Cloud Computing
The VMware Perspective

Wendy Perilli
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Cloud Computing: The Key Questions

What is it?

Why do you need it?

What can I expect from the cloud?

How do you build or leverage one?
Different Types Of Cloud Computing

2 Main Deployment Environments

- Public – Accessible over the internet for general consumption
- Private – Behind a firewall for use by limited, pre-determined audience

Application/Information – Sometimes referred to as Software-as-a-Service, a wide ranging services delivered via varied business models normally available as public offering.

Development – Sometimes referred to as Platform-as-a-Service, application development platforms enable application authoring and runtime environment.

Infrastructure – Sometimes referred to as elastic compute clouds or Infrastructure-as-a-Service, virtual hardware made available for varied uses.
The VMware Vision: IT as a Shared Service Delivered Through Private Cloud
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Private Cloud: The Efficiency Without the Disruption

The Efficiency of Cloud Computing...

Business
- Fast response times
- Contractual and auditable SLAs
- Usage based, pay-as-you-go financial model

IT
- Economies of scale, cost savings
- High performance, highly available, agility
- Policy-driven automation
- Shift to service based IT

...Without the Risk Or Disruption

- Compatible with any existing or future application
- Security enforced on- and off-premise
- Leverage and evolve existing skills, management
- Future proof – no lock in to specific architectures
- Choice in location to meet needs/flexibility
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Takeaway #1: Virtualization is the Key to the Cloud

GE Puts 'Private' Cloud Computing To The Test

It's starting a three-year effort aimed at better efficiency and flexibility.

By J. Nicholas Hoover
InformationWeek
April 11, 2009 12:01 AM (From the April 13, 2009 issue)

General Electric's road to better data center efficiency is paved with virtualization. Now, as GE looks to build an internal or "private" cloud computing environment, virtualization will once again play a key role.

“Virtualization will once again play a key role”
### Standards Open Doors

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vApp – New Model for Describing and Deploying Applications

- **Availability**: 99.99%
- **Security**: High
- **Performance**: 500 msec

**SLA Definitions**

- Allows management of multi-tier applications as a single entity
- Utilizes industry standard OVF to provide instructions on how to deploy
- Templates, Clone and other operations execute at the vService level
- Simpler, application centric view of management
- Easier portability of applications
- Applications can now be written to monitor and scale themselves

**Application vServices**

- **Availability**
- **Security**
- **Scalability**

VMware Infrastructure -> virtual datacenter OS

**Instructions**

1. Name=eCommerce
2. Only port 80 is used
3. 100 ms web response
vCloud API

- Enabler for interoperability across clouds
- In private release currently
VMware vSphere Client Plug-In

Enables interoperability, mobility and centralized management of environments across internal and external clouds.
vCloud Ecosystem

500+ service providers

Internal Clouds

Federation & Choice

External Clouds

Management

Cloud OS

App Loads

App Loads

App Loads
vCloud Free Trials
Virtual Appliance Marketplace (VAM)

The largest library of applications for the cloud

- 1000+ VA’s
- 100K Visitors per Week
- Rich listing pages
- Self service portal
- “Community driven” Marketplace
- ISV and Developer focused

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ISVs

End Customers

Service Providers
App on Demand (Beta)

The easiest way to test drive apps in the cloud

ISVs

End Customers

Service Providers
What is it?

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How do you build or leverage one?
A fully virtualized datacenter...
...carved into logical resource pools...
...that deliver standardized virtual units with specified QoS parameters...
...in a service catalog or other comparable supplier-consumer model...

Zone 1
Request Only

Zone 2
Short Term Lease

Zone N
Use At Will

Resource Mapping and Enforcement

Service Definition

Virtual DC QoS

Virtual DC Infrastructure

Virtual DC QoS

Virtual DC Infrastructure

Virtual DC QoS

Virtual DC Infrastructure

Service Definition
...managed with an integrated toolset...
...ultimately, for automated hosting of apps...
...across a range of environments...
Cloud federation creates additional use cases, e.g. DR to the cloud, infrastructure as a service, flex capacity.
Summary and Questions

- What it is
- Why to care
- What’s coming
- And how to build it
Thank you

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