

Fargate Cluster & Service Discovery

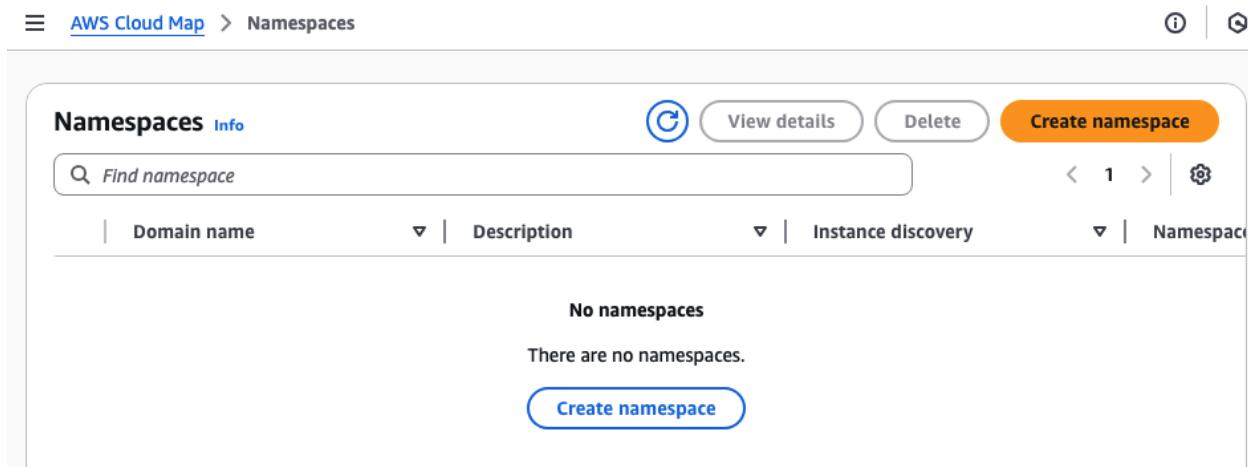
Cloud Map Namespace	1
Fargate Cluster	2
Cluster Creation Failure	3

Cloud Map Namespace

AWS Cloud Map is a **service-discovery** service.

- It lets your applications discover other services or resources by name instead of IP.
- Supports DNS and API-based lookup.
- Example:
 - Service movie-service registers in Cloud Map namespace app.local → DNS movie-service.app.local automatically resolves to running tasks.

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- Go to AWS Cloud Map. Create Namespace



The screenshot shows the AWS Cloud Map console with the 'Namespaces' page. At the top, there's a navigation bar with 'AWS Cloud Map' and 'Namespaces'. Below it is a search bar labeled 'Find namespace'. A large orange button on the right says 'Create namespace'. The main area has a heading 'Namespaces' with a 'Info' link. Underneath, there are four filter columns: 'Domain name', 'Description', 'Instance discovery', and 'Namespaces'. A message 'No namespaces' indicates there are no results, followed by the text 'There are no namespaces.' and a blue 'Create namespace' button.

- Give a name for the namespace. I use **prod**

Namespace configuration

The namespace configuration determines how your application discovers service instances

Namespace name

A friendly name lets you easily find a namespace on the dashboard.

prod

The namespace name can have up to 1,024 characters, and must start and end with a letter.

Valid characters: a-z, A-Z, 0-9, . (period), _ (underscore), and - (hyphen)

- Instance Discovery (we want private DNS records within VPC)

Instance discovery

Instance discovery determines how your application discovers registered instances.

API calls

Your application makes API calls to discover registered instances.

API calls and DNS queries in VPCs

Your application makes API calls or submits DNS queries in VPCs to discover registered instances. Additional charges apply.

API calls and public DNS queries

Your application makes API calls or submits public DNS queries to discover registered instances. Additional charges apply.

- Select VPC

VPC

This is the Amazon VPC that you want to associate the namespace with.

vpc-0fa6dbb2623191631 (netflix-vpc)



TTL

The SOA TTL value for the Route 53 hosted zone created with the namespace. Determines how long negatively cached results in [pricing impact](#) for DNS.

15

The value is in seconds.

- Create namespace

Fargate Cluster

- Create a cluster where our tasks will be running. I call this **prod** cluster. Also select prod namespace for service discovery within this cluster

Cluster configuration

Cluster name

prod

Cluster name must be 1 to 255 characters. Valid characters are a-z, A-Z, 0-9, hyphens (-), and underscores (_).

▼ Service Connect defaults - optional

Default namespace | [Info](#)

Select or type the namespace name to specify a group of services that make up your application. You can overwrite this value at

Select a namespace

prod

Private Cloud Map namespace for production
ns-5ri5zjqhntnaojlj DNS_PRIVATE

- Under **infrastructure**, Select “Fargate Only”

▼ Infrastructure - advanced [Info](#)

Configure the manner of obtaining compute resources that will be used to host your application.

Select a method of obtaining compute capacity

Your cluster is automatically configured for AWS Fargate (serverless), but you may choose to add Amazon EC2 instances (servers).

Fargate only

Serverless - you don't think about creating or managing servers. Great for most common workloads.

Fargate and Managed Instances [New](#)

Managed instances - Amazon ECS will manage patching and behalf while giving you configurability about the types of more advanced workloads.

- Everything else is optional. We can create the cluster. It might take a minute to create the cluster

Amazon Elastic Container Service > Clusters

Clusters (1) Info			
<input type="text"/> Search clusters			
Cluster	Services	Tasks	Container Instances
prod	0	No tasks running	0 EC2

Cluster Creation Failure

Note: If it fails for some reason, we need to go to “CloudFormation ” to clear the entry to re-create the cluster.

✖ There was an error creating cluster prod.
Resource handler returned message: "Error occurred during operation 'CreateCluster' SDK error: Failed to create Namespace ECS Serv ClientException; Request ID: a362e00a-676f-4019-9591-55ad75d59943; Proxy: null'." (RequestToken: da3219ec-e689-83b7-5a04-

[View in CloudFormation](#) ↗

[Diagnose with Amazon Q](#)

Clusters (0) Info

Search clusters

Cluster

▼ | Services

▼ | Tasks

▼