How to Build a Secure, Reliable and Manageable Cloud Service

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Atos Hong Kong
Managed Services

Managed Services Offering

“Transforming IT infrastructure and business operations”

- Technology depth in providing end-to-end IT services for large-scaled infrastructures
- Manage total data centre outsourcing for global & regional customers

Global footprint with strong APAC regional presence in Japan, Australia, China, Hong Kong, etc.

Managed IT Services

<table>
<thead>
<tr>
<th>Cloud Infrastructure Services</th>
<th>Mainframe &amp; Special Platforms</th>
<th>Server Management Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managed Application Storage</td>
<td>Network and Security</td>
<td>Site Relocation and Consolidation</td>
</tr>
</tbody>
</table>
Atos GovCloud Solution

Project Overview

Atos offers a **private cloud** solution and a set of supporting services in fulfilling the Hong Kong Government Cloud Platform tender, which will be hosting e-government services for shared use by bureaus and departments of the Special Administrative Region.

The Result

The Office of the Government Chief Information Officer awarded a contract on the implementation and operation of the Government Cloud Platform (GovCloud) to Atos Information Technology HK Limited for a term of **seven years**.

Contract awarded on Mar 27 2013

Launched on Dec 27 2013
Hong Kong Government Cloud (GovCloud)

Objective
▶ GovCloud – Government adoption of a private cloud to host common e-government services for shared use by bureaus and departments

Benefits
▶ Cost Saving through economy of scale and resource sharing
▶ Time saving through streamlined procurement and system implementation, and on-demand service provision; and
▶ Utility cost structure and predictable cost
Placement of e-Government Services

**Placement Considerations**
- Security and risk management
- Business requirements
- Leveraging common IT services
- Economy of scale
- Rapid elasticity
- Industry development

**Placement Principles**
- E-government services with classified data
  - Application and support services readily available in market
  - Leverage in-house development platform
- E-government services without classified data
  - Application and support services specific to government
  - In-house Private Cloud
  - Public cloud
- Outsourced Private Cloud
GovCloud Service At-a-glance

▶ An Outsourced Private Cloud
- **IaaS** (server, storage, network) in Contractor’s data centers with infrastructure dedicated to serving the Hong Kong Government
- To be implemented and operated through total outsourcing by Contractor
- Stringent outsourcing governance to ensure security and service quality (S17, G3, Level II Security, ISO 27001)
- **Scalability** in computing resources
- Data Centers, system, operation, processing / storage of government data in Hong Kong to meet operation needs

▶ Support and host common e-government services
- Common e-government services that handle both classified and unclassified information up to “CONFIDENTIAL”
Key Values to Government B/D
Fully Customized Private Community Cloud

- Convenience in the subscription and customization through **Self-Service Portal**
- **Security** Management
  - Firewall segregation
  - Highly secured data encryption
- **7 x 24 Operations** Management
- **Service Desk**

**HKSAR OGCIO Contract Management Office**

**Highly Customizable Cloud Services** + **Traditional Data Centre Services**

**Secure** | **Simple** | **Speed**

**Balanced Performance**
For each new tenant, the secretariat will seek PGC approval on a quota for the maximum contract value the tenant can use.

Security Management
GovCloud Tenants

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GovCloud Service Catalog

GovCloud offers IaaS for hosting common e-government services. All services are subscribed in an on-demand basis.

**On-demand self-service**
- Computing resources (server (i.e. x86 virtual machine), storage and network)
- Self-service portal available
- On-demand computing resources acquisition
- Self-service virtual machine management

**Security**
- Security regulations compliance from unclassified up to CONFIDENTIAL level
- Data centres meeting Government Level II Security requirements
- Conformance to Government policies and guidelines (including §17 and G3)
- Data centre operations accredited with ISO/IEC 27001
- Physically segregated network zones
- Three layers of firewalls
- IDS and IPS
- Data-at-rest encryption
- Network encryption for traffic between data centres
- Anti-virus at hypervisor level
- Multi-tenancy isolation

**Rapid Elasticity**
- Flexible scaling up and down
- Fast provisioning of virtual machines and storage resources (as fast as 24 hours)
GovCloud Service Catalog

**Operation and Supports**
- 7x24 operation
- All data and operations within territories of Hong Kong
- Data centre operations accredited with ISO/IEC 20000
- ITIL-based IT service management
- Operating system patch management
- Monitoring and alerts for computing resources and applications
- Independent virtual network environment for each client

**Availability and Reliability**
- Cloud infrastructure and computing resources at 99.950% availability
- Dual data centres
- Dual carriers and dual ISPs
- Recovery Point Objective (RPO) at 30 min (for both cloud infrastructure and hosted applications)
- Data protection against double disk failures
- No change of IP address in disaster recovery
Components and Operations
Service Acquistion Workflow

People
Gov. App. Tenants Admin: Fully Customizable IaaS Cloud Service

Processes
Gov. senior/governance officers: Multiple level of approvals adhered to Gov. Procurement and Internal Processes

Budget
Quotas, project contributions, verifications before Provisioning
Q&A

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Thank-you!