



# How to Build a Secure, Reliable and Manageable Cloud Service

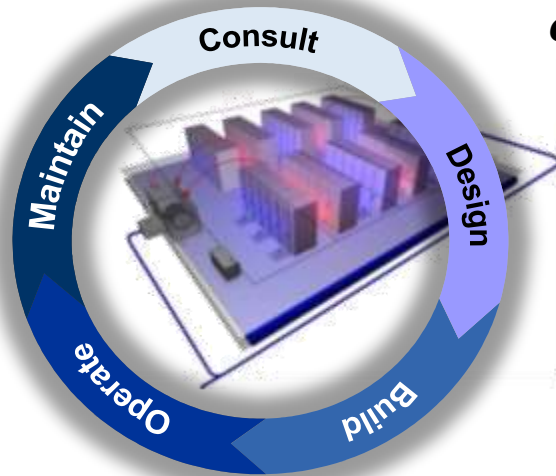
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### Managed Services Offering

*"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

Public Sector & Healthcare  
Financial Services  
Manufacture Retail & Transport  
Telecom, Media & Energy

Powering progress for our clients

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

Managed IT Services		
Cloud Infrastructure Services	Mainframe & Special Platforms	Server Management Services
Managed Application Storage	Network and Security	Site Relocation and Consolidation

# 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)

Managed Services  
GovCloud Portfolio

## Objective

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

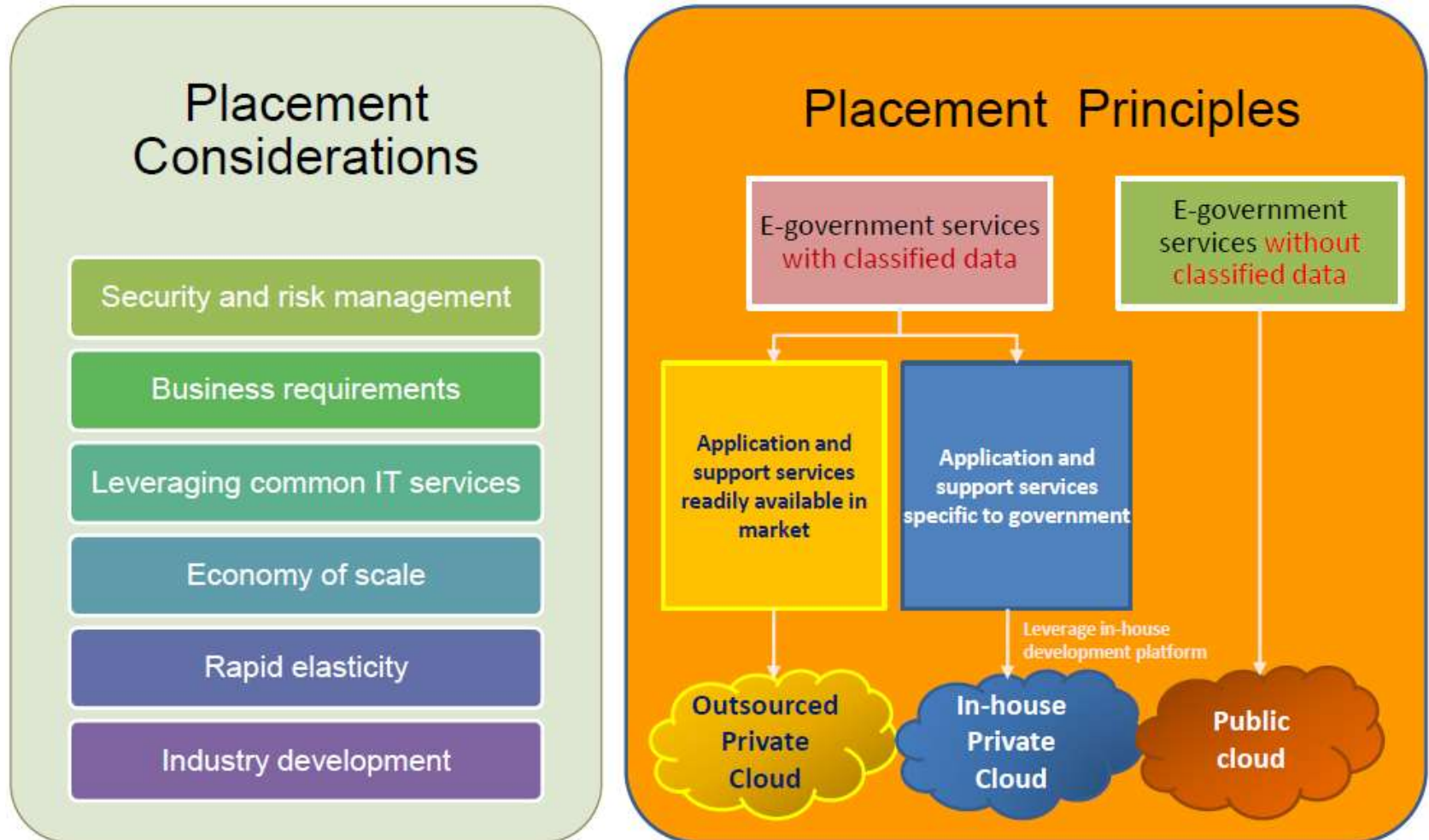


## Benefits

- ▶ 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



# GovCloud Service At-a-glance

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## ▶ 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

Managed Services  
GovCloud Portfolio

# Atos



Highly Customizable  
Cloud Services



Traditional Data  
Centre Services

- 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**

**SECURE**

**SIMPLE**

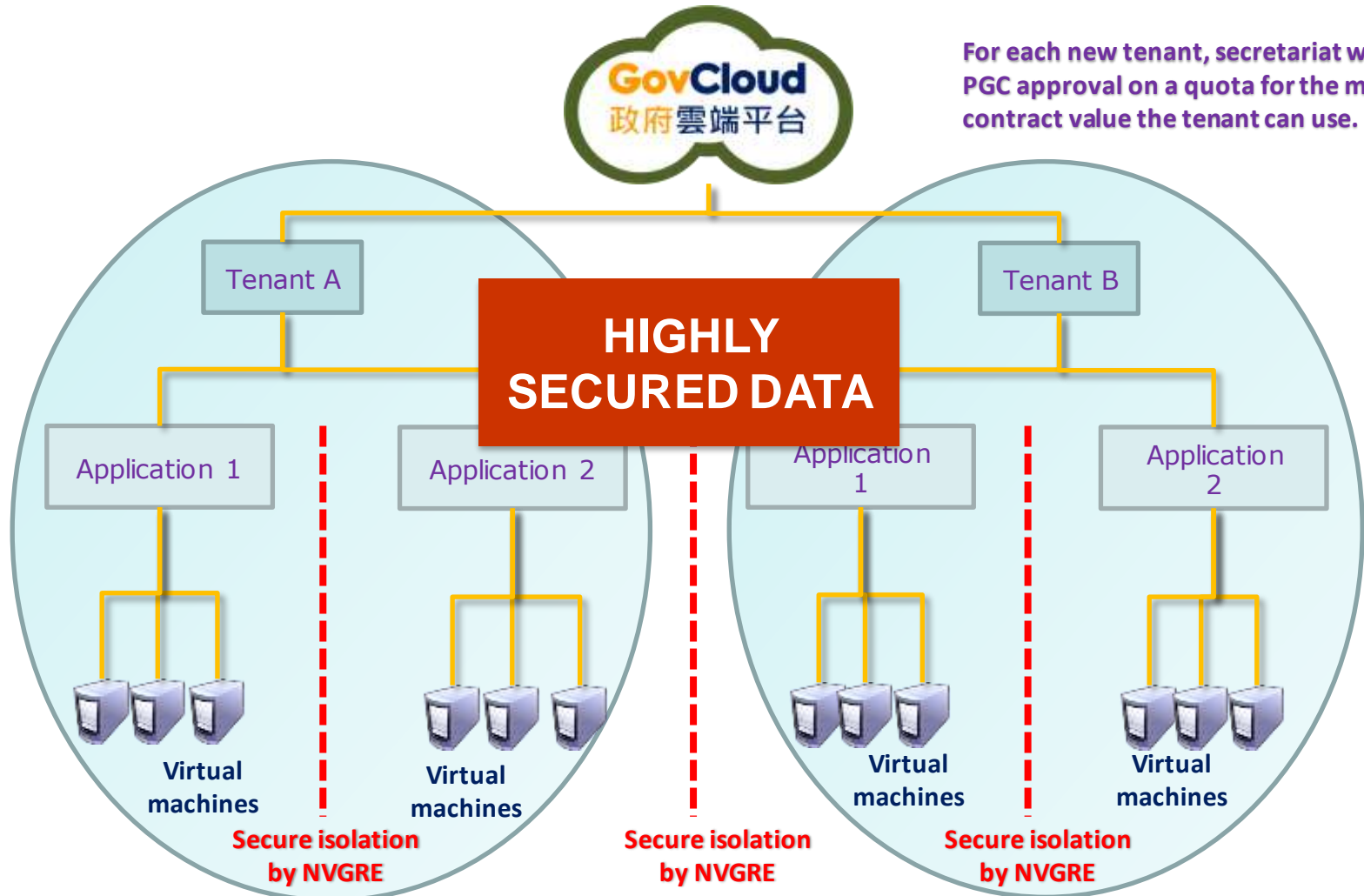
**SPEED**

**BALANCED PERFORMANCE**

# Security Management

## GovCloud Tenants

Managed Services  
GovCloud Portfolio





# 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



## Rapid Elasticity

- Flexible scaling up and down
- Fast provisioning of virtual machines and storage resources (as fast as 24 hours)

## 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



# GovCloud Service Catalog



## Operation and Supports

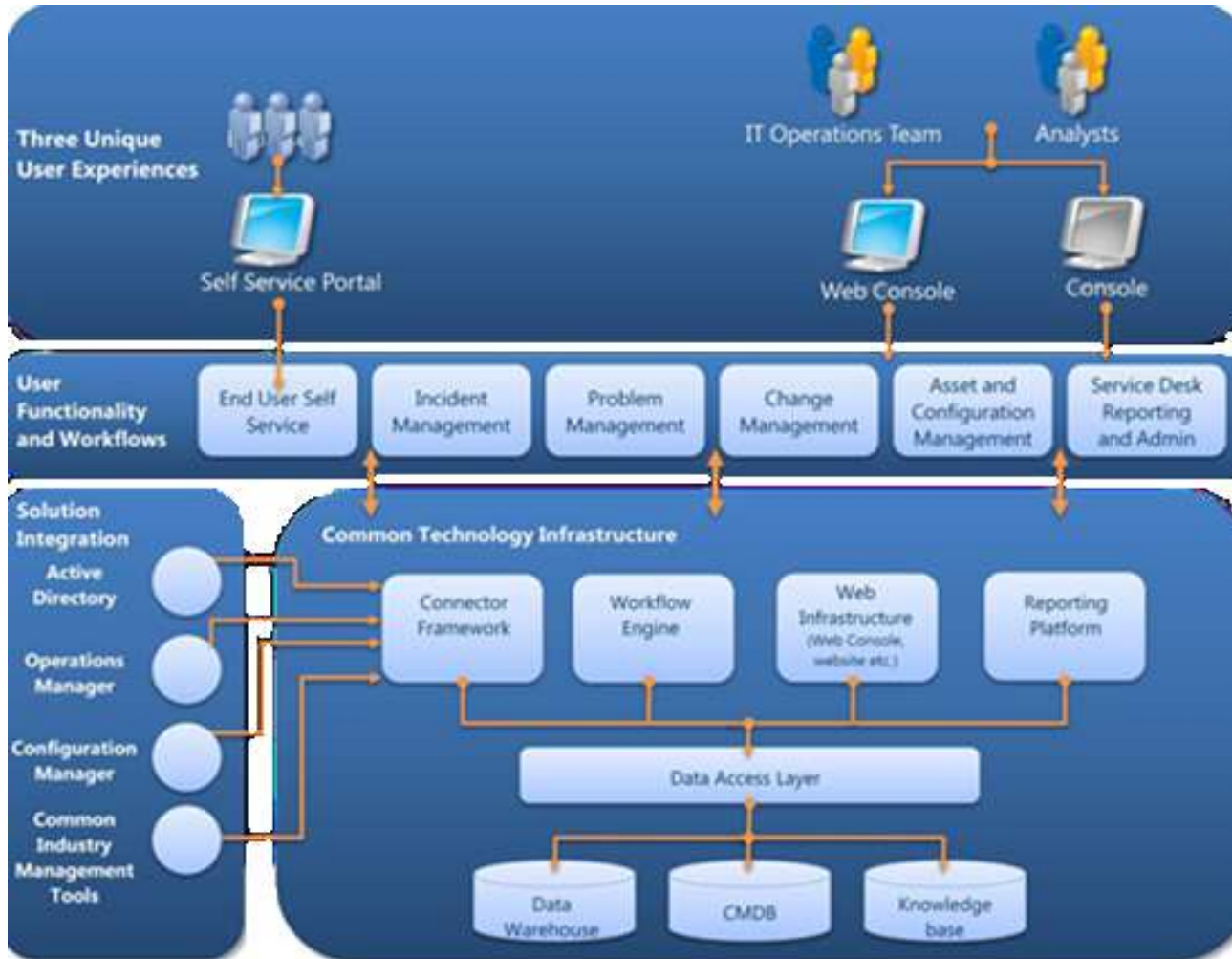
- 7x24 operation
- All data and operations within territories of Hong Kong
- Data centre operations accredited with ISO/IEC 20000
- ITIL-based IT service management
- Operating system patch management
- Monitoring and alerts for computing resources and applications
- Independent virtual network environment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

7x24 3-shift  
Operation  
Management

Service Desk

Security  
Management

Technical Team

# Service Acquisition Workflow

Managed Services  
GovCloud Portfolio

State Diagram of Service Request  
(history should be kept in the service request)

# There are 3 types of new request: new order, new requirement on existing order or new termination request

## 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

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# Q&A

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**Thank-you!**

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