Expectations of the Cloud: Building a Private Cloud to accelerate deliver of IT as a Service

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"Change happens when the pain of holding on becomes greater than the fear of letting go."

- Spencer Johnson
Forrester: Security Concerns Hinder Cloud Computing Adoption

Business Data Services Study Illustrates Enterprise and SMB Hardware Trends in North America and Europe
New **Expectations** set by the Cloud

- On-demand provisioning for IaaS & PaaS
- Elastic resources
- Pay for what you use
- Self Service
- Cost Transparency (perception)
- Growing catalog of SaaS services
- No Facilities to manage
- No hidden overhead or maintenance costs to manage
CIOs are cautious of Public Clouds

- Data/Access Security
- Responding to Audits and compliance
- Untrusting of infrastructures out of their control
- Applications sensitive to latency
- Changes to the budgeting and cost recovery models
- Unfit for enterprise workloads, the “easy stuff” can go to the Cloud
- Concerns over data integration
- Think the change is too much, too risky at this time

They want to take advantage of the technological and business approach but don’t want to lose control.
Cloud Computing is setting the agenda for wholesale change of the enterprise.

Most Common Use Cases:
- Dev/Test,
- Analytics,
- Web hosting,
- eMail…

Public Cloud - Private Hosted
- Rented services
- Multi-tenancy
- Self-service
- Lower cost

Private Cloud
- Automation
- Virtualization
- “Comfort”
- Security

Hybrid Cloud
9 Wisdoms
<table>
<thead>
<tr>
<th>Organization</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unisys</td>
<td>Build and deployed ERL private cloud, Unisys Public Cloud for profit (IaaS,PaaS)</td>
</tr>
<tr>
<td>Asian Travel Co</td>
<td>Build a private cloud for development and test use cases</td>
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<tr>
<td>European Telco</td>
<td>Build and operate a public cloud solution for their clients</td>
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<td>Large Global Bank</td>
<td>Cloud Solution definition and pilot for test &amp; development</td>
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<td>Latin Gov Agency</td>
<td>Deploy Secure Private Cloud for their development &amp; test cloud needs</td>
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<td>U.S. Federal Agency</td>
<td>Cloud solution definition and business plan development</td>
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Wisdom #2

Create a solid Business Case upfront with **bite size wins along the way**

**Not your typical Business Plan**
- Business agility + cost savings
- New budgeting and chargeback
- Schedule of benefits and features
- Contrast SLAs to Public Cloud
- Integrate with existing programs
- Plan for rapid growth
Wisdom #3
Failing to Plan is
Planning to Fail!

“Companies that took a disciplined approach to adopting cloud computing reduced costs by an average of 18% and data center power consumption by 16%. Companies that adopted cloud computing haphazardly increased IT costs by 2-3%.”

Aberdeen Group
A Harte-Hanks Company
(Sept. 2009)
Wisdom #4

Be prepared to examine and streamline your existing policies and processes

- Compliance Auditing
- Configuration Management
- Network Operations
- Release Management
- Alert Management
- Event Correlation
- Disaster Recovery
- Forecasting Storage
- Capacity Planning
- Workflow Optimization
Wisdom #5
Prepare for Change
Cloud Computing is an Evolutionary Revolution
Cloud Computing is about

**Inheritance & Convergence**

Private Clouds most of all

- FISMA
- Distributed Computing
- Mainframes
- Bandwidth
- HIPA
- Mobile Devices
- Audits
- Blades
- Internet
- Green IT
- SAN

- SSD
- Automation of IT
- Self-Service
- Containers
- Virtualization
- SAN
Wisdom #6

Cloud Computing is not just about

The “Cloud Stack”
Most of the Cloud effort is Hidden

Cloud Management Tools and Processes

VM Automation, Physical Provisioning, Lifecycle Management APIs, Self-Service Portals, Monitoring, Usage Reporting

Financial Policies, Models & Approaches

Budget, CapEx vs. OpEx, Asset Management, IT Chargeback, ROI

Physical and Virtual Architecture Design

Dynamic Infrastructure Designs, Data Center Design, Green IT/Sustainability Design

Security

Physical, Network, Application, Identity & Access Management, Governance/Risk/Compliance, Audit

Storage

Policy Management, Backup & Archive, Disaster Recovery, Storage Virtualization, Access Control

Network Engineering

Shared Network, VLAN Planning, Capacity Planning, Manageability

ITIL / ITSM

Service Level Management, Service Request Management, Configuration Management, Service Catalog, ITSM

Support Services

Help Desk Operations, Diagnostic Tools, Application Development, SaaS integrations
But how ready are you for an on-premise Cloud?
Wisdom #7

Don’t IGNORE the people
Wisdom #8

Cloud Computing Politics

Expect people to be nervous

Will the cloud make me irrelevant?

Will I lose budget/power/prestige?

Can I master the new technology?

How do I remain indispensable?
Wisdom #9

Communication is Key

All highly-charged projects are at risk from not communicating

Executive support is critical to any cloud project

By default you’re high profile
1. Use experienced assistance
2. Create a new type of Business Plan
3. Build a comprehensive plan around your business
4. Plan for the long term Evolutionary Revolution
5. Examine and streamline your processes
6. Its not about the “Stack” – 8 tracks to transformation
7. Involve your People
8. Be extra sensitive to Politics
9. Communication, Communication, Communication
Some Tools to help you on your way

Concept of Operations Document (ConOps):
A key document for transformations of processes, policies and resources. The ConOps provides a lifecycle record and plan for changes to be made by the organization in order effectively and efficiently manage the new Private Cloud environment.

Private Cloud - Technical Architecture Document:
This document presents the details of the evolving Technical Architecture for Private Cloud. This document describes the system components of the Cloud Pilot and how they integrate into the environment.

Cloud Playbook:
This document becomes an important part of your communications plan once you have established the capabilities of your Private Cloud. The document is structured like a “marketing” tool and explains the benefits of using the private cloud from your customers perspective.
Putting your plan to work

Week 1
- Feasibility /Planning Activities
  - F/P Workshops

Week 2
- Phase I Cloud Service Deployment Model

Week 3
- High Level Architectural Framework

Week 4
- Concept of Operations Outline

Week 5
- Technology Evaluations and Architecture Overview
  - Cloud Operational Readiness Plan
    - Best Practice Workshop

Week 6
- On Boarding Services Playbook
  - Pilot On Boarding Review

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12
- Cloud Vision and ITS Strategy Session
Dan Brennan  
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