



Intro to Astra

Project Astra

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Intro to Astra

Astra is a Kubernetes application data lifecycle management service that simplifies operations for stateful applications. Easily back up Kubernetes apps, migrate data to a different cluster, and instantly create working application clones.

Features

The Astra beta program offers critical capabilities for Kubernetes application data lifecycle management:

- Create a protection policy for each of your apps
- Migrate applications and data from one Kubernetes cluster to another
- Easily clone an application from production to staging
- Create on-demand snapshots and backups
- Identify the health of your apps

Supported Kubernetes clusters

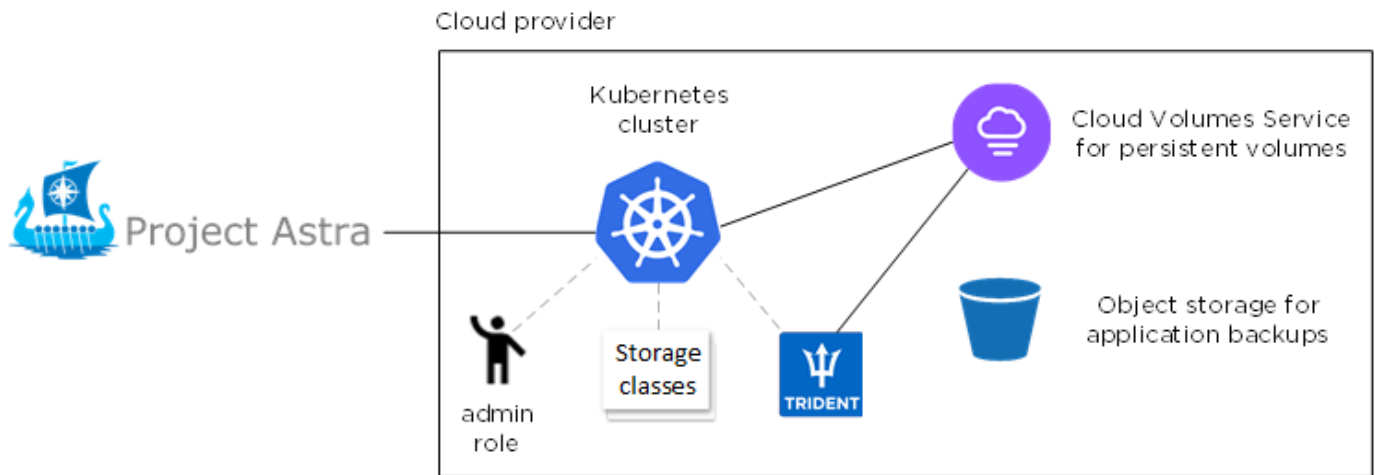
Astra can manage data for Google Kubernetes Engine (GKE) clusters.

On-prem Kubernetes clusters and clusters running in other cloud providers aren't supported at this time.

[Learn more about cluster requirements.](#)

How Astra works

Astra is a NetApp-managed cloud service that is always on and updated with the latest capabilities. It utilizes several components to enable application data lifecycle management. The following image shows the relationship between each component:



At a high level, Astra works like this:

- You set up your cloud provider.
- You add your first Kubernetes cluster to Astra. Astra then does the following:
 - Uses the cloud provider credentials that you provided to discover the cluster and the applications running on the cluster.
 - Creates an object store in your cloud provider account, which is where backup copies are sent.
 - Creates a new admin role on the cluster.
 - Uses the role to install [NetApp's Trident](#), to create storage classes, and to eventually create namespaces and support cloning of applications.

Astra uses Trident to provision persistent volumes backed by NetApp Cloud Volumes Service for Google Cloud.

Astra creates three storage classes that use Cloud Volumes Service for Google Cloud: `netapp-cvs-extreme`, `netapp-cvs-premium` (default), and `netapp-cvs-standard`.

- At this point, cluster configuration is complete. You can now choose which apps to manage and start creating snapshots, backups, and clones.

Note that Astra continually watches your clusters for state changes, so it's aware of any new apps that you add along the way.

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