

Organize your Azure resources effectively - Cloud Adoption Framework

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This article explains how to organize Azure resources for optimal security, management, and cost tracking. Proper resource organization enables consistent governance, simplified operations, and clear cost attribution across your workloads.

Prerequisite: [Create an Azure account](#). **Startups** see if you qualify for [Azure credits](#).

Establish a consistent naming convention

A naming convention provides standardized identification across Azure resources, billing statements, and automation scripts. Consistent resource naming reduces management overhead and prevents resource conflicts across teams. Here's how to define a naming convention.

- 1. Understand name permanence.** Azure resource names cannot be changed after creation. Include only information that remains constant in the name. Use tags to capture other details.
- 2. Follow Azure naming rules.** There are [naming rules for every Azure resource](#). Azure names must follow three general principles:
 - Names need to be unique within the scope of the Azure resource (varies between resource).
 - Names need to meet length requirements (varies between resources).
 - Names can only contain valid characters (varies between resources).
- 3. Use abbreviations.** Use [Azure resource abbreviations](#) to keep resource names within length limits.
- 4. Define a naming convention.** You need a standardized way to name Azure resources. Tailor the naming convention to your specific needs, such as `{Azure resource abbreviation}{workload name, parent resource, or purpose}{environment}{region}{instance}`. Not every resource name needs to include the same information. For example, management groups and subscriptions often contain department information while workload resources don't. Use a hyphen - between naming components to make the name more readable, but, note, not all Azure resources allow you to use a hyphen. For more information and examples, see [Define your naming convention](#).

Resource tags provide name-value metadata for resource identification, cost allocation, and tracking. Tags supplement your naming convention with flexible categorization that supports business processes and automation workflows. Use tags to capture relevant information such as resource type, application name, environment, department, and location. See [steps to apply tags](#).

Name	Value
Azure resource	resource: storage account resource: sql database
Application name	app : training app : webapp
Environment	env : dev env : prod
Department	dept : finance dept : sales
Location	region : eastus region : westus

For a mature tagging approach, see [Define your tagging strategy](#).

Build a management hierarchy

A management hierarchy defines governance boundaries for Azure resources. Azure provides four management levels where governance policies, role-based access controls, and budgets flow from higher levels to lower levels. Structure your hierarchy to align with your requirements.

- 1. Create management groups for distinct workload types.** Establish [management groups](#) for distinct workload types. At a minimum, create management groups to separate internal (corporate) workloads from internet-facing (online) workloads. Use functional names for your management groups such as "Workloads," "Platform," "Online," and "Corporate." Each management group inherits settings from the [root management group](#).
- 2. Create subscriptions to separate workload environments.** Create separate Azure subscriptions for development, testing, and production environments to ensure isolation and cost tracking. This strategy prevents cross-environment dependencies and enables environment-specific policies. See [steps to create Azure subscriptions](#) and [programmatically create subscriptions](#).
- 3. Use resource groups to group resources by lifecycle.** Place resources with shared lifecycles into the same [resource group](#). This approach streamlines deployment, updates, and deletions. Use infrastructure-as-code templates for consistent deployment. See [steps to deploy resources](#).
- 4. Align resource locations with the resource group.** Place resources in the same region as their resource group to optimize performance and simplify management. For details, see [Resource group location alignment](#). If resources span multiple regions, move them to a [new resource group or subscription](#).

For a more mature resource hierarchy, see [Azure landing zone resource organization](#).

Next step

Source: <https://learn.microsoft.com/en-us/azure/cloud-adoption-framework/ready/azure-setup-guide/organize-resources>