NetApp, Standards & Open Source

Innovation & Leadership

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January 22, 2013
Discussion Topics

- NetApp in a nutshell
- Why we invest in standards activities
- NetApp industry participation strategy
- NetApp and open source software
- Summary
NetApp is a $6 billion, Fortune 500 storage and data management company.
World’s Top Companies Use NetApp

- Based on FY 2011 revenue of $5.1B
- NetApp is #474
- 96 out of the Fortune 100 companies are NetApp customers*

*Based on NetApp customer bookings and NetApp AutoSupport users in FY 2011 and FY 2012. From FORTUNE Magazine, May 21, 2012. © 2012 Time Inc. FORTUNE is a registered trademark of Time Inc. and is used under License. FORTUNE and Time Inc. and Time Inc. are not affiliated with, and do not endorse products or services of, Licensee.
Innovation Fuels Success

Forbes’ Worlds’ Most Innovative Companies

- NetApp is #51 out of 100
- 84% are NetApp customers

http://www.forbes.com/special-features/innovative-companies.html
Innovations That Transform Business

Performance

1992-2002
- First network-attached storage appliance
- First multiprotocol storage appliance
- NearStore® storage appliance
- Unified SAN and NAS storage appliance

Efficiency

2002-2010
- RAID-DP® disk resiliency
- Thin provisioning and virtual data copies
- MetroCluster™ array-based clustering and synchronous mirroring
- Unified dedupe for primary and secondary storage
- First flash-based cache in an enterprise controller
- First FCoE network connectivity in a storage controller
- First file-level FlexClone® volumes

Scale

2010-2012
- Nondisruptive data migration of tenants
- First isolated, end-to-end, multi-tenant solution
- First converged 10Gb Ethernet network
- Inline data compression across all storage tiers
- First to support industry-standard for shared high-performance parallel I/O
- First to enable scale-out across unified SAN and NAS systems
- First clustering across unified SAN and NAS

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Culture as a Competitive Differentiator

#1 Switzerland
#1 Austria
#1 Research Triangle Park
#2 EMEA
#2 Germany
#2 Japan
#2 France
#2 Australia
#3 Canada

#4 Chicago
#5 United Kingdom
#5 Pittsburgh Tech Center
#6 United States
#6 New York
#7 Washington, D.C.
#8 Netherlands
#10 India
#10 Minnesota
Why we invest in standards activity

Standards are important to our customers

- Protect technology investment
- Mitigate technical risk
- Ensure a base level of interoperability
- Avoid vendor lock-in
- Provide choice among products
- Ensure continuing innovation to address IT challenges
- Commonality leads to less training, simpler deployment
Standards Enable Rapid Pace of Technology Innovation

- Rich set of industry standards aligns vendor ecosystem
- Industry association evangelism accelerates customer & industry acceptance
- Pace of technological advance is a function of the aggregate pace of the industry
- Vendors and their partners focus on turning technology change into customer value

... It is in our own self interest to actively participate in standards and industry associations
NetApp Approach

- **Standards = Innovation**
  - Standards define new/improved ways of performing some function
  - Meet the requirements of competing vendors
  - Drives ecosystem of multiple interoperable product architectures
  - Innovation is a *requirement* for success

- **Participation = Driving the industry agenda**
  - Non-participation allows competitors to drive
  - Leadership enables you to influence direction and positioning and be perceived as an industry expert
  - IT and media value these “vendor neutral” voices
  - Leadership is a *requirement* for success
  - Visibility is a *consequence* of leadership
Industry Participation Strategy

- Industry participation consistent with being a leading storage vendor
  - Appropriate breadth of engagement
  - Leadership in selected venues
  - Build long-term participant bench strength

- Drive NetApp’s strategic business agenda through standards and industry organizations
  - Support product leadership through standards innovation
  - Advance and promote strategic technologies
  - Enhance partner relationships
  - Closely align with business and Marketing agenda
  - Global leverage of industry associations for leadership visibility
Cloud & Virtualization Engagements

- **Cloud Storage**
  - SNIA Cloud Storage Initiative
  - Cloud storage education & CDMI ecosystem development
  - Open Virtualization Format (OVF) spec

- **Virtualization**
  - DMTF
  - OpenStack Foundation
  - OASIS TOSCA WG
  - Open Virtualization Alliance
  - Ovirt.org
  - Open Virtualization Alliance
  - Open Data Center Alliance

- **Open Source**
  - Open source platform for cloud environments
  - Topology & orchestration spec for cloud apps
  - Solution blueprints for Cloud Data Centers

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Open Source Engagements

- Open Fabrics Alliance
  - APIs for RDMA networks

- OpenStack Foundation
  - Open source platform for cloud environments

- OpenSFS
  - Scalable file system (Lustre) advancement and promotion

- oVirt.org
  - Open source s/w for KVM solutions

- Linux Foundation
  - Linux OS development & contribution

- Open BSD
  - BSD Unix development & contribution

Open source s/w for KVM solutions
Summary

- Innovation and pleasing our customers are core values at NetApp
- NetApp’s industry association and standards activities are an integral part of the corporate innovation and leadership agenda
- We have a long history of supporting and contributing to open source initiatives
- We view this as an important component of our partnering agenda
- NetApp industry representatives span the entire company, from engineering to marketing to field support, to IT
- NetApp is broadly viewed as a leader in the storage industry through its industry association efforts