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SESSION CATALOG

# NetApp Insight 2009

Phoenix, Arizona



**WELCOME TO INSIGHT 2009**

Welcome to Insight 2009! This Catalog represents a listing and description of sessions occurring during the Insight event. Sessions are listed in order by track. Sessions within the tracks are differentiated by technical level and target audience. Additional information on the different tracks, technical level and target audience are listed below.

While reviewing the Catalog take a moment to view the Topic Index. If you have an interest in a particular subject or product, chances are it will be listed in the index which will assist you in selecting the sessions you would like to attend. In addition the registration system will automatically pick your sessions based on your criteria or you can manually edit pieces and select the sessions you would like to attend. We do recommend registering for the sessions prior to your arrival to insure the availability of your preferences.

**TRACKS**

The sessions are organized primarily by track in technical level order.

- Competition (CO)
- Database & Business Applications (DB)
- Data Protection (DP)
- Engineering Applications & File Services (EA)
- Manageability (MA)
- Messaging & Collaboration (MC)
- Storage Infrastructure & Optimization (SI)
- Tools (TO)
- Virtualization & Cloud (VC)

**TECHNICAL LEVEL**

Refers to the technical depth of submitted session. These levels are described below:

Level	Description	Examples
Introduction	Provides an overview of the key information/concepts needed to follow a conversation on the topic and to understand why these concepts are important.	<ul style="list-style-type: none"> <li>• What is server virtualization</li> <li>• Comparing blocks vs. file protocols</li> </ul>
Basic / Core	Enables someone new to the topic to accomplish some of the basic tasks (for the most common situations, in a low-pressure environment)	<ul style="list-style-type: none"> <li>• Enabling deduplication in a lab</li> <li>• Learning to narrate canned demos</li> <li>• Explaining the basic feature/benefits of a product</li> </ul>
Becoming Specialist	Enables an individual to handle common tasks in realistic situations.	<ul style="list-style-type: none"> <li>• Implementing VMware on NetApp (including alignment, migration issues)</li> <li>• Delivering a detailed technical pitch (including handling objections)</li> <li>• Demonstrating the solution’s impact on a specific customer’s business (including monetary benefits a CXO would appreciate)</li> </ul>

Becoming Expert	Enables an individual to handle known but highly specialized and/or complicated tasks. Should have prerequisites.	<ul style="list-style-type: none"> <li>• Designing and implementing an HA Oracle database solution (including the design and operating procedures for back-up and disaster recovery)</li> <li>• Troubleshooting performance problems in an Exchange</li> <li>• Best practices in architecting a multi-application solution on a shared storage infrastructure</li> </ul>
Expert	Provides an opportunity to explore cutting edge developments. Invitation / or prerequisites required.	<ul style="list-style-type: none"> <li>• Strategies for using the ZAPI interface to create custom NetApp integration into customers' cloud environment</li> </ul>

**TARGET AUDIENCE (CUSTOMER LIFE CYCLE)**

The target audience can be defined as where the attendee is engaged with a customer during the Customer Life Cycle. Since roles can vary depending on job function and experience we are recommending the use of the criteria below to target the appropriate audience.

After each session listing in the catalog there is a box containing one of two symbols indicating the Target Audience of the session. The full circle indicates the primary audience focus of the content (●= Focus Area). The outlined circle references a secondary audience focus of the content (◉=Secondary Focus Area).

In the example below this session is targeting a delegate in a pre-sales role with some knowledge of architecting and implementing. If it had only a full circle in Implementing and full or half in the Operations/Troubleshooting section the content would be directed to a delegate where they perform a post-sales role.

The registration system will also indicate target audience as either being a focus are or no focus area (there is no outlined circle). For additional information on each of the four target audience areas see the descriptions below.

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	◉	◉	

Target Audience	Criteria
Technical Solution Selling	<ul style="list-style-type: none"> <li>● Understanding the market and common use cases</li> <li>● Understanding the customers' needs and environment</li> <li>● Explaining the basic feature/benefits of a solution</li> <li>● Running demos</li> <li>● Contrasting with the competition</li> <li>● Creating a proposal</li> <li>● Developing a business case</li> </ul>
Architecting	<ul style="list-style-type: none"> <li>● Defining the customer's need / acceptance criteria</li> <li>● Creating a high-level design</li> <li>● Understanding design trade-offs / utilizing best practices</li> <li>● Sizing for capacity and performance needs</li> <li>● Running "Proof of Concepts"</li> <li>● Documenting the solution / deliverables</li> </ul>
Implementing	<ul style="list-style-type: none"> <li>● Planning an implementation</li> <li>● Learning installation and operation procedures</li> <li>● Integrating a solution into the customers environment</li> <li>● Handling data migration / solution cut-over</li> <li>● Validating the implementation</li> <li>● Developing procedures (run books) / training operators</li> <li>● Documenting the implementation</li> </ul>
Operations / Troubleshooting	<ul style="list-style-type: none"> <li>● Theory of operation / detailed understanding of how things work</li> <li>● Monitoring a solution's operation</li> <li>● Detecting / prediction issues</li> <li>● Debugging feature / function issues</li> <li>● Handling performance / sizing issues</li> </ul>

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**COMPETITION**

**CO-110 Competing in the Cloud**

"Cloud computing" has quickly moved into the spotlight and become a topic of interest for many customers. NetApp has a unique proposition with compelling value for both private and public clouds. How does NetApp stack up against the competition in the area of cloud computing? This session explores the cloud strategies of NetApp competitors and demonstrates NetApp advantages through comparison and contrast.

**Presented by:** Alex McDonald, Sonya Sexton


**Takeaways:**

- Understand NetApp competitive advantages delivering Cloud solutions
- Ability to compete and win against our primary competitors
- Know who NetApp's primary Cloud competitors are and how to defeat them

**Technical Level:** 2

**Duration:** 1

**Session Times Offered:**

Tue 8:15 AM   
 Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○		

**COMPETITION**

**CO-111 Scale-Out Storage Architectures: Why Does NetApp Stand Above the Competition?**

As the storage industry moves toward advanced virtualized infrastructures, scale-out cluster storage has advanced from a novel, “bleeding-edge” concept to strategic, essential technology while T-B players have struggled to achieve profitability with early scale-out concepts, where is the competition today and how does NetApp Data ONTAP® {8.x} stack up? This session explores scale-out offerings of the more successful Tier-B competitors and looks at scale-out strategies of major NetApp competitors. It also provides a comparative view of Data ONTAP 8.x and explores key competitive advantages of NetApp scale-out solutions.

**Presented by:** Oliver Walsdorf

**Takeaways:**

- Know who NetApp primary competitors are and how to position against them to win
- Understand NetApp and our competitors strategy and tactics
- Know NetApp's competitive advantages

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 4:15 PM  
Wed 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**COMPETITION**

**CO-113 Back to Basics: Winning Against Top NetApp Competitors**

It seems just when you figure out how to win against “the big three” NetApp competitors EMC, HP and Dell--the situation changes. New products, acquisitions, and offensives are always a competitive reality. This session hits the reset button on big-three competition including updates on competitive strengths and challenges provides a fresh look at NetApp competitive advantages and offers guidance on how to effectively position NetApp in the latest competitive environment.

**Presented by:** Sonya Sexton, Lee Razo

**Takeaways:**

- Understand NetApp's competitive advantages to compete effectively
- Knowledge of competitors strategy and tactics when competing against NetApp

**Technical Level:** 2      **Duration:** 2      **Session Times Offered:** Tue 1:30 PM   
Wed 1:30 PM  
Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**DATA PROTECTION**

**DP-102 Consistency Groups Across Volumes and Storage Systems and Their Impact on Replication**

In this session, we will explore the use of consistency groups (CG), including how to create crash-consistent Snapshot copies across volumes in a storage system and across multiple storage systems. We will also discuss implications for recovery, and how to replicate CG Snapshot copies for DR and backup.

**Presented by:** Srinath Alapati, Antonio Jose Rodrigues Neto

**Takeaways:**

- How to use consistency groups in DR setting
- How to create crash consistent snapshot copies across volumes
- How to replicate consistency group snapshots for DR & Backup

**Technical Level:** 5      **Duration:** 1      **Session Times Offered:** [Wed 11:00 AM](#)  
[Wed 1:30 PM](#)

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

**DATA PROTECTION**

**DP-106 Demystifying SnapMirror Performance**

SnapMirror throughput is often an intriguing topic for SE, PSE and for customers. This session demystifies the subject of SnapMirror throughput by clearly identifying the various causes of throughput bottlenecks and provides suggestions for improving throughput. We will also discuss why SnapMirror doesn't take advantage of network bandwidth, how storage system bottlenecks impact SnapMirror throughput, and how window size affects SnapMirror throughput. This session also covers advanced topics such as SnapMirror network compression, and is useful for anyone who is having or has had replication throughput issues in customer environments.

**Presented by:** Srinath Alapati, Chris Blackwood

**Takeaways:**

- Solid understanding of our SnapMirror performance best practices
- Understanding of performance bottlenecks
- understanding of how to address performance problems in a snapmirror deployment

**Technical Level:** 5      **Duration:** 1      **Session Times Offered:** Tue 4:15 PM  
Wed 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●	●	●

**DATA PROTECTION**

**DP-107 Designing and Deploying a Large-Scale Remote Site Backup and DR Solution**

This is a very technical session on architecting and deploying a remote-site backup and DR solution. It covers topics all the way from gathering data from customers and whiteboarding solutions to deploying solutions with best practices in mind. With an increasing number of large scale remote-site solutions being deployed in recent months, the purpose of this session is education more personnel in the field about the complexities of these solutions.

**Presented by:** Chris Blackwood, Jeremy Merrill

**Takeaways:**

- Be able to architect an appropriate remote site backup solution
- Understand the implications of a poor design/deployment in backup solution
- Have the tools to successfully design and deploy OSSV solution with confidence

**Technical Level:** 4      **Duration:** 2      **Session Times Offered:** Tue 8:15 AM  
Wed 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	○	●	○

**DATA PROTECTION**

**DP-109 MetroCluster: A Deep-Dive into HA and DR**

This session takes an in-depth at MetroCluster architecture, including common use-cases and deployment scenarios, VMware and Oracle configurations, and configs using other replication protocols. Will will cover various MetroCluster topics including V-series and MetroCluster, Virtualization and MetroCluster, and long-distance availability with MetroCluster. We will also discuss best practices, do's and dont's, "gotchas", and other common issues that might be encountered.

**Presented by:** Jim Lanson

**Takeaways:**

- Deeper understanding of components of Metrocluster deployment
- Common troubleshooting techniques for Metrocluster environments
- How to implement Metrocluster with apps such as VMware or Oracle.

**Technical Level:** 4      **Duration:** 2      **Session Times Offered:** Tue 8:15 AM  
Wed 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	●

**DATA PROTECTION**

**DP-111 Thin Provisioning Behaviors and Best Practices in SnapMirror/SnapVault Environments**

This session provides implementation-level information about thin provisioning (auto\_grow, fractional\_reserve, and space guarantees ) on SnapMirror source and destination systems. It covers how fractional\_reserve and space guarantees are affected on SnapMirrored and Snap/Vault volumes and how auto\_grow impacts SnapMirror and SnapVault. It also covers what happens when a volume automatically grows and the SnapMirror and SnapVault destination volumes run out of space and how customers can prevent SnapMirror and SnapVault update failures in these scenarios, as well as best practices for provisioning SnapMirror and SnapVault destination storage if you have auto\_grow enabled.

**Presented by:** Srinath Alapati, Jeremy LeBlanc

**Takeaways:**

- Understanding of how thin provisioning affects Snapmirror/SnapVault environments
- Understanding of impact of running snapmirror with thin provisioning
- Detailed operational level understanding of how to implement this solution

**Technical Level:** 4

**Duration:** 1

**Session Times Offered:**

Tue 8:15 AM  
Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
		●	●

**DATA PROTECTION**

**DP-112 Troubleshooting and Tuning your DP Solution**

This session looks at tuning DP solutions for a customers specific environment. It identifies the parameters that can be modified for efficiency, including bandwidth efficiency and space efficiency. It also includes best practices for deploying an optimal DP solution in any environment and specific issues to look out for.

**Presented by:** Jeremy Merrill, Chris Blackwood

**Takeaways:**

- Ability to Troubleshoot various problems with Data Protection
- Ability to tune a Data Protection Environment
- Ability to manage and monitor the DP environment

**Technical Level:** 4

**Duration:** 2

**Session Times Offered:**

Wed 8:15 AM  
Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	○	○	●

**DATA PROTECTION**

**DP-129 Selling the NetApp VTL**

This session provides an overview of the key benefits and features of the NetApp VTL, including typical implementation use cases. It also includes information about how to develop a solution from start to finish, -from determining a customers need, to developing and proposing solutions, including tips on how to demonstrate the VTL and its primary features and leveraging a customers investment in a tape backup solution to extend the life of their investment and address the shortcomings of working with physical tape.

**Presented by:** Piyush Agarwal

**Takeaways:**

- Understanding of VTL features
- Knowledge of how to propose a solution
- Details of use cases and how to demo the VTL

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Wed 1:30 AM  
 Thur 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**DATA PROTECTION**

**DP-131 SnapMirror Compression: What, How, and When**

SnapMirror network compression is GA for volume SnapMirror in Data ONTAP 7.3.2. In this session, we will explore the technical details of what SnapMirror compression is, how it works, and when to use it. We will also provide sizing guidelines and best practices that address the overhead of enabling compression, including network savings that can be achieved using compression, and how you can lower your customers RPO by enabling compression. We will also discuss compression limitations for each platform.

**Presented by:** Srinath Alapati

**Takeaways:**

- Utilize Customer WAN link effectively
- Reduce data transfer time used for replication
- Simplification

**Technical Level:** 5      **Duration:** 1      **Session Times Offered:** Tue 9:30 AM  
 Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**DATA PROTECTION**

**DP-200 Arkivio: File System Archiving**

Arkivio, a Rocket Software brand, offers enterprise storage management software solutions for automating the management of data and storage. ARKIVIO® auto-stor is the industry’s only comprehensive solution for archiving, storage and server consolidation, backup and disaster recovery optimization and capacity management across a tiered storage architecture. ARKIVIO® auto-stor redefines storage management by enabling customers to categorize the value of their unstructured data, achieving the proper balance of cost, performance, data accessibility, availability, and protection within their storage infrastructure. Learn more about solving real customer problems: - Backup/restore challenges - Primary storage growth control - Data retention requirements - Corporate governance initiatives - Tiered storage requirements We will show you how our technology addresses these issues and redefines storage management by adding intelligence to data management. ARKIVIO® auto-stor integrates the four components necessary for a cost-effective intelligent data management solution driving the cost per managed terabyte of storage to its lowest possible level:

- Discovery of data and storage resources without the use of server agents
- Business value-based classification of data and storage resources
- Transparent data migration based on its classification through a globally managed policy automation engine without the use of server agents
- Simulation and the constant improvement and reevaluation of policy effectiveness For large heterogeneous storage environments, ARKIVIO® auto-stor

Enables transparent data movement with the following customer benefits:

1. Reduce meantime to data recovery and increase data availability by archiving data to secondary online storage (Data Archive)
2. Organize and classify data based on business value and Information Lifecycle objectives to achieve compliance with government regulations and meet business needs (Regulatory Compliance)
3. Improve efficiency and storage planning by automating the consolidation process from initial planning and identification of data and storage resources to transparent data migration from legacy systems to the newer devices. (Storage Consolidation)
4. Reduce disaster recovery times and backup windows by moving fixed content data from full-system backup cycles (Backup and Recovery Optimization)
5. Reduce storage costs and increase application performance by automatically migrating less active data from high performance volumes to lower cost volumes across your DAS/NAS/SAN environment (Tiered Storage Management)

**Presented by:** Arkivio

**Takeaways:**

- Archiving
- Backup Optimization
- Storage Efficiency

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	○

**DATA PROTECTION**

**DP-201 CommVault: NetApp & CommVault: Comprehensive Data Management Solutions**

CommVault has the potential to be a great partner and can drive multiple different heterogeneous data streams to NetApp storage: backup, archive, replication, content indexing and snapshot-based recovery copies. This session will give an overview of the CommVault Simpana 8 software platform, and will discuss how it can preserve NetApp value add in five ways:

- 1) Manage all NetApp snapshot and replication operations,
- 2) Make secondary backup copies using SnapMirror that preserve CommVault’s catalog understanding,
- 3) Leverage NetApp snapshots “behind” their CDR (continuous replication) replicas,
- 4) Potentially provide complimentary dedupe benefits, and
- 5) Use NetApp snapshots for CommVault SnapBackup recovery copies.

We will also discuss the advantages and disadvantages of SnapBackup vs SnapManager, as well as CommVault’s deduplication and dedupe-on-tape capabilities. We will close with a discussion of the best opportunities to partner with CommVault, and how the joint solution can compete with Avamar and Data Domain.

**Presented by:** Stephen Sorenson

**Takeaways:**

- How to manage all NetApp snapshot and replication operations
- How to make secondary backup copies using SnapMirror that preserve CommVault’s catalog understanding,
- How to leverage NetApp snapshots (behind) their CDR (continuous replication) replicas

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**DATA PROTECTION**

**DP-202: Syncsort: Beat Avamar & Data Domain by Changing the Game with Syncsort and NetApp**

In this session, attendees will learn why the storage game is changing and how a Syncsort/NetApp solution will disrupt the competition. You will see why recent market acquisitions that focus exclusively on deduplication are missing the big picture. The fact is, those solutions often worsen the impacts of system resources and other key customer requirements.

The cost-effective Syncsort/NetApp solution produces significant benefits compared to top-tier dedupe products for nearly all critical storage and data protection criteria including:

Backup speed  
Resource utilization & network load  
Data reduction  
Recovery speed  
Virtual machine migration  
Virtual machine host impact

At the conclusion of this presentation, you'll understand how to take the discussion beyond deduplication, participate in the new game, allow for new account penetration, and protect existing accounts from defection. Live demos plus real-world cases will crystallize the critical issues for the storage sector and illustrate the benefits of the joint Syncsort/NetApp solution.

The presentation will also touch on the following unique features of the Syncsort/NetApp Solution:

Application Support for OSSV including mailbox backup and recovery  
Catalog Search functionality  
Disk-to-Disk-to-Tape archiving with NetApp Secondary Storage  
Simple source side Data Reduction combined with NetApp Deduplication using Intelligent Caching for fast recovery  
Server and Data Recovery in minutes within a virtualized environment

**Presented by:** Louis Pauls

**Takeaways:**

- How to beat Avamar & Data Domain by changing the game with Syncsort & NetApp
- How the Syncsort & Netapp solution addresses all critical storage and data protection criteria
- Receive help with positioning the Syncsort & NetApp solution in the channel

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**DATABASE & BUSINESS APPLICATIONS**

**DB-101 Best Practices and Performance Analysis of Business Applications and Database using NFSv4**

NFSv4 continues it's maturation process with the introduction of new kernels, that is, Solaris™ and Linux®). The Solaris 10 and Redhat® 2.6.18 kernels deliver improvements that allow customers to build business solutions and cadence on this compelling protocol. The recent implementation and testing of the Oracle®10g database on Solaris 10/and Red Hat Enterprise Linux®5.0 clients on NFSv4 has been very successful. There have been significant improvements in NFSv4 over NFSv3. This session covers key protocol differences that should be considered when installing and configuring an Oracle database on NFSv4. In this session we will demonstrate, discuss and review quantitative and qualitative comparative performance graphs for NFSv3 and NFSv4. These graphs cover both protocols on separate platforms which helps convey the value proposition to prospects and customers. This session also provides information about configuring Oracle 10g RAC on Solaris or Linux clients in an NFSv4 environment and includes best practices for both operating systems on NFSv4 covers implementations and testing of

TIBCO® Enterprise Message Service™ on NFSv4 for COBOL, Java®, Microsoft®.NET, databases, IBM MQSeries, etc. Improvements in NFSv4 have prompted customers to move from cluster file systems to NFSv4 to support their service oriented architectures, resulting in improved resiliency, and less management and cost. Continued progress brings NFSv4 closer to {RFC} completeness in 2009.

**Presented by:** Bikash Choudhury, Joshua Konkle

**Takeaways:**

- Choosing the right version of Solaris/Linux to implement Oracle10g RAC over NFSv4.
- The best practices that needs to be followed install Oracle and Tibco over NFSv4 compared to NFSv3.
- The Oracle performace comparision between NFSv3 and NFSv4.

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 2:45 PM   
 Tue 4:15 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**DATABASE & BUSINESS APPLICATIONS**

**DB-105 Implementing Policy-Driven Data Protection in SMO and SMSAP**

SMO and SMSAP are integrated with Protection Manager to provide policy-driven data protection. This hands-on session demonstrates how to implement and enable policy-driven data protection in SMO and SMSAP. It also covers configuring SnapDrive® and Operations Manager; enabling data protection in SMO and SMSAPsupported backup setups; protecting backups with secondary storage using sample protection policies; restoring protected backups to primary storage; and cloning protected backups on secondary storage.

**Presented by:** Anand Ranganathan, Antonio Jose Rodrigues Neto

**Takeaways:**

- How to implement policy-driven data protection in SMO and SMSAP
- How to enable policy-driven data protection in SMO and SMSAP
- How to protect backups and then restore and clone them

**Technical Level:** 3      **Duration:** 3      **Session Times Offered:** Tue 1:30 PM  
 Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	○	●	○

**DATABASE & BUSINESS APPLICATIONS**

**DB-108 SnapCreator Framework: - A Platform-Independent Approach To Business Applications**

The SnapCreator framework offers NetApp customers a flexible platform-independent approach to storage management for strategic business applications such as databases, and messaging -that do not currently use have a SnapManager® products. The SnapCreator framework provides common, consistent integration points for NetApp technologies such as Snapshot™, SnapMirror®, cloning, Protection Manager, and so on. This well-thought-out design approach allows the framework to be modular and flexible for quick deployment in various applications in heterogeneous environments. This session provides an architectural overview of the SnapCreator framework, and includes how-to information and demonstrations on SnapCreator for DB2, Protection Manager, SnapDrive, and Operations Manager

**Presented by:** Gary Zasman, Bobby Oommen

**Takeaways:**

- Understand the SnapCreator framework and features
- Understand how to place snapcreator in the arsenal of NetApp products
- Backup non-snapmanager applications with SnapCreator

**Technical Level:** 3

**Duration:** 1

**Session Times Offered:**

Wed 2:45 PM 

Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**DATABASE & BUSINESS APPLICATIONS**

**DB-111 Designing NetApp Solutions for Storage Efficiency in a Database Environment**

This session covers various design considerations that impact storage efficiency when implementing NetApp storage solutions for a database infrastructure. It includes design considerations for Oracle and DB2 databases and is presented in the context of a framework based on NetApp storage solution services with various modules of an end-to-end database environment (applications-middleware, and database). This session uses the supporting document 'Design Guide Storage Efficiency in Database Environment', (which is currently under development and will be made available publicly when complete). This design guide and the corresponding session presentation draws heavily on successful implementations of various NetApp storage solutions for Oracle and DB2 environments in customer datacenters, and provides best practices associated with those implementations that help deliver on the NetApp storage efficiency promise.

**Presented by:** Bobby Oommen, Brandon Hoang

**Takeaways:**

- This will help the audience choose the preferred principles & standards while designing NetApp storage solutions for database infrastructure to provide maximum storage efficiency ('utility') with optimal performance levels ('warranty').
- It will also help the audience better leverage the publicly available 'Storage Efficiency for database' design guide.

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** [Thur 8:15 AM](#)  
[Thur 9:30 AM](#)

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●	○	

**DATABASE & BUSINESS APPLICATIONS**

**DB-112 Emerging SQL and BI Integrations With NetApp Solutions**

This session provides an overview of the current Microsoft SQL Server 2008 feature set and a preview of Microsoft SQL Server™ 2008 R2 "Kilimanjaro." It compares functional differences between SQL Server 2005 and SQL Server 2008, details what has changed between these versions, explains how NetApp integrates with SQL Server, and provides an overview of the changes in best practices necessary to successfully deploy a NetApp system. In the second half of the session, the discussion is expanded to include Microsoft SharePoint® 2007 and SQL Server 2008 R2 "Kilimanjaro" BI integration and changes for enterprise customers SharePoint is changing with SQL Server 2008R2 and integration with tools like the Gemini server. In addition, the session covers the effects of Gemini

on the SharePoint environment, how to size and plan for a Gemini installation, and best practices for backup and recovery of a SharePoint environment that includes Gemini.

**Presented by:** John Parker

**Takeaways:**

- How emerging technologies in Microsoft SQL 2008 R2 provide a BI solution with NetApp
- The integration of an efficient shared storage architecture with SQL and SharePoint

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Tue 1:30 PM  
Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●		

**DATABASE & BUSINESS APPLICATIONS**

**DB-116 Best Practiced: Data ONTAP 8.0 7-Mode Large Aggregate and Oracle Databases**

Large Aggregate is an important feature of Data ONTAP 8 7-mode, but how will this feature work in the context of Oracle databases? What are the values of Large Aggregate that specifically support Oracle databases? Is it consolidation, effective use of more disk spindles to maximize throughput, or simplified storage and volume provisioning and management? Are there circumstance where we wouldn't recommend Large Aggregates for Oracle databases? This session attempts to address these questions and more, including how to migrate to Large Aggregate. What some real-world applications of Large Aggregates might look like. To appeal to our technical audience, the content is structured with an emphasis on best practices for architecting and deploying Large Aggregates with Oracle. The session provides an overview of Large Aggregates and details its benefits. It also covers how to implement Large Aggregate in Oracle database environments, typesof migrations, how to migrate with minimum downtime, and SMO support.

**Presented by:** Brandon Hoang, Chittur Narayankumar

**Takeaways:**

- Values of large-aggregates in Oracle environment with potential use-cases
- Best practice of implementing large-aggregate for Oracle
- Migration to ONTAP 8 7-mode large aggregates

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Tue 1:30 PM  
 Wed 1:30 PM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●	●	

**ENGINEERING APPLICATIONS & FILE SERVICES**

**EA-102 Optimizing NFS Stack for Maximum Performance**

In this session, we will cover client-side performance tuning on NFS, and Linux and NetApp storage best practices for specific workloads (for example, heavy read, large block write, and so on). We will also discuss gathering application-level requirements to help you understand your customer's business and technical requirements, choosing the right back-end storage (such as SATA, FC or SSD) for different application workloads, setting up the right mount options for applications using NFS clients for large block or heavy read requirements, determining network switch port requirements to deliver maximum performance at the lowest price. We conclude the session with a summary on the current state of the NFSv4 and NFSv4.1 (pNFS) standard at NetApp and within the industry, including implementation progress for several platforms.

**Presented by:** Bikash Choudhury, Joshua Konkle

**Takeaways:**

- Understand the right NFS tuning parameters and mount options for Linux clients for different workloads.
- Design the right backend storage for different workloads
- Where we are with current state of NFS in Linux clients and its future.

Technical Level: 3      Duration: 1      Session Times Offered: Tue 9:30 AM   
 Thur 8:15 AM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	●

### ENGINEERING APPLICATIONS & FILE SERVICES

#### EA-106 Data ONTAP 8.0 Windows File Services: Functional Overview and Comparison to Data ONTAP 7G and GX

In this session, we will update you on Windows File Services in Data ONTAP 8.0 7-Mode and Cluster-Mode. We will cover the key features of Windows File Services that are supported in Data ONTAP 8.0, including Cluster-Mode. We will also discuss the functional changes and improvements in Windows File Services in Data ONTAP, and provide an architectural and functional comparison of the features and implementation of Data ONTAP 8.0 and 7G.

Presented by: Reena Gupta

Takeaways:

- Learn about the CIFS features available in Data ONTAP 8.0 - 7-Mode and Cluster-Mode.
- CIFS feature comparison between GX and 8.0 - Cluster mode as well as 7G and 8.0 - 7 mode
- Learn on what happens when you upgrade from Data ONTAP 7G or GX to Data ONTAP 8.0 or revert back.

Technical Level: 2      Duration: 1      Session Times Offered: Wed 11:00 AM  
 Thur 9:30 AM 

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●		●	

**ENGINEERING APPLICATIONS & FILE SERVICES**

**EA-117 Architecting Windows File Services: Enhancing Security, Performance, and User Experience**

In this session, you will learn some best practices for deploying NetApp storage with large-scale, highly available Windows File Services (CIFS) deployments. We will discuss proven techniques for seamless integration of your NetApp storage with Active Directory, Distributed File System, authentication, Group Policy Objects, home directories, and for using multiprotocol technology. In addition, we will show you how to configure Windows file sharing and file transfer security, and improve Windows File Services performance using SMB 2.0.

**Presented by:** Reena Gupta, Srinivas Addanki

**Takeaways:**

- Understanding of a Windows File Services solution deployment and guidelines on the most important features.
- Get a deeper knowledge to optimize your storage to integrate with Microsoft Windows environment.
- Learn on how to secure your Windows file sharing environments. Understanding of Storage-Level Access Guard, Fsecurity, NTLM security, SFTP, FTPS, TLS and their use cases.

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Wed 1:30 PM  
 Thur 11:00 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

**ENGINEERING APPLICATIONS & FILE SERVICES**

**EA-120 NAS Best Practices for Storage Efficiency and Performance in High-File-Count Environments**

This sessions covers best practices and design considerations to successfully design a high-file-count environment using NFS and CIFS. We will show you how the NFS protocol manages I/O requests while simultaneously accessing millions of files. We will also show you how to determine the working set size on different platforms (for example, 3170). In addition to platforms, you will learn how to position PAM and PAM II to optimize the environment of your customer or prospective customer. We will provide examples and best practices for engineering application environments, including, but not limited to, EDA, energy, digital media, and software development.

**Presented by:** Bikash Choudhury, Reena Gupta

**Takeaways:**

- How the IO requests coming from clients are handled by NFS and CIFS at the protocol level and how it translates to WAFL operations?
- How to understand customer's environment, design and chose the right NetApp Storage platform for high file count environments?
- Best practices that are needed in a high file count environemnts, supplemented with PAMII use cases.

**Technical Level:** 4      **Duration:** 1      **Session Times Offered:** Wed 8:15 AM   
 Thur 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	

**ENGINEERING APPLICATIONS & FILE SERVICES**

**EA-125 NetApp Storage Efficiency Technologies reduce costs and accelerate time to market in Engineering Application environments**

NetApp provides an industry-leading suite of storage efficiency capabilities that deliver cost savings as well as accelerate time-to-market in engineering application environments ranging from software development, Product Lifecycle Management (PLM) & Computer Aided Design (CAD). Cost savings result from efficiencies in storage utilization, power and cooling, management, etc. Configuring NetApp deduplication may reduce your storage capacity requirements by more than 50%. Moreover, using NetApp snapshots in a unified storage architecture enables users to achieve consistent backup and recovery across their Oracle database and file vault (something EMC cannot do). Therefore, backup and recovery is controlled and consistent, thus improving application availability. NetApp FlexClone® technologies enable users to rapidly test software upgrades before putting them in production, and also to rapidly provision developer/designer workspaces for test & development (something SUN cannot do). Finally, in this session you'll learn how NetApp PAM II enables you to use up to 50% less disk spindles with SATA disks, while accelerating application execution times with reduced I/O latencies by displacing disk reads with cache reads (works for home directories on a single tier too).

**Presented by:** Marty Turner, Bikash Choudhury

**Takeaways:**

- Cost savings result from efficiencies in storage utilization, power and cooling, management

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Wed 11:00 AM  
Wed 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○		

**MANAGEABILITY**

**MA-100 Centralized Performance Monitoring, Alerting and Diagnosis of Data ONTAP 7G Systems**

Performance troubleshooting and diagnosis can be a challenging task. It requires a lot of expertise, can be very time consuming, and is often misdirected. The absence of historical diagnostic information with which to investigate performance-related issues when they first occur only makes the problem worse, often requiring application experts to spend a lot of time in the lab trying to recreate these performance problems so that they can be correctly diagnosed. For this reason, NetApp created its own “performance troubleshooting expert,” NetApp Performance Advisor. Performance Advisor can diagnose performance problems, look for a probable causes, and then offer suggestions to resolve the problem. In this session, we will introduce you to Performance Advisor, show you how to configure it, and then use it to troubleshoot performance issues. We also cover Performance Advisor monitoring and thresholds (early warning system), failure analysis, in-depth problem analysis, NGS support for Performance Advisor, and performance baseline data export for NGS tools. The session will also include a live demonstration of a performance diagnosis as well as the Performance Advisor roadmap.

**Presented by:** Anand Ranganathan

**Takeaways:**

- Diagnose performance related issues in Data ONTAP 7G storage systems using Performance Advisor
- Understand the art of performance baselining and avoid false performance - related issues
- Perform root-cause analysis of performance related issues

**Technical Level:** 4      **Duration:** 1      **Session Times Offered:** Tue 8:15 AM   
Wed 2:45 PM  
Thur 9:30 AM 

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	●	○

**MANAGEABILITY**

**MA-105 Storage Management Simplified: Using NetApp System Manager for Out-of-Box Storage Management**

With NetApp System Manager, all you need to do to set up a new NetApp storage system is install it in the rack, turn it on, and then install System Manager on your laptop. That is it. System Manager simplifies the day-to-day tasks required for storage system setup, operations, and management. In this session, we will demonstrate how System Manager can simplify setup and configuration of a new storage system in your data center, provide at-a-glance monitoring of the storage system, enable you to take advantage of deduplication and thin-provisioning using smart workflows built into System Manager, and make HA-pair management more efficient from a single windowpane.

**Presented by:** Allan Watanabe

**Takeaways:**

- how easy it is to setup a new storage system
- simplified storage management

**Technical Level:** 2

**Duration:** 1

**Session Times Offered:**

Tue 8:15 AM

Tue 9:30 AM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**MANAGEABILITY**


**MA-106 NetApp vStorage Console and SAN Configuration for Guest VMs**

In this session, we will demonstrate the newly released NetApp vSphere Storage Console (VSC) plug-in application. We will also introduce you to VSC functionality and help you prepare to conduct the demonstration for customer and prospects. Additionally we will review specific VMware Guest (OS) SAN configuration options and requirements.

**Presented by:** Jeremy LeBlanc

**Takeaways:**

- The ability to deliver the VSC canned demo in a sales presentation
- Installation and configuration of the VSC and deployment of ESX host utilities
- Ability to explain to a customer the need to align guest OS bootsector and to practically implement that alignment recommendation

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Tue 1:30 PM   
 Tue 2:45 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	

**MANAGEABILITY**

**MA-110 Implementing Protection Manager in an Existing SV / SM / OSSV Environment**

Although it's an important decision, choosing an enterprise product is just the first step in a much larger implementation process. Deploying a product in an existing, complex, data-protection environment can equate to a profound change for an organization that reaches into its very core. As a result, meticulous planning is necessary to deploy certain products. NetApp Protection Manager is one such product-This planning involves an In-depth analysis of a customer's current data-protection environment configuration of Protection Manager to meet the customer's specific requirements and migration of replication relationships to Protection Manager. This session provides a strategic plan for SE/PS to navigate the challenges faced during the implementation process to increase the likelihood of success.

**Presented by:** Anand Ranganathan

**Takeaways:**

- Implementation of Protection Manager in a Complex Data-Protection Environment
- Configuration of Protection Manager specific to customer's requirements
- Sizing factor of Protection Manager

**Technical Level:** 4      **Duration:** 1      **Session Times Offered:** Wed 1:30 PM   
 Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**MESSAGING & COLLABORATION**

**MC-105 Advanced Topics: Microsoft Exchange 2010**

This session covers advanced topics for Exchange 2010. Session discussions and exercises will cover: Exchange 2010 high-availability features (including Database Availability Group design and implementation best practices), performance characterization, and sizing for HA and DR capabilities. This session also includes an interactive exchange with Microsoft Alliance Engineers who have the necessary architectural knowledge to provide implementation guidance for these Exchange 2010 components. Prerequisites: some familiarity with Exchange 2010 and a thorough understanding of Exchange 2007.

**Presented by:** Robert Quimbey, Brad Garvey

**Takeaways:**

- Core knowledge of Exchange 2010 High Availability features
- Performance considerations and best practices for Exchange 2010
- Sizing for Exchange 2010

**Technical Level:** 4      **Duration:** 2      **Session Times Offered:** Tue 1:30 PM   
 Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	○

**MESSAGING & COLLABORATION**

**MC-106 Advanced Microsoft Sizing Workshop**

This session covers advanced topics for sizing Microsoft application workloads. Session exercises will help you learn to correctly size and architect environments containing multiple application workloads. In addition, we will discuss the impact that virtualizing these applications has on sizing and offer best practices for storage layout in Microsoft virtualized environments.

**Presented by:** Brad Garvey John Parker

**Takeaways:**

- Advanced Sizing Workshop for Microsoft Exchange 2010
- Advanced Sizing Workshop for Microsoft SharePoint Server
- Advanced Sizing Workshop for Microsoft SQL Server

**Technical Level:** 4      **Duration:** 2      **Session Times Offered:** Tue 8:15 AM   
 Wed 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	○

**MESSAGING & COLLABORATION**

**MC-107 Deep-Dive: SnapManager for Exchange 6.0**

SnapManager for Exchange (SME) 6.0 is the newest version of this Microsoft flagship product and supports Exchange 2010. This session will provide best practices for using SME 6.0 in Exchange 2010 environments and include a product demonstration.

**Presented by:** Mike Klass, Brad Garvey


**Takeaways:**

- Data Protection requirements for Exchange 2010
- Best Practices for utilizing SME 6.0 in Exchange 2010 environments
- Understanding of SMBR functions rolled into SnapManager for Exchange

**Technical Level:** 3

**Duration:** 1

**Session Times Offered:**

Tue 4:15 PM   
 Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●		○	

**MESSAGING & COLLABORATION**

**MC-110 SharePoint Best Practices Using NetApp Protection Manager and DR Site Recovery**

In this session, we will demonstrate SnapManager for Microsoft Office SharePoint Server (SMMOSS) configured with both primary and secondary storage. We will also show the integration of SMMOSS with NetApp Protection Manager for automated SnapMirror replication, and the step through replicating the data from DR to production. In addition, there will be a second demonstration to show how each of the servers (SQL and SharePoint) have the NetApp Open Systems SnapVault (OSSV) agent installed and are using Protection Manager for hourly backups. We will also recreate a server-outage scenario and show how to use Protection Manager to recover the server data, and then use SMMOSS for server and registry point-in-time recovery.

**Presented by:** Peter Henneberry

**Takeaways:**

- SharePoint 2007 DR
- Automated DR recovery
- SharePoint deduplicaiton (storage efficiency) and recovery of registry

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Tue 8:15 AM   
 Tue 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**MESSAGING & COLLABORATION**

**MC-152 Microsoft Exchange Server 2010: Overview and Update**

This session will introduce you to Exchange Server 2010. We will review, major areas of investment for this release and highlight some of the changes and new features. From a storage perspective, we will look at what has changed in terms of I/O characteristics and sizing, as well as review backup and recovery options covered by SnapManage for Exchange. This session will also include a look at architecting Exchange 2010 solutions in a virtualized environment and will explore into supported configurations and best practices for virtualizing Exchange 2010 roles. The second of half of this session will address some of the challenges in selling and architecting Exchange 2010 solutions in customer environments, and will help you to address challenging questions revolving around NetApp feature integration and value proposition. This session will close with an open Q& A to address how to handle challenging questions about Exchange 2010 environments.

**Presented by:** Brad Garvey, Robert Quimbey

**Takeaways:**

- SnapManager for Exchange
- Deduplication
- SnapMirror

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Wed 11:00 AM  
 Wed 1:30 PM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**MESSAGING & COLLABORATION**

**MC-200 VMware: Virtualizing Microsoft Exchange Server 2007 with VMware vSphere 4 and NetApp Storage**

The ideal platform for today’s e-mail and collaboration tools is one that provides options to meet varying levels of availability and uptime depending on business requirements, enables simple disaster recovery and has the ability to change over time to meet the needs of the business. This session will explore how these benefits can be achieved for Microsoft Exchange Server 2007 running on VMware’s vSphere 4 and NetApp storage and data protection products. In particular, this session will focus on the following topics: Latest information on Exchange virtualization Microsoft support considerations Exchange 2007 performance testing on VMware vSphere 4 Exchange 2007 storage protocol performance comparison on vSphere 4 Reference Architectures and customer success stories Tools and whitepapers to assist partner to position and deliver Exchange on VMware consulting engagements

**Presented by:** David Korsunsky

**Takeaways:**

- Latest information on Exchange virtualization
- Reference Architectures and customer success stories
- Tools and whitepapers to assist partner to position and deliver Exchange on VMware consulting engagements

**Technical Level:**

2

**Duration:**

1

**Session Times Offered:**

Tue 11:00 AM 

Wed 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	●

**MESSAGING & COLLABORATION**

**MC-201 Microsoft: Microsoft and NetApp – Working Together**

Attend this session to receive an update on the latest business and technical collaboration between Microsoft and NetApp. Learn how the field organizations can work together. Understand how the technologies intersect. See Joint Architectures. Hear Value Props. Perhaps even win an Xbox!

**Presented by:** Microsoft

**Takeaways:**

- Latest business and technical collaboration between Microsoft and NetApp

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	○

**MESSAGING & COLLABORATION**

**MC-202 Mimosa Systems: Mimosa Systems: Integrating with NetApp for a Complete Solution for Email Archiving, Disaster Recovery, and Cost-Effective Storage**

NetApp and Mimosa’s archiving solution gives customers seamless integration with compelling ROI. This unique value proposition is due to the Mimosa NearPoint™ solution leveraging NetApp technologies such as SnapManager for SQL & Exchange, SnapDrive CLI, SnapMirror for Exchange and SnapLock. This

joint offering allow customers to capture complete email information, protect information in the event of a disaster, quickly and efficiently recover information and store it cost effectively. Customers of the joint NetApp and Mimosa archiving solution, protect their existing investment while taking advantage of the synergy between NearPoint’s best-in-class archiving and NetApp’s best-in-class storage solutions.

**Presented by:** Mimosa

**Takeaways:**

- How to leverage NetApp technologies such as SnapManager for SQL & Exchange, SnapDrive CLI, SnapMirror for Exchange and SnapLock with Mimosa NearPoint™ solution

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●		

**MESSAGING & COLLABORATION**

**MC-203 Fast Lane: Architecting a Virtualized Microsoft Exchange Implementation**

This 1 hour class presented by Ken Foster, NCDA, NCI, MCT, MCSE, and Fast Lane Consulting and Education will reference skills gained from attending the authorized NetApp MS Exchange on NetApp and the VMWare ESX on NetApp classes. Ken will discuss best practices involved in configuring MS Exchange and NetApp SnapManager for Exchange in a virtualized environment and then end the discussion by combining both sets of best practices into one unified configuration.

Attendees should have a functional level of experience with Data ONTAP, MS Exchange and VMware. Since this is an excerpt from Day 2 of the complete course, Ken will concentrate on an iSCSI implementation of MS Exchange with SME and an NFS implementation of VMWare. During the full course this module will cover both Fibre Channel and iSCSI implementations of MS Exchange as well as Fibre Channel, iSCSI, and NFS implementations of VMware. The module will then be followed with Case Studies that will emphasize various technologies and implementation scenarios. The students are then teamed up and given time to prepare an implementation plan and the pros and cons of the teams plans are discussed in the class.

Ken Foster has been involved in technology and technology training for over 20 years. He brings a breadth and depth of knowledge and practical experience to the classroom on NetApp, Microsoft, VMware, UNIX, Security, Oracle and more.

**Presented by:** Ken Foster

**Takeaways:**

- Best practices in configuring Exchange and SME in VMware
- iSCSI implementation of MS Exchange with SME
- NFS implementation of VMware

**Technical Level:** 4

**Duration:** 1

**Session Times Offered:**

Tue 11:00 AM



**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-104 Practical Networking for Storage Engineers**

In today’s world of converged networks and virtualized data centers, a comprehensive understanding of TCP/IP and related networking technologies is a must. This session provides a quick review about the core fundamentals of IP networking followed by an in-depth discussion about how to apply these fundamentals in real-world scenarios, such as long-distance replication, bandwidth optimization, and tuning for multi-tenant network environments.

**Presented by:** Michael Barrow

**Takeaways:**

- Interaction of bandwidth and latency
- Key factors in designing/implementing long distance replication solutions
- Key factors in designing/implementing multi-tenant networks

Technical Level: 2      Duration: 1      Session Times Offered:   
 Thur 8:15 AM    
 Thur 11:00 AM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

## STORAGE INFRASTRUCTURE & OPTIMIZATION

### SI-105 SAN Storage Efficiency DeDuplication and Thin Provisioning

This session provides information useful in understanding efficient storage provisioning in a SAN environment. It includes an explanation of the concepts and tools used to provide maximum storage utilization, including deduplication, thin provisioning, auto-delete, auto-grow, and (NetApp System Manager) and Operations Manager.

Presented by: Rick Jooss

Takeaways:

- Understanding of the proper use of available SAN configuration options and their usefulness in driving maximum storage efficiency
- Understanding the various tools available for efficiently configuring NetApp SAN solutions
- Understanding how to monitor the storage consumption in a SAN environment

Technical Level: 2      Duration: 1      Session Times Offered:   
 Wed 11:00 AM    
 Thur 11:00 AM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	●

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-108 Storage Systems Performance Primer**

In this session we will cover the basic design of a storage system and how this design relates to performance. In addition, we will look at how Data ONTAP monitors performance and review commands that can be used to investigate system performance.

**Presented by:** Paul Updike

**Takeaways:**

- Understand the basic components of a storage system
- Understand how the components of a storage system interact
- Understand how to monitor and troubleshoot the performance of a storage system

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Wed 1:30 PM  
Thur 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-109 Application Performance Profiles and Sizing Guidelines for 64-Bit Aggregates**

In this session, we will focus on performance profiles and characteristics of application workloads, including e-mail and database applications, on 64-bit aggregates. In addition, we will interpolate performance profiles to give generic application deployment guidance for 64-bit aggregates, provide recommendations and best practices for deploying application workloads on 64-bit aggregates, guidance on using NetApp sizers for 64-bit aggregates to determine optimal new configurations and add aggregates to existing configurations.

**Presented by:** Uday Boppana, Paul Updike

**Takeaways:**

- Application level performance characteristics of 64-bit aggregates
- What type of user workloads are suited and not suited for running on 64-bit aggregates
- Sizing for 64-bit aggregates

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Tue 4:15 PM  
 Wed 8:15 AM  
 Thur 11:00 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●	●	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-111 Deduplication Performance and Savings Testing in Customer Environments**

In this session, we will demonstrate how to create a customer application test environment. We will focus both on performance implications and on space-savings expectations. The objective is to create test environments that maintain proper dataset characteristics such as data layout. We will discuss the relevance of using aggr copy, aggr snapshot, FlexClone, and SSET. In addition, we will include known savings expectations according to dataset types, best-practice approaches for SEs and PS, and expected accuracy levels of expected accuracy. The technical level for this session is intermediate .

**Presented by:** Carlos Alvarez, Jason Mancebo

**Takeaways:**

- Ability to create a proper testing environment
- Proper usage of the tools to benchmark/test
- Proper distillation and presentation of data

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Wed 8:15 AM  
 Thur 8:15 AM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○		●	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-113 Hands-On MultiStore**

This session will provide a brief introduction to MultiStore® and a lab using the Data ONTAP 7G simulator. In the lab, we will be setting up vFilers™, creating and setting up vFiler management and commands vFiler migration, and vFiler DR. is intensive, hands-on lab assumes a basic familiarity with MultiStore and the ability to configure Data ONTAP from the command-line interface.

**Presented by:** Roger Weeks, Scott Gelb

**Takeaways:**

- Ability to design and implement MultiStore
- In-depth understanding of configuration and management of MultiStore
- Design and implementation of vfiler migration and vfiler DR

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Wed 8:15 AM  
Wed 1:30 PM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	○	○	●

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-114 Implementing and Configuring DCB/FCoE**

This session will focus on configuring an end-to-end SAN solution utilizing Fibre Channel and Fibre Channel over Ethernet initiators, Cisco and Brocade DCB switches, and NetApp FCoE target. We will provide information to help you understand the initiator, configure the switch, and verify the target adapter. In addition, we will cover zoning, LUN creation and LUN masking, and review the benefits of DCBX.

**Presented by:** Shawn Dutton

**Takeaways:**

- Steps for configuring FCoE targets residing on FAS arrays
- DCB switch configuration
- Steps and considerations for configuring FCoE initiators, Converged Network Adapters (CNA)

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 8:15 AM  
Wed 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
		●	●

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-115 Implementing and Monitoring the Performance Acceleration Module II**

This session covers the Performance Acceleration Module, It provides information to help you implement, monitor, and troubleshoot the Performance Acceleration Module, and discusses how to determine the best mode of operation, and when to use other Data ONTAP functions, such as FlexShare, with the module.

**Presented by:** Paul Updike

**Takeaways:**

- Implement a PAM II solution
- Monitor a PAM II solution
- Troubleshoot and tune a PAM II solution

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Wed 9:30 AM  
Wed 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	●

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-120 NetApp Best Practices for a Virtualized Environment**

The cost of doing business seems to be rising every day, organizations are looking for ways to reduce overhead and consolidate resources into a single, easy-to-manage environment. With the amount of information and data doubling yearly in many organizations, storage has become a key component in today's marketplace. The coming of the "virtualization age" will only increase the demand for storage, with virtualization condensing servers into nothing more than large files that act in every way like the physical servers on which they are based. In a year when NetApp has announced its "50% Virtualization Guarantee Program," we need to position our expertise better in the virtualization domain so that we can take excellent NetApp solutions to the customer and maximize their return on the virtualization promise of reducing overall costs associated with data center operations. In the field, it has become necessary to create a set of best practices. The " Best Practices on V-Series Implementation Guide, is currently under development in India. In this session we will review some of the best practices that will

be included in this guide. We will also present some case studies of V-series implementation in the field. In addition we will provide a brief overview of the challenges that the Professional Services team face when implementing NetApp with virtualization hosts like VMware, Xen server, and hyper-V, and offer best practices for these solutions.

**Presented by:** Mohan Ram, Faizal Rahman

**Takeaways:**

- Best practices on V-series
- Best practices on Virtualized Environments
- Storage Efficiency

**Technical Level:** 2      **Duration:** 2      **Session Times Offered:** Tue 8:15 AM  
 Thur 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●	●	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-125 Best Practices for V-Series Implementation**

This session is geared for PSEs who want to learn some best practices for successfully implementing V-Series with third-party array storage. These best practices were generated during one of the first V-Series implementations done in India. The customer was an international bank that deployed V-Series clusters across the globe, including in the United States, United Kingdom, and in India. The India deployment started with V-Series setup at the production site in Mumbai and later on was expanded to other locations in India. Eight V-Series clusters were already in production. DR(using SnapMirror) was setup across two different locations in India(Mumbai and Bangalore).The customer was using primarily CIFS file services on the V-Series and was planning to use NetApp de-duplication and thin provisioning with Data ONTAP 7.3.x after it was qualified internally. DR setup was successfully tested over the last year and the customer was able to switch production workload over to the DR site within 15 minutes. After seeing the value that the NetApp V-Series has brought to their environment, they have decided to expand their current setup to 12 V-Series clusters. In addition,they are using our storage management suite (Operations Manager) for monitoring, alerting, configuration management, chargeback and so on.

**Presented by:** Sarbjit Singh, Steve Lusnia

**Takeaways:**

- V-Series implementation best practices
- Snapmirror DR with multistore
- Data Migration

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Tue 9:30 AM   
 Tue 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-127 10-Gb DCB Ethernet and FCoE Market and Technology**

This session will cover the current state of the market for 10Gb DCB Ethernet and FCoE. It includes a technology primer that explains what this technology can do for your SAN and NAS storage environments. In addition, we will review the DCB and FCoE development roadmap and discuss which way the indicators are pointing in terms of market adoption. We will also provide an overview of the DCB and FCoE technology landscape, and identify NetApp and third-party product requirements.

**Presented by:** Shawn Dutton, Rick Jooss

**Takeaways:**

- Introductory understanding of the FCoE protocol and its differentiating characteristics
- When to propose an FCoE POC or configuration to a customer/prospect
- Insight into the advancements/pitfalls that are on the horizon for FCoE in the 2HFY'10 / 1HFY'11 timeframe

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 4:15 pm  
 Wed 2:45 PM

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-129 Advanced V-Series: Using NetApp Features and Benefits to Penetrate Non NetApp Storage Environments**

If you want to hear about where the V-Series product line is headed or get the latest V-Series big news directly from product experts, this session is for you. We will be discussing a variety "hot topics" about the V-Series that are coming straight out of the field. We will cover sales topics such as - how to break into big accounts. We will talk about which arrays NetApp plans to support as well as fast and dense arrays. We will take a look at whether MetroCluster or VMware is really supported in mixed disk and LUN configurations. We will investigate some of the latest implementation strategies; for example, what your approach should be if your customer has a used array and wants to insert V-Series, or what the V-Series strategy is for Data ONTAP 8. We will also talk about how you can participate in the latest discussions using community Web sites.

**Presented by:** Steve Lusnia, Cameron Anderson

**Takeaways:**

- How to break into big accounts
- Whats supported with V-Series and arrays
- Latest implementation strategies

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** [Thur 11:00 AM](#)

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	○	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-130 Best Practices for Configuring a Highly Available NetApp System**

As NetApp marches into the Storage 5000 market, it becomes increasingly important to ensure that our storage systems are highly resilient and available. In this session we will talk about the storage resiliency features that NetApp provides and how these features map to storage tiers. We will focus on features such as

multipath HA, MetroCluster, and SyncMirror, which greatly improve the reliability and availability of an enterprise-class storage system. We will also identify best practices for configuring highly resilient storage systems.

**Presented by:** Charlotte Brooks, Skip Shapiro

**Takeaways:**

- Best practices for configuring resilient systems
- Tiers of resiliency

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Tue 1:30 PM  
Wed 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-132 Choosing the Appropriate NetApp Performance Option to Optimize Applications**

So you have the customer’s performance requirements for their engineering applications, what next? There are so many choices! In this session, we will delve into the decision making process for all of NetApp’s performance options by answering the following questions. Can you improve your customer’s data center efficiency by using the Performance Acceleration Module? How do you know if your customer should consider Data ONTAP 8 cluster-mode for maximum

performance? And then should you use FlexVol? What about FlexCache? NFSv4? FlexShare? In this ambitious technical positioning and pre-sales session, we help you navigate NetApp’s performance product portfolio with a focus on engineering and enterprise applications. You will learn how to recognize the primary

factors that lead you to each of these performance related technologies. Attend this session to remove any apprehension around choosing from the NetApp performance product portfolio!

**Presented by:** Marty Turner, Charlotte Brooks

**Takeaways:**

- How to choose between NetApp's performance product portfolio (SATA, FC, PAM, PAM II, FlexCache, 8.0 Cluster-Mode, NFSv4, etc.)
- Recognize the primary attributes for recommending each
- Understand each of the deployment/configuration options (i.e. pictures of possible configurations based on performance product choices)

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Wed 2:45 PM  
 Thur 8:15 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●		

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-158 Recipe for Efficiency: VMware vSphere and Microsoft Enterprise Applications, NFS, iSCSI, FC**

Join the NetApp Microsoft and VMware Alliance Technical Marketing Engineers for an in-depth discussion about various Microsoft applications on VMware. Over the last five months, these teams have released Reference Architectures that include iSCSI, NFS, and IFC configurations supporting shared deployments for mainstream Microsoft applications and operating systems: Microsoft Exchange 2007, Microsoft SQL 2008, Microsoft Office SharePoint Sever 2007, Microsoft Windows 2003 R2 , Microsoft Windows 2008, VMware vSphere. A big concern for many enterprises are the HA and DR features of their enterprise architecture. The balance between NetApp, VMware, and Microsoft application features can be difficult to integrate based on storage protocol, OS, and application requirements. In this session we will discuss infrastructure and application design, lab testing methodology, and conclusions supporting NetApp guidance and best practices in each configuration. We will address some of your most important customer-focused questions such as, "What are the specific storage protocol considerations that customers should consider when deploying virtualized Microsoft applications on VMware?" "What are the performance tradeoffs and benefits

for each?" "What are the support issues I should be aware of?" "How can application-consistent backups be achieved for all three configurations?" and "What value does deduplication bring?"

**Presented by:** Robert Quimbey, Lee Gates

**Takeaways:**

- Architectural considerations for Microsoft Applications on VMware
- The different requirements and characteristics for storage protocols with VMware
- How to efficiently balance storage and computing resources between multiple Microsoft Applications

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Tue 1:30 PM  
 Wed 8:15 AM  
 Wed 1:30 PM



**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-160 How to Break Into EMC, HDS and other non-NetApp Accounts using Data ONTAP and V-Series**

In this session, we will look at how to use V-Series to penetrate new accounts and competitor installments. Maybe you have an existing customer who has storage arrays from another vendor but is less than satisfied with the features. Or maybe your customer likes simplicity of Data ONTAP, but is budget-constrained due to previous storage purchases. In this session, we will explore some of these scenarios and discuss ways you can use the V-Series to break down these barriers. . In addition, we will look at how others have use V-Series sales strategies to break into or expand new accounts using NetApp storage efficiency and simplicity strategies.

**Presented by:** Steve Lusnia, Lane Spiers

**Takeaways:**

- V-Series and FAS are much the same product
- Sell NetApp features; don't compete for the physical storage
- Leverage V-Series when Customers have legacy storage assets

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** [Thur 8:15 AM](#)  
[Thur 9:30 AM](#)

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-165 Understanding the SANscreen Assessment program**

NetApp account teams face a challenge in accounts where the existing storage infrastructure, and the opportunity for NetApp solutions there, are not well known. The ability to understand how the current environment is running from a configuration, performance and capacity perspective is difficult to ascertain from the outside, yet it can reveal critical information that can be used in planning a sales strategy that will best satisfy the prospect's requirements. Your goal is often to

provide the customer with the right size and breadth of functionality in a solution, yet gathering the depth of information you need is often difficult to impossible, and often the prospect while trying to be helpful, often doesn't have this level of information in one place themselves (if at all).

This session will focus on the process of a SANscreen Assessment, working with the Assessment team during an Assessment, and understanding the particular values of the information in the reports and summaries that are returned . During this session you will also learn how to identify key opportunity indicators, including: - Storage utilization by array - Storage allocation by host - Port utilization - Service violations and vulnerabilities - Fabric traffic load by host, fabric and storage - Orphaned capacity by configuration and traffic, and VM utilization and storage.

Understanding the value of this unique and powerful process of discovery and how to make best use of it is a capability every NetApp SE should learn.

**Presented by:** Dave Stewart

**Takeaways:**

- Identifying storage inefficiencies
- Presenting executive findings
- Consultative selling skills

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** [Thur 11:00 AM](#)

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-175 Scaling Storage Network Infrastructure Using 10-GbE**

In this session, we will discuss the transition from existing 1-GbE networks to 10-GbE networks and how shared network fabrics can affect application performance. We will also discuss design considerations for planning your network upgrade and how oversubscription can affect performance. We will provide detailed examples of best practices for implementing 10-GbE in new and existing FAS systems and look at how they can affect network performance. We will also explore how to identify trouble in an Ethernet Storage network and what tools and processes are available to help resolve problems.

**Presented by:** Frank Pleshe

**Takeaways:**

- Understand design considerations for migrating to 10GbE.
- Understand configuration best practices relative to 10GbE
- Understand Cluster Mode architecture with Cisco Nexus products.

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** [Wed 11:00 AM](#) 

[Thur 11:00 AM](#)

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

## STORAGE INFRASTRUCTURE & OPTIMIZATION

### SI-176 Data ONTAP 8.0 Update

This session provides the latest updates for the Data ONTAP 8.0 content and release. It includes a brief overview of 7-Mode and Cluster-Mode, lessons learned from the Early Access Program (time permitting), and guidelines for selling and positioning Data ONTAP 8.0.

**Presented by:** Charlotte Brooks


**Takeaways:**


- Major features of Data ONTAP 8.0
- Differences between 7-Mode and Cluster-Mode
- How to position and sell each mode

**Technical Level:** 3

**Duration:** 1

**Session Times Offered:**

Tue 4:15 PM 

Wed 11:00 AM 

Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○		

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-200 Cisco: Unified Computing System (UCS)**

Data center architecture is changing dramatically to become more agile and efficient, and Cisco has been on a journey to prepare for this market transition. The result is the Unified Computing System (UCS) introduced this summer. It is an evolutionary data center architecture that bridges the silos in the data center by using the network as the platform for uniting compute, network, storage access, and virtualization resources into a single, seamless system. Based on Intel Nehalem processors (XEON 5500) the UCS is available both in blade server and rack mounted form factors supporting up to 320 servers into a single system and it has the largest memory footprint in the industry (up to 192 GB of DDR3 RAM per socket). The UCS has a single point of management based on an XML API, a policy engine, roles, locales, pools, ranges, etc. The servers can be repurposed through management in minutes and this allows a gains in IT productivity by reducing the time to deploy new applications to minutes rather than days, shifting the focus from IT maintenance to IT innovation.

**Presented by:** Cisco

**Takeaways:**

- Introduction to Unified Computing System (UCS)
- Latest developments between Cisco and NetApp

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM  
Wed 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-201 Qlogic: Realizing convergence “pipe” dream**

NetApp and QLogic are leading the market in delivering FCoE products. Together, we are enabling customers to realize the benefits of IO and network convergence. QLogic’s host IO products provide the key building blocks in building a converged solution. This presentation will detail the QLogic product features that power NetApp storage solutions. The presentation will also discuss management utilities, interoperability, and OS support matrix for QLogic 8100 series CNA.

**Presented by:** Gunna Marrisudi

**Takeaways:**

- Attendees will learn about key FCoE features in QLogic CNAs
- Attendees will learn about management tools and utilities to manage QLogic CNAs
- Attendees will learn about the operating system support matrix for QLogic CNAs

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-202 Riverbed: Leveraging WAN acceleration technologies for consolidation and disaster recovery**

Learn how Riverbed's groundbreaking and market leading WAN optimization products enable NetApp customers to successfully consolidate their branch office server infrastructure to NetApp storage at the datacenter without impacting end user performance. In addition, you will learn about how Riverbed can dramatically improve the performance of SnapMirror, improving RPO and RTO, without impacting WAN environments.

**Presented by:** Bob Gilbert (Riverbed)

**Takeaways:**

- Riverbed's WAN optimization products

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●		

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-203 Silver Peak: Live Demo: Overcoming WAN Obstacles for Optimum Replication Performance**

A variety of obstacles can impact the performance of replication across the WAN, including bandwidth, latency, and packet loss. In this session, we will address the cause of these issues, and discuss how they can be addressed using WAN optimization. This session will be conducted using a live NetApp branded demonstration, where SnapMirror traffic is running across a simulated WAN. This demo is hosted in Netapp’s own facilities, and is available to the Netapp field. Therefore, in addition to discussing the technical points surrounding this issue, this session will also show how to use this powerful tool as part of an effective NetApp sales engagement

**Presented by:** Silver Peak

**Takeaways:**

- **Efficient replication across the WAN**
- **Understanding the obstacles that can impact the performance of replication across the WAN.**

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**STORAGE INFRASTRUCTURE & OPTIMIZATION**

**SI-205 BROCADE: Data Center Evolution: Converged Networks and what it means to your customer**

This session will discuss the concepts around the ‘Converged Network’ and the drivers that are leading towards a multi-protocol convergence, specifically where will iSCSI, 1GbE, 10GbE and 10G Enhance Ethernet (CEE and FCoE) participate in today’s and tomorrow’s data center. What is the impact of cloud and virtualization in a converged network environment? This session will also discuss the management challenges customers will face in the converged data center and how NetApp-Brocade solutions will solve these needs.

At the end of this session, you will be able to:

- Understand the business drivers leading customers towards a converged network.
- Manage your customer’s expectations and learn how to guide their strategy with FCoE technology
- Help your customer evaluate their data center & determine the correct solution for their needs
- Understand the existing joint virtualization solutions available today
- Discuss the value of Unified Management in both the network & storage

**Presented by:** John Rozwadowski, Alan Kirk

**Takeaways:**

- Business drivers leading customers towards a converged network
- Manage your customer’s expectations and learn how to guide their strategy with FCoE technology
- Discuss the value of Unified Management in both the network & storage

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●		

**TOOLS**


**TO-108 Gathering and Managing Performance Data**

This session will demonstrate the standard OS tools and methodology for gathering SAN performance statistics from hosts, HBAs, switches, and storage systems. We will discuss data types and the relevance of these types to the customer. We will generate and examine sample performance reports. In addition, we will gather the same information using Operations Manager and Performance Manager, and then compare the two reports.

**Presented by:** Jeremy LeBlanc

**Takeaways:**

- Using standard, freely available tools and methods to generate SAN performance analysis reports and convey the results to the customer
- Use Ops Manager/Performance Manager to generate more detailed SAN performance reports
- Understanding of SAN performance metrics

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 4:15 PM  
 Wed 9:30 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	●

**TOOLS**

**TO-109 Storage Efficiency Tools Uncovered**

The purpose of this session is to demonstrate to extremely busy systems engineers when and how to use each storage efficiency tool at different points in the sales cycle. This is especially important because of the large number of tools that SEs have at their disposal. We will show you how to use all the available tools, from pre-sale through post-sale, by generating a periodic customer report that identifies the “stickiness factor.” →secalc.com, R.I.S.E., SE Synergy plug-in, system manager, ops manager, AutoSupport. All participants are given a quick-reference cheat sheet.

**Presented by:** Sandra Moulton, Jason Mancebo

**Takeaways:**

- Right tools for right job
- Tools highlight demonstrable savings

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 8:15 AM  
 Tue 4:15 PM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●		○	●

**TOOLS**

**TO-114 Leveraging the NetApp Storage Optimization Review to Increase Footprint**

Our common goal is to help the company increase its revenues. Consulting services are an excellent way not only to deliver on sold revenue, but generate additional revenue by identifying new opportunities when delivering a service. This session talks about how a PSC, PSE, or Partner can generate valuable sales leads by delivering a consulting service. As an example, we will use the Storage Optimization Review (STOR) report that is part of the Optimization Consulting Services as the tool or data source for this lead generation. This session focuses on leveraging the STOR report to identify opportunities, discuss potential options with the customer, and create high-value leads that have a high likelihood of closing. We will also discuss how STOR can be used both to demonstrate the value of current storage efficiency features in the environment, and drive discussions about storage efficiency features that would be useful in a particular environment. The skills learned in this session can be applied to other consulting services and interactions with customers.

**Presented by:** Anissa Mohler

**Takeaways:**

- Be able to use STOR to demonstrate NetApp's Storage Efficiency features in the customer environment.
- Use STOR to determine where other Storage Efficiency Features can be used.
- Use STOR to help the customer plan their Storage Infrastructure Roadmap

**Technical Level:**

3

**Duration:**

1

**Session Times Offered:**

Tue 4:15 PM 

Wed 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**TOOLS**

**TO-119 NetApp Synergy: A tech team tools fundamentals course covering all of the core NetApp Synergy Plugins**

This course will teach attendees how to run NetApp Synergy and which Plugins map best to their activities. Attendees are encouraged to bring their laptops in order to perform the lab exercises.

**Presented by:** Martin Szymczak, Aaron Sims

**Takeaways:**

- What are the supported tools for NetApp?
- Where do I go to get a copy of the tools?
- How do I apply the results of the tools to my job?

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 9:30 AM  
 Wed 1:30 PM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	●	○	○

**TOOLS**

**TO-120 NetApp Synergy: Illustrating the NetApp Storage Efficiency Story to your Customer**

Attendees in this course will learn how to build a Storage Efficiency Proposal using NetApp Synergy. Attendees will learn how to use the Plugin to build credible, defensible, and visually compelling proposals. Attendees are encouraged to bring their laptops in order to perform the lab exercises.

**Presented by:** Martin Szymczak, Aaron Sims

**Takeaways:**


- What are the supported tools for NetApp?
- Where do I go to get a copy of the tools?
- How do I apply the results of the tools to my job?

**Technical Level:** 3

**Duration:** 1

**Session Times Offered:**

Tue 4:15 PM

Thur 11:00 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
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**TOOLS**

**TO-121 NetApp Synergy: Using Storage Design Studio across the opportunity lifecycle**

Attendees in this class will learn how to build fine grain proposals using Storage Design Studio. The Solution build using Storage Design Studio can then be used to render Visio diagrams and issue commands directly to our platforms. Attendees are encouraged to use their laptops during the lab portion of the session.

**Presented by:** Martin Szymczak, Aaron Sims

**Takeaways:**

- What are the supported tools for NetApp?
- Where do I go to get a copy of the tools?
- How do I apply the results of the tools to my job?

**Technical Level:** 1

**Duration:** 2

**Session Times Offered:**

Tue 1:30 PM

Wed 8:15 AM



Thur 8:15 AM



**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
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**TOOLS**

**TO-136 Tools for Architecting Your DP Solution**

In this session, we will show you the many tools and utilities available for data protection. These tools can assist the SE in sizing and characterizing a potential DP sale, and include SnapVault Sizer, OSSV Sizer, Bandwidth Calculator, VTL Sizer, Profiler, and various DP canned demonstrations.

**Presented by:** Jeremy Merrill, Chris Blackwood

**Takeaways:**

- Be able to use our DP tools/sizers to architect the appropriate solution
- Position the appropriate secondary storage based on customer inputs
- Know how to use and find our DP focused tools/utilities

**Technical Level:** 3

**Duration:** 1

**Session Times Offered:**

Wed 2:45 PM

Thur 11:00 AM



**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	

**TOOLS**

**TO-137 IBM Insight N Series Update**

In this session, the IBM OEM team will provide an update on the N series, including recent product releases, product roadmaps, and solutions. We will discuss the many tools and resources available for IBM and IBM business partners when modeling N series solutions.

**Presented by:** Marye Hart

**Takeaways:**

- N Series updates

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** [Thur 8:15 AM](#)

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

**VIRTUALIZATION & CLOUD**

**VC-101 Integrating NetApp with VMware SRM**

VMware SRM provides automated disaster recovery that is tightly integrated with NetApp backup and disaster-recovery solutions. In this session, we will discuss various integration updates, as well as design, configuration, and deployment guidelines. - SRM NFS support with NetApp backup technologies - SRM + NetApp SMVI integration - deployment scenarios across NFS, iSCSI and FC (ubiquitous and mixed environments) - configuration and troubleshooting guidelines

**Presented by:** Larry Touchette

**Takeaways:**

- Updates on the latest NetApp DR + VMware SRM integrations
- How to design and deploy DR solutions using NetApp + VMware SRM
- Operational Best Practices when deploying SRM-based DR solutions

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Wed 8:15 AM   
 Wed 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	○

**VIRTUALIZATION & CLOUD**

**VC-102 Orchestrate and Automate Enterprise Cloud Storage Management**

Data center needs are constantly changing, but one of the most important needs today is to achieve automated provisioning and protection with zero touch. Provisioning storage to a server and protecting it at the same time has turned out to be a complex, time consuming, and a cumbersome process. These tasks require skilled storage administrators, and the complexity of the task can restrict an IT department's ability to respond quickly to requests for provisioning new capacity. The NetApp solution to this problem is the NetApp Management suite of products in lieu of other third-party orchestration tools. By leveraging the NetApp Management suite of products, the process of provisioning and protection is simplified and automated. In this session, we will show you how NetApp products –

Ops+Prov+Protect Mngrs can be integrated into third-party orchestration frameworks such as VMware VMO, IBM TPM and TIO, HP Insight Dynamics, and so on, to achieve end-to-end automated workflow management. It is this integration that enables NetApp enterprise cloud storage. We will also provide an overview of generic orchestration frameworks, a high-level overview of VMware VMO and IBM TPM, and an overview of NetApp integration infrastructure – APIs

1. Manage ONTAP SDK , Provisioning Manager APIs
2. Briefly about Web services
3. How to integrate NetApp with orchestration frameworks
4. Workflows and use cases
5. Solution brief

This session covers automated storage management for cloud environments integrated with orchestration frameworks.

**Presented by:** Ankur Jain

**Takeaways:**

- How NetApp fits into Cloud
- Build and integrate Custom Storage Management solutions
- Address Key Cloud challenges - Zero Touch Provisioning & Protection, SLA Based Management, Pay-Per-Use

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 8:15 AM  
Tue 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
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**VIRTUALIZATION & CLOUD**

**VC-108 SMVI Best Practices**

This session provides best practices for planning, installing, and running SMVI, including HA for SMVI, and backup and restore of the SMVI server itself. We will cover basic troubleshooting during installation and run-time, and log-file parsing. We will also identify some of the problems you might encounter when dealing with VMware consistency snapshots and larger-scale deployments.

**Presented by:** Jack McLeod

**Takeaways:**

- How to deploy SMVI
- How to run SMVI
- How to troubleshoot SMVI

**Technical Level:** 4      **Duration:** 1      **Session Times Offered:** Tue 4:15 PM  
 Thur 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
○	○	●	○

**VIRTUALIZATION & CLOUD**

**VC-109 Using NetApp DATA ONTAPI to integrate File-Level FlexClone with Virtualization Partners**

Virtualization changes the dynamics of how data is stored on storage arrays. Through the use of the NetApp ZAPI, NetApp can create new opportunities for granular file and data management using File-Level FlexClone. In this session, we will provide in-depth technical details about how ZAPI has been used to integrate with Hyper-V and VMware.

**Presented by:** Uday Boppana, Eric Forgette

**Takeaways:**

- Technical Details of ZAPI
- How to use File-Level FlexCloning in your Virtual Environment
- Integration details with Hyper-V and VMware

**Technical Level:** 4      **Duration:** 1      **Session Times Offered:** Wed 11:00 AM  
 Wed 2:45 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	●

**VIRTUALIZATION & CLOUD**

**VC-121 Designing an End-to-End NetApp and VMware Virtualized Solution**

Virtualization is changing everything. As customers migrate more and more to virtualization, it is important to understand how the overall solution comes together to provide maximum value and flexibility. This session, lead by a team of virtualization experts, will cover architecture and design for server virtualization, desktop virtualization, GOS alignment, management integration, storage efficiency, backup and recovery, and disaster recovery in a VMware and NetApp environment.

**Presented by:** Vaughn Stewart, Chris Gebhardt

**Takeaways:**

- How to design and End-2-End VMware/NetApp Virtualization Solution
- How to create the most storage efficient virtualized environment
- How to prepare for future cloud technologies

**Technical Level:** 4      **Duration:** 3      **Session Times Offered:** Tue 1:30 PM  
Wed 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	

**VIRTUALIZATION & CLOUD**

**VC-122 Designing Dynamic Data Centers with NetApp and VMware**

Join VMware and NetApp for a discussion about new joint efforts that enable virtualized dynamic data centers and expand the capabilities of vSphere 4.0. Topics discussed in this session will include a shared vision of the virtualized dynamic data center, the joint VMware and NetApp roadmap, product integration using vStorage APIs, and recently launched joint solutions. We will focus on enabling virtualization, improving data center efficiency, and increasing performance.

**Presented by:** Arthur Lent

**Takeaways:**

- The joint NetApp-VMware roadmap and vision
- How the integration of NetApp storage with VMware vStorage APIs provides a solid foundation for the virtualized dynamic data center
- How NetApp and VMware joint efforts enable improved data center efficiency, performance, and virtualization

**Technical Level:** 2

**Duration:** 1

**Session Times Offered:**

Wed 8:15 AM 

Wed 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
			

**VIRTUALIZATION & CLOUD**

**VC-123 Extending our Alternative Pathways: Partnering with GSI's and Outsourcers**

This session co-presented by Andrew Kulyk, Sr. Pursuit Team Sales Manager, and Patrick Johnson, Americas West Engagement Manager, will explore the critical role of GSIs and outsourcers in offering alternative pathways and consulting expertise to our customer's. Andy will share his experience from his success at IBM GTS and Patrick will complement this with his years of highly successful customer engagement experience at NetApp. NetApp's continued success will involved close partnerships with GSIs and outsourcers and the keys to approaching and partnering with these key partners will be shared. This session is ideal for those in the business development end of our business such as Engagement Managers, high level Project Managers, Storage Infrastructure Architects, BSAs and SEs.

**Presented by:** Andrew Kulyk, Patrick Johnson

**Takeaways:**

- Understanding the critical role of GSIs and outsourcers in offering alternative pathways and consulting expertise to our customer's.
- Shared experiences working with GSI's.

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Wed 11:00 AM  
Wed 2:45 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
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**VIRTUALIZATION & CLOUD**

**VC-129 Best Practices for Non-Disruptive Migration in Multitenancy Environments Using NetApp Data Motion**

In this session, we will explain how to properly design and configure shared-storage infrastructure environments to support non-disruptive migration of virtual workloads in multitenancy VDDC environments using Data Motion. In addition, we will cover secure multitenancy, non-disruptive architecture lifecycle management, MultiStore, Provisioning Manager, Synchronous SnapMirror, hardware and software requirements, data and network layout design to support Data Motion, as well as application requirements to support Data Motion.

**Presented by:** Larry Touchette, Roger Weeks

**Takeaways:**

- Understanding of how Data Motion enables "always-on" NetApp VDDC architectures
- Data layout configurations required to support Data Motion
- Network Best Practices required to support Data Motion

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Tue 8:15 AM  
 Tue 1:30 PM  
 Thur 8:15 AM



**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
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**VIRTUALIZATION & CLOUD**

**VC-145 Using SANscreen to Optimize the Virtualized Data Center**

Today’s business environment is more challenging than ever before. Global market conditions are subject to rapid change while compliance and regulation issues continue to be more demanding on IT. In order to be more responsive to the business, organizations are looking to create greater efficiencies and drive more accountability for IT to provide the appropriate level of service for the requested application. In an attempt to better control these rapidly changing and growing environments, many organizations have responded by consolidating data centers and infrastructure. A major focus is to create a more efficient and agile data center that more closely aligns the business to IT and the infrastructure to the applications it is supporting. The adoption of such technology creates new layers of complexity and management challenges, especially for those organizations building their first storage network. Organizations will need to verify that existing management solutions are up to the task or find new ones that can accommodate their needs. Organizations need to establish a set of best practices for allocating the appropriate network and storage resources based on an understanding of existing assets. Without an improved level of visibility, storage administrators will be shooting in the dark. This new level of visibility requires a cross domain understanding that provides an end-to-end view of the environment. SANscreen has demonstrated the ability to provide a configuration, capacity and performance end-to-end perspective that enables organizations to take full advantage of virtualization technology. Areas that will be addressed Understanding Performance information before, during and after Migration to a VM environment Understanding Storage Utilization in a Virtualized Environment and impact of VM sprawl Contextual Understanding of a Cross Domain Environment

**Presented by:** John Hanna, Dave Stewart

**Takeaways:**

- Understanding how SANscreen demonstrates the ability to provide configuration, capacity and performance end-to-end perspective that enables organizations to take full advantage of virtualization technology.

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 8:15 AM  
 Tue 9:30 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●			

**VIRTUALIZATION & CLOUD**

**VC-148 VMware vSphere 4.0: Technical Deep-Dive**

Join VMware and NetApp in an in-depth technical overview of the VMware vSphere 4.0 release. In this session, we will talk about the six technology areas associated with vSphere, improvements over VMware VI 3.x, and updates to vCenter and Virtual Center. We will cover feature updates, new technologies, specifications for the new software, and a wide range of other topics focused on vSphere. Additional emphasis will be placed on vStorage APIs, storage multipathing, storage management improvements, and the NetApp role in vSphere deployments.

**Presented by:** Joel McKelvey, Wen Yu

**Takeaways:**

- An overview of the new technologies in VMware vSphere 4.0
- An understanding of the interaction between VMware and NetApp technologies
- The ability to present NetApp and VMware in a joint technology discussion

**Technical Level:** 3      **Duration:** 2      **Session Times Offered:** Wed 8:15 AM  
 Wed 1:30 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	●

**VIRTUALIZATION & CLOUD**

**VC-149 Windows 2008 R2 and Hyper-V Bootcamp**

This session covers planning and deployment of Microsoft Hyper-V R2 and SCVMM 2008 R2 with NetApp storage and technologies. You will learn how to install and configure a Microsoft virtual environment using Microsoft Windows Server 2008 Hyper-V R2 and Microsoft System Center Virtual Machine Manager 2008 R2 from end-to-end, including the network, server, and storage configuration. With the infrastructure deployed, we will cover the rapid and efficient provisioning and protection of virtual machines (backup and recovery, HA, and DR), and the overall operation of the Microsoft virtual environment. We will also talk in detail about best-practice recommendations for deploying Microsoft Hyper-V R2 and SCVMM 2008 R2 with NetApp storage and technologies. The Microsoft Alliance Engineering team will provide a summary of resources, demonstrations, and technical collateral resources that will give you a core knowledge of Hyper-V, emerging best practices, and the methodology supporting them, followed by a substantial Q&A period with the Hyper-V experts inside NetApp.

**Presented by:** Chaffie McKenna, Chris Lionetti

**Takeaways:**

- Technical fundamentals for Hyper-V
- Working knowledge all Hyper-V resources within NetApp and when they apply
- Lifecycle management for Hyper-V environments

**Technical Level:** 2      **Duration:** 3      **Session Times Offered:** Tue 1:30 PM  
Wed 8:15 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	○	○

**VIRTUALIZATION & CLOUD**

**VC-151 A Perfect Match: NetApp Dynamic Data Center and Cisco UCS**

NetApp continues to strengthen its cloud strategy to aid customers who are facing the challenges of cyclical workload requirements, virtualization growth, and the ever-present task of trying to do more with less. By enhancing our existing partnership to solve these customer challenges, the Cisco Unified Computing System (UCS) and the NetApp Dynamic Data Center (NDDC) provides customers with the tools necessary to provision storage, networking, and compute resources on-demand. As the leading provider of IP ports in the data center, Cisco has long been an ally in the Ethernet storage market. An increasing number of customers are migrating to stateless computing environments where any system can be provisioned on-demand to provide a variety of services; therefore, the marriage of NetApp industry leading netboot capabilities with the innovative holistic management approach of Cisco UCS just makes sense. A deployment with Cisco UCS and NetApp storage will truly save customer time and money. : Simplified Agile Virtualized Efficient KEY POINTS: From a unified fabric approach, Cisco networking is key to the NetApp cloud strategy as NetApp is the only storage vendor to provide native FCoE, FCP, iSCSI, NFS, and CIFS on the same controller. Cisco UCS is also important to the NetApp strategy because it closes a loop through the management of storage, compute, and network resources. This session will include a technical overview of NetApp netboot capabilities and discuss the benefits gained in a UCS deployment. It will also provide a technical overview of Cisco UCS, focusing on virtualization capabilities. Cisco UCS manager and service templates aid in truly stateless computing -Integration point discussion for provisioning manager, SANscreen, MetroCluster and additional technologies leveraged in a NetApp and UCS deployment -Discussion around joint marketing projects and future collateral.

**Presented by:** Chris Reno, Trey Layton

**Takeaways:**

- Understanding of how Cisco aligns with NetApp's cloud strategy
- Sound understanding of Cisco UCS and the key elements
- Sound understanding of NetApp's value in a UCS environment

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 9:30 AM  
 Tue 2:45 PM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**VIRTUALIZATION & CLOUD**

**VC-160 Selling the NDDC Solution: Data Center Transformation to the Cloud**


NDDC is NetApp’s proven capability for DC transformation delivering ITaaS clouds and especially IaaS and SaaS. Selling NDDC requires a significant understanding that it is about both technology and processes. This session will provide details about what the NDDC solution, its fit with NetApp’s cloud strategy, how it should be sold and used to drive a vision for customer’s. This is about the consulting sell and what makes customer’s sit up and listen. NDDC Solution consists of Fast-Start Workshop, Proven Delivery Methodology, the Service Oriented Infrastructure (architecture of NetApp-Cisco and others), and Services Management Framework (the processes to operate ITaaS). The NDDC components are applicable to enterprises grade clouds managed internally or by a service provider.

Presenters recommend that anyone interested in the subjects of NDDC, NetApp Cloud, NetApp Cloud as it relates to Storage Efficiency, NDDC Fast-Start workshops and NetApp’s IaaS Cloud solution are encouraged to attend VC-160, VC-161 and VC-162. At a minimum Systems Engineers (pre sales) should attend VC-160 and Professional Services (post sales) should attend at a minimum VC-161 and VC-162. Attendance sequence does not matter.

**Presented by:** Nick Chang,

**Takeaways:**

- Data Center Transformation to the Cloud is about a Service Management, Technology and a consulting solution approach
- Ability to pitch NetApp’s proven DC transformation capability, architecture, and operational best practices to delivery Infrastructure-as-a-Service
- Understand the NDDC as NetApp’s Data Center Transformation solution to aid customers building cloud offerings and that it is very much a consulting sell

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 8:15 AM  
Wed 9:30 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○		

**VIRTUALIZATION & CLOUD**

**VC-161 Fast-Start Workshop: Conducting a business needs discovery with your customers for NDDC, Cloud and Storage Efficiency**

The Fast-Start Workshop is a two to four day pre-sales analysis with a customer to determine the suitability and impact of transitioning their infrastructure towards ITaaS. The workshop provides a logical structure and cohesive front in positioning NetApp value within an organization. The primary goal of the workshop is to accelerate the sales cycle by enabling the sales team to quickly understand the needs of the customers, synthesize a solution with an optimal combination of products and services and immediately present the benefits in terms of TCO savings, Business Agility and Business Risk to the customer. This session will provide details about how to schedule and execute a Fast Start Workshop, detail the resources and Intellectual Property available to assist with the execution of the workshop and how to position the workshop outcomes to lead to numerous short-term and long-term NDDCS engagements.

**Presented by:** Jim Barton

**Takeaways:**

- Knowledge of how and when to leverage the Fast Start Workshop to perform a value discovery exercise with customers
- Knowledge on the FSW methodology and consultative approach. In addition, knowledge of the use of the different tools to build a Business Justification to move the customer into an ITaaS model.
- Knowledge of key roles and responsibilities amongst all NetApp (Sales, SE, PS) & Partner team members.

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 9:30 AM  
 Tue 1:30 PM   
 Wed 11:00 AM 

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	○	

**VIRTUALIZATION & CLOUD**

**VC-162 NDDC Solution: The Architecture and framework of the NDDC Solution: Understanding NetApp’s IaaS Cloud solution**

The NetApp Dynamic Data Center Solution (NDDCS) provides foundation for the NetApp Cloud (IaaS) service offering and consists of three components, a Service-Oriented-Infrastructure (SOI), Service Management Framework (SMF) and a proven Project Delivery Methodology (PDM).

This session will cover all three components with emphasis on the architecture and framework in order to build and manage a storage infrastructure to enable customers to offer true ITaaS capabilities. Key topics to be covered are:

- The SOI Modular Architecture
- Modular approach to enable new features at the storage, network and host layers
- The Service Management Framework
- 7 Services and 5 processes to manage a shared storage infrastructure
- Service Catalog
- Converting IT into a proactive organization rather than a reactive organization
- The Implementation Methodology – will be covered briefly.

The NDDCS components are applicable to enterprises grade clouds managed internally or by a service provider

**Presented by:** Jim Barton

**Takeaways:**

- An understanding that the NDDCS Service Orientated Architecture is a modular architecture that provides the foundation of the NetApp Cloud Offering (ITaaS) by offering storage services to the consumer via a service catalogue.
- The Service Management Framework which consists of 7 Services and 5 Processes a storage team requires to run ITaaS
- The Project Delivery Methodology that builds the implementation path towards a ITaaS solution

**Technical Level:** 2      **Duration:** 1      **Session Times Offered:** Tue 4:15 PM  
Wed 2:45 PM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
	●	●	

**VIRTUALIZATION & CLOUD**

**VC-200 Citrix: Citrix Essentials for XenServer and Hyper-V helps customers transform datacenters into proactive and automated delivery centers.**

Citrix Essentials™ for XenServer and Hyper-V™ provides a set of management and automation capabilities that extends the capabilities of either the free Citrix XenServer or Microsoft Hyper-V to help customers transform datacenters into proactive and automated delivery centers. As part of the Citrix Essentials pack, Citrix StorageLink lets users automate the configuration and provisioning of virtual machine storage, taking advantage of advanced features of the attached NetApp storage array. StorageLink enables the user to create Microsoft Hyper-V and Citrix XenServer virtual machines from logical NetApp specific storage repositories that supports advanced capabilities such as snapshots, cloning, thin cloning, thin provisioning, mirroring, and data deduplication. StorageLink also uses advanced storage capabilities to rapidly create virtual machines, increase storage utilization, and provide improved business continuity while lowering total cost of ownership. This session does a technical deep dive into the architecture, features and roadmap of StorageLink, and how NetApp storage systems integrate with it.

**Presented by:** Chaitanya Upadhyay Biki Malik

**Takeaways:**

- Learn about StorageLink
- How Citrix works with NetApp
- How Citrix can help NetApp customers who have Hyper-V or XenServer environments

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	○	○

**VIRTUALIZATION & CLOUD**

**VC-201 NEC: Automated High Availability and Disaster Recovery Best Practices for Virtualized Infrastructure**

Virtualization and server consolidation address the needs of today’s data center environment by taking a large step forward towards a more rational, efficient, and flexible system infrastructure. Virtual system consolidation is especially attractive by using virtualization technology to enable consolidation of multiple virtual systems on to fewer physical servers to improve overall system flexibility and resource utilization. However, consolidating multiple virtual systems on to fewer physical host servers presents increased risk of greater business

disruption due to failures and disasters. In this session we will discuss best practices that leverage the integration between NetApp Dynamic Data Center and NEC software technologies to enable automated solutions for virtualized infrastructure running a broad range of hypervisors (VMware, Hyper-V, Xen) that can recover entire systems without manual intervention in minutes even in the case of major disasters.

**Presented by:**

**Takeaways:**

- Understanding of the increased risks of greater business disruption due to failures and disasters in virtualized infrastructure
- Understanding of the need for automated recovery of business critical systems in virtualized infrastructure
- Understanding of the value and benefits of automated high availability and disaster recovery solutions for virtualized infrastructure leveraging the integration between NetApp SnapMirror and NEC ExpressCluster

**Technical Level:** 1      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●		

**VIRTUALIZATION & CLOUD**

**VC-202: Inscope Solutions Inc.: Mission Critical Desktop - Elevating the Desktop from Afterthought to a True Data Center Service**

Technology is the lynchpin of any successful business nowadays. Millions of dollars are spent on technology each year to ensure that critical services are provided, protected and engineered to support the needs of a business. It has been the norm to protect back-office systems and infrastructure as essential mission critical elements of a business for many years now. However, an often overlooked business asset that truly has direct business impact is the individual desktop computers employed across a given organization. Why is it that these assets are not viewed equally as critical components for a business? Why are they not managed and protected at the levels other critical business elements are? We will discuss the means to deliver and manage desktop computers at service levels traditionally reserved for data center service offerings, to include all of the essential reliability, scalability and availability services. Our Mission Critical Desktop Solution combines key virtualization technologies from VMware along with essential storage technologies from NetApp to raise the bar on how desktops are managed within an organization, elevating them from single, standalone entities to a full-fledged enterprise service within the data center. We will discuss the following solution capabilities available through this integrated solution architecture: - Consolidated Desktop Management - Desktop Baseline Management - Rapid Provisioning - Desktop High Availability - Desktop Data Protection - Desktop Disaster Recovery - Reduced Storage Footprint While developing the

Mission Critical Desktop solution, we realized that VMware products alone are a key enabler for desktop virtualization; however, they did not fully meet the depth of capabilities we were looking for. By fusing VMware View with the inherent capabilities provided through NetApp storage technology (Reliability, Scalability & Recoverability), the solution truly allows a client to define desktop services as a true data center offering for their end users. The solution architecture of both VMware and NetApp solutions make them naturally aligned for integration as they complement and leverage one another’s key strengths to provide a unique technical approach to a historically neglected business challenge.

**Presented by:** Rob Orndorff Steve Conner

**Takeaways:**

- Understanding of VMware/NetApp combined value
- Understanding of Data Center Service Offerings
- Understanding of Desktop Virtualization

**Technical Level:** 3      **Duration:** 1      **Session Times Offered:** Tue 11:00 AM

**Target Audience:**

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	○	○	

**VIRTUALIZATION & CLOUD**

**VC-205 Chelsio: 10GbE for converged fabrics**

There are several drivers today for the move to 10GbE as the converged fabric of the data center. We will examine these drivers and the various protocols that are involved in enabling this fabric convergence.

**Presented by:** Kianoosh Naghshineh

**Takeaways:**

- 10GbE is the ideal choice for a converged fabric
- 10GbE is the ideal choice for virtualization, consolidation
- Software protocols for a converged fabric are now mainstream

Technical Level: 2      Duration: 1      Session Times Offered: Tue 11:00 am

Target Audience:

Technical Solution Selling	Architecting	Implementing	Operations / Troubleshooting
●	●	●	○

**CERTIFICATION TESTING**

**Free NetApp Certification Exams Offered at Insight**

Don't miss this opportunity to validate your skills and demonstrate your proficiency in the latest NetApp technologies and solutions. Stop by the certification room at Insight to sign up. Testing slots are available on a first-come, first serve basis. You may sign up in advance. Your time slot will be held for 5 minutes. The exams take approximately 75 – 90 minutes each. Exams must be started 90 minutes before closing each day.

Phoenix		Athens	
Monday	10:00 AM – 2:30 PM (last sit 1:00 PM)	Sunday	10:00 – 17:30 (last sit 16:00)
Tuesday	7:15 AM – 8:00 PM (last sit 6:30 PM)	Monday	12:30 – 19:45 (last sit 18:00)
Wednesday	7:15 AM – 4:00 PM (last sit 2:30 PM)	Tuesday	7:15 – 16:00 (last sit 15:30)
Thursday	8:00 AM – 3:00 PM (last sit 1:30 PM)	Wednesday	8:00 – 15:00 (last sit 14:30)

**Logistics** Bring your laptop at the Phoenix event. Laptops will be available in Athens. All books, bags and materials will be checked at the door. You may take multiple exams but no exam may be taken twice in the same day. Information regarding practice exams can be found below.

**The following NetApp Certification Exams will be offered at the 2009 Insight Conferences:**

**NetApp Certified Data Management Administrator (NCDA):** NetApp Certified Data Management Administrators have proven skills in performing in-depth support, administrative functions, and performance management for NetApp storage appliances running the Data ONTAP® operating system in NFS and Windows® (CIFS) multiprotocol environments. They are able to implement active-active controller configuration and SyncMirror® for continuous data availability and rapid data recovery in the event of a disaster. They also have detailed knowledge of SnapMirror®, SnapRestore®, and SnapVault®, which they use to manage and protect mission-critical data.

- **Required Exams for NCDA:**

Exam Number	Exam Name	Total Questions	Time Limit
NS0-153	Storage Networking Professional	40	60 minutes
NS0-163	Data Protection Solutions Professional	40	60 minutes

- **Preparing to take the exam:**

- To see detailed information about preparing to sit these exams, visit NetApp University's Certification web page at: <http://www.netapp.com/us/services/university/certification.htm>
- Click on the NCDA certification to learn more.

**NetApp Certified SAN Implementation Engineer (NCIE-SAN):** NetApp Certified SAN Implementation Engineers have proven skills in implementing customer storage requirements, implementing Fibre Channel and iSCSI SAN solutions, and integrating different operating systems and applications such as Microsoft® Exchange, Microsoft SQL Server™, DB2®, and Oracle®.

- **Required Exam(s):**

Exam Number	Exam Name	Total Questions	Time Limit
NS0-501	NetApp Certified SAN Implementation Engineer	60	90 minutes

- **Preparing to take the exam:**

- To see detailed information about preparing to sit these exams, visit NetApp University's Certification web page at: <http://www.netapp.com/us/services/university/certification.htm>
- Click on the NCIE-SAN certification to learn more.

**NetApp Certified Backup and Recovery Implementation Engineer (NCIE-Backup and Recovery):** NetApp Certified Backup and Recovery Implementation Engineers have proven skills in positioning NetApp disaster recovery solutions, assessing customer storage requirements, and implementing a backup and recovery solution.

- **Required Exam(s):**

Exam Number	Exam Name	Total Questions	Time Limit
NS0-510	NetApp Certified Backup and Recovery Implementation Engineer	51	90 minutes

- **Preparing to take the exam:**

- To see detailed information about preparing to sit these exams, visit NetApp University's Certification web page at: <http://www.netapp.com/us/services/university/certification.htm>
- Click on the NCIE-Backup and Recovery certification to learn more.

**NetApp Certified Storage Security Implementation Engineer (NCIE-Backup and Recovery):** NetApp Storage Security Implementation Engineers have proven skills in implementation, support, and performance management for NetApp DataFort appliances in both SAN and NAS environments. They have working knowledge of at least one tape backup application and at least one disk multipathing application. They are also familiar with OSI model layers 1 to 3 and network storage sharing.

- **Required Exam(s):**

Exam Number	Exam Name	Total Questions	Time Limit
NS0-530	NetApp Certified Storage Security Implementation Engineer	77	90 minutes

- **Preparing to take the exam:**

- To see detailed information about preparing to sit these exams, visit NetApp University's Certification web page at: <http://www.netapp.com/us/services/university/certification.htm>
- Click on the NCIE-Storage Security certification to learn more.

**Contact Eric Fusilero ([eric.fusilero@netapp.com](mailto:eric.fusilero@netapp.com)) if you have any questions.**

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## TRANSLATED SESSIONS (Japanese)

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SI-125 Best Practices for V-Series Implementation	Tue	9:30 AM
MC-201 Microsoft: Microsoft and NetApp – Working Together	Tue	11:00 AM
CO-113 Back to Basics: Winning Against Top NetApp Competitors	Tue	1:30 PM
SI-176 Data ONTAP 8.0 Update	Tue	4:15 PM
TO-121 NetApp Synergy: Using Storage Design Studio across the opportunity lifecycle	Wed	8:15 AM
VC-161 Fast-Start Workshop: Conducting a business needs discovery with your customers for NDDC, Cloud and Storage Efficiency	Wed	11:00 AM
SI-158 Recipe for Efficiency: VMware vSphere and Microsoft Enterprise Applications, NFS, iSCSI, FC	Wed	1:30 PM
VC-129 Best Practices for Non-Disruptive Migration in Multitenancy Environments Using NetApp Data Motion	Thur	8:15 AM
SI-109 Application Performance Profiles and Sizing Guidelines for 64-Bit Aggregates	Thur	11:00 AM

**VIDEO TAPED SESSIONS** 

The following sessions will be videotaped at Phoenix Insight (available for premium video replay)

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DB-101 Best Practices and Performance Analysis of Business Applications and Database using NFSv4	Tue	2:45 PM
DB-108 SnapCreator Framework: - A Platform-Independent Approach To Business Applications	Wed	2:45 PM
DB-116 Best Practiced: Data ONTAP 8.0 7-Mode Large Aggregate and Oracle Databases	Wed	1:30 PM
EA-102 Optimizing NFS Stack for Maximum Performance	Tue	9:30 AM
EA-106 Data ONTAP 8.0 Windows File Services: Functional Overview and Comparison to Data ONTAP 7G and GX	Thur	9:30 AM
EA-117 Architecting Windows File Services: Enhancing Security, Performance, and User Experience	Thur	11:00 AM
EA-120 NAS Best Practices for Storage Efficiency and Performance in High-File-Count Environments	Wed	8:15 AM
MA-100 Centralized Performance Monitoring, Alerting and Diagnosis of Data ONTAP 7G Systems	Thur	9:30 AM
MA-106 NetApp vStorage Console and SAN Configuration for Guest VMs	Tue	1:30 PM
MA-110 Implementing Protection Manager in an Existing SV / SM / OSSV Environment	Wed	1:30 PM
MC-105 Advanced Topics: Microsoft Exchange 2010.	Tue	1:30 PM
MC-106 Advanced Microsoft Sizing Workshop	Tue	8:15 AM
MC-107 Deep-Dive: SnapManager for Exchange 6.0	Tue	4:15 PM
MC-110 SharePoint Best Practices Using NetApp Protection Manager and DR Site Recovery	Tue	8:15 AM
MC-200 VMware: Virtualizing Microsoft Exchange Server 2007 with VMware vSphere 4 and NetApp Storage	Tue	11:00 AM
MC-203 Architecting a Virtualized Microsoft Exchange Implementation	Tue	11:00 AM
SI-104 Practical Networking for Storage Engineers	Thur	8:15 AM
SI-105 SAN Storage Efficiency DeDuplication and Thin Provisioning	Wed	11:00 AM
SI-132 Choosing the Appropriate NetApp Performance Option to Optimize Applications	Thur	8:15 AM
SI-175 Scaling Storage Network Infrastructure Using 10-GbE	Wed	11:00 AM
SI-176 Data ONTAP 8.0 Update	Wed	11:00 AM
SI-205 Brocade: Data Center Evolution: Converged Networks and what it means to your customer	Tue	11:00 AM
TO-108 Gathering and Managing Performance Data	Wed	9:30 AM
TO-109 Storage Efficiency Tools Uncovered	Tue	4:15 PM
TO-114 Leveraging the NetApp Storage Optimization Review to Increase Footprint	Tue	4:15 PM
TO-119 NetApp Synergy: A tech team tools fundamentals course covering all of the core NetApp Synergy Plugins	Wed	1:30 PM

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TO-120 NetApp Synergy: Illustrating the NetApp Storage Efficiency Story to your Customer	Thur	11:00 AM
TO-121 NetApp Synergy: Using Storage Design Studio across the opportunity lifecycle	Thur	8:15 AM
TO-136 Tools for Architecting Your DP Solution	Thur	11:00 AM
VC-101 Integrating NetApp with VMware SRM	Wed	8:15 AM
VC-122 Designing Dynamic Data Centers with NetApp and VMware	Wed	8:15 AM
VC-151 A Perfect Match: NetApp Dynamic Data Center and Cisco UCS	Tue	2:45 PM
VC-160 Selling the NDDC Solution: Data Center Transformation to the Cloud	Wed	9:30 AM
VC-122 Designing Dynamic Data Centers with NetApp and VMware	Wed	8:15 AM
VC-151 A Perfect Match: NetApp Dynamic Data Center and Cisco UCS	Tue	2:45 PM
VC-160 Selling the NDDC Solution: Data Center Transformation to the Cloud	Wed	9:30 AM
VC-161 Fast-Start Workshop: Conducting a business needs discovery with your customers for NDDC, Cloud and Storage Efficiency	Tue	1:30 PM
VC-162 NDDC Solution: The Architecture and framework of the NDDC Solution: Understanding NetApp's IaaS Cloud solution	Wed	2:45 PM

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