

Azure App Service Plans

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What is an Azure App Service Plan?

An App Service plan defines a set of compute resources for a web app to run. These compute resources are analogous to the server farm in conventional web hosting. One or more apps can be configured to run on the same computing resources (or in the same App Service plan).

When you create an App Service plan in a certain region (for example, West Europe), a set of compute resources is created for that plan in that region. Whatever apps you put into this App Service plan run on these compute resources as defined by your App Service plan. Each App Service plan defines:

- Operating System (Windows, Linux)
- Region (West US, East US, etc.)
- Number of VM instances
- Size of VM instances (Small, Medium, Large)
- Pricing tier (Free, Shared, Basic, Standard, Premium, PremiumV2, PremiumV3, Isolated, IsolatedV2)



Pricing Tiers

The pricing tier of an App Service plan determines what App Service features you get and how much you pay for the plan. The pricing tiers available to your App Service plan depend on the operating system selected at creation time. There are a few categories of pricing tiers:

- **Shared compute**: Free and Shared, the two base tiers, runs an app on the same Azure VM as other App Service apps, including apps of other customers. These tiers allocate CPU quotas to each app that runs on the shared resources, and the resources cannot scale out.
- **Dedicated compute**: The Basic, Standard, Premium, PremiumV2, and PremiumV3 tiers run apps on dedicated Azure VMs. Only apps in the same App Service plan share the same compute resources. The higher the tier, the more VM instances are available to you for scale-out.
- **Isolated**: This Isolated and IsolatedV2 tiers run dedicated Azure VMs on dedicated Azure Virtual Networks. It provides network isolation on top of compute isolation to your apps. It provides the maximum scale-out capabilities.

How does my app run and scale?

In the Free and Shared tiers, an app receives CPU minutes on a shared VM instance and cannot scale out. In other tiers, an app runs and scales as follows.

When you create an app in App Service, it is put into an App Service plan. When the app runs, it runs on all the VM instances configured in the App Service plan. If multiple apps are in the same App Service plan, they all share the same VM instances

In this way, the App Service plan is the scale unit of the App Service apps. If the plan is configured to run five VM instances, then all apps in the plan run on all five instances. If the plan is configured for autoscaling, then all apps in the plan are scaled out together based on the autoscale settings.





How much does my App Service plan cost?

Except for Free tier, an App Service plan carries a charge on the compute resources it uses.

- In the Shared tier, each app receives a quota of CPU minutes, so each app is charged for the CPU quota.
- In the dedicated compute tiers (Basic, Standard, Premium, PremiumV2, PremiumV3), the App Service plan defines the number of VM instances the apps are scaled to, so each VM instance in the App Service plan is charged. These VM instances are charged the same regardless how many apps are running on them. To avoid unexpected charges, see Clean up an App Service plan.
- In the Isolated and IsolatedV2 tiers, the App Service Environment defines the number of isolated workers that run your apps, and each worker is charged. In addition, in the Isolated tier there's a flat Stamp Fee for the running the App Service Environment itself.





Resizing is easy with an App Service Plan

Your App Service plan can be scaled up and down at any time. It is as simple as changing the pricing tier of the plan. You can choose a lower pricing tier at first and scale up later when you need more App Service features.

- You can start testing your web app in a Free App Service plan and pay nothing.
 When you want to add your custom DNS name to the web app, just scale your plan up to Shared tier.
- Later, when you want to create a TLS binding, scale your plan up to Basic tier.
 When you want to have staging environments, scale up to Standard tier. When
 you need more cores, memory, or storage, scale up to a bigger VM size in the
 same tier.