



**Driving Innovation  
Through the Information  
Infrastructure**

**SPRING 2011**



# Unplanned Disaster Leads to Storage Freedom

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# Flight Options: Company Overview

- Launched in 1997
- Leader in the private jet travel industry
- Owns, operates more than 100 aircraft
- Provides service to more than 1,300 members and owners
- Monitors flights 24/7 through NASA-like, state-of-the-art operations control center



# Flight Options: Technology Environment

- Hardware
  - Dell Compellent Storage Center
  - VMware ESX servers
  - 100 virtual machines
  - Mixed SATA and FC drives
- Network
  - 100 MB Drop with Cisco-LinkSys
  - HP5300 POE switches
- Applications/OS
  - Windows
  - Linux
  - Oracle on Red Hat 4
  - Microsoft Exchange
  - Microsoft SQL Server
  - Flight Control apps
- IT Staff
  - 12 total

# Data Center Struggles to Keep Up

- Outdated storage and server hardware
- Inflexible and labor-intensive management
- Inefficient disk and server utilization
- Limited virtualization capabilities
- Restricted scalability to support storage growth
- And then...



# And Then, The Great Flood!

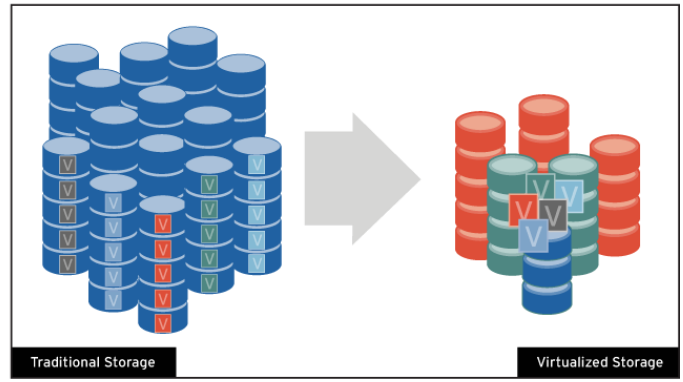
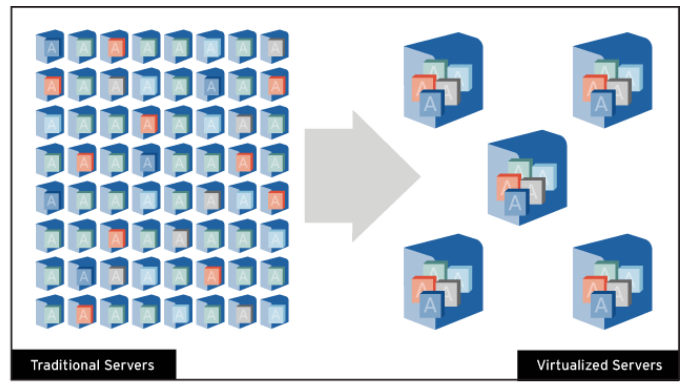
- Leaking 5-ton A/C unit put the legacy SAN underwater
- Water damage prompted an emergency upgrade
- Needed to find a solution fast but didn't want to simply react
- Sought out a solution that would better meet our business needs
- Chose a new storage solution, which was shipped within 20 hours and operational within 36 hours of the Great Flood

# Upgrade Must-Haves

- True virtualized storage
- Fully automated, hands-free, sub-LUN tiering
- Intuitive interface for easier management
- Intelligent reporting to optimize performance and reduce costs

# Built-in Virtualization

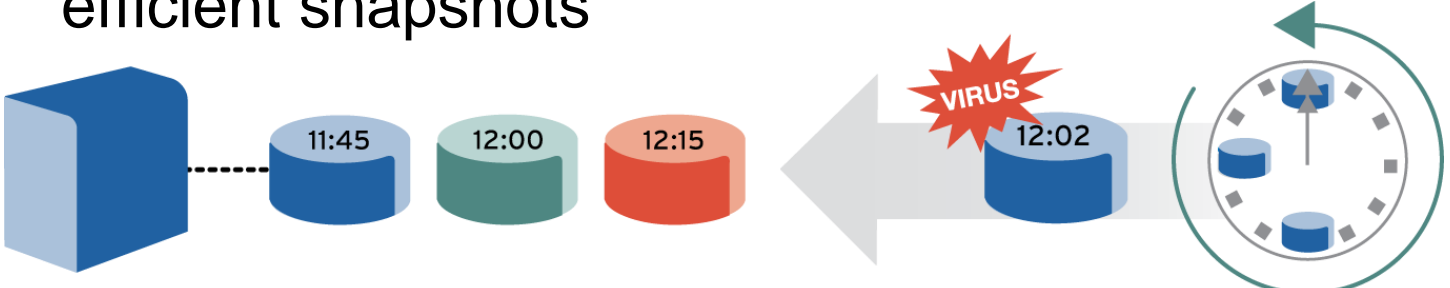
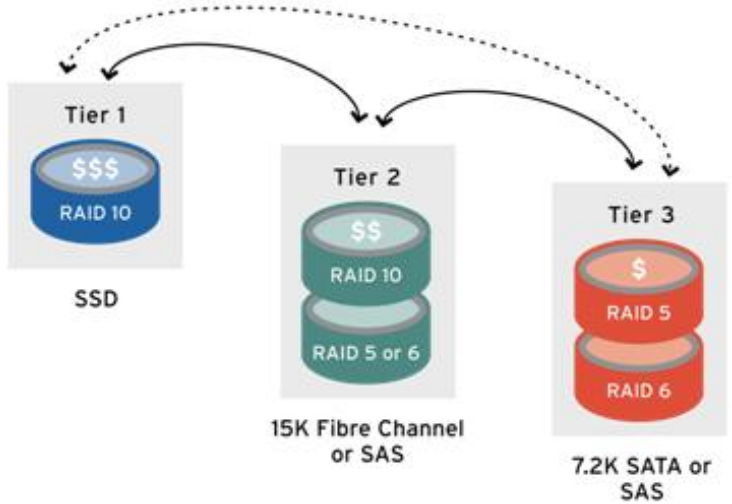
- Add disks incrementally and only when needed
- Require less power, less cooling, smaller footprint
- Recover previously allocated, but unused space
- Quickly provision virtual machines





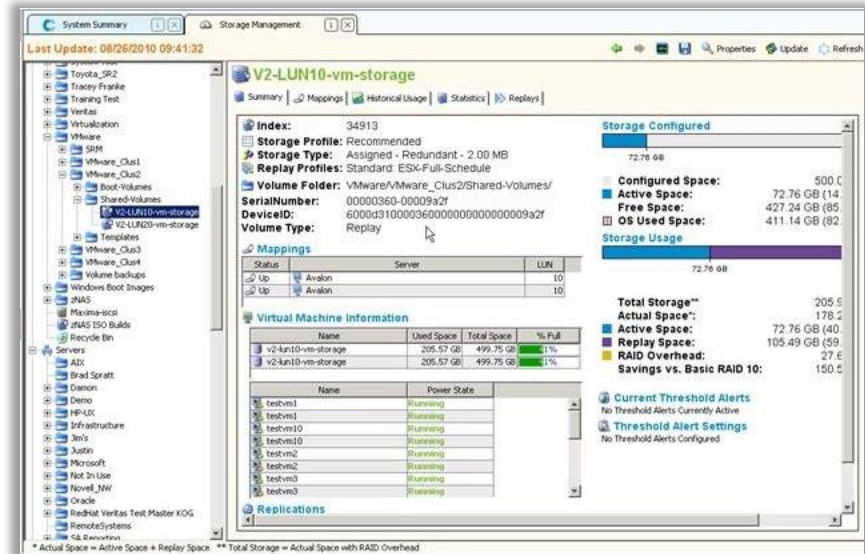
# Fluid Data Architecture

- Automates sub-LUN tiering through policies
- Manages data as granular block
- Enables precise data movement through real-time intelligence
- Protects data through efficient snapshots



# Intuitive Interface

- View the storage environment in one interface
- Easily monitor storage and server consumption
- Easily map storage volumes
- Automate repetitive tasks
- Manage storage in less time
- Simplify capacity planning and increase capacity





# Soaring to New Heights! Results

- Completed upgrade and replacement in days with no disruption to business operations
- Effects of the flood were invisible to customers and employees outside the data center
- Eliminated more than 100 servers
- Virtualized 100% of the data center for improved operating efficiency

# Soaring to New Heights! Results (continued)

- Only require a single A/C unit
- Significantly reduced power and cooling costs
- Cut admin time and reduced TCO
- Management time down from 4 hours to 15 minutes per week
- Improved performance for critical applications



# Thank you!

- Questions
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