Cloud Strategy Overview

Michael DeAngelo
Cloud Strategy

OCIO Presents Issue
TSB gives input and guidance
OCIO Drafts Plan
TSB Review / Approve Loop
OCIO Publish
Education and Research

- Hosted a half day Cloud Symposium March 11\textsuperscript{th}
  - Business Track: How using cloud services can transform your business
  - Development track: accelerating development through the use of application platforms in the cloud (PaaS)
  - Infrastructure track: benefits of cloud-based infrastructure

- Hosted training opportunities
  - Salesforce Developer Day
  - Existing cloud services available

- Annual IPMA event May 21-22\textsuperscript{nd}
  - Why cloud

- Review cloud strategy documents
  - Michigan, NC, DHS, White House, Australia, Gartner
Impact of Cloud Approach

Delivering Cloud-Scale services requires a radical restructuring of technology, **processes and people**

<table>
<thead>
<tr>
<th>Enterprise IT</th>
<th>Cloud-Scale</th>
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<tbody>
<tr>
<td>Seats</td>
<td>10,000</td>
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<td>Talent</td>
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<td>Data Quality</td>
<td>Directional</td>
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<td>Data Access</td>
<td>Pull</td>
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<td>Assessment</td>
<td>Physical</td>
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<td>Supply Chain</td>
<td>Process</td>
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<td>Budget</td>
<td>Fixed Cost</td>
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<td>Architecture</td>
<td>Silo’d</td>
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<td>Application Integration</td>
<td>Loose</td>
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<td>Infrastructure</td>
<td>Overhead</td>
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<td>Reach</td>
<td>Regional</td>
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</tbody>
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| Hardware      | Custom      | Cloud-Scale  |
| Deployment    | Manual      |              |
| Availability  | Infrastructure| MTBF         |
| Operability   | Hardware    |              |
| Reliability   | Audit       |              |
| Security      | Impacting   |              |
| Network Downtime | 99.999%  |              |
| Network Availability | Active/Active | 99.9%  |
| Design        | Primary/Backup| Weeks       |
| Deployment Time | System Admin | UI          |
| System Admin  |            |              |

Source: Microsoft
“Using cloud computing services, a Federal agency does not need to own data center infrastructure to launch a capability that serves millions of users.”

“Cloud computing can allow IT organizations to simplify, as they no longer have to maintain complex, heterogeneous technology environments. Focus will shift from the technology itself to the core competencies and mission of the agency.”
“It’s not a technology strategy…. It’s an organizational change strategy.”
- Michael DeAngelo
Cloud Strategy Elements

**Business Imperative**
- Business value
- Why now?
- How will we measure success?

**Policy**
- Cloud First
- Investment decisions

**Operational Plan**
- Hybrid cloud
- CTS and DES brokering
- Centralized IM and Security

**Resources and Support**
- Contracts
- Procurement processes
- Guidance (security and records)

**Community and Development**
- Experts
- Barriers discussion
- Education

**Promote Success**
- OCIO promoting
- NASCIO awards
- Suppliers manage part of the technology
- Delivered as a service

- Essential characteristics
  1. Provision yourself
  2. Accessible from anywhere
  3. Shared with other customers
  4. Grow and shrink to need
  5. Pay based on usage

**Business Solution**

- Configuration
- Capabilities
- Storage
- OS
- Servers
- Network
- Infrastructure

**Vendor Managed**

- + Value add
- + Speed to market
- - Less control

- + Flexibility
- + More control
- - Commodity activity
Business Imperative

- Why Cloud?
- Why Now?
  - The state is unable to keep up with the pace of innovation
  - Expectations of citizens
  - Can’t compete as an employer
  - Opportunity cost

“Our responsibility in government is to achieve the significant cost, agility, and innovation benefits of cloud computing as quickly as possible.”
- Vivek Kundra, U.S. Chief Information Officer
WA “Cloud First” Policy defined

- “When building business solutions, agencies must look to cloud based services first to maximize the value of the technology approach for the money and with the appropriate level of security controls.”

- “Major investments and Legislative requests will have a bias to adopting cloud services as a means to deliver value to citizens sooner and increase agility of State government.”
Operational Plan

- Hybrid cloud
- CTS IaaS public cloud brokering for agencies
  - Extend State Governmental Network
  - Broker public cloud services from 2-3 partners
  - Experts at architecting in the cloud
- DES SaaS public cloud brokering for agencies
  - SaaS based approach to enterprise services
  - “Manage” common use SaaS solutions
- Identity Management approach
- Security approach
Resources and Support

- Business architecture
  - Cloud based contracts
  - Standard T&Cs
  - FAQ and guideline materials
  - Procurement process
  - Records management

Records management and the cloud

Cloud computing poses both benefits and risks for Australian Government agencies. Costs in cloud efficiency need to be weighed up against the risks associated with privacy, security and records management.

For records management, it is essential for agencies to consider:

- Where records will be stored – there may be risks to Australian Government records when they are stored outside Australia.
- The value and usage of the records – the higher the value of the records, the more control there needs to be over their integrity, authenticity and reliability.
- The risks that may arise – different records may be managed differently, and cloud service providers may have different risks to records.
- Whether risks can be satisfactorily mitigated – this may depend on the ability to negotiate contracts.

Agencies are ultimately responsible and accountable for managing their records wherever they are held. Records management should:

- Ensure the integrity, authenticity and reliability of records.
- Be accessible and retrievable.
- Be able to be securely archived when authorised, or transferred to the National Archives of Australia.

Legislative context

The custody of Australian Government records is governed by section 34 of the Archives Act 1983. It prohibits conduct that results in the transfer of custody or ownership of a Commonwealth record unless the transfer is in accordance with the Act.
Community and Development

- Yammer communities
- IPMA professional development
- DES Training Center
Promote Success

- OCIO website promotions of successes for agencies
- National awards for agencies
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Next Steps

- Construct strategy document
- Review with key stakeholders
- Agency review
- TSB approval
- Publish