

Advanced Education

Evaluator Group Advanced Education for Storage Professionals Presents
Storage Infrastructure**Benefits**

IT professionals today are faced with many challenges as a result of the recent, explosive growth of data. The problems of data consolidation, backup and recovery, storage growth and administration have mandated the need for storage networking.

Understanding storage infrastructures is the focus of this seminar. The strategies of implementing storage networks including the technologies in storage area networks (SAN) and network-attached storage (NAS) with the critical requirements of storage management are the major themes of this class. Delving into open systems storage, this class stays on the "leading edge" of technology, arming students with knowledge for today with an eye on the future.

Audience

This class presents topologies, implementations, design methodologies and the technologies used in storage infrastructures with information that is immediately useful for storage professionals, including developers, engineers, administrators, management staffs, marketing personnel and others who are seeking an in-depth understanding of storage networking. An objective analysis of vendor products, approaches and futures are discussed. Enrollment is limited to encourage questions and interaction.

Instructors

Randy Kerns, Partner and Analyst
Dennis Martin, Analyst
Greg Schulz, Analyst
Evangeline Simones, Analyst

Objectives

- ☑ Understand the business challenges in the storage of data, including managing growth, making data accessible, containing the costs involved while maintaining a competitive advantage
- ☑ Understand what storage infrastructures are and what they mean to an IT professional and learn about the latest technologies used
- ☑ Learn the different types of storage technologies and be able to recognize the various targeted market segments in which they are used
- ☑ Discover the truth behind the promises of emerging technologies
- ☑ Understand the technology used in storage infrastructures via comprehensive coverage of NAS, SAN, NAS gateways, IP-based storage, interfaces and protocols
- ☑ Learn how various vendors are helping manage storage efficiently through products targeted at device management, virtualization, SAN management, storage resource management, management frameworks, and application and policy management
- ☑ Get a clear analysis of the future of storage networking
- ☑ Become aware of current storage offerings in the industry
- ☑ Learn how to adopt the fundamentals of storage networking and storage management into a successful storage strategy
- ☑ Understand the adoption and deployment methodologies of a storage infrastructure
- ☑ Find out how security is evolving and how you can protect your infrastructure
- ☑ Understand the missions of various industry organizations

Agenda

Day 1

Introduction to Storage Infrastructures
Requirements in Storage Infrastructures
Technology used in Storage Networking including Virtualization, Data Protection and SAN Distance Extension

Day 2

Comparison of Major Vendor Products
Infrastructure Considerations including Security, Performance and Management
Storage Status, Futures and Implementation Recommendations

Description

- **Requirements for storage infrastructures:** The basic considerations in understanding the importance of storage infrastructures and the problems being addressed are examined. Block, file, object-based, raw and tape I/O, types of solutions including DAS, SAN, NAS and IP-based storage and developing technologies are explored. The organization of storage is also described.
- **Technology:** This is an in-depth analysis of the technologies involved in storage infrastructures. The underlying interfaces and protocols will be explained along with detailed information for consideration in interoperability. Storage devices and their target markets will be covered. Technology and components used in SAN, NAS, object-based storage, storage grids and global namespaces will be examined. The importance of understanding the fundamentals of the technology and terminology are discussed. Topics presented:
 - Open Systems
 - Interfaces (SCSI, Parallel SCSI, Serial Attached SCSI, ATA/IDE, fibre channel, Ethernet, InfiniBand)
 - Protocols (SCSI, TCP, UDP, IP, RDMA, VI, DAFS, iSCSI)
 - Storage Devices (Cache-centric, Distributed, Clustered Distributed, Open Platform, disk, tape)
 - SAN Technology (Switches, hubs, routers, gateways, HBAs, connectors, storage, software)
 - NAS Technology (NFS, CIFS, DAFS, NAS/SAN Coexistence and Convergence)
- **Storage Management:** Storage Management software is the primary driver of storage strategies. We will present the Evaluator Group "Storage Management Stack," examining the need for an integrated management approach to storage. Each layer of the storage management stack will be discussed, including the general functions provided by each layer, and the various vendor solutions. Topics presented:
 - Device Management
 - Virtualization
 - Data Protection, Security and Performance Issues
 - Distance Extension
 - Storage Network and Storage Resource Management
 - Management Frameworks
 - Application and Policy Management
- **Vendor Offerings:** Storage industry vendors and their offerings are explained in detail with evaluations by Evaluator Group analysts.
- **Workbooks:** EGI's custom workbooks developed to aid in the decision-making process of a storage solution are presented.
- **Industry Organizations:** Industry organizations that have some bearing on storage networks are discussed with contact information and membership information. The purposes of the organizations are illustrated.
- **Status, Futures and Recommendations:** The status of storage networking will be objectively examined and the differing market environments discussed. The current status of storage networks and the future developments are discussed. SAN design suggestions, tiered storage access suggestions, data protection and security recommendations and infrastructure technology acquisitions suggestions are presented.