

# Storage System Recovery Troubleshooting (NA- SSR)

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## Course Description

The Storage System Recovery and Troubleshooting class is focused on advanced and in-depth topics regarding offline storage systems. Where previous classes in the new hire OnRamp program covered ONTAP diagnostic commands; this class covers what the commands are doing in the background. This deeper understanding will enable TSEs to form action plans based on feedback from the offline system, rather than following a pre-written template. The class is intended to provide to students the knowledge to resolve the majority of unavailable systems without escalation

## Course Duration

4 days.

## Prerequisites

- ONTAP Cluster Administration
- ONTAP Hardware Component Troubleshooting and Analysis
- ONTAP Software and Configuration Troubleshooting and Analysis

## Objectives

This course focuses on enabling you to do the following:

- Explain the ONTAP boot process and common boot issues
- Describe the features of the special boot menu
- Demonstrate the steps required to perform an ONTAP upgrade and reversion
- Explain how to diagnose storage controller problems
- Describe how to upload core files
- Explain the volume recovery process
- Discuss disk and shelf errors

## Course Outlines

- The boot process
  - Explain the boot processs
  - Get started with troubleshooting
  - Troubleshoot boot issues
- Troubleshooting multiple disk failures
  - Troubleshoot systems with multiple failed disks

- ONTAP upgrades and reverts
  - Review ONTAP upgrade types
  - Examine ONTAP reversion rules
  - Discuss firmware updates
- Storage controller problems
  - Define basic terms in hardware faults
  - Explain error and recovery flow types
  - Identify logs that are used for troubleshooting
  - Describe methods of analyzing data
- Performing triage for a failure
  - Investigate problem determination
  - Examine AutoSupport files
  - Manage core files
  - Discuss log files
  - Explore aggregate and volume management
  - Discuss takeover and giveback
- Troubleshooting storage issues
  - Identify disk and media errors
  - Describe how RAID manages disk errors
  - Locate and use SCSI codes

## Who Should Attend

- Administrator, engineer, architect, operator
- Sales, customer success manager, solutions engineer (SE), architect, support engineer, implementation engineer, professional services