

# **Arrow ECS Finland Oy - Education Services**

# **TRAINING OFFERING**

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# **■ NetApp** Using Astra Trident with Kubernetes

CODE: LENGTH: PRICE:

NEP UATWK 16 Hours (2 days) €2,040.00

## **Description**

Learn how to install, configure, and use NetApp® Astra Trident to manage Kubernetes with NetApp ONTAP® based storage systems. Deploy Astra Trident by using the Trident operator and use the tridentctl and kubectl methods to manage configurations. Configure NFS-backed, iSCSI-backed, and NVMe over TCP (NVMe/TCP) backed storage by using Astra Trident. Also, manage Snapshot copies, expand volumes, and import non-Astra Trident volumes to become managed volumes.

Written for Kubernetes v1.29 and Astra Trident 24.02, this course includes an appendix on how to monitor Astra Trident by using Prometheus and Grafana.

## **Objectives**

- · Review how containers use persistent storage
- Describe the storage concepts that are available in Kubernetes
- Explain how Astra Trident makes managing persistent storage easier
- Install Astra Trident in a Kubernetes cluster
- · Configure back ends, storage classes, and persistent volumes to use storage that is managed by Astra Trident
- Use Astra Trident to manage frequently seen use scenarios
- · Monitor Astra Trident by using Prometheus and Grafana

#### **Audience**

- Systems Administrators
- Architects
- Integration Engineers

#### **Prerequisites**

Basic Linux Administration Skills

Cloud Native Computing Foundation exams

#### **Programme**

Astra Trident details

- Persistent storage in Kubernetes
- · Container storage
- · Kubernetes storage concepts

Module 1:Kubernetes Storage Overview • Dynamic provisioning with Astra Trident Module 2: Installation

- · Configure back ends
- Manage storage classes
- Astra Trident installation Module 3:Configuration Create persistent volumes by using Astra Trident
  - · Manage Snapshot copies with Astra Trident
  - Expand volumes by using Astra Trident
  - Import volumes by using Astra Trident

Module 4:Usage Scenarios • Manage multiple-zone storage by using Astra Trident Appendix 1: Kubernetes Certifications

- · Design patterns for extending Kubernetes
- Operators
- NetApp Kubernetes-related exams Appendix 2:Introduction to operators Example operator implementation
  - Available options for monitoring Astra Trident

Appendix 3: Astra Trident Monitoring • Monitor Astra Trident with Prometheus

Appendix 4: GitsOps introduction

- GitOps definition
- GitOps benefits
- Set up Argo CD Appendix 5: Astra provisioning security
- Discuss customer challenges to secure a Kubernetes environment using ONTAP and Astra provisioning
- Examine how to secure an SVM
- Explain how to secure the NFS workloads
- Describe how to secure the iSCSI workloads

### **Session Dates**

Date	Location	Time Zone	Language	Туре	Guaranteed	PRICE
13 Jan 2025	Virtual Classroom (GMT / UTC)		English	Instructor Led Online		€2,040.00
07 Apr 2025	Virtual Classroom (GMT / UTC)		English	Instructor Led Online		€2,040.00
26 Aug 2025	Virtual Classroom (GMT / UTC)		English	Instructor Led Online		€2,040.00
13 Oct 2025	Virtual Classroom (GMT / UTC)		English	Instructor Led Online		€2,040.00
15 Dec 2025	Virtual Classroom (GMT / UTC)		English	Instructor Led Online		€2,040.00

# **Additional Information**

This training is also available as onsite training. Please contact us to find out more.