Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

Arrow ECS, Woluwedal 30, 1932 Sint-Stevens-Woluwe

Email: education.ecs.benelux@arrow.com
Phone: +32 2 332 19 57

Using NetApp Trident with Kubernetes

CODE:	LENGTH:	PRICE:
NEP_UATWK	24 Hours (3 days)	€3,000.00

Description

Learn how to install, configure, and use NetApp® Trident to manage Kubernetes with NetApp ONTAP® based storage systems. Deploy Trident by using the Trident operator and then use the tridentctl and kubectl methods to manage configurations. Configure NFS-backed, iSCSI-backed, NAS economy-backed, and NVMe over TCP (NVMe/TCP) backed storage. Manage Volume and VolumeGroup Snapshot copies, expand volumes, and import non
NetApp Trident volumes to become managed volumes. Install and configure Trident protect to protect Kubernetes applications by using snapshots and backups. Restore snapshots and backups in place and to new namespaces. Protect applications across clusters by using cloning and SnapMirror asynchronous technology. Finally, manage and protect KubeVirt virtual machines (VMs) using Trident and Trident Protect.

Written for Kubernetes v1.35, NetApp Trident, and NetApp Trident protect 26.02, this course includes appendixes on Kubernetes certifications, operator design patterns to extend Kubernetes, and a GitOps introduction.

Objectives

This course focuses on enabling you to do the following:

- Describe Kubernetes storage concepts
- Explain how Trident makes managing persistent storage easier, and install Trident in a Kubernetes cluster
- Configure back ends, storage classes, and persistent volumes to use storage that Trident manages
- Use Trident to manage common scenarios
- Install and use Trident protect to protect Kubernetes applications
- Protect across clusters by cloning and mirroring applications
- Monitor Trident by using Prometheus and Grafana
- Investigate security options to ensure a secure Kubernetes environment
- Explore how to run virtual machines in Kubernetes

Audience

Role
Systems administrator, architect, and integration engineer

Prerequisites

Basic Linux administration skills

Programme

This course includes the following modules, lessons, and exercises:

Module 1: Kubernetes storage

Lessons
- Persistent storage in Kubernetes
- Container storage
- Kubernetes storage concepts
- Static provisioning
- Dynamic provisioning

Exercise
Working with Kubernetes storage volumes

Module 2: Trident installation

Lessons
• NetApp Trident details
• NetApp Trident installation
Exercise
Installing NetApp Trident

Module 3: Configuration

Lessons
• Configure back ends
• Manage storage classes
• Create persistent volumes by using NetApp Trident
• Custom naming conventions
Exercise
Working with NetApp Trident

Module 4: Usage scenarios

Lessons
• Manage Snapshot copies
• Expand volumes
• Import volumes
• Manage multiple-zone storage
• Consumption and performance control
• Cross-namespace volume access
Exercise
Managing storage using NetApp Trident

Module 5: Protection

Lessons
• Trident protect installation
• Application protection
• Application restoration
• Tridentctl-protect

Exercise
Protecting Trident workloads

Module 6: Business continuity

Lessons
• Use cases
• Restoring an app to a new cluster
• Application mirroring
• MetroCluster support
Exercise
Protecting Trident workloads across clusters

Module 7: Monitoring

Lessons
• Available options for monitoring NetApp Trident
• Monitor with Prometheus and Grafana
Exercise
Monitoring NetApp Trident

Module 8: Security

Lessons
• SVM hardening
• NFS hardening
• iSCSI hardening

Module 9: Virtualization in Kubernetes

Lessons
• Installation
• Using VMs in Kubernetes
• Storage considerations
• Data protection
Exercise
Managing KubeVirt

Module 10: Next steps

Appendix 1: Kubernetes certifications
Lessons
• Cloud Native Computing Foundation exams
• NetApp Kubernetes-related exams

Appendix 2: Introduction to operators
Lessons
• Design patterns for extending Kubernetes
• Operators
• Example operator implementation

Appendix 3: GitOps introduction
Lessons
• GitOps definition
• Benefits of GitOps
• Set up Argo CD

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
22 Feb 2027	Virtual Classroom (CET / UTC +1)	CET	English	Instructor Led Online		€3,000.00
17 May 2027	Virtual Classroom (CET / UTC +1)	CEDT	English	Instructor Led Online		€3,000.00
02 Aug 2027	Virtual Classroom (CET / UTC +1)	CEDT	English	Instructor Led Online		€3,000.00
22 Nov 2027	Virtual Classroom (CET / UTC +1)	CET	English	Instructor Led Online		€3,000.00

Additional Information

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