



Panasas Global Services: Technical Education

PanFS System Administration Certification

This instructor-led course delivers an introduction to the PanFS® parallel file system, the operating environment for the Panasas ActiveStor® storage appliance. It provides the Systems Administrator or IT team member with the knowledge to configure and maintain a Panasas ActiveStor system. Topics covered include the ActiveStor hardware, the PanFS storage operating system, and the DirectFlow® protocol. Students will gain a firm understanding of the configuration, operation, maintenance, and diagnosis of basic software and hardware alerts related to the Panasas suite of products.

The redundant and field-replaceable components of the Panasas hardware solution are discussed and reinforced with lab exercises. Object-based file system theory, software upgrades, and configuration scenarios will also be covered. The instructor will focus on the fundamentals of the PanFS storage operating system, the DirectFlow client access software for Linux®, the Panasas storage virtualization model, and the PanActive® Manager GUI and PanCLI™ interfaces. Students will be introduced to the Panasas storage system features and learn how to configure them to obtain optimal redundancy and performance.

Upon successful completion of this course, the student will earn certification as a *Panasas System Administrator*.

Panasas Web Course Details	
Course Title	PanFS System Administration Certification
Course Number	EDU-SYSADMIN-WEB
Delivery Method	Instructor-led
Location	Online
Content	Training book, hands-on labs
Duration	Nine half-days
Price	Included with a Platinum or Gold Support Agreement
Min. Students per Class	4
Max. Students per Class	9
Class Frequency	3 times per year

Prerequisites

All attendees must have a basic understanding of:

- General IP networking
- Disk storage concepts
- File system usage
- Interfacing with UNIX® and/or Linux®

All half-days build upon each other except the ninth day, which builds on half-days 1-5.

Equipment

Each student participates in hands-on lab exercises using Panasas equipment with a Panasas-supplied VPN client. Students are required to have a computer with network capability and an ssh client installed (such as PuTTY)

Target Audience

- Storage Administrators
- Storage Network Engineers
- Storage Specialists
- Data Center Operators

Instructor-Led Training

Courses are taught via the Internet through a web-conferencing platform. In addition, we offer training at customer sites, provided specific accommodations are made for equipment and facilities. Regardless of location, all training classes are facilitated by Panasas personnel with diverse, hands-on technical backgrounds. Panasas equipment is used with course content directly developed by the Panasas Global Services team.

Student Cancellation Policy

Individual training registrants cancelling a scheduled class should notify Panasas of the cancellation as soon as possible. Registration may be transferred to another student, provided the student possesses adequate knowledge of the prerequisite course material.

Customer Site Training Session Cancellation

Customers can cancel or reschedule customer site training without penalty up to 14 calendar days prior to the course start date. Full charges will apply if a cancellation is made fewer than 14 calendar days prior to the course start date.

Course Cancellation Policy By Panasas

Panasas requires a minimum of four students per class for online training. We reserve the right to change course schedules, modify course content, or cancel a class when necessary. If we elect to cancel a class, we will make every effort to notify all registrants a minimum of 14 days prior to the scheduled start date.

Prerequisites

Students are responsible for complying with all prerequisite material. Students who demonstrate a gap in the prerequisite knowledge may be requested to limit questions during class time as to not impede the overall progress of the class.

Class Participation

Attendance is the responsibility of the registrant. In order to successfully complete a course, 100% attendance is required. If a registrant fails to appear for a scheduled class, or fails to complete the entire course, certification is not guaranteed.

Certification

Successful completion of the Panasas System Administrator course ensures that your staff has been trained on daily system operation, configuration, and maintenance. Students who attend all presentation material, pass the final exam, and complete all practical application exercises are awarded a certificate of completion by Panasas Global Services.

Confirmation

Panasas will send you a confirmation letter upon registration. We recommend that you save it for the class to confirm class attendance eligibility.

Contact

To learn more about the training programs and options available, email us at training@panasas.com.

Modules Included

Half Day 1

- PanFS Overview
- ActiveStor Ultra Storage
- ActiveStor Director
- PanActive Manager GUI

Half Day 2

- OOBE Configuration/GUI Lab
- Realm Managers
- Repset Configuration Lab
- Network connectivity
- Networking Lab

Half Day 3

- Object-based RAID
- Adding Enclosures
- Adding Enclosures Lab
- Bladesets
- Bladesets Lab
- Volumes
- Volumes Lab

Half Day 4

- DirectFlow Client
- DirectFlow Ports
- DirectFlow Lab
- PanCLI
- PanCLI Lab

Half Day 5

- Adaptive Small Component Acceleration
- ASCA Lab
- Snapshots
- Snapshots Lab
- Volume Services
- Volume Services Lab

Half Day 6

- System Monitoring
- System Monitoring Lab
- Troubleshooting Nodes
- Troubleshooting Nodes Lab
- OSD Drain
- Drain Lab
- Self-Encrypting Drives for Ultra Storage

Half Day 7

- Reconstruction
- Reconstruction Lab
- Replacing Hardware
- Replacing Hardware Lab
- Capacity Balancing

Half Day 8

- Volumes Quotas / Available Space
- Quotas / Space Lab
- Upgrading PanFS OS
- Upgrade Lab
- Shutting Down the Realm
- Shutting Down the Realm Lab
- Working with Technical Support

Half Day 9

- NFS Client
- DirectFlow and NFS Exports
- CIFS
- Name Resolution
- User Quotas
- NFS / CIFS / Names Quotas Lab

Appendix

- Alfa ActiveStor Hardware
- Alfa Network Connectivity
- External Network Connectivity

Exam