

APPENDIX B

STATEWIDE PROJECT SHEETS





Hawaii Statewide ITS Architecture

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PROJECT DETAILS: HDOT-AIR COMMUNICATIONS SYSTEMS UPGRADE

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-AIR Communications Systems Upgrade
Description:	This project will upgrade the HDOT-AIR communications network statewide to allow coordination with public safety and between HDOT-AIR facilities.
Status:	Planned
Timeframe:	Long-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Airports Division
Service Packages:	ATMS08-2 - Traffic Incident Management System - HDOT Airports (HDOT AIR)
Project Inventory:	HDOT-AIR EOC Local EMS Local Fire Local Police

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Emergency Response Management](#)

- The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.

INTERFACES

Source	Architecture Flows	Destination
HDOT-AIR EOC	incident command information coordination	Local EMS
HDOT-AIR EOC	incident command information coordination	Local Fire
HDOT-AIR EOC	incident command information coordination	Local Police
Local EMS	incident response coordination	HDOT-AIR EOC
Local EMS	incident command information coordination	HDOT-AIR EOC

Local Fire	incident response coordination	HDOT-AIR EOC
Local Fire	incident command information coordination	HDOT-AIR EOC
Local Police	incident response coordination	HDOT-AIR EOC
Local Police	incident command information coordination	HDOT-AIR EOC

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Airports Division	Coordinate emergency information relevant to airports with the Hawaii State EOC and local public safety agencies.

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PROJECT DETAILS: HDOT-HWY FIBER OPTIC NETWORK

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY Fiber Optic Network
Description:	This project will expand the HDOT-HWY fiber optic network, and supplement it with the City and County of Honolulu's fiber optic network.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATMS01-1 - Network Surveillance - HDOT Highways (HDOT-HWY)
Project Inventory:	HDOT-HWY Field Devices HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

<p>Click on a Project Inventory element from the list above to view functional requirements.</p> <p>Collect Traffic Surveillance</p> <ul style="list-style-type: none"> ➤ The center shall monitor, analyze, and distribute traffic images from CCTV systems under remote control of the center. <p>Roadway Basic Surveillance</p> <ul style="list-style-type: none"> ➤ The field element shall collect, process, and send traffic images to the center for further analysis and distribution.
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INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY Field Devices	traffic images	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	video surveillance control	HDOT-HWY Field Devices

ITS STANDARDS

SDO	Document ID	Title	Type
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AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1205	Object Definitions for Closed Circuit Television (CCTV) Camera Control	Message/Data
AASHTO/ITE/NEMA	NTCIP 1208	Object Definitions for Closed Circuit Television (CCTV) Switching	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Perform network surveillance for detection and verification of incidents on state roads.

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PROJECT DETAILS: HDOT-HWY GOAKAMAI TRAVELER INFORMATION UPGRADE

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY GoAkamai Traveler Information Upgrade
Description:	This project will upgrade GoAkamai to provide additional functionality.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATIS01-1 - Broadcast Traveler Information - HDOT GoAkamai ATIS02-1 - Interactive Traveler Information - HDOT GoAkamai
Project Inventory:	City and County of Honolulu Traffic Management Center GoAkamai HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Basic Information Broadcast](#)

- The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.

[ISP Traveler Data Collection](#)

- The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.

INTERFACES

Source	Architecture Flows	Destination
City and County of Honolulu Traffic Management Center	incident information	GoAkamai
City and County of Honolulu Traffic Management Center	traffic images	GoAkamai
City and County of Honolulu Traffic Management Center	road network conditions	GoAkamai
HDOT-HWY Traffic Management Center	incident information	GoAkamai
HDOT-HWY Traffic Management Center	traffic images	GoAkamai

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1205	Object Definitions for Closed Circuit Television (CCTV) Camera Control	Message/Data
AASHTO/ITE/NEMA	NTCIP 1208	Object Definitions for Closed Circuit Television (CCTV) Switching	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Provide traffic information to travelers via HDOT DMS equipment and GoAkamai.

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PROJECT DETAILS: HDOT-HWY TMC

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY TMC
Description:	This project will migrate existing systems to a new Traffic Management Center (TMC). This project will also include upgraded connections to the City and County of Honolulu's Department of Transportation Services (DTS) Traffic Management Center, and the Communications Centers for the Honolulu Police, Fire, and Emergency Medical Services Departments.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATMS01-1 - Network Surveillance - HDOT Highways (HDOT-HWY) ATMS02-1 - Traffic Probe Surveillance - HDOT Highways (HDOT-HWY) ATMS03-1 - Traffic Signal Control - HDOT Highways (HDOT-HWY) ATMS05-1 - HOV Lane Management - HDOT Highways (HDOT-HWY) ATMS06-1 - Traffic Information Dissemination - HDOT Highways (HDOT-HWY) ATMS07-1 - Regional Traffic Management - HDOT Highways (HDOT-HWY) (1 of 2) ATMS07-2 - Regional Traffic Management - HDOT Highways (HDOT-HWY) (2 of 2) ATMS08-1 - Traffic Incident Management System - HDOT Highways (HDOT-HWY)
Project Inventory:	City and County of Honolulu Intelligent Operations Center City and County of Honolulu Traffic Management Center County of Hawaii DPW Traffic Management Center HDOT-HWY Field Devices HDOT-HWY Traffic Management Center HDOT-HWY-K Traffic Control Center HDOT-HWY-M Traffic Operations Center Local EMS Local Fire Local Police Maui DPW Traffic Operations Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

Collect Traffic Surveillance

- ◆ The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.

- The center shall monitor, analyze, and distribute traffic images from CCTV systems under remote control of the center.

Incident Command

- The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
- The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.

Roadway Basic Surveillance

- The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
- The field element shall collect, process, and send traffic images to the center for further analysis and distribution.

Roadway Equipment Coordination

- The field element shall include sensors that provide data and status information to other field element devices, without center control.

Roadway HOV Control

- The field element shall include freeway control devices that control use of lanes, under center control.

Roadway Probe Beacons

- The field element shall communicate with passing vehicles for traffic data link time calculations and send collected data to the controlling center; identification will be removed to ensure anonymity.

Roadway Signal Controls

- The field element shall control traffic signals under center control.
- The field element shall report the current signal control information to the center.
- The field element shall return traffic signal controller operational status to the center.
- The field element shall return traffic signal controller fault data to the center.

Roadway Traffic Information Dissemination

- The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display (s) (e.g. vehicle restrictions, or lane open/close).

TMC HOV Lane Management

- The center shall remotely control freeway control devices that control use of lanes.

TMC Incident Detection

- The center shall collect and store traffic flow and image data from the field equipment to detect and verify incidents.
- The center shall exchange incident and threat information with emergency management centers as well as maintenance and construction centers; including notification of existence of incident and expected severity, location, time and nature of incident.

TMC Incident Dispatch Coordination/Communication

- The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.

TMC Probe Information Collection

- The center shall collect traffic probe data from vehicles via roadside field equipment.

TMC Regional Traffic Control

- The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
- The center shall exchange traffic control information with other traffic management centers to support remote monitoring and control of traffic management devices (e.g. signs, sensors, signals, cameras, etc.).

TMC Traffic Information Dissemination

- The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.

INTERFACES

Source	Architecture Flows	Destination
City and County of Honolulu Intelligent Operations Center	incident information	HDOT-HWY Traffic Management Center
City and County of Honolulu Intelligent Operations Center	traffic images	HDOT-HWY Traffic Management Center

City and County of Honolulu Intelligent Operations Center	road network conditions	HDOT-HWY Traffic Management Center
City and County of Honolulu Traffic Management Center	incident information	HDOT-HWY Traffic Management Center
City and County of Honolulu Traffic Management Center	traffic images	HDOT-HWY Traffic Management Center
City and County of Honolulu Traffic Management Center	road network conditions	HDOT-HWY Traffic Management Center
County of Hawaii DPW Traffic Management Center	incident information	HDOT-HWY Traffic Management Center
County of Hawaii DPW Traffic Management Center	traffic images	HDOT-HWY Traffic Management Center
County of Hawaii DPW Traffic Management Center	road network conditions	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	hov data	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	right-of-way request notification	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	roadway information system status	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	signal control status	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	traffic flow	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	traffic images	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	traffic probe data	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	lane management information	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	variable speed limit status	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	signal fault data	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	roadway warning system status_cv	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	incident information	City and County of Honolulu Intelligent Operations Center
HDOT-HWY Traffic Management Center	traffic images	City and County of Honolulu Intelligent Operations Center
HDOT-HWY Traffic Management Center	road network conditions	City and County of Honolulu Intelligent Operations Center
HDOT-HWY Traffic Management Center	incident information	City and County of Honolulu Traffic Management Center
HDOT-HWY Traffic Management Center	traffic images	City and County of Honolulu Traffic Management Center
HDOT-HWY Traffic Management Center	road network conditions	City and County of Honolulu Traffic Management Center
HDOT-HWY Traffic Management Center	incident information	County of Hawaii DPW Traffic Management Center
HDOT-HWY Traffic Management Center	traffic images	County of Hawaii DPW Traffic Management Center
HDOT-HWY Traffic Management Center	road network conditions	County of Hawaii DPW Traffic Management Center
HDOT-HWY Traffic Management Center	roadway information system data	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	traffic sensor control	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	signal control commands	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	video surveillance control	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	variable speed limit control	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	signal control device configuration	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	signal control plans	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	signal system configuration	HDOT-HWY Field Devices

HDOT-HWY Traffic Management Center	roadway warning system control_cv	HDOT-HWY Field Devices
HDOT-HWY Traffic Management Center	incident information	HDOT-HWY-K Traffic Control Center
HDOT-HWY Traffic Management Center	traffic images	HDOT-HWY-K Traffic Control Center
HDOT-HWY Traffic Management Center	road network conditions	HDOT-HWY-K Traffic Control Center
HDOT-HWY Traffic Management Center	device status	HDOT-HWY-K Traffic Control Center
HDOT-HWY Traffic Management Center	device control request	HDOT-HWY-K Traffic Control Center
HDOT-HWY Traffic Management Center	device data	HDOT-HWY-K Traffic Control Center
HDOT-HWY Traffic Management Center	incident information	HDOT-HWY-M Traffic Operations Center
HDOT-HWY Traffic Management Center	traffic images	HDOT-HWY-M Traffic Operations Center
HDOT-HWY Traffic Management Center	road network conditions	HDOT-HWY-M Traffic Operations Center
HDOT-HWY Traffic Management Center	device status	HDOT-HWY-M Traffic Operations Center
HDOT-HWY Traffic Management Center	device control request	HDOT-HWY-M Traffic Operations Center
HDOT-HWY Traffic Management Center	device data	HDOT-HWY-M Traffic Operations Center
HDOT-HWY Traffic Management Center	incident information	Local EMS
HDOT-HWY Traffic Management Center	incident response status	Local EMS
HDOT-HWY Traffic Management Center	resource deployment status	Local EMS
HDOT-HWY Traffic Management Center	resource request	Local EMS
HDOT-HWY Traffic Management Center	traffic images	Local EMS
HDOT-HWY Traffic Management Center	road network conditions	Local EMS
HDOT-HWY Traffic Management Center	incident information	Local Fire
HDOT-HWY Traffic Management Center	incident response status	Local Fire
HDOT-HWY Traffic Management Center	resource deployment status	Local Fire
HDOT-HWY Traffic Management Center	resource request	Local Fire
HDOT-HWY Traffic Management Center	traffic images	Local Fire
HDOT-HWY Traffic Management Center	road network conditions	Local Fire
HDOT-HWY Traffic Management Center	incident information	Local Police
HDOT-HWY Traffic Management Center	incident response status	Local Police
HDOT-HWY Traffic Management Center	resource deployment status	Local Police
HDOT-HWY Traffic Management Center	resource request	Local Police
HDOT-HWY Traffic Management Center	traffic images	Local Police
HDOT-HWY Traffic Management Center	road network conditions	Local Police
HDOT-HWY Traffic Management Center	incident information	Maui DPW Traffic Operations Center
HDOT-HWY Traffic Management Center	traffic images	Maui DPW Traffic Operations Center
HDOT-HWY Traffic Management Center	road network conditions	Maui DPW Traffic Operations Center
HDOT-HWY-K Traffic Control Center	incident information	HDOT-HWY Traffic Management Center
HDOT-HWY-K Traffic Control Center	traffic images	HDOT-HWY Traffic Management Center
HDOT-HWY-K Traffic Control Center	road network conditions	HDOT-HWY Traffic Management Center
HDOT-HWY-K Traffic Control Center	device status	HDOT-HWY Traffic Management Center
HDOT-HWY-K Traffic Control Center	device control request	HDOT-HWY Traffic Management Center
HDOT-HWY-K Traffic Control Center	device data	HDOT-HWY Traffic Management Center
HDOT-HWY-M Traffic Operations Center	incident information	HDOT-HWY Traffic Management Center
HDOT-HWY-M Traffic Operations Center	traffic images	HDOT-HWY Traffic Management Center
HDOT-HWY-M Traffic Operations Center	road network conditions	HDOT-HWY Traffic Management Center
HDOT-HWY-M Traffic Operations Center	device status	HDOT-HWY Traffic Management Center
HDOT-HWY-M Traffic Operations Center	device control request	HDOT-HWY Traffic Management Center
HDOT-HWY-M Traffic Operations Center	device data	HDOT-HWY Traffic Management Center
Local EMS	incident information	HDOT-HWY Traffic Management Center
Local EMS	incident response status	HDOT-HWY Traffic Management Center

Local EMS	remote surveillance control	HDOT-HWY Traffic Management Center
Local EMS	resource deployment status	HDOT-HWY Traffic Management Center
Local EMS	resource request	HDOT-HWY Traffic Management Center
Local Fire	incident information	HDOT-HWY Traffic Management Center
Local Fire	incident response status	HDOT-HWY Traffic Management Center
Local Fire	remote surveillance control	HDOT-HWY Traffic Management Center
Local Fire	resource deployment status	HDOT-HWY Traffic Management Center
Local Fire	resource request	HDOT-HWY Traffic Management Center
Local Police	incident information	HDOT-HWY Traffic Management Center
Local Police	incident response status	HDOT-HWY Traffic Management Center
Local Police	remote surveillance control	HDOT-HWY Traffic Management Center
Local Police	resource deployment status	HDOT-HWY Traffic Management Center
Local Police	resource request	HDOT-HWY Traffic Management Center
Maui DPW Traffic Operations Center	incident information	HDOT-HWY Traffic Management Center
Maui DPW Traffic Operations Center	traffic images	HDOT-HWY Traffic Management Center
Maui DPW Traffic Operations Center	road network conditions	HDOT-HWY Traffic Management Center

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
ASTM	View List	Dedicated Short Range Communication at 915 MHz Standards Group	Group
ASTM/IEEE/SAE	View List	Dedicated Short Range Communication at 5.9 GHz Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1202	Object Definitions for Actuated Traffic Signal Controller (ASC) Units	Message/Data
AASHTO/ITE/NEMA	NTCIP 1203	Object Definitions for Dynamic Message Signs (DMS)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1205	Object Definitions for Closed Circuit Television (CCTV) Camera Control	Message/Data
AASHTO/ITE/NEMA	NTCIP 1206	Object Definitions for Data Collection and Monitoring (DCM) Devices	Message/Data
AASHTO/ITE/NEMA	NTCIP 1208	Object Definitions for Closed Circuit Television (CCTV) Switching	Message/Data
AASHTO/ITE/NEMA	NTCIP 1209	Data Element Definitions for Transportation Sensor Systems (TSS)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1210	Field Management Stations (FMS) - Part 1: Object Definitions for Signal System Masters	Message/Data
AASHTO/ITE/NEMA	NTCIP 1211	Object Definitions for Signal Control and Prioritization (SCP)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1214	Object Definitions for Conflict Monitor Units (CMU)	Message/Data
IEEE	IEEE 1455-1999	Standard for Message Sets for Vehicle/Roadside Communications	Message/Data
SAE	SAE J2735	Dedicated Short Range Communications (DSRC) Message Set Dictionary	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Coordinate traffic information and traffic control with the City and County of Honolulu Traffic Management Center.
	Obtain traffic images and traffic flow data through CCTVs and field sensors, and maintain operational control of its own field equipment.
	Operate changeable speed limit signs, including collecting traffic count information from the devices.

Perform network surveillance for detection and verification of incidents on state roads.
Provide incident information to travelers via traffic information devices on state roads.
Provide traffic information to travelers via HDOT DMS equipment and GoAkamai.
Send traffic/incident information and traffic images to local and statewide emergency management agencies.

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PROJECT DETAILS: HDOT-HWY TRAFFIC SENSOR EXPANSION

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY Traffic Sensor Expansion
Description:	This project will expand traffic sensor coverage for spot speeds on HDOT-HWY facilities.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATMS01-1 - Network Surveillance - HDOT Highways (HDOT-HWY)
Project Inventory:	HDOT-HWY Field Devices HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Collect Traffic Surveillance](#)

- ◆ The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.

[Roadway Basic Surveillance](#)

- ◆ The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY Field Devices	traffic flow	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	traffic sensor control	HDOT-HWY Field Devices

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group

AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1209	Data Element Definitions for Transportation Sensor Systems (TSS)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Obtain traffic images and traffic flow data through CCTVs and field sensors, and maintain operational control of its own field equipment.

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PROJECT DETAILS: HDOT-HWY TRAVEL TIME EXPANSION

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY Travel Time Expansion
Description:	This project will expand highway travel time coverage on HDOT-HWY facilities.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATMS02-1 - Traffic Probe Surveillance - HDOT Highways (HDOT-HWY)
Project Inventory:	HDOT-HWY Field Devices HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Roadway Probe Beacons](#)

- The field element shall communicate with passing vehicles for traffic data link time calculations and send collected data to the controlling center; identification will be removed to ensure anonymity.

[TMC Probe Information Collection](#)

- The center shall collect traffic probe data from vehicles via roadside field equipment.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY Field Devices	traffic probe data	HDOT-HWY Traffic Management Center

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
ASTM	View List	Dedicated Short Range Communication at 915 MHz Standards Group	Group

ASTM/IEEE/SAE	View List	Dedicated Short Range Communication at 5.9 GHz Standards Group	Group
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1206	Object Definitions for Data Collection and Monitoring (DCM) Devices	Message/Data
IEEE	IEEE 1455-1999	Standard for Message Sets for Vehicle/Roadside Communications	Message/Data
SAE	SAE J2735	Dedicated Short Range Communications (DSRC) Message Set Dictionary	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Obtain traffic images and traffic flow data through CCTVs and field sensors, and maintain operational control of its own field equipment.

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PROJECT DETAILS: HDOT-HWY-V AUTOMATED VIC PROCESS

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY-V Automated VIC Process
Description:	This project will automate the application, issuance, and receipt of Vehicle Identification Card (VIC) credential and support the real-time roadside effort of VIC credential. The intent is to provide on-line credentialing for VIC applications, with links to CVIEW so that VIC status may be cross-checked electronically during other credentialing processes.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	HDOT Highways , Motor Vehicle Safety Office
Service Packages:	CVO04-1 - CV Administrative Processes - HDOT-HWY-V CVIEW
Project Inventory:	HDOT-HWY-V CVIEW HDOT-HWY-V Trucking in Hawaii Web Portal Safety and Fitness Electronic Record

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[CV Information Exchange](#)

- ✦ The center shall exchange safety and credentials data among other commercial vehicle administration centers including credentials information, credentials status information, driver records, accident reports, permit information, and safety status information.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY-V CVIEW	credentials information	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V CVIEW	credentials status information	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V CVIEW	safety status information	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V Trucking in Hawaii Web Portal	credentials information	HDOT-HWY-V CVIEW

HDOT-HWY-V Trucking in Hawaii Web Portal	credentials status information	HDOT-HWY-V CVIEW
Safety and Fitness Electronic Record	credentials information	HDOT-HWY-V CVIEW
Safety and Fitness Electronic Record	credentials status information	HDOT-HWY-V CVIEW
Safety and Fitness Electronic Record	credential fee coordination	HDOT-HWY-V CVIEW

ITS STANDARDS

SDO	Document ID	Title	Type
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OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
HDOT Highways, Motor Vehicle Safety Office	Regulate commercial vehicles, including certain commercial vehicle credentialing and certain roadside commercial vehicle enforcement activities in the State of Hawaii.

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PROJECT DETAILS: HDOT-HWY-V CVIEW

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY-V CVIEW
Description:	This project will deploy a CVISN-compliant Commercial Vehicle Information Exchange Window (CVIEW) that will serve as a primary data repository for credential (e.g., VIC), safety (e.g., out-of-service orders), motor carrier census, and Electronic Freight Manifest (EFM) data. CVIEW will also be the State conduit for downloading Federal motor carrier census and safety data and support intra-agency and inter-agency exchange of safety and credential information with authorized users as well as support motor carriers' review of their safety and credential data contained in Federal and State systems.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	HDOT Highways , Motor Vehicle Safety Office
Service Packages:	CVO04-1 - CV Administrative Processes - HDOT-HWY-V CVIEW
Project Inventory:	Hawaii Motor Vehicle Registration Database HDOT-HWY-V CVIEW HDOT-HWY-V Vehicle Registration System Database IFTA Clearinghouse IRP Clearinghouse Judicial Information Management System Safety and Fitness Electronic Record

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Credentials and Taxes Administration](#)

- ◆ The center shall manage electronic credentials filing and processing for commercial vehicles.
- ◆ The center shall receive and store information on commercial vehicle violations from enforcement agencies as part of the processing of credentials applications.
- ◆ The center shall manage driver licensing for commercial vehicle drivers.

[CV Information Exchange](#)

- The center shall exchange safety and credentials data among other commercial vehicle administration centers including credentials information, credentials status information, driver records, accident reports, permit information, and safety status information.

INTERFACES

Source	Architecture Flows	Destination
Hawaii Motor Vehicle Registration Database	registration	HDOT-HWY-V CVIEW
HDOT-HWY-V CVIEW	violation notification	Commercial Vehicle Enforcement
HDOT-HWY-V CVIEW	credentials information	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V CVIEW	credentials status information	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V CVIEW	credential fee coordination	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V CVIEW	safety status information	HDOT-HWY-V Trucking in Hawaii Web Portal
HDOT-HWY-V CVIEW	commercial vehicle permit coordination	HDOT-HWY-V Vehicle Registration System Database
HDOT-HWY-V CVIEW	credential fee coordination	IFTA Clearinghouse
HDOT-HWY-V CVIEW	credential fee coordination	IRP Clearinghouse
HDOT-HWY-V Trucking in Hawaii Web Portal	credentials information	HDOT-HWY-V CVIEW
HDOT-HWY-V Trucking in Hawaii Web Portal	credentials status information	HDOT-HWY-V CVIEW
HDOT-HWY-V Trucking in Hawaii Web Portal	credential fee coordination	HDOT-HWY-V CVIEW
HDOT-HWY-V Trucking in Hawaii Web Portal	safety status information	HDOT-HWY-V CVIEW
HDOT-HWY-V Vehicle Registration System Database	credentials information	HDOT-HWY-V CVIEW
HDOT-HWY-V Vehicle Registration System Database	credentials status information	HDOT-HWY-V CVIEW
HDOT-HWY-V Vehicle Registration System Database	cv driver record	HDOT-HWY-V CVIEW
HDOT-HWY-V Vehicle Registration System Database	commercial vehicle permit coordination	HDOT-HWY-V CVIEW
IFTA Clearinghouse	credential fee coordination	HDOT-HWY-V CVIEW
IRP Clearinghouse	credential fee coordination	HDOT-HWY-V CVIEW
Judicial Information Management System	information on violators	HDOT-HWY-V CVIEW

ITS STANDARDS

SDO	Document ID	Title	Type
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OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
HDOT Highways, Motor Vehicle Safety Office	Regulate commercial vehicles, including certain commercial vehicle credentialing and certain roadside commercial vehicle enforcement activities in the State of Hawaii.

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PROJECT DETAILS: HDOT-HWY-V TRUCKING IN HAWAII WEB PORTAL

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY-V Trucking in Hawaii Web Portal
Description:	This project will provide a single point of access for motor carriers to view commercial vehicle regulatory and enforcement information from all state agencies. Specifically, a trucking portal will minimize motor carrier effort required to collect information about CVO-related state agencies and programs; reduce time required by state personnel to respond to motor carrier inquiries; create a user experience that streamlines motor carrier operations; and provide a single storefront for the Hawaii CVO credentialing systems.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	HDOT Highways, Motor Vehicle Safety Office
Service Packages:	CVO04-1 - CV Administrative Processes - HDOT-HWY-V CVIEW
Project Inventory:	HDOT-HWY-V CVIEW HDOT-HWY-V Trucking in Hawaii Web Portal

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[CV Information Exchange](#)

- The center shall exchange safety and credentials data among other commercial vehicle administration centers including credentials information, credentials status information, driver records, accident reports, permit information, and safety status information.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY-V CVIEW	commercial vehicle permit coordination	HDOT-HWY-V Vehicle Registration System Database
HDOT-HWY-V Trucking in Hawaii Web Portal	credentials information	HDOT-HWY-V CVIEW

HDOT-HWY-V Trucking in Hawaii Web Portal	credentials status information	HDOT-HWY-V CVIEW
HDOT-HWY-V Trucking in Hawaii Web Portal	credential fee coordination	HDOT-HWY-V CVIEW
HDOT-HWY-V Trucking in Hawaii Web Portal	safety status information	HDOT-HWY-V CVIEW

ITS STANDARDS

SDO	Document ID	Title	Type
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OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
HDOT Highways, Motor Vehicle Safety Office	Regulate commercial vehicles, including certain commercial vehicle credentialing and certain roadside commercial vehicle enforcement activities in the State of Hawaii.

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PROJECT DETAILS: HIEMA EMERGENCY MESSAGES ON DMS

PROJECT OVERVIEW

Project Name:	Project Details: HIEMA Emergency Messages on DMS
Description:	This project will create a connection to allow HIEMA to have the ability to put emergency messages on HDOT-HWY DMS. HIEMA would not have direct control of the signs, but provide information or messages via a center-to-center connection.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division Hawaii Emergency Management Agency
Service Packages:	ATMS06-1 - Traffic Information Dissemination - HDOT Highways (HDOT-HWY) EM08-2 - Disaster Response and Recovery - Hawaii Emergency Management Agency (HIEMA) EOC (2 of 2)
Project Inventory:	Hawaii State EOC HDOT-HWY Field Devices HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Emergency Response Management](#)

- ◆ The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.

[Roadway Traffic Information Dissemination](#)

- ◆ The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display (s) (e.g. vehicle restrictions, or lane open/close).

[TMC Incident Dispatch Coordination/Communication](#)

- ◆ The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic

area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.

TMC Traffic Information Dissemination

- ◆ The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.

INTERFACES

Source	Architecture Flows	Destination
Hawaii State EOC	emergency traffic control request	HDOT-HWY Traffic Management Center
HDOT-HWY Field Devices	roadway information system status	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	roadway information system data	HDOT-HWY Field Devices

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1203	Object Definitions for Dynamic Message Signs (DMS)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1211	Object Definitions for Signal Control and Prioritization (SCP)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Coordinate incident and threat information with the Hawaii State EOC and the City and County of Honolulu EOC. Provide traffic information to travelers via HDOT DMS equipment and GoAkamai.
Hawaii Emergency Management Agency	Provide evacuation and incident information to travelers in the state using the National Alert Warning System, the Hawaii Alert Warning System, Statewide Siren Warning System, and the Emergency Alert system.

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PROJECT DETAILS: HIEMA WEB EOC UPGRADE

PROJECT OVERVIEW

Project Name:	Project Details: HIEMA Web EOC Upgrade
Description:	This project will upgrade HIEMA's Web EOC capabilities to include hosting information in the cloud. This upgrade will allow multiple agencies outside of the Hawaii State EOC to access information on Web EOC.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Emergency Management Agency
Service Packages:	EM07-1 - Early Warning System - Hawaii Emergency Management Agency (HIEMA) EOC EM08-1 - Disaster Response and Recovery - Hawaii Emergency Management Agency (HIEMA) EOC (1 of 2) EM09-1 - Evacuation and Reentry Management - Hawaii Emergency Management Agency (HIEMA) EOC (1 of 2)
Project Inventory:	City and County of Honolulu EOC City and County of Honolulu Intelligent Operations Center City and County of Honolulu Traffic Management Center County of Hawaii EOC Hawaii State EOC HDOT-AIR EOC HDOT-HAR EOC HDOT-HWY Traffic Management Center Kauai EOC Maui EOC

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Emergency Early Warning System](#)

- The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
- The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
- The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
- The center shall support the entry of alert and advisory information directly from the emergency system operator.
- The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, military activities, and other situations that pose a threat to life and property.

- The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, military activities, and other situations that pose a threat to life and property.

Emergency Evacuation Support

- The center shall manage inter-agency coordination of evacuation operations, from initial planning through the evacuation process and reentry.
- The center shall develop and exchange evacuation plans with allied agencies prior to the occurrence of a disaster.

Emergency Response Management

- The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
- The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
- The center shall develop, coordinate with other agencies, and store emergency response plans.

TMC Evacuation Support

- The center shall coordinate planning for evacuation with emergency management centers - including pre-planning activities such as establishing routes, areas to be evacuated, timing, etc.

TMC Incident Detection

- The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
- The center shall exchange incident and threat information with emergency management centers as well as maintenance and construction centers; including notification of existence of incident and expected severity, location, time and nature of incident.

INTERFACES

Source	Architecture Flows	Destination
City and County of Honolulu EOC	incident report	Hawaii State EOC
City and County of Honolulu EOC	incident response coordination	Hawaii State EOC
City and County of Honolulu EOC	emergency plan coordination	Hawaii State EOC
City and County of Honolulu EOC	evacuation coordination	Hawaii State EOC
City and County of Honolulu EOC	resource coordination	Hawaii State EOC
City and County of Honolulu EOC	transportation system status	Hawaii State EOC
City and County of Honolulu EOC	incident command information coordination	Hawaii State EOC
City and County of Honolulu EOC	threat information coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	incident report	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	incident response coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	emergency plan coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	evacuation coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	resource coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	transportation system status	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	incident command information coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	threat information coordination	Hawaii State EOC
City and County of Honolulu Traffic Management Center	emergency traffic control information	Hawaii State EOC
City and County of Honolulu Traffic Management Center	incident information	Hawaii State EOC
City and County of Honolulu Traffic Management Center	resource deployment status	Hawaii State EOC
	road network conditions	Hawaii State EOC

City and County of Honolulu Traffic Management Center		
City and County of Honolulu Traffic Management Center	emergency plan coordination	Hawaii State EOC
City and County of Honolulu Traffic Management Center	road network status assessment	Hawaii State EOC
County of Hawaii EOC	incident report	Hawaii State EOC
County of Hawaii EOC	incident response coordination	Hawaii State EOC
County of Hawaii EOC	emergency plan coordination	Hawaii State EOC
County of Hawaii EOC	evacuation coordination	Hawaii State EOC
County of Hawaii EOC	resource coordination	Hawaii State EOC
County of Hawaii EOC	transportation system status	Hawaii State EOC
County of Hawaii EOC	incident command information coordination	Hawaii State EOC
County of Hawaii EOC	threat information coordination	Hawaii State EOC
Hawaii State EOC	incident report	City and County of Honolulu EOC
Hawaii State EOC	incident response coordination	City and County of Honolulu EOC
Hawaii State EOC	emergency plan coordination	City and County of Honolulu EOC
Hawaii State EOC	evacuation coordination	City and County of Honolulu EOC
Hawaii State EOC	resource coordination	City and County of Honolulu EOC
Hawaii State EOC	transportation system status	City and County of Honolulu EOC
Hawaii State EOC	incident command information coordination	City and County of Honolulu EOC
Hawaii State EOC	threat information coordination	City and County of Honolulu EOC
Hawaii State EOC	incident report	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	incident response coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	emergency plan coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	evacuation coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	resource coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	transportation system status	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	incident command information coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	threat information coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	emergency traffic control request	City and County of Honolulu Traffic Management Center
Hawaii State EOC	incident information	City and County of Honolulu Traffic Management Center
Hawaii State EOC	incident response status	City and County of Honolulu Traffic Management Center
Hawaii State EOC	resource request	City and County of Honolulu Traffic Management Center
Hawaii State EOC	emergency plan coordination	City and County of Honolulu Traffic Management Center
Hawaii State EOC	threat information	City and County of Honolulu Traffic Management Center
Hawaii State EOC	transportation system status	City and County of Honolulu Traffic Management Center
Hawaii State EOC	incident report	County of Hawaii EOC
Hawaii State EOC	incident response coordination	County of Hawaii EOC

Hawaii State EOC	emergency plan coordination	County of Hawaii EOC
Hawaii State EOC	evacuation coordination	County of Hawaii EOC
Hawaii State EOC	resource coordination	County of Hawaii EOC
Hawaii State EOC	transportation system status	County of Hawaii EOC
Hawaii State EOC	incident command information coordination	County of Hawaii EOC
Hawaii State EOC	threat information coordination	County of Hawaii EOC
Hawaii State EOC	incident information	GoAkamai
Hawaii State EOC	incident information	GoHawaii.com
Hawaii State EOC	incident report	HDOT-AIR EOC
Hawaii State EOC	incident response coordination	HDOT-AIR EOC
Hawaii State EOC	emergency plan coordination	HDOT-AIR EOC
Hawaii State EOC	evacuation coordination	HDOT-AIR EOC
Hawaii State EOC	resource coordination	HDOT-AIR EOC
Hawaii State EOC	transportation system status	HDOT-AIR EOC
Hawaii State EOC	incident command information coordination	HDOT-AIR EOC
Hawaii State EOC	threat information coordination	HDOT-AIR EOC
Hawaii State EOC	incident report	HDOT-HAR EOC
Hawaii State EOC	incident response coordination	HDOT-HAR EOC
Hawaii State EOC	emergency plan coordination	HDOT-HAR EOC
Hawaii State EOC	evacuation coordination	HDOT-HAR EOC
Hawaii State EOC	resource coordination	HDOT-HAR EOC
Hawaii State EOC	transportation system status	HDOT-HAR EOC
Hawaii State EOC	incident command information coordination	HDOT-HAR EOC
Hawaii State EOC	threat information coordination	HDOT-HAR EOC
Hawaii State EOC	emergency traffic control request	HDOT-HWY Traffic Management Center
Hawaii State EOC	incident information	HDOT-HWY Traffic Management Center
Hawaii State EOC	incident response status	HDOT-HWY Traffic Management Center
Hawaii State EOC	resource request	HDOT-HWY Traffic Management Center
Hawaii State EOC	emergency plan coordination	HDOT-HWY Traffic Management Center
Hawaii State EOC	evacuation information	HDOT-HWY Traffic Management Center
Hawaii State EOC	threat information	HDOT-HWY Traffic Management Center
Hawaii State EOC	transportation system status	HDOT-HWY Traffic Management Center
Hawaii State EOC	incident report	Kauai EOC
Hawaii State EOC	incident response coordination	Kauai EOC
Hawaii State EOC	emergency plan coordination	Kauai EOC
Hawaii State EOC	evacuation coordination	Kauai EOC
Hawaii State EOC	resource coordination	Kauai EOC
Hawaii State EOC	transportation system status	Kauai EOC
Hawaii State EOC	incident command information coordination	Kauai EOC
Hawaii State EOC	threat information coordination	Kauai EOC
Hawaii State EOC	incident report	Maui EOC
Hawaii State EOC	incident response coordination	Maui EOC
Hawaii State EOC	emergency plan coordination	Maui EOC
Hawaii State EOC	evacuation coordination	Maui EOC
Hawaii State EOC	resource coordination	Maui EOC
Hawaii State EOC	transportation system status	Maui EOC

Hawaii State EOC	incident command information coordination	Maui EOC
Hawaii State EOC	threat information coordination	Maui EOC
HDOT-AIR EOC	incident report	Hawaii State EOC
HDOT-AIR EOC	incident response coordination	Hawaii State EOC
HDOT-AIR EOC	emergency plan coordination	Hawaii State EOC
HDOT-AIR EOC	evacuation coordination	Hawaii State EOC
HDOT-AIR EOC	resource coordination	Hawaii State EOC
HDOT-AIR EOC	transportation system status	Hawaii State EOC
HDOT-AIR EOC	incident command information coordination	Hawaii State EOC
HDOT-AIR EOC	threat information coordination	Hawaii State EOC
HDOT-HAR EOC	incident report	Hawaii State EOC
HDOT-HAR EOC	incident response coordination	Hawaii State EOC
HDOT-HAR EOC	emergency plan coordination	Hawaii State EOC
HDOT-HAR EOC	evacuation coordination	Hawaii State EOC
HDOT-HAR EOC	resource coordination	Hawaii State EOC
HDOT-HAR EOC	transportation system status	Hawaii State EOC
HDOT-HAR EOC	incident command information coordination	Hawaii State EOC
HDOT-HAR EOC	threat information coordination	Hawaii State EOC
HDOT-HWY Traffic Management Center	emergency traffic control information	Hawaii State EOC
HDOT-HWY Traffic Management Center	incident information	Hawaii State EOC
HDOT-HWY Traffic Management Center	resource deployment status	Hawaii State EOC
HDOT-HWY Traffic Management Center	road network conditions	Hawaii State EOC
HDOT-HWY Traffic Management Center	emergency plan coordination	Hawaii State EOC
HDOT-HWY Traffic Management Center	road network status assessment	Hawaii State EOC
Kauai EOC	incident report	Hawaii State EOC
Kauai EOC	incident response coordination	Hawaii State EOC
Kauai EOC	emergency plan coordination	Hawaii State EOC
Kauai EOC	evacuation coordination	Hawaii State EOC
Kauai EOC	resource coordination	Hawaii State EOC
Kauai EOC	transportation system status	Hawaii State EOC
Kauai EOC	incident command information coordination	Hawaii State EOC
Kauai EOC	threat information coordination	Hawaii State EOC
Maui EOC	incident report	Hawaii State EOC
Maui EOC	incident response coordination	Hawaii State EOC
Maui EOC	emergency plan coordination	Hawaii State EOC
Maui EOC	evacuation coordination	Hawaii State EOC
Maui EOC	resource coordination	Hawaii State EOC
Maui EOC	transportation system status	Hawaii State EOC
Maui EOC	incident command information coordination	Hawaii State EOC
Maui EOC	threat information coordination	Hawaii State EOC

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group

IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1211	Object Definitions for Signal Control and Prioritization (SCP)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Emergency Management Agency	Coordinate statewide disaster response with County Departments of Emergency Management and Civil Defense Agencies.
	Develop and coordinate statewide emergency plans, evacuation and reentry plans, and disaster management plans.
	Operate the State EOC, including incident coordination with regional emergency management providers.

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PROJECT DETAILS: HDOT-HWY-V DEPLOY E-SCREENING AT SAND ISLAND

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY-V Deploy E-Screening at Sand Island
Description:	This project will electronically identify vehicles as they approach Sand Island Facility.
Status:	Planned
Timeframe:	Long-Term
Geographic Scope:	Oahu
Project ID:	
Stakeholders:	HDOT Highways , Motor Vehicle Safety Office
Service Packages:	CVO03-1 - Electronic Clearance - HDOT-HWY-V E-Screening
Project Inventory:	Commercial Vehicle Enforcement Commercial Vehicles HDOT-HWY-V CVIEW HDOT-HWY-V E-Screening System

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[CV Information Exchange](#)

- The center shall exchange safety and credentials data among other commercial vehicle administration centers including credentials information, credentials status information, driver records, accident reports, permit information, and safety status information.

[Roadside Electronic Screening](#)

- The roadside check facility equipment shall detect the presence of commercial vehicles and freight equipment approaching a facility. Sensors can differentiate between different types of vehicles and determine the number of axles, gross vehicle weight, and the identification of the vehicle and its cargo.
- The roadside check facility equipment shall request and input electronic screening data from the commercial vehicle's electronic tag data.
- The roadside check facility equipment shall send a pass/pull-in notification to the commercial vehicle and its driver based on the information received from the vehicle, the administration center, enforcement agencies, and the inspector. The message may be sent to the on-board equipment in the commercial vehicle or transmitted to the driver using equipment such as dynamic message signs, red-green lights, flashing signs, etc.

INTERFACES

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Source	Architecture Flows	Destination
Commercial Vehicle Enforcement	information on violators	HDOT-HWY-V E-Screening System
Commercial Vehicles	screening event record	HDOT-HWY-V E-Screening System
Commercial Vehicles	tag data	HDOT-HWY-V E-Screening System
HDOT-HWY-V CVIEW	credentials information	HDOT-HWY-V E-Screening System
HDOT-HWY-V CVIEW	credentials status information	HDOT-HWY-V E-Screening System
HDOT-HWY-V CVIEW	safety status information	HDOT-HWY-V E-Screening System
HDOT-HWY-V CVIEW	cv driver record	HDOT-HWY-V E-Screening System
HDOT-HWY-V CVIEW	targeted list	HDOT-HWY-V E-Screening System
HDOT-HWY-V E-Screening System	electronic screening request	Commercial Vehicles
HDOT-HWY-V E-Screening System	pass/pull-in	Commercial Vehicles
HDOT-HWY-V E-Screening System	request tag data	Commercial Vehicles
HDOT-HWY-V E-Screening System	citation	HDOT-HWY-V CVIEW
HDOT-HWY-V E-Screening System	daily site activity data	HDOT-HWY-V CVIEW
HDOT-HWY-V E-Screening System	violation notification	HDOT-HWY-V CVIEW

ITS STANDARDS

SDO	Document ID	Title	Type
ASTM	View List	Dedicated Short Range Communication at 915 MHz Standards Group	Group
IEEE	IEEE 1455-1999	Standard for Message Sets for Vehicle/Roadside Communications	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
HDOT Highways, Motor Vehicle Safety Office	Regulate commercial vehicles, including certain commercial vehicle credentialing and certain roadside commercial vehicle enforcement activities in the State of Hawaii.

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PROJECT DETAILS: HTA SMARTPHONE APP

PROJECT OVERVIEW

Project Name:	Project Details: HTA Smartphone App
Description:	This project will deploy a Smart Phone App that can be used for general info and safety. The app will be developed first in English and Chinese, with Safety being the primary focus for version 1. In future versions, HTA plans to provide additional languages and integrate with flight information.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Tourism Authority
Service Packages:	ATIS01-2 - Broadcast Traveler Information - HTA Safety and Security Information
Project Inventory:	GoHawaii.com HTA Mobile App

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Basic Information Broadcast](#)

- ➔ The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.

INTERFACES

Source	Architecture Flows	Destination
GoHawaii.com	incident information	HTA Mobile App
HTA Mobile App	broadcast traveler information	Private Personal Computing Devices

ITS STANDARDS

SDO	Document ID	Title	Type

AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
ASTM/IEEE/SAE	View List	Dedicated Short Range Communication at 5.9 GHz Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) Bandwidth Limited Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Tourism Authority	Disseminate emergency traveler information to the public.

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PROJECT DETAILS: HTA UPDATE OF GOHAWAII.COM WEBSITE

PROJECT OVERVIEW

Project Name:	Project Details: HTA Update of GoHawaii.com Website
Description:	This project will update the GoHawaii.com website to include real time information on weather as well as emergency information.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Tourism Authority
Service Packages:	ATIS01-2 - Broadcast Traveler Information - HTA Safety and Security Information
Project Inventory:	GoHawaii.com

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Basic Information Broadcast](#)

- ◆ The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.

INTERFACES

Source	Architecture Flows	Destination
GoAkamai	incident information	GoHawaii.com
GoAkamai	road network conditions	GoHawaii.com
GoHawaii.com	incident information	HTA Mobile App
GoHawaii.com	broadcast traveler information	Private Personal Computing Devices
Hawaii State EOC	incident information	GoHawaii.com

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
ASTM/IEEE/SAE	View List	Dedicated Short Range Communication at 5.9 GHz Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) Bandwidth Limited Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Tourism Authority	Disseminate emergency traveler information to the public.

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PROJECT DETAILS: INTERMODAL FARE CARD

PROJECT OVERVIEW

Project Name:	Project Details: Intermodal Fare Card
Description:	This multi-agency project will deploy an intermodal fare card. Initially, the card will be used for transit fare collection by the City and County of Honolulu DTS's public transit provider and then by HART for transit fare payment. Ultimately, the card will be also used for payment of City services.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Honolulu Authority for Rapid Transportation City and County of Honolulu Department of Transportation Services City and County of Honolulu Department of Information Technology
Service Packages:	APTS04-1 - Transit Fare Collection Management - Regional Payment Instrument (1 of 4) APTS04-5 - Transit Fare Collection Management - Regional Fare Reconciliation
Project Inventory:	City and County of Honolulu Fare Collection Back Office Financial Institutions HART Administration HART Fare Gates Regional Payment Instrument TheBus Administration TheBus Vehicles Ticket Loading Equipment

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[On-board Transit Fare and Load Management](#)

- The transit vehicle shall read data from the traveler card / payment instrument presented by boarding passengers.

[Remote Transit Fare Management](#)

- The public interface for travelers shall accept and process current transit passenger fare collection information.
- The public interface for travelers shall provide an interface to a transit user traveler card in support of payment for transit fares, tolls, and/or parking lot charges. The stored credit value data from the card shall be collected and updated based on the fare or other charges, or the credit identity shall be collected.

[Transit Center Fare and Load Management](#)

- ➔ The center shall process the financial requests from the transit vehicles or roadside and manage an interface to a Financial Institution.
- ➔ The center shall support the payment of transit fare transactions using data provided by the traveler cards / payment instruments.
- ➔ The center shall exchange fare and load information with other transit management centers, including potential Centralized Payments facilities.

INTERFACES

Source	Architecture Flows	Destination
City and County of Honolulu Fare Collection Back Office	payment request	Financial Institutions
City and County of Honolulu Fare Collection Back Office	transit fare coordination	HART Administration
City and County of Honolulu Fare Collection Back Office	fare management information	HART Fare Gates
City and County of Honolulu Fare Collection Back Office	transit fare coordination	TheBus Administration
City and County of Honolulu Fare Collection Back Office	fare management information	TheBus Vehicles
City and County of Honolulu Fare Collection Back Office	transit fare information	Ticket Loading Equipment
Financial Institutions	transaction status	City and County of Honolulu Fare Collection Back Office
HART Administration	transit fare coordination	City and County of Honolulu Fare Collection Back Office
HART Fare Gates	fare collection data	City and County of Honolulu Fare Collection Back Office
HART Fare Gates	request for payment	Regional Payment Instrument
Regional Payment Instrument	payment	HART Fare Gates
Regional Payment Instrument	payment	TheBus Vehicles
Regional Payment Instrument	payment	Ticket Loading Equipment
TheBus Administration	transit fare coordination	City and County of Honolulu Fare Collection Back Office
TheBus Vehicles	fare collection data	City and County of Honolulu Fare Collection Back Office
TheBus Vehicles	request for payment	Regional Payment Instrument
Ticket Loading Equipment	transit fare and passenger status	City and County of Honolulu Fare Collection Back Office
Ticket Loading Equipment	request for payment	Regional Payment Instrument

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
APTA	APTA TCIP-S-001 3.0.4	Standard for Transit Communications Interface Profiles	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Honolulu Authority for Rapid Transportation	Perform fare reconciliation with other transit systems using the same fare payment system.
	Provide transit passenger electronic fare payment capabilities on all HART vehicles.
City and County of Honolulu Department of Transportation Services	Provide an intermodal payment card for use on transit.
	Provide transit passenger electronic fare payment capabilities on all City and County of Honolulu transit vehicles.

City and County of Honolulu Department of
Information Technology

Provide transit passenger electronic fare payment capabilities on all City and
County of Honolulu transit vehicles.

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PROJECT DETAILS: HDOT-HWY-V DEPLOYMENT OF VIRTUAL WEIGH STATION

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY-V Deployment of Virtual Weigh Station
Description:	This project will deploy virtual weigh stations in Hawaii.
Status:	Planned
Timeframe:	Long-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	HDOT Highways , Motor Vehicle Safety Office
Service Packages:	CV006-1 - Weigh-In-Motion - HDOT-HWY-V Virtual Weigh Stations
Project Inventory:	Commercial Vehicle Enforcement Commercial Vehicles HDOT-HWY-V CVIEW HDOT-HWY-V Virtual Weigh Stations

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[CV Information Exchange](#)

- The center shall exchange information with roadside check facilities, including credentials and credentials status information, safety status information, daily site activity data, driver records, and citations.

[Roadside WIM](#)

- The roadside check facility equipment shall detect the presence of commercial vehicles and freight equipment approaching a facility. Sensors can differentiate between different types of vehicles and determine the number of axles, gross vehicle weight, weight per axle, and the identification of the vehicle and its cargo.
- The roadside check facility equipment shall request and input electronic screening data from the commercial vehicle's electronic tag data.
- The roadside check facility equipment shall send a pass/pull-in notification to the commercial vehicle and its driver based on the information received from the vehicle and the measurements taken. The message may be sent to the on-board equipment in the commercial vehicle or transmitted to the driver using equipment such as dynamic message signs, red-green lights, flashing signs, etc.

INTERFACES

Source	Architecture Flows	Destination

Commercial Vehicles	screening event record	HDOT-HWY-V Virtual Weigh Stations
Commercial Vehicles	tag data	HDOT-HWY-V Virtual Weigh Stations
HDOT-HWY-V CVIEW	credentials status information	HDOT-HWY-V Virtual Weigh Stations
HDOT-HWY-V CVIEW	safety status information	HDOT-HWY-V Virtual Weigh Stations
HDOT-HWY-V Virtual Weigh Stations	violation notification	Commercial Vehicle Enforcement
HDOT-HWY-V Virtual Weigh Stations	screening event record	Commercial Vehicles
HDOT-HWY-V Virtual Weigh Stations	electronic screening request	Commercial Vehicles
HDOT-HWY-V Virtual Weigh Stations	pass/pull-in	Commercial Vehicles
HDOT-HWY-V Virtual Weigh Stations	request tag data	Commercial Vehicles

ITS STANDARDS

SDO	Document ID	Title	Type
ASTM	View List	Dedicated Short Range Communication at 915 MHz Standards Group	Group
IEEE	IEEE 1455-1999	Standard for Message Sets for Vehicle/Roadside Communications	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
HDOT Highways, Motor Vehicle Safety Office	Regulate commercial vehicles, including certain commercial vehicle credentialing and certain roadside commercial vehicle enforcement activities in the State of Hawaii.

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PROJECT DETAILS: HDOT-HWY-V MODERNIZE VEHICLE REGISTRATION SYSTEM DATABASE

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY-V Modernize Vehicle Registration System Database
Description:	This project will make on-line commercial vehicle renewals available to fleet operators; and enable authorized Federal, State, and county users to access vehicle registration data in real-time.
Status:	Planned
Timeframe:	Long-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	HDOT Highways , Motor Vehicle Safety Office
Service Packages:	CVO04-1 - CV Administrative Processes - HDOT-HWY-V CVIEW
Project Inventory:	HDOT-HWY-V CVIEW HDOT-HWY-V Vehicle Registration System Database

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[CV Information Exchange](#)

- ◆ The center shall exchange safety and credentials data among other commercial vehicle administration centers including credentials information, credentials status information, driver records, accident reports, permit information, and safety status information.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY-V CVIEW	commercial vehicle permit coordination	HDOT-HWY-V Vehicle Registration System Database
HDOT-HWY-V Vehicle Registration System Database	credentials information	HDOT-HWY-V CVIEW
HDOT-HWY-V Vehicle Registration System Database	credentials status information	HDOT-HWY-V CVIEW

HDOT-HWY-V Vehicle Registration System Database	cv driver record	HDOT-HWY-V CVIEW
HDOT-HWY-V Vehicle Registration System Database	commercial vehicle permit coordination	HDOT-HWY-V CVIEW

ITS STANDARDS

SDO	Document ID	Title	Type
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OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
HDOT Highways, Motor Vehicle Safety Office	Regulate commercial vehicles, including certain commercial vehicle credentialing and certain roadside commercial vehicle enforcement activities in the State of Hawaii.

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PROJECT DETAILS: CITY AND COUNTY OF HONOLULU SMARTER CITIES SYSTEM

PROJECT OVERVIEW

Project Name:	Project Details: City and County of Honolulu Smarter Cities System
Description:	This project is under development and creates a City Intelligent Operation Center, initially to support Emergency Management and Disaster Response; and ultimately to enhance day-to-day operations of the City. The Smart Cities system will connect to the Hawaii State EOC at the statewide level.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Oahu
Project ID:	
Stakeholders:	City and County of Honolulu Department of Information Technology
Service Packages:	ATMS07-1 - Regional Traffic Management - HDOT Highways (HDOT-HWY) (1 of 2) EM07-1 - Early Warning System - Hawaii Emergency Management Agency (HIEMA) EOC EM08-1 - Disaster Response and Recovery - Hawaii Emergency Management Agency (HIEMA) EOC (1 of 2) EM09-1 - Evacuation and Reentry Management - Hawaii Emergency Management Agency (HIEMA) EOC (1 of 2)
Project Inventory:	City and County of Honolulu Intelligent Operations Center Hawaii State EOC HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Emergency Early Warning System](#)

- The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
- The center shall receive incident information from other transportation management centers to support the early warning system.

[Emergency Evacuation Support](#)

- The center shall develop and exchange evacuation plans with allied agencies prior to the occurrence of a disaster.

[Emergency Response Management](#)

- The center shall develop, coordinate with other agencies, and store emergency response plans.

[TMC Regional Traffic Control](#)

- The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.

INTERFACES

Source	Architecture Flows	Destination
City and County of Honolulu Intelligent Operations Center	incident report	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	incident response coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	emergency plan coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	evacuation coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	resource coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	transportation system status	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	incident command information coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	threat information coordination	Hawaii State EOC
City and County of Honolulu Intelligent Operations Center	incident information	HDOT-HWY Traffic Management Center
City and County of Honolulu Intelligent Operations Center	traffic images	HDOT-HWY Traffic Management Center
City and County of Honolulu Intelligent Operations Center	road network conditions	HDOT-HWY Traffic Management Center
Hawaii State EOC	incident report	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	incident response coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	emergency plan coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	evacuation coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	resource coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	transportation system status	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	incident command information coordination	City and County of Honolulu Intelligent Operations Center
Hawaii State EOC	threat information coordination	City and County of Honolulu Intelligent Operations Center
HDOT-HWY Traffic Management Center	incident information	City and County of Honolulu Intelligent Operations Center
HDOT-HWY Traffic Management Center	traffic images	City and County of Honolulu Intelligent Operations Center
HDOT-HWY Traffic Management Center	road network conditions	City and County of Honolulu Intelligent Operations Center

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
AASHTO/ITE	ITE TMDD		Message/Data

		Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1205	Object Definitions for Closed Circuit Television (CCTV) Camera Control	Message/Data
AASHTO/ITE/NEMA	NTCIP 1208	Object Definitions for Closed Circuit Television (CCTV) Switching	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
City and County of Honolulu Department of Information Technology	Coordinate emergency and other relevant information with the Hawaii State EOC to enhance situational awareness.
	Coordinate traffic and other relevant information with HDOT-HWY to enhance situational awareness.

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PROJECT DETAILS: HDOT WEBSITE UPDATE

PROJECT OVERVIEW

Project Name:	Project Details: HDOT Website Update
Description:	This project will redesign the HDOT statewide website for Highways, Airports, and Harbors divisions.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Public Affairs Office
Service Packages:	EM09-2 - Evacuation and Reentry Management - Hawaii Emergency Management Agency (HIEMA) (2 of 2) EM10-1 - Disaster Traveler Information - Hawaii Emergency Management Agency (HIEMA) EOC
Project Inventory:	Hawaii State EOC HDOT-DIR-P Communications Network

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[ISP Emergency Traveler Information](#)

- The center shall disseminate emergency evacuation information to the traveler interface systems, including evacuation zones, shelter information, available transportation modes, road closures and detours, changes to transit services, and traffic and road conditions at the origin, destination, and along the evacuation routes.
- The center shall disseminate wide-area alert information to the traveler interface systems, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.

INTERFACES

Source	Architecture Flows	Destination
Hawaii State EOC	incident information	HDOT-DIR-P Communications Network
Hawaii State EOC	evacuation information	HDOT-DIR-P Communications Network
Hawaii State EOC	transportation system status	HDOT-DIR-P Communications Network
HDOT-DIR-P Communications Network	traveler information for media	Media

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Public Affairs Office	Disseminate disaster traveler information to the public.

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PROJECT DETAILS: HDOT-HWY AND CITY AND COUNTY OF HONOLULU DTS INCIDENT MANAGEMENT COORDINATION

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY and City and County of Honolulu DTS Incident Management Coordination
Description:	This project will create a coordinated incident management program involving both HDOT-HWY and C&C of Honolulu DTS, as well as first responder agencies.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Oahu
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division City and County of Honolulu Department of Transportation Services
Service Packages:	ATMS07-1 - Regional Traffic Management - HDOT Highways (HDOT-HWY) (1 Of 2) ATMS08-1 - Traffic Incident Management System - HDOT Highways (HDOT-HWY)
Project Inventory:	City and County of Honolulu Traffic Management Center HDOT-HWY Traffic Management Center Local EMS Local Fire Local Police

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[TMC Incident Detection](#)

- The center shall collect and store traffic flow and image data from the field equipment to detect and verify incidents.
- The center shall exchange incident and threat information with emergency management centers as well as maintenance and construction centers; including notification of existence of incident and expected severity, location, time and nature of incident.
- The center shall provide road network conditions and traffic images to emergency management centers to support the detection, verification, and classification of incidents.

[TMC Incident Dispatch Coordination/Communication](#)

- The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.

TMC Regional Traffic Control

- The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.

INTERFACES

Source	Architecture Flows	Destination
City and County of Honolulu Traffic Management Center	incident information	HDOT-HWY Traffic Management Center
City and County of Honolulu Traffic Management Center	traffic images	HDOT-HWY Traffic Management Center
City and County of Honolulu Traffic Management Center	road network conditions	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	incident information	City and County of Honolulu Traffic Management Center
HDOT-HWY Traffic Management Center	traffic images	City and County of Honolulu Traffic Management Center
HDOT-HWY Traffic Management Center	road network conditions	City and County of Honolulu Traffic Management Center
HDOT-HWY Traffic Management Center	incident information	Local EMS
HDOT-HWY Traffic Management Center	incident response status	Local EMS
HDOT-HWY Traffic Management Center	resource deployment status	Local EMS
HDOT-HWY Traffic Management Center	resource request	Local EMS
HDOT-HWY Traffic Management Center	traffic images	Local EMS
HDOT-HWY Traffic Management Center	road network conditions	Local EMS
HDOT-HWY Traffic Management Center	incident information	Local Fire
HDOT-HWY Traffic Management Center	incident response status	Local Fire
HDOT-HWY Traffic Management Center	resource deployment status	Local Fire
HDOT-HWY Traffic Management Center	resource request	Local Fire
HDOT-HWY Traffic Management Center	traffic images	Local Fire
HDOT-HWY Traffic Management Center	road network conditions	Local Fire
HDOT-HWY Traffic Management Center	incident information	Local Police
HDOT-HWY Traffic Management Center	incident response status	Local Police
HDOT-HWY Traffic Management Center	resource deployment status	Local Police
HDOT-HWY Traffic Management Center	resource request	Local Police
HDOT-HWY Traffic Management Center	traffic images	Local Police
HDOT-HWY Traffic Management Center	road network conditions	Local Police
Local EMS	incident information	HDOT-HWY Traffic Management Center
Local EMS	incident response status	HDOT-HWY Traffic Management Center
Local EMS	remote surveillance control	HDOT-HWY Traffic Management Center
Local EMS	resource deployment status	HDOT-HWY Traffic Management Center
Local EMS	resource request	HDOT-HWY Traffic Management Center
Local Fire	incident information	HDOT-HWY Traffic Management Center
Local Fire	incident response status	HDOT-HWY Traffic Management Center
Local Fire	remote surveillance control	HDOT-HWY Traffic Management Center
Local Fire	resource deployment status	HDOT-HWY Traffic Management Center
Local Fire	resource request	HDOT-HWY Traffic Management Center
Local Police	incident information	HDOT-HWY Traffic Management Center

Local Police	incident response status	HDOT-HWY Traffic Management Center
Local Police	remote surveillance control	HDOT-HWY Traffic Management Center
Local Police	resource deployment status	HDOT-HWY Traffic Management Center
Local Police	resource request	HDOT-HWY Traffic Management Center

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group
IEEE	View List	Incident Management Standards Group	Group
SAE	View List	Advanced Traveler Information Systems (ATIS) General Use Standards Group	Group
AASHTO/ITE	ITE TMDD	Traffic Management Data Dictionary (TMDD) and Message Sets for External Traffic Management Center Communications (MS/ETMCC)	Message/Data
AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1205	Object Definitions for Closed Circuit Television (CCTV) Camera Control	Message/Data
AASHTO/ITE/NEMA	NTCIP 1208	Object Definitions for Closed Circuit Television (CCTV) Switching	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Coordinate traffic information and traffic control with the City and County of Honolulu Traffic Management Center.
	Perform network surveillance for detection and verification of incidents on state roads.
	Provide incident information to travelers via traffic information devices on state roads.
	Send traffic/incident information and traffic images to local and statewide emergency management agencies.
City and County of Honolulu Department of Transportation Services	Coordinate traffic information and traffic control with the HDOT-HWY Traffic Management Center.

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PROJECT DETAILS: HDOT-HWY CCTV EXPANSION

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY CCTV Expansion
Description:	This project will expand CCTV camera coverage on HDOT-HWY facilities.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATMS01-1 - Network Surveillance - HDOT Highways (HDOT-HWY)
Project Inventory:	HDOT-HWY Field Devices HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Collect Traffic Surveillance](#)

- The center shall monitor, analyze, and distribute traffic images from CCTV systems under remote control of the center.

[Roadway Basic Surveillance](#)

- The field element shall collect, process, and send traffic images to the center for further analysis and distribution.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY Field Devices	traffic images	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	video surveillance control	HDOT-HWY Field Devices

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Center Standards Group	Group
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group

AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1205	Object Definitions for Closed Circuit Television (CCTV) Camera Control	Message/Data
AASHTO/ITE/NEMA	NTCIP 1208	Object Definitions for Closed Circuit Television (CCTV) Switching	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Obtain traffic images and traffic flow data through CCTVs and field sensors, and maintain operational control of its own field equipment.

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PROJECT DETAILS: HDOT-HWY DMS EXPANSION

PROJECT OVERVIEW

Project Name:	Project Details: HDOT-HWY DMS Expansion
Description:	This project will add additional Dynamic Message Signs (DMS) on HDOT-HWY facilities.
Status:	Planned
Timeframe:	Near-Term
Geographic Scope:	Statewide
Project ID:	
Stakeholders:	Hawaii Department of Transportation - Highways Division
Service Packages:	ATMS06-1 - Traffic Information Dissemination - HDOT Highways (HDOT-HWY)
Project Inventory:	HDOT-HWY Field Devices HDOT-HWY Traffic Management Center

FUNCTIONAL REQUIREMENTS

Click on a Project Inventory element from the list above to view functional requirements.

[Roadway Traffic Information Dissemination](#)

- ◆ The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display (s) (e.g. vehicle restrictions, or lane open/close).

[TMC Traffic Information Dissemination](#)

- ◆ The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.

INTERFACES

Source	Architecture Flows	Destination
HDOT-HWY Field Devices	roadway information system status	HDOT-HWY Traffic Management Center
HDOT-HWY Traffic Management Center	roadway information system data	HDOT-HWY Field Devices

ITS STANDARDS

SDO	Document ID	Title	Type
AASHTO/ITE/NEMA	View List	NTCIP Center-to-Field Standards Group	Group

AASHTO/ITE/NEMA	NTCIP 1201	Global Object Definitions	Message/Data
AASHTO/ITE/NEMA	NTCIP 1203	Object Definitions for Dynamic Message Signs (DMS)	Message/Data

OPERATIONAL CONCEPTS

Stakeholder	Roles and Responsibilities
Hawaii Department of Transportation - Highways Division	Provide traffic information to travelers via HDOT DMS equipment and GoAkamai.

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