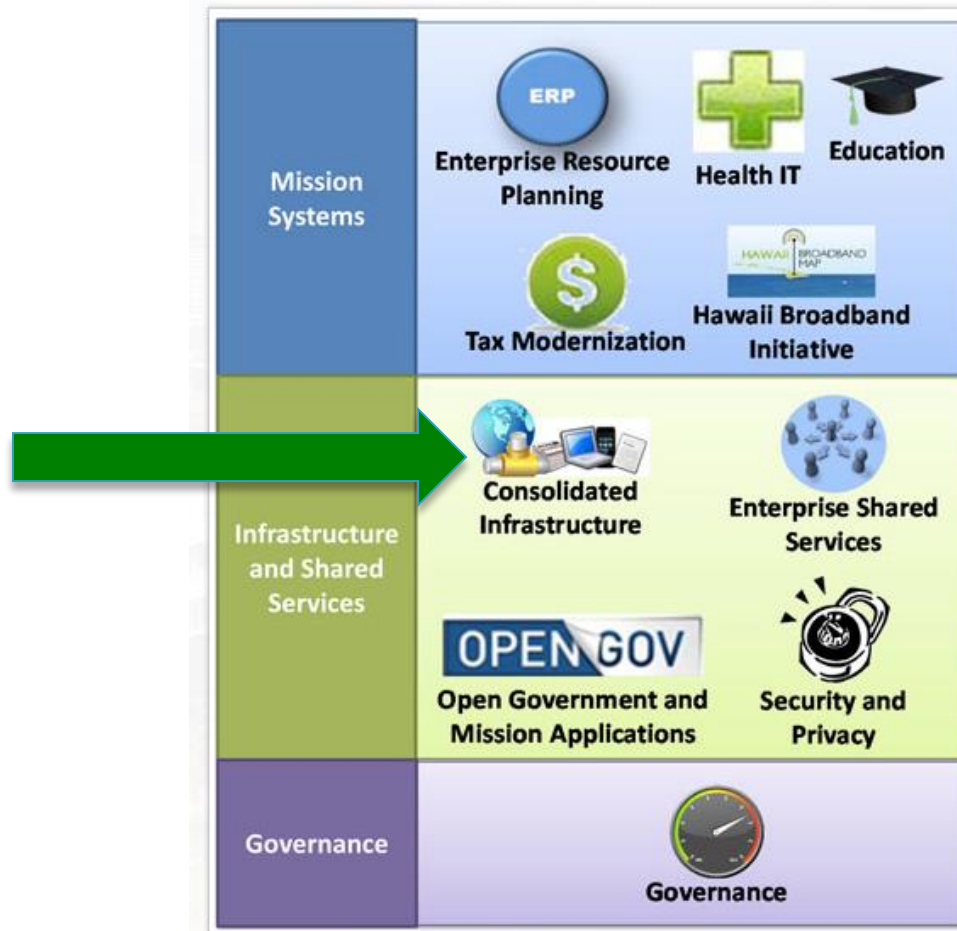# IT Steering Committee Meeting Modernize the Technology

Sharon Wong
Acting ICSD Administrator

Thursday, January 23, 2014
10:00 am – 11:30 am

State of Hawaii's Transformation Programs

Infrastructure Upgrades

▸ **<u>Government Private Cloud (GPC) Project</u>**
  ◦ Implement Data Center Strategy
  ◦ Network Upgrades (NGN, iNET, Internet Service Providers)
  ◦ Server Consolidation through Virtualization Technologies

3 Pillars of Hawaii's Government Private Cloud

Vision

To provide the State of Hawai'i with a
common platform for Datacenter Consolidation,
Shared/Self Service, and Private Cloud that will lower the cost of
IT and reduce complexity in the current environment

Strategic Pillars

1 *Reduce Costs*
Reduce hardware and operating costs by increasing current virtualization levels, reducing Data Center footprints, closing DC's and automating manual tasks.

2 *Reduce Risk*
Reduce outage and disaster risk by deploying a GPC where Disaster Recovery/Business Continuity Plans are built-in automatically or can be efficiently added.

3 *Increase Agility*
Increase the business agility of IT. Remove the complexities of managing IT and thereby transforming it into a turn-key utility that can quickly and easily support planned enterprise initiatives.

Foundational Elements

Technology (Network, Hardware, Virtualization , Automation)

Process (Incident/Problem, Change, Chargeback. Service Levels)

Integrated Team (Network, Server, Storage, Security, Facility, etc.)

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Key Aspects of the OIMT/ICSD Government Private Cloud Effort

Technology

- Facilities infrastructure (space, power, racks, etc.)
- Backbone network connections (NGN, iNet, carrier circuits)
- GPC physical infrastructure (IBM Flex system, V7000, DC network)
- GPC Virtual infrastructure (vSphere, VCAC)
- Supporting infrastructure (backup, archival, management systems & tools)

Service Management

- Service Catalog (definitions, pricing, service levels)
- Core processes and tools (incident/problem, change, configuration)
- Service Desk and Operations Center
- Other processes (capacity/performance, chargeback, release, etc.

Migration

- Conduct Department outreach
- Assess and prioritize department workloads
- Develop Migration Plan
- Conduct Pilot migration (1-2 department workloads)
- Migration execution

What We've Already Completed

- Cloud Operational Readiness Assessment – October 2013
- Plan and Design for vSphere – November 2013
- vCloud Networking and Security Workshop – November 2013
- Government Private Cloud organization defined – December 2013
- IBM Flex Systems delivered – December 2013

State of Hawai'i
IMT

The GPC Team is Currently Developing the Overall Project Plan

Key Aspects of the OIMT/ICSD Government Private Cloud Effort

Technology	Service Management	Migration
Facilities infrastructure (space, power, racks, etc)	Service Catalog (definitions, pricing, service levels)	Conduct Department outreach
Backbone network connections (NGN, iNet, carrier circuits)	Core processes and tools (incident/problem, change, configuration)	Assess and prioritize department workloads
GPC physical infrastructure (IBM Flex system, V7000, DC network)	Service Desk and Operations Center	Develop Migration Plan
GPC Virtual infrastructure (vSphere, VCAC)	Other processes (capacity/performance, chargeback, release, etc)	Conduct Pilot migration (1-2 department workloads)
Supporting infrastructure (backup, archival, management systems & tools)		Migration execution

Step 1:
Introduce High-Level Workstreams
COMPLETE

- Review and validate key workstreams
- Review and refine work breakdown structure
- Identify primary owners and contributors for workstreams and key activities
- Identify dependencies between activities

Step 2:
COMPLETE

	ⓘ	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Add New Column
1		Infrastructure PMO	1 day?	Tue 1/14/14	Tue 1/14/14			
2		Government Private Cloud (GPC) Design & Implementation	1 day?	Tue 1/14/14	Tue 1/14/14			
3		GPC Technology	1 day?	Tue 1/14/14	Tue 1/14/14			
4		Deploy Physical Infrastructure	1 day?	Tue 1/14/14	Tue 1/14/14			
5		Establish Network Connectivity	1 day?	Tue 1/14/14	Tue 1/14/14			
6		Circuits	1 day?	Tue 1/14/14	Tue 1/14/14			
7		Cabling	1 day?	Tue 1/14/14	Tue 1/14/14			
8		Equipment	1 day?	Tue 1/14/14	Tue 1/14/14			
9		Physical Infrastructure	1 day?	Tue 1/14/14	Tue 1/14/14			
10		IBM Flex System	1 day?	Tue 1/14/14	Tue 1/14/14			
11		Kick Off and Planning	1 day	Tue 1/14/14	Tue 1/14/14			
12		Kalanimoku	1 day?	Tue 1/14/14	Tue 1/14/14			
13		Site Kick Off	1 day?	Tue 1/14/14	Tue 1/14/14			
14		Basic Flex Network Configuration/Integration	1 day	Tue 1/14/14	Tue 1/14/14			
15		Advanced Flex Storage/FC Integratio	1 day?	Tue 1/14/14	Tue 1/14/14			
16		X86 Node Preparation	1 day?	Tue 1/14/14	Tue 1/14/14			
17		Power Node Preparation	1 day?	Tue 1/14/14	Tue 1/14/14			
18		Flex Systems Mgmt Configuration	1 day?	Tue 1/14/14	Tue 1/14/14			
19		DR Fortress	1 day?	Tue 1/14/14	Tue 1/14/14			

Step 3:
Develop GPC Project Plan
(includes milestone dates)
IN DEVELOPMENT (1/21-1/31)

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Government Private Cloud Team

Leadership and Program Management

Project Management Advisor

Mark Lennon

Executive Sponsor

Keone Kali

Project Manager

Wayne Sasaki

Virtualization Infrastructure State Team

Marlo Rigor– Team Lead
Al Witzell– Cloud Architect
Lorenzo Farinas– Cloud Admin
Jarrett Tanaka–Cloud Admin
Patrick Stuart– Could Analyst

Virtualization Infrastructure Vendor Team

Sudesh Kumar– Technical Architect

Mike Akita – VMWare Technical Acct Manager

TBD– Vmware Resident Engineer

TBD Vmware Support for VCAC

Heman Smith – Vmware Accelarate Team

TBD – IBM Hardware Install Support

Extended Project Team Members

Application Hosting Lead

Bryce Fujii

Security Lead

Matt Wong

Service Desk

TBD

Enterprise Architecture

James Lum

Network Operations Lead

David Fujimoto

AIX/Linux Support

TBD

Business Unit Liaison/Change Leadership
Mark Lennon (acting)

Backups Lead
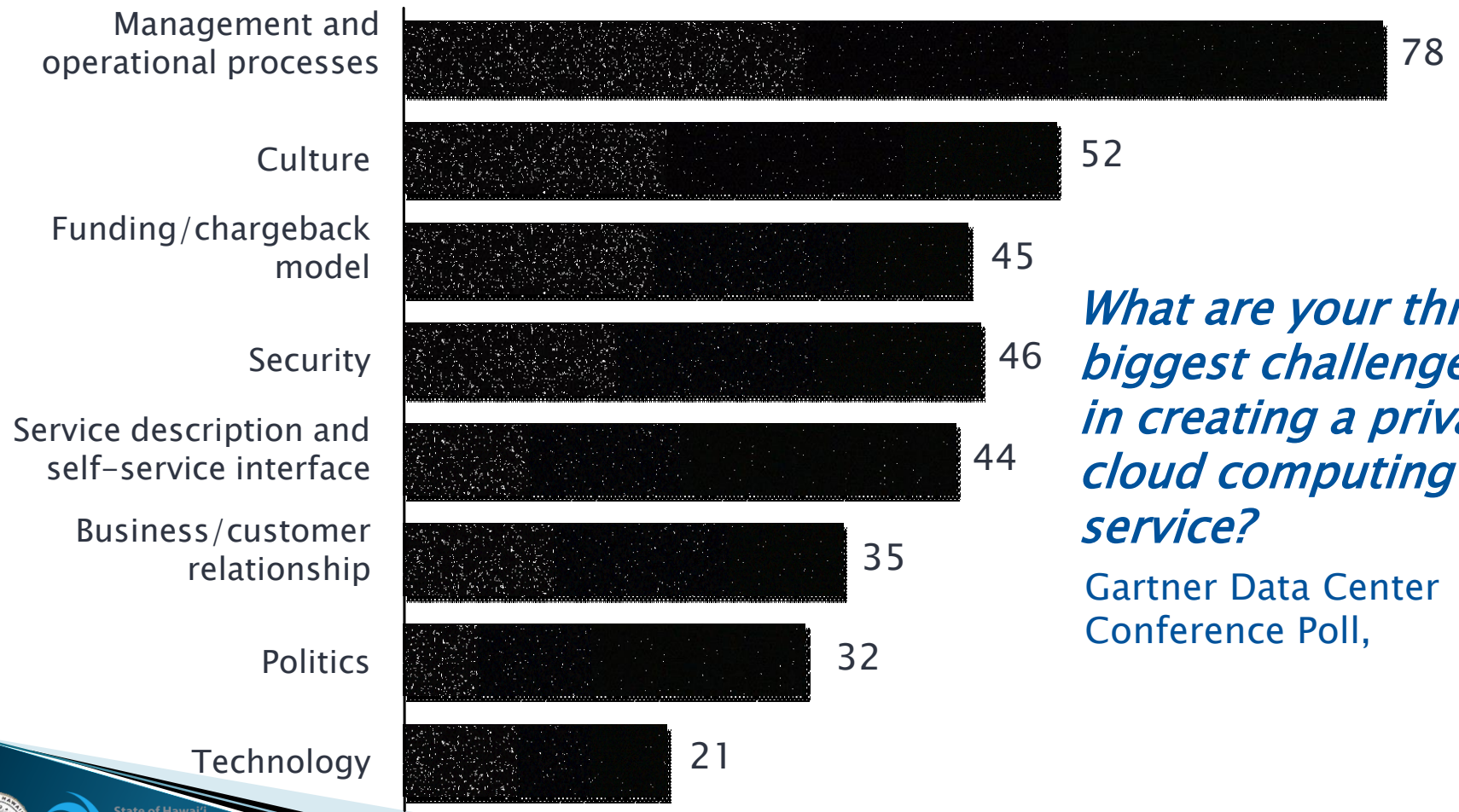
Terri Yamada

Data Center Lead

Jason Mak

Storage Lead

Myles Murakami

Private Cloud Computing Challenges

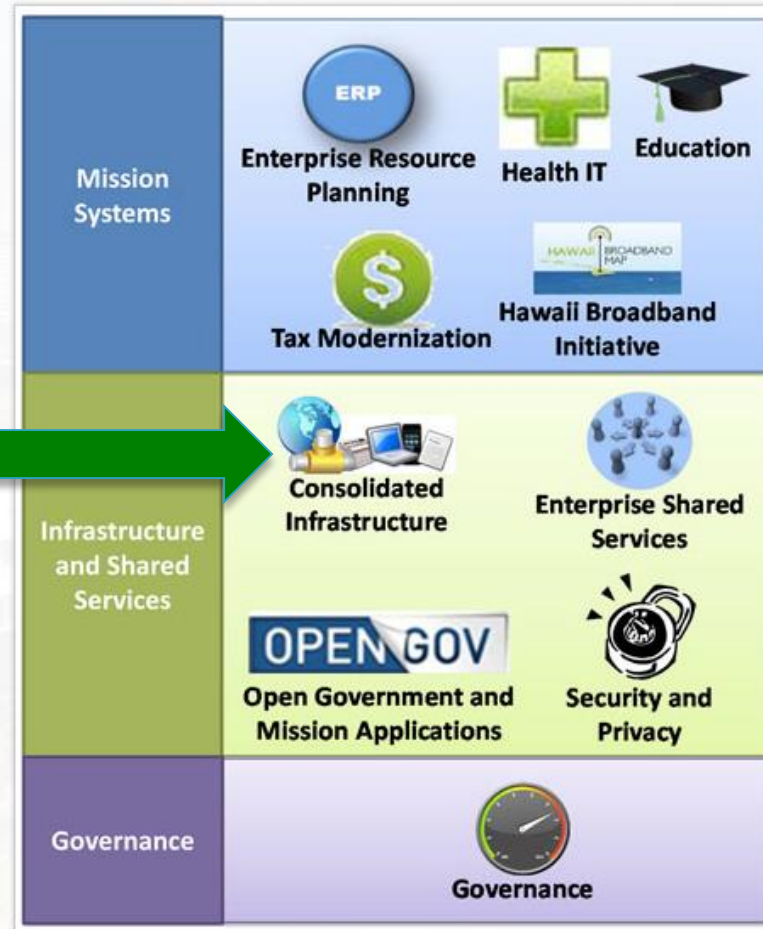**Message:** Technology is one of the easiest challenges

Challenge	Value
Management and operational processes	78
Culture	52
Funding/chargeback model	45
Security	46
Service description and self-service interface	44
Business/customer relationship	35
Politics	32
Technology	21

What are your three biggest challenges in creating a private cloud computing service?
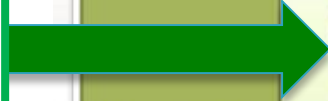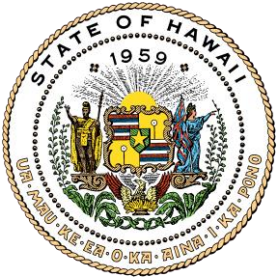
Gartner Data Center Conference Poll,

GPC Project Risks

- Communications – State Departments may not understand services being provided and timeframe for delivery, which could lead to confusion and frustration
- ICSD Team may not have all the required skills to support the Government Private Cloud, nor the additional capacity to devote time to this project – many are single points of failure in operational systems

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Questions?

Thank you!