Information Storage – Strategies and Solutions

Training Overview

What You'll Learn:

Information is the currency of business, research, and other knowledge-based industries. Storing, accessing, and protecting information is critical for organizations and Information Technology professionals are tasked with delivering strategies and solutions. This course will cover the problems and solutions for information storage, explaining the technology employed and the different systems available. The primary initiatives of optimizing IT and changing to a services delivery model are the top-level sections along with solutions for information storage and management. From this course, solutions using storage technologies implemented in products with their architectures, features, benefits, and issues will be explored with a goal of understanding a strategy to deal with information demands.

Who Should Attend:

- Information Technology Professionals – exposure to latest technologies and solutions
- Organization-wide teams – responsible for planning, managing, and utilizing information infrastructures
- Business Executives – responsible for business operations, strategy and direction
- Individuals – seeking to learn more about information storage

"It takes incredible effort to tailor education that hits home for end users, manufacturers, distributors and resellers in the same training session, and Evaluator Group has figured it out! "
–Reseller Attendee

"By far the most informative and comprehensive course led by professionals. I can't fully describe how much I enjoyed the class. Thanks,"
– Vendor Attendee

"Incredible amount of great information about the storage field covered in 3 days. WOW! Unexpected amount of learning "
–End User Attendee

Instructors

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Details

Join us:

March 5-7, 2018
Hotel Boulderado
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Section 1: Information Storage – Demands and Evolution

The industry demands for storing information are explored along with the challenges those demands create. There are demands to transform IT into more of a services delivery model. Meanwhile, the traditional IT environment must continue to maintain operations while optimizing the investments in technology meet ongoing needs. The competing initiatives of optimization of IT and transforming to a services delivery model will be laid out for understanding.

Services Delivery

Section 2: Transforming IT – Optimizing IT, Private/Hybrid Clouds and IT as a Service

In addition to meeting demands in current data center environments, additional deployments of private and hybrid clouds to achieve IT as a Service (ITaas) characteristics are underway to deliver services in an on-demand manner. The motivations, rational, and methods for private/hybrid clouds are important to understand when creating and implementing a strategy for information storage. Deployment of private/hybrid clouds is a parallel activity to optimizing IT operations to address current and ongoing demands.

For enterprises planning to deploy private and hybrid clouds, there are many different products available and different approaches to deliver services with use of both public and private clouds. The different options and their characteristics can be confusing with an overwhelming amount of information available. There are also solutions that are more complete where they delivered as pre-packaged (in-a-box) products with installation and support. The offerings and the value are discussed in this section.

Section 3: Data Center Infrastructure – Integrating Solutions

Different storage technology elements are being integrated to provide solutions for storing and protecting information. Driven by improving the time to deployment, these integrations provide alternatives to the more traditional storage systems available and can be building blocks for cloud environments. This section will examine the different types of integrations including definitions of characteristics and the vendor product offerings. Virtual SANs and clustered storage are included in these discussions.

- Hyper-Converged Systems
- Open Storage Platform
- Integrated / Converged Systems

Optimizing IT

Section 4: Information Storage Technologies

Developing a strategy for employing solutions for Information Storage requires an understanding of underlying storage technologies. This section will delve into the technologies to create a common level of understanding for employing solutions. Included in this technology explanation are:

- Data access methodology
- Storage systems architectures
- Storage Virtualization
- Storage networking technologies including NVMe and RDMA over fabrics
- Data reduction technologies – deduplication and compression
- Error correction
- Copy Data Management
- Storage for Containers

Section 5: Enterprise Data Management

There are many different points for management of information. This section will explain what those management elements are and how they related. Managing information encompasses the tools to do function such as Storage Resource Management (SRM) but also Data Protection, which includes not only the mechanisms to protect and make data available but the recovery of data in case of failures. Part of the overall Enterprise Data Management is about moving data to different types of storage (at different cost at performance characteristics) based on the business value of data. Archiving the term commonly used to describe moving data that has become inactive over time. Covered in Enterprise Data Management will be:

- Data protection and recovery
- Business continuity solutions
- Replication
- Snapshots
- Tiering to cloud / object storage
- Archiving
- Storage Resource Management solutions

Section 6: Solid State Storage – Technology

The use of solid-state technology for storage, predominantly Flash, is an inflection point in the industry. Dramatic changes in the economics of systems in acceleration to achieve more value from the overall environment has changed the evaluation in storage selection. This section will explain the technology and the new developments underway that will continue to change the storage landscape. Methods of deployment and evolving data center usage are useful in creating new strategies.

Section 7: Block Storage – Implementation and Systems

Accessing stored information from block devices, whether SAN or direct attached is the most basic method employed by storage systems. The different block storage systems offered for enterprises are described with architectures and capabilities along with Evaluator Group's opinion of strengths and weaknesses. Covered in this section are the Evaluator Group analysis representing the strengths and challenging areas for:

- All flash storage systems
- Hybrid and spinning disk systems

Section 8: Network Attached Systems – File Access

File access to information on shared storage is primarily through Network Attached Storage systems. The approaches for NAS and Evaluator Group analysis representing the strengths and challenging areas for NAS systems are covered in this session.

Section 9: Object Storage Systems

Scaling to large capacities for use as content repositories or online archives is the primary target for object storage systems. Object storage with Ethernet interfaces and support for S3, Swift, and custom protocols are used for both on-premises systems and as systems in cloud environments. The differing implementations for object storage systems are covered in this section along with the Evaluator Group analysis representing the strengths and challenging areas for the vendor Object Storage Systems.

Section 10: High Performance Computing in the Enterprise

Analyzing large amounts of data in near real-time to arrive at new insights has become very popular with the abundance of newly captured data, much of it from machine to machine. A new discipline has arose from this with massive amounts of storage and processors used by data scientists. Areas such as marketing and sales have been the most visible proponents but many others exist. This section will explain the use of High Performance Computing in the Enterprise and how this has become a business critical operation. The storage implications are massive with new approaches including parallel file systems. Goals of the HPC in the Enterprise are faster decisions through Machine Learning (ML) and Artificial Intelligence (AI). This section will introduce the technologies, methods, and systems that must be understood as HPC becomes ever more present in IT environments.