

Kauai County E9-1-1 Status Report

April 1, 2017 – April 30, 2017



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 2017

(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	
2017	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	3,721	645	17.33%	2,367	63.61%	36.38%	63.62%	154	4.14%	13	0.35%	0	0.00%	542	14.57%	0	0.00%

9-1-1 CALL VOLUME – CALENDAR YEAR 2017

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2017	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	4,006	627	15.65%	2,658	66.35%	38.11%	61.89%	175	4.37%	14	0.35%	0	0.00%	532	13.28%	0	0.00%
FEB	3,739	564	15.08%	2,403	64.27%	42.16%	57.84%	178	4.76%	12	0.32%	0	0.00%	582	15.57%	0	0.00%
MAR	4,035	701	17.37%	2,527	62.63%	39.41%	60.59%	179	4.44%	8	0.20%	0	0.00%	620	15.37%	0	0.00%
APR	3,721	645	17.33%	2,367	63.61%	36.38%	63.62%	154	4.14%	13	0.35%	0	0.00%	542	14.57%	0	0.00%
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	15,501	2,537		9,955				686		47		0		2,276		0	
MON AVG	3,875	634	16.36%	2,489	64.21%	39.01%	60.99%	172	4.43%	12	0.30%	0	0.00%	569	14.69%	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 2017 = 0.35% - Statewide average for 2016 = 0.15%

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FOR YOUR INFORMATION

FYI For Your Information				
PSAP Operations				
Statewide 911 Call Volumes for 2016 & 2015 compare				
PSAP	2016		2015	
Oahu Civilian	1,009,059	71.93%	1,019,402	70.94%
Hawaii County	205,412	14.64%	217,768	15.15%
Maui County	137,333	9.80%	142,952	9.95%
Kauai County	50,955	3.63%	56,874	3.96%
Total	1,402,759	100.00%	1,436,997	100.00%
*Statewide average does not include Military 911 calls.				

TEXT TO 911 – CURRENT MONTH – APRIL 2017

TEXT TO 911 Kauai County 2017	
Month	Total received
January	5
February	6
March	6
April	5
May	
June	
July	
August	
September	
October	
November	
December	
YTD	22
Monthly Avg.	5.5

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 2017

KAUAI COUNTY - APRIL 2017						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:
4/11/2017	AT&T	1	2	Kauai PSAP	Pass	
4/14/2017	Sprint	1	6	Kauai PSAP	Pass	

NOTES:

- There were two (2) scheduled Wireless 911 tests for the month of April, 2107 for the Kauai PSAP.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – APRIL 2017

KAUAI COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Prepared	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	
2017									
JANUARY	174	170	3	0	1	32	0	0	7
FEBRUARY	181	166	2	13	0	21	0	0	24
MARCH	245	206	13	26	0	12	0	0	39
APRIL	200	92	2	106	0	9	0	0	109
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	800	634	20	145	1				179
AVG PER MONTH	200	159	5	36	0				45

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 299 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 **108** MSAG transactions were processed in 9-1-1 Net, and **92** Dispatchable Locations were prepared during the current month. Two (**2**) requests were processed relating to the MSAG database, which include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS and Military response areas, and inserting new MSAG records.

As of the current month, Akimeka has prepared **1,899** Dispatchable Location transactions for Kauai County.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

As a continuation of the ESN 499 clean-up effort, Akimeka is currently monitoring eight (**8**) ESN 499 ALI records that have been submitted to the telco for correction or further information. ESN 499 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. There were five (**5**) ESN 499 TN CRs completed by West Safety Service during the current month and as a result, one (**1**) ESN 499 street record was deleted from the MSAG database. Akimeka processed **86** TN CRs related to the Dispatchable Location Project during the current month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 9 Open TN CR Transactions.**
- **Please refer to “TNCR Current Status” chart in the next section.**

9 Open TN CR transactions are a direct result of the ESN 499 clean-up and are awaiting approval from Hawaiian Telcom, Inc. Akimeka continues to monitor and track the progress of the Referred records. 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.**
- **There are currently no Open VoIP DRs.**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – APRIL, 2017

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 (INTRADO)	OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO)	TOTAL UNOPENED TNCR RECORDS
KAUAI	9	6	3	0

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 2017 - PENDING

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 Kaumualii 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.

As Akimeka awaits for the notice to proceed, Akimeka has continued to research and prepare “Driving Instructions” for other shopping malls that will assist the Kauai Dispatchers with their 911 calls for service. A total of **1,899** telephone records are complete and being submitted as allocated by West for the State of Hawaii. **95** previously prepared transactions were submitted and processed in April 2017.

Dispatchable Location				
2017	Common Name Place MSAG Address	TNCR Transactions Prepared	TNCR Transactions Submitted	Transactions Processed
Quarter 2				
Quarter 1 Carryover		1807	106	106
April	Kuhio Prince Plaza, 302600 Kaumualii Hwy, Lihue	0	9	9
	Kuhio Shores, 5050 Lawai Rd, Kukuiula	65	0	0
	Makahuena, 1661 Pee Rd, Poipu	0	30	30
	Prince Kuhio Resort, 5061 Lawai Rd, Kukuiula	27	0	0
	Poipu Shores, 1775 Pee Rd, Poipu	0	6	6
	Whalers Cove, 2640 Puuholo Rd, Kukuiula	0	50	50
May				
June				
Quarter 2 Total		92	95	95
Total		1,899	201	201

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CHARTER COMMUNICATIONS (TIME WARNER) VOIP DATABASE TNCR

Akimeka received Automatic Location Identification (ALI) records from Charter Communications (formally known as Time Warner) which is the predominant Voice over Internet Protocol (VoIP) provider in the State of Hawaii. As Akimeka had access to these ALI Records, Akimeka was able to perform a three way comparison. This comparison is a validation of the ALI Record to ensure 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 indicated there were invalid MSAG addresses utilized by the VoIP Provider, however, the majority of these records were corrected, or sent back to Charter for further location clarifications. Akimeka was able to verify the majority of the VoIP records had a valid MSAG address assigned and matched with the GIS information. Akimeka has also initiated a correction process with Charter Communications on behalf of the PSAPs in order to perform timely corrections to the remaining VoIP 9-1-1 Records, and to ensure new VoIP customers receive valid MSAG addresses to improve their 9-1-1 location service.

Charter Communications 9-1-1 Telephone Number Location Change Request (Telephone Number Change Request (TNCR) Status)			
PSAP	TOTAL RECORDS SUBMITTED BY CHARTER (A)	RECORDS REQUIRING FURTHER INFORMATION BY CHARTER (B)	RECORDS CORRECTED AND RETURNED TO CHARTER BY AKIMEKA (C)
HAWAII County	19,135	5	33
KAUAI County	7,911	7	39
MAUI County	15,629	0	7
OAHU Cilivian	82,256	5	66
TOTAL	124,931	17	145

(A)	VoIP Database records submitted by Charter to Akimeka for research and MSAG address validation.
(B)	Akimeka was not able to determine an MSAG valid address with the information provided. Charter is advised to contact customer and provide Akimeka with a TMK or driving directions.
(C)	Akimeka researched and provided Charter with an MSAG valid address.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – APRIL 2017

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	Date GIS Delivered	Other/Remarks
	Date Created/Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points		04/27/17	
	4/20/2017		Spatially corrected nine (9) address points in Kapaa
	4/20/2017		Spatially corrected two (2) address points in Wailua
	4/20/2017		Updated Location Name for one (1) address in Wailua
	4/19/2017		Added two (2) addresses in Lihue
	4/19/2017		Spatially corrected three (3) address points in Lihue
	4/19/2017		Added Location Name for three (3) addresses in Lihue
	4/19/2017		Added one (1) address in Port Allen
	4/19/2017		Spatially corrected one (1) address in Wailua
	4/19/2017		Updated Location Name for two (2) addresses in Wailua
	4/19/2017		Added nine (9) addresses in Poipu
	4/19/2017		Spatially corrected one (1) address point in Poipu
	4/19/2017		Added Location Name to one (1) address in Poipu
	4/18/2017		Spatially corrected fourteen (14) address points in Anahola
	4/18/2017		Added one (1) address in Anahola
	4/18/2017		Updated Location Name for one (1) address in Kalaheo
	4/18/2017		Spatially corrected seventeen (17) address points in Kapaa
	4/18/2017		Added Location Name for two (2) addresses in Kapaa
	4/18/2017		Added four (4) addresses in Kapaa
	4/18/2017		Updated Location Name for one (1) address in Kapaa
	4/18/2017		Added Location Name for one (1) address in Kilauea
	4/18/2017		Spatially corrected five (5) address points in Koloa
	4/18/2017		Changed Location Name for one (1) address in Koloa
	4/18/2017		Spatially corrected five (5) address points in Waipouli
	4/18/2017		Updated Location Name of one (1) address in Waipouli
	4/18/2017		Spatially corrected twenty-five (25) address points in Lihue
	4/18/2017		Added Location Name for two (2) addresses in Lihue
4/18/2017		Added two (2) addresses in Lihue	
4/18/2017		Added Apt info for one (1) address in Lihue	
4/18/2017		Updated Location Name for one (1) address in Lihue	
4/17/2017		Spatially corrected seven (7) address points in Kapaa	
4/17/2017		Added Location Name for one (1) address in Kapaa	

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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	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points		04/13/17	
	4/13/2017		Spatially corrected seventeen (17) address points in Anahola
	4/13/2017		Added one (1) address in Anahola
	4/13/2017		Spatially corrected two (2) address points in Hanalei
	4/13/2017		Added one (1) address in Hanalei
	4/13/2017		Added Location Name for one (1) address in Kapaa
	4/13/2017		Spatially corrected two (2) address points in Koloa
	4/13/2017		Added Location Name to one (1) address in Koloa
	4/13/2017		Spatially corrected seventeen (17) address points in Lihue
	4/13/2017		Added Location Name for two (2) addresses in Lihue
	4/13/2017		Updated Location Name for one (1) address in Lihue
	4/13/2017		Added Location Name for one (1) address in Puhi
	4/13/2017		Added one (1) address in Wailua
	4/7/2017		Added Location Name for one (1) address in Nawiliwili
	4/7/2017		Spatially corrected one (1) address point in Nawiliwili
	4/7/2017		Spatially corrected one (1) address point in Lihue
	4/6/2017		Updated Location Name for two (2) addresses in Anahola
	4/6/2017		Updated Location Name for one (1) address in Haena
	4/6/2017		Updated Location Name for one (1) address in Hanamaulu
	4/6/2017		Added Location Name for one (1) address in Hanapepe
	4/6/2017		Spatially corrected one (1) address point in Kalaheo
	4/6/2017		Added Location Name for one (1) address in Kalaheo
	4/6/2017		Added one (1) POI address in Kalihiwai
	4/6/2017		Spatially corrected four (4) address points in Kapaa
	4/6/2017		Added Location Name for two (2) addresses in Kapaa
	4/6/2017		Updated Location Name for two (2) addresses in Kapaa
	4/6/2017		Added Location Name for one (1) address in Kekaha
	4/6/2017		Added two (2) addresses in Kilauea
	4/6/2017		Added two (2) addresses in Lihue
	4/6/2017		Spatially corrected one (1) address point in Lihue
4/6/2017		Updated Location Name for one (1) address in Lihue	
4/6/2017		Spatially corrected four (4) address points in Nawiliwili	

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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	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points	4/6/2017		Added one (1) POI address in Nawiliwili
	4/6/2017		Spatially corrected four (4) address points in Niimalu
	4/6/2017		Added Location Name for one (1) address in Pakala
	4/6/2017		Added three (3) addresses in Princeville
	4/6/2017		Updated Location Name for one (1) address in Princeville
	4/6/2017		Spatially corrected one (1) address point in Princeville
	4/6/2017		Spatially corrected four (4) address points in Wailua
	4/6/2017		Updated Location Name for two (2) addresses in Wailua
	4/6/2017		Added Location Name for one (1) address in Waimea
	4/6/2017		Added one (1) address in Waipouli
Airports			
Bridges			
Building Footprints			
Bus Stops			
Churches			
Coastal Names			
Coastline			
Common Places			
Correctional Facilities			
Emergency Callboxes			
Emergency Operation Centers			
Emergency Shelters			
ESZ/ESN			
Fire Beats			
Fire Districts			
Fire Response Areas			
Fire Stations			
Food & Beverage		04/27/17	
	4/19/2017		Deleted one (1) restaurant in Port Allen
		04/13/17	
	4/6/2017		Updated one (1) restaurant name in Wailua

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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	Date GIS Delivered	Other/Remarks
	Date Created/ Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Gas Stations			
Gate Codes			
Government Buildings			
Harbors			
Helipads			
Hiking Trails			
Hospitals			
Hydrants			
Hyrdology Layers			
Incident Response Areas			
		04/27/17	
Lodging	4/20/2017		Updated hotel name for four (4) hotels in Wailua
	4/20/2017		Added two (2) hotels in Wailua
	4/20/2017		Spatially corrected five (5) hotels in Wailua
	4/20/2017		Updated four (4) hotel names in Wailua
	4/20/2017		Spatially corrected one (1) hotel in Waipouli
	4/20/2017		Added two (2) hotels in Waipouli
Major Roads			
Medic Beats			
Medic Districts			
Medic Response Areas			
Medic Stations			
Medical Facilities			
Milepost Markers			
MSAG Communities			
Net Junctions			
Ocean Rescue Boundaries			
Ocean Safety			
Parcels			
Parks			
Parks Polygon			

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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	Date GIS Delivered	Other/Remarks	
	Date Created/ Edits Performed			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)				
Points of Interest		04/27/17		
	4/20/2017		Spatially corrected two (2) POI in Wailua	
	4/20/2017		Spatially corrected one (1) POI in Kapaa	
	4/19/2017		Updated Location Name for two (2) addresses in Wailua	
	4/19/2017		Spatially corrected one (1) POI in Wailua	
	4/19/2017		Added address to one (1) POI in Wailua	
	4/19/2017		Updated one (1) POI name in Lihue	
	4/19/2017		Updated address for one (1) POI in Lihue	
	4/19/2017		Added one (1) POI in Lihue	
	4/18/2017		Added POI in Anahola	
	4/18/2017		Updated (1) POI name in Kalaheo	
	4/18/2017		Added six (6) POI in Kapaa	
	4/18/2017		Spatially corrected four (4) POI in Kapaa	
	4/18/2017		Updated two (2) POI names in Kapaa	
	4/18/2017		Added one (1) POI in Kilauea	
	4/18/2017		Spatially corrected three (3) POI in Koloa	
	4/18/2017		Added one (1) POI in Koloa	
	4/18/2017		Added five (5) POI in Lihue	
	4/18/2017		Added Unit info for one (1) POI in Lihue	
	4/18/2017		Spatially corrected five (5) POI in Waipouli	
	4/17/2017		Spatially corrected two (2) POI in Kapaa	
			04/13/17	
	4/13/2017			Added one (1) POI in Anahola
	4/13/2017			Spatially corrected one (1) POI in Hanalei
	4/13/2017			Added one (1) POI in Kapaa
	4/13/2017			Added one (1) POI in Koloa
	4/13/2017			Added two (2) POI in Lihue
	4/13/2017			Spatially corrected two (2) POI in Lihue
	4/13/2017			Updated one (1) POI name in Lihue
	4/13/2017			Spatially corrected one (1) POI in Nawiliwili
4/13/2017			Added one (1) POI in Puhī	
4/13/2017			Updated one (1) POI name in Wailua	

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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	Date GIS Delivered	Other/Remarks
	Date Created/Edits Performed		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Points of Interest	4/13/2017		Added one (1) POI in Wailua
	4/7/2017		Added one (1) POI in Nawiliwili
	4/6/2017		Added one (1) POI in Hanapepe
	4/6/2017		Added one (1) POI in Kalaheo
	4/6/2017		Added one (1) POI in Kalihiwai
	4/6/2017		Added two (2) POI in Kapaa
	4/6/2017		Added one (1) POI in Kekaha
	4/6/2017		Changed one (1) POI name in Kilauea
	4/6/2017		Added two (2) POI in Lihue
	4/6/2017		Added one (1) POI in Niualu
	4/6/2017		Added one (1) POI in Pakala
	4/6/2017		Added one (1) POI in Wailua
4/6/2017		Added one (1) POI in Waimea	
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
Street Centerlines		04/27/17	
	4/26/2017		Spatially corrected eight (8) street centerline segments in Kalaheo
Subdivisions			
Tow Jurisdictions			
Tsunami Evacuation Zones			
Tsunami Heights			
Waste Water Plants			
WSP Cell Sectors			
WSP Cell Towers			

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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.**

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
4/27/2017	Delivered updated data for Spillman which included Address Points, Lodging, Points Of Interest, and Street Centerlines
4/27/2017	Delivered updated data for MapFlex which included Address Points, Food & Beverage, Points Of Interest, Schools, Street Centerlines, WSP Cell Sectors and WSP Cell Towers
4/13/2017	Delivered updated data for Spillman which included Address Points, Lodging, Points Of Interest, and Street Centerlines
4/13/2017	Delivered updated data for MapFlex which included Address Points, Food & Beverage, Points Of Interest, Schools, Street Centerlines, WSP Cell Sectors and WSP Cell Towers

MAPFLEX SYSTEM

During the month of April 2017, the MapFlex system received updates manually as a result of MapFlex having several issues pertaining to the automated upload processes.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, West, was implemented across the State of Hawaii, in the below narrative there is some information pertaining to all of the Hawaiian Islands. For a record of historical information regarding the MapFlex system, please see MSRs during the 2015 and 2016 years.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in April 2017
 - a. **Hawaii County** – April 11th, 2017 and April 25th, 2017
 - b. **Maui County** – April 12th, 2017 and April 26th, 2017
 - c. **Kauai County** – April 13th, 2017 and April 27th, 2017
 - d. **Honolulu** – April 14th, 2017 and April 28th, 2017

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MAPFLEX ISSUES

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

DATE	ISSUE	DESCRIPTION	STATUS
7/24/2016	Automatic Uploads Malfunctioning	It was identified that the Automatic uploads were creating issues within the MapFlex systems, where locators were not being published, etc. as a result of a scripting error at West. Manual uploads have been taking place of the GIS as necessary and agreed by all PSAPs.	Pending, however as of April 2017, West/HT has decided to implement a process to upload data the following week after GIS uploads (manually)
7/24/2016	Blank MapFlex Screen	The MapFlex screen went blank and there was no mapping capability, similar to what had occurred with Maui PD. Resulted from West's automatic update script. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.	Resolved (Nov 2016) There have been no reported blank screens
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
8/2016	Text-to-911 Icons	Icons for text calls have stopped displaying. Previously when calls came in as a text call, there would be an icon displaying "TEXT" where the call was plotted.	Resolved (Nov 2016)
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.	Resolved (Dec 2016)
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
1/18/2017	RDC MapFlex	During a meeting between Akimeka and RDC, it was identified that HPD GIS data was contained within the RDC MapFlex and was missing RDC's data. Due to the proprietary nature of the GIS data provided by Akimeka for the civilian PSAP's mapping systems and the confidential information contained to support HPD operations, it was concerning. Actions were taken to request West to stop this and to pull RDC's archive data. West has since replied that they never knew RDC was military and functioned separately from the civilian PSAPs. HPD, RDC, and Akimeka have taken corrective actions to construct GIS data that will be used as a baseline for the RDC and to remove sensitive information supplied for the RDC MapFlex.	Pending – Notified by West in Feb 2017 that they are still planning this with HT and should be able to move forward soon.
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.	A new SP 5.4 update by West is aimed to correct this issue.

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SPILLMAN PROJECT

The Kauai County Spillman project is considered consistent and has not had any reported issues during the month of April 2017. Akimeka has continued to deliver the GIS updates on a bi-weekly basis, as scheduled.

GEOCOMM GEOLYNX SYSTEM

On February 22, 2017, Akimeka officially received notice that the GIS deliverables for the GeoLynx system are no longer needed. With the system implementation of the Spillman Technologies CAD system, the GeoLynx system has been phased out and is no longer needed.

The GIS Deliverables will no longer be continued, however Akimeka has archived the deliverables and the necessary schemas to support this system should there need to be a continuation of those deliverable in the future.

LIHUE AIRPORT BOUNDARIES

During the month of April 2017, the Kauai Fire Department, AARF, and Akimeka held a conference to capture what requirements will be needed in order to modify the Fire Response Areas to include the airport response.

1. On April 27, 2017, Akimeka web-hosted the meeting so that the boundaries around the Lihue Airport could be roughly detailed, using verbal input from the AARF representatives.
 - a. The overall boundaries were defined during the call. Akimeka cleaned up the boundaries at the shoreline and fence line subsequent to the meeting, but separate from the active Fire Response Area until all approvals have been made.
2. During the month of May 2017, Akimeka will work with KPD to identify a project plan for implementing the updates to the Fire Response Areas.
 - a. This jurisdictional change will potentially require a modification to the existing ESN at the Lihue Airport. Because of this, the project plan will need to take into account all potentially affected phone records and addresses.

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OPEN SERVICE REQUESTS – APRIL 2017

#	Date	Ticket #	Description	Category	Urgency	Comments
			None			

NOTE:

There are no open service requests for April 2017.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2017

KAUAI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2017	TOTAL		Open	WIRELIN		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2016 Carryover*			0						
January	1	1	0	1	1	0	0	0	0
February	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	1	1	0	1	1	0	0	0	0

<u>Note:</u>	* The 2016 Carryover row indicates the number of Service Requests that were opened in 2016; however, were brought forward into 2017 in an effort to track the service request until completion.
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	Category	Description
Definitions:	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 (TWCBL) for correction

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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 2017.

The database synchronization effort included comparing Kauai County's 9-1-1 MSAG received from the 911 Database provider, West on April 1, 2017, against its 9-1-1 GIS Street Centerline data. A total number of **1,351** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on August 1, 2017 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 yield a 100 percent match rate. As such, NENA's recommended minimum match rate is 98%.

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AUDIT SUMMARY RESULTS – 2017

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of July 1 , 2016		As of October 1 , 2016		As of January 1 , 2017		As of April 1 , 2017	
		9-1-1 MSAG Dated 7-01-16		9-1-1 MSAG Dated 10-01-16		9-1-1 MSAG Dated 1-01-17		9-1-1 MSAG Dated 4-01-17	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		1,337		1,346		1,349		1,351	
Less: 9-1-1 MSAG Exception Records	(1)	84	6.3%	84	6.2%	84	6.2%	84	6.2%
Net 9-1-1 MSAG Records Eligible for Comparison		1,253		1,262		1,265		1,267	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		1,249	99.7%	1,262	100.0%	1,265	100.0%	1,264	99.8%
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	2	0.2%	0	0.0%	0	0.0%	2	0.2%
9-1-1 MSAG Record With No GIS Record	(3)	2	0.2%	0	0.0%	0	0.0%	1	0.1%
Total 9-1-1 MSAG Records No Match		4	0.3%	0	0.0%	0	0.0%	3	0.2%

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 2017 with a 99.8% Match Rate to a 100% Match Rate as of January 2017.

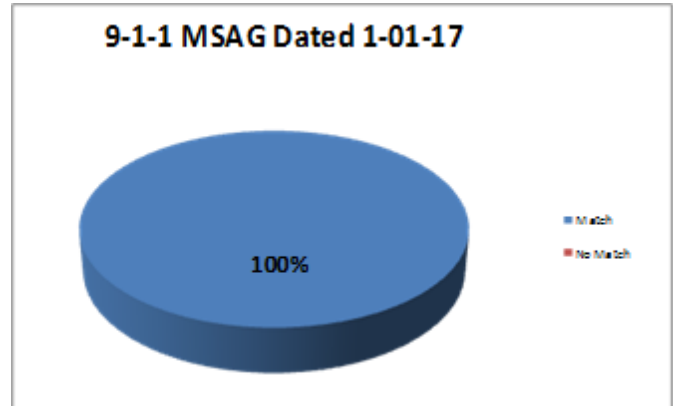
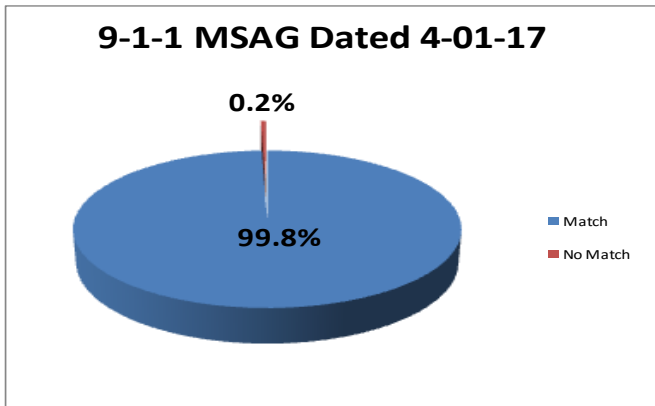
NOTES:

- 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, 2017 MSAG VS. JANUARY 1, 2017 MSAG



Kauai County level of accuracy for 9-1-1 Match percentage remained consistent with a 99.8% as of April 1, 2017 compared to 100% as of January 1, 2017

- ❖ 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 3) from January 2017 to April 2017. This is a result in which MSAG records submitted in 9-1-1 Net were not completed prior to the end of the month.
- ❖ “MSAG record with no GIS record” increased (0 to 1) from January 2017 to April 2017. 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 2) from January 2017 to April 2017. 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:

	Invalid MSAG Records			
	9-1-1 MSAG Dated 1-01-17		9-1-1 MSAG Dated 04-01-17	
	Number of Records	% of Total Invalid MSAG Records	Number of Records	% of Total Invalid MSAG Records
KAUAI				
ESN 499	18	1.4%	6	0.5%

These invalid MSAG records represent **0.5%** of the Total MSAG records for Kauai County as of the April 1, 2017 MSAG as compared to **1.4%** as of the January 1, 2016 MSAG. The individual ALI records associated with these records are provided below.

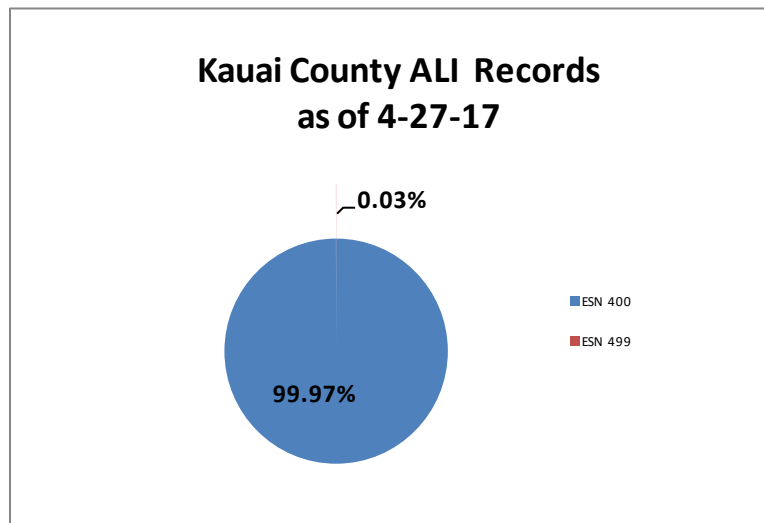
The decrease in the number of invalid MSAG records is a result of Akimeka’s research and validation of telephone numbers (TNs) assigned an invalid MSAG address. In order for a TN to be corrected, Akimeka submits the update to the Service Provider via West for approval.

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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 27, 2017, there are 7 ESN 499 ALI records, representing **0.03%** of Kauai County’s Total ALI records. The number of ESN 499 ALI records was further reduced by **86%** (51 to 7) from January 26, 2017 to April 27, 2016 respectively.



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”.