# **■** NetApp

## Release notes

**Astra Control Center** 

NetApp August 10, 2022

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## Release notes

We're pleased to announce the latest release of Astra Control Center.

- · What's in this release of Astra Control Center
- Known issues
- Known issues with Astra Data Store and this Astra Control Center release
- Known limitations

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## What's new in this release of Astra Control Center

We're pleased to announce the latest release of Astra Control Center.

### 10 August 2022 (22.08.0)

#### New features and support

- App replication using NetApp SnapMirror technology
- · Improved app management workflow
- Enhanced provide-your-own execution hooks functionality



The NetApp provided default pre- and post-snapshot execution hooks for specific applications have been removed in this release. If you upgrade to this release and do not provide your own execution hooks for snapshots, Astra Control will take crash-consistent snapshots only. Visit the NetApp Verda GitHub repository for sample execution hook scripts that you can modify to fit your environment.

- Support for VMware Tanzu Kubernetes Grid Integrated Edition (TKGI)
- Support for Google Anthos
- LDAP configuration (via Astra Control API)

#### Known issues and limitations

- · Known issues for this release
- · Known issues with Astra Data Store and this Astra Control Center release
- · Known limitations for this release

### 26 April 2022 (22.04.0)

#### **Details**

#### **New features and support**

- Astra Data Store deployment from Astra Control Center
- Namespace role-based access control (RBAC)
- Support for Cloud Volumes ONTAP
- · Generic ingress enablement for Astra Control Center
- Bucket removal from Astra Control
- Support for VMware Tanzu Portfolio

#### Known issues and limitations

- · Known issues for this release
- Known issues with Astra Data Store and this Astra Control Center release
- · Known limitations for this release

### 14 December 2021 (21.12)

#### **Details**

#### New features and support

- · Application restore
- Execution hooks
- Support for applications deployed with namespace-scoped operators
- · Additional support for upstream Kubernetes and Rancher
- · Astra Data Store preview backend management and monitoring
- · Astra Control Center upgrades
- · Red Hat OperatorHub option for installation

#### Resolved issues

· Resolved issues for this release

#### **Known issues and limitations**

- · Known issues for this release
- · Known issues with Astra Data Store preview and this Astra Control Center release
- · Known limitations for this release

## 5 August 2021 (21.08)

#### **Details**

Initial release of Astra Control Center.

- · What it is
- · Understand architecture and components
- · What it takes to get started
- Install and setup
- · Manage and protect apps
- Manage buckets and storage backends
- · Manage accounts
- Automate with API

#### Find more information

- · Known issues for this release
- · Known limitations for this release
- Astra Data Store documentation
- Earlier versions of Astra Control Center documentation

## **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:

#### **Apps**

- Restore of an app results in PV size larger than original PV
- App clones fail using a specific version of PostgreSQL
- App clones fail when using Service Account level OCP Security Context Constraints (SCC)
- · App clones fail after an application is deployed with a set storage class
- App backups and snapshots fail if the volumesnapshotclass is added after a cluster is managed

#### **Clusters**

 Managing a cluster with Astra Control Center fails when default kubeconfig file contains more than one context

#### Other issues

- App data management operations fail with Internal Service Error (500) when Astra Trident is offline
- Snapshots might fail with snapshot controller version 4.2.0

## Restore of an app results in PV size larger than original PV

If you resize a persistent volume after creating a backup and then restore from that backup, the persistent volume size will match the new size of the PV instead of using the size of the backup.

#### 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.

## App clones fail when using Service Account level OCP Security Context Constraints (SCC)

An application clone might fail if the original security context constraints are configured at the service account level within the namespace on the OpenShift Container Platform cluster. When the application clone fails, it appears in the Managed Applications area in Astra Control Center with status Removed. See the knowledgebase article for more information.

## App backups and snapshots fail if the volumesnapshotclass is added after a cluster is managed

Backups and snapshots fail with a UI 500 error in this scenario. As a workaround, refresh the app list.

#### 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.

## Managing a cluster with Astra Control Center fails when default kubeconfig file contains more than one context

You cannot use a kubeconfig with more than one cluster and context in it. See the knowledgebase article for more information.

## App data management operations fail with Internal Service Error (500) when Astra Trident is offline

If Astra Trident on an app cluster goes offline (and is brought back online) and 500 internal service errors are encountered when attempting app data management, restart all of the Kubernetes nodes in the app cluster to restore functionality.

## Snapshots might fail with snapshot controller 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.

- 1. Run a POST call to add an updated kubeconfig file to the /credentials endpoint and retrieve the assigned id from the response body.
- 2. Run a PUT call from the /clusters endpoint using the appropriate cluster ID and set the credentialID to the id value from the previous step.

After you complete these steps, the credential associated with the cluster is updated and the cluster should reconnect and update its state to available.

#### Find more information

- Known issues with Astra Data Store preview and this Astra Control Center release
- Known limitations

#### Known issues with Astra Data Store and this Astra Control Center release

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

See these additional Astra Data Store known issues that might affect the management of Astra Data Store with the current release of the Astra Control Center.

#### Astra Data Store volume details do not appear in Storage Backends page of the Astra Control Center UI

Details such as capacity and throughput do not appear in the UI. When this issue occurs, unmanage the storage backend and add it back again.

#### Unmanaging a cluster with Astra Data Store requires first removing a managed system app

If you added a cluster that contains Astra Data Store to an Astra Control Center cluster, the astrads-system app is managed by default as a hidden application. To unmanage the cluster, you must first unmanage the astrads-system app. You cannot unmanage this type of app using the Astra Control Center UI. Instead, use an Astra Control API request to manually remove the app:

#### **Steps**

1. Get the ID for the managed cluster using this API:

```
/accounts/{account_id}/topology/v1/managedClusters
```

#### Response:

```
"items": [
{
  "type": "application/astra-managedCluster",
  "version": "1.1",
  "id": "123ab987-0bc0-00d0-a00a-1234567abd8d",
  "name": "astrads-cluster-1234567",
  ...
```

2. Get the managed astrads-system app ID:

```
/accounts/{account_id}/topology/v2/managedClusters/{managedCluster_i
d}/apps
```

#### Response:

```
"items": [
    "lb011d11-bb88-40c7-a1a1-ab1234c123d3",
        "astrads-system",
        "ready"
    ]
],
"metadata": {}
```

3. Delete the astrads-system app using the app ID you acquired in the previous step (1b011d11-bb88-40c7-a1a1-ab1234c123d3).

```
/accounts/{account_id}/k8s/v2/apps/{astrads-system_app_id}
```

#### Find more information

- Known issues
- Known limitations

## **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.

#### **Cluster management limitations**

- The same cluster cannot be managed by two Astra Control Center instances
- · Astra Control Center cannot manage two identically named clusters

#### Role-based Access Control (RBAC) limitations

- · A user with namespace RBAC constraints can add and unmanage a cluster
- A member with namespace constraints cannot access the cloned or restored apps until admin adds the namespace to the constraint

#### App management limitations

- · Clones of apps installed using pass-by-reference operators can fail
- In-place restore operations of apps that use a certificate manager are not supported
- OLM-enabled and cluster-scoped operator deployed apps not supported
- · Apps deployed with Helm 2 are not supported

#### **General limitations**

- · S3 buckets in Astra Control Center do not report available capacity
- · Astra Control Center does not validate the details you enter for your proxy server
- · Existing connections to a Postgres pod causes failures
- · Backups and snapshots might not be retained during removal of an Astra Control Center instance

### The same cluster cannot be managed by two Astra Control Center instances

If you want to manage a cluster on another Astra Control Center instance, you should first unmanage the cluster from the instance on which it is managed before you manage it on another instance. After you remove the cluster from management, verify that the cluster is unmanaged by executing this command:

```
oc get pods n -netapp-monitoring
```

There should be no pods running in that namespace or the namespace should not exist. If either of those are true, the cluster is unmanaged.

#### Astra Control Center cannot manage two identically named clusters

If you try to add a cluster with the same name of a cluster that already exists, the operation will fail. This issue most often occurs in a standard Kubernetes environment if you have not changed the cluster name default in Kubernetes configuration files.

As a workaround, do the following:

1. Edit your kubeadm-config ConfigMap:

```
kubectl edit configmaps -n kube-system kubeadm-config
```

- 2. Change the clusterName field value from kubernetes (the Kubernetes default name) to a unique custom name.
- 3. Edit kubeconfig (.kube/config).
- 4. Update cluster name from kubernetes to a unique custom name (xyz-cluster is used in the examples below). Make the update in both clusters and contexts sections as shown in this example:

```
apiVersion: v1
clusters:
    cluster:
    certificate-authority-data:
    ExAmpLerb2tCcjZ5K3E2Njk4eQotLexAMpLeorCBDrvJusuZJQ0Furs0txxxxXX==
        server: https://x.x.x.x:6443
    name: xyz-cluster
contexts:
    context:
    cluster: xyz-cluster
    namespace: default
    user: kubernetes-admin
    name: kubernetes-admin@kubernetes
current-context: kubernetes-admin@kubernetes
```

## A user with namespace RBAC constraints can add and unmanage a cluster

A user with namespace RBAC constraints should not be allowed to add or unmanage clusters. Due to a current limitation, Astra does not prevent such users from unmanaging clusters.

### A member with namespace constraints cannot access the cloned or restored apps until admin adds the namespace to the constraint

Any member user with RBAC constraints by namespace name/ID can clone or restore an app to a new namespace on the same cluster or to any other cluster in their organization's account. However, the same user cannot access the cloned or restored app in the new namespace. After a new namespace is created by a clone or restore operation, the account admin/owner can edit the member user account and update role constraints for the affected user to grant access to the new namespace.

## 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



For K8ssandra, in-place restore operations are supported. A restore operation to a new namespace or cluster requires that the original instance of the application to be taken down. This is to ensure that the peer group information carried over does not lead to cross-instance communication. Cloning of the app is not supported.

- Jenkins CI
- Percona XtraDB Cluster

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.

## In-place restore operations of apps that use a certificate manager are not supported

This release of Astra Control Center does not support in-place restore of apps with certificate managers. Restore operations to a different namespace and clone operations are supported.

#### OLM-enabled and cluster-scoped operator deployed apps not supported

Astra Control Center does not support application management activities with cluster-scoped operators.

### Apps deployed with Helm 2 are not supported

If you use Helm to deploy apps, Astra Control Center requires Helm version 3. Managing and cloning apps deployed with Helm 3 (or upgraded from Helm 2 to Helm 3) is fully supported. For more information, see Astra Control Center requirements.

## S3 buckets in Astra Control Center do not report available capacity

Before backing up or cloning apps managed by Astra Control Center, check bucket information in the ONTAP or StorageGRID management system.

### Astra Control Center does not validate the details you enter for your proxy server

Ensure that you enter the correct values when establishing a connection.

## 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 requires psql access to freeze and thaw the databases. If there is a pre-existing connection, the snapshot, backup, or clone will fail.

## Backups and snapshots might not be retained during removal of an Astra Control Center instance

If you have an evaluation license, be sure you store your account ID to avoid data loss in the event of Astra Control Center failure if you are not sending ASUPs.

## Find more information

- Known issues
- Known issues with Astra Data Store and this Astra Control Center release

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