



Enterprise Computing Solutions - Education Services

## OFERTA FORMATIVA

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### Detalles de contacto

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<b>CÓDIGO:</b>	<b>DURACIÓN:</b>	<b>Precio:</b>
NEP_OT-HW-TS	24 Hours (3 días)	€2,850.00

## Description

Discover the tools and techniques of NetApp® ONTAP® hardware analysis and troubleshooting. Learn to triage and gather the right data for all hardware cases, to work 60% to completion with no help, and to properly frame and get assistance to resolve the remaining 40%.

## Objetivos

This course focuses on enabling you to do the following:

- Troubleshoot system controllers, power supplies, fans, and add-in cards
- Troubleshoot storage shelf issues
- Troubleshoot disk failures
- Identify high availability issues
- Analyze RAID issues
- Identify troubleshooting tools

## Público

- Support Engineer
- Implementation Engineer
- Professional Services Engineer

## Requisitos Previos

- Technical Support Engineer New Hire OnRamp Program
- Three months of experience taking support calls
- FAS, AFF, and ASA web-based training

## Programa

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

### Module 1: Storage controller

#### Lessons

- System categories
- Storage controller components
- System memory
- Fans, PSUs, and LEDs
- SP and BMC
- Model-specific I/O expansion
- Add-on cards
- HA interconnect

#### Exercises

Discovering storage controller attributes

### Module 2: Storage

Lessons

- Storage shelves
- Shelf components
- Shelf cables
- Disk drives and IOMs
- Shelf cabling
- Shelf protocols
- Logs

Exercises

Documenting system cabling

### **Module 3: Disks**

Lessons

- Disk types
- Disk interfaces
- Encryption
- Disk ownership
- Common disk issues and error recovery
- Maintenance Center

Exercises

Managing a disk

### **Module 4: RAID**

Lessons

- ONTAP RAID types
- RAID reconstruction
- Drive spares
- ADP
- RAID labels
- RAID and media scrubbing
- ASA r2

Exercises

Recovering RAID

### **Module 5: High availability**

Lessons

- NVRAM mirroring
- Mailbox disks
- Failover and giveback
- Disk ownership
- Nonmaskable Interrupts and hardware panics

Exercises

Performing takeover and giveback

### **Module 6: Cluster high availability**

Lessons

- Quorum and replicated databases
- Cluster high availability
- Epsilon
- Cluster switches and network connectivity
- Switch vendor support

Exercises

Investigating cluster connectivity issues

### **Module 7: Firmware**

Lessons

- Automatic System Manager firmware updates
- Disk firmware upgrades
- IOM firmware upgrades
- SP and BMC firmware
- BIOS upgrades and issues
- Add-on PCIe card firmware upgrades

Exercises

Performing firmware validation

### Module 8: AutoSupport

Lessons

- AutoSupport
- Automatically created cases

Exercises

Uploading AutoSupport messages manually

### Module 9: Tools

Lessons

- Fix It
- Dexter
- Active IQ
- Hardware Universe and IMT
- Net2

Exercises

Using support tools

Using Net2

## Más información

### Fechas Programadas

Fecha	Localización	Zona horaria	Idioma	Modalidad de impartición	Impartición garantizada	Precio
01 Sep 2026	Virtual Classroom	CEDT	English	Classroom		€2,850.00
04 Nov 2026	Virtual Classroom	CET	English	Classroom		€2,850.00

### Información Adicional

[Esta formación también está disponible en modalidad presencial. Por favor contáctenos para más información.](#)