



Azure Setup Guide - Organize Your Azure Resources

Step: 01

Organizing your Azure Resource

Organizing your cloud-based resources is critical to securing, managing, and tracking the costs related to your workloads. To organize your resources, define a management group hierarchy, follow a well-considered naming convention, and apply resource tagging.

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Organize your Azure resources effectively

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Azure management groups and hierarchy | Naming standards | Resource tags

Azure provides four levels of management scope: management groups, subscriptions, resource groups, and resources. The following image shows the relationship of these levels.

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```
graph TD; MG[Management groups] --- S[Subscriptions]; MG --- RG[Resource groups]; MG --- R[Resources]; S --- RG; S --- R; RG --- R;
```

Figure 1: How the four management-scope levels relate to each other.

- **Management groups:** These groups are containers that help you manage access, policy, and compliance for multiple subscriptions. All subscriptions in a management group automatically inherit the conditions applied to the management group.
- **Subscriptions:** A subscription logically associates user accounts and the resources that were created by those user accounts. Each subscription has limits or quotas on the amount of resources you can create and use. Organizations can use subscriptions to manage costs and the resources that are created by users, teams, or projects.
- **Resource groups:** A resource group is a logical container into which Azure resources like web apps, databases, and storage accounts are deployed and managed.
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Scope of management settings

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Scope of management settings

You can apply management settings, like policies and role-based access controls, at any of the management levels. The level you select determines how widely the setting is applied. Lower levels

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Usually, it makes sense to apply critical settings at higher levels and project-specific requirements at lower levels. For example, you might want to make sure all resources for your organization are deployed to certain regions. To do that, apply a policy to the subscription that specifies the allowed locations. As other users in your organization add new resource groups and resources, the allowed locations are automatically enforced. Learn more about policies in the governance, security, and compliance section of this guide.

If you have only a few subscriptions, it's relatively simple to manage them independently. If the number of subscriptions you use increases, consider creating a management group hierarchy to simplify the management of your subscriptions and resources. For more information, see [Organize and manage your Azure subscriptions](#).

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Azure management groups and hierarchy | **Naming standards** | Resource tags

A good naming standard helps to identify resources in the Azure portal, on a billing statement, and in automation scripts. Your naming strategy should include business and operational details as components of resource names:

- The business-related side of this strategy should ensure that resource names include the organizational information that's needed to identify the teams. Use a resource along with the business owners who are responsible for resource costs.
- The operational side should ensure that names include information that IT teams need. Use the details that identify the workload, application, environment, criticality, and other information that's useful for managing resources.

Different resource types have different [naming rules and restrictions](#). For more information and recommendations aimed specifically at supporting enterprise cloud adoption efforts, see the Cloud Adoption Framework's [guidance on naming and tagging](#).

The following table includes naming patterns for a few sample types of Azure resources.

Entity	Scope	Length	Casing	Valid characters	Suggested pattern	Example
Resource group	Subscription	1-90	Case insensitive	Alphanumeric, underscore, parentheses, hyphen, period (except at end), and Unicode characters	<service short name>-<environment>-rg	profx-prod-rg
Availability set	Resource group	1-80	Case insensitive	Alphanumeric, underscore, and hyphen	<service-short-name>-<context>-as	profx-sql-as
Tag	Associated entity	512 (name), 256 (value)	Case insensitive	Alphanumeric	"key" : "value"	"department" : "Central IT"

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Azure management groups and hierarchy Naming standards **Resource tags**

Tags are useful to quickly identify your resources and resource groups. You apply tags to your Azure resources to logically organize them by categories. Each tag consists of a name and a value. For example, you can apply the name "Environment" and the value "Production" to all the resources in production. Tags should include context about the resource's associated workload or application, operational requirements, and ownership information.

After you apply tags, you can retrieve all the resources in your subscription with that tag name and value. When you organize resources for billing or management, tags can help you retrieve related resources from different resource groups.

You can also use tags for many other things. Common uses include:

- **Metadata and documentation:** Administrators can easily see detail about the resources they're working on by applying a tag like "ProjectOwner."
- **Automation:** You might have regularly running scripts that can take an action based on a tag value like "ShutdownTime" or "DeprovisionDate."
- **Cost Optimization:** You can allocate resources to the teams and resources who are responsible for the cost. In the Azure cost management, you can apply the cost center tag as a filter to report the charges based on a team or department usage.

Each resource or resource group can have a maximum of 50 tag name and value pairs. This limitation only applies to tags directly applied to the resource group or resource.

For more tagging recommendations and examples, see the Cloud Adoption Framework's [guidance on tagging](#).

Action

Apply a resource tag:

To apply a tag to a resource group:

1. Go to **Resource groups**.
2. Select a resource group.
3. Select **Tags**.

Thank You!

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