

## ***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