



Intro to Project Astra

Project Astra

Ben Cammett, Erika Barcott
September 28, 2020

This PDF was generated from <https://docs.netapp.com/us-en/project-astra/get-started/intro.html> on September 29, 2020. Always check docs.netapp.com for the latest.



Table of Contents

- Intro to Project Astra 1
 - Features 1
 - Supported Kubernetes clusters 1
 - How Project Astra works 1

Intro to Project Astra

Project 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 Project 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

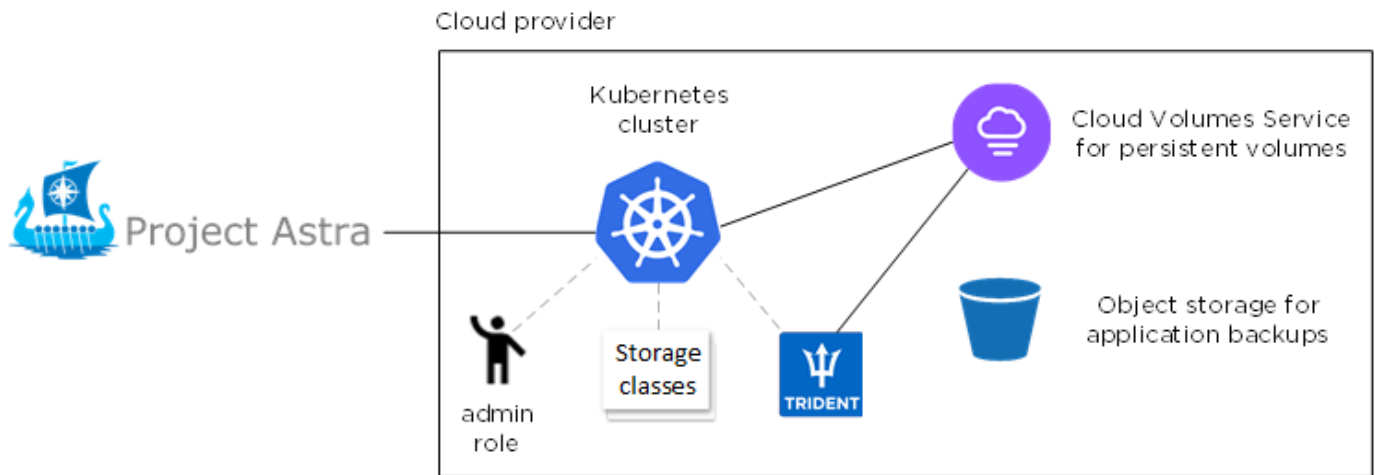
Project Astra can manage data for Google Kubernetes Engine (GKE) clusters.

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

[Learn more about cluster requirements.](#)

How Project Astra works

Project 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, Project Astra works like this:

- You set up your cloud provider.
- You add your first Kubernetes cluster to Project Astra. Project 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.

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

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

Copyright Information

Copyright © 2020 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

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.