



Advanced Storage Engineer Training and Certification

The Panasas® Advanced Storage Engineer Certification course builds upon the knowledge gained in the System Administration Training and Certification Course, which is a prerequisite for this course. Its curriculum covers advanced troubleshooting and system management. Upon successful completion of this course, the Certified Advanced Storage Engineer will function as the subject matter expert for Panasas ActiveStor within their organization and be able to solve most problems that occur. Emphasis is placed on a deeper understanding of object-based

storage concepts and theory. File and object layout is discussed in further detail so that performance optimizations and trade-offs can be considered. Next, blade set and volume layout is addressed as it relates to overall file-system performance. Additionally, advanced troubleshooting techniques are explored, as well as, details on how to collect client/gateway tracing. Finally, Panasas high availability software features are detailed to include implementation and troubleshooting.

MODULES INCLUDED

- Blade Set and Volume Performance Considerations
- FSRC/Reconstruction Considerations
- File/Object Layouts
- PanFSTM Parallel File System Processes
- PanFS Parallel File System Tracing
- Advanced NFS Troubleshooting
- High Availability Features, Configuration and Planning
- DNS Delegation and Load Balancing
- SNMP
- PanFS Parallel File System Application Toolkit
- Hands-On Troubleshooting Scenarios
- Log File Analysis

PREREQUISITES

- Successful completion of Panasas System Administration Training and Certification

All attendees must have a basic understanding of:

- General IP Networking
- Disk RAID concepts
- Familiarity of NFS and/or file-system usage
- Experience interfacing with UNIX® and/or Linux®

EQUIPMENT

Each student is partnered with two or three other individuals to participate in hands-on lab exercises using Panasas equipment.

TARGET AUDIENCE

- Storage Network Engineers
- Storage Specialists
- Storage Administrators and/or Data Center Operators

INSTRUCTOR LED TRAINING

Courses are taught at Panasas' facilities in Pittsburgh, PA, and Sunnyvale, CA. In addition, we offer training at the customer's office 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.

Please email: training@panasas.com to learn more about the training programs and options available.

STUDENT CANCELLATION POLICY

Individual training registrants cancelling a scheduled class at a Panasas facility have the option to register for another class or receive a full refund, provided Panasas is notified at least 14 calendar days before the course start date. Any cancellation made within two weeks of the scheduled class start date will be charged the full training course fee. Registration may be transferred to another student provided they possess adequate knowledge of the prerequisite course material.

CANCELLATION FOR CUSTOMER SITE TRAINING SESSIONS

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 cancellation is made fewer than 14 calendar days before the course start date.

COURSE CANCELLATION POLICY BY PANASAS

Panasas requires a minimum of four students per class for training delivered at a Panasas facility. 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. Panasas is not responsible for airline or hotel penalties incurred because of canceled courses.

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 so 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, the full course fee is charged and 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 bring it to class to confirm class attendance eligibility.

Panasas On-Site Course Details

Course Title:	Panasas Advanced Storage Engineer Training and Certification
Course Number:	SVC-EDU-200-PAN
Delivery Method:	Instructor-Led
Location:	Panasas offices in either Pittsburgh, PA, or Sunnyvale, CA
Content:	Training book, hands-on labs, technical papers
Duration:	Four days
Price:	Email: training@panasas.com for quote
Format:	2-3 Students per System (Panasas Supplied Equipment)
Min. Students per Class:	4
Max. Students per Class:	10
Class Frequency:	Once every 3-4 months

Customer On-Site Course Details

Course Title:	Panasas Advanced Storage Engineer Training and Certification
Course Number:	SVC-EDU-200-CUST
Delivery Method:	Instructor-Led
Location:	Customer Site
Content:	Training book, hands-on labs, technical papers
Duration:	Four days
Price:	Email: training@panasas.com for quote
Format:	2-3 Students per System (Panasas Supplied Equipment)
Min. Students per Class:	1
Max. Students per Class:	12
Class Frequency:	As Required
Requirements:	Customer to supply Panasas shelves and clients
Panasas supplied equipment:	Available for an additional fee