

State of Hawai`i Business and Technology Transformation

Presented to: Optical Internetworking Forum (OIF)

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**Friday, October 12, 2012
Sheraton Kauai**



Optical Internetworking and the “Cloud”?

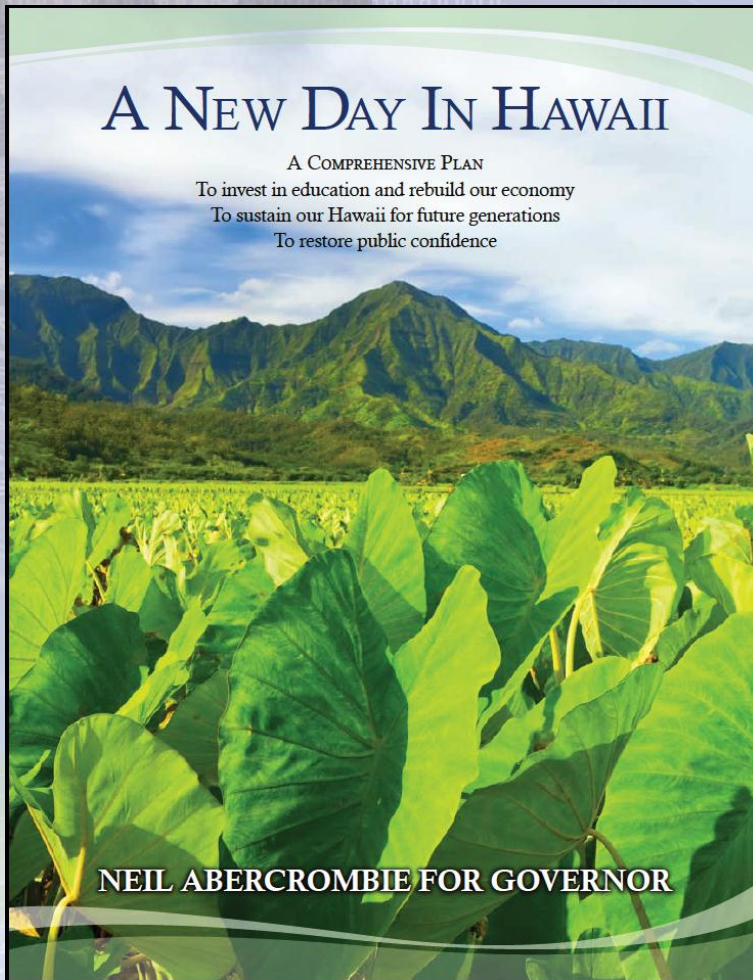


Agenda

- **Governor's New Day Vision**
- **Overview of Business and IT/IRM Transformation Plan**
- **Questions and Answers (Q&A)**



The New Day Vision



✓ **GROWING A SUSTAINABLE ECONOMY**

- New Day Work Projects
- Renewable Energy
- Food Security
- Innovation Economy
- Improvements on Public Lands
- Environmental Stewardship
- Culture, Arts, Creative Industries

✓ **INVESTING IN PEOPLE**

- Early Childhood
- Education and Workforce Development
- Healthcare Transformation
- Safety Net, Homelessness, Public Safety
- Housing

✓ **TRANSFORMING GOVERNMENT**

- Information Technology
- Fiscal Management
- Operations Management
- Customer Service
- Civil Defense and Security



The State of Hawai'i

- **Budget**

\$11 B State - 1.4% IT spend

- **People**

1.4 M residents - 41K State employees – 1.8% IT

- **Organization**

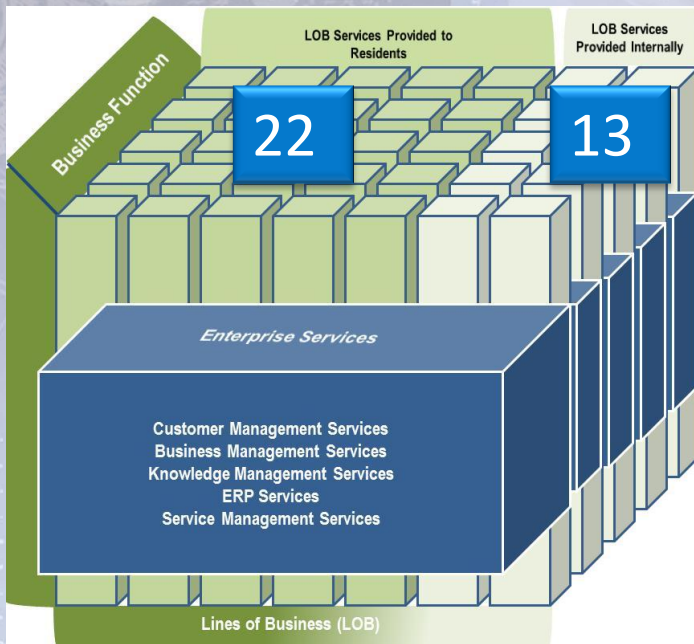
18 Departments, 108 Attached Agencies, and 162 Boards & Commissions; de-centralized IT

- **Business**

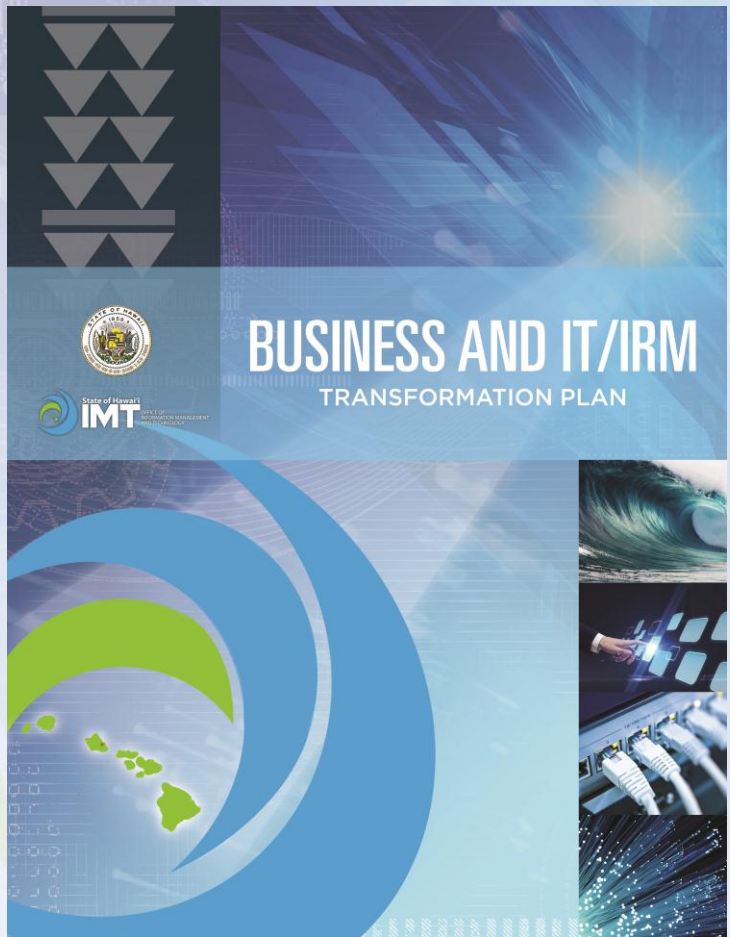
35 Lines of Business; 220 Business Services; 100's of Complex, Manual, Silo, Paper Processes

- **Technology**

30 years old; 743 fragmented IT systems; No interoperability, No Disaster Recovery etc.



A Comprehensive Transformation Plan



<http://www.hawaii.gov/oimt>

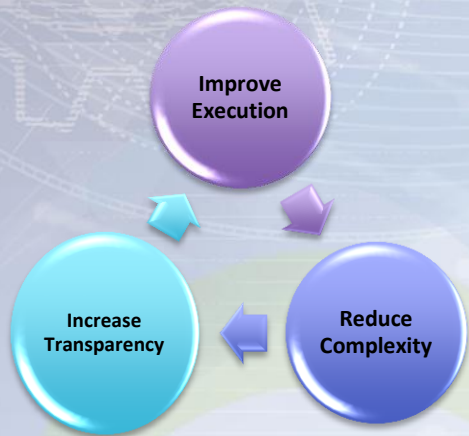


3 Dimensions of Transformation

Business

Technology

Culture



= Success



What is a CIO?



Source: <http://www.ndu.edu>

Source: <http://www.cio.gov>



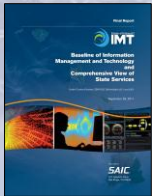
Business and IT/IRM Challenges



- “State IT leaders provide weak and ineffective management; State no longer has a lead agency for information technology”* *Audit of the State of Hawai'i's Information Technology: Who's in Charge? Report No. 09-06, March 2009*



- Such service disruptions will have major financial impact on the State's economy stopping about \$1 million a day from entering Hawai'i's economy** *Assessment of Central Data Center, Gartner 2005*



- “Not only can we not share information across Departments, we struggle to share information within our Department.” Deficiencies identified in organization, policy, process, technology, and business continuity*** *Department Director, SAIC Baseline Report, September 2011*



- Statewide IT leadership is needed in the State of Hawai'i to provide statewide consolidated strategy, planning, and business alignment. A well-governed IT process with appropriate funding and competent staff would effectively advance IT across all of the departments. **** *State of Hawai'i Information Technology Transition Document, February 2011*



Challenges are Opportunities

- **Challenge**

- State of Hawai‘i is up to 30 years “behind-the-times” in many business processes and IT/IRM capabilities (when compared to leading states) with major fragmentation of policy, organization, process, and technology

- **Opportunity**

- + Use collaborative Aloha spirit and our blueprint for change to transform and leapfrog the State of Hawai‘i into the 21st century, and become one of the best digital states in the U.S. within the next 10 years



Change is Coming (Like it or Not...)

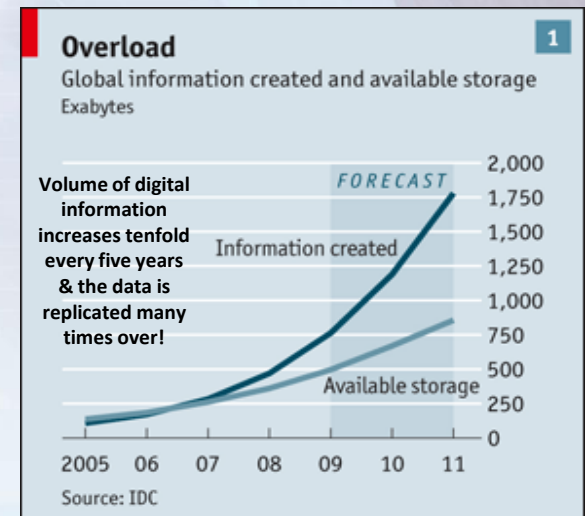
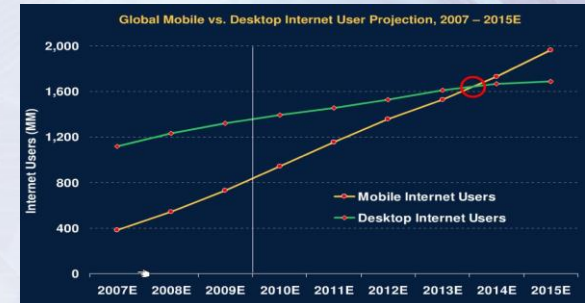


6 bold tech predictions: Fact or fantasy?

FCW (December 8, 2010)

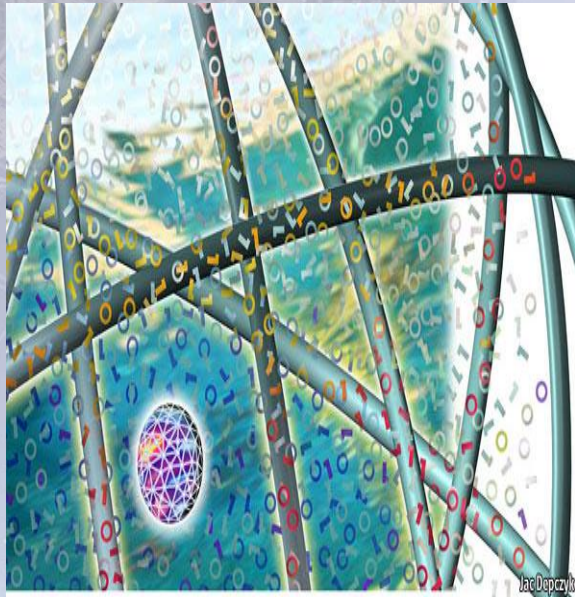
1. 20% of businesses will own no IT assets by 2012 (Gartner)
2. 75% of Stand-Alone IT Departments will disappear by 2015 (Corporate Executive Board)
3. One trillion devices will be connected to the Internet by 2013 (Cisco) – Current = 35B
4. The government can save \$1 trillion in 10 years by harnessing certain proven technologies (Technology CEO Council)
5. 25% of personal computing devices sold will be tablets by 2015 (Forrester Research)
6. Data will grow by 800% in the next five years with 80% Unstructured Text/Media (Gartner)

Mobile will be bigger than desktop internet in 5 years
-- Mary Meeker, Morgan Stanley, April 2010



Context: Maximum sharing and flow of information and knowledge

- 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**



New Updates from Gartner – Access to Anything, Anywhere, Any Time

- 1) **30 billion** pieces of content were added to Facebook this past month.
- 2) Worldwide IP Traffic will **quadruple** by 2015.
- 3) Over **107 trillion** emails were sent this year (89% of which were spam).
- 4) Today's employees can access:
 - Over 1 Billion Web pages (and growing)
 - 350,000 iPhone and Over 100,000 Android Apps
 - 10,500 Radio Stations, 5,500 magazines, 300+ TV Networks



Source: Top 10 Trends and How They Will Impact Data Centers and IT, David Cappuccio, Vice President, Chief of Research



IT Trends We Need to Watch...

1. Consumerization & The Tablet
2. The Infinite Data Center
3. IT Consumption
4. Context Awareness
5. Hybrid Clouds
6. Fabric Data Centers
7. IT Complexity
8. Patterns and Analytics
9. The Virtual Enterprise
10. Social Networking

Gartner®

**TOP
10**

Source: Top 10 Trends and How They Will Impact Data Centers and IT, David Cappuccio, Vice President, Chief of Research, Gartner



Transformation Plan Will...

- **Operationalize** the New Day vision into an actionable, measurable plan;
- **Unify** the diverse departmental approaches into one cohesive, statewide, long-range vision and framework;
- **Improve** productivity and career growth opportunities for the state's workforce;
- **Help** state agencies focus on their core competencies by eliminating the duplication of common processes and procedures;
- **Provide** real value to the people of Hawai'i in their interactions with state government;
- **Demonstrate** willingness and capability of the executive branch of state government to better *serve* Hawai'i's residents, thereby enhancing the trust of state legislators, the congressional delegation, and federal agencies; and
- **Realize** the promise of Hawai'i to deliver world-class excellence with aloha.



Benefits of the Transformation

For the Community

- Improved delivery of services and programs (e.g. going “online” versus “waiting in line”)
- A more transparent and responsive government
- Increased, secure, and timely access to information and data

For State Employees

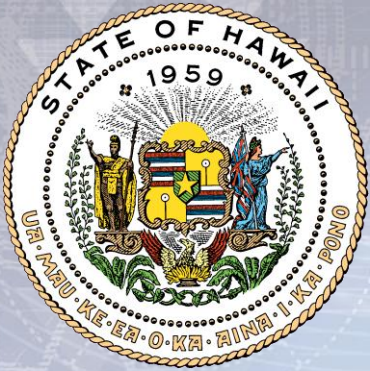
- Streamlined workflow processes that allow more focus on serving customers
- Access to a wider range of new technologies to better support departmental missions, programs, and services
- Improved career growth opportunities

For Departments

- Efficiently aligned services
- Reduced costs and elimination of unnecessary redundancies
- Increased reliability and security
- Improved outcomes and accountability



Why Invest in the Transformation?



1

- **Cost of Not Investing**
 - Systems go down - information is irretrievably lost and/or key services and benefits are not provided to citizens
- **Benefits of Investing**
 - Technology enables government to be more efficient
 - Technology prepares employees to be more productive
 - Citizens get increased and reliable services from their government
- **Future Competitive Advantage for Hawai'i**
 - Technology-efficient government helps attract business
 - Investment in Hawai'i's workforce for today and the future



A Value Chain for Hawaii

22

Services Delivered Externally by LOBs

- Economic Development, Commerce & Consumer Affairs
- Human Services, Workforce Management
- Defense, Homeland Security, Disaster Management, Law Enforcement
- Environmental Management, Public Health, Child Support
- Land & Natural Resources, Hawaiian Home Lands
- Correctional/Public Safety, Criminal Justice, Juvenile Justice, Legal
- Transportation
- Education, Higher Education, Public Libraries
- Agriculture

- Value To Citizens
- Value to Business Partners
- Value to Federal Agencies and Other Funding Providers

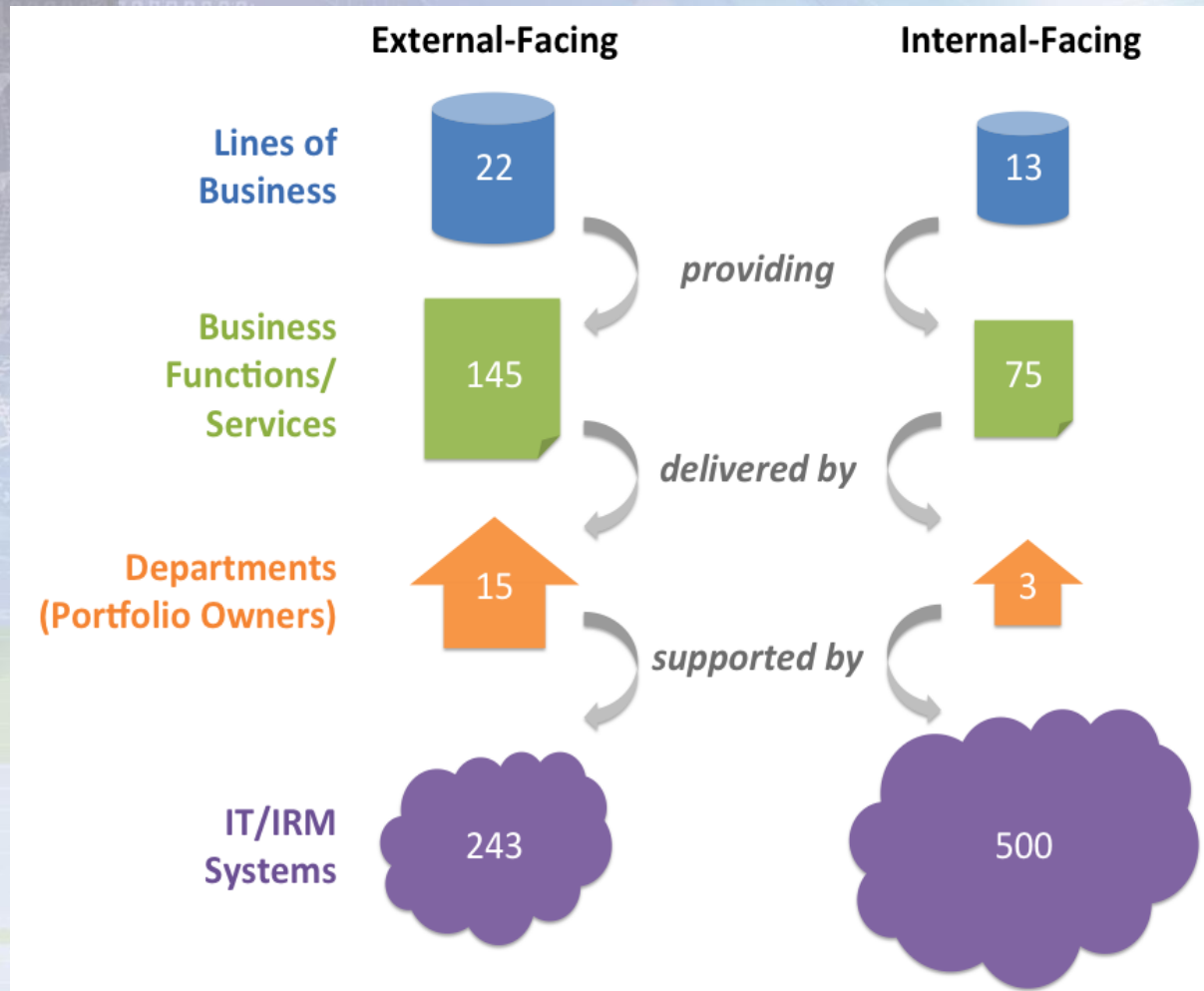
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Services Delivered to Other LOBs

- Procurement, Asset Management & Inventory Control
- Policy, Controls & Oversight, Legislative Relations
- Budget & Finance, Financial Management, Revenue Collection
- Information Technology Management
- Planning & Resource Management
- Logistics, General Services
- Grants Management
- Public Affairs



Legacy Business & IT/IRM Environment



Framework for Business & IT/IRM Transformation



- **The Strategic Plan** provides a unified 360⁰ view of the State's mission, goals and objectives
- **The Business and IT/IRM Transformation Plan** provides strategic IT goals, management and oversight (governance), enterprise architecture and BPR/IT projects



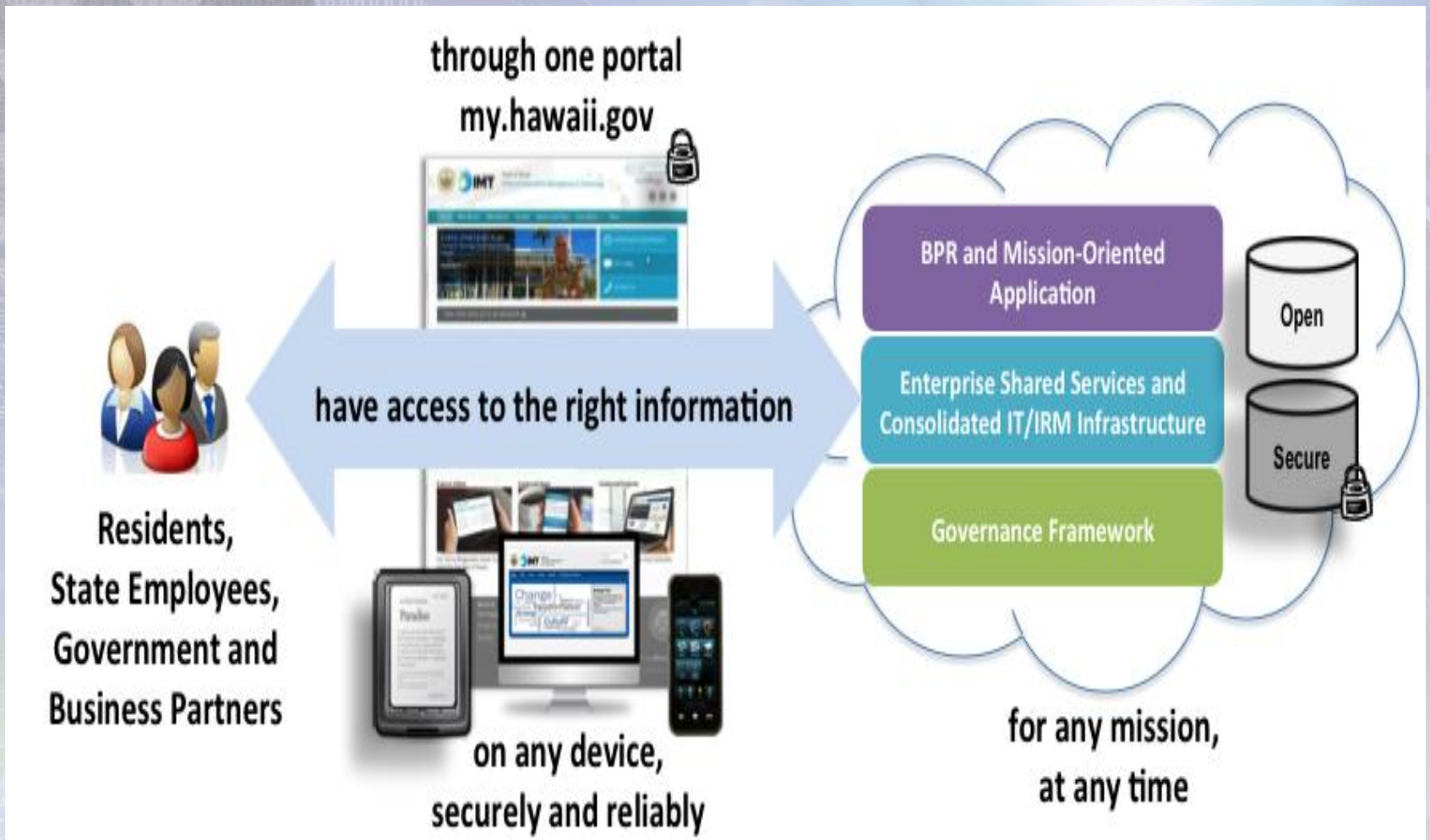
Accomplishments

Deliverable	Plans	Months	Why Significant?
 State Strategic Plan	1	3	A unified 360 ⁰ view of the State's mission, goals and objectives
 Baseline Report, Benchmark Report, Data Center Assessment	3	4	Baseline of where we are and how we compare to other states
 Business and IT/IRM Transformation Plan	1	8	Vision of the future state and roadmap to get there
 Projects Proof-of-Concept	34*	6	Demonstrates we can get things done on time with quality

*Completed, Underway, Planned



Future Vision (Simplified)



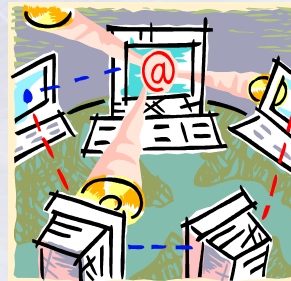
Key Strategies

1



***Re-engineer
Business
Processes and
Apps for
Business***

2



***Launch
Enterprise
Shared Services
and Consolidate
Infrastructure***

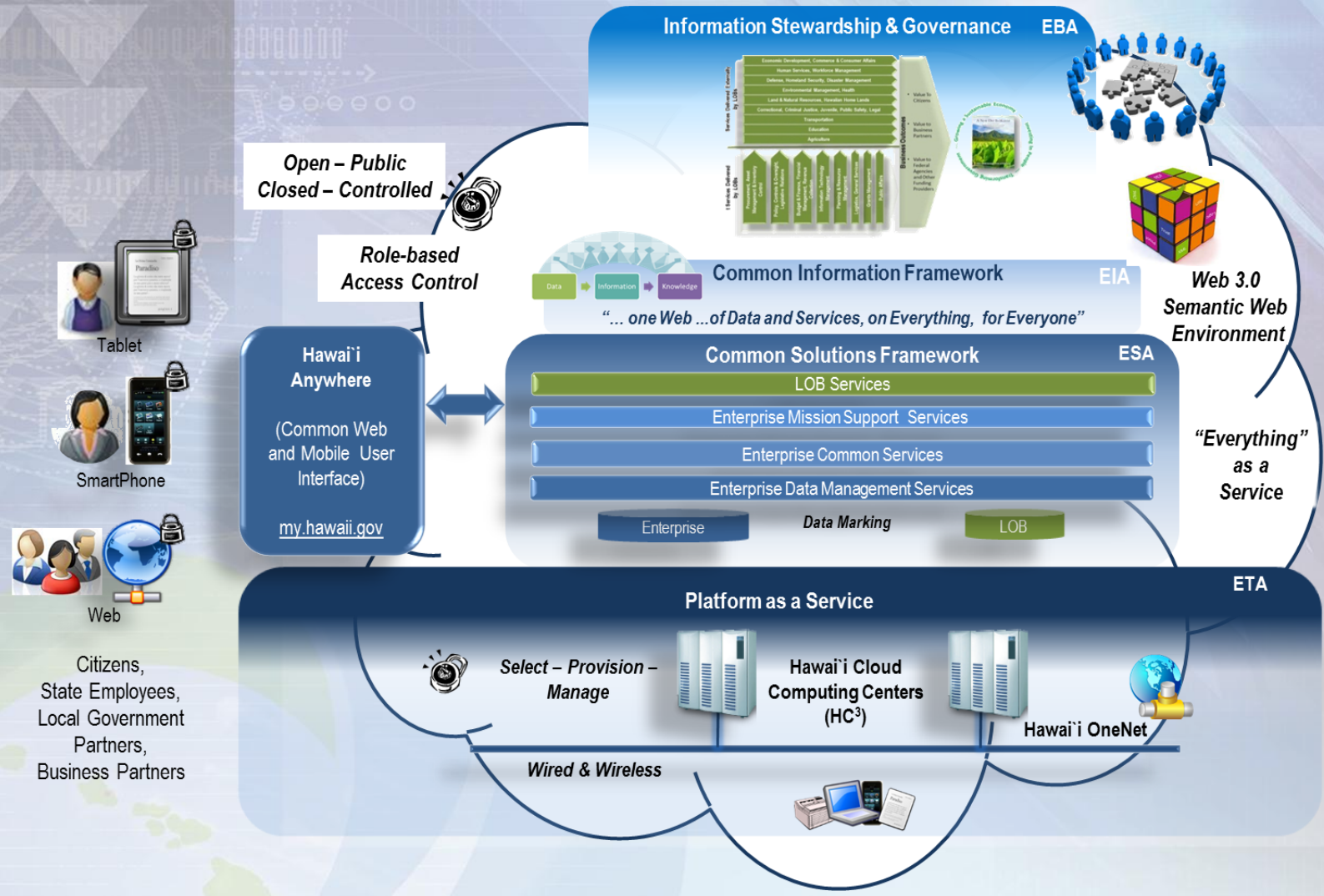
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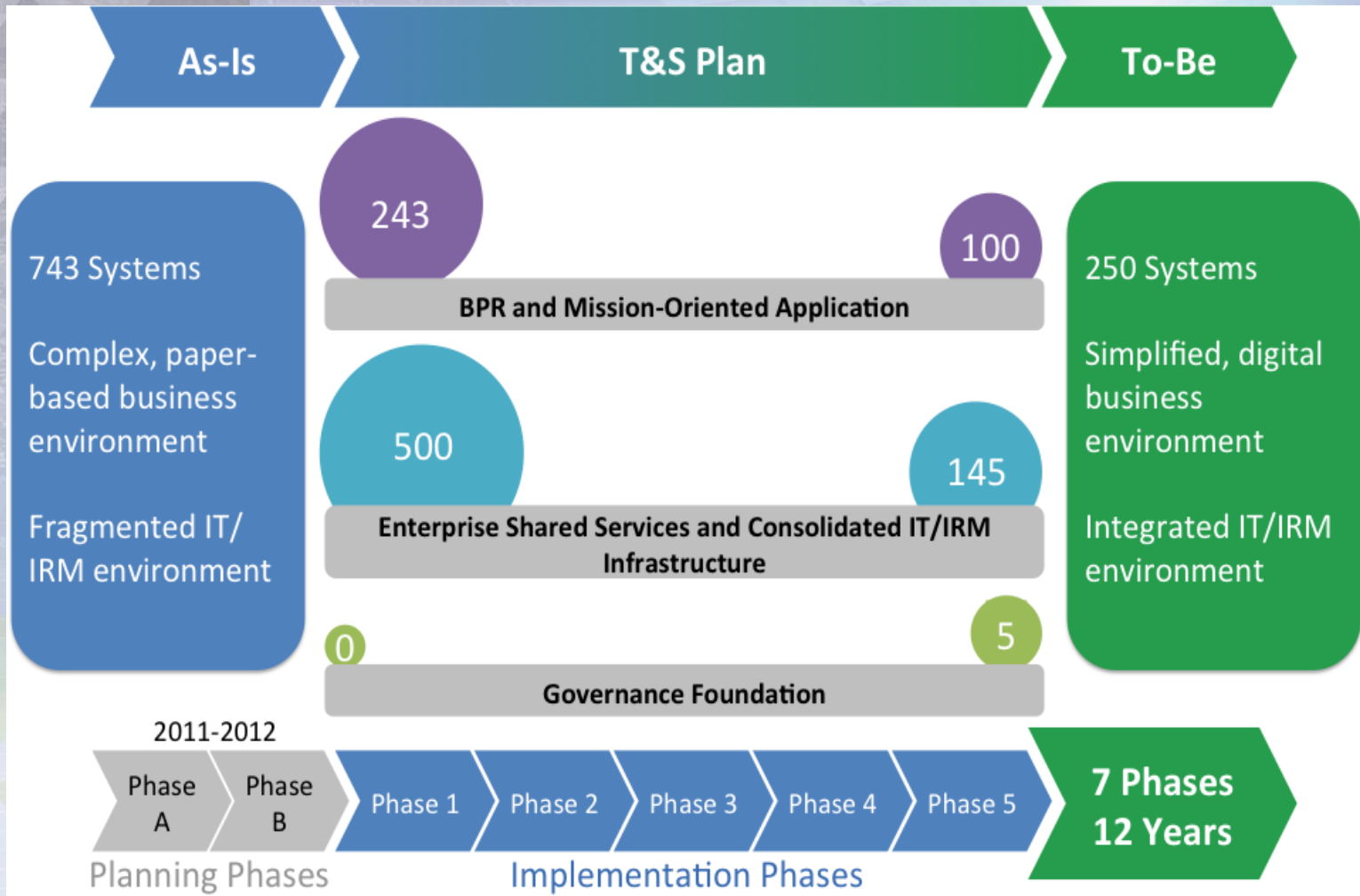
***Establish
Enterprise
Governance
Framework***



Future Vision for the State of Hawai'i



The Implementation Plan






State of Hawai'i Business IT/IRM Transformation Projects

Project Category	Completed (FY12) 8	12	Underway/Planned (FY13) 23	Notional Planned Investments (FY14)+	
Flagship Enterprise Initiatives		<ul style="list-style-type: none"> eTreasury Deposit Receipts ePayroll Change Schedule 	<ul style="list-style-type: none"> Enterprise Resource Planning Assessment 	<ul style="list-style-type: none"> Enterprise Resource Planning Implementation (Phase 1 of 4) 	MISSION
	✓ HealthIT Grant Proposal / \$14.4 mill	<ul style="list-style-type: none"> HealthIT Planning 	<ul style="list-style-type: none"> HealthIT Phase 1 Hawai'i Broadband Initiative Plan Longitudinal Educational System 	<ul style="list-style-type: none"> HealthIT Release 1.0 Hawai'i Broadband Initiative Phase 1 	
Business Process Reengineering	✓ State Baseline Assessment	<ul style="list-style-type: none"> Business IT/IRM Transformation Plan (7/2012) 	<ul style="list-style-type: none"> IT Governance Modernization 	<ul style="list-style-type: none"> Line of Business Transformation Blueprints 	
	✓ DoTax Process Improvements (2)	<ul style="list-style-type: none"> DHRD Process Improvement 	<ul style="list-style-type: none"> Tax Analytics 	<ul style="list-style-type: none"> Tax Modernization 	
Security/Privacy	✓ Asia-Pacific Economic Cooperation (APEC) Summit Security		<ul style="list-style-type: none"> Security Assessment 	<ul style="list-style-type: none"> Enterprise Security Program 	
		<ul style="list-style-type: none"> Data Loss Prevention (Pilot) Securing Internet Communications (DNSSEC) 	<ul style="list-style-type: none"> Enhanced Data Loss Prevention ICSD Security Triage 	<ul style="list-style-type: none"> Enterprise Wide Data Loss Prevention 	
				<ul style="list-style-type: none"> Data At Rest Encryption (Pilot) Mobile Device Security (Pilot) 	
				<ul style="list-style-type: none"> Multi-Factor Authentication Phase 1 	
Open Government/Innovation	✓ Open Data (alpha)	<ul style="list-style-type: none"> Open Data (beta) 	<ul style="list-style-type: none"> Open Data Release 1.0 	<ul style="list-style-type: none"> Open Data Release 2.0 	
		<ul style="list-style-type: none"> State Websites Modernization Boards & Commissions Websites Web Dashboard 	<ul style="list-style-type: none"> Agile Software Development Legislative and Constituent Tracking 	<ul style="list-style-type: none"> Innovation Lab 	
		<ul style="list-style-type: none"> Web Dashboard 	<ul style="list-style-type: none"> Web 2.0 and Gov 2.0 	<ul style="list-style-type: none"> Mobile 2.0 and Dashboard 2.0 	
Enterprise Shared Services		<ul style="list-style-type: none"> Collaboration-as-a-Service (Pilot) 	<ul style="list-style-type: none"> Collaboration-as-a-Service Phase 1 	<ul style="list-style-type: none"> Collaboration-as-a-Service Phase 2 	
			<ul style="list-style-type: none"> Geographic Information System Document Management Cloud and Email Services IT Acquisition 	<ul style="list-style-type: none"> Enterprise Records Management 	
			<ul style="list-style-type: none"> ICSD Infrastructure Triage 		
IT Infrastructure Modernization	✓ Server Virtualization		<ul style="list-style-type: none"> Data Center Planning 	<ul style="list-style-type: none"> Data Center Implementation 	
	✓ System Access Modernization		<ul style="list-style-type: none"> One Net Foundation 	<ul style="list-style-type: none"> One Net Implementation Radio Program Modernization 	
			<ul style="list-style-type: none"> Voice over Internet (Pilot) 	<ul style="list-style-type: none"> Voice over IP Implementation 	
Funding Sources	Completed with HCF Grant / \$4.5million		Supplemental Budget/\$25.3million	Biennium Budget Request /TBD	



+ subject to change

Top 10 Initiatives

#	Program	Solutions
1	Tax Modernization Initiative 	Streamline and modernize tax processing end-to-end across enterprise
2	Health IT 	A more effective, efficient, and patient-focused healthcare system
3	Hawaii Broadband Initiative (HBI) 	All Hawai'i residents with ultra-high-speed, affordable gigabit broadband services by 2018
4	Enterprise Resource Planning (ERP) 	Business efficiency, information analysis, and technology modernization for 7 core functions
5	Education 	Investing in our keiki with the Longitudinal Data System and other educational improvements
6	Enterprise Infrastructure 	One Net - Enterprise Services Network Serving entire State with guaranteed service levels; Adaptive Computing Environment (ACE) – Desktop to mobile, technology refresh cycle; Shared Service Centers providing services, storage, and computing via private cloud.
7	Enterprise Shared Services 	E-mail and Directory, Content and Document Management, Geographic Information Systems, Collaboration, and other services provided centrally
8	Enterprise Security/Privacy 	Identity, Credential, and Access Management, Single Sign-on, Role-based Permissions
9	Mission Applications and OpenGov 	Rapid, agile development of mission-focused applications in a modular, open-source environment, mobile apps, and open government data via Data.Hawaii.gov
10	Enterprise Governance 	Policies and processes, Capital Planning and Investment Control (CPIC) / Portfolio Management (PfM), Enterprise Architecture (EA), and performance Dashboards



Data.hawaii.gov Launch

data.Hawaii.gov HOME VIDEOS FAQ HELP

Data for Hawaii

Leading public sector innovators are leveraging cloud, platform and social technologies to deliver better citizen access to information, modernize online service delivery and improve internal efficiencies. We call the transformation of your data assets into productive information resources that people can easily access, share and reuse, Open Data. By sharing our data via data.hawaii.gov in an open and transparent means we empower our citizens, ourselves and our customers to access information anywhere, anytime. Data.hawaii.gov provides a platform to promote our data to a common statewide location that is accessible to everyone.

Culture and Recreation
To enrich the lives of people of all ages by providing and preserving opportunities and facilities for
[Read more >>](#)

[Go to Culture and Recreation page >>](#)

Economic Development
To assist in maintaining the States economy in a strong and competitive condition by
[Read more >>](#)

[Go to Economic Development page >>](#)

Environmental Protection
To restore, protect, and enhance, where appropriate, the natural and person-made physical
[Read more >>](#)

[Go to Environmental Protection page >>](#)

Formal Education
To maximize the realization of each individual's intellectual potential, to contribute to
[Read more >>](#)

[Go to Formal Education page >>](#)

Government-wide Support
To enhance the effectiveness and efficiency of State programs by providing executive direction,
[Read more >>](#)

[Go to Government-Wide Support page >>](#)

Tourism
The Hawaii Tourism Authority is responsible for the development, management and coordination of
[Read more >>](#)

[Go to Tourism page >>](#)

Name	Popularity	Type
1. HAWAII'S FARMER'S MARKET Economic Development farmer's market local fruits vegetables Buy Local It Matters at one of many neighborhood farmer's market throughout Hawaii.	82 views	
2. 2012 State Holidays holidays, days off State of Hawaii Holidays for calendar year 2012	58 views	
3. Category Information Dataset to configure categories on the Home page	74 views	
4. Hawaii Public Schools schools Data about all public schools in Hawaii	61 views	
5. Hawaii eGov Apps applications app apps egov egovernment All Hawaii Portal Applications	57 views	
6. HI Electricity Prices app	15 views	

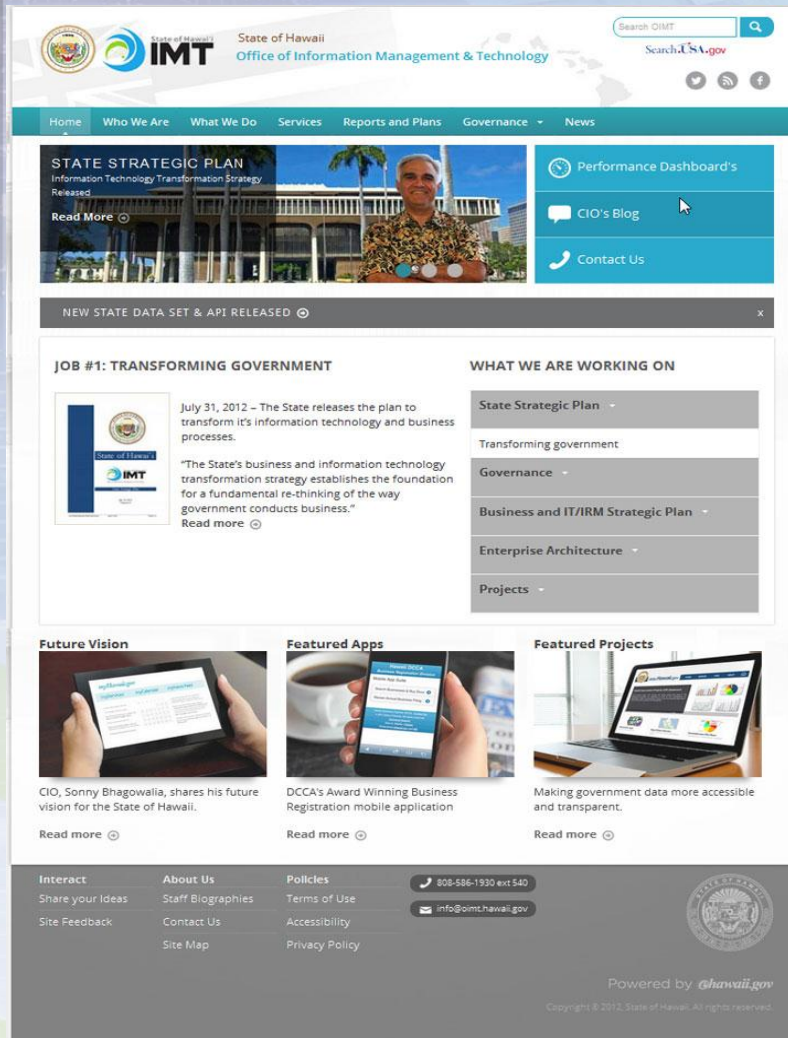
View Types

- Datasets
- External Datasets
- Files and Documents
- Filtered Views
- Charts
- Maps
- Calendars

- Analyze
- Visualize
- Socialize
- Mobilize
- Utilize
- Open Data from State Government
- Federated with US Government



State Website Modernization

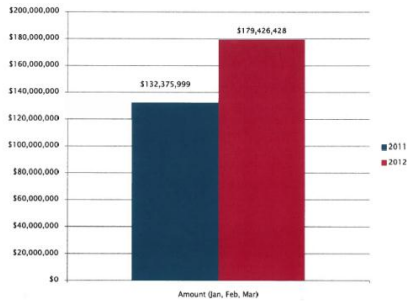


- Alpha Launch of hawaii.gov/oimt
- State by 1Q, 2013
- Easy to Navigate
- Easier to Find Information
- Mobile-Ready
- Latest “Responsive Design” Technology



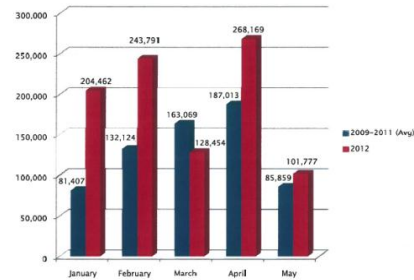
Department of Taxation Business Process Reengineering (BPR) Project

More money was paid to taxpayers



15

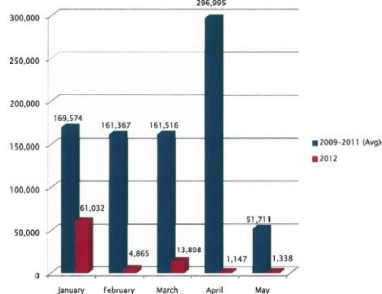
Substantially more returns are processed under 7 days



(Dip in March 2012 due to expedited processing in January & February)

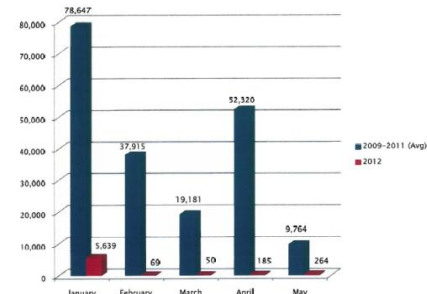
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Substantially fewer returns take 3 weeks+ to process



12

Substantially fewer checks take 3 weeks+ to be deposited



8

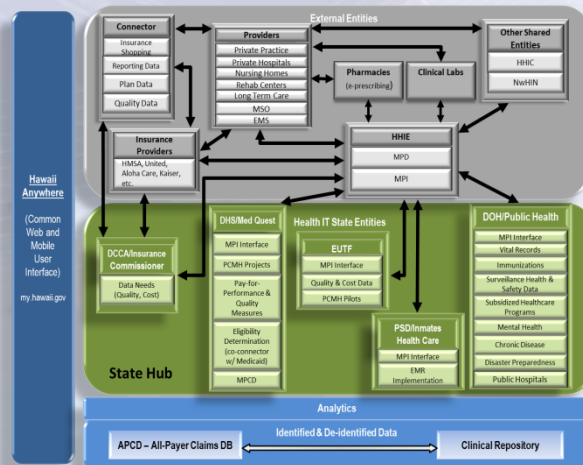


Flagship Programs Underway

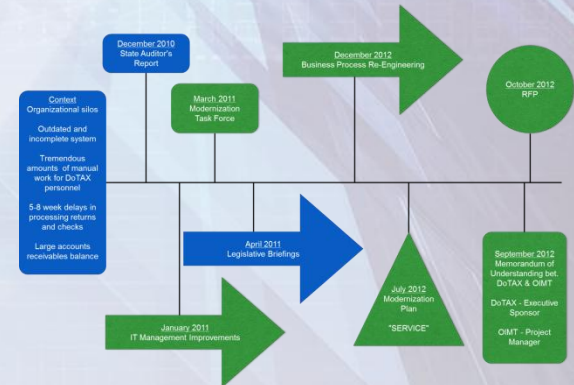
Enterprise Resource Planning (ERP)



Health IT



TAX Modernization



Hawaii Broadband Initiative



Hawaii Broadband Initiative (HBI)

- A flagship technology program to achieve vision of Governor's New Day Plan
- The Hawai'i Broadband Initiative has four goals:
 1. Ensure ubiquitous access to world-class gigabit-per-second broadband service at affordable prices throughout Hawai'i.
 2. Increase the use of ultra high-speed broadband services and applications for economic development, healthcare, education, public safety, governmental efficiency and civic engagement.
 3. Reduce Hawai'i's barriers to global participation and ensure equitable access for all our islands, including the most remote areas of the state.
 4. Develop and implement a modern regulatory and permitting environment that supports and advances investment in broadband infrastructure and public services.
- As one of the State's flagship IT/IRM programs, the HBI will serve as an exemplar for Hawaii's new approach to structured and disciplined program management
- Greater accountability, greater transparency, greater efficiency



The Journey Has Begun!

The screenshot shows the homepage of the State of Hawaii Office of Information Management & Technology (OIMT). The header includes the hawaii.gov logo, text size controls, and a 'Stay Connected' link. The main navigation bar contains links for Home, Who We Are, What We Do, Reports, IT Steering Committee, Projects, News, FAQ, and Contact. A search bar is located in the top right corner. The central content area features a large image of two men in a modern building, with the text 'BUSINESS AND IT/IRM TRANSFORMATION PLAN' and a 'Read More' link. To the right of this image are four menu items: Performance Dashboards, Open Data, CIO's Blog, and Contact Us. Below the main content is a banner for the 'HAWAII DIGITAL GOVERNMENT SUMMIT, DECEMBER 11, 2012'. At the bottom, there are two main sections: 'JOB #1: TRANSFORMING GOVERNMENT' and 'READ THE TRANSFORMATION PLAN', with a dropdown menu for 'Executive Summary'.

www.hawaii.gov/oimt





Mahalo!

<http://www.hawaii.gov/oimt>

