Kauai County E9-1-1 Status Report

March 1, 2023 – March 31, 2023

VSE
FEDERAL & DEFENSE SERVICES

TABLE OF CONTENTS

1. PSAP Operations 4

9-1-1 Call Volume – March 2023 4

9-1-1 Call Volume – Calendar Year 2023 4

PSAP Operation Notes: 5

For Your Information 5

Text to 911 – Current Month – March 2023 6

Note: 6

Wireless PSAP Testing – March 2023 6

Notes: 6

2. MSAG (Master Street Address Guide) 7

MSAG Transactions Current Month/Year – March 2023 7

MSAG Current Month Notes: 8

Telephone Record (ALI) Transactions Current Month Notes: 8

Open Telephone Record (ALI) Discrepancy Status: 8

TNCR (Telephone Number Change Request) Current Status – March 2023 9

Note: 9

Dispatchable Location – Status As Of – March 2023 10

Narrative: 10

Dispatchable Location – Status As Of – March 2023 - continued 11

Spectrum (Charter) 9-1-1 VoIP Database Verification Project - March 2023 12

Bandwidth 9-1-1 VoIP Database Verification Project – March 2023 13

3. Geographic Information System (GIS) – March 2023 14

Mapping Layers Updated (Part I) 14

Mapping Layers Updated (Part II) 15

Mapping Layers Updated (Part III) 16

Mapping Layers Updated (Part IV) 17

Note: 18

Geographic Information System (GIS) Narratives 18

GIS Key Activities/Updates 18

GIS for 911 19

Medic 25 19

Spillman Project 19

MapFlex System 19

MapFlex Issues 19

4. Service Requests Transactions 20

Open Service Requests – March 2023 20

Note: 20

Service Request Year-to-Date (YTD) Summary – 2023 20

5. E9-1-1 Database Synchronization 21

Two-way (2-way) comparision– March 2023 21

Three-way (3-way) comparision – March 2023 23

Invalid MSAG Streets and Address Ranges – ESN 499 MSAG & ALI Records Project Completed 27

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

1. PSAP OPERATIONS

9-1-1 CALL VOLUME – MARCH 2023

(Source :) Intrado Viper system

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2023	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
MAR	6,314	379	6.00%	5,006	79.28%	16.46%	83.54%	265	4.20%	0	0.00%	0	0.00%	664	10.52%	0	0.00%

***911 Calls with No Ali for March 2023 = 0.00% - Statewide average for 2022 = 0.05%**

9-1-1 CALL VOLUME – CALENDAR YEAR 2023

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2023	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	5,548	350	6.31%	4,430	79.85%	17.04%	82.96%	129	2.33%	3	0.05%	0	0.00%	636	11.46%	0	0.00%
FEB	5,356	381	7.11%	4,248	79.31%	18.71%	81.29%	127	2.37%	2	0.04%	0	0.00%	598	11.17%	0	0.00%
MAR	6,314	379	6.00%	5,006	79.28%	16.46%	83.54%	265	4.20%	0	0.00%	0	0.00%	664	10.52%	0	0.00%
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	17,218	1,110		13,684				521		5		0		1,898		0	
MON AVG	5,739	370	6.47%	4,561	79.48%	17.41%	82.59%	174	2.96%	2	0.03%	0	0.00%	633	11.05%	0	0.00%

6348 Walker Lane

Alexandria, VA 22310

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

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.**
- **Abandoned Calls are included in the total Wireline and Wireless counts respectively.**
- **All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.**
- **A New Class of Service (COS): FIXD = Wireless 911 calls to the PSAP via fixed indoor antennas.**
- x (911) call with the COS of FIXD were added to the Wireless Phase I (WPH 1) percentage total.
- **A New Class of Service (COS): WDL1/WDL2 = Wireless 911 calls to the PSAP via fixed indoor antennas with a general location i.e., pool area (WDL1) or a specific area i.e., room 101 (WDL2).**
- 3 (911) calls with the COS of WDL1, or WDL2 were added to the Wireless Phase I or Phase II percentage total.

FOR YOUR INFORMATION

FYI.....For Your Information												
PSAP Operations												
Statewide 911 Call Volumes												
PSAP	2022		2021		2020		2019		2018		2017	
Oahu Civilian	971,113	69.45%	1,052,026	68.91%	991,016	71.11%	1,075,726	69.67%	1,034,190	70.62%	1,022,818	72.16%
RDC Pearl Harbor	31,827	2.28%	39,253	2.58%	37,014	2.66%	37,905	2.45%	37,068	2.53%	27,916	1.97%
Hawaii County	199,811	14.29%	214,220	14.00%	188,329	13.51%	211,611	13.70%	206,648	14.11%	193,166	13.62%
Maui County	140,524	10.05%	160,241	10.51%	125,626	9.01%	157,127	10.18%	133,869	9.14%	123,685	8.73%
Kauai County	54,923	3.93%	60,986	4.00%	51,653	3.71%	61,754	4.00%	52,623	3.60%	49,902	3.52%
Total	1,398,198	100.00%	1,526,726	100.00%	1,393,638	100.00%	1,544,123	100.00%	1,464,398	100.00%	1,417,487	100.00%

911 Call Volume % decrease from 2021 to 2022	
Oahu	-7.69%
RDC	-18.92%
Hawaii	-6.73%
Maui	-12.30%
Kauai	-9.94%
State of Hawaii	-8.42%

911 Calls with No ALI % average for 2022	
Oahu	0.11%
RDC	0.00%
Hawaii	0.05%
Maui	0.06%
Kauai	0.04%
State of Hawaii average	0.05%

State of Hawaii 2022	
TEXT TO 911	
Oahu Civilian	3,415
RDC Pearl Harbor	36
Hawaii County	526
Maui County	223
Kauai County	153
*Total	4,353
*Totals may include PSAP training, testing, and 911 Texting errors	

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

TEXT TO 911 – CURRENT MONTH – MARCH 2023

TEXT TO 911 Kauai County 2023	
Month	Total received
January	24
February	11
March	16
April	
May	
June	
July	
August	
September	
October	
November	
December	
YTD	51
Monthly Avg.	17.0

NOTE:

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

WIRELESS PSAP TESTING – MARCH 2023

KAUAI COUNTY - MARCH 2023						
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 March 2023.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – MARCH 2023

KAUAI COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			Customer Addresses Affected
2023		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
JANUARY	326	325	1	0	0	1,429	0	0	0
FEBRUARY	300	299	0	0	1	1,113	0	0	0
MARCH	308	303	5	0	0	975	0	0	14
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	934	927	6	0	1				14
AVG PER MONTH	311	309	2	0	0	1,172	0	0	5

Definitions

(A) **D**ispatchable **L**ocation - 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) **M**aster **S**treet **A**ddress **G**uide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
(C) **T**elephone **N**umber **C**hange **R**equest - 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) **A**utomatic **L**ocation **I**nformation **D**iscrepancy **R**ecord - 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.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

MSAG CURRENT MONTH NOTES:

A total of **308** MSAG transactions were processed in 9-1-1 Net during the current month. There were **five (5)** requests processed relating to the MSAG database. Changes can 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.

There were **14** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

VSE (formerly Akimeka) submitted **303** TN CRs related to the Dispatchable Location Project during the current month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 975 Open TN CRs.**

Nine hundred and seventy-five **(975)** Open TN CR transactions are a result of the Dispatchable Location project. VSE (formerly Akimeka) continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to Intrado for correction, it must be verified against HT records and/or approved by the customer. Intrado'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 March 31, 2023**
- **There are currently no Open VoIP DRs as of March 31, 2023**

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – MARCH 2023

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 Intrado 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 VSE (formerly Akimeka)**	**OPENED TNCRS PENDING FURTHER ACTION BY INTRADO**	**OPENED TNCRS REFERRED TO TELCO BY INTRADO**	**TOTAL UNOPENED TNCR RECORDS**
KAUAI	**975**	**0**	**380**	**595**

STATUS
TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.
PENDING STATUS - 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.
REFERRED STATUS - 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 Intrado Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.
TOTAL UNOPENED TNCR RECORDS STATUS - The request is submitted by VSE (formerly Akimeka) on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

DISPATCHABLE LOCATION – STATUS AS OF – MARCH 2023

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, VSE (formerly 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, VSE (formerly 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), VSE (formerly Akimeka) standardized an additional information data format to proceed with this project. During the month of August 2015, VSE (formerly 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. 303 transactions were submitted, and 441 transactions were processed by Intrado in March 2023. (continued on next pages)

Dispatchable Location			
2023 Quarter 1	Common Name Place MSAG Address	TNCR Transactions Submitted	Transactions Processed
2022 Carryover		**13,499**	**11,641**
March	Brennecke's Beach Broiler, 2100 Hoone Rd, Poipu	4	0
	The Parrish Collection, 2221 Kapili Rd, Poipu	6	6
	Multi Bus, 2251 Kapili Rd, Poipu	2	2
	Multi Bus, 2360 Kiahuna Plantation Dr, Poipu	6	4
	Kiahuna GC/Players, 2545 Kiahuna Plantation Dr, Poipu	3	3
	Brookfield Homes, 2611 Kiahuna Plantation Dr, Poipu	2	1
	Ramona J Biho Realty, 2406 Kipuka St, Poipu	1	0
	Cherry Field Foods, 2720 Milo Hae Loop, Poipu	1	0
	Island Architecture, 2758 Milo Hae Loop, Poipu	1	1
	Aston Poipu Kai, 1465 Pee Rd, Poipu	1	0
	Embassy Vacation Resort, 1613 Pee Rd, Poipu	108	0
	The Makahuena At Poipu AOAO, 1661 Pee Rd, Poipu	3	0
	R & R Realty & Rentals, 1763 Pee Rd, Poipu	3	0
	Multi Bus, 1792 Pee Rd, Poipu	2	2
	Tori Richard, 1571 Poipu Rd, Poipu	1	0
	Poipu Kai, 1775 Poipu Rd, Poipu	14	5
	Suite Paradise, 1901 Poipu Rd, Poipu	1	1
	Multi Bus, 1941 Poipu Rd, Poipu	144	123

DISPATCHABLE LOCATION – STATUS AS OF – MARCH 2023 - CONTINUED

Dispatchable Location			
2023 Quarter 1	Common Name Place MSAG Address	TNCR Transactions Submitted	Transactions Processed
2022 Carryover		13,499	11,641
March	Multi Bus, 870 Halewili Rd, Numila	0	1
	Multi Bus, 2250 Ainako St, Poipu	0	1
	Multi Bus, 2373 Hoohu Rd, Poipu	0	1
	Multi Bus, 2440 Hoonani Rd, Poipu	0	2
	Dr Kerry L Dillberg, 2711 Ala Kinoiki Rd, Poipu	0	1
	Kauai Christian Fellowship, 2731 Ala Kinoiki Rd, Poipu	0	1
	Multi Bus, 2970 Kele St, Lihue	0	28
	Aloha Furniture Gallery, 2981 Umi St, Lihue	0	1
	Kiibo Restaurant, 2991 Umi St, Lihue	0	1
	Drywall Inc, 3735 Omao Rd, Omao	0	1
	Pacific Masonry, 3867 Omao Rd, Omao	0	1
	Ace Of Clubs, 3875 Omao Rd, Omao	0	1
	Kaneshiro M & H Farm, 4187 Noho Rd, Omao	0	1
	Multi Bus, 4297 Omao Rd, Omao	0	54
	American Savings Bank, 4318 Rice St, Lihue	0	123
	King Auto Center, 4330 Kukui Grove St, Lihue	0	29
	Wayne's Drain Cleaning, 4351 Punee Rd, Omao	0	1
	Multi Bus, 4444 Rice St, Lihue	0	44
	Subway Barking Sands, 12040 Lii Rd, Mana	0	1
Q1		927	1196
Total		14,426	12,837

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT - MARCH 2023

VSE (formerly 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 VSE (formerly Akimeka) has access to these ALI Records, VSE (formerly 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 VSE (formerly 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 Cilivian	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**

**** VSE (formerly Akimeka) provided VoIP Records with Latitude/Longitude coordinates**

(A)	VoIP Database records submitted by Spectrum to VSE (formerly Akimeka) for research and MSAG address validation.
(B)	VSE (formally Akimeka) has researched and verified the VoIP record against an MSAG valid address and GIS data. VSE (formerly 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)	Verifcation Process Completed.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT – MARCH 2023

VSE (formerly 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 VSE (formerly Akimeka) has access to these ALI Records, VSE (formerly 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.

VSE (formerly 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 NO MATCHING RECORDS IDENTIFIED BY VSE (formerly AKIMEKA)	BANDWIDTH FALLOUT RECORDS (B)	NON MATCHING RECORDS CORRECTED BY VSE (formerly AKIMEKA) (C)	PERCENT COMPLETED
WAII County	2,126	97	16	106	93.81%
UAI County	555	75	3	73	93.59%
AUI County	1,794	60	14	69	93.24%
HU Cilivian	12,898	1,556	44	1,590	99.38%
HU Military	173	156	11	163	97.60%
TOTAL	17,546	1,944	88	2,001	95.52%

***Bandwidth VoIP Database received on April 5th, 2018**
****Updated Bandwidth VoIP Database received on September 6th, 2018**
***** Updated Bandwidth VoIP Database received on October 1st, 2021**

(A)	VoIP Database records submitted by Bandwidth to VSE (formerly Akimeka) for research and MSAG address validation.
(B)	VoIP records identified by Bandwidth as fallout records. These records contain invalid MSAG addressing information which can include house number, street name/suffix, or MSAG community.
(C)	Verifcation Process Completed.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – MARCH 2023

MAPPING LAYERS UPDATED (PART I)

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

KAUAI COUNTY		
Type of Layer	**VSE (formerly Akimeka) GIS Server** **Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	**3/23/2023 To 3/31/2023**	**Next Delivery 4/6/2023**
		Spatially corrected seven (7) records in Waipouli
		Spatially corrected eleven (11) records in Kapaa
		Spatially corrected one hundred and thirty-eight (138) records in Wailua
		Added address for two (2) records in Waipouli
		Added address for six (6) records in Wailua
		Added address for four (4) records in Kapaa
	3/9/2023 To 3/22/2023	**Delivered 3/23/2023**
		Added address for six (6) records in Kalaheo
		Spatially corrected two hundred and sixty (260) records in Wailua
		Spatially correcte one (1) record in Wailua
		Added address for two (2) records in Lawai
		Added address for nineteen (19) records in Wailua
		Spatially corrected one (1) record in Lawai
		Spatially corrected two (2) records in Kalaheo
		Spatially corrected two (2) records in Pakala
Airports		
Bridges		
Building Footprints		
Bus Stops		
Churches		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

MAPPING LAYERS UPDATED (PART II)

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

KAUAI COUNTY		
Type of Layer	**VSE (formerly Akimeka) GIS Server** **Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Emergency Callboxes		
Emergency Operation Centers		
Emergency Shelters		
ESZ/ESN		
Fire Beats		
Fire Districts		
Fire Response Areas		
Fire Stations		
Food & Beverage		
Gas Stations		
Gate Codes		
Government Buildings		
Harbors		
Helipads		
Hiking Trails		
Hospitals		
Hydrants		
Hyrdology Layers		
Incident Response Areas		
Lodging		
Major Roads		
Medic Beats		
Medic Districts		
Medic Response Areas		

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

MAPPING LAYERS UPDATED (PART III)

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

KAUAI COUNTY		
Type of Layer	**VSE (formerly Akimeka) GIS Server** **Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Medic Stations		
Medical Facilities		
Milepost Markers		
MSAG Communities		
Net Junctions		
Ocean Rescue Boundaries		
Ocean Safety		
Parcels		
Parks		
Parks Polygon		
Points of Interest		
Police Beats		
Police Districts		
Water ResponseZone Police Beats	3/23/2023 To 3/31/2023	**Next Delivery 4/6/2023**
		Updated boundary for four (4) records
Water ResponseZone Police Beats C3	3/23/2023 To 3/31/2023	**Next Delivery 4/6/2023**
		Updated boundary for three (3) records
Police Stations		
Post Offices		
Schools		
Street Centerlines	3/23/2023 To 3/31/2023	**Next Delivery 4/6/2023**
		Updated police beat name for one (1) record in Pakala
		Spatially corrected, split centerline for two (2) records in Pakala

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

MAPPING LAYERS UPDATED (PART IV)

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

KAUAI COUNTY		
Type of Layer	**VSE (formerly Akimeka) GIS Server Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Street Centerlines	3/23/2023 To 3/31/2023	Added street centerline for one (1) record in Pakala
		Partial spatial correction for one (1) record in Pakala
		Partial spatial correction for four (4) records in Wailua
	3/9/2023 To 3/22/2023	**Delivered 3/23/2023**
		Updated parity for twenty-six (26) records in Pakala
		Updated police beat name for one (1) record in Pakala
		Spatially corrected fourteen (14) records in Wailua
		Updated street owner for five (5) records in Poipu
		Corrected parity for twenty-four (24) records in Kaumakani
		Corrected range for one (1) record in Poipu
		Updated police beat name for five (5) records in Wailua
		Partial spatial correction for twenty-six (26) records in Wailua
Subdivisions		
Tow Jurisdictions		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		
WSP Cell Sectors	3/1/2023 To 3/8/2023	**Delivered 3/9/2023**
		Added one (1) sector per AT&T CRS
WSP Cell Towers	3/1/2023 To 3/8/2023	**Delivered 3/9/2023**
		Added one (1) tower per AT&T CRS

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

NOTE:

- **The Parcels layer is provided by Kauai County. VSE (formerly 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
3/29/2023	Delivered 32 requested layers to EagleView for the development of the Pictometry Connect accounts for Public Safety officials.
3/23/2023	Delivered updated data for Spillman which included Address Points, Points Of Interest, Police Beats, Police Beats C3, Street Centerlines, Water Response Areas Police, and Water Response Areas C3.
3/23/2023	Delivered updated data for MapFlex which included Address Points, PointsOfInterest, PoliceBeats, StreetCenterlines, WSPCell Sectors, and WSPCellTowers.
3/9/2023	Delivered updated data for MapFlex which included Address Points, ESN, FireResponseAreas, MSAGCommunities, MedicResponseAreas, PointsOfInterest, PoliceDistricts, PoliceResponseAreas, StreetCenterlines, WSPCell Sectors, and WSPCellTowers.
3/9/2023	Delivered updated data for Spillman which included Address Points, FireBeats, MedicBeats, MSAGCommunities, Points Of Interest, PoliceBeats, PoliceBeats C3 and Street Centerlines.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

GIS FOR 911

As part of ensuring GIS data compatibility with 911 CAD systems, VSE (formerly Akimeka) removed certain spatial characteristics of street centerlines known as “true curves”. True, or geometric, curves are sometimes used in the street centerline layer to depict a road that curves in a circular (or semi-circular) fashion, like a round-about or a cul-de-sac. These features can cause processing issues in CAD and GIS software, and therefore were replaced with a series of points that depict the same geometry without the use of a geometric, or true curve.

MEDIC 25

The Kauai PSAP activated a new Medic Station in Lihue. The new medic beat was created in the GIS Medic Beat Boundaries layer and all associated layers that includes the new ESNs (Emergency Service Numbers) were updated accordingly. The new medic beat was also programed into the CAD (Spillman) system to update the unit recommendation function. The 2 new ESNs 454 and 455 were also updated in 911Net for MSAG updates. ESN 454 required 89 MSAG transactions which affected 4,015 customers and, ESN 455 required 12 transactions which affected 209 customers.

SPILLMAN PROJECT

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

MAPFLEX SYSTEM

VSE (formerly Akimeka) delivered GIS data to the MapFlex system on the following dates in March 2023.

Hawaii County – March 7, 2023, and March 21, 2023
Maui County – March 8, 2023, and March 22, 2023
Kauai County – March 9, 2023, and March 23, 2023
Honolulu – March 10, 2023, and March 24, 2023

MAPFLEX ISSUES

The MapFlex issues are archived in the 2021 Monthly Status Report. Should the existing issues be addressed, this report will be reopened and tracked.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MARCH 2023

#	Date	Ticket #	Description	Category	Urgency	Comments
			None			

NOTE:

There are no (0) open service requests for March 2023.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2023

KAUAI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2023	TOTAL		Open	WIRELINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2022 Carryover*			0						
January	0	0	0	0	0	0	0	0	0
February	1	1	0	0	0	0	0	1	1
March	0	0	0	0	0	0	0	0	0
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**1**

Note:	* The 2022 Carryover row indicates the number of Service Requests that were opened in 2022; however, were brought forward into 2023 in an effort to track the service request until completion.

Definitions:	Category	Description
	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to Intrado 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) or other VoIP providers for correction

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)

The database synchronization process is an essential ongoing and continuous process to ensure the E9-1-1 databases used in the Selective Router (SR), and the Kauai Police Department (KPD) 9-1-1 GIS layers used for location determination are exactly matched. This process ensures that the 9-1-1 databases and the GIS data remain current, exactly matched, and are synchronized and useful for 9-1-1. This process also prepares the GIS data for use in Next Generation 9-1-1 (NG911) systems, operations, and applications.

In 9-1-1, Public Safety Agencies (PSAs) are allocated Emergency Service Zones (ESZs) by the Telephone Company for their SR programming use. The entire County Jurisdiction Zone is referred to as an Administrative ESZ. Each PSA is required by Tariff to assign their Response Areas (RAs) based on their operational requirements and assignments within the ESZ. Smaller and more accurate ESZs are created for the geographic areas that have the same PSAs and assigned an Emergency Service Number (ESNs) which are known as a Routing ESNs, or ESNs.

The street names and associated addresses within the ESNs must be translated into a data format that is useful to the SR, the public safety agencies, and their 9-1-1 systems. Translated addresses for 9-1-1 must include the house numbers, street names, street name suffixes, MSAG Communities and are assigned to each of the PSA response areas. These translated addresses are referred to as "valid MSAG addresses" and are applied to both the MSAG and GIS databases. The data must be formatted to traverse throughout 9-1-1 networks & systems. This must also be done for the Public Safety Agencies to ensure there is no loss of data characters or data truncation for their internal and external 9-1-1 systems.

These MSAG street names and MSAG Communities might not be recognized in the County's authoritative addressing Agency and are intended for Public Safety Agency use only. 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 match rate percentage will fluctuate by a small degree each month. As such, NENA's recommended match rate between these critical databases is minimum 98%.

As part of VSE (Formerly Akimeka)'s value added services, VSE (Formerly Akimeka) conducts four quarterly, in-depth 9-1-1 Database Synchronization audits per year for the Kauai Police Department. They are conducted in March, June, September, and December of each Calendar Year while under contract with VSE (Formerly Akimeka).

The results of the **March 28, 2023,** database synchronization audits are presented below.

TWO-WAY (2-WAY) COMPARISION– MARCH 2023

VSE (Formerly Akimeka)'s two-way database comparison service provides for comparing the Local Exchange Carriers (LECs) MSAG Database to the Kauai Police Department's 9-1-1 GIS Street Centerline layer. This ensures the Telephone or VoIP Telephone Company device information is accurate and correct. This information is utilized to route the 9-1-1 call to the PSAP, and the associated location information delivered ALI Datastream is used to dispatch appropriate emergency responders. This also ensures the necessary data elements for 9-1-1 caller location based on street name, MSAG Community, and Emergency Service Numbers (ESNs) are delivered to the PSAP, in the exact format that matches the KPD 9-1-1 GIS layers

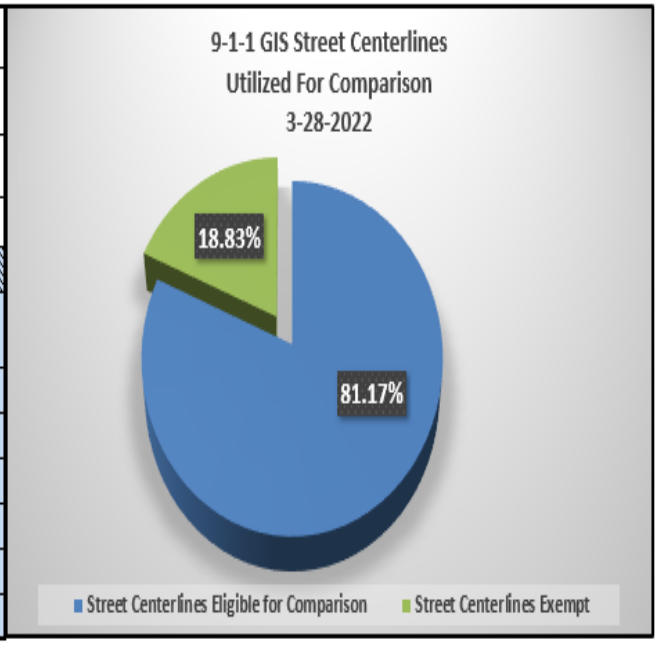
Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

9-1-1 GIS Street Centerlines Utilized For Comparison

A total number of **1,689** GIS Street Centerline Records are maintained for the Kauai Police Department's 9-1-1 GIS database by VSE (Formerly Akimeka). For this comparison, **318** GIS street records were excluded as database exemptions. VSE (Formerly Akimeka) excludes GIS Street Centerlines records from the comparison that do not have the possibility of generating a telephone company 9-1-1 wireline call. Those would include roadways that do not have an MSAG address such as, Freeways, Ramps, and alleys. The remaining **1,371** GIS street records called "Valid 9-1-1 GIS Street Centerline records" and are compared against the Valid MSAG Records. The results of the GIS to MSAG Records comparison analysis are provided below:

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	As of March 28, 2023 GIS Update 2-23-2023 9-1-1 MSAG Dated 3-01-23	
	# of Records	Match %
Total 9-1-1 GIS Records Reviewed	1,689	
9-1-1 GIS Records Exempt for Comparison (Subtract 9-1-1 MSAG Exempt and GIS number 1 Exempt)	318	18.83%
Subtotal 9-1-1 GIS Records Eligible for Comparison	1,371	81.17%
Subtotal 9-1-1 GIS Records Utilized for Comparison	1,371	100%
Total 9-1-1 GIS Records That Do Not Match MSAG Records	0	0%
9-1-1 GIS Records with No Matching MSAG Record	0	0%
Total 9-1-1 GIS Records Requiring Minor Correction	0	0%
Total 9-1-1 GIS Street Centerline Match Rate Percentage	1,371	100%



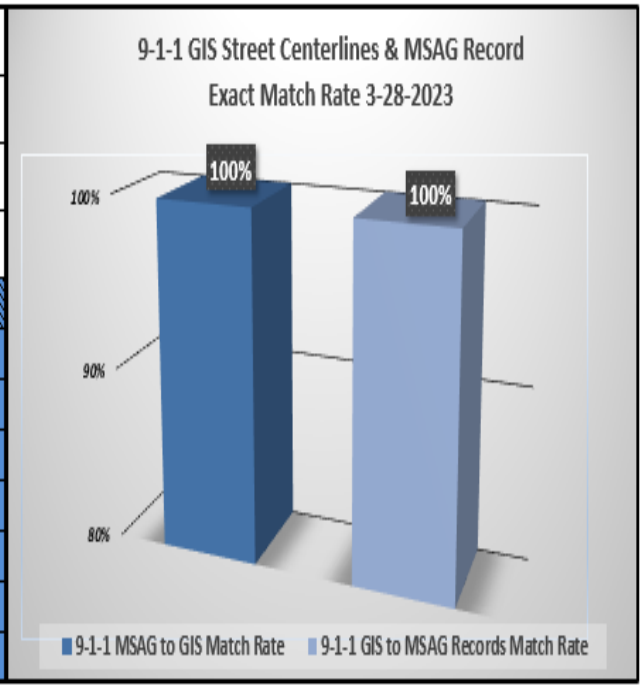
9-1-1 GIS Street Centerline to MSAG Record Comparison

A total of **1,434 9-1-1 MSAG records** are maintained for the Kauai Police Department's 9-1-1 GIS database by VSE (Formerly Akimeka). VSE (Formerly Akimeka) removed **63 MSAG records** from the comparison as exemptions. These exemptions are the MSAG Records utilized for wireless 9-1-1 Call routing, 9-1-1 VoIP Call Routing, and 9-1-1 GIS Street Centerline record that are known and approved exemptions such as Freeways or Roadways with no chance of generating a 9-1-1 call. These MSAG Records are known as "Valid MSAG records". The remaining valid MSAG Records are Street Names that have undergone a 9-1-1 Street translation process to ensure they can be utilized in the 9-1-1 system. These translated street names, MSAG Communities, and their assigned Emergency Service Numbers (ESNs) are provided to the telephone company and other 9-1-1 Service Provider for Public Safety Agencies 9-1-1 addressing use. The total number of MSAG records utilized for this comparison audit was **1,371 MSAG records**.

The street name and MSAG Community translation process ensures that the full data characters within the delivered ALI datastream can transverse between the different systems in the 9-1-1 network without loss of data characters. The results of the MSAG comparison analysis are provided below:

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	As of March 28, 2023 GIS Update 2-29-2023 9-1-1 MSAG Dated 3-01-22	
	# of Records	Match %
Total 9-1-1 MSAG Records Reviewed	1,434	
Less: 9-1-1 MSAG Exemption Records	63	4.39%
Net 9-1-1 MSAG Records Eligible for Comparison	1,371	95.61%
Net 9-1-1 MSAG Records Utilized for Comparison	1,371	100%
Total 9-1-1 MSAG Records That Have Descrepancies	0	0%
Total 9-1-1 MSAG Records with No Matching GIS Record	0	0%
Total 9-1-1 MSAG Records Requiring Minor Correction	0	0%
Total 9-1-1 MSAG Records Match Rate Percentage	1,371	100%

NENA Recommended Match Rate = 98%



THREE-WAY (3-WAY) COMPARISION – MARCH 2023

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

The three-way database comparison services compare the Local Exchange Carriers (LECs) Automatic Location Identification (ALI) Database to the KPD's 9-1-1 GIS Site Structure Points layer and the 9-1-1 Road Network (or 9-1-1 Street Centerline) layers.

This process ensures PSAP's internal 9-1-1 equipment (i.e... the Computer Aided Dispatch systems (CADs), Records Management Systems (RMS), Automatic Vehicle Location (AVL) systems, and the Voice Recording Systems) will be able to display an accurate location on their GIS enabled systems. The internal PSAP 9-1-1 equipment will also log-in the delivered location data information as either a civic address or in a Geodetic (Lat/Long) format for 9-1-1 Dispatch and Response. It can be expected that the match rate percentage will fluctuate by a small degree. As such, NENA's recommended minimum exact match rate is 98%.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

9-1-1 GIS Street Centerline To ALI Record Attribute Match Rate

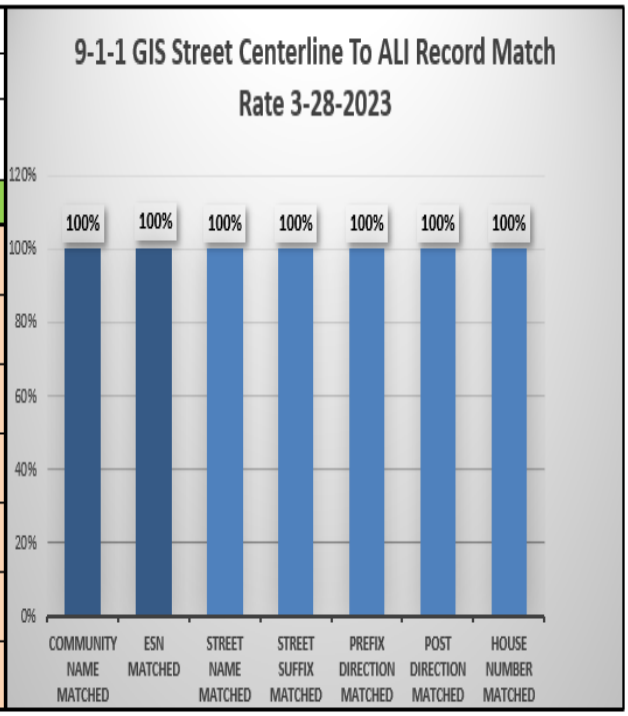
The 9-1-1 GIS Street Centerline to ALI records attribute comparison is used to identify the "course location", or main MSAG valid address that will geocode to the street centerline data. Geocoding is the process of assigning a geographic coordinate for a location and converting it to a valid address utilizing the tabular address information to geographic reference information. This is a proactive way to identify any inconsistencies and enhance the accuracy of all associated 9-1-1 databases, and to ensure the proper operation of the PSAP 9-1-1 systems such as Automatic Vehicle Location (AVL). There are seven (7) GIS and ALI Record attributes that are compared for an exact match.

Items from the Databases that will be compared and audited will include these attributes:

- MSAG Community Name
- ESNs
- Street Names
- Street Name Suffix
- Prefix Direction
- Post Direction
- House Number

See chart below:

9-1-1 Street Centerline to ALI Records AUDIT COMPARISON RESULTS	As of March 28, 2023 9-1-1 ALI Records pulled Dated 3-01-2023	
	# of Records	Match Rate %
GIS Street Centerlines to ALI Records Comparison		
Community Name Matched	0	100%
ESN Matched	0	100%
Street Name Matched	0	100%
Street Suffix Matched	0	100%
Prefix Direction Matched	0	100%
Post Direction Matched	0	100%
House Number Matched	0	100%



NENA Recommended Match Rate = 98%

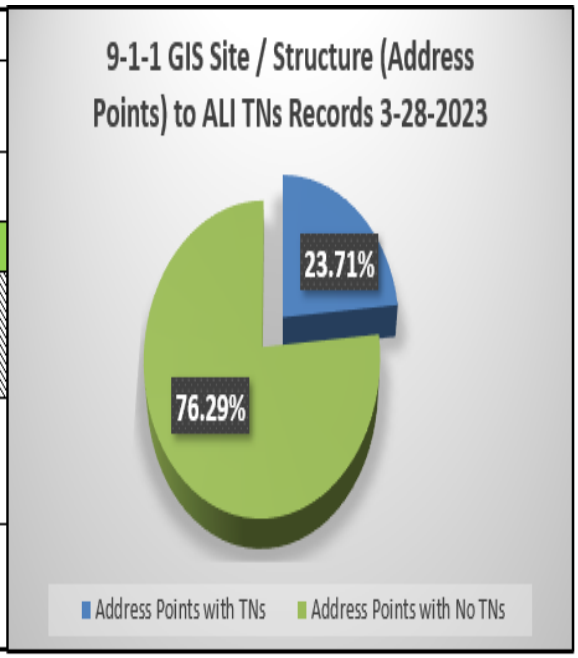
Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

Total GIS Site/Structure (Address) Points and those with Matching ALI Records

The **9-1-1 Site/Structure Points (Address Points) GIS records with Matching ALI Records** comparison identifies the total number of Site/Structure Points (Address Points) that reside within the jurisdiction against the Wireline or VoIP Telephone Company's ALI records. The Kauai County Jurisdiction has approximately **32,331** total **Site Structure Points** with approximately **7,665 Site Structure Points** that have exact matching ALI telephone records. See chart below:

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of March 28, 2023	
	9-1-1 GIS Structure Point Records pulled 3-01-2023	
	# of Records	Match Rate %
GIS Structure Points to ALI Records Comparison		
9-1-1 GIS Address Points Reviewed	32,331	
9-1-1 GIS Address Points With a Matching ALI Record	7,665	23.71%
9-1-1 GIS Address Points Without a Matching ALI Record	24,666	76.29%



9-1-1 Site/Structure (Address) Points with Exact Matching ALI Records

The **9-1-1 Site/Structure (Address Points) GIS records with ALI Records** comparison represents the total number of Site/Structure (Address Points) GIS records that have exact matching ALI records at that location. The matching 9-1-1 GIS Site Structure (Address) Points with Exact Matching ALI Database comparison is used to identify the "Dispatchable Location" that can be utilized to send 9-1-1 responders to locate a 9-1-1 caller's exact location, or at least to the front of the property until a Dispatchable Location can be determined. The objective is to ensure that attributes between the ALI Records and the 9-1-1 Site /Structure Points ae exactly matched and accurate.

Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

There are **19,412 total Automatic Location Identification (ALI) Records** with the Wireline Provider. There are **19,411 Valid ALI records** that have an exact match with a GIS Site Structure Point. There are a total of **1 Valid ALI Records** that require reviewed and/or correction to achieve an exact match. This does not mean the Valid ALI Records and Site Structure Point do not possess sufficient information that will impact a 9-1-1 call. It indicates that these records require additional research and update to exactly match the two different database records. The are **0 ESN 499 Invalid ALI Records** remaining that are in the process of determining a verified valid address. ESN 499 ALI records are records that the 9-1-1 Database Maintenance Service Provider (DBMSP) could not determine an actual address for the Telephone Company.

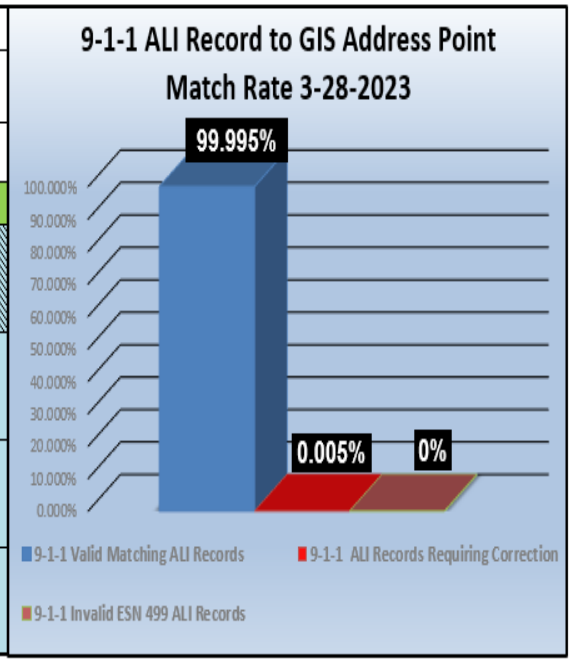
Attributes from the two Databases that were compared during this audit include:

- House Number
- House Number Suffix
- Prefix Direction
- Street Name
- Street Name Suffix
- Post Direction
- MSAG Community Name
- Postal Community Name
- ESNs
- Zip Codes

See chart below:

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of March 28, 2023	
	9-1-1 ALI Records pulled Dated 3-01-2023	
	# of Records	Exact Match Rate %
ALI Records Comparison		
9-1-1 Total ALI Records Reviewed	19,412	
9-1-1 Valid Matching ALI Records	19,411	99.99%
9-1-1 Valid ALI Records Requiring Correction	1	0.01%
9-1-1 Invalid ESN 499 ALI Records	0	0.00%

NENA Recommended Match Rate = 98%



Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

INVALID MSAG STREETS AND ADDRESS RANGES – ESN 499 MSAG & ALI RECORDS
PROJECT COMPLETED

At the request of the Kauai County Chief of Police, Hawaiian Telcom, Inc. (HTI) provided VSE (Formerly Akimeka) LLC, with access to the Kauai County ESN 499 MSAG and ALI records. The ESN 499 MSAG Street Records represented and identified all the "known" invalid streets in the MSAG Database.

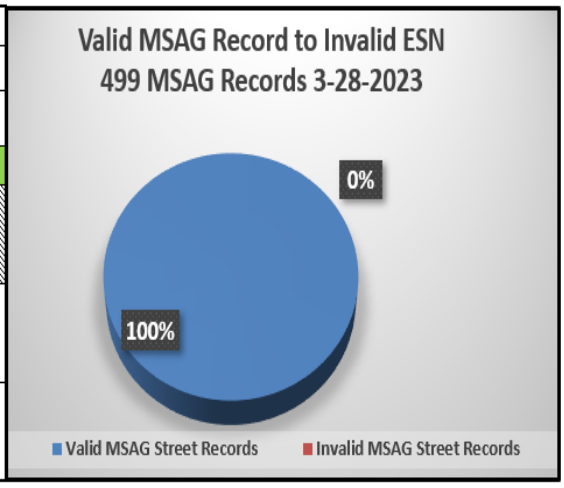
The ESN 499 ALI Records represent all "known" invalid streets telephone device/home or office addresses in the ALI Database that were associated with the known invalid MSAG Street Records. These ALI records were required to be corrected to avoid dispatching 9-1-1 resources to erroneous address/locations.

VSE (Formerly Akimeka) LLC has completed the necessary investigation and required correction of the 147 MSAG Street Records identified at the start of the project. This service was provided without interruption of 9-1-1 service to the owners of the telephone devices while simultaneously producing temporary locations until the records were investigated and corrected accurately.

Valid MSAG Records to Invalid ESN 499 MSAG Records

The ESN 499 MSAG Street Records represented the number of invalid MSAG Streets Records in Kauai County that were on file with Hawaiian Telcom and their Database Maintenance Service Provider. The ESN 499 MSAG Records represented invalid MSAG Street Records that still had a valid telephone number that needs to be reassigned to a valid address. VSE (Formerly Akimeka) conducted the research and corrected the MSAG Street Records to a valid location. This may have included moving any or all associated Automatic Location Identification (ALI) Records to an MSAG valid location. There are 0 ESN 499 MSAG Street Records that require attention in Kauai County. Please see the chart below:

9-1-1 MSAG RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of March 28, 2023	
	9-1-1 MSAG Records as of 3-01-2023	
	# of Records	%
MSAG Street Records Comparison		
9-1-1 Total MSAG Records Reviewed	1,434	
9-1-1 Total Valid MSAG Records Reviewed	1,434	100%
9-1-1 Total Invalid MSAG Records (ESN 499) Reviewed	0	0%



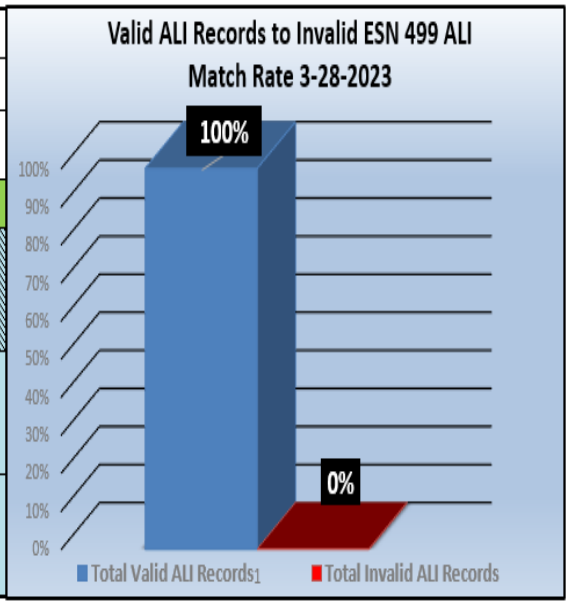
Kauai County E9-1-1 Status Report

March 1, 2023 - March 31, 2023

Valid ALI Records to Invalid ESN 499 ALI Records

The ESN 499 Automatic Location Identification (ALI) Records represent the number of invalid TNs associated with the invalid ESN 499 MSAG Records. There are Zero (0) ESN 499 ALI Records which represent 0.00**%** of the Total ALI records in Kauai County. VSE (Formerly Akimeka) has completed this project.

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of March 28, 2023	
	9-1-1 ALI Records as of 3-01-2022	
	# of Records	%
ALI Records Comparison		
9-1-1 Total ALI Records Reviewed	19,412	
9-1-1 Total Valid ALI Records	19,412	100%
9-1-1 Total Invalid MSAG Records (ESN 499)	0	0%



NENA Recommended Match Rate = 98%