Technology Evolution That Drives the Cloud

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EMC Indonesia
Agenda

Who is EMC

Your Cloud with Cisco and EMC

Outside the Cloud
EMC Overview

EMC is a global leader in enabling businesses and service providers to transform their operations and deliver Information Technology as a service. Fundamental to this transformation is cloud computing. Through innovative products and services, EMC accelerates the journey to cloud computing, helping IT departments to store, manage, protect and analyze their most valuable asset — information — in a more agile, trusted and cost-efficient way.

EMC at a Glance

- Revenues (2011): $20B
- (2012) Projected Revenue: $22B
- Fortune 500 Rank: 152
- Employees: ≈ 53,500
- Countries with EMC operations: 85
- R&D investment (2011): ≈ $2B
- Total cash and investments (2011): $10.8B
- Market capitalization: ~$57B (2/29/12)
- Founded: 1979

Recognized Leadership

- #1 external storage
- #1 external RAID
- #1 networked storage
- #1 NAS
- #1 total storage software
- #1 storage management software
- #1 device management software

EMC is recognized as a global leader in cloud computing, providing innovative products and services, accelerating the journey to cloud computing, helping IT departments to store, manage, protect and analyze their most valuable asset — information — in a more agile, trusted and cost-efficient way.

Partners

Services and Consulting
Full range of complementary services; examples: Accenture, BearingPoint, and CSC

Global Alliance
Jointly define, test, integrate, deliver, and support; examples: Microsoft, Oracle, SAP, and Cisco

Service Providers
Access to innovative, scalable infrastructure services; examples: Fujitsu Services, Bull, Dimension Data

Channels
Specialized expertise to build unique solutions; examples: Fujitsu Siemens, Unisys
The EMC Product Portfolio

ENTERPRISE APPLICATIONS

BIG DATA APPLICATIONS

Greenplum

vShield

vCloud Director

Ionix

VPLEX

Isilon

Atmos

Data Domain, Avamar, NetWorker
# Global Market Presence — Worldwide Market Share

## Storage Hardware CY 2011

<table>
<thead>
<tr>
<th>External Disk Storage</th>
<th>External RAID</th>
<th>Networked Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC</td>
<td>28.5%</td>
<td>EMC</td>
</tr>
<tr>
<td>IBM</td>
<td>13.5%</td>
<td>IBM</td>
</tr>
<tr>
<td>NetApp</td>
<td>12.4%</td>
<td>NetApp</td>
</tr>
<tr>
<td>HP</td>
<td>10.7%</td>
<td>HP</td>
</tr>
<tr>
<td>Hitachi</td>
<td>8.8%</td>
<td>Hitachi</td>
</tr>
<tr>
<td>Dell</td>
<td>7.8%</td>
<td>Dell</td>
</tr>
<tr>
<td>Sun/Oracle</td>
<td>2.5%</td>
<td>Sun/Oracle</td>
</tr>
</tbody>
</table>

## Storage Software CY 2011

<table>
<thead>
<tr>
<th>Storage Software</th>
<th>Storage &amp; Device Mgmt.</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC</td>
<td>24.6%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Symantec</td>
<td>15.4%</td>
<td>Symantec</td>
</tr>
<tr>
<td>IBM</td>
<td>14.1%</td>
<td>IBM</td>
</tr>
<tr>
<td>NetApp</td>
<td>8.5%</td>
<td>Hitachi</td>
</tr>
<tr>
<td>HP</td>
<td>6.4%</td>
<td>NetApp</td>
</tr>
<tr>
<td>Hitachi</td>
<td>4.5%</td>
<td></td>
</tr>
</tbody>
</table>

## Data Prot. & Recovery

| Symantec | 28.1% |
| IBM      | 16.1% |
| EMC      | 13.3% |
| CommVault| 5.8%  |
| HP       | 5.6%  |


Note: EMC does not play in the File System Software market segment
Your Cloud with Cisco & EMC

WHAT IS IT?
MARKET Landscape

Public Cloud

Single Stack

Reference Architecture

Private Cloud

Converged Infrastructure

Google
Amazon.com
Microsoft
Rackspace Hosting
Oracle

IBM

VSPex

Dell

Vblock

NetApp

EMC

Cisco

VMware

salesforce.com
• Powered By A Rich Ecosystem Of Leading Technology Vendors.
• Validated For Predictable Performance.
• Provides Choice Without Complexity.
• Fits Your Existing IT Infrastructure.
VSPEX Proven Infrastructures
At Launch

- **Private Cloud**
  - 50 – 100 Virtual Machines
  - 125 – 250 Virtual Machines

- **End-User Computing**
  - 250 – 2000 Virtual Desktops

- **Private Cloud**
  - 50 - 100 Virtual Machines

- **End-User Computing**
  - 250 – 2000 Virtual Desktops
VSPEX End User Computing for up to 500 Virtual Machines - High Level Topology

Server Hardware:
- 5 x Cisco UCS C260 M2 Server high config, 2 x Cisco UCS P81E VIC

Network & Storage Hardware:
- 2 x Cisco Nexus 5548 UP Switch with L3 daughter card
- 1 x EMC VNX 5300 Storage

Software Configuration:
- VMware vSphere 5.0
- Citrix Xen Desktop 5.6
- Microsoft SQL Server 2008 R2 Enterprise
- VMware Virtual Center 5.0
- Cisco Nexus 1000V Series
- Machine Creation Service (MCS)
What is Converged Infrastructure?

- Virtualization, server, storage, networking, security and management in a single system
- Pre-Engineered, validated, and physical and logical Integration
- Solutions validation
- Roadmap planning, interoperability testing, change management and upgrades
- Support

The Emergence of Converged Infrastructure and Cloud Computing
A New Way to Deliver IT

**Vblock™ Infrastructure Platforms**

- Management and Orchestration: Unified Infrastructure Manager (UIM) framework
- Virtualization: VMware
- Compute: Cisco UCS
- Network: Cisco Nexus and MDS switching
- Storage: EMC Symmetrix VMAX or Unified Solutions and Services

- Accelerate time to value of business applications
- Seamless Support
Vblock Solutions

Horizontal Application Solutions
- Virtual Desktop
- ERP (e.g. SAP)
- Collaboration (e.g. UC)
- Messaging (e.g. Exchange)
- Analytics (e.g. Greenplum)

Application Development Solutions
- Cloud Application Lifecycle Management (e.g. SpringSource)
- Cloud Application Platforms

Vertical Application Solutions
- Service Providers
- Financial Services
- Energy
- Public Sector and Federal
- Healthcare

Infrastructure as Service Solutions
- Service Management
- Chargeback
- Security
- Capacity Planning
Vblock Seamless Support Experience
Enabling Pervasive Virtualization and Private Cloud

- Unified inter-company collaboration tool
- Joint problem re-creation labs
- Single experience for onsite and remote support
- Cross-company, cross-product-trained support experts
- Cooperative Engineering Groups
- Common metrics and alignment
- Shared problem resolution and escalation processes
- Documented processes via best practice Support Implementation Plan
VCE Model – the Best of the Best

- Cisco
  • Undisputed leader in networking
  • Leading innovator in blade technology

- EMC
  • Undisputed leader in storage
  • Leading innovator in information management & security

- Intel
  • Undisputed leader in platforms
  • Leading innovator in core architecture

- VMware
  • Undisputed leader in virtualization
  • Leading innovator in cloud application enablement

Converged Infrastructure & Cloud Deployment
Proven solution with customer reference
Outside the Cloud
Disaster Avoidance
EMC VPLEX

Multi-site federation

Same information
Separate locations
Accessible anywhere
Business Continuance and Disaster Avoidance

Data Center 1

VMware
vCenter

VMware
vSphere

Nexus 1000V

VPLEX
Engine

EMC
VMAX

Data Center Interconnect

Fully Active Globally Coherent Storage

SAN

Data Center 2

VMware
vCenter

VMware
vSphere

Nexus 1000V

VPLEX
Engine

EMC
DMX

SAN
http://c2.e3app.com
Data Centre of the Future:
How Will Big Data Transform Your Business and IT
Thank you.