

Yumaan Mustafa

BSSE 7A

2280133

Lab 9

09 - Implement resource tagging (5 min)

In this walkthrough, we will create a policy assignment that requires tagging, created a storage account and test the tagging, view resources with a specified tag, and remove the tagging policy.

Task 1: Create a Policy assignment

In this task, we will configure the Require a tag on resources policy and assign it to our subscription.

1. Sign in to the Azure portal.
2. From the All services blade, search for and select Policy.

The screenshot shows the Microsoft Azure 'All services' blade. At the top, there is a search bar with the text 'policy'. Below the search bar, the results are displayed under the heading 'Policy'. The first result is 'Application security groups' with a keyword of 'Policy_Policies'. The second result is 'Web Application Firewall policies (WAF)' with a keyword of 'Policy_Policies'. There is also a link to 'Bastions' with a keyword of 'Policy_Policies'. On the left side, there is a sidebar titled 'Categories' containing various service categories like AI + machine learning, Analytics, Compute, etc. At the bottom of the sidebar, there is a note 'Microsoft reality'.

3. Scroll down to the Authoring section, click Assignments, and then click Assign Policy from the top of the page.
4. Notice the Scope for our policy will be subscription wide.
5. Under Basics Select the Policy definition ellipsis button (right side of textbox). In the Search box, enter the value tag. A list of related Policies with the word tag will

appear. Scroll down till you find the Require a tag and its value on resources definition, click on it and click Select.

The screenshot shows the 'Assign policy' page and the 'Available Definitions' modal side-by-side.

Assign policy (Left):

- Basics:** Policy name is empty.
- Scope:** Set to 'Azure subscription 1'.
- Exclusions:** Placeholder text: " Optionally select resources to exclude from the policy assignment."
- Resource selectors (Expand):** Placeholder text: "Using resource selectors, you can further refine this assignment's specific subsets of resources. Expand to learn more."
- Basics (Policy definition):** Placeholder text: "Using overrides, you can change the effects or referenced versions of a subset of resources evaluated by this assignment. Expand to learn more."
- Overrides (Expand):** Placeholder text: "Assignment name * (empty)"
- Description:** Placeholder text: " (empty)"

Available Definitions (Right):

Policy name	Latest version	Category	Type
Configure App Service app slots to use the latest TLS version	1.3.0	App Service	Builtin
Kubernetes cluster container images should not include untrusted certificates	2.0.1	Kubernetes	Builtin
[Preview]: Service Fabric Clusters should be Zone Redundant	1.0.0-preview	Resilience	Builtin
Configure Azure Defender for Servers to be disabled	1.0.0	Security Center - General	Builtin
Configure backup on virtual machines without a given retention period	9.4.0	Backup	Builtin
[Preview]: Append a tag and its value to resources	1.0.0-preview	BuiltinPolicyTest	Builtin
Certificates should have the specified lifetime action	2.1.0	Key Vault	Builtin
[Preview]: Azure Cache for Redis should be Zone Redundant	1.1.0-preview	Resilience	Builtin
Virtual machines should be migrated to new Azure Compute instances	1.0.0	Compute	Builtin
Require a tag and its value on resources	1.0.1	Tags	Builtin
Configure Function apps to use the latest TLS version	1.3.0	App Service	Builtin
Append a tag and its value to resources	1.0.1	Tags	Builtin
Configure backup on virtual machines with a given retention period	9.4.0	Backup	Builtin

Bottom right of the modal: 1 out of 1 policies selected, Add, Cancel, Give feedback.

6. On the Parameters tab, type in Company : Contoso ** for the tag key/value pair name. Click **Review + create, and then Create.

The screenshot shows the 'Parameters' tab of the 'Assign policy' page.

- Basics:** Policy name is empty.
- Parameters:** Tag Name is 'Company' and Tag Value is 'Contoso'.
- Remediation:** Placeholder text: "Non-compliance messages"
- Non-compliance messages:** Placeholder text: "Review + create"

Search bar: Search by parameter name (Company)

Checkboxes: Only show parameters that need input or review (checked).

The screenshot shows the 'Basics' tab of an Azure Policy assignment configuration. It includes fields for Scope, Exclusions, Resource selectors, Policy definition, Version (preview), Overrides, Assignment name, and Description.

- Scope:** Azure subscription 1
- Exclusions:** Optionally select resources to exclude from the policy assignment.
- Resource selectors (Expand):** Using resource selectors, you can further refine this assignment's applicability by targeting specific subsets of resources. Expand to learn more.
- Policy definition:** Require a tag and its value on resources
- Version (preview):** 1.**
- Overrides (Expand):** Using overrides, you can change the effects or referenced versions of definitions for all or a subset of resources evaluated by this assignment. Expand to learn more.
- Assignment name:** (empty)
- Description:** (empty)

7. The Require a tag and its value on resources policy assignment is now in place. When a resource is created, it must include a tag with the Company : Contoso key. Note - you need to wait up to 30 minutes for the Policy to be applied.

Task 2: Create a storage account to test the required tagging

In this task, we will create storage accounts to test the required tagging.

1. In the Azure Portal, from the All services blade, search for and select Storage accounts, and then click +Add +New +Create.
2. On the Basics tab of the Create storage account blade, fill in the following information (replace xxxx in the name of the storage account with letters and digits such that the name is globally unique). Leave the defaults for everything else. Setting Subscription Resource group Value Use default provided Create new resource group Storage account name storageaccountxxxx Location (US) East US
3. Click Review + create. Note: We are testing to see what happens when the tag is not supplied. Please note, it can take up to 30 minutes for Policies to take effect.
4. You will receive a Validation failed message. Click the Click here to view details message. On the Errors blade, on the Summary tab note the error message stating that resource was disallowed by Policy. Note: If you view the Raw Error tab you will see the specific tag name that is required.

Create a storage account ...

✖ Validation failed. Required information is missing or not valid.

Basics Advanced Networking Data protection Encryption Tags Review + create

Basics

Subscription	Azure subscription 1
Resource group	Lab9
Location	UAE North
Storage account name	storageaccount331
Preferred storage type	
Performance	Standard
Replication	Locally-redundant storage (LRS)

Advanced

Enable hierarchical namespace	Disabled
Enable SFTP	Disabled
Enable network file system v3	Disabled
Allow cross-tenant replication	Disabled
Access tier	Hot

[Previous](#) [Next](#) [Create](#)

5. Close the Error pane and click Previous (bottom of the screen). Provide the tagging information. Setting Value Tag name Company:Contoso (may not be in the drop-down list)

6. Click Review + create and verify that the validation was successful. Click Create to deploy the storage account.

Task 3: View all resources with a specific tag

1. In the Azure Portal, from the All services blade, search for and select Tags.
2. Note all tags and their values. Click the Company : Contoso key/value pair. This will display a blade showing the newly created storage account, as long as you included the tag during its deployment.
3. In the Portal, display the All resources blade.

All services > storageaccount331_1762457287332 | Overview > storageaccount331

 **storageaccount331 | Tags** ⚙ ☆ ...

Storage account

Search Delete all Feedback

Overview Activity log Tags Diagnose and solve problems

Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag to multiple resources and resource are case sensitive. [Learn more about tags](#) ?

Do not enter names or values that could make your resources less secure or that contain personal/sensitive information because tag data will be replicated

4. Click Add filter and add the Company tag key as the filter category. With the filter applied, only your storage account will be listed.

Task 4: Delete the policy assignment

In this task, we will remove the Require a tag on resources policy so it does not affect our future work.

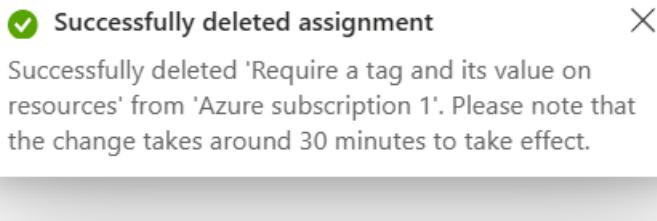
1. In the portal, from the All services blade, search for and select Policy.
2. Click the Require a tag on resources policy entry.
3. Click Delete Assignment in the top menu.
4. Confirm you wish to delete the policy assignment in the Delete assignment dialogue by clicking Yes

The screenshot shows the Azure Policy Assignment page. The assignment name is "Require a tag and its value on resources". It has the following details:

Name	: Require a tag and its value on resources	Scope	: Azure subscription 1
Definition version (preview)	: 1.0.*	Excluded scopes	: --
Description	: --	Definition type	: Policy
Assignment ID	: /subscriptions/a3e17407-645b-4443-990f-e8d6df69025c/providers/microsoft.auth...	Policy enforcement	: Default
Assigned by	: --		

Below the main details, there is a "Parameters (2)" section. It lists two parameters:

Parameter ID	Parameter name	Parameter value	Policy assignment parameter reference type
tagName	Tag Name	"Company"	User defined parameter
tagValue	Tag Value	"Contoso"	User defined parameter



5. If you have time, create another resource without a tag to ensure the policy is no longer in effect. Congratulations! In this walkthrough, we created a policy assignment that required tagging, created a resource (storage account) and tested the Policy for tagging, viewed resources with a specified tag, and removed the tagging policy. Note: To avoid additional costs, you can optionally remove this resource group. Search for resource groups, click your resource group, and then

click Delete resource group. Verify the name of the resource group and then click Delete. Monitor the Notifications to see how the delete is proceeding.