

## ***ST233c-EN ONTAP Troubleshooting***

**Kurzbeschreibung:**

Analyse and identify Hardware- and Configuration issues

**Zielgruppe:**

Experience NetApp Partner employees

**Voraussetzungen:**

NCDA certification and several years of ONTAP experience is absolutely necessary.

**Sonstiges:**

**Dauer:** 5 Tage

**Preis:** 4700 Euro plus Mwst.

**Ziele:**

In this workshop the students learn methods to analyse hard- and software problems and how to use tools to check the system configuration.

## Inhalte/Agenda:

- - ◆ ONTAP Troubleshooting
    - ◆ Clustershell Tipps and Tricks
    - ◆ Systemshell and FreeBSD
    - ◆ Kernel modules and Cluster Services
    - ◆ Essential Processes and Watchdog Daemon
    - ◆ Replicated Databases, Epsilon and Quorum
    - ◆ Configuration Databases
    - ◆ Job Manager and Scheduling
    - ◆ SK (simple kernel)
    - ◆ Logs and Traces
  - ◆ Network Troubleshooting
    - ◆ Ports (physical, IFGRP, VLAN)
    - ◆ LIFs (Backend and Frontend)
    - ◆ IPspaces, Broadcast Domains and Failover Groups
    - ◆ Firewall policies
    - ◆ Multitenancy with DNS, AD, NIS and LDAP
    - ◆ Cluster Interconnect and Cluster Session Manager (CSM)
  - ◆ Troubleshooting of NAS protocols:
    - ◆ SecD, Authentication and Usermapping (multiprotocol)
    - ◆ important Caches
    - ◆ NFS Services and configuration
    - ◆ NFS Filehandles
    - ◆ CIFS Services and configuration
    - ◆ User permissions
    - ◆ sectrace
  - ◆ Troubleshooting of SAN protocols:
    - ◆ MPIO and ALUA
    - ◆ Selective LUN mapping
    - ◆ bcomd and other Internals
    - ◆ Logs and Traces