

ONTAP Hardware Troubleshooting – Partners Only

Duration: 3 Days Course Code: NEP_OT-HW-TS

Overview:

English - Please note this course is only available in English.

Nederlands - Let op: deze training is alleen in het Engels beschikbaar.

Français - Veuillez noter que ce cours est uniquement disponible en anglais.

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%.

Target Audience:

Support Engineer Implementation Engineer Professional Services Engineer

Objectives:

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

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

Module 1: Storage controller	<ul style="list-style-type: none">• Maintenance Center	Exercises
Lessons	Exercises	Investigating cluster connectivity issues
<ul style="list-style-type: none">• System categories	Managing a disk	Module 7: Firmware
<ul style="list-style-type: none">• Storage controller components	Module 4: RAID	Lessons
<ul style="list-style-type: none">• System memory	Lessons	<ul style="list-style-type: none">• Automatic System Manager firmware updates
<ul style="list-style-type: none">• Fans, PSUs, and LEDs	<ul style="list-style-type: none">• ONTAP RAID types	<ul style="list-style-type: none">• Disk firmware upgrades
<ul style="list-style-type: none">• SP and BMC	<ul style="list-style-type: none">• RAID reconstruction	<ul style="list-style-type: none">• IOM firmware upgrades
<ul style="list-style-type: none">• Model-specific I/O expansion	<ul style="list-style-type: none">• Drive spares	<ul style="list-style-type: none">• SP and BMC firmware
<ul style="list-style-type: none">• Add-on cards	<ul style="list-style-type: none">• ADP	<ul style="list-style-type: none">• BIOS upgrades and issues
<ul style="list-style-type: none">• HA interconnect	<ul style="list-style-type: none">• RAID labels	<ul style="list-style-type: none">• Add-on PCIe card firmware upgrades
Exercises	<ul style="list-style-type: none">• RAID and media scrubbing	Exercises
Discovering storage controller attributes	<ul style="list-style-type: none">• ASA r2	Performing firmware validation
Module 2: Storage	Exercises	Module 8: AutoSupport
Lessons	Recovering RAID	Lessons
<ul style="list-style-type: none">• Storage shelves	Module 5: High availability	<ul style="list-style-type: none">• AutoSupport
<ul style="list-style-type: none">• Shelf components	Lessons	<ul style="list-style-type: none">• Automatically created cases
<ul style="list-style-type: none">• Shelf cables	<ul style="list-style-type: none">• NVRAM mirroring	Exercises
<ul style="list-style-type: none">• Disk drives and IOMs	<ul style="list-style-type: none">• Mailbox disks	Uploading AutoSupport messages manually
<ul style="list-style-type: none">• Shelf cabling	<ul style="list-style-type: none">• Failover and giveback	Module 9: Tools
<ul style="list-style-type: none">• Shelf protocols	<ul style="list-style-type: none">• Disk ownership	Lessons
<ul style="list-style-type: none">• Logs	<ul style="list-style-type: none">• Nonmaskable Interrupts and hardware panics	<ul style="list-style-type: none">• Fix It

Exercises	Exercises	• Dexter
Documenting system cabling	Performing takeover and giveback	• Active IQ
Module 3: Disks	Module 6: Cluster high availability	• Hardware Universe and IMT
Lessons	Lessons	• Net2
• Disk types	• Quorum and replicated databases	Exercises
• Disk interfaces	• Cluster high availability	Using support tools
• Encryption	• Epsilon	Using Net2
• Disk ownership	• Cluster switches and network connectivity	
• Common disk issues and error recovery	• Switch vendor support	

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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www.globalknowledge.com/en-be/