

Kauai County E9-1-1 Status Report

April 1, 2019 – April 30, 2019



AKIMEKA | HIGH PRIORITY. HIGH IMPACT.

Kauai County E9-1-1 Status Report

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME – APRIL 2019

(Source :) West Safety Services Viper system

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2019	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other	% of Total Calls
APR	4,867	550	11.30%	3,466	71.21%	46.05%	53.95%	189	3.88%	0	0.00%	0	0.00%	662	13.60%	0	0.00%

9-1-1 CALL VOLUME – CALENDAR YEAR 2019

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2019	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other	% of Total Calls
JAN	4,314	496	11.50%	3,252	75.38%	40.10%	59.90%	145	3.36%	2	0.05%	0	0.00%	419	9.71%	0	0.00%
FEB	4,718	466	9.88%	3,414	72.36%	42.24%	57.76%	176	3.73%	3	0.06%	0	0.00%	659	13.97%	0	0.00%
MAR	4,931	521	10.57%	3,539	71.77%	43.15%	56.85%	158	3.20%	1	0.02%	0	0.00%	712	14.44%	0	0.00%
APR	4,867	550	11.30%	3,466	71.21%	46.05%	53.95%	189	3.88%	0	0.00%	0	0.00%	662	13.60%	0	0.00%
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	18,830	2,033		13,671				668		6		0		2,452		0	
MON AVG	4,708	508	10.81%	3,418	72.68%	42.88%	57.12%	167	3.54%	2	0.03%	0	0.00%	613	12.93%	0	0.00%

PSAP OPERATION NOTES:

- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are included in the total Wireline and Wireless counts respectively.
- All VoIP (Voice over Internet Protocol) type of 911 calls is combined in the Call Volume statistic.
- 911 Calls with No Ali for April 2019 = 0.00% - Statewide average for 2018 = 0.09%

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FOR YOUR INFORMATION

FYI.....For Your Information								
PSAP Operations								
Statewide 911 Call Volumes								
PSAP	2018		2017		2016		2015	
Oahu Civilian	1,034,190	70.62%	1,022,818	72.16%	1,009,059	71.93%	1,019,402	70.94%
RDC Pearl Harbor	37,068	2.53%	27,916	1.97%	N/A	N/A	N/A	N/A
Hawaii County	206,648	14.11%	193,166	13.62%	205,412	14.64%	217,768	15.15%
Maui County	133,869	9.14%	123,685	8.73%	137,333	9.80%	142,952	9.95%
Kauai County	52,623	3.60%	49,902	3.52%	50,955	3.63%	56,874	3.96%
Total	1,464,398	100.00%	1,417,487	100.00%	1,402,759	100.00%	1,436,996	100.00%
<small>*2016 & 2015 Statewide average does not include Military 911 calls</small>								

TEXT TO 911 – CURRENT MONTH – APRIL 2019

TEXT TO 911 Kauai County 2019	
Month	Total received
January	11
February	18
March	4
April	10
May	
June	
July	
August	
September	
October	
November	
December	
YTD	43
Monthly Avg.	10.8

NOTE:

- Although there is a “Text to 911” plot on the MapFlex, the location of the plot is not reliable. Text to 911 Dispatchers should use their skills to ascertain the exact location of the emergency response.

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WIRELESS PSAP TESTING – APRIL 2019

KAUAI COUNTY - APRIL 2019						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:

NOTES:

- There were no (0) scheduled Wireless 911 tests for the month of April 2019.
- Verizon Wireless has completed migrating their Wireless network database from West to ComTech.
- During the 4th quarter of 2018, there was an increasing amount of “MOBL” class of service type of 911 calls delivered to the State of Hawaii PSAPs. On January 15th, 2019, West completed the position source mapping for ComTech which appears to have resolved this issue.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – APRIL 2019

KAUAI COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			Customer Addresses Affected
		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
2019									
JANUARY	103	96	6	0	1	19	0	0	87
FEBRUARY	3	1	2	0	0	18	0	0	0
MARCH	52	52	0	0	0	59	0	0	0
APRIL	248	245	2	0	1	259	0	0	17
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	406	394	10	0	2				104
AVG PER MONTH	102	99	3	0	1				26

Definitions

- (A) **Dispatchable Location** - is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party. Please see Dispatchable Location Section for more information.
- (B) **Master Street Address Guide** - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (C) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 499 attached to them which indicates the need for validation.
- (D) **Automatic Location Information Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline OR a VoIP phone. These record corrections are treated with a higher priority and should be processed within 48 hours if wireline, and 72 hours if a VoIP phone, as a general guideline.

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MSAG CURRENT MONTH NOTES:

A total of two hundred forty eight (**248**) MSAG transactions were processed in 9-1-1 Net during the current month. Two (**2**) requests were processed relating to the MSAG database. Changes include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS, and inserting new MSAG records.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

Akimeka processed thirty two (32) TN CRs related to the Dispatchable Location Project during the current month.

One (**1**) VoIP ALI DR was submitted during the current month for a residence in Lihue.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 259 Open TN CRs.**

Two hundred fifty nine (**259**) Open TN CR transactions are a result of the Dispatchable Location project. Once a telephone number is submitted to West for correction, it must be verified against HT records and/or approved by the customer. West's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- **There are currently no Open ALI-DRs as of April 30, 2019**
- **There are currently no Open VoIP DRs April 30, 2019**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – APRIL, 2019

NOTE:

- 9-1-1 NET is a secure web-based application that provides access to request changes to the MSAG, ALI, TN, and ESN/ELT data supported and maintained by West Safety Services for the Telephone Company (TelCo).
- TNCRs are not requests to change Telephone Numbers (TNs); however, it is a corrective process within 9-1-1 NET to modify location information associated with an Automatic Location Identification (ALI) record to a valid MSAG address for 9-1-1 purposes.

PSAP 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status)				
PSAP	TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA	OPENED TNCRS PENDING FURTHER ACTION BY WEST SAFETY SERVICES	OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES	TOTAL UNOPENED TNCR RECORDS
KAUAI	259	0	14	245

STATUS
<u>TOTAL TNCRS SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1
<u>PENDING STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.
<u>REFERRED STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and the request requires additional information to validate. The West Safety Services Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.
<u>TOTAL UNOPENED TNCR RECORDS STATUS</u> - The request is submitted by Akimeka on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

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DISPATCHABLE LOCATION – STATUS AS OF – APRIL 2019

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a “State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9” presentation. Based on the 9-1-1 Board’s confirmation to add the “Dispatchable Location” information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

During the month of August 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the **Kukui Grove Center at 302600 Kaunualii Hwy, Lihue**. The “Dispatchable Location” data is entered into the “Driving Directions” field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the “Exact” field should a 911 call be received from that telephone number. 245 transactions were submitted and 32 transaction were processed by West in April 2019.

Dispatchable Location			
2019	Common Name Place MSAG Address	TNCR Transactions Submitted	Transactions Processed
Quarter 2			
Quarter 1 Carryover		3,468	3,238
April	All Saints Preschool, 401065 Kuhio Hwy, Kappa	0	1
	Hanapepe Library, 4490 Kona Rd, Hanapepe	0	3
	Hoola Lahui Hawaii, 4800 Kawaihau Rd, Kapaa	0	19
	Hotel Coral Reef, 401516 Kuhio Hwy, Kappa	0	8
	Hanalei Inn, 505468 Kuhio Hwy, Hanalei	0	1
	Harbor Mall, 3501 Rice St, Nawiliwili	24	0
	Kalaheo School, 4400 Maka Rd, Kalaheo	12	0
	Kauai Community College, 301901 Kaunualii Hwy, Puhi	206	0
	Ching Young Village, 505190 Kuhio Hwy, Hanalei	3	0
May			
June			
Quarter 2 Total		245	32
Total		3,713	3,270

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT - APRIL 2019

Akimeka received the Automatic Location Identification (ALI) records from Spectrum (formally known as Charter Communications) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka is researching and verifying the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The analysis of the database records indicates that there are invalid MSAG addresses utilized by the VoIP Provider. These records are being identified, and will be sent back to Spectrum for corrective action.

*Spectrum (Charter) 9-1-1 VoIP Database Verification Project					
PSAP	TOTAL RECORDS SUBMITTED BY SPECTRUM (A)	TOTAL RECORDS MATCHING & VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	22,044	21,638 (98%)	406	406	100.00%
KAUAI County	8,936	8,695 (97%)	241	241	100.00%
MAUI County	18,256	17,517 (96%)	739	739	100.00%
OAHU Civilian	87,414	85,329 (98%)	2,085	2,085	100.00%
OAHU Military	3,663	710 (19%)	2,953	2,953	100.00%
TOTAL	140,313	**133,889	6,424	6,424	100.00%

* Spectrum VoIP Database received on June 21st, 2017

** Akimeka provided VoIP Records with Latitude/Longitude coordinates

(A)	VoIP Database records submitted by Spectrum to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Spectrum. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT – APRIL 2019

Akimeka received the Automatic Location Identification (ALI) records from Bandwidth which is a Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka has access to these ALI Records, Akimeka researched and verified the VoIP records against an MSAG valid address and the GIS data. This research is a validation of the ALI Record to ensure that the location as provided by the VoIP provider matches the GIS Information utilized by the Public Safety Agencies within their specific County 9-1-1 Service Area. This validation reduces the potential of address or location dispute during a 9-1-1 call.

The analysis of the database records indicates that there were invalid MSAG addresses utilized by the VoIP Provider. These records were identified, and sent back to Bandwidth for corrective action.

Akimeka will update the chart below as we receive updated ALI records from Bandwidth.

*Bandwidth					
9-1-1 VoIP Database Verification Project **(Updated)					
PSAP	TOTAL RECORDS SUBMITTED BY BANDWIDTH (A)	TOTAL NEW RECORDS VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	545	85	0	0	100.00%
KAUAI County	306	41	0	0	100.00%
MAUI County	914	222	1	1	100.00%
OAHU Civilian	4,065	888	1	1	100.00%
OAHU Military	56	7	0	0	100.00%
TOTAL	5,886	1,243	2	2	100.00%

***Bandwidth VoIP Database received on April 5th, 2018**

****Updated Bandwidth VoIP Database received on September 6th, 2018**

(A)	VoIP Database records submitted by Bandwidth to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Bandwidth. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – APRIL 2019

MAPPING LAYERS UPDATED (PART I)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	4/25/19 To 4/30/19	Next Delivery 5/9/2019
		Verified address for eight (8) records in Kapaa
		Added routingID for one (1) record in Wailua
		Spatially corrected fifty-six (56) records in Kapaa
		Spatially corrected eighteen (18) records in Lihue
		Spatially corrected nineteen (19) records in Wailua
		Verified address for one (1) record in Wailua
	Verified address for one (1) record in Lihue	
	4/11/19 To 4/24/19	Delivered 4/25/2019
		Spatially corrected one hundred and sixty-nine (169) records in Puhi
		Verified address for thirty-eight (38) records in Poipu
		Verified address for six (6) records in Koloa
		Verified address for one (1) record in Puhi
	Verified address for one (1) record in Kukuiula	
	4/1/19 To 4/10/19	Delivered 4/11/2019
		Changed location name one (1) record in Kapaa
		Added address for one (1) record in Kekaha
		Updated location name for two (2) records in Waimea
		Spatially corrected three (3) records in Lihue
		Updated ESN for one (1) record in Eleele
		Updated location name per kpd for one (1) record in Waimea
		Spatially corrected one (1) record in Hanapepe
		Spatially corrected, updated name for one (1) record in Wailua
		Spatially corrected two (2) records in Kekaha
		Added address for two (2) records in Waipouli
		Updated location name for one (1) record in Waipouli
		Updated location name for ten (10) records in Lihue
Updated location name for one (1) record in Poipu		
Updated location name for one (1) record in Hanamaulu		
Added location name for one (1) record in Eleele		
Added address for one (1) record in Hanapepe		
Updated location name for one (1) record in Puhi		

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MAPPING LAYERS UPDATED (PART II)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	4/1/19 To 4/10/19	Added location name for one (1) record in Kekaha
		Verified address for two (2) records in Kapaa
		Spatially corrected forty-six (46) records in Kapaa
		Updated location name for one (1) record in Nawiliwili
		Added location name for one (1) record in Waimea
		Spatially corrected one (1) record in Waimea
		Updated location name for two (2) records in Kalaheo
		Updated location name for one (1) record in Eleele
		Updated location name for one (1) record in Omao
		Updated location name for two (2) records in Koloa
		Added location name for one (1) record in Hanalei
		Verified address for four (4) records in Wailua
		Updated location name for three (3) records in Kilauea
		Added address for four (4) records in Lihue
		Spatially corrected one (1) record in Waipouli
		Added location name for one (1) record in Kapaa
		Updated address for one (1) record in Waipouli
		Spatially corrected fifty-two (52) records in Wailua
		Updated location name for one (1) record in Princeville
		Added address for one (1) record in Anahola
Updated location name for two (2) records in Kapaa		
Added address for five (5) records in Kapaa		
Spatially corrected two (2) records in Anahola		
Verified address for one (1) record in Lihue		
Airports		
Bridges		
Building Footprints		
Bus Stops		
Churches	4/1/19 To 4/10/19	Delivered 4/11/2019
		Updated address & name for one (1) record in Kekaha
		Spatially corrected, updated name for one (1) record in Hanapepe
		Added church for six (6) records in Kapaa
		Added church for four (4) records in Lihue

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MAPPING LAYERS UPDATED (PART III)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Churches	4/1/19 To 4/10/19	Updated name for one (1) record in Kilauea
		Updated name for one (1) record in Eleele
		Spatially corrected one (1) record in Hanalei
		Added church for one (1) record in Anahola
		Added church for one (1) record in Eleele
		Spatially corrected one (1) record in Waimea
		Added church for one (1) record in Hanamaulu
		Updated name for seven (7) records in Lihue
		Added church for one (1) record in Hanalei
		Added church for one (1) record in Waipouli
		Updated name for one (1) record in Kapaa
		Added church for one (1) record in Kilauea
		Added church for one (1) record in Waimea
		Updated name for two (2) records in Koloa
		Added church for one (1) record in Kekaha
Updated name for one (1) record in Waimea		
Updated name for one (1) record in Nawiliwili		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		
Emergency Callboxes		
Emergency Operation Centers		
Emergency Shelters		
ESZ/ESN	4/1/19 To 4/10/19	Delivered 4/11/2019
		Modified boundary for two (2) records
Fire Beats		
Fire Districts		
Fire Response Areas		
Fire Stations		

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MAPPING LAYERS UPDATED (PART IV)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Food & Beverage	4/1/19 To 4/10/19	Delivered 4/11/2019
		Spatially corrected one (1) record in Puhi
		Updated name for one (1) record in Poipu
		Spatially corrected, updated name for one (1) record in Waipouli
Gas Stations	4/1/19 To 4/10/19	Updated address for one (1) record in Waipouli
		Delivered 4/11/2019
		Updated name for one (1) record in Kalaheo
		Added one (1) record in Hanapepe
		Updated name for one (1) record in Kilauea
		Added one (1) record in Kalaheo
		Updated name for one (1) record in Puhi
		Updated name for three (3) records in Lihue
Updated name for one (1) record in Kapaa		
		Updated name for one (1) record in Waimea
		Updated name for one (1) record in Princeville
Gate Codes		
Government Buildings		
Harbors		
Helipads		
Hiking Trails		
Hospitals		
Hydrants		
Hyrdology Layers		
Incident Response Areas		
Lodging		
Major Roads		
Medic Beats	4/1/19 To 4/10/19	Delivered 4/11/2019
		Modified boundary for two (2) records
Medic Districts		
Medic Response Areas	4/1/19 To 4/10/19	Delivered 4/11/2019
		Modified boundary for two (2) records
Medic Stations		

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MAPPING LAYERS UPDATED (PART V)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Medical Facilities		
Milepost Markers		
MSAG Communities		
Net Junctions		
Ocean Rescue Boundaries		
Ocean Safety		
Parcels		
Parks		
Parks Polygon		
Points of Interest	4/25/19 To 4/30/19	Next Delivery 5/9/2019
		Spatially corrected one (1) record in Lihue
	4/1/19 To 4/10/19	Delivered 4/11/2019
		Spatially corrected one (1) record in Hanapepe
		Spatially corrected, updated name for two (2) records in Wailua
		Updated name for one (1) record in Kapaa
		Spatially corrected two (2) records in Kalaheo
		Updated name for one (1) record in Poipu
		Added POI for one (1) record in Kekaha
		Updated name for one (1) record in Nawiliwili
		Added POI for one (1) record in Hanamaulu
		Updated name for three (3) records in Kilauea
		Spatially corrected, updated name for one (1) record in Lihue
		Updated address, updated name for one (1) record in Hanapepe
		Added church for one (1) record in Hanalei
		Added POI for one (1) record in Anahola
		Updated name for two (2) records in Kalaheo
		Updated address for one (1) record in Kekaha
		Spatially corrected two (2) records in Kapaa
		Spatially corrected one (1) record in Hanalei
Spatially corrected one (1) record in Waimea		
Updated name for one (1) record in Puhi		
Added address for two (2) records in Lihue		

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MAPPING LAYERS UPDATED (PART VI)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Points of Interest	4/1/19 To 4/10/19	Updated name for nine (9) records in Lihue
		Added church for one (1) record in Waipouli
		Added POI for three (3) records in Lihue
		Updated name for two (2) records in Koloa
		Added POI for five (5) records in Kapaa
		Updated name for one (1) record in Princeville
		Added POI for one (1) record in Koloa
		Added POI for one (1) record in Eleele
		Updated name for one (1) record in Eleele
		Updated address for one (1) record in Waipouli
		Added POI for one (1) record in Waimea
		Updated name for one (1) record in Omao
		Updated name for one (1) record in Waipouli
		Added POI for one (1) record in Waipouli
		Spatially corrected one (1) record in Poipu
		Updated name for one (1) record in Kapaa
Added address for two (2) records in Kapaa		
Updated name for three (3) records in Waimea		
Police Beats		
Police Districts		
Police Response Areas	4/1/19 To 4/10/19	Delivered 4/11/2019
		Modified boundary for two (2) records
Police Stations		
Post Offices		
Schools		
Street Centerlines	4/25/19 To 4/30/19	Next Delivery 5/9/2019
		Spatially corrected twenty-one (21) records in Lihue
		Verified address for four (4) records in Kapaa
		Spatially corrected six (6) records in Wailua
		Corrected range for two (2) records in Kapaa
Spatially corrected six (6) records in Kapaa		

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MAPPING LAYERS UPDATED (PART VII)

The 9-1-1 GIS layers provided by Akimeka to the PSAP are designed for use on E9-1-1 and NG9-1-1 systems.

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Street Centerlines	4/11/19 To 4/24/19	Delivered 4/25/2019 Partial spatial correction for two (2) records in Poipu
	4/1/19 To 4/10/19	Delivered 4/11/2019 Partial spatial correction for five (5) records in Kapaa
		Spatially corrected one (1) record in Kapaa
		Spatially corrected six (6) records in Kapaa
		Spatially corrected three (3) records in Wailua
		Modified range for one (1) record in Kapaa
		Partial spatial correction for two (2) records in Wailua
Subdivisions	4/1/19 To 4/10/19	Delivered 4/11/2019 Spatially corrected two (2) records in Kapaa
Tow Jurisdictions		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		
WSP Cell Sectors	4/25/19 To 4/30/19	Next Delivery 5/9/2019 Updated one (1) sector per Sprint CRS Added five (5) sectors per Sprint CRS
	4/11/19 To 4/24/19	Delivered 4/25/2019 Added twenty-six (26) sectors per AT&T CRS
WSP Cell Towers	4/25/19 To 4/30/19	Next Delivery 5/9/2019 Updated two (2) towers per Sprint CRS
	4/11/19 To 4/24/19	Delivered 4/25/2019 Updated three (3) towers per AT&T CRS

NOTE:

- The Parcels layer is provided by Kauai County. Akimeka performs edits on the spatial information of the layer for 9-1-1 purposes. Changes to the attribute table are made when needed. The Parcels layer uploaded to the PSAP GIS server is intended for 9-1-1 purposes only and should not be disseminated to other county agencies.

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

GIS Key activities include the events such as GIS deliverables, meetings, agreements, etc.

Date	Key Activities/Updates
4/11/2019	Delivered updated data for Spillman which included Address Points, Churches, Common Names, Food & Beverage, Gas Stations, Medic Response Areas, Police Response Areas, Schools, Street Centerlines, and Subdivisions
4/11/2019	Delivered updated data for MapFlex which included Address Points, Churches, ESN, Food & Beverage, Gas Stations, Medic Response Areas, Points Of Interest, Police Response Areas, Schools, Street Centerlines, Subdivisions, WSP Cell Sectors and WSP Cell Towers
4/11/2019	Addressing for Kokee Lots
4/11/2019	Assigning ranges for street centerlines in Kokee
4/18/2019	Addressing for Kokee Lots
4/18/2019	Assigning ranges for street centerlines in Kokee
4/25/2019	Delivered updated data for MapFlex which included Address Points, Points Of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
4/25/2019	Delivered updated data for Spillman which included Address Points, Common Names, and Street Centerlines
4/26/2019	Addressing for Kokee Lots
4/26/2019	Assigned ranges for street centerlines in Kokee
4/29/2019	Addressing for Kokee Lots
4/29/2019	Add new centerlines in Kokee

SPILLMAN PROJECT

The Kauai County Spillman project is considered consistent and has not had any major issues reported.

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MAPFLEX SYSTEM

Akimeka delivered GIS data to the MapFlex system on the following dates in April 2019.

- Hawaii County** – April 9th, 2019 and April 23rd, 2019
- Maui County** – April 10th, 2019 and April 24th, 2019
- Kauai County** – April 11th, 2019, and April 25th, 2019
- Honolulu** – April 12th, 2019, and April 26th, 2019

MAPFLEX ISSUES

Below is a detailed list of issues regarding the MapFlex systems throughout the State of Hawaii.

DATE	ISSUE	DESCRIPTION	STATUS
8/2016	Wireless Addresses	MapFlex system began displaying wireless information incorrectly. MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.	Partially Resolved (Nov 2016) The overriding ALI with updated Lat/Longs from the GIS is still occurring
11/2016	Phase I Display	Wireless Phase I calls plotting at centroid of coverage area and landing in the ocean. After installation of new MapFlex version to correct other issues, the configurations for Wireless Phase I were not set up properly by West, in which the mapping did not point to the correct information in MapFlex.	Partially Resolved (Dec 2016) According to PSAPs, it's not fully resolved. The icon of the tower still doesn't plot for Phase I.
11/2016	Wireless Confidence	Sprint calls coming across with unusually high confidence. Coordination is taking place with Sprint and West. West provides the PDE services for Sprint.	Pending
3/22/2017	ArcGIS Address Locator	The locators in MapFlex have a configurations which does not include ESNs. A reported issue has occurred with the Sheraton in Waikiki. The address locator does not differentiate between the Sheraton hotel and the surf break and plots on the surf break. The bigger issue is that this same issue will occur with complexes that have same primary address.	Pending A new SP 5.4 update by West is aimed to correct this issue.
5/17/2017	VoIP Calls Plotting Incorrectly	Recognized in late April and early May 2017, the PSAPs have been receiving several VoIP calls which are plotting in the incorrect locations. After further research it was determined that it is because MapFlex is configured to plot the received Lat/Long. The problem is that these are not always maintained properly and that ideally the system should first choose to match with the GIS data based on the provided address. During the September 20, 2017 PSAP conference call, HT relayed there was confirmation that the Time Warner records were in fact passing through the West FMCC.	Partially Resolved – the Lat/Longs are no longer being plotted in MapFlex due to a software release.

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5/17/2017	Landline Calls Producing X/Y on calls	It was determined that for normal landline calls, the X/Y coordinates are being sent. The PSAPs have asked where these are being generated and why would they be sent for landline calls.	West is looking into this (May - June 2017)
5/23/2018	Phase I & Phase II coverage area	Phase I calls received at the Kihei Maui PSAP are displaying a circular circumference area rather than a cone shaped directional coverage. Phase II calls are not plotting the COF meters correctly.	Pending
5/24/2018	Incorrect Addresses	MapFlex system began displaying incorrect addresses in the bubble display when an Address Point is right mouse clicked to see information by the PSAPs. However, the address in the data is still correct as shown on the left hand side.	Pending
6/27/2018	Moving Labels	It was brought up during the PSAP teleconference with Hawaiian Tel and West that the Hawaii Fire Department submitted a trouble ticket regarding the parcel labels. When the base map is checked on for viewing the owner's names on the parcel layer, the names of some of the parcels will follow and leave their parcel as the map is panned following streets. This problem was also recreated at the Hawaii Police Department.	Pending

Kauai County E9-1-1 Status Report

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OPEN SERVICE REQUESTS – APRIL 2019

#	Date	Ticket #	Description	Category	Urgency	Comments
			None			

NOTE:

There are no (0) open service request for April 2019.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2019

KAUAI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2019	TOTAL		Open	WIREFLINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2018 Carryover*			0						
January	1	0	1	0	0	0	0	1	0
February	0	0	1	0	0	0	0	0	0
March	0	0	1	0	0	0	0	0	0
April	0	1	0	0	0	0	0	0	1
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	1	1	0	0	0	0	0	1	1

Note:	* The 2018 Carryover row indicated the number of Service Requests that were opened in 2018 and brought forward into 2019 in an effort to track the service request until completion. Detailed information on service tickets are available upon request.
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Definitions:	Category	Description
	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to West Safety Services via 9-1-1 Net for correction.
	Wireless	Telephone Number (ALI) Discrepancies from phones that were land lines at one time, and were ported out to a wireless carrier. However, the phone number was never removed from the MSAG database.
	VoIP	Telephone Number (ALI) Discrepancies from VoIP phones that have been submitted to Time Warner Cable (TWCB) or other VoIP providers for correction.

Kauai County E9-1-1 Status Report

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5. E9-1-1 DATABASE SYNCHRONIZATION

(Reference: NENA 71-501, Version 1.1 – NENA Information Document for Synchronizing Geographic Information System databases with MSAG & ALI)

As part of Akimeka's value added services, Akimeka conducted a database synchronization audit for Kauai County in April 2019.

The database synchronization effort included comparing Kauai County's 9-1-1 MSAG received from the 911 Database provider, West on April 1, 2019, against its 9-1-1 GIS Street Centerline data. A total number of **1,353** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on April 1, 2019 for Kauai County are reported below.

Database synchronization should be part of an ongoing and continuous process to ensure that the databases remain current and synchronized. Since neither database is static in nature, the synchronization process will never remain at a 100 percent match rate. It can be expected that the percentage will fluctuate by a small degree. As such, NENA's recommended minimum match rate is 98%.

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AUDIT SUMMARY RESULTS – 2018 - 2019

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of July 1 , 2018		As of October 1 , 2018		As of January 1 , 2019		As of April 1 , 2019	
		9-1-1 MSAG Dated 7-01-18		9-1-1 MSAG Dated 10-01-18		9-1-1 MSAG Dated 1-01-19		9-1-1 MSAG Dated 4-01-19	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		1,355		1,357		1,357		1,353	
Less: 9-1-1 MSAG Exception Records	(1)	84	6.2%	84	6.2%	84	6.2%	57	4.2%
Net 9-1-1 MSAG Records Eligible for Comparison		1,271		1,273		1,273		1,296	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		1,262	99.3%	1,273	100.0%	1,273	100.0%	1,291	99.6%
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	8	0.6%	0	0.0%	0	0.0%	1	0.1%
9-1-1 MSAG Record With No GIS Record	(3)	1	0.1%	0	0.0%	0	0.0%	4	0.3%
Total 9-1-1 MSAG Records No Match		9	0.7%	0	0.0%	0	0.0%	5	0.4%

Objective: NENA Recommended Match Rate = 98%

The two-way (MSAG – GIS) database synchronization audit for the Kauai County was completed as scheduled. The match rate remained consistent from April 2019 with a 100% Match Rate to a 100% Match Rate as of January 2019.

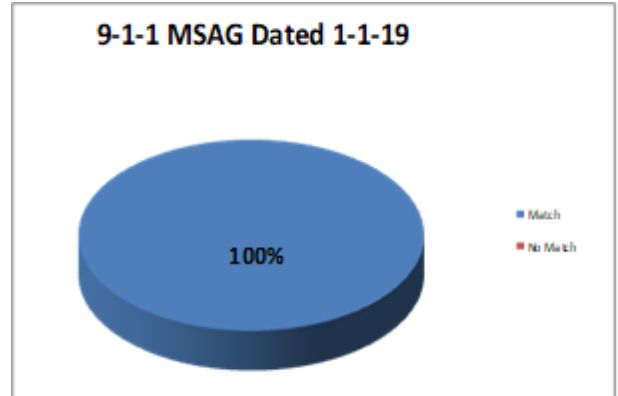
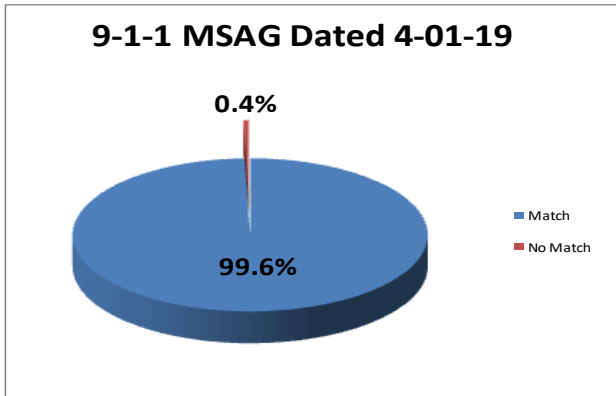
NOTES:

- An MSAG Record that will not have a corresponding GIS Street Centerline Record but is required for the routing of E9-1-1 calls (i.e., Emergency Call Box, Foreign Exchange Records, Wireless Shell Records, etc.). No further action is required.
- An MSAG Record that requires minor MSAG attention in 9-1-1Net to correct MSAG Records (i.e., Reassignment of an MSAG Community, modification of the Site Address Range, assignment of an ESN, performing a combine or insert of an existing MSAG Record, etc.).
- An MSAG Record that does not have a corresponding GIS Record and will require additional research and validation. The GIS Section will assist with this effort.

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AUDIT SUMMARY RESULTS – APRIL 1, 2019 MSAG VS. JANUARY 1, 2019 MSAG



Kauai County level of accuracy for 9-1-1 Match percentage decreased to 99.6% match as of April 1, 2019 as it was a 100% on January 1, 2019

- ❖ Akimeka continues to work with Kauai County GIS and Planning departments to validate streets and communities.
- ❖ In achieving and exceeding the NENA minimum match rate of 98% for data accuracy, Kauai County is ready for Next Generation 9-1-1 (NG9-1-1) from a database perspective.
- ❖ A constant effort to keep the databases synchronized and maintained are required to ensure the level of accuracy of the E9-1-1 databases each time an MSAG or GIS record is “last modified”.
- ❖ “MSAG record that doesn’t match the GIS” increased (0 to 5) from January 2019 to April 2019. The non-match condition is also a result in which MSAG transactions were not completed prior to the running of the end of month report.
- ❖ “MSAG record with no GIS record” increased (0 to 4) from January 2019 to April 2019. MSAG records with no matching record were due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Kauai County.
- ❖ “MSAG Records Corrections Required” increased (0 to 1) from January 2019 to April 2019. MSAG records have been combined, split, and high/low ranges have been changed, to match the Street Centerlines.
- ❖ Accurate location and GIS information will ensure proper dispatching and response in a timely manner for all Public Safety agencies.
- ❖ All the hard work to maintain and synchronize the E9-1-1 databases is validated when a life and/or property is saved.
- ❖ Coordinating the clean-up of the ALI discrepancy records associated with an assigned ESN of 499 with the respective Service Providers is needed to ensure all records are MSAG valid.

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

At the request of the Kauai County Chief of Police, Hawaiian Telcom, Inc. (HTI) provided Kauai County and Akimeka, as the PSAP’s agent, with access and visibility to the ESN x99 MSAG records which are “known” invalid streets and address ranges. Akimeka will be investigating and reporting on these ESN x99 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

Results of the data provided are as follows:

KAUAI	Invalid MSAG Records			
	9-1-1 MSAG Dated 1-01-19		9-1-1 MSAG Dated 04-01-19	
	Number of Records	% of Total Invalid MSAG Records	Number of Records	% of Total Invalid MSAG Records
ESN 499	0	0.0%	0	0.0%

These invalid MSAG records represent **0%** of the Total MSAG records for Kauai County as of the April 1, 2019.

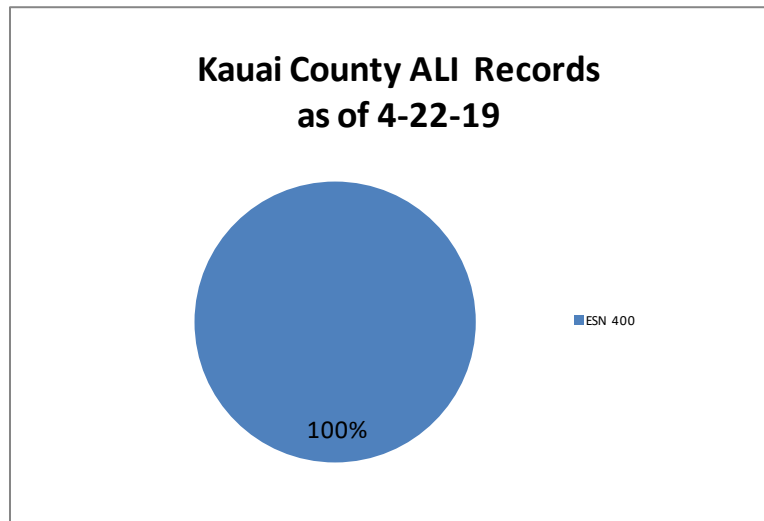
The cleanup of invalid MSAG records is a result of Akimeka’s research and validation of telephone numbers (TNs) assigned an invalid MSAG address. In order for a TN to be corrected, Akimeka submitted the update to the Service Provider via West for approval.

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AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE DISCREPANCIES

As part of Akimeka’s ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancies by community in 9-1-1Net for Kauai County. As of April 22, 2019, there are **zero (0)** ESN 499 ALI records. The number of ESN 499 ALI records remained at **100%** (0 to 0) from **April 22, 2019 to October 26, 2018**.



Although the ESN 499 is a “valid” MSAG utilized for overflow addressing, the voice portion of the 9-1-1 call will still be routed to the PSAP. However, the address information will present an invalid address/location to the dispatcher or a “No Record Found” condition which may affect the processing of the 9-1-1 response and/or cause confusion or delay during the dispatch of 9-1-1 resources to the caller’s location.

The goal, which requires the cooperation among all service providers, is to clean-up all ESN 499 MSAG records to a valid Kauai County ESN 400 – 448 to ensure that all ALI records assigned to the County of Kauai have an “MSAG valid address”.