

AZ-104 - Governance and Compliance - Locking and Moving Resources

Control and organize Azure resources with Azure Resource Manager

Move Azure resources to another resource group

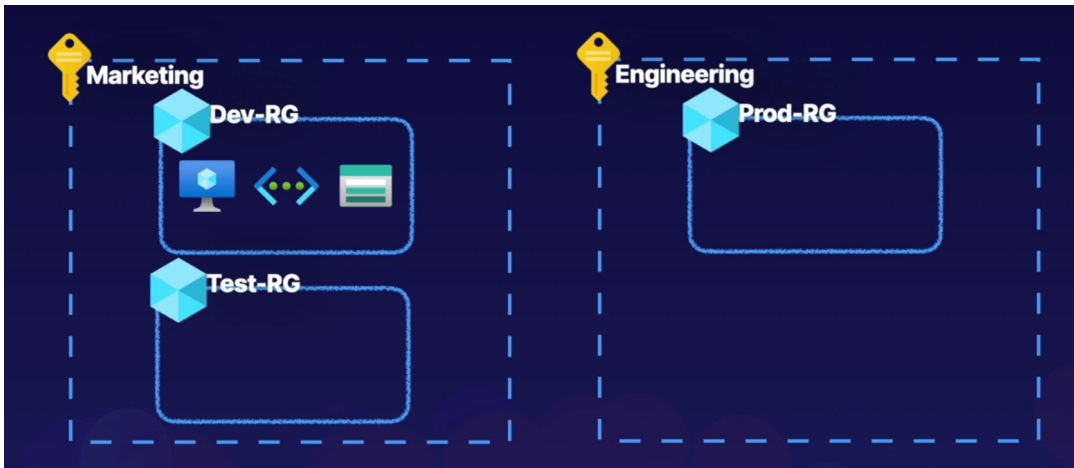
What are Locks

- Locks allow you to override permissions to resources.
- You can lock subscriptions, resources groups or resources.
- Lock Restrictions apply to all users and roles.

Lock types

- Read-only allows authorized users to read a resource, but they cannot delete or update the resource.
- Cannot-delete allows authorized users to read and modify a resource, but they cannot delete the resource.
- Locks are inherited from the parent scope.

Moving resources is the process of actually moving resources that are contained in a specific place in Azure



Navigate in azure portal to your resource group and add a lock

The screenshot shows the Azure portal interface for the 'Locks' page of a resource group. The breadcrumb path is '1-ac7fc18c-playground-sandbox | Locks'. Below the breadcrumb is a search bar and a row of action buttons: '+ Add', 'Subscription', 'Refresh', and 'Feedback'. A red arrow points to the '+ Add' button. On the left is a navigation menu with options: Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, and a 'Settings' section containing Deployments, Security, Deployment stacks, Policies, Properties, and Locks. A red arrow points to the 'Locks' option in the Settings section. The main content area shows a table with columns 'Lock name', 'Lock type', 'Scope', and 'Notes'. The table is currently empty, with the text 'This resource has no locks.' displayed below the headers.

Add Lock to DontDelete or whatever random name, assign to Delete, from this page you can edit or delete the lock.

Lock name	Lock type	Scope	Notes
DontDelete	Delete	1-ac7fc18c-playground-sandbox	

Now with a lock let's select all resources and hit delete

The screenshot shows the Azure portal interface for a resource group named '1-ac7fc18c-playground-sandbox'. The left sidebar contains navigation options like Overview, Activity log, Access control, Tags, Resource visualizer, Events, Settings, Deployments, Security, Deployment stacks, Policies, Properties, Locks, Cost Management, and Monitoring. The main area displays the 'Essentials' section with subscription and location information, and a 'Resources' section with a table of resources. A red arrow points to the 'Delete' button in the top toolbar.

Name	Type	Location
diagsguwj5y7244	Storage account	West US
nic-1	Network Interface	West US
nic-2	Network Interface	West US
NSG	Network security group	West US
publicip	Public IP address	West US
subnet-2-rsg	Network security group	West US
virtualNetwork	Virtual network	West US
VM-MultiNic	Virtual machine	West US
VM-MultiNic_OsDisk_1_65d4b64263254ba990f2a63aa59aa4e2	Disk	West US

Delete Resources



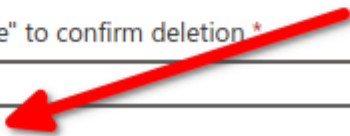
The selected resources along with their related resources and contents will be permanently deleted. If you are unsure of the selected resource dependencies, navigate to the individual resource page to perform the delete operation. More details of the resource dependencies are available in the manage experience.

Resources to be deleted (9)

Name	Resource type	
diagscguwj5sy72l44	Storage account	Remove
nic-1	Network Interface	Remove
nic-2	Network Interface	Remove
NSG	Network security group	Remove
publicip	Public IP address	Remove
subnet-2-nsg	Network security group	Remove
virtualNetwork	Virtual network	Remove
VM-MultiNic	Virtual machine	Remove
VM-MultiNic_OsDisk_1_65d4b64263254ba990f2a63	Disk	Remove

Apply force delete for selected Virtual machines and Virtual machine scale sets

Enter "delete" to confirm deletion *



We are unable to delete because of the lock delete rule



Executed delete command on 9 selected items



Succeeded: 0, Failed: 9, Canceled: 0.

Error details

[diagscguwj5sy72l44](#): The scope '/subscriptions /9734ed68-621d-47ed-babd-269110dbacb1 /resourceGroups/1-ac7fc18c-playground-sandbox /providers/Microsoft.Storage/storageAccounts /diagscguwj5sy72l44' cannot perform delete operation because following scope(s) are locked: '/subscriptions /9734ed68-621d-47ed-babd-269110dbacb1 /resourceGroups/1-ac7fc18c-playground-sandbox'. Please remove the lock and try again. (Code: ScopeLocked)



[nic-1](#): The scope '/subscriptions/9734ed68-621d-47ed-babd-269110dbacb1/resourceGroups/1-ac7fc18c-playground-sandbox/providers/Microsoft.Network /networkInterfaces/nic-1' cannot perform delete operation because following scope(s) are locked: '/subscriptions/9734ed68-621d-47ed-babd-269110dbacb1/resourceGroups/1-ac7fc18c-playground-sandbox'. Please remove the lock and try again. (Code: ScopeLocked)

[nic-2](#): The scope '/subscriptions/9734ed68-621d-47ed-babd-269110dbacb1/resourceGroups/1-ac7fc18c-playground-sandbox/providers/Microsoft.Network /networkInterfaces/nic-2' cannot perform delete operation because following scope(s) are locked: '/subscriptions/9734ed68-621d-47ed-babd-269110dbacb1/resourceGroups/1-ac7fc18c-playground-sandbox'. Please remove the lock and try again. (Code: ScopeLocked)

[NSG](#): The scope '/subscriptions/9734ed68-621d-47ed-babd-269110dbacb1/resourceGroups/1-ac7fc18c-playground-sandbox/providers/Microsoft.Network /networkSecurityGroups/NSG' cannot perform delete operation because following scope(s) are locked: '/subscriptions/9734ed68-621d-47ed-

No group

Now lets go to a specific resource inside our resource group, let's go to our VM

first we need to stop the resource then hit refresh, wait for the status to stopped.

Home > Resource groups > 1-ac7fc18c-playground-sandbox >

VM-MultiNic

Virtual machine

Search

Connect Start Restart Stop Hibernate (preview) Capture Delete Refresh

Essentials

Resource group: [1-ac7fc18c-playground-sandbox](#)

Status: Stopped (deallocated)

Location: West US

Subscription (move): [P8-Real Hands-On Labs](#)

Subscription ID: 9734ed68-621d-47ed-babd-269110dbacb1

Tags (edit): [Add tags](#)

Properties Monitoring Capabilities (8) Recommendations Tutorials

Virtual machine

Computer name: VM-MultiNic

Operating system: Windows

Image publisher: MicrosoftWindowsServer

Let's go back to modify our resource group lock from Delete to Read Only

we go to our resource group, select lock (hit refresh if not shown) then edit, we will modify lock type from Delete to Read-only and hit ok

Home > 1-ac7fc18c-playground-sandbox > nic-1 | Locks > 1-ac7fc18c-playground-sandbox

1-ac7fc18c-playground-sandbox | Locks

Resource group

Search + Add Subscription Refresh Feedback

Lock name	Lock type	Scope	Notes
DontDelete	Delete	1-ac7fc18c-playground-sandbox	

[Edit](#) [Delete](#)

Edit lock

DontDelete

Lock type *

Read-only

[OK](#) [Cancel](#)

We will refresh and make sure its now read-only

Home > 1-ac7fc18c-playground-sandbox > nic-1 | Locks > 1-ac7fc18c-playground-sandbox

1-ac7fc18c-playground-sandbox | Locks ☆ ...

Resource group

Search << + Add Subscription Refresh Feedback

Overview

Activity log

Access control (IAM)

Tags

Lock name	Lock type	Scope	Notes
DontDelete	Read-only	1-ac7fc18c-playground-sandbox	

let's go back to our resources overview, open the VM again and let's Start our VM, we get a warning message, cannot perform write operation, please remove read-only lock

Home > 1-ac7fc18c-playground-sandbox > nic-1 | Locks > 1-ac7fc18c-playground-sandbox

VM-MultiNic ☆ ...

Virtual machine

Search Connect Start Restart Stop Hibernate (preview) Capture Delete Refresh Open in mobile Feedback CLI / PS

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Networking

Connect

Windows Admin Center

Disks

Size

Microsoft Defender for Cloud

Advisor recommendations

Extensions + applications

Availability + scaling

Configuration

Identity

Properties

Essentials

Resource group (move): 1-ac7fc18c-playground-sandbox

Status: Stopped (deallocated)

Location: West US

Subscription (move): PR-Real-Hands-On-Labs

Subscription ID: 9734ed68-621d-47ed-babd-269110dbacb1

Tags (edit): Add tags

Properties

Monitoring

Capabilities (8)

Recommendations

Tutorials

Virtual machine

Computer name: VM-MultiNic

Operating system: Windows

Image publisher: MicrosoftWindowsServer

Image offer: WindowsServer

Image plan: 2019-Datacenter

VM generation: V1

VM architecture: x64

Hibernation: Disabled

Host group: -

Networking

Public IP address: publicip (Network interface nic-1)

Public IP address (IPv6): -

Private IP address: 10.0.0.4

Private IP address (IPv6): -

Virtual network/subnet: virtualNetwork/subnet-1

DNS name: Not configured

Size

Size: Standard DS1 v2

Failed to start virtual machine

Failed to start virtual machine 'VM-MultiNic'. Error: The scope '1-ac7fc18c-playground-sandbox/providers/Microsoft.Compute/virtualMachines/VM-MultiNic' cannot perform write operation because following scopes are locked: /subscriptions/9734ed68-621d-47ed-babd-269110dbacb1/resourceGroups/1-ac7fc18c-playground-sandbox. Please remove the lock and try again.

Now if we go back to our resources group we can select all our resources, from here we can click on Move, here you can move resources too another resource group, to another subscription or to another region.

Home > 1-ac7fc18c-playground-sandbox > nic-1 | Locks >

1-ac7fc18c-playground-sandbox

Search

Essentials

Subscription (move): P8-Real Hands-On Labs
Subscription ID: 9734ed68-621d-47ed-babd-269110dbacb1
Tags (edit): Add tags

Resources Recommendations

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 9 of 9 records. Show hidden types

Name ↑	Type ↑	Location ↑
diagscgujw5y72l44	Storage account	West US
nic-1	Network Interface	West US
nic-2	Network Interface	West US
NSG	Network security group	West US
publicip	Public IP address	West US
subnet-2-nsg	Network security group	West US
virtualNetwork	Virtual network	West US
VM-MultiNic	Virtual machine	West US
VM-MultiNic_OsDisk_1_65d4b64263254ba990f2a63aa59aa4e2	Disk	West US

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Move to another resource group
Move to another subscription
Move to another region

Revision #1

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