



Release notes

Astra Control Service

NetApp
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Release notes

What's new with Astra Control Service

NetApp periodically updates Astra Control Service to bring you new features, enhancements, and bug fixes.

14 Dec 2021

New storage backend options

Astra Control Service now supports Google Persistent Disk and Azure managed disks as storage backend options.

[Set up Google Cloud.](#)

[Set up Microsoft Azure with Azure managed disks.](#)

In-place app restore

You can now restore a snapshot, clone, or backup of an app in place by restoring to the same cluster and namespace.

[Restore apps.](#)

Script events with execution hooks

Astra Control supports custom scripts that you can run before or after you take a snapshot of an application. This enables you to perform tasks like suspending database transactions so that the snapshot of your database app is consistent.

[Manage app execution hooks.](#)

Operator-deployed apps

Astra Control supports some apps when they are deployed with operators.

[Start managing apps.](#)

Service principals with resource group scope

Astra Control Service now supports service principals that use a resource group scope.

[Create an Azure service principal.](#)

5 Aug 2021

This release includes the following new features and enhancements.

Astra Control Center

Astra Control is now available in a new deployment model. *Astra Control Center* is self-managed software that you install and operate in your data center so that you can manage Kubernetes application lifecycle management for on-premise Kubernetes clusters.

[Go to the Astra Control Center documentation to learn more.](#)

Bring your own bucket

You can now manage the buckets that Astra uses for backups and clones by adding additional buckets and by changing the default bucket for the Kubernetes clusters in your cloud provider.

[Learn more about managing buckets.](#)

2 June 2021

This release includes bug fixes and the following enhancements to Google Cloud support.

Support for shared VPCs

You can now manage GKE clusters in GCP projects with a shared VPC network configuration.

Persistent volume size for the CVS service type

Astra Control Service now creates persistent volumes with a minimum size of 300 GiB when using the CVS service type.

[Learn how Astra Control Service uses Cloud Volumes Service for Google Cloud as the storage backend for persistent volumes.](#)

Support for Container-Optimized OS

Container-Optimized OS is now supported with GKE worker nodes. This is in addition to support for Ubuntu.

[Learn more about GKE cluster requirements.](#)

15 Apr 2021

This release includes the following new features and enhancements.

Support for AKS clusters

Astra Control Service can now manage apps that are running on a managed Kubernetes cluster in Azure Kubernetes Service (AKS).

[Learn how to get started.](#)

REST API

The Astra Control REST API is now available for use. The API is based on modern technologies and current best practices.

[Learn how to automate application data lifecycle management using the REST API.](#)

Annual subscription

Astra Control Service now offers a *Premium Subscription*.

Pre-pay at a discounted rate with an annual subscription that enables you to manage up to 10 apps per

application pack. Contact NetApp Sales to purchase as many packs as needed for your organization—for example, purchase 3 packs to manage 30 apps from Astra Control Service.

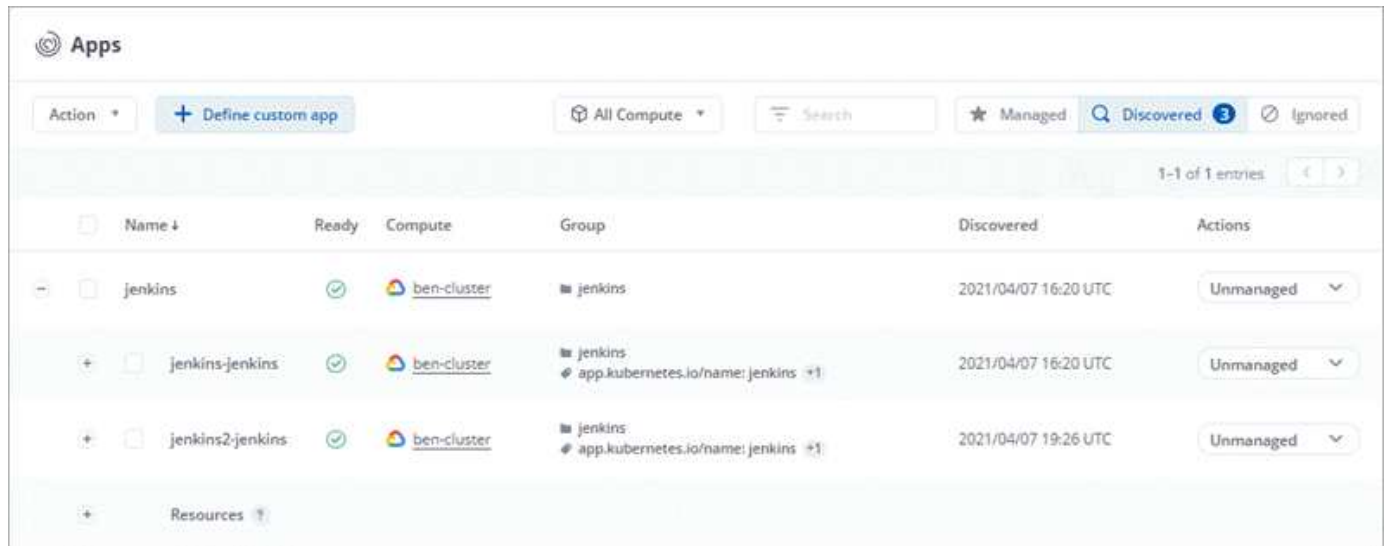
If you manage more apps than allowed by your annual subscription, then you'll be charged at the overage rate of \$0.005 per minute, per application (the same as Premium PayGo).

[Learn more about Astra Control Service pricing.](#)

Namespace and app visualization

We enhanced the Discovered Apps page to better show the hierarchy between namespaces and apps. Just expand a namespace to see the apps contained in that namespace.

[Learn more about managing apps.](#)



The screenshot shows the 'Apps' management interface. At the top, there's a header with 'Apps' and a '+ Define custom app' button. Below this is a filter bar with 'All Compute', a search box, and tabs for 'Managed', 'Discovered' (3 items), and 'Ignored'. The main table has columns: Name, Ready, Compute, Group, Discovered, and Actions. It lists three entries: 'jenkins', 'jenkins-jenkins', and 'jenkins2-jenkins'. The 'jenkins-jenkins' and 'jenkins2-jenkins' entries are expanded, showing their respective namespaces and resource counts. A 'Resources' link is at the bottom left of the table.

Name	Ready	Compute	Group	Discovered	Actions
jenkins	✓	ben-cluster	jenkins	2021/04/07 16:20 UTC	Unmanaged
jenkins-jenkins	✓	ben-cluster	jenkins app.kubernetes.io/name: jenkins +1	2021/04/07 16:20 UTC	Unmanaged
jenkins2-jenkins	✓	ben-cluster	jenkins app.kubernetes.io/name: jenkins +1	2021/04/07 19:26 UTC	Unmanaged

User interface enhancements

Data protection wizards were enhanced for ease of use. For example, we refined the Protection Policy wizard to more easily view the protection schedule as you define it.

Configure Protection Policy STEP 1/2: DETAILS

PROTECTION SCHEDULE

- Hourly**: Every hour on the 0th minute, keep the last 4 snapshots.
- Daily**: Daily at 02:00 (UTC), keep the last 15 snapshots.
- Weekly**: Weekly on Mondays at 02:00 (UTC), keep the last 26 snapshots.
- Monthly**: Every 1st of the month at 02:00 (UTC), keep the last 12 backups.

Day(s) of Month: 1 X Time (UTC): 02:00 Snapshots to keep: 0 Backups to keep: 12

OVERVIEW

Schedule and Retention

Define a policy to continuously protect your application on a schedule and configure a retention count to get started.

For select stateful applications expect IO to pause for a short period of time during a backup or snapshot operation.

Read more in [Protection Policies](#).

Application: jenkins-jenkins
Namespace: jenkins
Labels: app.kubernetes.io/name: jenkins, app.kubernetes.io/instance: jenkins
Compute: ben-cluster

Cancel Review Information →

Activity enhancements

We've made it easier to view details about the activities in your Astra Control account.

- Filter the activity list by managed app, severity level, user, and time range.
- Download your Astra Control account activity to a CSV file.
- View activities directly from the Clusters page or the Apps page after selecting a cluster or an app.

[Learn more about viewing your account activity.](#)

1 Mar 2021

Astra Control Service now supports the [CVS service type](#) with Cloud Volumes Service for Google Cloud. This is in addition to already supporting the *CVS-Performance* service type. Just as a reminder, Astra Control Service uses Cloud Volumes Service for Google Cloud as the storage backend for your persistent volumes.

This enhancement means that Astra Control Service can now manage app data for Kubernetes clusters that are running in [any Google Cloud region where Cloud Volumes Service is supported](#).

If you have the flexibility to choose between Google Cloud regions, then you can pick either CVS or CVS-Performance, depending on your performance requirements. [Learn more about choosing a service type.](#)

25 Jan 2021

We're pleased to announce that Astra Control Service is now Generally Available. We incorporated a lot of the feedback that we received from the Beta release and made a few other notable enhancements.

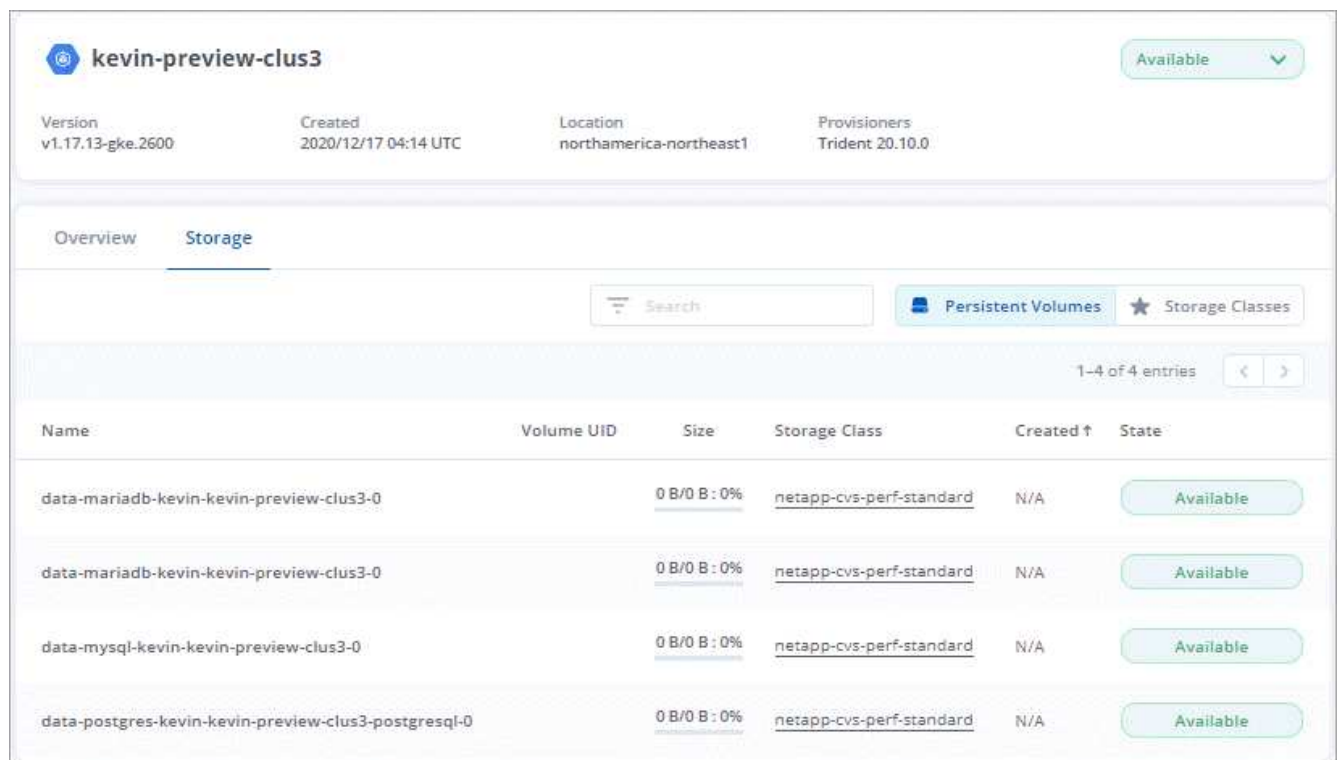
- Billing is now available, which enables you to move from the Free Plan to the Premium Plan. [Learn more about billing.](#)
- Astra Control Service now creates Persistent Volumes with a minimum size of 100 GiB when using the CVS-Performance service type.
- Astra Control Service can now discover apps faster.
- You can now create and delete accounts on your own.
- We've improved notifications when Astra Control Service can no longer access a Kubernetes cluster.

These notifications are important because Astra Control Service can't manage apps for disconnected clusters.

17 Dec 2020 (Beta update)

We primarily focused on bug fixes to improve your experience, but we made a few other notable enhancements:

- When you add your first Kubernetes compute to Astra Control Service, the object store is now created in the geography where the cluster resides.
- Details about persistent volumes is now available when you view storage details at the compute level.



kevin-preview-clus3 Available					
Version v1.17.13-gke.2600	Created 2020/12/17 04:14 UTC	Location northamerica-northeast1	Provisioners Trident 20.10.0		
Overview <u>Storage</u>					
<div>Search</div> <div>Persistent Volumes ★ Storage Classes</div>					
1-4 of 4 entries					
Name	Volume UID	Size	Storage Class	Created ↑	State
data-mariadb-kevin-kevin-preview-clus3-0		0 B/0 B : 0%	netapp-cvs-perf-standard	N/A	Available
data-mariadb-kevin-kevin-preview-clus3-0		0 B/0 B : 0%	netapp-cvs-perf-standard	N/A	Available
data-mysql-kevin-kevin-preview-clus3-0		0 B/0 B : 0%	netapp-cvs-perf-standard	N/A	Available
data-postgres-kevin-kevin-preview-clus3-postgresql-0		0 B/0 B : 0%	netapp-cvs-perf-standard	N/A	Available

- We added an option to restore an application from an existing snapshot or backup.

Overview

Data protection

Storage

Resources

Actions

Configure Protection Policy

Search

Snapshots

Backups

26-29 of 29 entries

<input type="checkbox"/>	Name	Ready	On-Schedule/On-Demand	Created ↑	Actions
<input type="checkbox"/>	ns-postgres-kevin-kevin-preview-clus3-snapshot-20201217103001		On-Schedule	2020/12/17 10:30 UTC	<div>Available </div>
<input type="checkbox"/>	ns-postgres-kevin-kevin-preview-clus3-snapshot-20201217183636		On-Schedule	2020/12/17 18:36 UTC	<div>Backup</div> <div>Restore application</div> <div>Delete snapshot</div> <div>Failed </div>
<input type="checkbox"/>	ns-postgres-kevin-kevin-preview-clus3-snapshot-20201217154314		On-Schedule	2020/12/17 15:43 UTC	

- If you delete a Kubernetes cluster that Astra Control Service is managing, the cluster now shows up in a **Removed** state. You can then remove the cluster from Astra Control Service.
- Account owners can now modify the assigned roles for other users.
- We added a section for billing, which will be enabled when Astra Control Service is released for General Availability (GA).

Known issues

Known issues identify problems that might prevent you from using this release of the product successfully.

The following known issues affect the current release:

- [App clones fail after an application is deployed with a set storage class](#)
- [App clones fail using a specific version of PostgreSQL](#)
- [Backup taken from new snapshot instead of existing snapshot](#)
- [Custom app execution hook scripts time out and cause post-snapshot scripts not to execute](#)
- [Clone performance impacted by large persistent volumes](#)
- [Simultaneous app restore operations in the same namespace can fail](#)
- [Snapshots eventually begin to fail when using external-snapshotter version 4.2.0](#)
- [Unable to stop running app backup](#)

App clones fail after an application is deployed with a set storage class

After an application is deployed with a storage class explicitly set (for example, `helm install ...-set global.storageClass=netapp-cvs-perf-extreme`), subsequent attempts to clone the application require that the target cluster have the originally specified storage class.

Cloning an application with an explicitly set storage class to a cluster that does not have the same storage class will fail. There are no recovery steps in this scenario.

App clones fail using a specific version of PostgreSQL

App clones within the same cluster consistently fail with the Bitnami PostgreSQL 11.5.0 chart. To clone successfully, use an earlier or later version of the chart.

Backup taken from new snapshot instead of existing snapshot

When you create a backup and select **Backup from existing snapshot**, Astra Control creates an ad-hoc snapshot and uses that snapshot to create the backup. Astra Control doesn't use the existing snapshot.

Custom app execution hook scripts time out and cause post-snapshot scripts not to execute

If an execution hook takes longer than 25 minutes to run, the hook will fail, creating an event log entry with a return code of "N/A". Any affected snapshot will timeout and be marked as failed, with a resulting event log entry noting the timeout.

Because execution hooks often reduce or completely disable the functionality of the application they are running against, you should always try to minimize the time your custom execution hooks take to run.

Clone performance impacted by large persistent volumes

Clones of very large and consumed persistent volumes might be intermittently slow, dependent on cluster access to the object store. If the clone is hung and no data has been copied for more than 30 minutes, Astra Control terminates the clone action.

Simultaneous app restore operations in the same namespace can fail

If you try to restore one or more individually managed apps within a namespace simultaneously, the restore operations can fail after a long period of time. As a workaround, restore each app one at a time.

Snapshots eventually begin to fail when using external-snapshotter version 4.2.0

When you use Kubernetes snapshot-controller (also known as external-snapshotter) version 4.2.0 with Kubernetes 1.20 or 1.21, snapshots can eventually begin to fail. To prevent this, use a different [supported version](#) of external-snapshotter, such as version 4.2.1, with Kubernetes versions 1.20 or 1.21.

Unable to stop running app backup

There is no way to stop a running backup. If you need to delete the backup, wait until it has completed and then use the instructions in [Delete backups](#). To delete a failed backup, use the [Astra API](#).

Known limitations

Known limitations identify platforms, devices, or functions that are not supported by this release of the product, or that do not interoperate correctly with it. Review these limitations carefully.

General limitations

The following limitations affect Astra Control Service's management of Kubernetes clusters in any supported Kubernetes deployment.

Unhealthy pods affect app management

If a managed app has pods in an unhealthy state, Astra Control Service can't create new backups and clones.

Astra Trident isn't uninstalled from a cluster

When you unmanage a cluster from Astra Control Service, Astra Trident isn't automatically uninstalled from the cluster. To uninstall Astra Trident, you'll need to [follow these steps in the Astra Trident documentation](#).

Existing connections to a Postgres pod causes failures

When you perform operations on Postgres pods, you shouldn't connect directly within the pod to use the `psql` command. Astra Control Service requires `psql` access to freeze and thaw the databases. If there is a pre-existing connection, the snapshot, backup, or clone will fail.

Limitations for management of GKE clusters

The following limitations apply to the management of Kubernetes clusters in Google Kubernetes Engine (GKE).

One GCP project and one service account are supported

Astra Control Service supports one Google Cloud Platform project and one service account. You should not add more than one service account to Astra Control Service and you shouldn't rotate service account credentials.

Google Marketplace apps haven't been validated

NetApp hasn't validated apps that were deployed from the Google Marketplace. Some users report issues with discovery or back up of Postgres, MariaDB, and MySQL apps that were deployed from the Google Marketplace.

No matter which type of app that you use with Astra Control Service, you should always test the backup and restore workflow yourself to ensure that you can meet your disaster recovery requirements.

Persistent volume limit

You can have up to 100 volumes per Google Cloud region. If you reach this limit, creation of new clones or volumes will fail. [Contact support to increase the volume limit](#).

App management limitations

The following limitations affect Astra Control Service's management of applications.

Clones of apps installed using pass by reference operators can fail

Astra Control supports apps installed with namespace-scoped operators. These operators are generally designed with a "pass-by-value" rather than "pass-by-reference" architecture. The following are some operator apps that follow these patterns:

- [Apache K8ssandra](#)
- [Jenkins CI](#)
- [Percona XtraDB Cluster](#)

Note that Astra Control might not be able to clone an operator that is designed with a "pass-by-reference" architecture (for example, the CockroachDB operator). During these types of cloning operations, the cloned operator attempts to reference Kubernetes secrets from the source operator despite having its own new secret as part of the cloning process. The clone operation might fail because Astra Control is unaware of the

Kubernetes secrets in the source operator.

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