# PRESENTATION TO
SENATE COMMITTEES ON
ECONOMIC DEVELOPMENT & TECHNOLOGY
AND WAYS & MEANS

December 6, 2011

Sanjeev "Sonny" Bhagowalia
Chief Information Officer
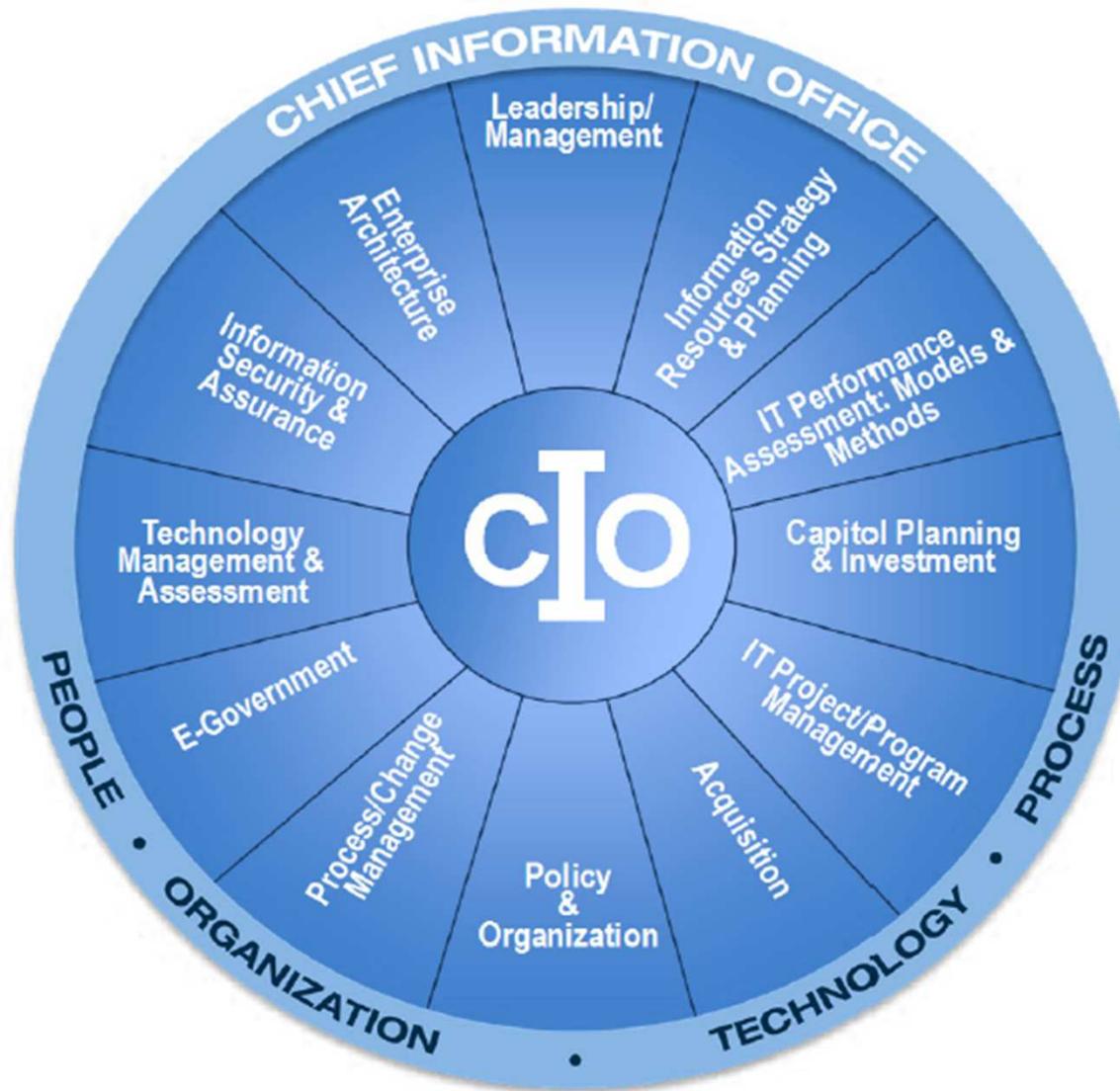
Federal Computer WEEK
Strategy and business management for government leaders

5 bold tech predictions: Fact or fantasy?
FCW (December 8, 2010)

1. 20% of businesses will own no IT assets by 2012 (Gartner)
2. One trillion devices will be connected to the Internet by 2013 (Cisco) – Current=35B
3. The government can save $1 trillion in 10 years by harnessing certain proven technologies (Technology CEO Council)
4. 25% of personal computing devices sold will be tablets by 2015 (Forrester Research)
5. Data will grow by 800 percent in the next five years with 80% Unstructured Text and Media (Gartner)
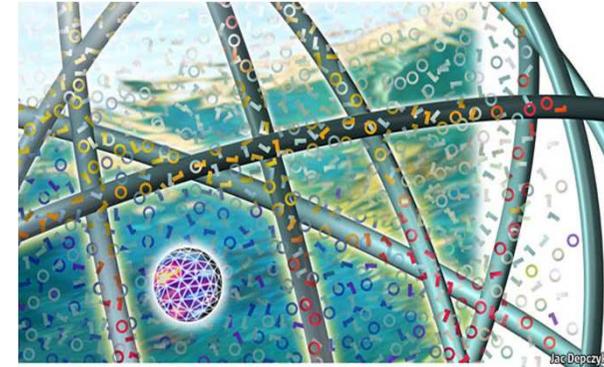
**Volume of digital information increases tenfold every five years**

Overload
Global information created and available storage
Exabytes

FORECAST

Information created

Available storage

2005 06 07 08 09 10 11
Source: IDC
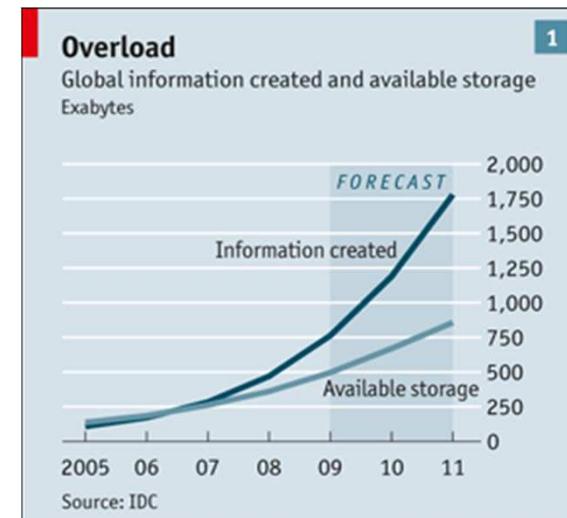
And….the data is replicated many times over!

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Context: Maximum sharing and flow of information and knowledge
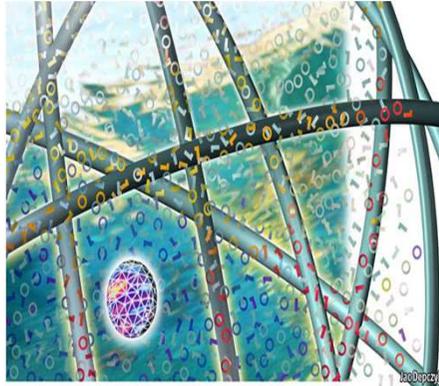
Mobile will be bigger than desktop internet in 5 years
-- Mary Meeker, Morgan Stanley, April 2010

Global Mobile vs. Desktop Internet User Projection, 2007 – 2015E
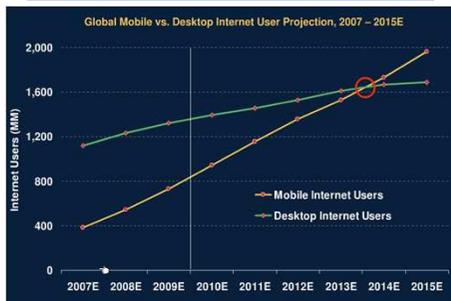
- YouTube is now **second largest search engine** in the world

- 1.5 million pieces of content shared **daily** on Facebook

- On-line newspaper readers are **up 30%**

- 250 million visitors **each month** to Myspace, YouTube, and Facebook (*none were around 6 years ago*)

- **Mobile devices** will be world's primary connection tool to the Internet in **2020**

As big an issue *outside* your organization as *within* it

NASCIO 2011 Survey*

The 2011 State CIO Survey
OCTOBER 2011

NASCIO
Representing Chief Information
Officers of the States

TechAmerica
WHERE THE FUTURE BEGINS

Grant Thornton

A New C⁴ Agenda
Perspectives and Trends from State Government IT Leaders

CONSOLIDATION   COLLABORATION
CLOUT   CHANGE

39 Questions

▸ Roles & Governance
▸ Legislative Affairs & Advocacy
▸ Financial Management, Funding and Budget
▸ Collaboration
▸ Consolidation and Shared Services
▸ Cloud Computing
▸ Sourcing Strategies and IT Workforce
▸ Health Care
▸ Business Intelligence and Business Analysis
▸ Mobility

Conclusions

▸ State CIOs are changing
  ◦ How they provide services
  ◦ The Source and diversity of their revenue streams
  ◦ Their relationship with the legislature
  ◦ How mobile devices and apps connect citizens to their government

*http://www.nascio.org/publications/

CIOs build effective IT/IRM through transforming resources and management practices

Effective IT

IT Results

| Adaptive cost structure | Increased Business Impact | Focus: Fewer things first |

IT Management

| Consolidated operations | Quality and cost performance | Information and business process | Business oriented IT structure | Business Aligned IT |

IT Transformation

| Modernized IT operations | Improving IT processes | Skilled people | Effective governance |

IT Resources

| Technology | Process | People | Management |

Gartner.

Notional Transformation Schedule

Phase A – Major Deliverables

1) **Baseline Report**

Items 1–3 released in an open, transparent manner to the public

2) **Benchmarking Report**
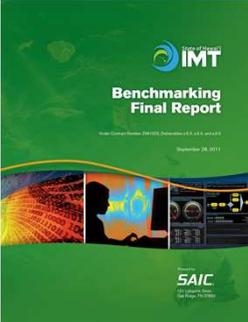
3) **Data Center Assessment**
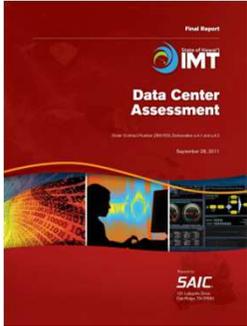
4) **Enterprise Alignment Database (EAD) Tool**

*High quality work products delivered on time and within budget – Phase A complete – Thanks to State Cooperation/Participation!*

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Phase A Key Findings

- 18 Departments & University of Hawaii
- $157.5 million IT/IRM budget
- 746 IT/IRM staff
- Over 500 applications
- 200 lines of business
- High duplication of effort
- Wide funding disparities
- Some focused areas of excellence

Current View of Operations
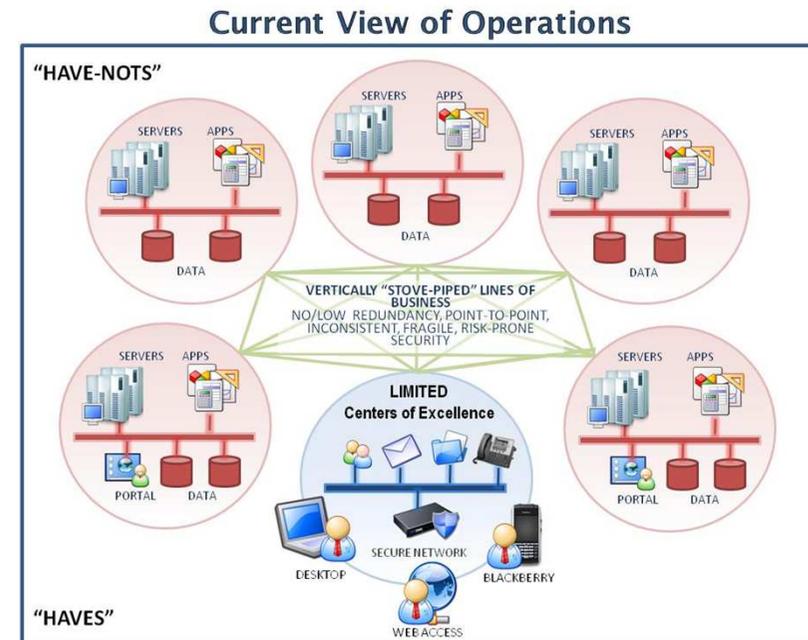
Many disconnected silos of effort

Challenges=Opportunities for Change

▸ **Resource Shortages***
  ◦ **Funding** (~25% cuts in last 8 years)
  ◦ **Staffing** (~50% reduction over 8-10 years)

▸ **Aging Technology**
  ◦ 20-30 Years!

▸ **Aging Processes**
  ◦ Paper-based, manual and in-efficient
  ◦ Automation requires Business Process Re-engineering (BPR)
  ◦ Single-Points-of-Failure Exist with no Disaster Recovery for Most Mission-Critical Systems

*Source: Assessment Interviews/report

The State IT/IRM team has kept this "system" alive somehow...but it can't last much longer...

State of Hawai'i IMT

20 Key Recommendations

Business Reference Model Data Sharing and Collaboration Organizational Change
Manual Interfaces   Bargaining Unit Leadership   ICSD
Risk Assessments   Service Management Model   Applications Portfolio
Performance Measures   Application Integration   Data Architecture
Funding for IT   Platforms and Technologies   IT Costs
Agency Model   IT Skills

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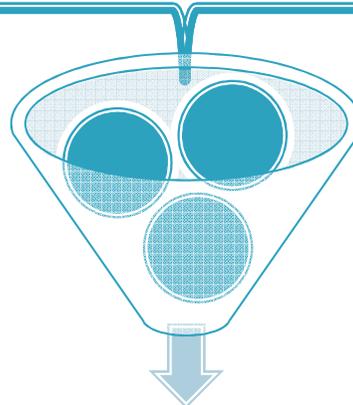
All recommendations are important but must be sequenced according to resources and readiness

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Enterprise Focus
Governance Strategies
Business Process Re-Engineering
Technical Foundation

We must start implementing 4 basic foundational recommendations now!

Four Key Recommendations
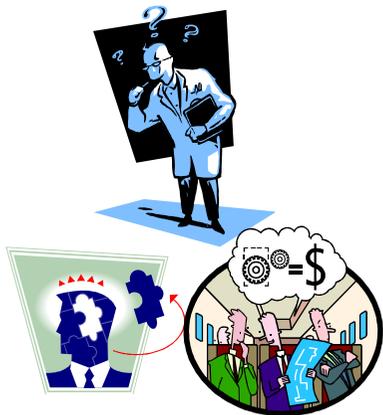
1	2	3	4
Enterprise Focus for Projects	Establish Enterprise Governance	Re-engineer Business Processes	Strengthen Technical Infrastructure

Focus on Cross-Cutting/Enterprise Solutions

Re-engineer processes that are:

- ▸ Performed by multiple Departments
- ▸ Paper-driven
- ▸ Shareable across a foundational, enterprise IT infrastructure
- ▸ Extraordinarily labor-intensive and therefore drive users to create one-off solutions

Don't just automate inefficient processes...re-engineer them!

Prioritized BPR Process Areas

Candidates for Cross-Cutting Enterprise Solutions	Immediate-Term	Near-Term	Long-Term
Financial Management Initiatives	✓		
Procurement and IT Acquisitions	✓		
Program/Project Management Process Definition	✓		
Time and Attendance Reporting	✓		
Check Printing and Processing	✓		
Legislative Bill Tracking	✓		
Constituent Response Tracking	✓		
Data Entry	✓		
Enterprise Email Solution	✓		
Inventory/Asset Management		✓	
Document Tracking and Records Management		✓	
Neighbor Island Solution		✓	
PPACA Implementation		✓	
Longitudinal Data Enterprise Solution		✓	
Federal Grant Application and Lifecycle Management			✓
GIS Enterprise Solution			✓

Lay the groundwork for efficient delivery of services statewide

Preliminary Future Enterprise IT Architecture Vision
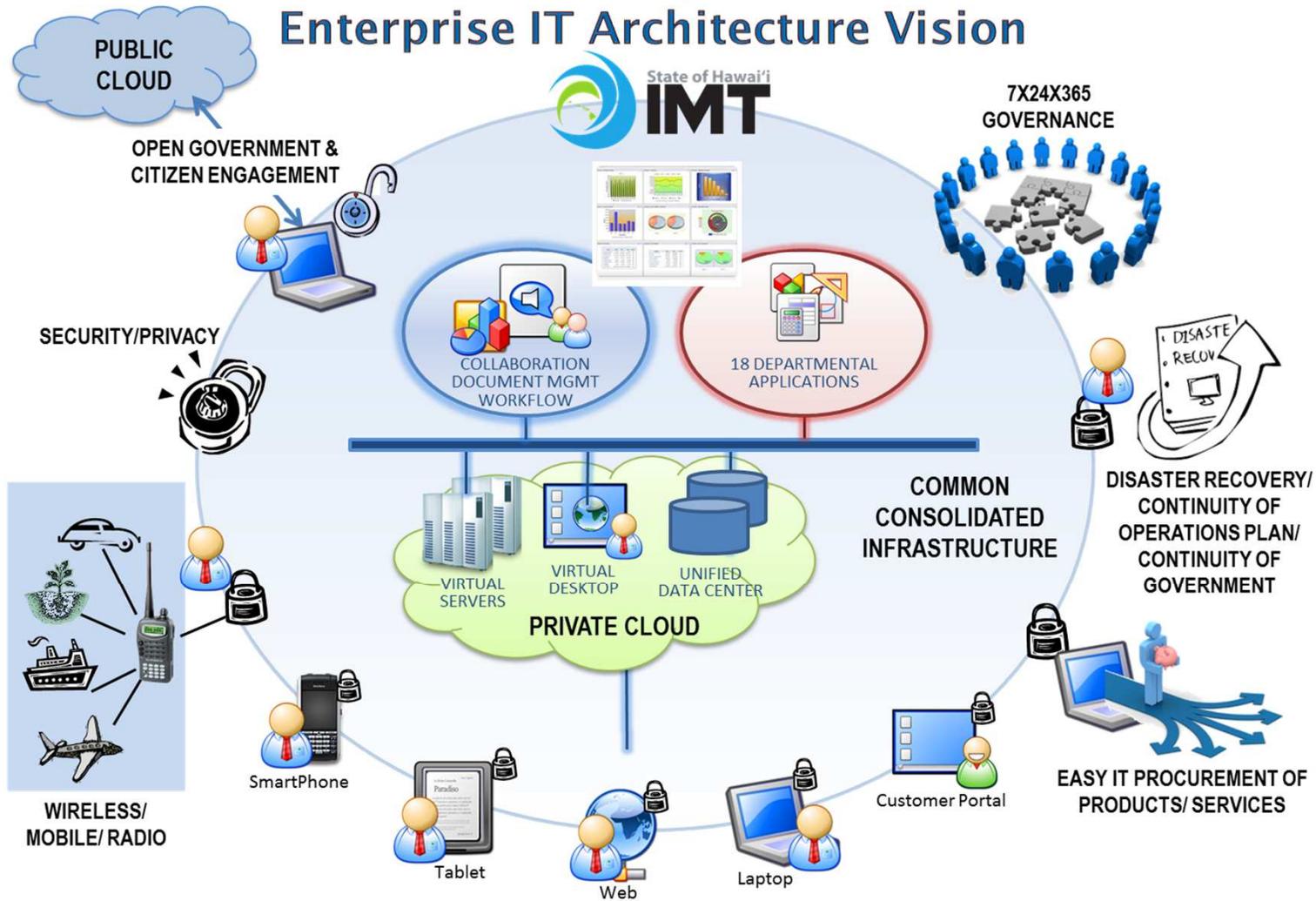
Access to the right information – anywhere, any time, any mission, securely and reliably

Notional Transformation Schedule

Initiation
3/16/11

6/1/2011

9/30/2011

Draft Strategic Plan
4/1/2012

Final Strategic Plan Submitted
7/1/2012

7/1/2013

Ongoing

ORGANIZE AND PLAN | **CENTRALIZE AND IMPLEMENT**

PHASE A	PHASE B	PHASE 1	PHASE 2…

P L A N

1	2	3	4	5 & 6	7	8
6/1-10/11	6/13-7/1/11	7/3-7/29/11	8/...	8/1-8/19/11	8/22-9/2/11	9/5-10/7/11
Mobilization	Interviews	Data Collection Data Center		Focus Groups Benchmarking	Report Development	Report Delivery

11/1/11 – 6/30/13

7/1/2013 ….

Phase A:
- Identify and hi...
- ...ssess the c...IT landscape
- ...ntify an...DIMT staff
- ...to...sh governance processes
- ...n for the future of IT in the State
- ...distribute Executive Order

Phase B:
- Formalize governance processes and structures
- Define a detailed "to be" architecture
- Execute proof –of-concept projects
- Develop and finalize the Strategic Plan
- Introduce legislation and secure funding

Phase 1:
- Modernize and consolidate IT infrastructure
- Centralize IT procurement to leverage buying power
- Centralize IT resources underneath the CIO
- Develop and enforce common technology standards
- Standardize business applications and productivity tools
- Consolidate common services and business functions

D O

Immediate-Term (Triage) Needs/Projects

Near-Term Needs/Projects

Long-Term Needs/Projects

Current Focus

State of Hawai'i IMT

Notional Transformation Framework

Management and Oversight (Governance)

① State of Hawai`i Business and IT/IRM Transformation Strategic Plan

②

Business Transformation Plan

IT Transformation Plan

Enterprise Architecture

③ As Is | T & S Plan | To Be

Projects

④ Triage | Pilots | Major Initiatives

Business Process Reengineering

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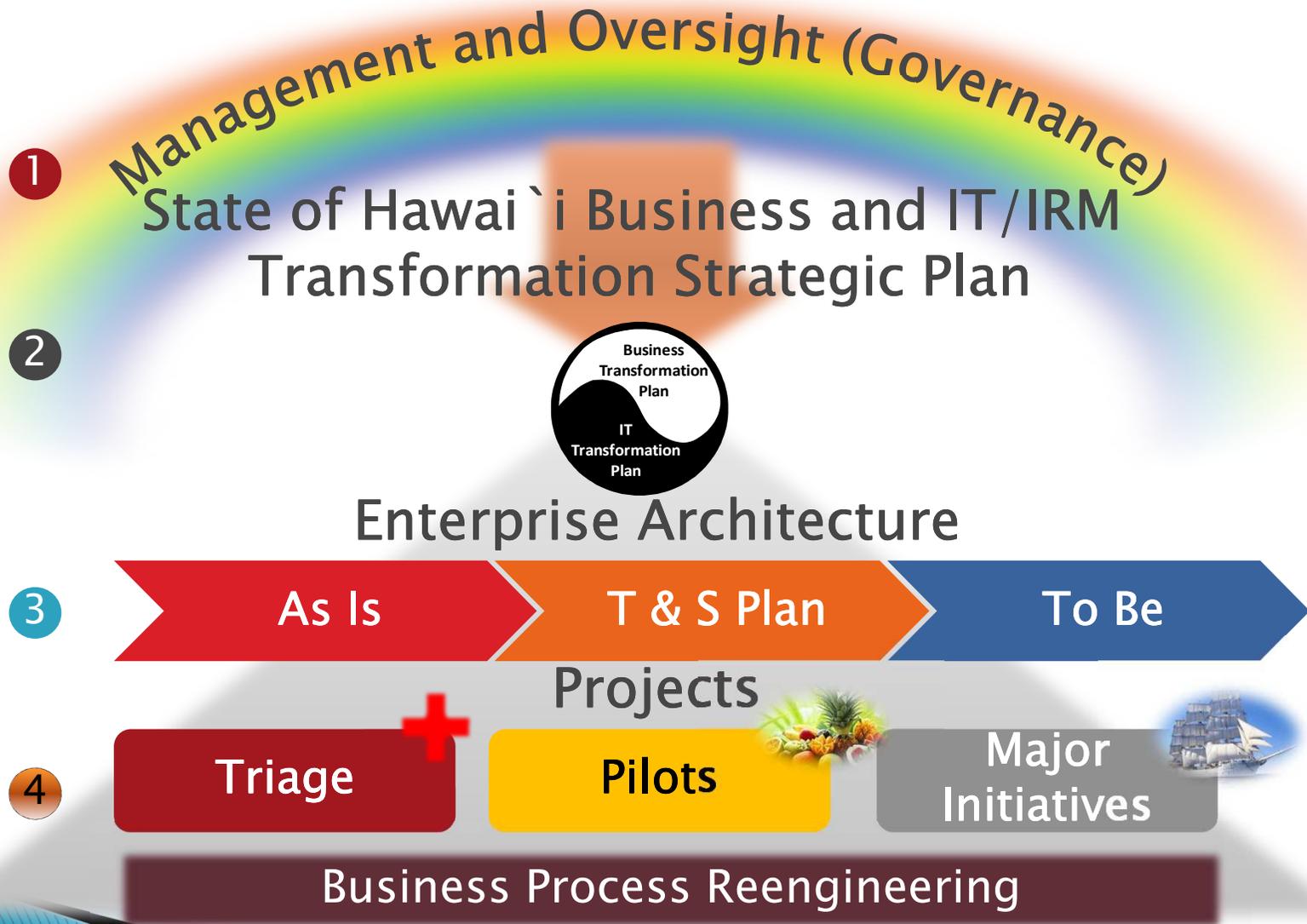
Notional Transformation Schedule
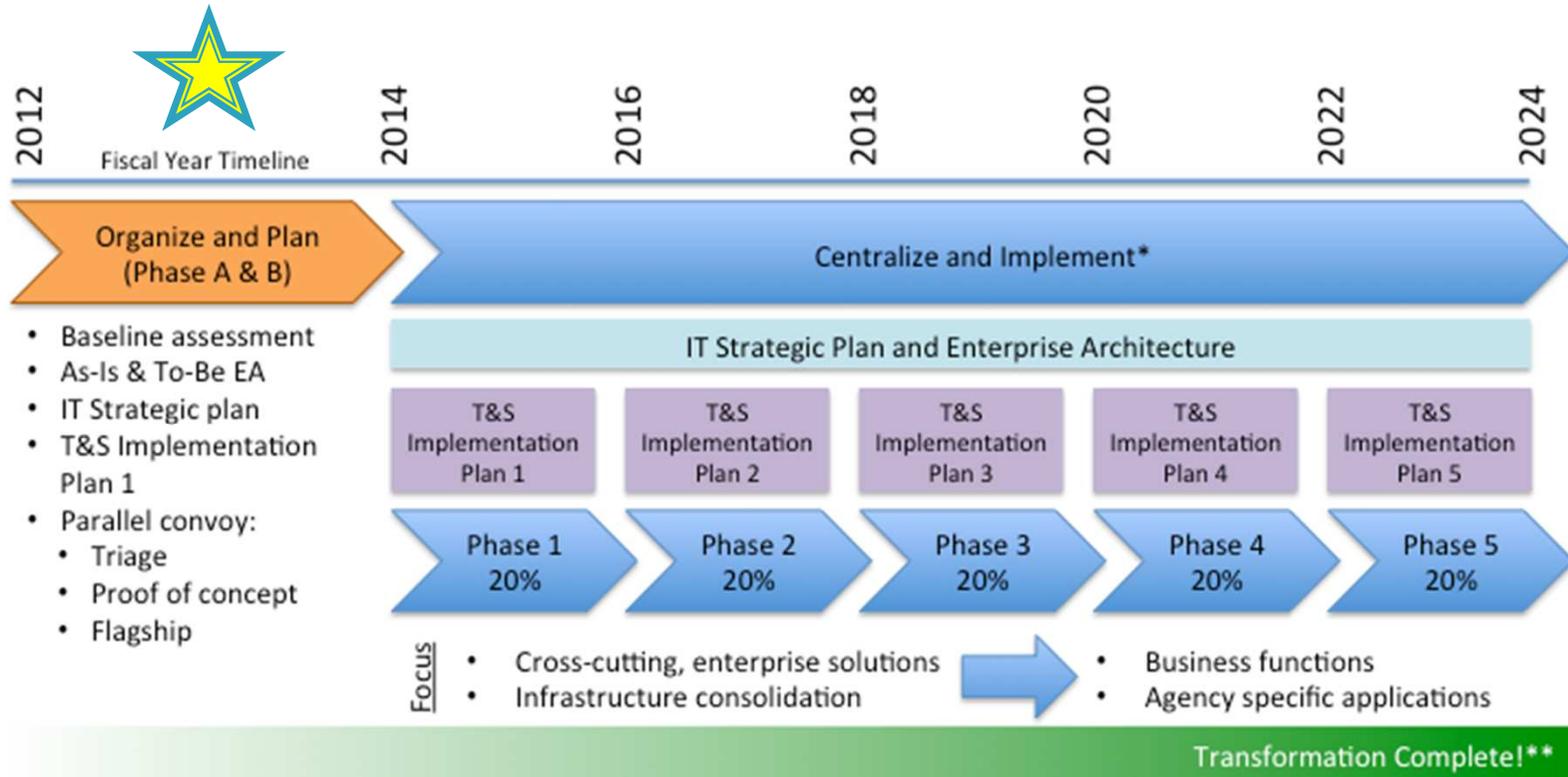
*Successful implementation of Centralize and Implement Phase dependent on funding from legislature in supplemental budget and biennium budget cycles

**State will pursue continuous improvement and innovation during and after the transformation

Program Plan Presentation to Legislature (July, 2012) – Defines 10–Year Plan for Transformation with Details on Phase 1 Scope

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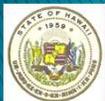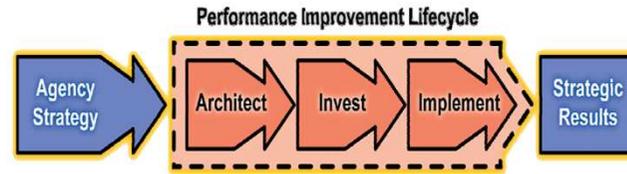
The Crossroads...

Stove-Piped, Sub-optimized, IRM and IT Environment (Today)

Performance Improvement Lifecycle

Agency Strategy → Architect → Invest → Implement → Strategic Results

Innovation

Geo-enabled, Integrated, Mobile, Transparent, Web-Accessible, Open, Standards-based, Agile, Reliable, Available, Secure Enterprise Information and IT Environment (Goal)

We are at a Crossroad in History –
Let's Choose the Pathway to Success!

Mahalo!