



Get started

Kubernetes clusters

NetApp
June 10, 2024

Table of Contents

- Get started 1
- Kubernetes data management in BlueXP 1
- Get started with Kubernetes clusters 2

Get started

Kubernetes data management in BlueXP

Astra Trident is a fully-supported open source project maintained by NetApp. Astra Trident integrates natively with Kubernetes and its Persistent Volume framework to seamlessly provision and manage volumes from systems running any combination of NetApp storage platforms. [Learn more about Trident.](#)

Features

Using [BlueXP](#) and a compatible version of Astra Trident deployed using the Trident operator, you can:

- Add and manage Kubernetes clusters
- [Install, upgrade, or uninstall Astra Trident](#)
- [Add and remove storage classes](#)
- [View persistent volumes](#)
- [Remove Kubernetes clusters](#) from the workspace
- [Activate or view BlueXP backup and recovery](#)

Supported Kubernetes deployments

BlueXP supports managed-Kubernetes clusters running in:

- [Amazon Elastic Kubernetes Service \(Amazon EKS\)](#)
- [Microsoft Azure Kubernetes Service \(AKS\)](#)
- [Google Kubernetes Engine \(GKE\)](#)

Supported Astra Trident deployments

One of the four most recent versions of Astra Trident [deployed using the Trident operator](#) is required.



Astra Trident deployed using `tridentctl` is not supported. If you deployed Astra Trident using `tridentctl`, you cannot use BlueXP to manage your Kubernetes clusters. You must [uninstall using `tridentctl`](#) and reinstall [using the Trident operator](#) or [using BlueXP](#).

You can install Astra Trident or upgrade to a supported version directly from BlueXP.

[Review Astra Trident prerequisites](#)

Supported backend storage

NetApp Astra Trident must be installed on each Kubernetes cluster and Cloud Volumes ONTAP or Amazon FSx for ONTAP must be configured as backend storage for the clusters.

Cost

There are no charges to *discover* your Kubernetes clusters in BlueXP, but you will be charged when you back up persistent volumes using Cloud Backup Service.

Get started with Kubernetes clusters

Using [BlueXP](#) you can start managing Kubernetes clusters in just a few steps.

1

Review prerequisites

Ensure your environment meets the prerequisites for your cluster type.

[Requirements for Kubernetes clusters in AWS](#)

[Requirements for Kubernetes clusters in Azure](#)

[Requirements for Kubernetes clusters in Google Cloud](#)

2

Add your Kubernetes clusters to BlueXP

You can add Kubernetes clusters and connect them to a Working Environment using BlueXP.

[Add an Amazon Kubernetes cluster](#)

[Add an Azure Kubernetes cluster](#)

[Add a Google Cloud Kubernetes cluster](#)

3

Start provisioning Persistent Volumes

Request and manage Persistent Volumes using native Kubernetes interfaces and constructs. BlueXP creates NFS and iSCSI storage classes that you can use when provisioning Persistent Volumes.

[Learn more about provisioning your first volume with Astra Trident.](#)

4

Manage your clusters using BlueXP

After adding Kubernetes clusters to BlueXP, you can manage the clusters from the BlueXP resource page.

[Learn how to manage Kubernetes clusters.](#)

Copyright information

Copyright © 2024 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.