



## 3.0 STATE OF HAWAII EA

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## 3.1 CONTEXT FOR THE EA WITHIN THE STATE OF HAWAII'S GOVERNMENT TRANSFORMATION

The EA helps organize, prioritize, achieve the future state for the IT environment, and then supports the management of the IT environment going forward. For the enterprise to achieve desired transformation or operational improvements, the EA must be fully integrated with the other elements, functions, activities, or practice areas. These related elements (annotated by number in Figure 6) include:

1. The management and oversight function that provides a governance structure/process that oversees all related business transformation activities, IT investments, and projects to ensure they achieve desired results.
2. The Strategic Plan that establishes the overarching goals, strategies, objectives, and performance measures for the transformation and drives the requirements for the EA.
3. The EA and projects, defined within the T&S Plan that are approved, funded, and initiated within the proposed sequence and timeframes. These include Business Process Reengineering (BPR) projects identified to streamline current business processes, and system and technology development implementation projects – categorized as Triage projects to address immediate needs; Pilot projects to pilot new enterprise capabilities; or Major Initiative Support projects to establish enterprise systems or technologies.
4. Portfolio Management (PfM) practice as the comprehensive inventory of all IT investments.

Figure 6 provides an overview of this integration and other functions, practice, or program areas.

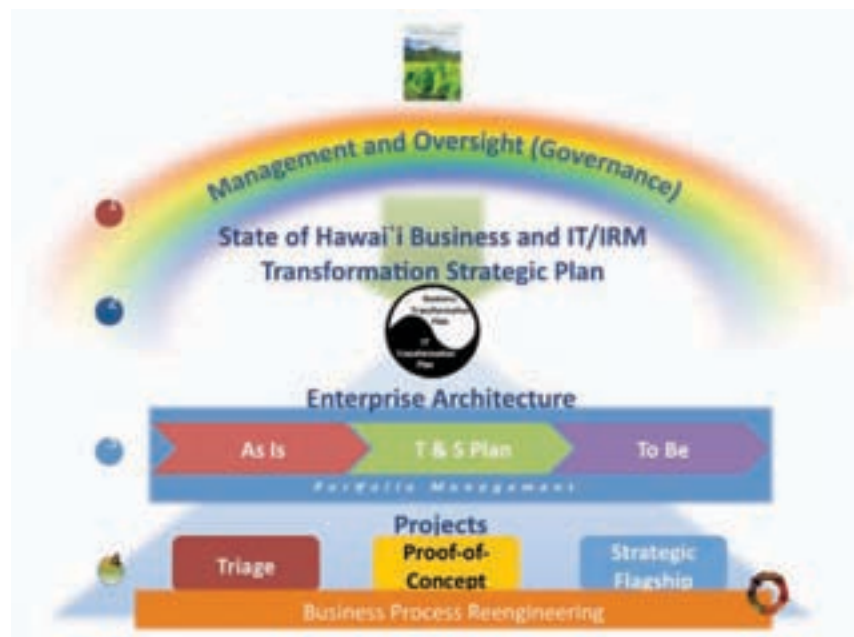


Figure 6: EA Practice Context for the State of Hawaii

Finally, once specific projects are initiated, the EA future state guidance in the information, solutions, and technical architecture layers is used as a crosswalk to the Systems Development Life Cycle (SDLC) within the context of an EA governance and change management process.

## 3.2 CURRENT STATE EA SUMMARY

The current state or As Is environment for the State of Hawaii is characterized in the Final Report published in 2011 and is further described in the remainder this document. As a summary of the current state, the following provides a high-level summary of the As Is for each architectural layer:

- Enterprise Business Architecture (EBA) - organized in a siloed, bottom-up approach with only pockets of Departments actually having or practicing EBA and primarily evolved due to the manner in which funding is provided at the program level and by default for IT.
- Enterprise Information Architecture (EIA) - characterized by a general lack of information sharing across Departments and organizations within the State even though some exceptions exist.
- Enterprise Solution Architecture (ESA) - characterized by: few, true statewide solutions; large numbers of Department-specific applications have proliferated within the State; and, need to “right-size” the State’s applications portfolio.
- Enterprise Technology Architecture (ETA) - decentralized because the technical infrastructure supports a very fragmented ESA and EIA.

A cornerstone of any EA program is an EA and Portfolio Management (PfM) integrated tool suite and an EA Repository. These tools will contain details regarding each of the current application software solutions and planned investments. The EA Repository will be the common information store for all digital data and content behind the EA program.

The baseline of the “As Is” or current state was initially populated in an Enterprise Alignment Database (EAD). The EAD currently contains detailed information regarding the State’s over 200 business services, over 700 application software systems, server inventory of the three data centers and over 20 server rooms, and approximately 6400 different technology product types used within the State. Currently, a new EA and PfM tool suite is being acquired and implemented for the State, and all baseline data will be moved into a new EA repository database. This tool suite and integrated repository will provide a foundation for all future planning and system and technology investment decisions. The information made available via the tool suite will support making informed decisions regarding how to manage and move IT forward in the State through the:

- analysis of options relative to IT transformation activities;
- development of the strategic plan;

### 3.4 FUTURE STATE EA SUMMARY

In the future, each of the items identified for the current state must undergo a transformation in order for the State of Hawai`i to more effectively and efficiently deliver services to its constituents. The transformation will be carried out by addressing every action and activity (e.g., business processes, IT investment decisions, information use and utility, taking advantage of new less expensive hardware, software, and data management solutions) from an enterprise perspective. As a summary of the future state, the following provides insight into the To Be vision for each architectural layer:

- Enterprise Business Architecture (EBA) - composed of a series of integrated value streams across the State’s Departments that can be further developed by LOB and by reference models. By using LOB and reference models to define the enterprise moves or transitions the State away from the siloed approach of functional processes and disconnected IT projects to an integrated environment.

- Enterprise Information Architecture (EIA) – characterized by information and data that are recognized and acknowledged by everyone as a statewide asset and are managed and shared effectively among all State organizations.
- Enterprise Solution Architecture (ESA) – features a dynamic mobile integration architecture that responds rapidly to change and delivers quality information from trusted sources to all stakeholders.
- Enterprise Technology Architecture (ETA) – enables rapid deployment of new services to LOBs, employees, and residents and fully supports the EBA, EIA, and ESA.

The future state vision described by the previous list is supported by Gartner’s most recent list of the four forces that are shaping the future of IT (Figure 7) and within their four top predictions:

- By 2015, mobile application development (AD) projects targeting smartphones and tablets will outnumber native PC projects by a ratio of 4-to-1.



- definition of a governance approach;
- creation of training plans for staff;
- resourcing of projects; and,
- identifying and prioritizing IT investments.

- By 2015, 35% of enterprise IT expenditures for most organizations will be managed outside the IT department’s budget.
- Through 2015, more than 85% of Fortune 500 organizations will fail to effectively exploit big data for competitive advantage.



Figure 7: Gartner’s Key Forces that are Shaping IT



### 3.5 TRANSITION AND SEQUENCING PLAN SUMMARY

As the current state was analyzed and the future state was defined, a number of high priority transition projects or initiatives were identified across the four architectural layers. Figure 8 identifies each of the priority items and its associated architecture layer (s).

Priority Future State Areas	Architectural Layer
☆ OneNet - Enterprise Services Network	ETA
☆ Adaptive Computing Environment	ETA
☆ Shared Services Center	ETA
☆ Information Assurance, Security/Privacy	EIA, ESA, ETA
☆ Email/Collaboration	ESA, ETA
☆ Open Gov	EIA
☆ Mobile Technologies	ESA, ETA
☆ Tax Modernization	ESA
☆ ERP	ESA
☆ Health IT	ESA

Figure 8: Priority Transition and Sequencing Activities

Figure 9 illustrates the future state EA and the priority items associated with each EA layer.



Figure 9: State of Hawai'i Future State Enterprise Architecture.

The following sections describe the EA for the State of Hawai'i within the four architectural layers. For each layer the current state is described and the target future state is defined. Additional supporting detail regarding the architectures is maintained in the State's EA repository. These priority items are discussed throughout the EA and are highlighted by the assigned icons identified in Figure 8.