

State of Hawaii Office of Enterprise Technology Services
Hawaii Department Dashboard

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Data Management, Analytics and Visualization



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State of Hawaii Office of Enterprise Services
Hawaii Department Dashboard
EXECUTIVE SUMMARY

The State of Hawaii's Hawaii Department Dashboard initiative is the first of its kind in the nation. The Dashboard has become such a dynamic and useful tool in tracking projects and information that Utah and Washington are looking to implement a similar tool.

The Dashboard aims to increase project visibility, accountability and collaboration for information technology (IT) efforts across the State. Roadmaps create a strategic and common view amongst a team of people about the organization's future and what the team wants to achieve over time.

Prior to the roadmap initiative, the State of Hawaii had little understanding or governance of overall department IT efforts. There wasn't a clear strategy and picture on what was being spent on IT projects in the executive branch departments. At times, different departments were making duplicate purchases instead of leveraging their resources to bring cost down.

Using a data visualization tool called Sharpcloud, the Office of Enterprise Technology Services (ETS) designed a modern statewide dashboard that hosts and displays all the departments' IT roadmaps that captures the business value, budget appropriation and status of each project or initiative. ETS worked progressively with each executive level department to generate IT roadmaps that mapped future key projects on a timeline. Features of this tool also allow ETS to categorize projects by cost pools, filter information by organizational priorities and create visually appealing financial overviews for strategic planning and decision making. By using this visualization tool, State CIO Todd Nacapuy can easily assess projects and identify redundancy.

In December 2017, ETS published this dashboard to its website with the intent of providing government transparency for key IT projects and initiatives. This fits directly into one of Hawaii Governor David Ige's core values – *Kuleana*, which is the Hawaiian word for responsibility. The Dashboard is also in alignment with the Governor's priorities, which is to have an effective, efficient and open government. It aims to restore public trust in government by committing to reforms that increase efficiency, reduce waste and improve transparency and accountability. The Dashboard can be viewed at ets.hawaii.gov.

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The Office of Enterprise Technology Services (ETS) provides governance for executive branch information technology (IT) projects and seeks to identify, prioritize and advance innovative initiatives with the greatest potential to increase efficiency, reduce waste, and improve transparency and accountability in state government.

Prior to the roadmap initiative, the State of Hawaii had little understanding and governance of overall department IT efforts. There wasn't a clear strategy and picture on what was being spent on IT projects throughout the executive branch departments. At times, different departments were making duplicate purchases instead of leveraging their resources to bring cost down.

The concept of roadmapping was first adopted internally by ETS to encourage organizational change and to provide project visibility among branch teams. When it proved to be beneficial, ETS brought the roadmap initiative statewide to all executive level departments. With legislative support, roadmaps were produced for all the departments' key IT projects and initiatives. It encouraged agencies to plan their projects more thoughtfully and kept discussions about resource needs honest. The tool went live in December 2017.

The data visualization tool, Sharpcloud, enhanced ETS' effort with customizable project panels, tagging capabilities, financial overviews and visually impressive views of the roadmap timelines. With its capability to house all the roadmaps individually and roll them all into one interactive dashboard, a powerful communication, strategic planning and decision-making tool came into fruition. Robust with information, the portal is meant to improve transparency and encourage more consistent IT planning by departments.

The dashboard breaks each roadmap down by department and includes the following:

- **Project View:** List of all projects planned per department, their business value, assumptions, risks, dependencies and financial breakdowns. Visualizes which cost pool each project belongs to and which organizational priority it aligns with
- **Timeline View:** Maps out all planned projects on a timeline and indicates project status
- **Financial Overview:** Provides a rolling sum of the department's appropriated budgets, spends to date and newly requested funds
- **Project Status View:** Indicates which projects are on track, behind, ahead, not started or completed
- **Roadmaps** are being used by companies to create, maintain, share and visualize strategic planning information across the enterprise. They are an effective way to understand the resources, competencies and capabilities required for an organization to achieve its goals now and over time, while providing flexibility as circumstances change.

Two members of the ETS team are appointed to assist with the executive departments' IT staff in inputting data into the roadmap. Chief Information Officer (CIO) Todd Nacapuy uses the

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roadmap during his monthly meetings with each of the executive department's IT staff to review their data, information and projects. He uses the roadmap to gather status updates on each of the projects happening throughout the state. Security is provided by the Office of Enterprise Technology Services through its safe and secure network due to the many layers of protection in our security ecosystem.

Along with educating each of the executive department's IT staff on the roadmap, the CIO has met with state lawmakers individually to explain the benefits of the Dashboard. He has also conducted informational briefings with legislative staff and met with stakeholders interested in open data. In addition to that, the Dashboard has been written about in trade magazines through interviews with CIO Todd Nacapuy. Stakeholders as well as ETS have also written about it in its newsletters.

Our vision was to use technology to create a tool that would house and display these roadmaps in a user-friendly manner for the public, internal users and lawmakers. They can utilize information found on the dashboard to obtain a rolling snapshot of the state's IT position.

State of Hawaii Office of Enterprise Services Hawaii Department Dashboard SIGNIFICANCE

A first of its kind in the nation, the Hawaii Department Dashboard was built using Sharpcloud, a visualization tool that allows ETS to get a true picture of all IT projects its oversees statewide. This tool is also unique as it enables the public to see which projects are in alignment with Governor David Ige's priorities for Hawaii as well as ETS' objectives while organizing all projects on a "digital spreadsheet," which allows for strategic planning and analysis.

One of Governor Ige's priorities is to have an effective, efficient and open government. It aims to restore public trust in government by committing to reforms that increase efficiency, reduce waste and improve transparency and accountability. The Hawaii Department Dashboard achieves all those objectives. The public is able to see what is being spent on each IT project statewide, the justification for the project and how much it will cost tax payers. Open data groups have a keen interest in the Dashboard because it fulfills their objectives of having government spending available for public consumption. Although the Hawaii Department Dashboard only provides information on IT spends, it is a start in the State's quest to make government spending transparent.

Lawmakers also have found the information on the Dashboard valuable. It gives them an overview and an accurate picture of what is spent on projects per department and whether budget requests are in alignment with the departments' projects and goals.

In order to get a true picture on what the State was spending statewide on IT projects and to ensure that spends were prudent, ETS created a strategic roadmap to aid communication within the agency, facilitate planning of IT projects across all state departments, and enhance government transparency. More specifically, the combination of roadmaps and data visualization technology improves the following:

- **Communication and Collaboration:** The roadmap dashboard reveals what each state agency has planned for the near and distant future. Through monthly correlation meetings, the Office of Enterprise Technology Services and departmental leaders meet to discuss roadmap initiatives, which enables the discovery of technology re-use and provides synergy opportunities
- **Planning:** Provides a template for more synchronized high-level planning. Through the dashboard's features, we linked resource pools, products and enterprise technologies with government and technology priorities
- **Governance:** Allows decision makers, legislatures and the public to understand where resources are being allocated
- **Government Transparency:** Displays appropriated budgets, total amounts spent to date and new funds requested. Also provides descriptions and the business value for each project and initiative
- **Accountability:** Provides a means for departments to set and achieve short-term and long-term goals and measures performance over time through project status
- **Financial Overview:** Supports effective budget and resource management

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Before the Hawaii Department Dashboard went live, IT departments in the executive branch were not working in concert with each other; they were working in silos and were not able to see their counterparts' IT projects and budgets. Now that the Dashboard is live, it has become a primary communication and strategic planning tool for IT teams across the State of Hawaii. It has allowed different agencies to share ideas about the technologies being used in their respective areas and has produced greater alignment for long-range strategic planning.

The Dashboard allows teams to not only plan but also prioritize projects due to budget and resource constraints. The Dashboard has improved the following:

- **Governance capabilities over key department IT spends.** ETS' governance team assigned resources to help department IT leads develop roadmaps that are updated at regular intervals. Using these roadmaps, ETS holds monthly support meetings with higher level management to discuss upcoming projects, needed resources and other technological opportunities. This data visualization tool also provides the data needed for the governance team to reconcile department spend requests to roadmaps.
- **Objective measures to track progress.** The department dashboard tracks whether projects are on time, behind, ahead or completed, creating a sense of accountability within each organization.
- **Increased cost savings.** Each roadmap has a panel that indicates appropriated budgets and amounts spent to date to encourage wise spending practices and measures savings opportunities.
- **More efficient budget and resource allocation.** Roadmaps communicate important projects to all team members. With that, departments have optimized their resource allocation through continuous improvement efforts to eliminate waste and free-up valuable staff time to work on high value roadmap initiatives.
- **Statewide communication for IT efforts.** Roadmaps draw a broad picture of how a strategy will evolve and describe the general direction the organization is moving the initiative within upcoming time periods. Using this tool, not only do decision makers obtain an understanding of what's happening but they can also communicate this information to legislative leaders and the public.
- **Increased technological alignment for enterprise services.** ETS' internal roadmap indicates enterprise services currently available for all departments. Through monthly meetings with departments, ETS and departments collaborate on IT efforts and discuss possible enterprise technologies that can be provided for their needs.

In summary, the Dashboard's roadmaps have helped Hawaii's government departments decide, plan, communicate and succeed in accomplishing goals while supporting several aspects of planning. It tracks more than 400 IT projects, accounting for nearly half a billion dollars in IT spend annually. Rolling these roadmaps into a statewide dashboard made this information available for use in governance practices, decision making, resource allocation and

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technology planning. It also allowed ETS to discuss the State's IT position to a broader audience in a way that makes the data valuable. Overall, this initiative is a valiant step toward achieving the governors' goals of establishing more effective, efficient, transparent and open government practices.

The Dashboard provides a clear direction and vision of IT spend, and with that ETS is anticipating a ten percent reduction in its operations and maintenance budget to be achieved through increased cost-efficiency. This translated into an \$11 million savings overall for FY 2017.