

NetApp-Trainings

Additional values at qSkills



NetApp-Trainings: Additional values at qSkills

ST200c | ONTAP 9.x Admin Basics

- » Physical hardware AFF A220
- » Optimal learning technique for beginners
- » Theory & practice in a balanced ratio
- » Optimised use of Netapp hardware & simulators
- » Many practical exercises

ST201c | ONTAP ASA r2 Admin inkl. Brocade™, Migration & HA

- » Comprehensive Introduction to SAN Fundamentals
- » Theoretical and practical training in the administration of Brocade FC switches (32/64/128 Gb) and FOS 9.x/10.x
- » Theoretical and practical implementation of data migration from third-party storage to NetApp ASA using Foreign LUN Import, VMware Storage VMotion, and Linux LVM
- » Disaster recovery with SnapMirror Active Sync: theory and practice
- » Detailed explanation of connecting VMware, Linux, and Windows servers to NetApp storage using FCP, FC-NVMe, iSCSI, and NVMe/TCP, including hands-on exercises.

ST217c | ONTAP 9.x - NAS Advanced incl. Troubleshooting

- » Discussing of the protocols CIFS and NFS as powerful analysis tools
- » Consideration of the operating systems Unix and Windows
- » File system specifics and user management
- » Additional important commands for troubleshooting and performance analysis
- » Time for many questions and exercises

ST220 | ONTAP Security and Ransomware Protection Administration

- » Implementation of a secure jump host - hardened access point with IPSEC and HSTS
- » Multi-factor authentication - U2F, TOTP, Windows Smart Card, public-key authentication, SP firewall with 2FA
- » Multi-Admin Verification - dual-control principle for critical administrative actions
- » Just-in-Time (JIT) Privilege Elevation - temporary, on-demand assignment of privileges without permanent admin rights
- » Tamper-Proof Snapshots - tamper-proof snapshots as ransomware protection
- » Data Encryption - SED, VE, volume-level encryption including automatic SSL certificate rotation via Let's Encrypt

ST221c | ONTAP 9.x Data Protection Administration

- » Detailed treatment of MetroCluster
- » Conducting MetroCluster exercises on physical hardware (both FC and IP)
- » Test different scenarios
- » Many practical exercises

ST230c | Performance Administration on Clustered Data ONTAP

- » No recourse to simulators and one separate node per participant
- » Handling of real IO loads for predictions
- » Consideration of the entire environment incl. network and client analysis
- » Practical exercises regarding physical limits and configuration errors with real effects
- » Many practical examples incl. checklists

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ST260c | NetApp SAN Implementation incl. Brocade

- » Detailed treatment of SAN with Brocade
- » Setup of a storage area network incl. connecting servers
- » Integration with VMware
- » Practical exercises with physical hardware (GEN8, GEN7, GEN6)

ST290 | StorageGRID Installation and Administration

- » Physical StorageGRID hardware (4x SG5712 and 1x SG100)
- » Practical exercises regarding installation, extension, upgrade, patching
- » Integration and practical application of a fabric pool
- » Setup a fabric pool with physical hardware systems
- » Additional recovery exercises

ST269c | ONTAP 9.x Automation with Ansible and Python

- » Focus on automation with Ansible
- » Various graphical frontends of Ansible with their strengths and weaknesses
- » Empowerment to increase efficiency, reduce error sources, administration in inventory
- » Always the latest updates, features and bug fixes
- » Tips for switching from WFA to Ansible

ST294 | Using NetApp Trident with Kubernetes

- » Complete configuration of multiple Kubernetes clusters from Scratch
- » SAN economy and NAS economy storage classes (lab and theory)
- » Use of the latest versions of Kubernetes, Astra Control, Astra Trident and Data Science Toolkit
- » Lab on Astra Control and Metrocluster IP / Longhorn
- » Astra Control DR
- » Troubleshooting
- » Lab on the setup of Ontap Select

ST274c | MetroCluster Administration

- » Physical hardware (AFF A220 and BES switches) including physical cabling
- » Implementing, updating and migration of a MetroCluster IP
- » Practical exercises on Mediator and ClusterLion (troubleshooting)
- » Performance tests (WAN simulator, range test)
- » Reconstruction after a complete site loss
- » 8-node MCIP LAB

ST295c | Integrated Hybrid Clouds with AWS, Azure and Google

- » ONTAP Select
- » Fully meshed network between AWS, Azure, GCP and onprem
- » Practical exercises for cloud products in different clouds incl. HA
- » One physical ESX server per participant
- » Performance tests
- » Active Directory connection for CVS, FSx ONTAP, CVO

Further Trainings: Additional values at qSkills

ST101 | Brocade FOS 9.x /10.x Admin Basics

- » Short Demo SANnav 3.0.1
- » Server connection to SAN environment (Windows, VMware, Linux)
- » Latest hardware (Gen8: 128 Gb and Gen7: 64 Gb)
- » Latest software (FOS 9.x/10.x)
- » Application with NetApp Storage

BR418 | Veeam Backup & Replication v13 incl. Storage Integration

- » Overview of the advantages of storage snapshots for backups
- » Backup & restore of vSphere VMs and shares of NetApp volumes
- » Combination of NetApp replication & Veeam backup
- » Connection to Veeam

ST104 | Brocade FOS 9.x / 10.x Admin Advanced

- » Troubleshooting is a key topic
- » Detailed information on FC-NVMe with practical exercises
- » Demo on MAPS configuration and Flow Vision with SANnav
- » Exercises with SANnav on MAPS and Flow Vision
- » Latest hardware (Gen8: 128 Gb and Gen7: 64 Gb)
- » Latest software (FOS 9.x/10.x) and SANnav 3.0.1
- » Application with NetApp Storage

BR516 | Commvault® V11 Applic. & VM Backup incl. Storage Integration

- » Covering advanced Commvault configuration parameters and features beyond the basic courses
- » Detailed consideration and best practice exercises on the recovery options of the agents covered
- » Practical exercises on IntelliSnap integration and replication (using NetApp as an example)
- » Practical exercises on VMware backup/restore with NetApp snapshot functions

ST108 | SANnav 3.0.x Installation and Administration

- » Installation of SANnav and practical exercise
- » Each participant has their own practice environment!
- » Detailed treatment of almost all menus and masks of SANnav with practical exercises
- » Latest hardware (Gen8: 128 Gb and Gen7: 64 Gb)
- » Latest software (FOS 9.x/10.x) and SANnav 3.0.1
- » Application with NetApp Storage

VI220 | Proxmox VE 9 - Migration including storage & backup

- » Physical lab environment (Zen 3, 192 cores, 1.5 TB RAM, 48 TB NVMe, 10 Gbit/s Internet connection, dual stack, Arista switch)
- » Practical exercises on all topics
- » Migration from Physics, Hyper-V and VMware to Proxmox
- » Physical NetApp AFF A220 storage
- » Setup of a highly available NFS storage with DRBD

Hands-On Trainings: Additional values at qSkills

