



Enterprise Computing Solutions - Education Services

## TRAINING OFFERING

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# Using Astra Trident with Kubernetes

CODE:	LENGTH:	PRICE:
NEP_UATWK	16 Hours (2 days)	€1,900.00

## 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 kubectrl 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

## Programme

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

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

- Astra Trident details
- Astra Trident installation
- Configure back ends
- Manage storage classes
- 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**

- Cloud Native Computing Foundation exams
- NetApp Kubernetes-related exams
- Design patterns for extending Kubernetes
- Operators
- 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	Type	Guaranteed	PRICE
09 Dec 2024	Virtual Classroom (CET / UTC +1)	CET	English	Classroom		€1,900.00
13 Jan 2025	Virtual Classroom (GMT / UTC)	GMT	English	Instructor Led Online		€1,900.00
07 Apr 2025	Virtual Classroom (GMT / UTC)	BST	English	Instructor Led Online		€1,900.00
26 Aug 2025	Virtual Classroom (GMT / UTC)	BST	English	Instructor Led Online		€1,900.00
13 Oct 2025	Virtual Classroom (GMT / UTC)	BST	English	Instructor Led Online		€1,900.00
15 Dec 2025	Virtual Classroom (GMT / UTC)	GMT	English	Instructor Led Online		€1,900.00

## Additional Information

This training is also available as onsite training. [Please contact us to find out more.](#)