Hawaii Statewide ITS Architecture

Kauai Concept of Operations Workshop

meeting summary

Attendees:

County of Kauai:
Michael Moule, Dept. of Public Works
Celia Mahikoa, Transportation Agency
Shawn Hosaka, Fire Department
Lee Steinmetz, Planning Department
Chelsie Sakai, Civil Defense

Sue Kanoho – Kauai Visitors Bureau
Tito Villanueva, American Medical Response

Hawaii Department of Transportation:
Donald Smith, Highways, Kauai District Office
Bob Crowell, Harbors, Kauai District Office
Donald Ouderkirk, Airports, Kauai District
Jeff Dorn, Airports, Kauai District Office

Consultant Team:

Neal Honma, Highways, Traffic Branch
Shevaun Low, ICx
Bruce Eisenhart, ConSystec
John Baker, ConSystec
Cami Kloster, G70

Date: Wednesday, September 9, 2015

Time: 10:00 – 3:00 PM

Place: Hawaii DOT, Highways Division, Kauai District Office (1720 Haleuukana St., Lihue, HI 96766)

Purpose: *To present the Kauai Regional ITS Architecture Concept of Operations, roles and responsibilities and customized service packages.*

Highlights

1. Welcome and Introductions

Attendees were welcomed to the meeting and asked to introduce themselves. It was noted that, during the workshop, each stakeholder will be asked for feedback about how they should be represented in the architecture, including their roles and responsibilities, their projects and how they are shown in the customized service packages.

2. Stakeholders Review

A brief overview of ITS Architecture was provided, along with a definition of stakeholders for the purposes of ITS Architecture. Attendees were provided with a list of stakeholders along with a definition for each. In addition, the handouts include the ITS elements associated with each stakeholder.

Discussion/Comments:
- It was clarified that the Kauai Visitors Bureau is a private non-profit, not a state-run agency.
- Parking Management & Access Management
    - Haena State Master Plan is in progress and may change how people access Kauai's north shore. It would be good to have a mechanism to communicate when the parking is full. There is a possible connection to permitting as Haena State Park users may need a permit in the future.
    - The **Department of Land and Natural Resources (DLNR)** is responsible for opening and closing the Napali Coast trail. There is occasionally miscommunication between the Kauai and Oahu offices in opening/closing the park and it would be good to know when the Napali Coast trail is closed.
    - Kilauea Point (via the Fish and Wildlife Service) is developing a conservation plan which might include a staging area and shuttle service. There is currently no option for remote parking.
    - Polihale State Park could use better communication of road access (e.g. when the bridge or road is closed). The road is not claimed by County or State, and community volunteers and PMRF help to maintain.
    - DLNR should they be included in the process. It was noted that the Kauai office has limited staff, and even if invited, would be unlikely to participate in the process. They have two people in their Kauai office and do not have adequate resources for managing Kaua'i State Parks.
- **US Fish and Wildlife Service** may be a stakeholder, not only for Kilauea Point, but also for the National Wildlife Refuge which includes the taro fields.
- **USGS** monitors for flooding and provides data which are already publically visible/available.
- **PMRF** may have a role. They do testing that can affect traffic in addition to transport of large vehicles/equipment that affect traffic, usually at night. They are part of the Kauai EOC. *[Afternote: PMRF was invited to participate in the stakeholder meetings.]*
- The **Coast Guard** has a role in disaster preparedness but not with transportation.

Action Description	**Responsibility**	**Due Date**
• Provide comments on Stakeholder's List to Shevaun.Low@icxtg.com	Attendees	Sept. 30, 2015
• Update stakeholder description for Kauai Visitors Bureau to reflect above information.	Project Team	October 31, 2015
• Review list of stakeholders and consider for incorporation in Kauai and Statewide Architectures.	Project Team	October 31, 2015

3. Operational Concepts

The Operational Concepts of the ITS architecture, which describe the roles and responsibilities of stakeholders, were reviewed. These roles and responsibilities have been organized by stakeholder, and then by service area, as they relate to surface transportation. It was noted that many of the roles and responsibilities are existing but may not use ITS. These are future opportunities for ITS projects.

Discussion/Comments:
- Kauai Planning expressed an interest in collecting any available transportation data, specifically transit ridership, traffic counts, volume and speed, pedestrian counts, and bicycle counts, etc. Kauai Planning would like to add a data archive for Kauai that would collect any available transportation data
- Kauai Planning has two parking projects that are in the early stages of planning. The eventual goal is to coordinate with the State to change how people access the North shore. The vision is to limit vehicle access once parking fills up, and communicate to vehicles downstream that they must park and take a shuttle to the parks on the North shore. This vision is being developed for the west shore as well. This

project should be kept generic, as it is not yet clear which agency has both the jurisdiction and resources to operate a parking system or the shuttles in these parks. The parks are operated either by State Parks or Federal Fish and Wildlife. One key component in this project is information sharing between agencies. This project should include the term access, as the project is focused on access to the parks, not parking specifically.

- Kauai DPW confirmed that control for any Kauai DPW ITS devices would be from the HDOT-HWY-K Traffic Control Center (TCC). However, Kauai DPW expressed an interest in having the ability to monitor any devices from Kauai DPW offices.

Action Description	Responsibility	Due Date
• Add a project for parking and access management, as well as the associated service package and elements.	Project Team	Sept. 21, 2015
• Update Operational Concepts to reflect Kauai DPW roles and responsibilities in designing and procuring ITS field devices, supporting incident management and disaster/emergency response.	Project Team	Oct. 31, 2015
• Provide comments on the Operational Concepts to Project Team (shevaun.low@icxtg.com).	Stakeholders	Sept. 30, 2015

4. Elements

ITS elements may include traffic and transit centers, emergency management centers, field element and vehicles as well as data archiving systems.

Discussion/Comments:
- Kauai Fire has an operations center called the Kauai FD EOC. The Kauai FD EOC is the backup EOC and the backup 911 dispatch center. To avoid confusion, the Kauai FD EOC will be called the Kauai FD DOC (Departmental Operations Center) in the Kauai ITS Architecture. The Kauai FD DOC has connections with Kauai Fire Vehicles to communicate operational information while vehicles are in the field.
- Kauai EOC and FD have an interest in any technology that can assist in finding missing persons – such as a portable cell tower that can ping missing persons phones in areas that generally do not have cell coverage.
- One potential solution to traffic could include shuttles that travel between resorts and hotels, allowing travelers to visit without renting cars. The shuttles could connect with the future parking systems. The shuttles could be run by Kauai County or a private contractor. A service package for the shuttles will be created with a generic name to avoid assigning the shuttles to either a private company or Kauai County.

Action Description	Responsibility	Due Date
• Provide comments on the Elements to the Project Team (shevaun.low@icxtg.com).	Stakeholders	Sept. 30, 2105
• Add Kauai Fire DOC	Project Team	Oct. 31, 2015
• Add generic "Shuttle" transit vehicles	Project Team	Oct. 31, 2015

5. Projects / Future

All projects and future systems were reviewed. It was noted that the projects do not have funding tied to them and represent an agency's desires for the future. These projects will be mapped to the relevant portions of the ITS Architecture for the purposes of creating system engineering analyses to meet FHWA eligibility requirements for highway trust funds for ITS.

Discussion/Comments:

ID(s)	Project Name	Description	Comment	Action
K-16	Kapaa Transportation Solutions Project	The Kapaa Transportation Solutions Project will look at transportation improvements to benefit Kapaa. There may be ITS applications considered for implementation as part of this project.	This project currently contains no specific ITS elements.	No change.
K-34	Hanalei Flood Warning System	This project will involve HDOT-HWY-K, Kauai Civil Defense, Police and DPW to develop a warning system consisting of CCTV and other ITS equipment. Information from rain gauges operated and maintained by the National Weather Service / USGS will be used for alerting agency personnel.	Information from this system will eventually be connected to Blackboard – subscribers will receive a general flash flood warning via email, Facebook, and text alerts. This project should include more of an information dissemination piece. The Kauai EOC issues these warnings, including updates about road closures. There should also be a piece that connects with shelters – visitors are often stuck in Hanalei and require shelter.	Update the project to focus more on information dissemination to the public. Include a connection to shelter providers.
K-17 K-18 K-19	Kauai DPW Projects	ITS Projects for Kauai DPW	Kauai DPW projects should specifically mention that Kauai DPW is coordinating with HDOT-HWY-K on these projects.	Project descriptions will be updated to reflect coordination between Kauai DPW and HDOT-HWY-K.

ID(s)	Project Name	Description	Comment	Action
New Project	Kauai Bus Transit Management Center		Kauai Bus would like to add a project that would create a master transit coordination center for the island. This center could potentially include not only Kauai Bus elements, but also private shuttles if the shuttle project moves in that direction.	Add this project to the project list.

Action Description	Responsibility	Due Date
• Provide comments on the project list to Shevaun.Low@icxtg.com.	Stakeholders	Sept. 30, 2015
• Update project list to reflect comments and actions.	Project Team	Oct. 31, 2015

6. Schedule

The project schedule for development of the Kauai ITS Architecture was reviewed. The timeline for the remaining project is as follows:

- Sept. 30, 2015: Stakeholder comments on the workshop notes due
- October 2015: Project team will complete the draft architecture website
- November 2015: Stakeholder review of the draft architecture
- December 2015: Finalize Kauai ITS Architecture

7. Agreements

Potential agreements that should be considered in order to successfully deploy the ITS systems contained in the Kauai ITS Architecture were highlighted. These include:

- Managing ITS equipment, including traffic signals:
  - HDOT-HWY-K
  - Kauai DPW
- Sharing of video feeds:
  - HDOT-HWY-K
  - Kauai Fire Dept.
  - Kauai Police Dept.
- Sharing of speed data and signs:
  - HDOT-HWY-K
  - Kauai Police Dept.
  - Kauai DPW
- Use of permanent and portable dynamic message signs:
  - HDOT-HWY-T
  - Agencies wanting to use the signs

8. Customized Service Packages

Service packages are pieces of the ITS Architecture that provide a particular transportation service. A series of service packages customized for Kauai elements were reviewed and discussed. Key changes/ comments from the discussion are given below.

Discussion/Comments:

Service Package	Comment	Action
Summary Diagrams		
Disaster Management Summary Diagram	Add Kauai Visitors Bureau under Human Services	KVB will be added to this box in the summary diagram.
Traveler Information Summary Diagram	Kauai Visitors Bureau disseminates information to the public, and some of this information comes from the Kauai EOC and Kauai 911 centers.	Add KVB in between the EOC/911 Center and the media.
Incident Management		
ATMS 08-4 EM 01-2	Kauai Police DOC exists and has connections to Kauai Police vehicles.	Update flows from Kauai Police DOC to Kauai PD Vehicles to existing.
ATMS 08-3 EM 01-1	Kauai Fire Vehicles have V2V communication connections. Kauai Fire personnel can track other Kauai Fire Vehicles from each vehicle.	Create a connection between Kauai Fire Vehicles for both MDT communications and vehicle tracking.
ATMS08-3 EM01-1	Kauai 911 Dispatch Center dispatches Kauai Police air assets, such as rescue copters	Add Kauai Police air assets to these service packages, including flows that dispatch these air assets.
Disaster Management/Traveler Information		
EM 09-1	Connections between the Kauai EOC and the Red Cross and Kauai Visitors Bureau will be two-way communications	Update flows between Kauai EOC and Red Cross and KVB to be two-way flows.
EM 10-2	Information from the Kauai EOC to the media and the Kauai Visitors Bureau will not be communicated via Blackboard.	Move these connections to EM10-1.
EM 06-1	Kauai Bus and Kauai EOC also receive Amber Alert information.	Add Kauai Bus and Kauai EOC to this service package.
Traffic Management		
ATMS 19-1	Speed signs have an existing connection to HDOT-HWY-K. These signs may not connect to any other agency.	Add generic connection to HDOT-HWY-K and show this as existing. Connection to HDOT-HWY-K TCC will still be future.
ATMS 19-2	Kauai Police has speed signs for counts and Kauai DPW would like to use their signs.	Add new service package.
Transit Management		
APTS 07	Incorporate shuttle service	Add "Transit Coordination"; remove "Kauai Bus" from title.

Service Package	Comment	Action
APTS 08-1	The Kauai Bus Traveler Information system may not be implemented by Kauai Bus. If it is integrated with a future shuttle system, it could be operated by a private company.	The Kauai Bus Traveler Information System will be renamed "Kauai Transit Information System". Connection to a potential shuttle system will be added.
Maintenance and Construction		
MC 02	Because of union issues, neither Kauai DPW nor HDOT-HWY-K has long-term plans to implement services using GPS or automated vehicle location (AVL). This service package focuses on showing maintenance and construction vehicle conditions (mechanical information concerning the vehicles).	No change.
MC 07	Because of union issues, neither Kauai DPW nor HDOT-HWY-K has long-term plans to implement services using GPS or AVL. This service package focuses on providing maintenance and construction operational information about the vehicle.	No change.
MC 12	Change this system to Network Management System	Service Package will be updated to reflect the new name.
Advanced Traveler Information Systems		
ATIS 02	The Kauai County website is not utilized for traveler information.	Add a connection between the Kauai EOC and the private travelers' personal computing devices.
New Services		
ATMS17-1	A service package for a new, generic parking system was added (in real time at the workshop).	Create elements, operational concepts, and stakeholders to fit the service package that was outlined in the workshop.
APTS02-2	A new service for dispatch a generic shuttle system was added (in real time at the workshop).	Create elements, operational concepts, and stakeholders to fit the service package that was outlined in the workshop.
AD2-2	A new service package for a Kauai Data Archive was added (in real time at the workshop).	Create elements, operational concepts, and stakeholders to fit the service package that was outlined in the workshop.

Action Description	Responsibility	Due Date
• Provide comments on the service package diagrams to Shevaun.Low@icxtg.com.	Stakeholders	Sept. 30, 2015
• Update service packages to reflect comments.	Project Team	Oct. 31, 2015

These action items were recorded by Cami Kloster of Group 70, John Baker of ConSysTec and Shevaun Low of ICx; it will be assumed to be complete and correct unless any comments and/or discrepancies are brought to ICx's attention no later than Wednesday, September 30, 2015.