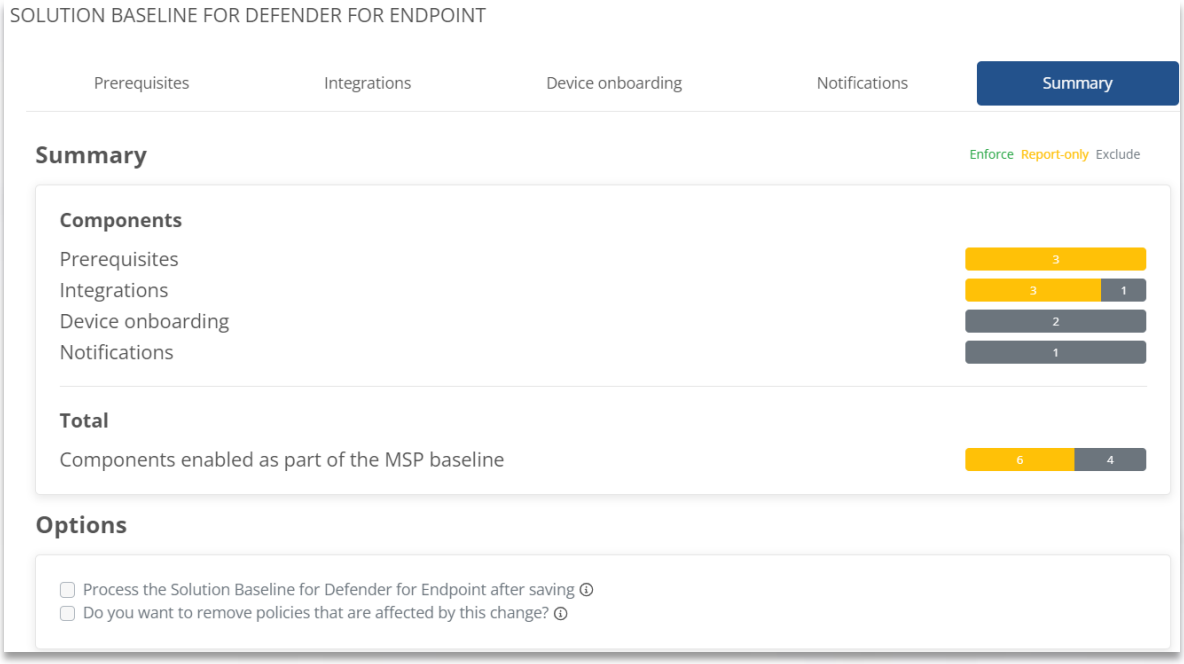
Day 1 – Lab 2.1 | Walkthrough
Configure Solution Baselines

7. In the Summary tab, review the changes.



8. Set the following options:

- Process the Solution Baseline for Endpoint after saving: Select this option to apply the solution baseline to the assigned accounts.
- Do you want to remove policies that are affected by this change?: If this option is selected, policies from this solution baseline are removed from the tenant if they don't have any other assignments.

9. Once reviewed, select Save & close.

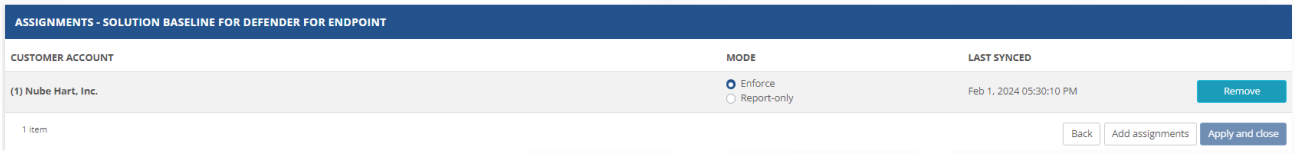
Note: *Some baselines may have a different tab order.*

Day 1 – Lab 2.2 | Walkthrough
Assign Accounts to a Solution Baseline

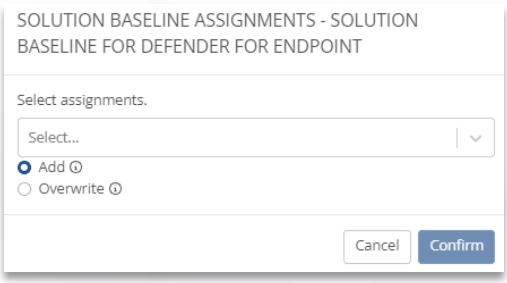
1. In Nerdio Manager, at the MSP level, navigate to Solution Baselines.

2. Locate the Solution Baseline you wish to work with.

3. From the action menu, select Assign.



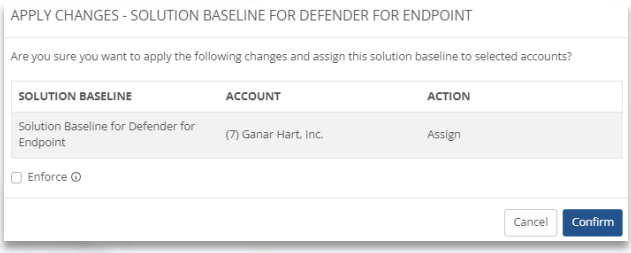
4. Select Add assignments. →



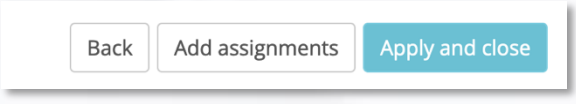
5. Enter the following information:

- **Assignments:** From the drop-down list, select the account(s) to assign.
- **Add / Overwrite:** Select whether to add the selected accounts to the existing assignments or replace (overwrite) the existing assignments with the new selections.
- Optionally, select **Remove** to remove an assignment.

6. Review and click Confirm. →



7. When you are done with all changes, select Apply and close. →

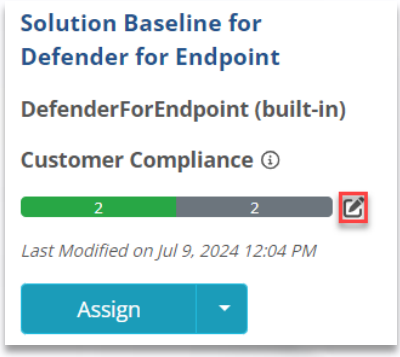


Day 1 – Lab 2.3 | Walkthrough
View the status of Solution Baselines

1. In Nerdio Manager, at the MSP level, navigate to Solution Baselines.

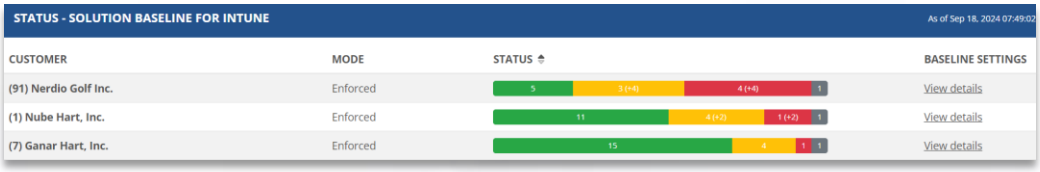
2. Locate the Solution Baseline you wish to work with.

3. From the action menu, select Status overview.

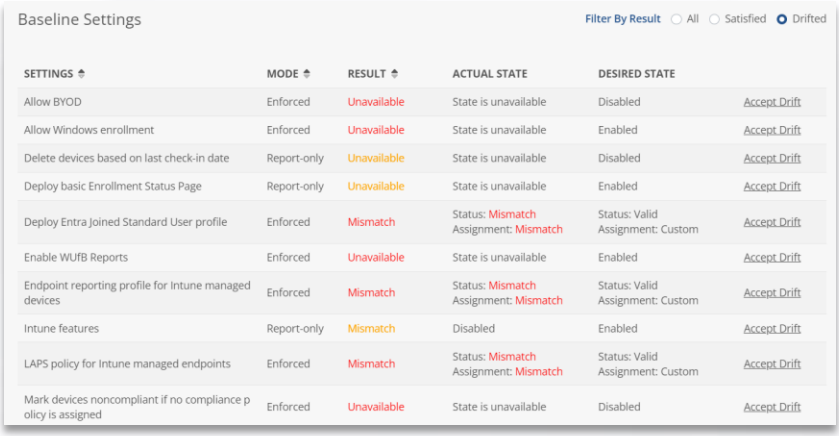


4. The status page uses the following colors:

- **Green:** Valid (Satisfied)
- **Yellow:** Mismatch (Drifted)
- **Red:** Not Found (Drifted)
- **Gray:** Excluded



5. Optionally select View details.



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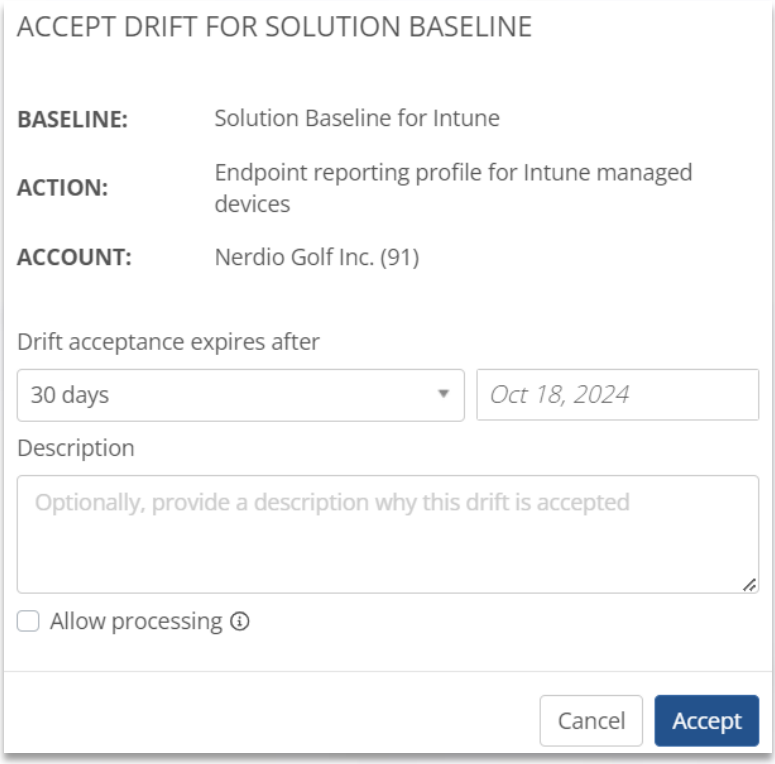
Day 1 – Lab 2.3 | Walkthrough
View the status of Solution Baselines

6. For any drifted setting, select Accept Drift.

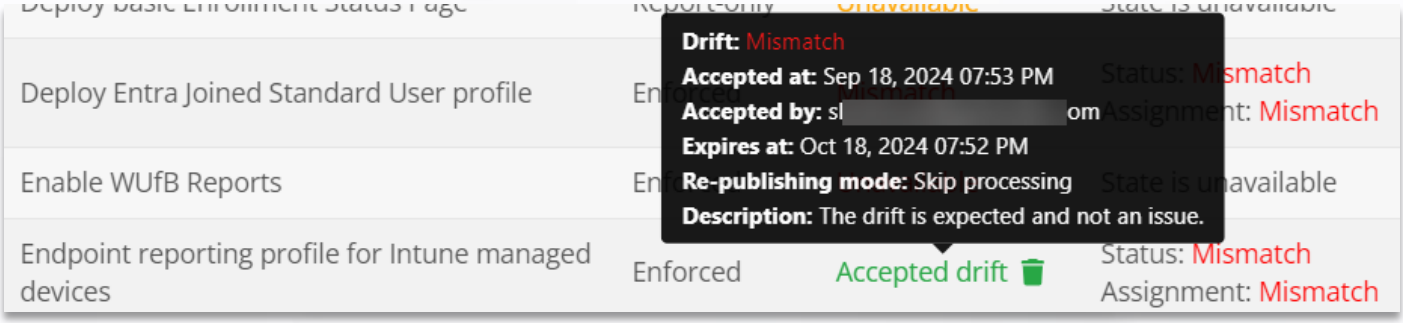


7. Enter the following information:

- **Drift acceptance expires after:** From the drop-down list, select the drift expiration. Alternatively, type a date.
- **Description:** Optionally, type a description about why this drift was accepted.
- **Allow processing**: Select this option for the next republishing to try to sync the policy.

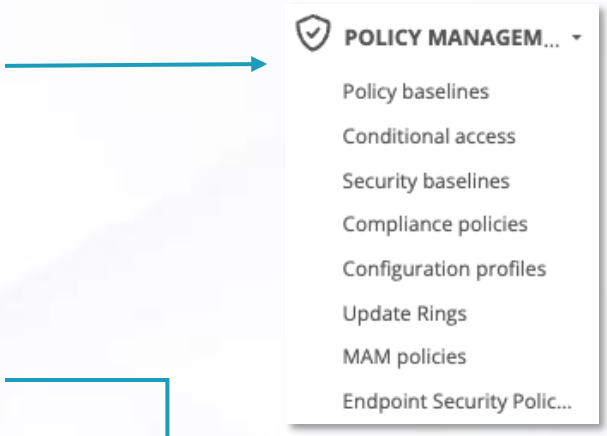
8. Once you have entered the desired information, select Accept.

9. Hover over Accepted drift to see its details.



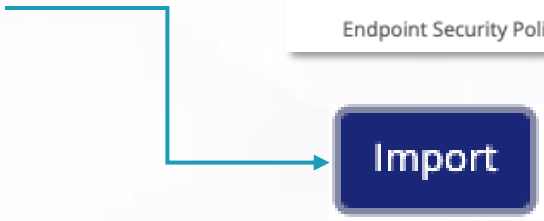
Day 1 - Lab 3.1 | Walkthrough
Importing Intune Policies

1. Expand the Policy Management blade and select the policy type you'd like to import. (MSP / Global level).



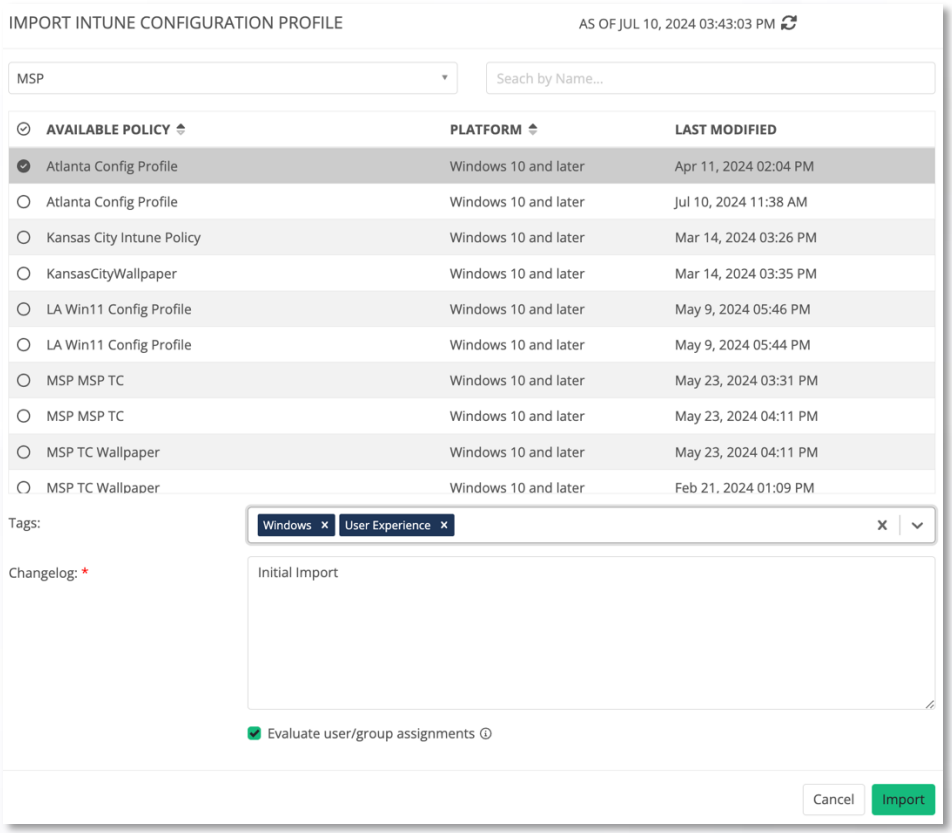
2. Click Import and select a policy from a list of your custom Intune policies.

- *We recommend tagging policies for ease of management.*



3. Add a changelog description and click Import to finish.

*Note: Turn on **Evaluate user/group assignments** for policies that are already assigned to endpoints.*



Day 1 – Lab 3.2 | Walkthrough
Editing Policies in Nerdio

1. Click the dropdown menu next to assign to modify an imported or cloned policy.

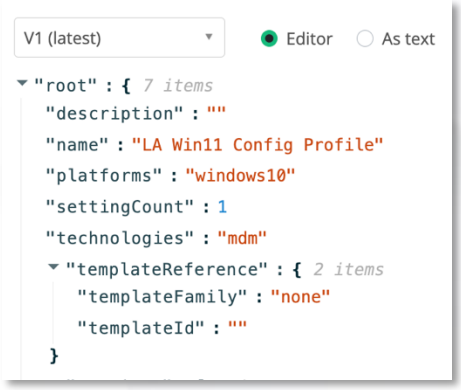
- *Nerdio default policies cannot be edited and must be cloned.*

2. Click Edit to modify the policy.

3. Use the Name tab to update the policy name, description and tags, then click Next.

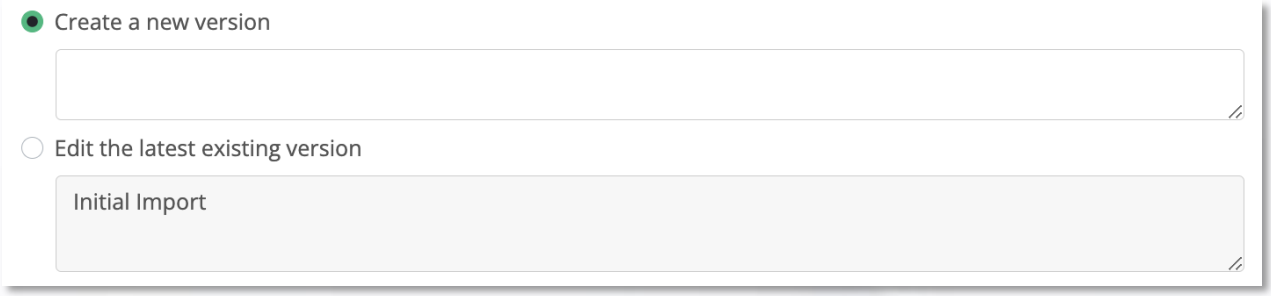
4. Use the settings tab to modify the policy JSON, then click Next.

- Use the dropdown menu to select the version to modify.
- Use the radio buttons to toggle between editing JSON in text or via the editor.



5. Enter information into the Changelog and then click Save & Close to finish.

- Select **Create a new version** if you are changing functionality in the policy.
- Select **Edit the latest existing version** if you are resolving a typo or an issue within the version.



Note: Only custom policies can be edited or changed. To change NMM policies, clone them first and then modify the cloned version.

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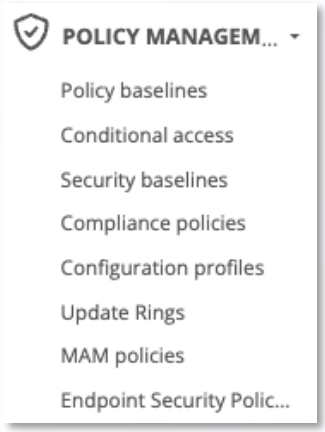
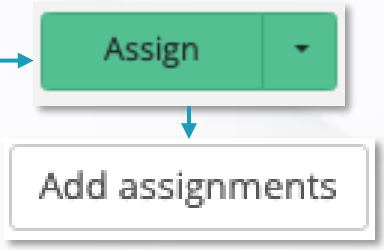
Day 1 – Lab 3.3 | Walkthrough
Assigning Policies in NMM

1. Expand the Policy Management blade and click the policy type you'd like to assign (MSP / Global level).



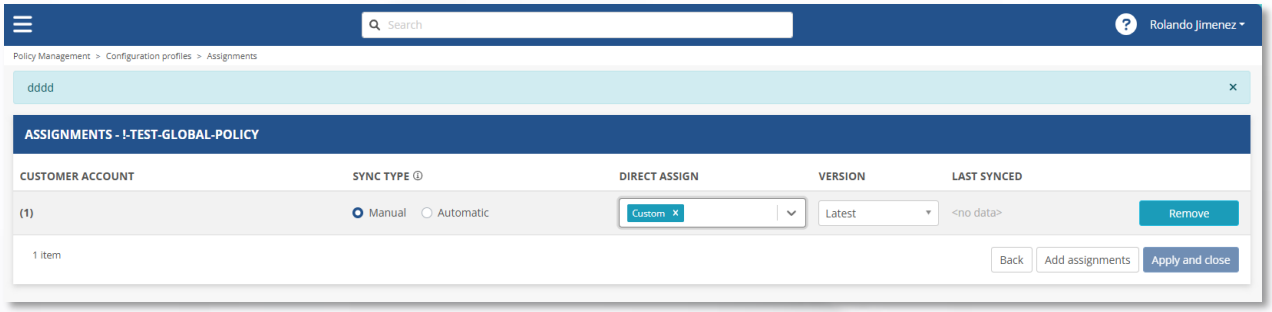
2. Find the target policy and click Assign then Add Assignment.



3. Use the dropdown menu to select the account(s) to assign the policy to.

Selecting Add will add the policy to any new accounts selected without modifying the original assigned list (if applicable).

Selecting Overwrite will remove any original assignments and assign the policy to the accounts you've defined in this menu.



4. When you're finished, click Confirm then Apply and Close .

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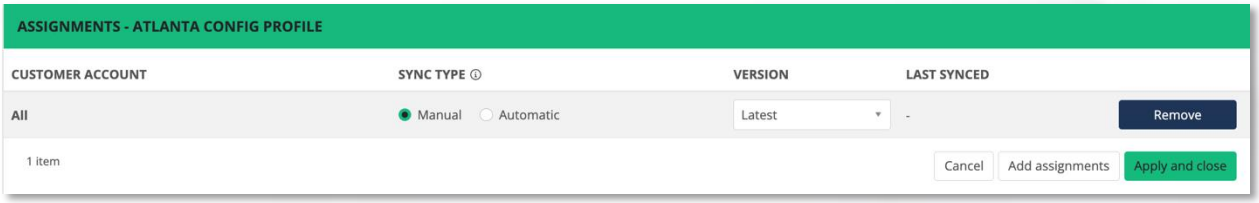
Day 1 – Lab 3.3 | Walkthrough
Assigning Policies in NMM

5. Once you've added the assignments, select your Sync Type:
   - **Automatic** will automatically cascade any changes made to the policy to the customer accounts you've assigned it to, keeping everything aligned.
   - If you set the sync type to **Manual**, you'll need to return to this page to update versions and apply them to push updates to the customer account level.

6. Select the Version you want to assign
   - Selecting **Latest** will apply the latest version to the account when it is synced.
   - Selecting a **Specific Version** will only assign the selected version, it will not automatically change as new versions become available.

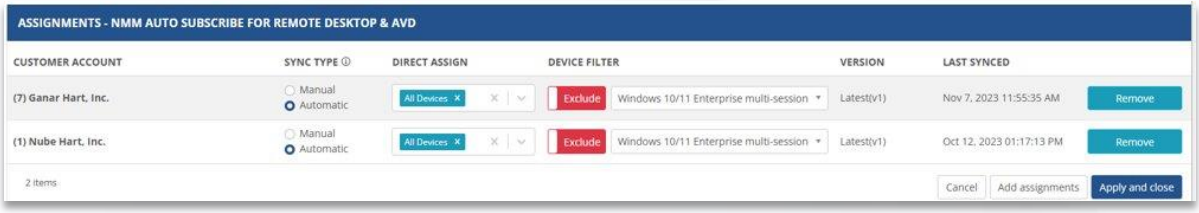


7. When you're finished making your selections, click Apply and Close to commit your changes.

Granular policy assignment allows for applying specific settings to targeted users, groups, or devices.

You will have tailored policy management to meet specific client needs. As well as more efficient operations through precise control over policies.

This is the view when assigning policies. You can now see Direct Assign and Device Filter after you add the assignment and before applying and saving.



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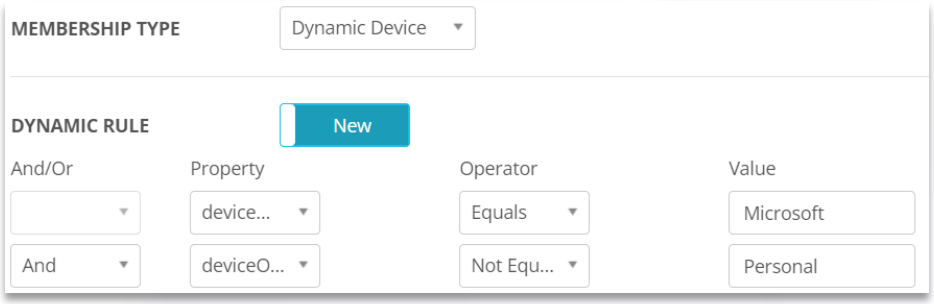
Day 1 – Lab 3.5 | Walkthrough
Group Templates

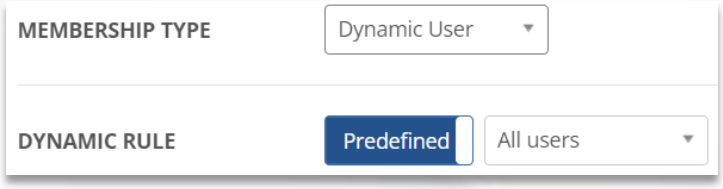
Group templates allow you to directly assign policies at the MSP level to users and devices that belong to a group that is defined in the group template. For example, you can create a group template for all Microsoft devices that are not personally owned. This gives you additional flexibility when assigning policies.

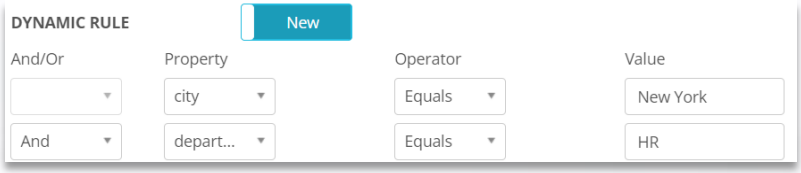
Once you create your group templates, they may be used for policy assignments at the MSP level.

The following template membership types are available:

- **Assigned:** Select this type to include any user and/or device assigned to any group
- **Dynamic Device:** Select this option to include all devices or specific devices.
- **Dynamic User:** Select this option to include all users or specific users.







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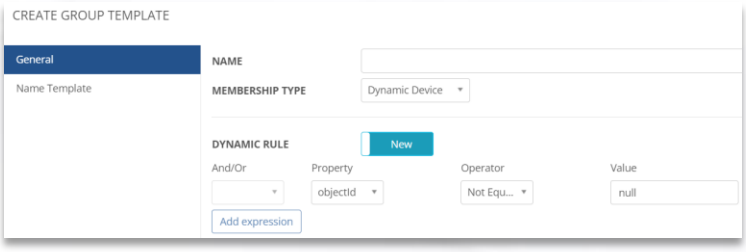
Day 1 – Lab 3.5 | Walkthrough
Create a Group Template

1. At the MSP level, navigate to Group Templates.

2. Select add new group template.

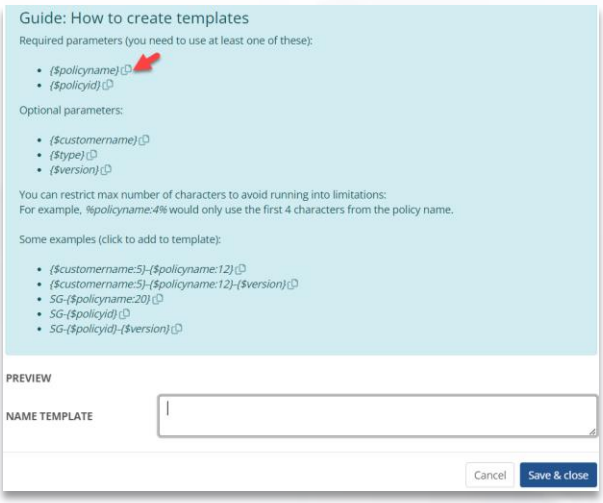
3. In the General tab, enter the follow information.



- **Name:** Type the group template name.
- **Membership Type:** From the drop-down list, select the membership type, as described above.
- **Dynamic Rule:** For Dynamic User or Dynamic Device, build the dynamic rule, as described above.

Note: Select Add expression to add more to the rule.

4. In Name Template tab, enter the following information to generate a unique group name per policy.



5. Select Save & close when finished.

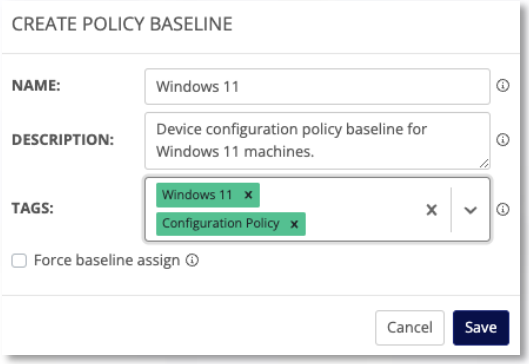
Day 1 – Lab 4.1 | Walkthrough
Configuring Intune Policy Baselines

1. Expand the Policy Management blade and click Policy Baselines (MSP / Global level).

2. Click Add Baseline.

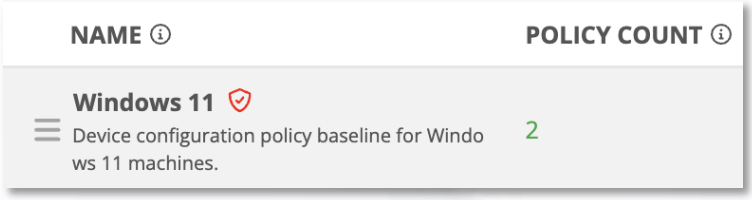
3. Configure the following:

- *A clear name for the baseline.*
- *A description of its function.*
- *Tags for ease of management.*

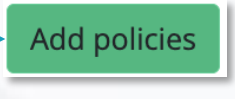


4. When you're finished, click Save.

5. Once saved, click the Policy Count to add policies.



5. Click Add Policies to add policies to the baseline. Then click Apply and Close.



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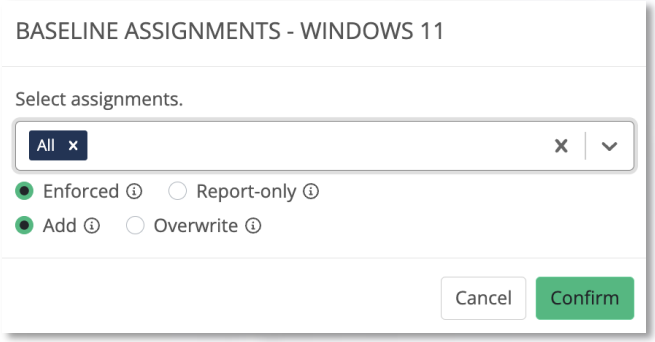
Day 1 – Lab 4.1 | Walkthrough
Configuring Intune Policy Baselines

6. Arrange the policy baselines in order of priority. The weight of priority is from the top-down.

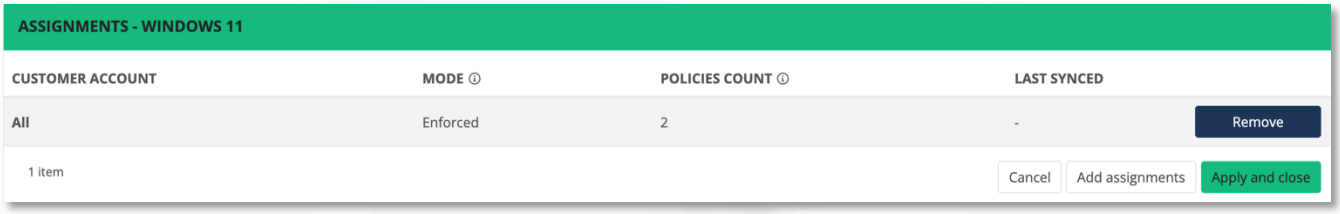
7. Click Assign and Add Assignments.

8. Choose the baseline behavior.
   - Enforced baselines apply to and configure endpoints.
   - Report-only track drift and changes on endpoints.

9. Choose to add or overwrite the assignments.
   - Adding assignments will add new entries to the existing list of assigned accounts.
   - Selecting overwrite will overwrite the list of currently assigned accounts.



10. When you're finished, click Confirm. → Save



11. Then click Apply and Close to assign the baseline to the selected accounts.

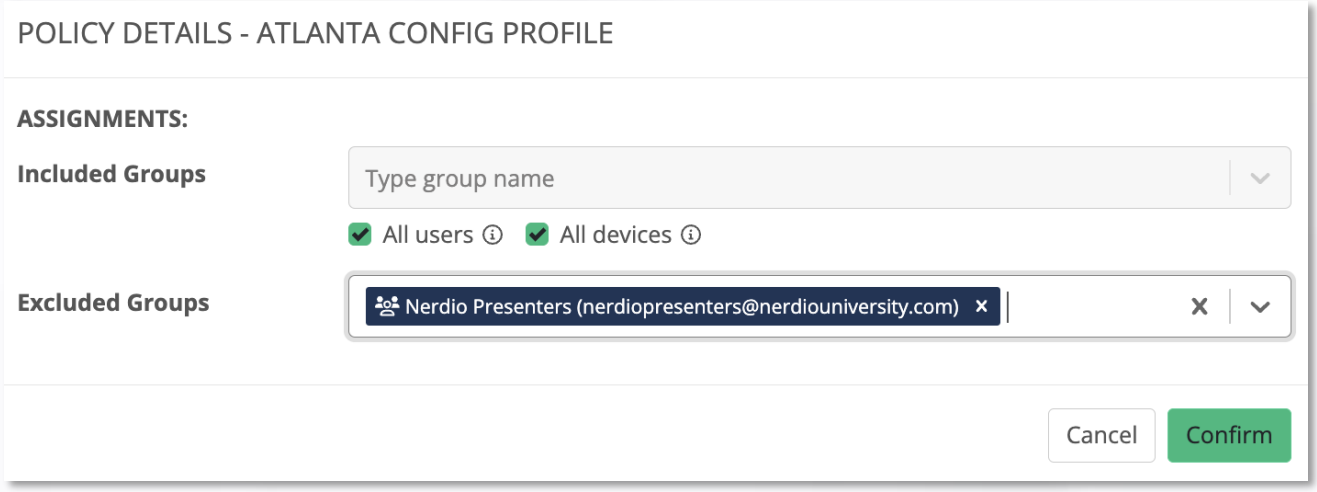
Day 1 – Lab 4.2 | Walkthrough
Assigning Policies to Endpoints

1. From the customer account level, go to Policy Management and select the policy type you'd like to assign.

2. Locate the policy you'd like to deploy and click Assign.

3. Select an option for assignment.
   - Using Included Groups will allow you to select groups to assign the policy to.
   - Or, you can select all users and / or all devices and use exclusions.

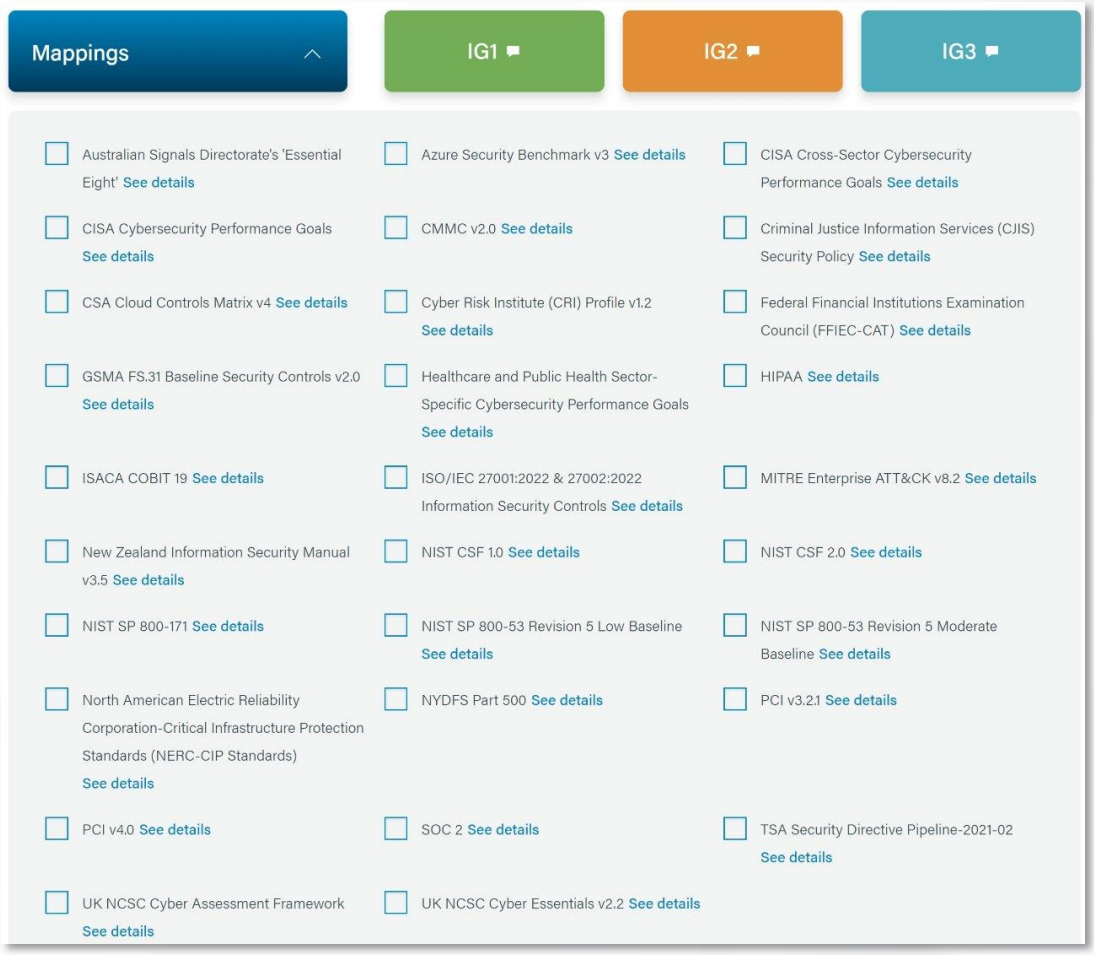
4. Once assigned, your
   - Using **Included Groups** will allow you to select groups to assign the policy to.
   - Or you can select **all users** and / or **all devices** and use exclusions.



Day 1 – Lab 4.3 | Walkthrough
CIS Baselines

Pre-configured templates that align with CIS standards and automatic updates that keep policies CIS-compliant.

- Pre-configured for easy CIS-compliant deployment.
- Ensure consistency and reduce manual effort with centralized control.
- Keep policies CIS-compliant with automatic updates



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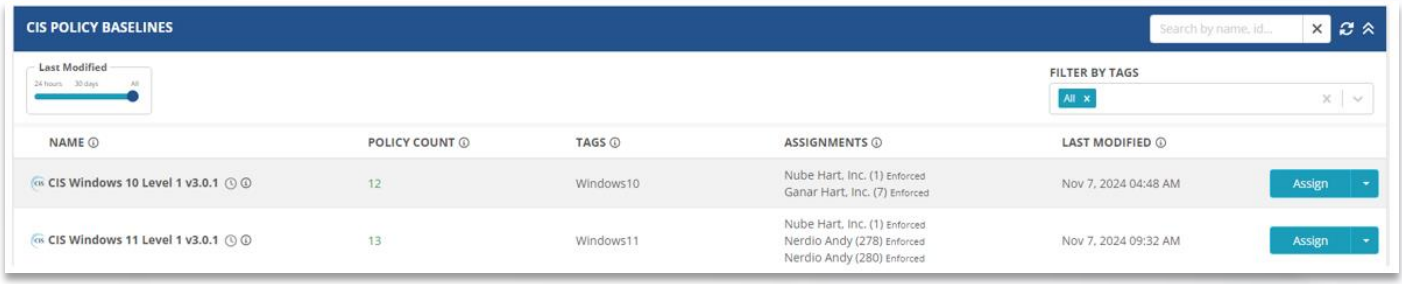
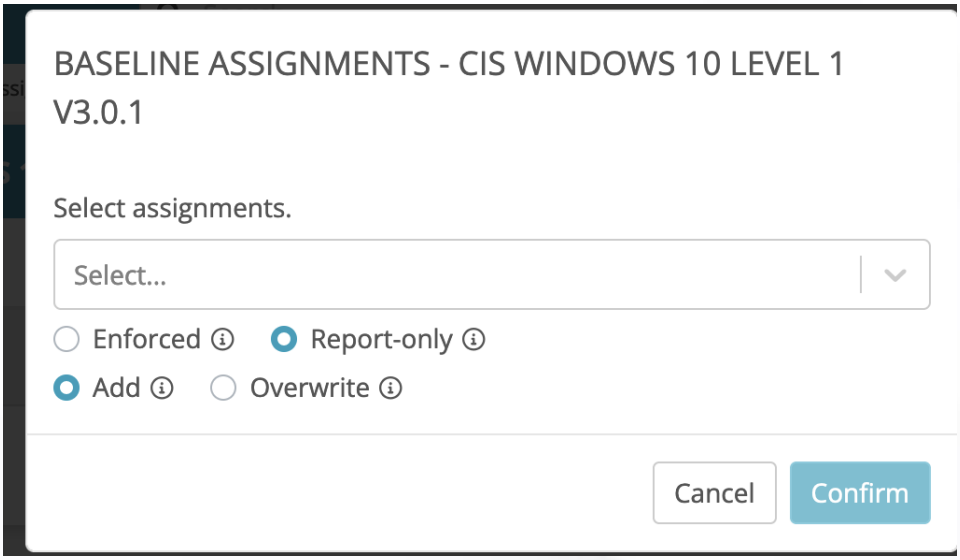
Day 1 – Lab 4.3 | Walkthrough
CIS Baselines

1. Navigate to Policy Management, at the MSP level, and choose CIS Policy baselines.

Note: The policies are already built for Windows 10 & 11, CIS Level 1.



2. Click Assign, Add Assignments, and then fill out the information listed below.

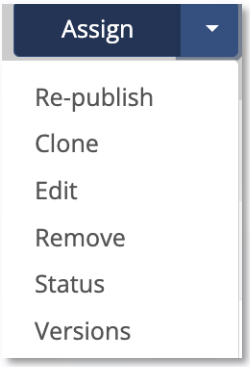


3. Click Confirm and then Apply and close.

Day 1 – Lab 4.4 | Walkthrough
Changelog, Statuses & Rollbacks

Review the Changelog

Use the change log to document and review policy changes.

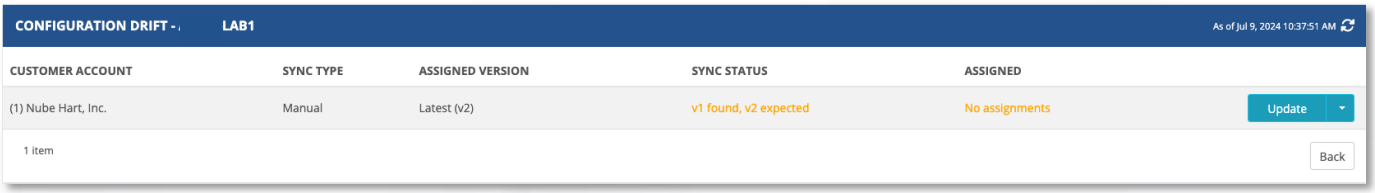


1. Find the policy you'd like to review and use the dropdown menu to click Versions.

Check Policy Statuses

Check the status to track endpoint compliance from a single pane of glass.

1. Find the policy and use the dropdown menu to click status.
   - Use the **Update** button to update to more recent versions at the customer account level.
   - Use the **Fix Drift** button to resolve detected drift issues.
   - Use **Rollback** to swap to a previous version.



Update, Rollback Policy Versions

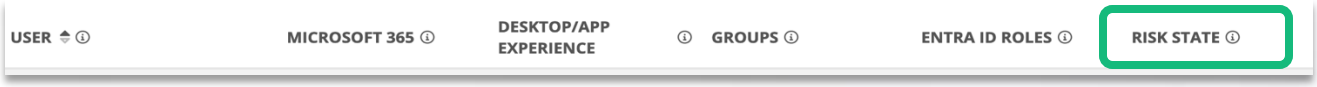
Check the status to track endpoint compliance from a single pane of glass.

1. Find the policy and use the dropdown menu to click status.

Day 1 – Lab 5 | Walkthrough
Risky Users

1. Navigate to your customer account and click on the Users blade.

2. Find a user and check the RISK STATE column.
   - You can also filter different user states at the top of the page



Reduce security risks.

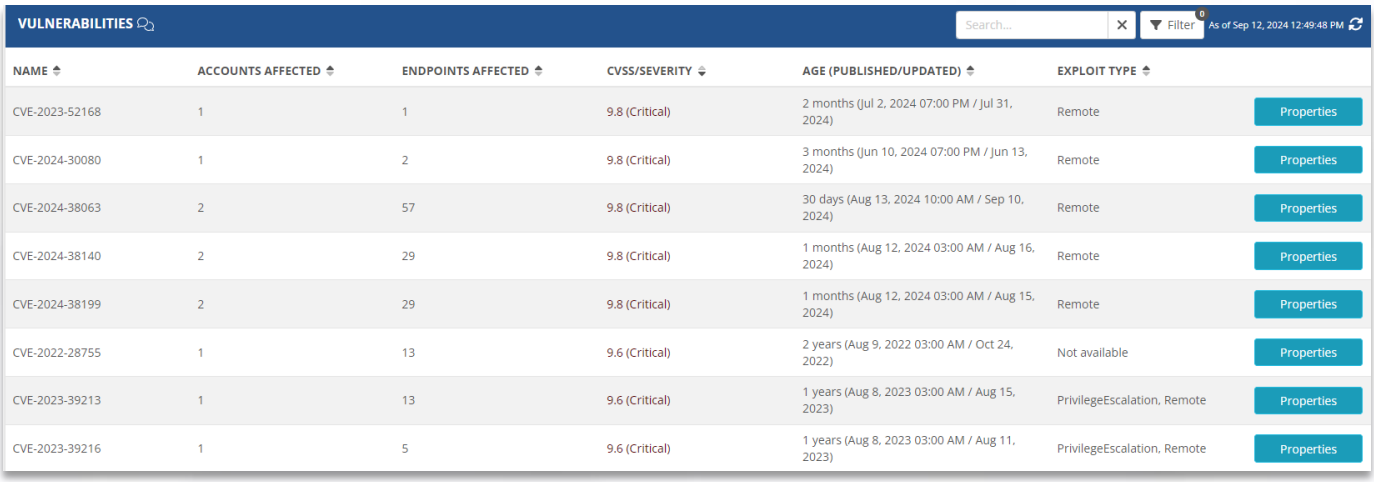
Ensure compliance with security protocols.

Provide safer and more efficient client accounts.

Day 1 – Lab 6 | Walkthrough
Vulnerability Dashboard

Nerdio Manager provides an MSP-level, per-vulnerability overview of vulnerabilities detected by Defender for Endpoint in the customers' environments. It allows you to search, sort, and filter the list of vulnerabilities. In addition, you can view a vulnerability's details such as exposed devices and affected software.

1. At MSP-level, navigate to Reports > Vulnerabilities.



NAME	ACCOUNTS AFFECTED	ENDPOINTS AFFECTED	CVSS/SEVERITY	AGE (PUBLISHED/UPDATED)	EXPLOIT TYPE	
CVE-2023-52168	1	1	9.8 (Critical)	2 months (Jul 2, 2024 07:00 PM / Jul 31, 2024)	Remote	Properties
CVE-2024-30080	1	2	9.8 (Critical)	3 months (Jun 10, 2024 07:00 PM / Jun 13, 2024)	Remote	Properties
CVE-2024-38063	2	57	9.8 (Critical)	30 days (Aug 13, 2024 10:00 AM / Sep 10, 2024)	Remote	Properties
CVE-2024-38140	2	29	9.8 (Critical)	1 months (Aug 12, 2024 03:00 AM / Aug 16, 2024)	Remote	Properties
CVE-2024-38199	2	29	9.8 (Critical)	1 months (Aug 12, 2024 03:00 AM / Aug 15, 2024)	Remote	Properties
CVE-2022-28755	1	13	9.6 (Critical)	2 years (Aug 9, 2022 03:00 AM / Oct 24, 2022)	Not available	Properties
CVE-2023-39213	1	13	9.6 (Critical)	1 years (Aug 8, 2023 03:00 AM / Aug 15, 2023)	PrivilegeEscalation, Remote	Properties
CVE-2023-39216	1	5	9.6 (Critical)	1 years (Aug 8, 2023 03:00 AM / Aug 11, 2023)	PrivilegeEscalation, Remote	Properties

For any vulnerability, select Properties to see its details.

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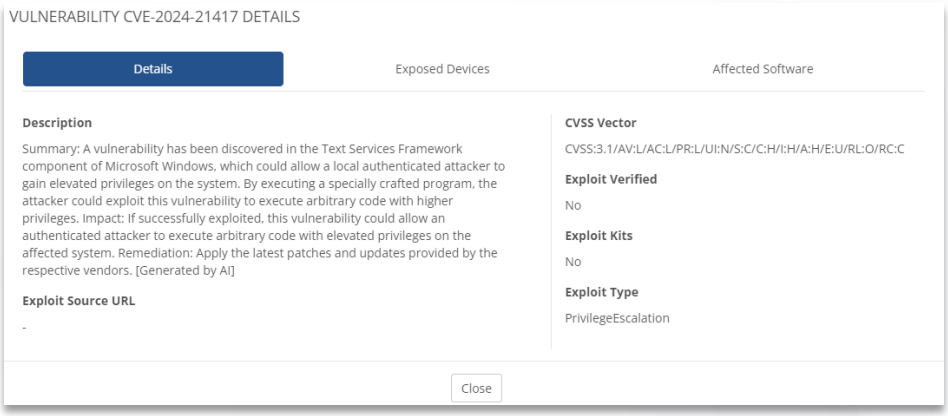
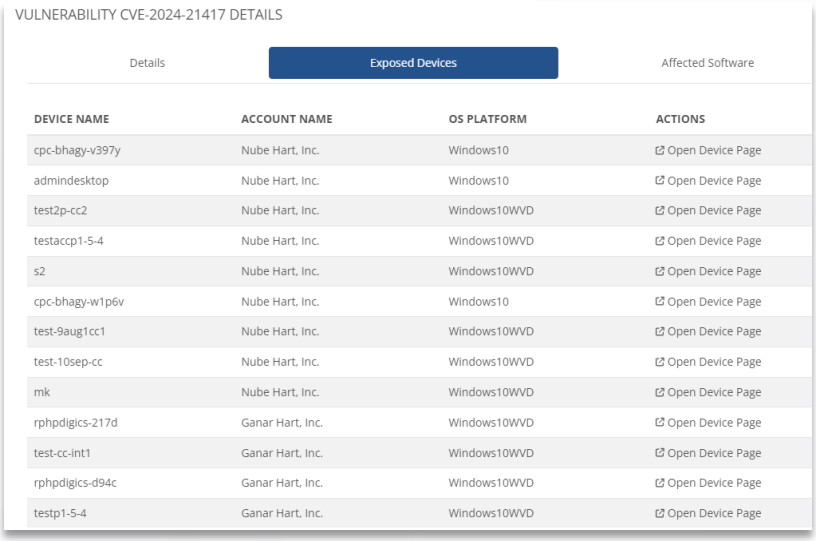
Day 1 – Lab 6 | Walkthrough
Vulnerability Dashboard

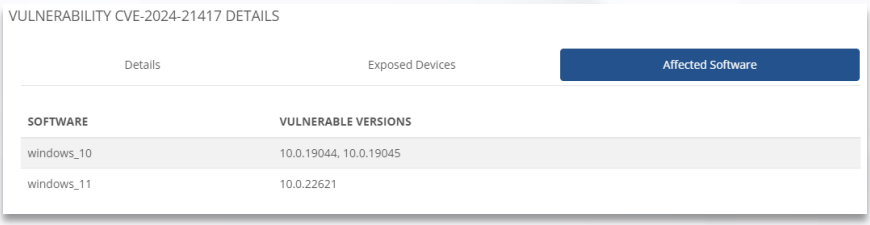
1. The details tab shows the details of the vulnerability.



2. The Exposed devices tab shows the devices that are exposed to the vulnerability.



3. The Affected Software tab shows the software affected by the vulnerability.



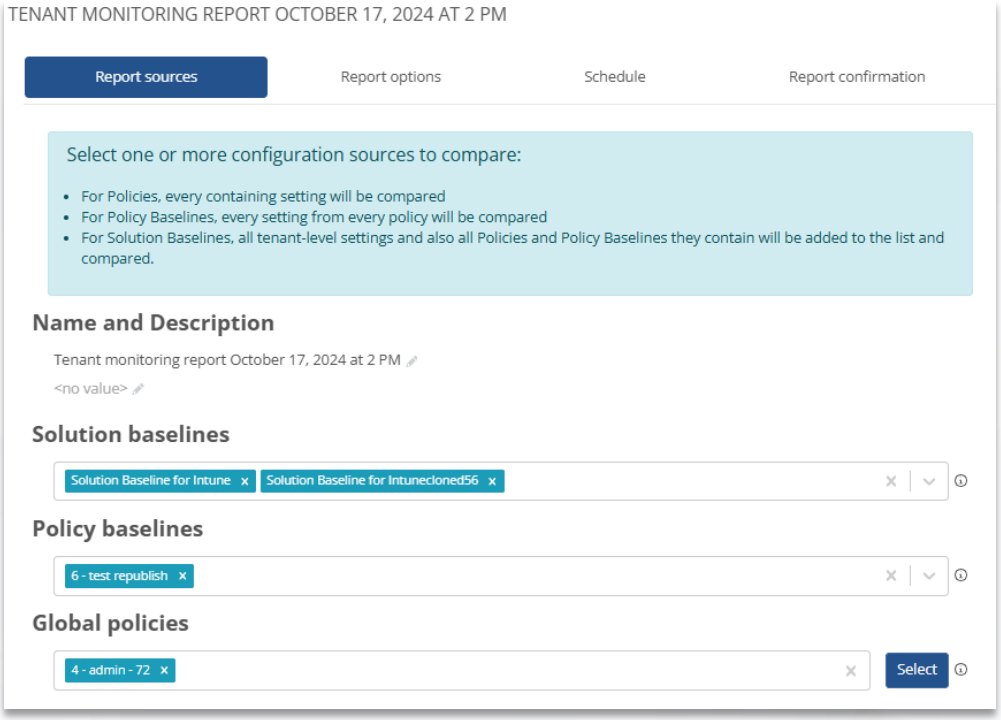
Day 1 – Lab 7 | Walkthrough
Tenant Monitoring

1. At the MSP-level, navigate to Tenant Monitoring.

2. Select Add Report.

3. In the Report Sources tab, enter the following information:

- **Report name:** Type the report name.
- **Report description:** Type the report description.
- **Solution baselines:** From the drop-down list, select the solution baseline(s) to include in the report.
- **Policy baselines**: From the drop-down list, select the policy baseline(s) to include in the report.
- **Global policies:** Select Select to select the global policies to include in the report.



Day 1 – Lab 7 | Walkthrough
Tenant Monitoring

4. In the Report options tab, enter the following:

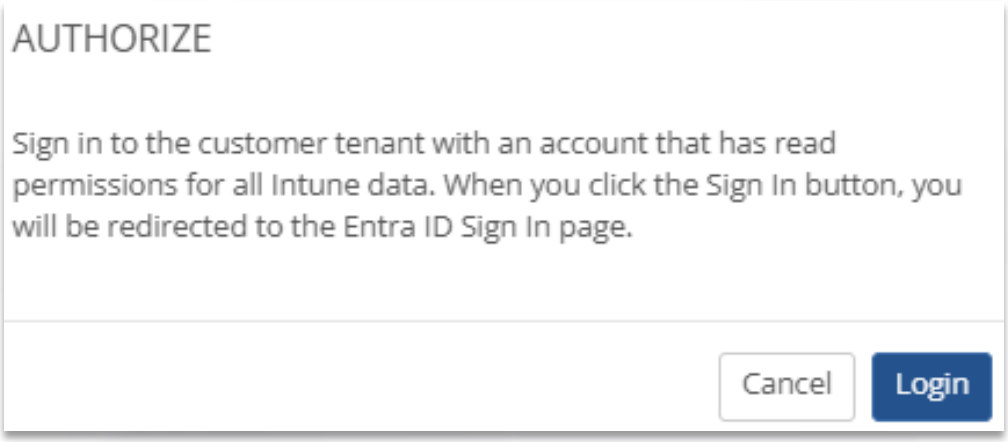
Select report type

- From the drop-down list, select the report type.

> **Note:**
>
> - Select **Base** to configure the report for existing account(s).
> - Select **Prospect** to configure the report for a prospect account.

Select target accounts:

- For a Base report, from the drop-down list, select the existing account(s) to include in the report.
- For a Prospect report, select +Add and follow the prompts to sign in to the customer tenant.

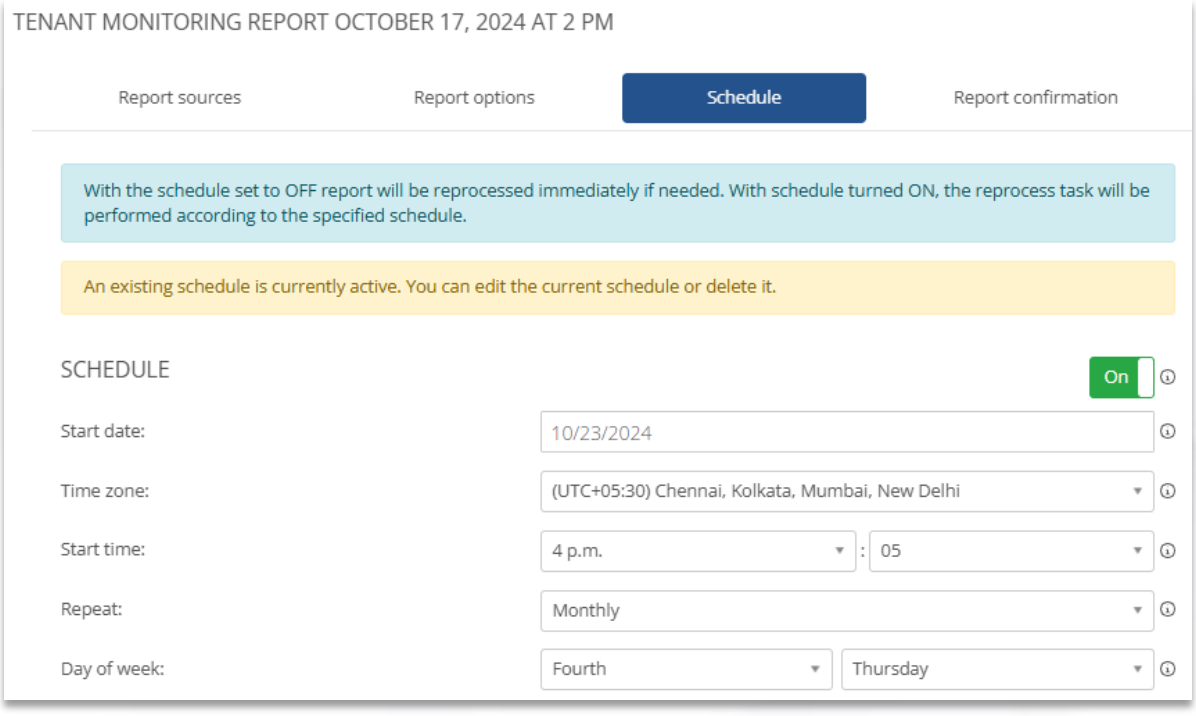


- Ignore policy names: Select this option to ignore policy names.
- Hide the actual values for settings: Select this option to hide the actual values for the settings on the report.

Day 1 – Lab 7 | Walkthrough
Tenant Monitoring

5. In the Schedule tab, enter the following:

Schedule: Optionally, toggle On this option and enter the desired schedule.



6. In the Report Confirmation tab, review the report configuration and enter the following information.

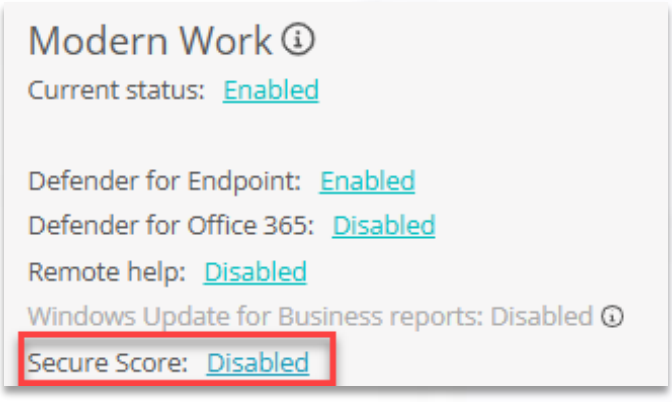
Reprocess report: Select this option reprocess the report.

7. When finished, click Save & Close.

Day 1 – Lab 8 | Walkthrough
Secure Score

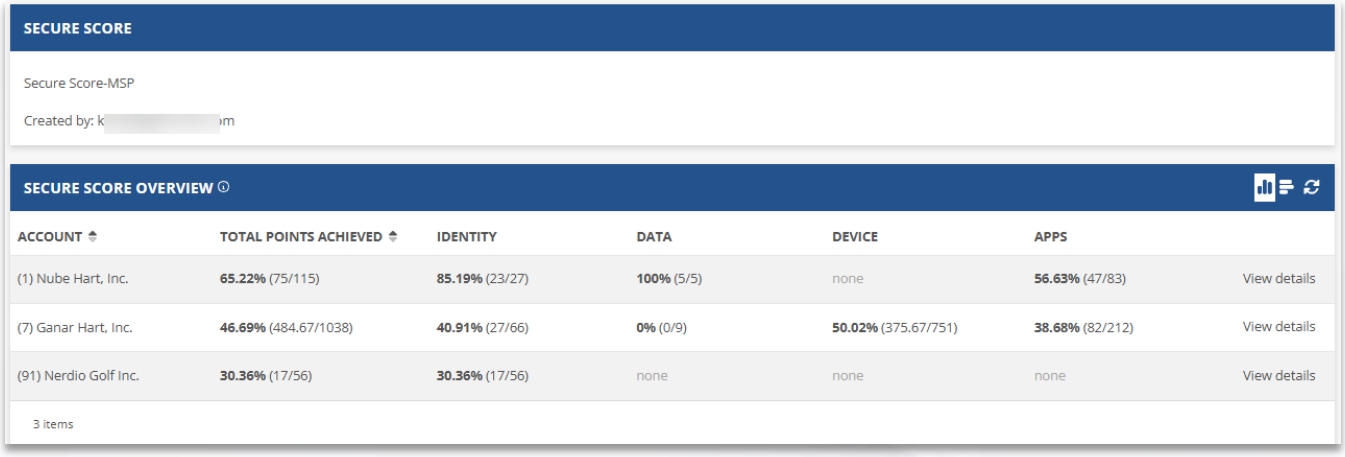
1. At the account level, navigate to Settings > Integration.

2. In the Modern Work tile, next to Secure Score, select Disabled.



3. When prompted, confirm that you want to enable. At the account level, Secure Score is now included in the Secure Scores list.

4. At the account level, navigate to Reports > Secure Score.

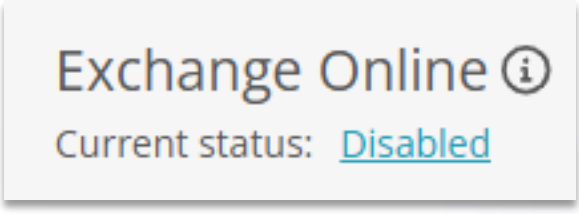


Note: Optionally, at the MSP level, you can create a Global View for Secure Scores. This is in addition to the navigation shown below.

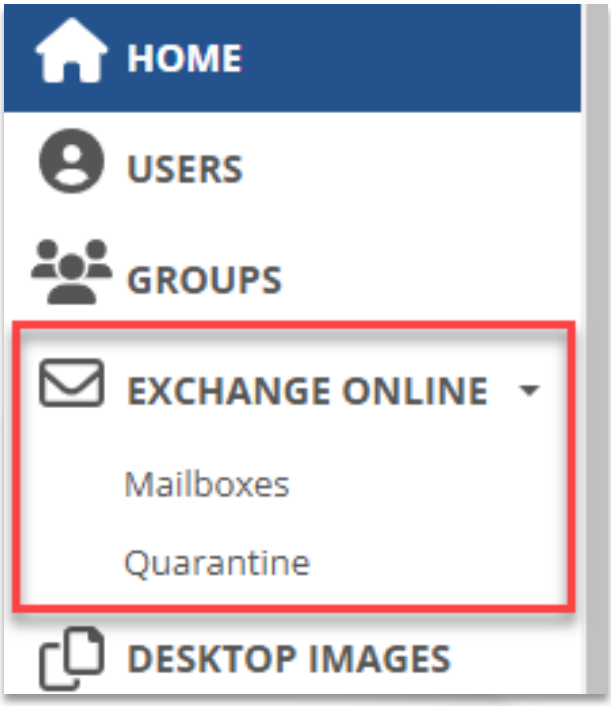
Day 1 – Lab 9.1 | Walkthrough
Exchange Online Management

1. At the account level, navigate to Settings > Integration.

2. In the Exchange Online tile, select Disabled.



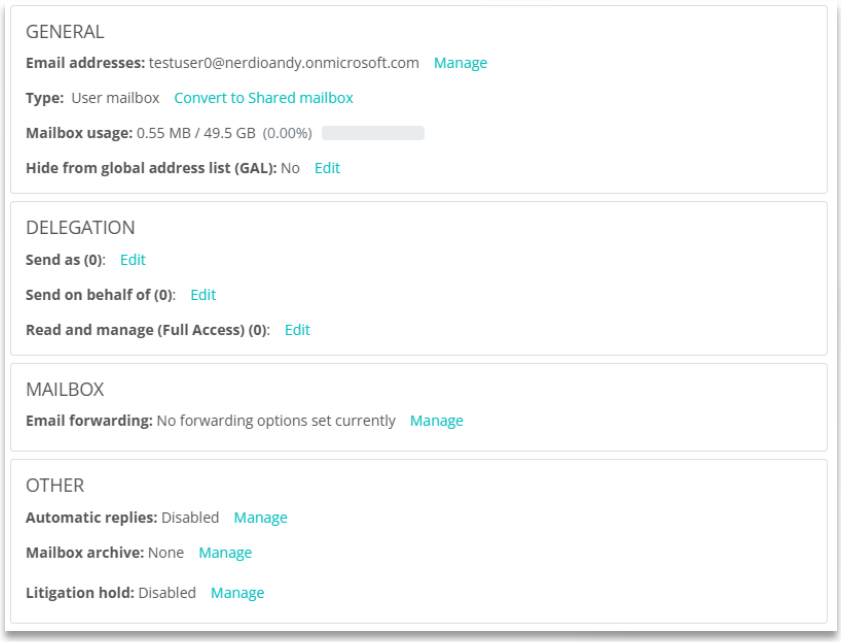
3. When prompted, confirm that you want to enable. The Exchange Online menu options are now available for this account.



Day 1 – Lab 9.2 | Walkthrough
Manage Mailbox Properties

1. At the account level, navigate to Exchange Online > Mailboxes.

2. Locate the mailbox you wish to work with and select Properties.



3. Manage the following properties:

Email addresses: Select Manage to edit the current email address. In addition, you can add, edit, and delete additional email addresses.

Type: Select Convert to Shared mailbox to convert the mailbox from a regular to a shared mailbox.

Hide from global address list (GAL): Select Edit to toggle this option On/Off.

Delegation: Send as, Send on behalf of, read and manage.

Email forwarding: Select Manage to configure the email forwarding for this mailbox.

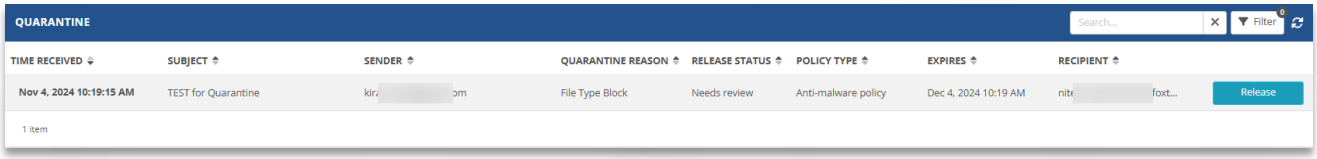
Other: Automatic replies: Select Manage to configure the automatic replies for this mailbox.

Other: Mailbox archive: Select Manage to configure the mailbox archive for this mailbox.

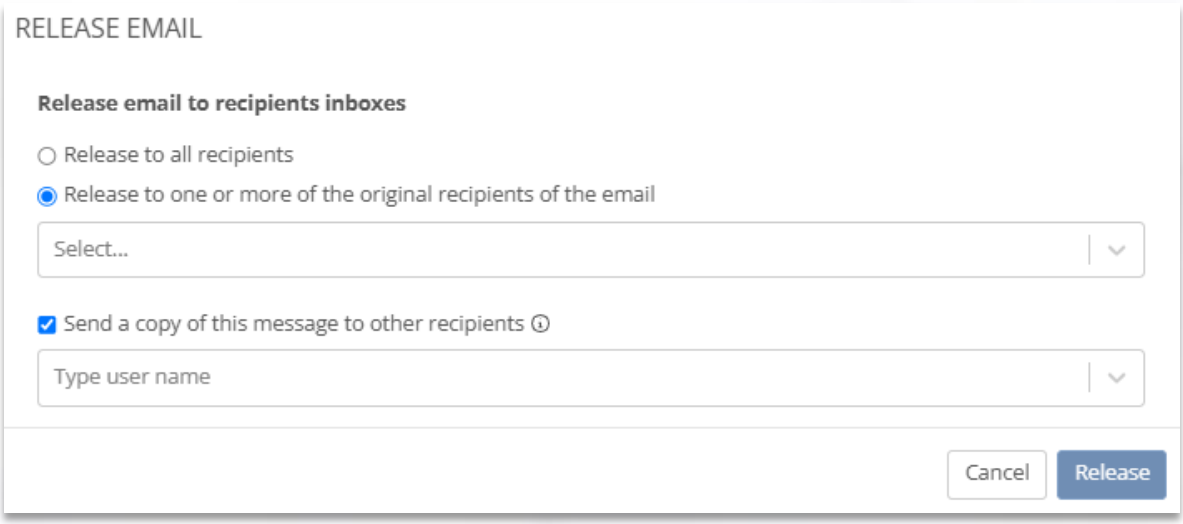
Other: Litigation hold: Select Manage to configure the litigation hold for this mailbox.

Day 1 – Lab 9.3 | Walkthrough
Manage Exchange Online Quarantine

1. At the account level, navigate to Exchange Online > Quarantine.



2. Locate the quarantined item you wish to work with and select Release.



3. Enter the following information:

- **Release email to recipients' inboxes:** Select the desired option to release to all recipients or selected recipients.
- **Send a copy of this message to other recipients:** Select this option, and select the recipients, to send a copy to other recipients.

4. Select Release.

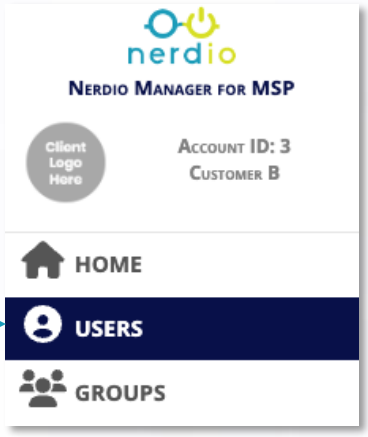
LAB GUIDE

MSP Foundations – Day 2

Day 2 - Lab 1 | Add a Customer-Level User in NMM

1. Log into the customer account in NMM*.

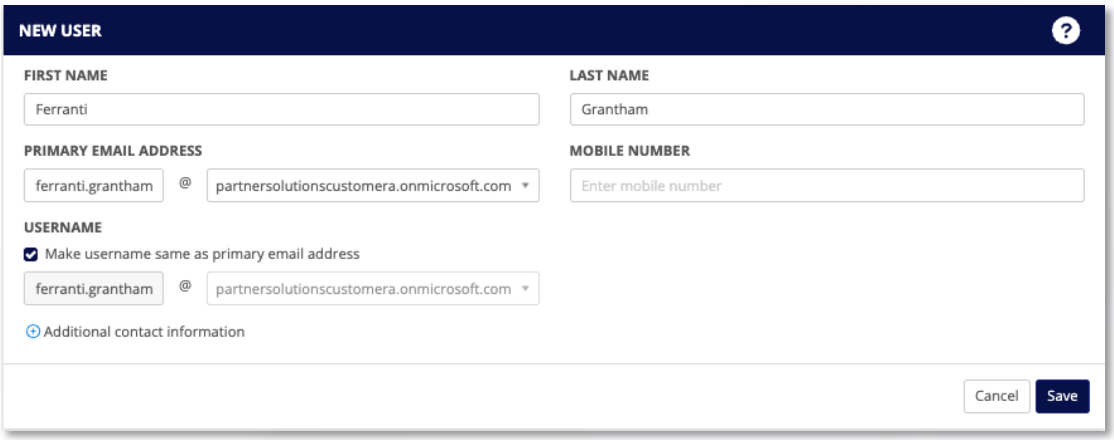
1. *See your email for a link to your assigned account.*
2. *If you don't have the email, send your business email in the chat to be added.*



2. Click the Users blade.

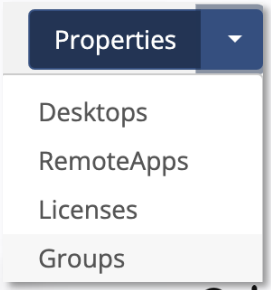
3. Click Add User.

4. Enter the following user details:
   - Your first name.
   - Your last name.
   - Set the primary email address to *Firstname.Lastname.*



5. Click Save and OK to dismiss the password prompt

6. Click the dropdown next to Properties for your user and select Groups.



7. Select MSP Training Camp Tech Day from the list and click OK to add your user to the group.

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How does the Approvals Workflow work?

All available tasks in Nerdio Manager are categorized as follows:

- **Destructive:** Delete a VM, delete a user, delete a host, delete a desktop image, delete a host pool, stop a global image, remove a global image, delete a NAT gateway, delete a group, delete a scripted action, etc.
- **Cost Impacting:** Change a VM's size, add a new disk to a server, activate/deactivate a host, power off a host, create a host pool, add a desktop image from a gallery, resize a desktop image, clone a desktop image, clone a host pool, start a global image, clone a global image, create a group, create a scripted action, link/unlink a resource group, etc.
- **User Impacting:** Restart a VM, log off a user, power off and set as image, log off users, send a message to a host, run a scripted action, etc.
- **Setting Changes:** Update host pool properties, update AD settings, update FSLogix settings, add/update Global FSLogix settings, update host properties, create an NSG, create peering, edit a VPN connection, edit NSG rules, etc.

In addition to the built-in task categories noted above, Nerdio Manager allows MSPs to create custom task categories.

Nerdio Manager allows MSPs to configure approval rules for selected tasks and user roles.

Day 2 - Lab 2.1 | Walkthrough
Workflows

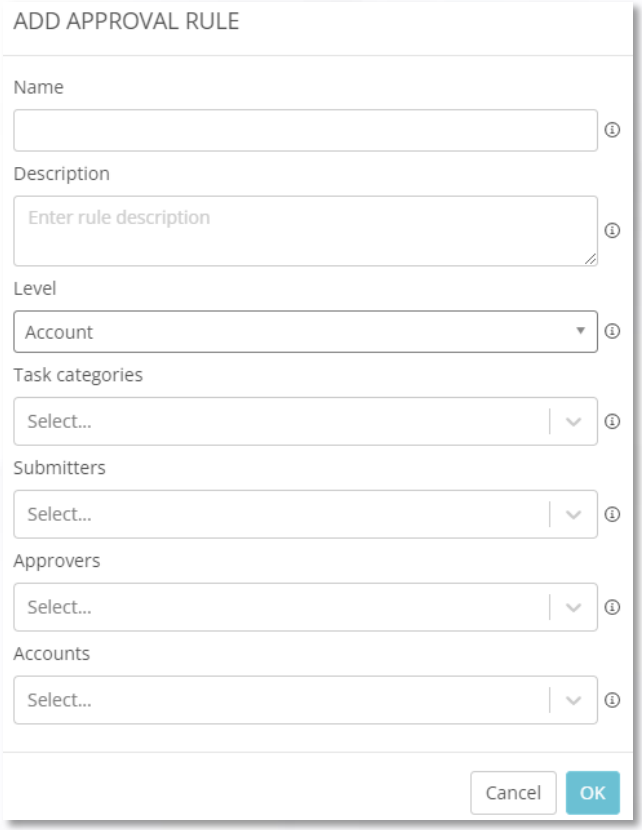
Manage Task Categories

Nerdio Manager allows you to manage task categories. This includes creating, changing, copying, and removing custom task categories. In addition, you can create a copy of a built-in task category.

Manage Approval Rules

Nerdio Manager allows you to manage approval rules. This includes creating, changing, copying, and removing approval rules.

1. Navigate to Workflows > Approval Rules.
2. Select ADD.
3. Fill out the details.
4. Click OK.



Task Categories:

- Choose a pre-canned/custom
- Choose different categories

Approval Rules:

- Use pre-canned or custom
- MSP or customer level
- Assign staff to **submitters** and **approvers** groups.

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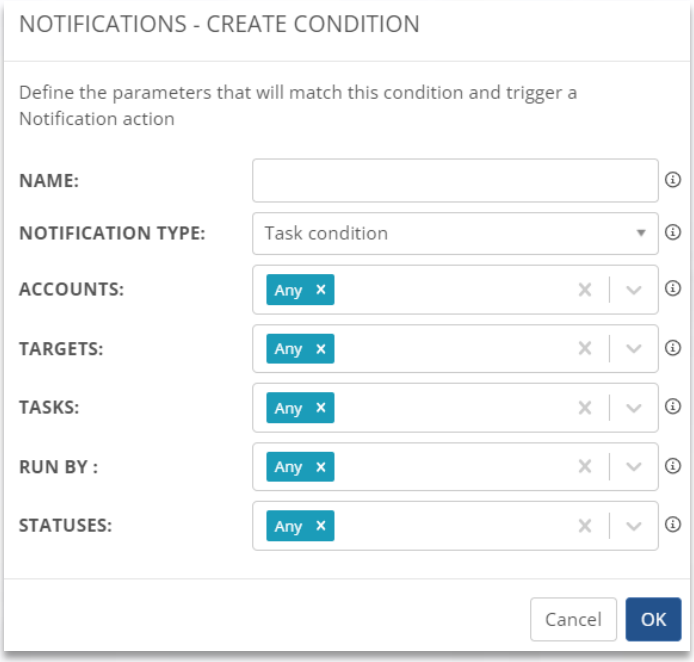
Day 2 - Lab 2.2 | Walkthrough
Notifications - conditions

Notification Conditions

Nerdio Manager allows you to specify which actions or states trigger a notification. You can create conditions for tasks, reservations, usage, backup, Intune, and Defender.

Create a new condition

1. Navigate to Notifications at the MSP level.
2. Select ADD.
3. Fill out the details.
4. Click OK.



Notes:

- *You can set up conditions for tasks, behaviors and statuses.*
- *These can be applied to individual accounts, all accounts or a group of accounts.*
- *Conditions can also be focused to specific users.*

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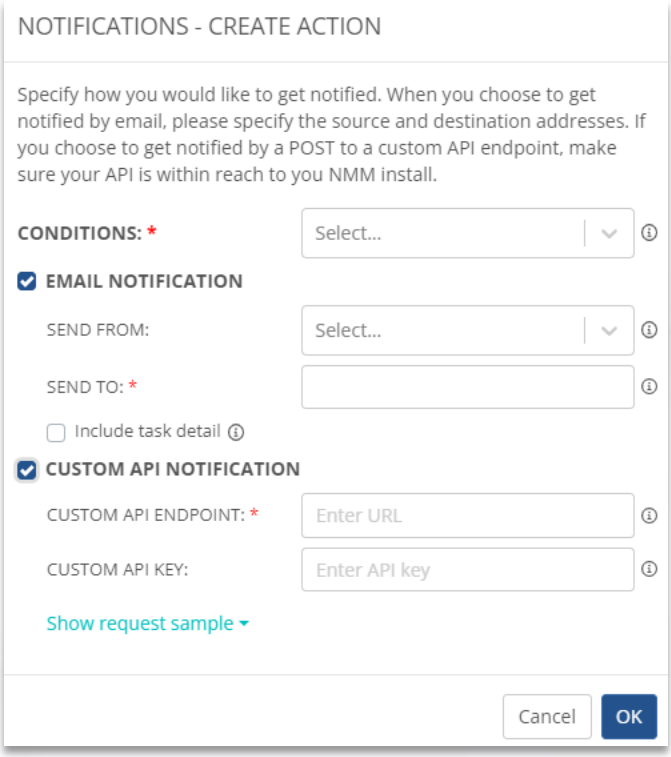
Day 2 - Lab 2.2 | Walkthrough
Notifications - actions

Notification Actions

Actions are the notifications to send out if a condition is matched. You may send out a notification via email or custom API.

Create a new action

1. Navigate to Notifications > Actions at the MSP level.
2. Select ADD.
3. Fill out the details.
4. Click OK.



Notes:

- *Creating actions will let you define notification behaviors by selecting destination emails and condition(s) to trigger a notification event.*
- *You can link your own account or choose an automatically created email from the portal.*
- *You can also choose to be notified via Rest API (API must be within reach of the NMM install).*

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Day 2 - Lab 3.1 | Walkthrough
FSLogix Overview & Best Practices

What is FSLogix?

1. A user profile container technology.
2. Allows user profiles to roam without losing their customizations.

How does it work?

1. Requires a storage service for profile containers.
   - *(E.g., Azure Files)*
2. Installation of the FSLogix application.
   - *Nerdio automatically installs by default when a new session host is created.*
3. Create FSLogix configuration profiles in Nerdio.
   - *Assign these profiles to customer accounts for centralized management.*

Azure Files

1. Microsoft recommends Premium storage in Azure Files.
2. Lower tiers of storage may cause errors in daily operations.
3. Premium Storage for Azure Files is Nerdio auto-scale compatible.
   - Nerdio auto-scaling ensures there is always enough storage available.

Storage Options

1. UNC Path (File Server)
2. Azure Files (Premium)

[See this Nerdio Help Center article for more information on configuring FSLogix.]

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Day 2 - Lab 3.2 | Walkthrough
RDP Profile Best Practices

What is an RDP Profile?

1. A configuration created in Nerdio that defines the RDP experience for users.

How do RDP Profiles work?

1. Can be created at the global level and then cascaded to customer accounts.
   - *RDP profiles can also be created at the customer account level for granular customization.*
2. Once created, RDP Profiles are assigned to host pools, which are then inherited by all hosts within the pool.

Key items to configure

audiocapturemode

- *Defines whether audio input can be redirected from the local device to the session.*

camerastoredirect

- *Makes the local webcam / camera available in the session.*

devicestoredirect

- *Allows plug in devices to appear in the session(E.g., flash drives).*

drivestoredirect

- *Redirects drives from the local machine to the session.*

redirectprinters

- *Allows local printers to be made available in the session.*

redirectclipboard

- *Allows clipboard sharing between the local device and session.*

Remember, always consider compliance requirements!

See this Nerdio Help Center article for more information on configuring Global RDP Profiles.

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Day 2 - Lab 4 |
Create an Image Source VM

1. Click the *Desktop Images* blade (customer account level).

2. Click Add from Azure Library.

3. Add the following parameters to your image source VM.

Name	Enter a unique name. Save the name for later!
Description	Leave this blank
Azure Image	**Windows 11 (22H2) Enterprise multi-session + Microsoft 365 Apps - Gen2 (multi-session)**
VM Size	**D2s_v5 (2C & 8GB @ $0.19/hr retail)**
OS Disk	**E10 (128 GB Premium SSD @ $0.03/hr retail)**
Trusted Launch	**Check the box** to enable. *(Required for Gen2 VMs)*
Join to AD – FSLogix App	Leave these settings at default.
Local admin credentials	Create unique credentials (do not use "admin"). Save these for use later!
Turn on Geographic distribution & Azure Compute Gallery	Select **NMMACDSub#.** Leave the region set to **East US**. Leave the storage at default.
Click **OK** to create the image source VM.	

ADD DESKTOP IMAGE

Add desktop image from Azure image library.

NAME: FerrantiCorpIMG

DESCRIPTION:

AZURE IMAGE: Windows 11 Enterprise multi-session + Microsoft 365 Apps - Gen2 (...

VM SIZE: D4s_v5 (4C & 16GB @ $0.19/hr retail)

D2s_v5 (2C & 8GB @ $0.10/hr retail)

OS DISK: P10 (128 GB Premium SSD @ $0.03/hr retail)

E10 (128 GB Standard SSD @ $0.01/hr retail)

- [x] Use Trusted Launch
- [ ] Join to AD
- [ ] Do not create image object
- [x] Enable time zone redirection
- [x] Set time zone: (UTC-05:00) Eastern Time (US & Canada)
- [ ] Install certificates
- [x] Uninstall FSLogix app

Provide custom credentials for a local administrator user: On

USERNAME: FerrantiCorpAdmin

PASSWORD: ••••••••••••

••••••••••••

Geographic distribution & Azure compute gallery: On

AZURE COMPUTE GALLERY: NMMACDSub1

AZURE REGIONS: East US

STORAGE ACCOUNT TYPE: Standard HDD

Run the following scripted actions: Off

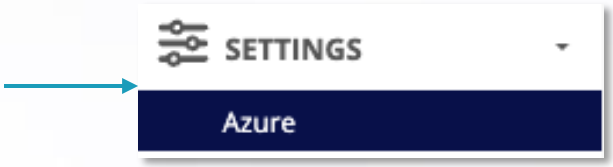
Applications Management BETA: Off

This task may take up to a... ...ur. to complete. You can monitor progress in the Desktop Images Tasks section.

Cancel OK

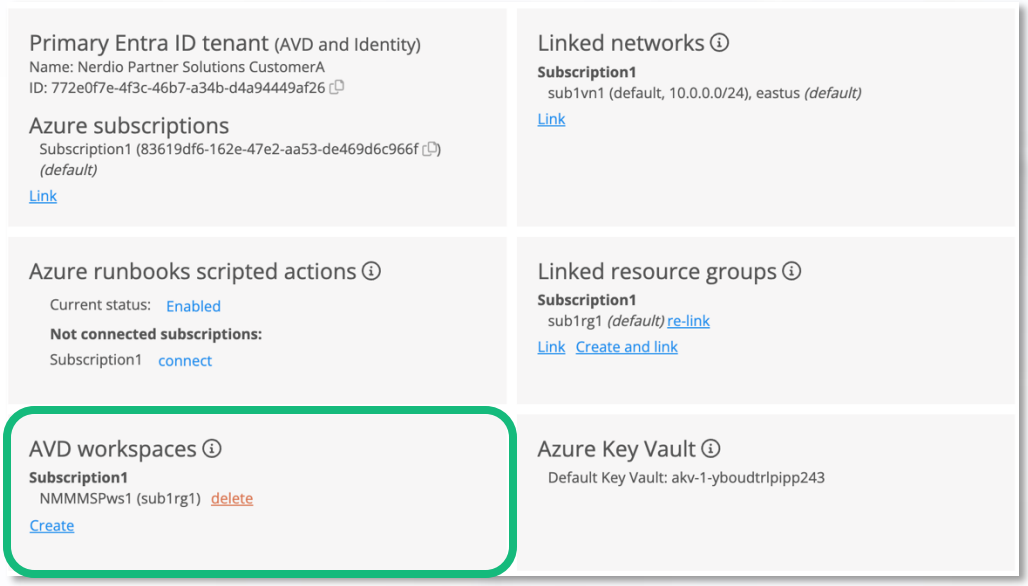
Day 2 - Lab 5.1 | Walkthrough
Add AVD Workspaces in NMM

1. Expand the *Settings* blade and click *Azure (customer account level)*

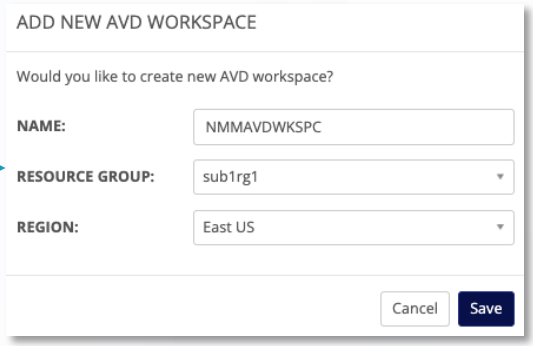


2. Click *Create* in the *AVD Workspaces list.*

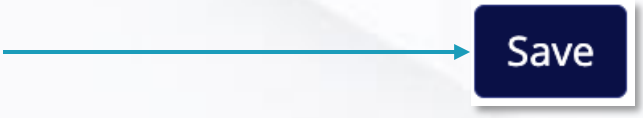
- *Existing workspaces in the Resource Group will appear here automatically.*



3. Enter a name and select a resource group and region.



4. Click *Save* to finish.



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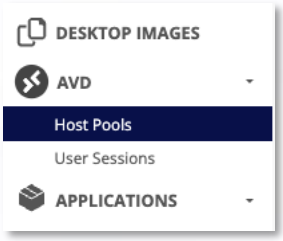
Day 2 - Lab 5.2 |
Create a host pool

1. Expand the *AVD* blade and click Host Pools *(customer account level).*



2. Click Add Host Pool.

3. Add the following parameters to your host pool.

Name	Enter a unique name (this is what appears on the user's desktop. (Save the name for later!)
Description	Leave this blank
Desktop / App Experience	**Multi-User Desktop**
Directory	Leave at default.
FSLogix	Leave at default.
Name Prefix	Choose a unique name for your hosts. Each host will be appended with "-xxxx".
Desktop Image	**Windows 10 (22H2) EVD + MS 365 Apps - Gen2 (multi-session)**
VM Size	**D2s_v5 (2C & 8GB @ $0.10/hr retail)**
OS Disk	**E10 (128 GB Standard SSD @ $0.01/hr retail)**
Quick Assign	Type **MSP Training Camp Tech Day** and select it.
Trusted Launch	Leave this box checked to enable Trusted Launch.
Click **OK** to create your host pool.	

ADD HOST POOL

NAME: FerrantiCorpHP

DESCRIPTION: Enter description for admin users

DESKTOP/APP EXPERIENCE:

- (•) Multi user desktop (pooled)
- ( ) Multi user RemoteApp (pooled)
- ( ) Single user desktop (pooled)
- ( ) Single user desktop (personal)

DIRECTORY: Default (Entra ID)

FSLOGIX: OFF

There are several limitations, including limited support for FSLogix. Review Microsoft's MFA requirements for Microsoft Entra joined VMs. Learn more

NAME PREFIX: FCorpHost | Prefix

DESKTOP IMAGE: Windows 10 (22H2) EVD + MS 365 Apps - Gen2 (multi-session)

VM SIZE: D2s_v5 (2C & 8GB @ $0.10/hr retail)

OS DISK: E10 (128 GB Standard SSD @ $0.01/hr retail)

QUICK ASSIGN: MSP Training Camp Tech Day (MSPTrainingCampTechI ×

[x] Use Trusted Launch

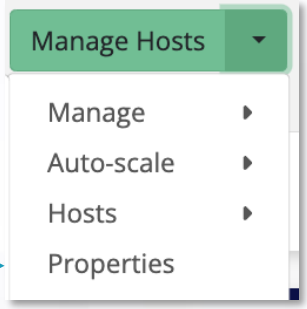
This task may take a long time to complete. You can monitor progress in the Host Pools Tasks section.

Cancel | OK

Day 2 - Lab 5.3 |
Adjust Host Pool Settings

1. Find your host pool in *AVD > Host Pools* (customer account level).

2. Click the dropdown arrow next to *Manage Hosts* and select Properties.

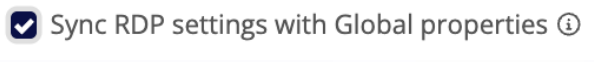


4. Click the *Custom RDP* tab.

5. Click *All Settings*.

6. Use the dropdown to toggle to the *MSP Foundations Training Camp RDP Config*.

7. Check the box to *Sync RDP settings with Global Properties*.



- *This setting allows changes made at the Global / MSP level to be applied here.*

8. Scroll to the bottom and click *Save* to assign the profile settings.

Day 2 - Lab 5.4 | Deploy Session Hosts

1. Click Manage Hosts next to your host pool in the AVD blade > Host Pools (customer account level).

2. Click Add Session Host.

3. Add the following parameters to create two session hosts.

Host Count	Set to **2**.
Name Prefix	Use the same prefix as the host pool.
Append a Suffix	Leave checked.
Desktop Image	**Windows 10 (22H2) EVD + MS 365 Apps - Gen2 (multi-session)**
VM Size	**D2s_v5 (2C & 8GB @ $0.10/hr retail)**
OS Disk	**E10 (128 GB Standard SSD @ $0.02/hr retail)**
Custom OS Disk Size (GiB)	Leave at default *(128)*.
Do Not Activate	Leave unchecked.
Process hosts in groups of:	Set to **2**.
Number of failures before aborting:	Leave at **5**.
Click **OK** to create your session hosts.	

ADD HOST TO POOL

If Autoscaling is enabled the newly added host may be deleted or stopped to comply with dynamic auto-scaling parameters.

HOST POOL: FerrantiCorpHP

DESKTOP/APP EXPERIENCE: Multi user desktop (pooled)

HOST COUNT: 2

HOST NAME: FCorpHost | Prefix

DESKTOP IMAGE: Windows 10 (22H2) EVD + MS 365 Apps - Gen2 (multi-...

VM SIZE: D2s_v5 (2C & 8GB @ $0.10/hr retail)

OS DISK: E10 (128 GB Standard SSD @ $0.01/hr retail)

CUSTOM OS DISK SIZE (GIB): 128

DO NOT ACTIVATE: ☐

Process hosts in groups of: 2

Number of failures before aborting: 5

With the schedule set to OFF action will be performed immediately. With schedule turned ON, the task will be performed according to the specified schedule.

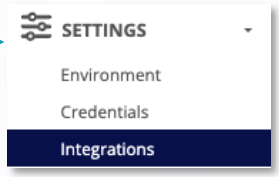
SCHEDULE Off

Cancel OK

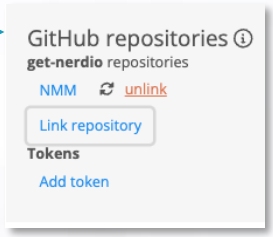
Day 2 - Lab 6.1 | Walkthrough
Scripted Actions

Connect a GitHub Repository

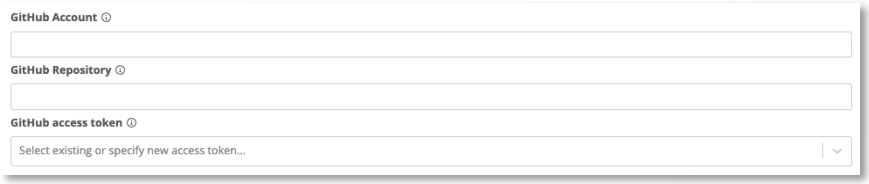
1. Open the *Setting blade* and click *Integrations* (MSP / Global level).



2. Click Link Repository and supply:



- GitHub account name
- GitHub repository name
- GitHub access token

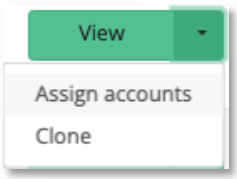


3. Click *OK* to link.

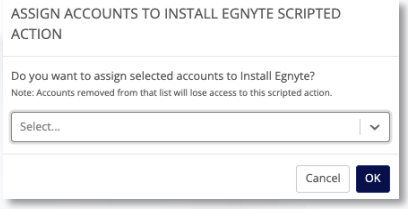
Assign Scripted Actions to Customer Accounts

1. Open the *Scripted Actions blade* and click *Windows Scripts* or *Azure Runbooks* (MSP / Global level).

2. Find the target script(s) and click the dropdown arrow > Assign accounts.



3. Select accounts using the dropdown menu, then click OK when finished.



Day 2 - Lab 5.1 | Walkthrough
Scripted Actions

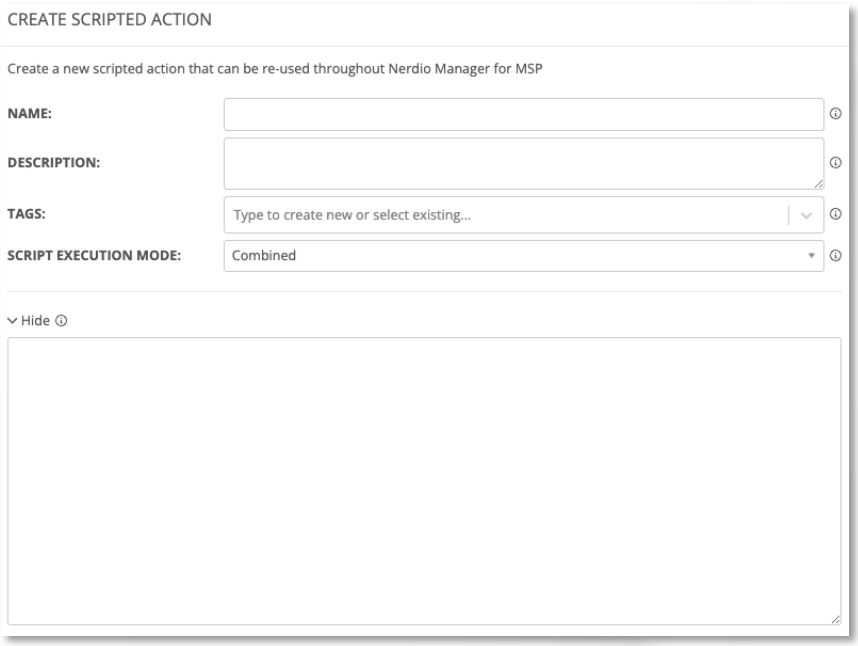
Add new Scripted Actions

1. Open the *Scripted Actions blade* and click *Windows Scripts* or *Azure Runbooks* (MSP / Global level).

2. Click Add Scripted Action.

3. Provide the following:

- A name for the Scripted Action
- A description (if applicable)
- Tag(s)
- A script execution mode
  - *E.g., Individual, Individual with restart, combined*

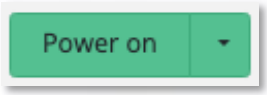


4. Expand the Show menu and enter script. Click OK when finished.

Day 2 - Lab 6.2 |
Update the Image Source VM

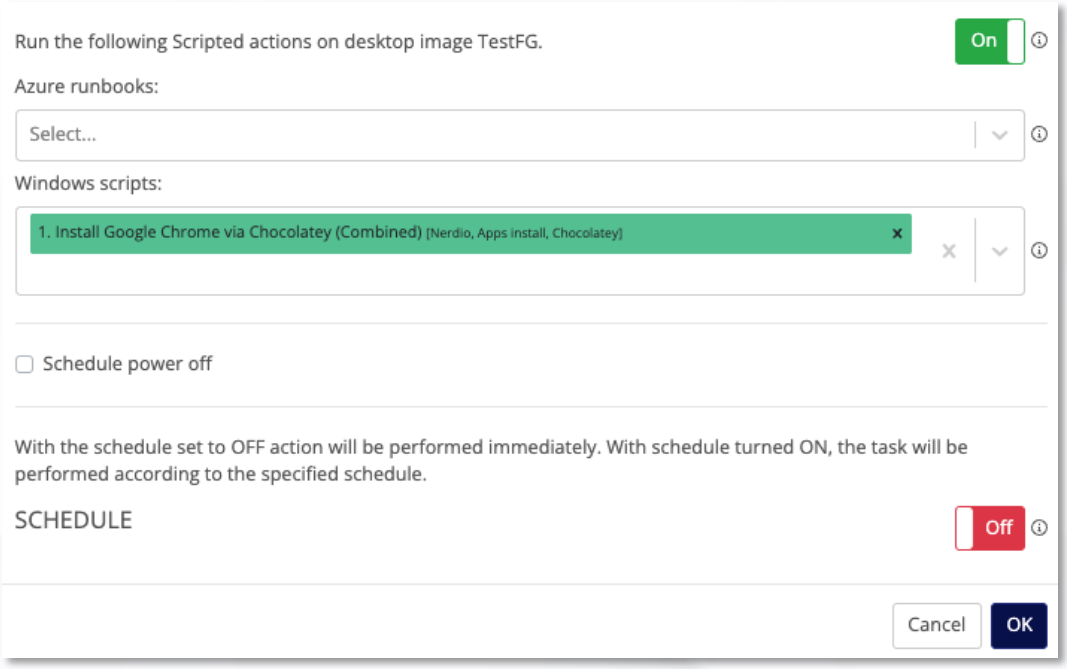
1. Click the *Desktop Images* blade (customer account level).

2. Find your image and click Power On.



3. Turn Run the following scripted actions to On.

4. Select Install Google Chrome from the Windows Script list.
   - *For time, we'll use these scripts as a demonstration.*
   - *In practice, use scripted actions to automate updates.*



5. Do not schedule power off. Click cancel.

We'll run this script in a later lab.

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Day 2 - Lab 6.3 | Create an image

1. Find the image source VM you created.

2. Click Power off & set as image or Set as image.

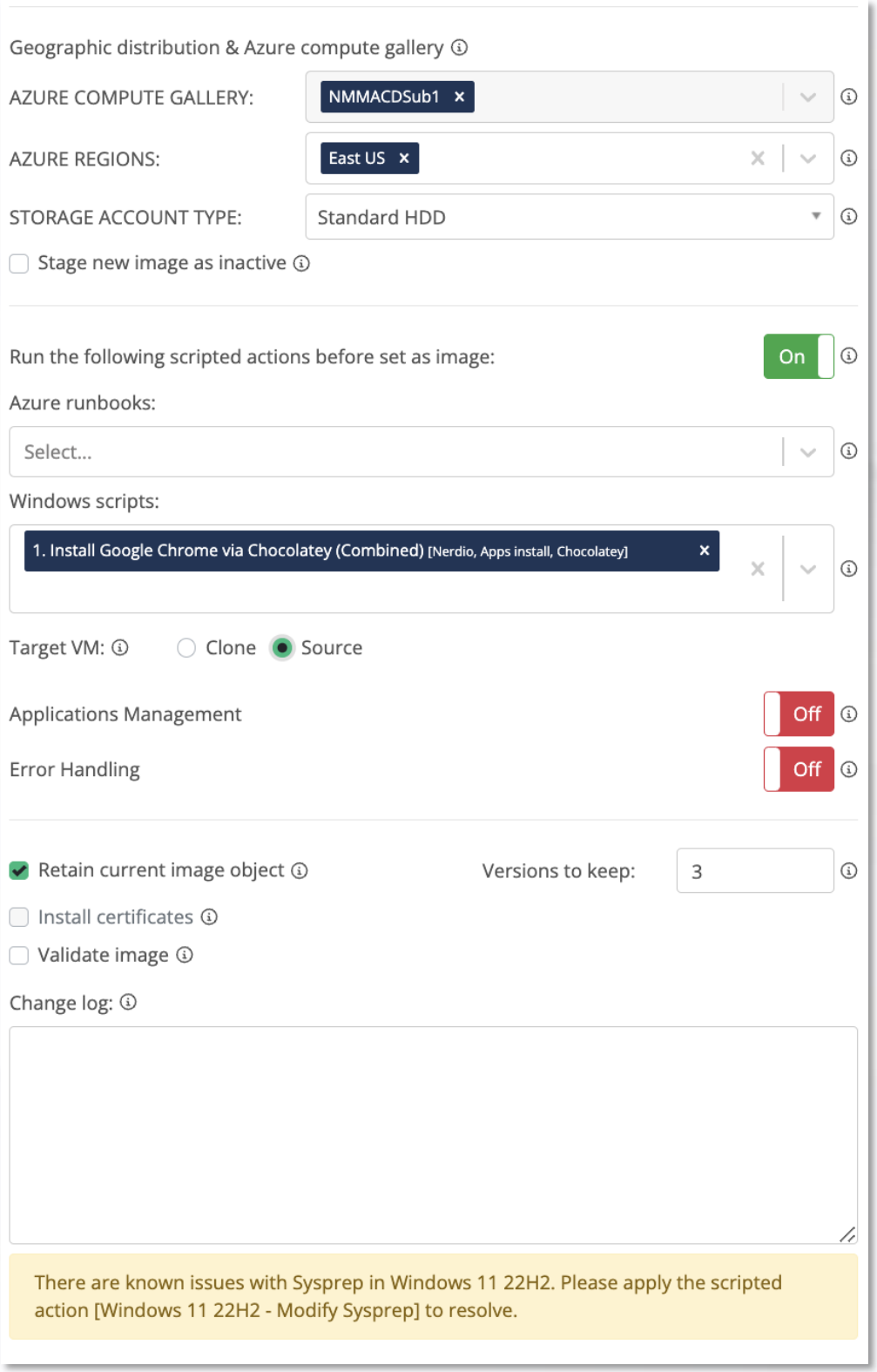
3. Turn Run the following scripted actions before set as image to ON.

4. Select Install Google Chrome via Chocolatey under Windows Scripts.

5. Change the Target to Source.

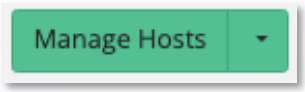
6. Leave other settings at their default and click OK.

Day 2 - Lab 6.3 |
Create an image

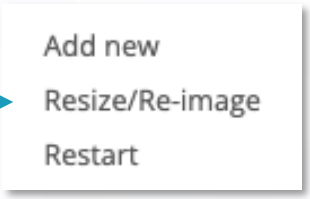


Day 2 - Lab 7 |
Re-image session hosts

1. Expand the action menu next to your host pool in AVD > Host Pools.



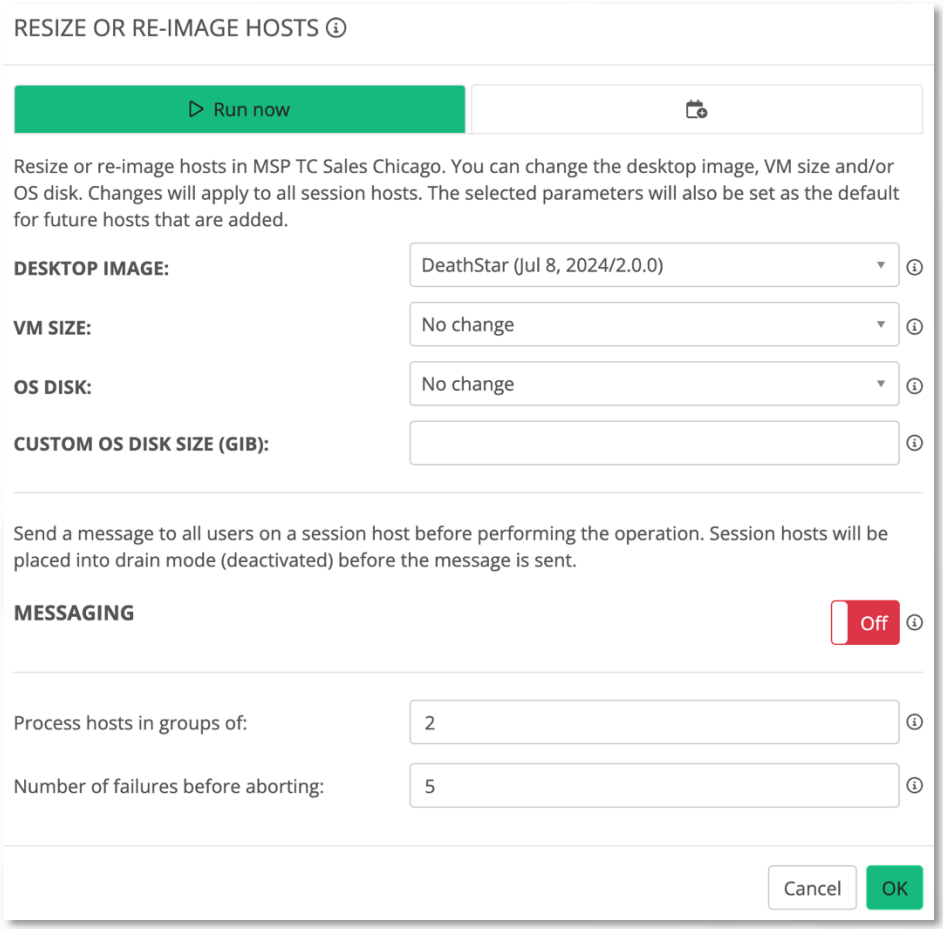
2. Then click Resize / Re-image under the Hosts tree.



3. Toggle the Desktop Image to the custom image you created earlier.

4. Turn off Messaging and click OK.

5. Click OK.



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Day 2 - Lab 8 | Winget Commands

Note: This section can only be completed on a Windows device.

1. Open a PowerShell terminal in administrator mode.

2. Run the command *Winget --info*
   - *Returns a list of relevant locations, install folders, etc.*

3. Run the command *Winget Source List*
   - *Returns a list of Windows Package Manager sources.*

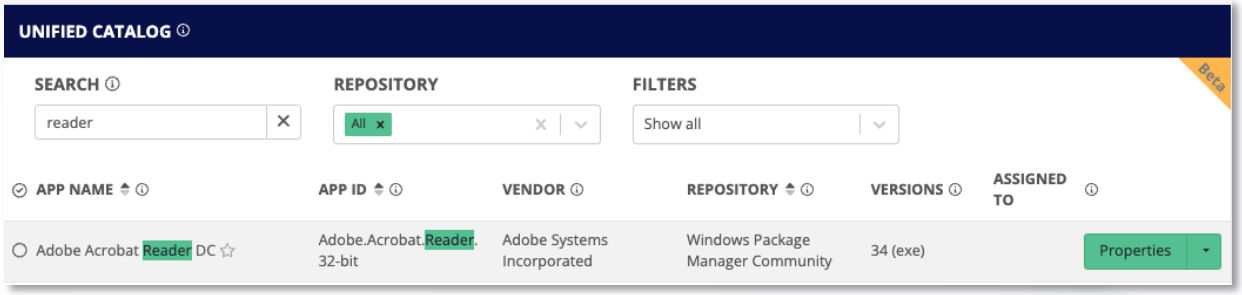
4. Run the command *Winget list*
   - *Returns a list of installed applications that can be managed via WinGet..*

5. Run the command *Winget upgrade*
   - *Returns a list of installed applications that have an available update.*

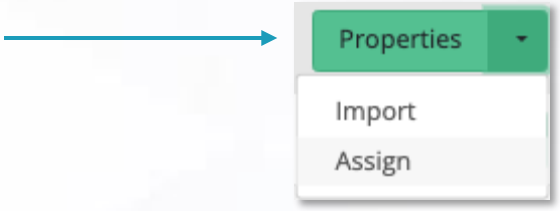
6. (Optional) Run the command *Winget upgrade --all*
   - *Updates all listed applications to the current version.*

Day 2 - Lab 9.1 | Walkthrough
Assigning Applications for UAM

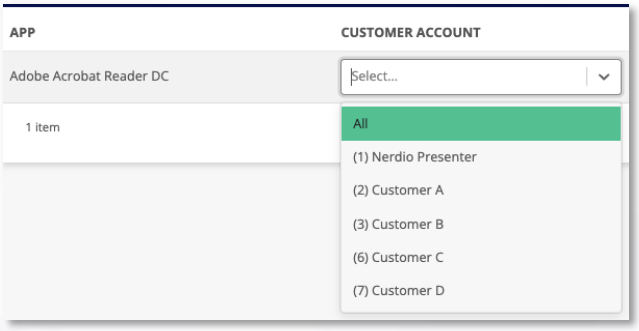
1. Expand the Applications blade and search for the application (MSP / Global level).



2. Click the dropdown arrow next to the app and select Assign.



3. Use the dropdown menu to select accounts.



4. Click Add Assignments or Apply and Close to finish.

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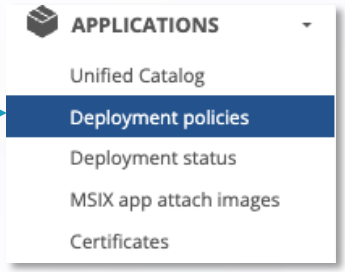
Day 2 - Lab 9.2 |
Create an application deployment policy

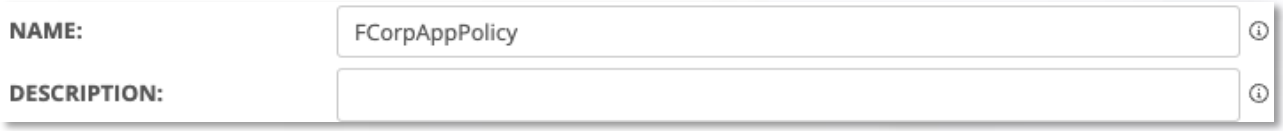
1. Expand the Applications blade and click Deployment Policies (customer account level).



2. Click Add to create a new policy.

3. In the *General* tab, give the policy a unique name, and click Next.

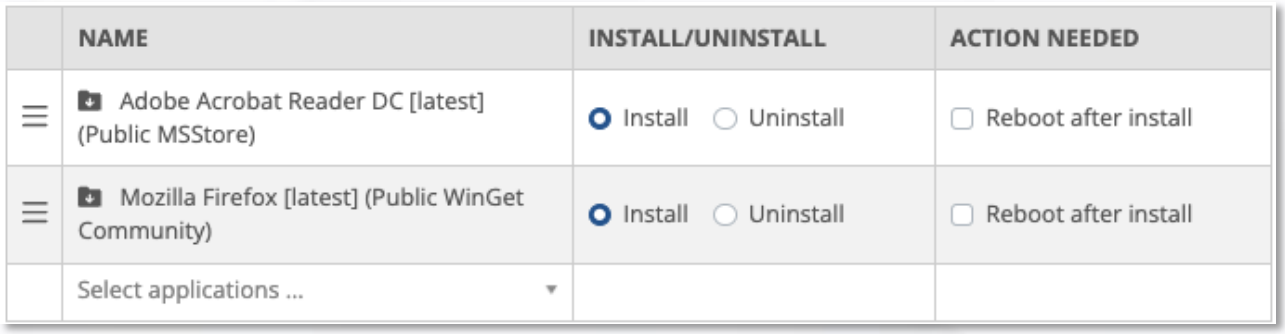
(Leave the description blank)



4. In the *Applications* tab, select the apps to deploy and click Next.

Type to search to find and select the following:

- *Adobe Acrobat Reader DC [latest]*
- *Mozilla Firefox [latest] (Public Winget Community)*



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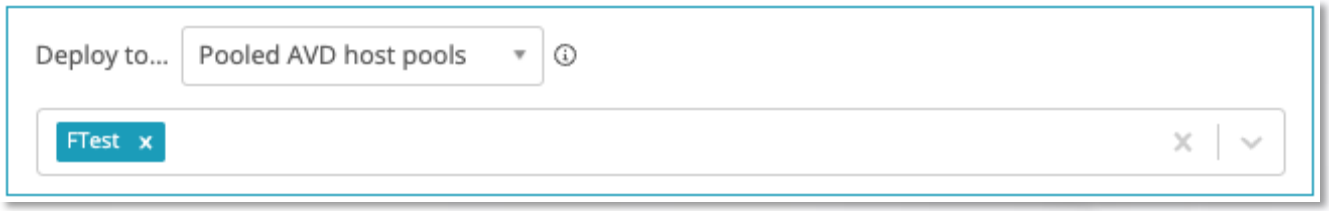
Day 2 - Lab 9.2 | Create an application deployment policy

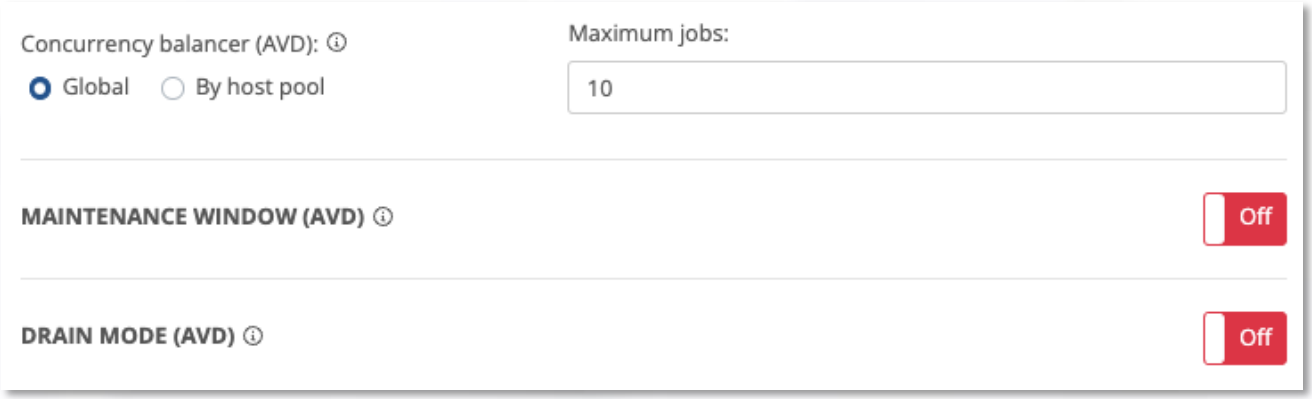
4. In the *Targets* tab, define where to apply the policy and click Next.

- Toggle '*Deploy to…*' to **Pooled AVD Host Pools**.
- Find and select the **host pool you created earlier**.



5. In the *Settings* tab, configure how tasks should execute.

- Set the '*Concurrency balancer*' to **By Host Pool**.
- Change the '*Maximum Jobs*' to **2**.

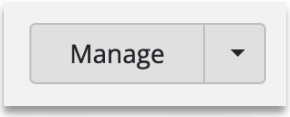


6. Click Save & Close to finish.

Day 2 - Lab 10.1 | Walkthrough
Auto-scale for Azure File shares

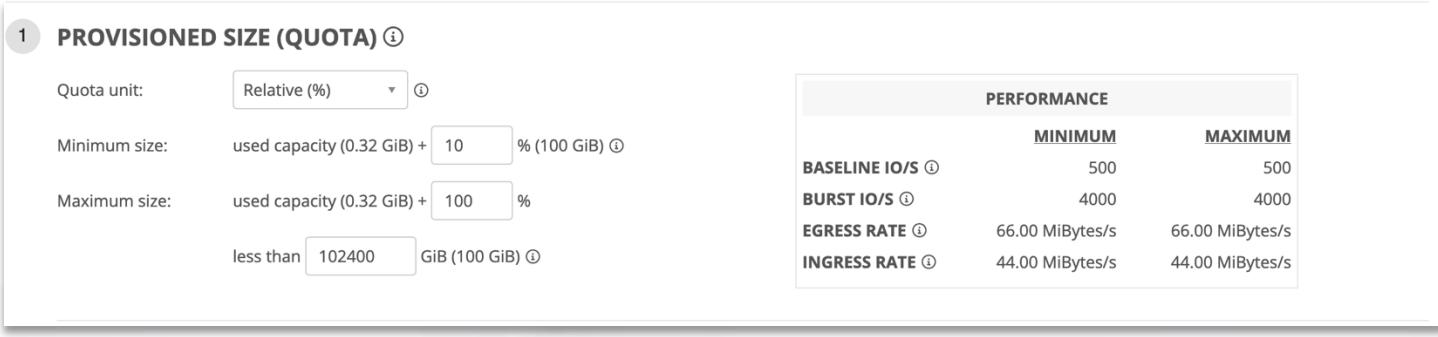
1. Navigate to Customer > Azure Files

2. Then click the down arrow next to Manage for the share you want to work with.

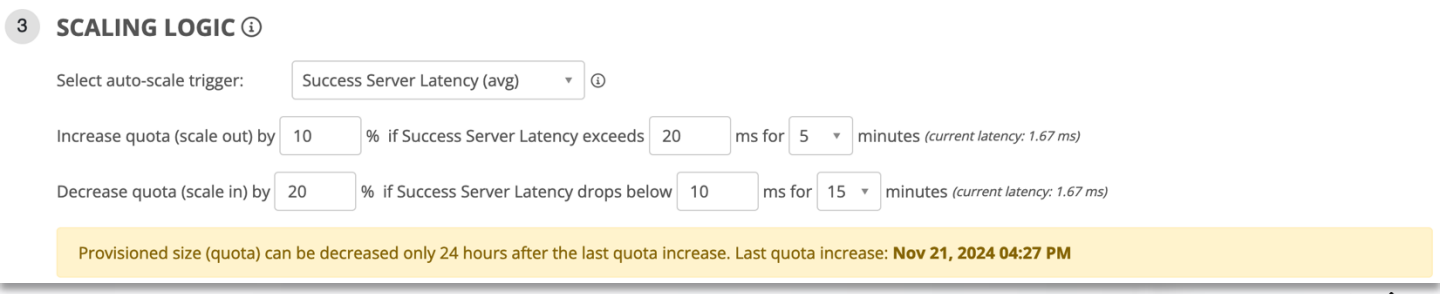


3. Select Configure in the menu.

4. Configure the Provisioned Size (quota) section. Default settings can work to scale OUT when it gets within 10%.

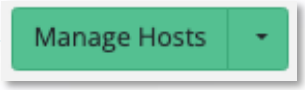


5. Configure the Scaling logic section, if need be. This will scale OUT when the average or maximum time used to process a request by Azure storage is slower.

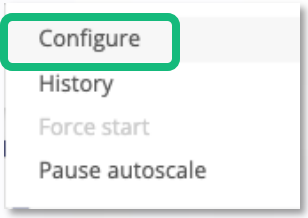


Day 2 - Lab 10.2 | Walkthrough
Configure Auto-scale

1. Expand the action menu next to your host pool in AVD > Host Pools.

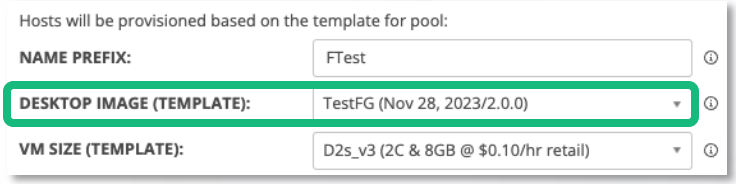


2. Then click Configure next in the Auto-scale tree.

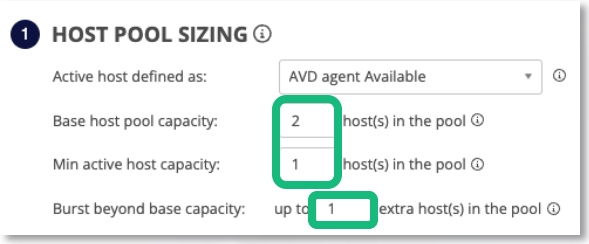


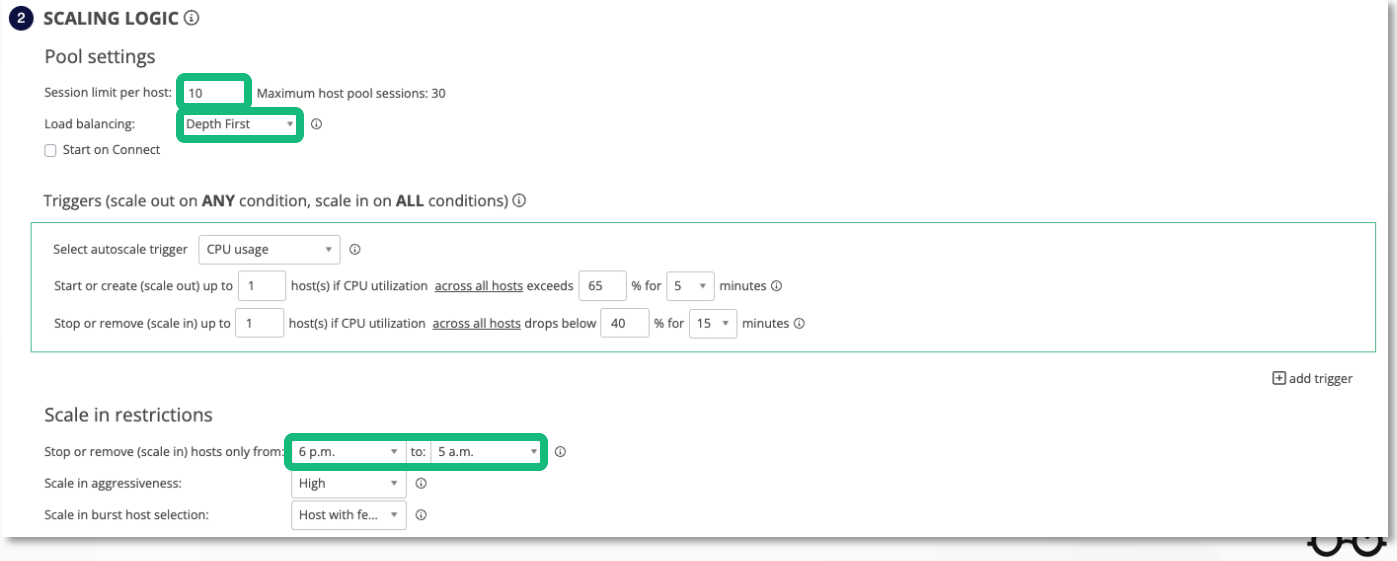
To keep API call volume low, please do not turn Auto-scale on in the lab sandbox environments.

3. Select the Desktop Image you created earlier.



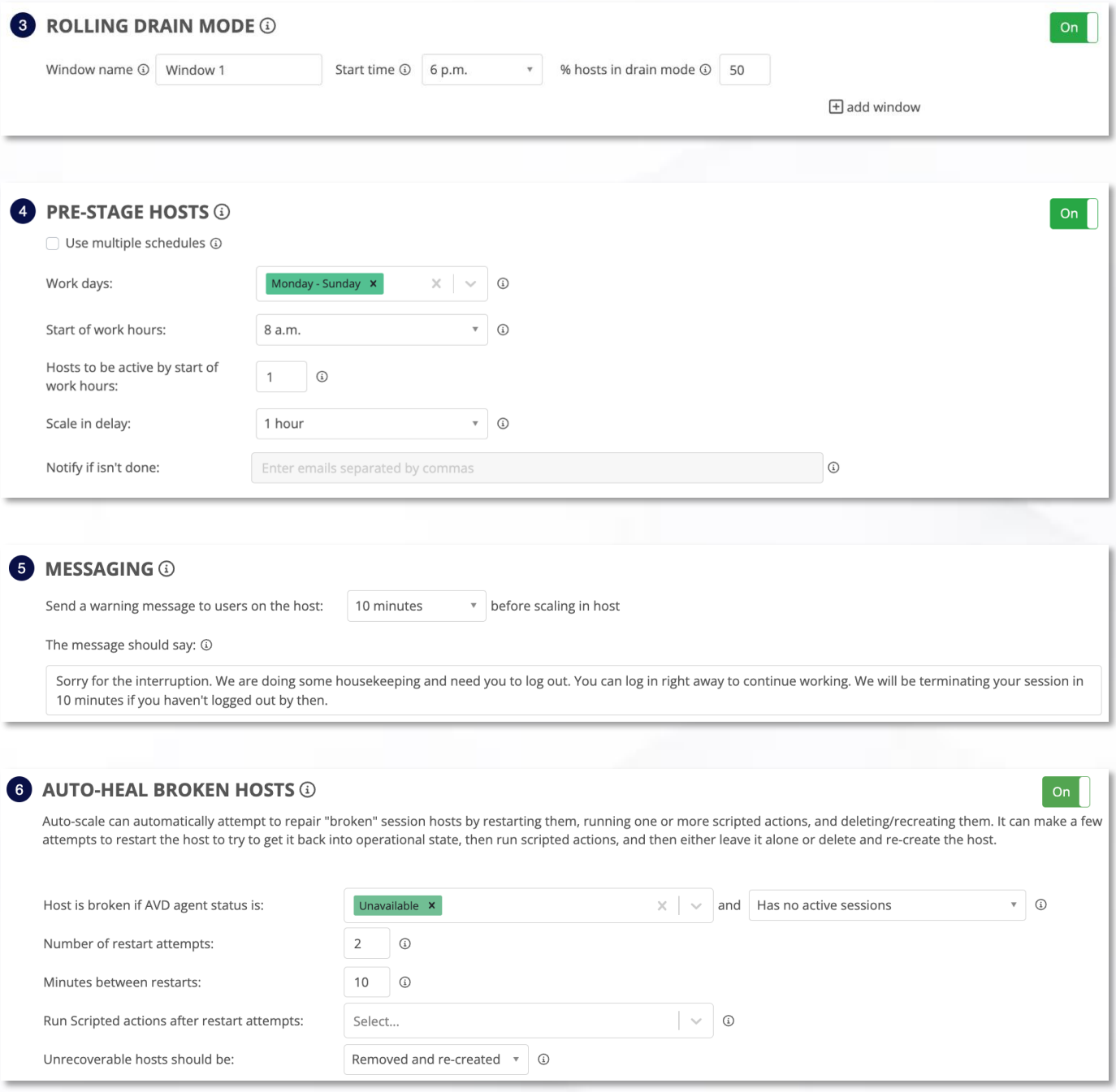
4. Configure each section to match the associated screenshot.





nerdio

Day 2 - Lab 10.2 | Walkthrough
Configure Auto-scale



5. When you are finished, click Save.

To keep API call volume low, please do not turn Auto-scale on in the lab sandbox environments.

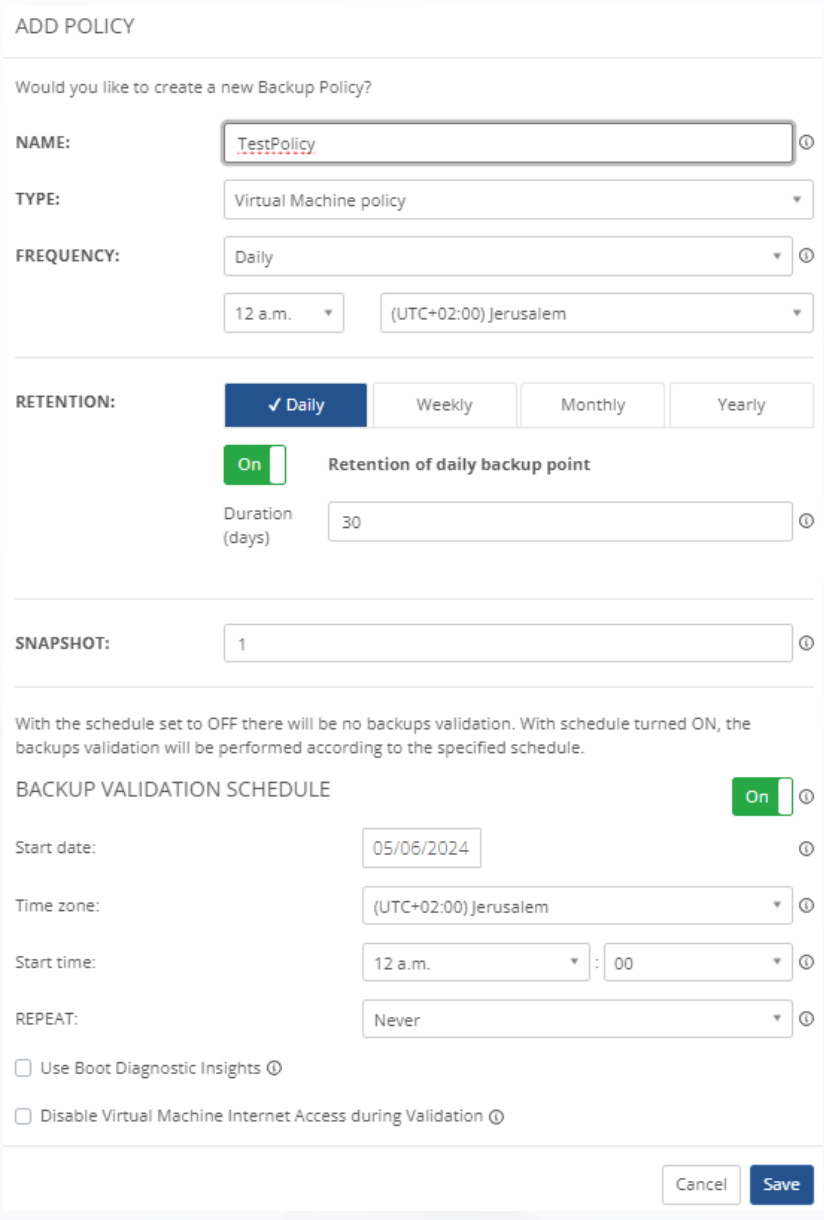
nerdio

Day 2 - Lab 11.1 | Walkthrough
Create a new backup policy

Notes:

You must create one policy for Azure Files shares and a second for virtual machines (including servers, session hosts and image source VMs). Vaults typically have at least two policies.

1. Go to Customer > Settings > Integrations.
2. In the Backup recovery vaults, policies and assignments tile, locate the vault you wish to work with.
3. Select Add policy.
4. Enter the needed info.
5. Choose your retention settings for daily, weekly, monthly, and yearly.

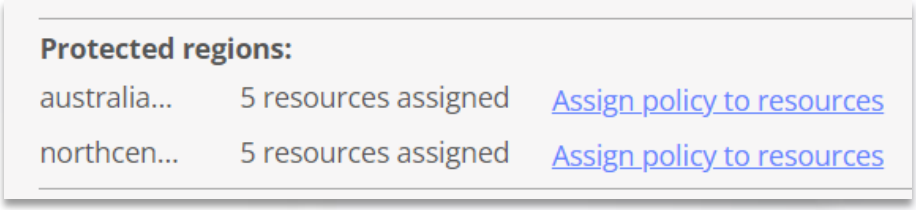


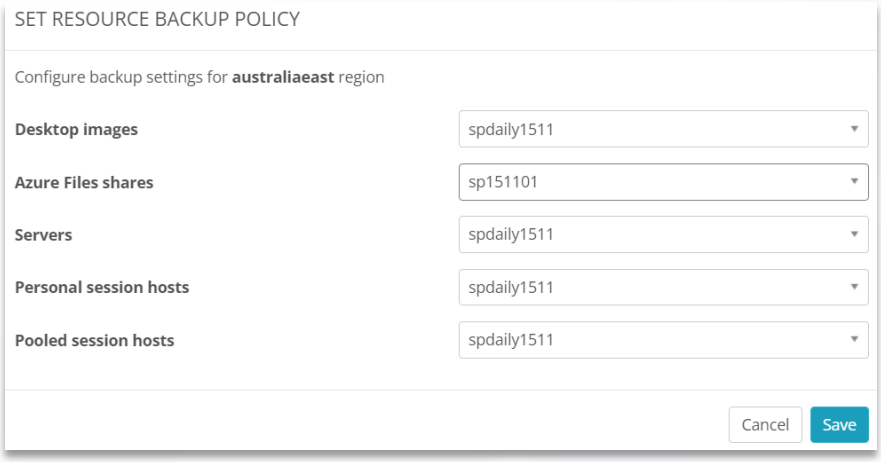
Day 2 - Lab 11.1 | Walkthrough
Assign a new backup policy

Notes:

Assignments determine what is to be protected. Assignment must be done by Azure region as determined by the region you selected for the vault when you first created it.

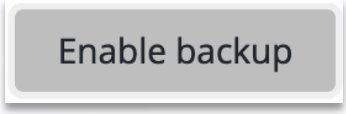
1. Go to Customer > Settings > Integrations.
2. In the Backup recovery vaults, policies and assignments tile, scroll down to Protection regions.
3. Locate the protected region you wish to work with, select Assign policy to resources.
4. Select the backup policy for each of the resources.
5. Once you have entered all the desired info, select Save.



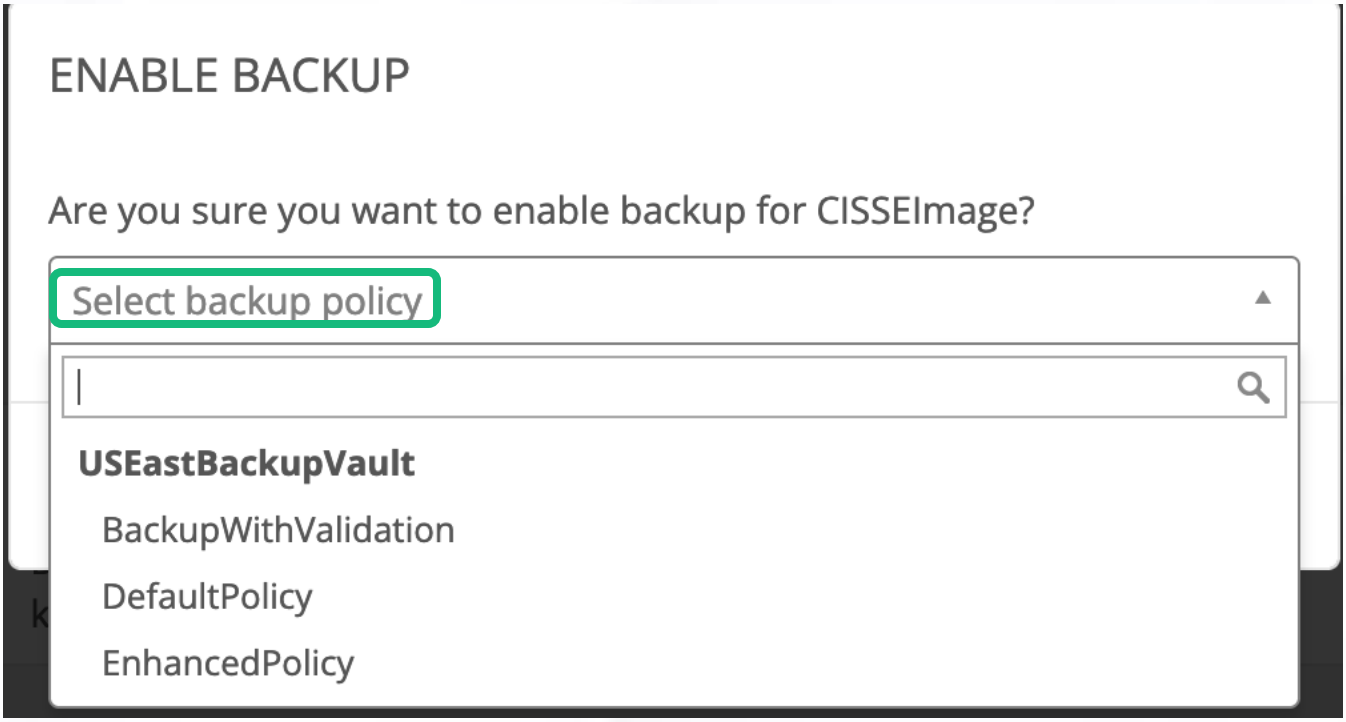


Day 2 - Lab 11.2 | Walkthrough
Enable backups for Azure resources

1. Go to Customer > Backup. Then choose Enable backup on the resource you want to protect.



2. Choose the backup policy that has been created for this resource.



3. Click OK.

Notes:

You can back up servers, images, hosts and Azure Files shares.

You can restore individual files/folders from Azure Files shares.

You can restore the entire contents of a server, hosts, images, etc.

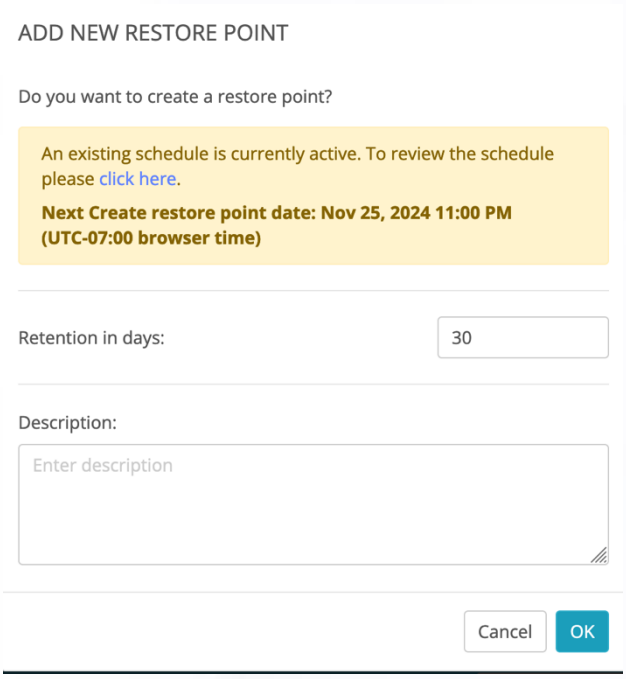
You can validate your backups on resources (not Azure Files).

Day 2 - Lab 11.3 | Walkthrough
Recovery Services

1. Go to Recovery Services on MSP level.

2. Then click Create restore point.

3. Choose your retention # in days. Add in a description.



Notes:

Allows you to restore Intune policies, policy baselines and user/device assignments that have been changed or were removed.

Capture daily snapshots of customer and MSP (global-level)

Includes custom policies, assignments, baselines, configurations, and tags (MSP/global level).

Includes user/group assignments at the customer level.