

Maui County E9-1-1 Status Report

December 1, 2023 – December 31, 2023



Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME MAUI PSAP – DECEMBER 2023

Source: Intrado Viper system

(*) Totals are based on calls to Primary PSAP.

9-1-1 Call Volume																	
MAUI 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 Calls	% of Total Calls
DEC	8,814	618	7.01%	7,232	82.05%	21.63%	78.37%	309	3.51%	10	0.11%	0	0.00%	644	7.31%	1	0.01%

CALL VOLUME MAUI PSAP NOTES:

***Calls with No ALI for December 2023 = 0.11% - Statewide average for 2023 = 0.10%**

9-1-1 CALL VOLUME MAUI PSAP – CALENDAR YEAR 2023

9-1-1 Call Volume																	
MAUI 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 Calls	% of Total Calls
JAN	14,122	973	6.89%	11,521	81.58%	21.90%	78.10%	364	2.58%	0	0.00%	0	0.00%	1,264	8.95%	0	0.00%
FEB	12,516	881	7.04%	10,158	81.16%	25.75%	74.25%	344	2.75%	5	0.04%	0	0.00%	1,128	9.01%	0	0.00%
MAR	15,621	971	6.22%	12,929	82.77%	24.19%	75.81%	400	2.56%	0	0.00%	0	0.00%	1,321	8.46%	0	0.00%
APR	14,202	919	6.47%	11,821	83.23%	24.72%	75.28%	289	2.03%	2	0.01%	0	0.00%	1,171	8.25%	0	0.00%
MAY	14,820	894	6.03%	12,392	83.62%	24.40%	75.60%	337	2.27%	7	0.05%	0	0.00%	1,190	8.03%	0	0.00%
JUNE	13,969	795	5.69%	11,705	83.79%	23.55%	76.45%	320	2.29%	18	0.13%	0	0.00%	1,131	8.10%	0	0.00%
JULY	10,928	809	7.40%	8,919	81.62%	22.40%	77.60%	335	3.07%	11	0.10%	0	0.00%	854	7.81%	0	0.00%
AUG	11,838	761	6.43%	9,894	83.58%	23.44%	76.56%	343	2.90%	1	0.01%	0	0.00%	838	7.08%	1	0.01%
SEPT	8,135	548	6.74%	6,704	82.41%	22.34%	77.66%	286	3.52%	21	0.26%	0	0.00%	576	7.08%	0	0.00%
OCT	8,650	535	6.18%	7,150	82.66%	22.15%	77.85%	271	3.13%	36	0.42%	0	0.00%	658	7.61%	0	0.00%
NOV	8,627	586	6.79%	7,079	82.06%	21.50%	78.50%	295	3.42%	49	0.57%	0	0.00%	617	7.15%	1	0.01%
DEC	8,814	618	7.01%	7,232	82.05%	21.63%	78.37%	309	3.51%	10	0.11%	0	0.00%	644	7.31%	1	0.01%
YTD	142,242	9,290		117,504				3,893		160		0		11,392		3	
MON AVG	11,854	774	6.57%	9,792	82.54%	23.17%	76.83%	324	2.84%	13	0.14%	0	0.00%	949	7.90%	0.25	0.00%

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9-1-1 CALL VOLUME MOLOKAI PSAP – DECEMBER 2023

Source: Intrado Viper system

(*) Totals are based on calls to Primary PSAP.

9-1-1 Call Volume																	
MOLOKAI 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 Calls	% of Total Calls
DEC	819	225	27.47%	412	50.31%	42.23%	57.77%	1	0.12%	0	0.00%	0	0.00%	181	22.10%	0	0.00%

CALL VOLUME MOLOKAI PSAP NOTES:

*** Calls with No ALI for December 2023 = 0.00% - Statewide average for 2023 = 0.10%**

9-1-1 CALL VOLUME MOLOKAI PSAP – CALENDAR YEAR 2023

9-1-1 Call Volume																	
MOLOKAI 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 Calls	% of Total Calls
JAN	923	194	21.02%	468	50.70%	31.41%	68.59%	22	2.38%	1	0.11%	0	0.00%	238	25.79%	0	0.00%
FEB	1017	281	27.63%	443	43.56%	33.63%	66.37%	2	0.20%	0	0.00%	0	0.00%	291	28.61%	0	0.00%
MAR	1091	271	24.84%	489	44.82%	32.92%	67.08%	16	1.47%	0	0.00%	0	0.00%	315	28.87%	0	0.00%
APR	911	218	23.93%	451	49.51%	36.14%	63.86%	3	0.33%	0	0.00%	0	0.00%	239	26.23%	0	0.00%
MAY	1212	234	19.31%	577	47.61%	33.10%	66.90%	7	0.58%	0	0.00%	0	0.00%	394	32.51%	0	0.00%
JUNE	697	117	16.79%	479	68.72%	33.82%	66.18%	3	0.43%	0	0.00%	0	0.00%	98	14.06%	0	0.00%
JULY	601	135	22.46%	356	59.23%	27.25%	72.75%	8	1.33%	0	0.00%	0	0.00%	102	16.97%	0	0.00%
AUG	1007	68	6.75%	767	76.17%	64.80%	35.20%	21	2.09%	0	0.00%	0	0.00%	151	15.00%	0	0.00%
SEPT	668	152	22.75%	332	49.70%	37.95%	62.05%	0	0.00%	0	0.00%	0	0.00%	184	27.54%	0	0.00%
OCT	644	141	21.89%	359	55.75%	41.23%	58.77%	2	0.31%	3	0.47%	0	0.00%	139	21.58%	0	0.00%
NOV	565	94	16.64%	344	60.88%	33.43%	66.57%	3	0.53%	0	0.00%	0	0.00%	124	21.95%	0	0.00%
DEC	819	225	27.47%	412	50.31%	42.23%	57.77%	1	0.12%	0	0.00%	0	0.00%	181	22.10%	0	0.00%
YTD	10,155	2,130		5,477				88		4		0		2456		0	
MON AVG	846	178	20.96%	456	54.75%	37.33%	62.67%	7.33	0.81%	0	0.05%	0	0.00%	204.67	23.44%	0	0.00%

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9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – DECEMBER 2023

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		Wireline		Wireless				VOIP Calls		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 Calls	% of Total Calls
DEC	9,633	843	8.75%	7,644	79.35%	22.74%	77.26%	310	3.22%	10	0.10%	0	0.00%	825	8.56%	1	0.01%

9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – CALENDAR YEAR 2023

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		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 Calls	% of Total Calls
JAN	15,045	1,167	7.76%	11,989	79.69%	22.27%	77.73%	386	2.57%	1	0.01%	0	0.00%	1,502	9.98%	0	0.00%
FEB	13,533	1,162	8.59%	10,601	78.33%	26.08%	73.92%	346	2.56%	5	0.04%	0	0.00%	1,419	10.49%	0	0.00%
MAR	16,712	1,242	7.43%	13,418	80.29%	24.51%	75.49%	416	2.49%	0	0.00%	0	0.00%	1,636	9.79%	0	0.00%
APR	15,113	1,137	7.52%	12,272	81.20%	25.14%	74.86%	292	1.93%	2	0.01%	0	0.00%	1,410	9.33%	0	0.00%
MAY	16,032	1,128	7.04%	12,969	80.89%	24.79%	75.21%	344	2.15%	7	0.04%	0	0.00%	1,584	9.88%	0	0.00%
JUNE	14,666	912	6.22%	12,184	83.08%	23.96%	76.04%	323	2.20%	18	0.12%	0	0.00%	1,229	8.38%	0	0.00%
JULY	11,529	944	8.19%	9,275	80.45%	22.59%	77.41%	343	2.98%	11	0.10%	0	0.00%	956	8.29%	0	0.00%
AUG	12,845	829	6.45%	10,661	83.00%	26.41%	73.59%	364	2.83%	1	0.01%	0	0.00%	989	7.70%	*1	0.01%
SEPT	8,803	700	7.95%	7,036	79.93%	23.08%	76.92%	286	3.25%	21	0.24%	0	0.00%	760	8.63%	0	0.00%
OCT	9,294	676	7.27%	7,509	80.79%	23.07%	76.93%	273	2.94%	39	0.42%	0	0.00%	797	8.58%	0	0.00%
NOV	9,192	680	7.40%	7,423	80.76%	22.05%	77.95%	298	3.24%	49	0.53%	0	0.00%	741	8.06%	*1	0.01%
DEC	9,633	843	8.75%	7,644	79.35%	22.74%	77.26%	310	3.22%	10	0.10%	0	0.00%	825	8.56%	*1	0.01%
YTD	152,397	11,420		122,981				3,981		164		0		13,848		3	
MON AVG	12,700	952	7.55%	10,248	80.65%	23.89%	76.11%	332	2.70%	14	0.13%	0.00	0.00%	1,154	8.97%	0.25	0.00%

*3 (911) calls received with the class of service "TSP". HwnTel/Intrado informed for clarification.

Received confirmation from Intrado that the class of service for "TSP" is a Telematics call.

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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 Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) 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.
- 0 (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).
- 0 (911) call 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	2023		2022		2021		2020		2019		2018	
***Oahu Civilian	826,158	64.32	971,113	69.45%	1,052,026	68.91%	991,016	71.11%	1,075,726	69.67%	1,034,190	70.62%
RDC Pearl Harbor	36,916	2.87	31,827	2.28%	39,253	2.58%	37,014	2.66%	37,905	2.45%	37,068	2.53%
Hawaii County	207,715	16.17	199,811	14.29%	214,220	14.00%	188,329	13.51%	211,611	13.70%	206,648	14.11%
Maui County	152,397	11.87	140,524	10.05%	160,241	10.51%	125,626	9.01%	157,127	10.18%	133,869	9.14%
Kauai County	61,197	4.77	54,923	3.93%	60,986	4.00%	51,653	3.71%	61,754	4.00%	52,623	3.60%
Total	1,284,383	100.00%	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%
*** 10 month total												

911 Call Volume % increase from 2022 to 2023	
Oahu	n/a
RDC	15.99%
Hawaii	3.95%
Maui	8.44%
Kauai	11.42%
State of Hawaii	n/a

911 Calls with No ALI % average for 2023	
Oahu	0.27%
RDC	0.03%
Hawaii	0.04%
Maui	0.13%
Kauai	0.03%
State of Hawaii average	0.10%

State of Hawaii 2023	
TEXT TO 911	
Oahu Civilian	2,724
RDC Pearl Harbor	66
Hawaii County	689
Maui County	581
Kauai County	211
*Total	4,271
*Totals may include PSAP training, testing, and 911 Texting errors	

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TEXT TO 911 – CURRENT MONTH – DECEMBER 2023

TEXT TO 911 Maui County PSAPs 2023		
Month	Received at Maui	Received at Molokai
January	21	6
February	30	0
March	39	2
April	25	1
May	32	1
June	48	6
July	46	0
August	225	24
September	16	0
October	24	2
November	50	0
December	25	0
YTD	581	42
Monthly Avg.	48	4

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 – DECEMBER 2023

MAUI COUNTY - NOVEMBER 2023						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:

NOTES:

- There were no (0) scheduled Wireless 911 tests conducted in December 2023 for the Maui and Molokai PSAPs.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – DECEMBER 2023

MAUI COUNTY	9-1-1 TRANSACTIONS								Customer Addresses Affected
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			
		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
2023									
JANUARY	335	330	5	0	0	1,006	0	1	10
FEBRUARY	364	354	9	0	1	1,111	0	0	42
MARCH	253	244	9	0	0	1,181	0	0	28
APRIL	328	323	2	1	2	977	0	0	0
MAY	146	129	11	4	2	899	0	0	28
JUNE	110	108	1	1	0	849	0	0	356
JULY	90	81	9	0	0	796	0	0	450
AUGUST	93	87	5	0	1	806	0	0	67
SEPTEMBER	171	170	1	0	0	778	0	0	13
OCTOBER	178	174	4	0	0	764	0	0	60
NOVEMBER	208	205	3	0	0	839	0	0	43
DECEMBER	100	98	2	0	0	784	0	0	15
TOTAL YTD	2,376	2,303	61	6	6	10,790	0	1	1,112
AVG PER MONTH	198	192	5	1	1	899	0	0	93

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 399 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 **100** 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.

There were **15** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

VSE (formerly Akimeka) submitted ninety-eight (**98**) TN CRs related to the Dispatchable Location Project during the current month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 784 Open TN CR Transactions.**
- **Refer to chart in the next section “TNCR Current Status”**

784 Open TN CR transactions are a direct result of the Dispatchable Location Project and are awaiting approval from Hawaiian Telcom, Inc. 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 no open VoIP DRs as of December 31, 2023**
- **There are no open ALI DRs as of December 31, 2023**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER 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)				
County	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
MAUI	780	0	543	237
MOLOKAI	4	0	4	0
TOTAL	784	0	547	237

STATUS
<u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.
<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 INTRADO 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 VSE (formerly Akimeka) on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

DISPATCHABLE LOCATION – STATUS AS OF – DECEMBER 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 Queen Kaahumanu Shopping Center at 275 Kaahumanu Ave. 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. Screen shots of the “Before” ALI screen, and the “After” ALI screen with the updated “Dispatchable Location” information visible, were presented to the Dispatch Supervisors. VSE (formerly Akimeka) received positive feedback from the 911 Dispatch Personnel because the information that the 911 Call Takers will receive, will certainly cut down on the process of determining the exact location of the 911 caller. In addition to this, VSE (formerly Akimeka) was informed that the Mobile Dispatch Terminals (MDTs) in the Police Vehicles, also are able to view this “Dispatchable Location” information which will reduce the response times for Public Safety. There were **98** Dispatchable Locations submitted in December 2023 and **67** were processed by Intrado. (see next pages)

Dispatchable Location			
2023	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
Quarter 4			
Quarter 3 Carryover		19,702	19,074
December	Credit Associates of Hawaii, 1817 Wells St, Wailuku	1	1
	United Auto Parts Inc, 1820 Wells St, Wailuku	2	0
	New Maui Fishing Supply, 1823 Wells St, Wailuku	2	0
	North Shore Orthopedics Inc, 1827 Wells St, Wailuku	13	0
	Multi Bus, 1830 Wells St, Wailuku	20	8
	Multi Bus, 1839 Wells St, Wailuku	3	0
	Multi Residence, 1944 Wells St, Wailuku	5	4
	The Salvation Army, 1946 Wells St, Wailuku	5	1
	COM/Lokahi Pacific-Hud, 1950 Wells St, Wailuku	2	0
	Multi Bus, 1962 Wells St, Wailuku	11	3
	Wailuku Junior Tennis Club, 1973 Wells St, Wailuku	1	1
	Valley Isle Marine Center, 1976 Wells St, Wailuku	4	1

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

DISPATCHABLE LOCATION – STATUS AS OF – DECEMBER 2023 – CONTINUED

Dispatchable Location			
2023	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
Quarter 4			
Quarter 3 Carryover		19,702	19,074
December	Multi Bus, 2049 Wells St, Wailuku	12	1
	Central Pacific Bank - Wailuku, 2061 Wells St, Wailuku	7	7
	Hawaii State Government, 2064 Wells St, Wailuku	10	0
	Multi Bus, 54 Maui Lani Pkwy, Wailuku	0	3
	Multi Bus, 58 Maui Lani Pkwy, Wailuku	0	2
	Multi Bus, 54-56 N Market St, Wailuku	0	2
	County of Maui, 70 N Market St, Wailuku	0	1
	Multi Bus, 77 Waiale Rd, Wailuku	0	11
	Maui Sporting Goods, 92 N Market St, Wailuku	0	3
	Multi Bus, 670 Waiale Rd, Wailuku	0	11
	Multi Bus, 1508 Mill St, Wailuku	0	4
	Multi Bus, 1598 Mill St, Wailuku	0	2
	Multi Bus, 2371 Vineyard St, Wailuku	0	1
Q4		477	382
Total		20,179	19,456

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT – DECEMBER 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 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

** 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)	Verification Process Completed.

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT – DECEMBER 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
HAWAII County	2,126	97	16	106	93.81%
KAUAI County	555	75	3	73	93.59%
MAUI County	1,794	60	14	69	93.24%
OAHU Civilian	12,898	1,556	44	1,590	99.38%
OAHU 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)	Verification Process Completed.

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 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.

MAUI COUNTY		
Type of Layer	VSE (formerly Akimeka) GIS Server	Other/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	12/27/2023 To 12/31/2023	Next Delivery 1/10/2024
		Added address for two (2) records in Lahaina
		Added address for one (1) record in Pukalani
		Spatially corrected two (2) records in Kula
		Added address for one (1) record in Haiku
		Added address for one (1) record in Kihei
		Updated ESN for one (1) record in Haliimaile
		Added address for one (1) record in Waikapu
	12/13/2023 To 12/26/2023	Delivered 12/27/2023
		Added address for two (2) records in Napili
		Added address for two (2) records in Makawao
		Added address for one (1) record in Kahului
		Added address for one (1) record in Kula
		Spatially corrected one (1) record in Makawao
		Added address for seven (7) records in Haiku
		Spatially corrected one (1) record in Pukalani
	12/1/2023 To 12/12/2023	Delivered 12/13/2023
		Added address for one (1) record in Napili
		Updated ESN for six (6) records in Kahului
		Added address for one (1) record in Maunaloa
		Added address for one (1) record in Pukoo
		Added address for thirty (30) records in Kahului
		Updated address for one (1) record in Kahului

Maui County E9-1-1 Status Report

December 1, 2023 - December 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.

MAUI COUNTY		
Type of Layer	VSE (formerly Akimeka) GIS Server	Other/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	12/1/2023 To 12/12/2023	Spatially corrected seventeen (17) records in Kula
		Updated address for two (2) records in Haiku
		Added address for six (6) records in Haiku
		Added address for two (2) records in Kula
		Spatially corrected six (6) records in Kahului
		Added address for one (1) record in Kihei
		Spatially corrected one (1) record in Hana
		Added address for three (3) records in Hana
		Added address for two (2) records in Wailuku
		Spatially corrected six (6) records in Haiku
Airports		
Bridges		
Building Footprints	12/13/2023 To 12/26/2023	Delivered 12/27/2023
		Added building footprint for seventeen (17) records in Napili
		Added building footprint for twelve (12) records in Haiku
	Spatially corrected one (1) record in Haiku	
12/1/2023 To 12/12/2023	Delivered 12/13/2023	Added building footprint for forty-one (41) records in Haiku
Bus Stops		
Churches		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		

Maui County E9-1-1 Status Report

December 1, 2023 - December 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.

MAUI COUNTY		
Type of Layer	VSE (formerly Akimeka) GIS Server	Other/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Emergency Callboxes		
Emergency Operation Centers		
Emergency Shelters		
ESZ/ESN	12/13/2023 To 12/26/2023	Delivered 12/27/2023 Modified boundary for two (2) records
	12/1/2023 To 12/12/2023	Delivered 12/13/2023 Modified boundary for six (6) records
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		

Maui County E9-1-1 Status Report

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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.

MAUI COUNTY		
Type of Layer	VSE (formerly Akimeka) GIS Server	Other/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
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		
Points of Interest	12/13/2023 To 12/26/2023	Delivered 12/27/2023 Added POI for one (1) record in Haliimaile
	12/11/2023 To 12/12/2023	Delivered 12/13/2023 Added POI for one (1) record in Napili
Police Beats	12/13/2023 To 12/26/2023	Delivered 12/27/2023 Modified boundary for two (2) records
	12/1/2023 To 12/12/2023	Delivered 12/13/2023 Modified boundary for eight (8) records
Police Districts		

Maui County E9-1-1 Status Report

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MAPPING LAYERS UPDATED (PART V)

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.

MAUI COUNTY		
Type of Layer	VSE (formerly Akimeka) GIS Server	Other/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Police Response Areas	12/13/2023 To 12/26/2023	Delivered 12/27/2023 Modified boundary for two (2) records
	12/1/2023 To 12/12/2023	Delivered 12/13/2023 Modified boundary for eleven (11) records
Police Stations		
Post Offices		
Schools	12/1/2023 To 12/12/2023	Delivered 12/13/2023 Added school for one (1) record in Napili
Street Centerlines	12/27/2023 To 12/31/2023	Next Delivery 1/10/2024 Partial spatial correction, split centerline, modified range for three (3) records in Haliimaile
	12/13/2023 To 12/26/2023	Delivered 12/27/2023 Partial spatial correction for three (3) records in Pukalani
		Added street centerline for eighteen (18) records in Haliimaile
		Partial spatial correction, split centerline for one (1) record in Haliimaile Spatially corrected one (1) record in Haliimaile
	12/1/2023 To 12/12/2023	Delivered 12/13/2023 Updated ESN for two (2) records in Kahului
		Updated ESN for one (1) record in Haiku
Spatially corrected, assigned street range for one (1) record in Kahului		
Subdivisions	12/13/2023 To 12/26/2023	Delivered 12/27/2023 Added subdivision for one (1) record in Haliimaile
Tow Jurisdictions		

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MAPPING LAYERS UPDATED (PART VI)

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.

MAUI COUNTY		
Type of Layer	VSE (formerly Akimeka) GIS Server	Other/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		
WSP Cell Sectors		
WSP Cell Towers		

NOTE:

The Parcels layer is provided by Maui 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.

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

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
12/27/2023	Delivered updated data for MapFlex which included Address Points, Building Footprints, ESN, Points Of Interest, Police Response Areas, Street Centerlines, Subdivision, WSP Cell Sectors, and WSP Cell Towers.
12/27/2023	Delivered .map, .ply, .rte, and .str files for Intergraph CAD 9.4 with updated data which included Address Points, Building Footprints, Cell Towers, Common Places Lookup table, Points Of Interest, Police Beats, Police Response Areas, Street Centerlines, Subdivisions, and RMS files.
12/13/2023	Delivered .map, .ply, .rte, and .str files for Intergraph CAD 9.4 with updated data which included Address Points, Building Footprints, Cell Towers, Common Places Lookup table, Points Of Interest, Police Beats, Police Response Areas, Street Centerlines, and RMS files.
12/13/2023	Delivered updated data for MapFlex which included Address Points, Building Footprints, ESN, Fire Response Areas, Points of Interest, Police Response Areas, Schools, Street Centerlines, WSP Cell Sectors, and WSP Cell Towers.

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.

Maui County E9-1-1 Status Report

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INTERGRAPH CAD UPGRADE

From April through June 2014, the Maui Police Department worked to upgrade their Intergraph CAD system to the more recent 2014 version. Through this upgrade process, new improvements were identified and the overall functionality of the system from the Map Build process to the Production workstation made significant enhancements in order to streamline the deliverables and continue providing accurate data to the PSAP.

1. December 13th, 2023 – Akimeka delivered an updated Intergraph CAD map which included:
 - a. .map, .ply, .rte, and .str
 - b. Address Points, Building Footprints, Common Name Lookup Table, Points Of Interest, Police Beats, Police Response Areas, Street Centerlines, and WSP Cell Towers.
 - c. RMS files

2. Akimeka delivered an updated Intergraph CAD map December 27th, 2023, which included:
 - a. .map, .ply, .rte, and .str
 - b. Address Points, Building Footprints, Common Name Lookup Table, Points Of Interest, Police Beats, Police Response Areas, Street Centerlines, Subdivisions, and WSP Cell Towers
 - c. RMS files

During January 2024, the Intergraph CAD map will continue to be delivered every other week, which has been coordinated with all mapping system updates and synchronizations with other 911 databases.

MOTOROLA PREMIER ONE PROJECT

On Wednesday, February 15, 2023, and Thursday, February 16th, 2023, VSE (formerly Akimeka) participated in the GIS workshop with Motorola GIS staff. VSE will provide the first Motorola CAD GIS deliverable in mid-March, and work with Motorola to make any necessary updates to the schema and data, to ensure a successful implementation.

On Thursday, April 20th, 2023 VSE (formerly Akimeka) delivered GIS data updates for Motorola for the Premiere One CAD implementation.

On Wednesday, May 24, 2023, VSE (formerly Akimeka) met with the Maui Fire Department’s executive staff along with the Maui Police Department Dispatch Director and Supervisor to discuss future growth of new Fire Stations in Maui County. New projected Fire Boundaries maps were provided by VSE (formerly Akimeka) to both agencies for review. Delivered to the Fire Department were also street intersection maps that poses a discrepancy with the Motorola CAD. The Fire Department will determine which jurisdiction they prefer to cover each intersection. VSE (formerly Akimeka) will adjust the maps according as determined by the Maui Fire Department.

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December 1, 2023 - December 31, 2023

MAPFLEX SYSTEM

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

Hawaii County – December 12, 2023, and December 26, 2023

Maui County – December 13, 2023, and December 27, 2023

Kauai County – December 14, 2023, and December 28, 2023

Honolulu – December 1, 2023, December 15, 2023, and December 29, 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.

MAUI EMS (AMR)

On May 23, 2023, The Maui EMS Director contacted VSE (formerly Akimeka) to discuss new Medic boundaries for Molokai. AMR is planning to add a new Medic Station in Hoolehua in the near future. A projected new boundary map was provided to the AMR director for review.

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MAUI COUNTY PSAPS - DECEMBER 2023

MAUI COUNTY						
#	Date	Ticket #	Description	PSAP	Urgency	Comments
			None			

NOTE:

There are no (0) Open Service Request for the Maui County PSAPs for December 2023.

MAUI PSAP SERVICE REQUESTS YEAR-TO-DATE (YTD) SUMMARY – 2023

2023	MAUI COUNTY			MSAG SERVICE REQUEST CATEGORIES					
	TOTAL		Open	WIREFLINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2022 Carryover*			0						
January	1	0	1	0	0	0	0	1	0
February	0	1	0	0	0	0	0	0	1
March	0	0	0	0	0	0	0	0	0
April	2	2	0	2	2	0	0	0	0
May	2	2	0	2	2	0	0	0	0
June	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0
August	1	1	0	1	1	0	0	0	0
September	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0
TOTAL	6	6	0	5	5	0	0	1	1

Note:

*The 2022 Carry Over 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.

	Category	Description
Definitions:	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

Maui County E9-1-1 Status Report

December 1, 2023 - December 31, 2023

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 MPD 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 Selective Router (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 (Formally Akimeka LLC’s) value added services, VSE conducts four quarterly, in-depth 9-1-1 Database Synchronization audits per year for the Maui Police Department. They are conducted in March, June, September, and December of each Calendar Year while under contract with VSE (Formally Akimeka LLC).

The results of the **December 29, 2023**, database synchronization audits are presented below.

TWO-WAY (2-WAY) COMPARISON – DECEMBER 2023

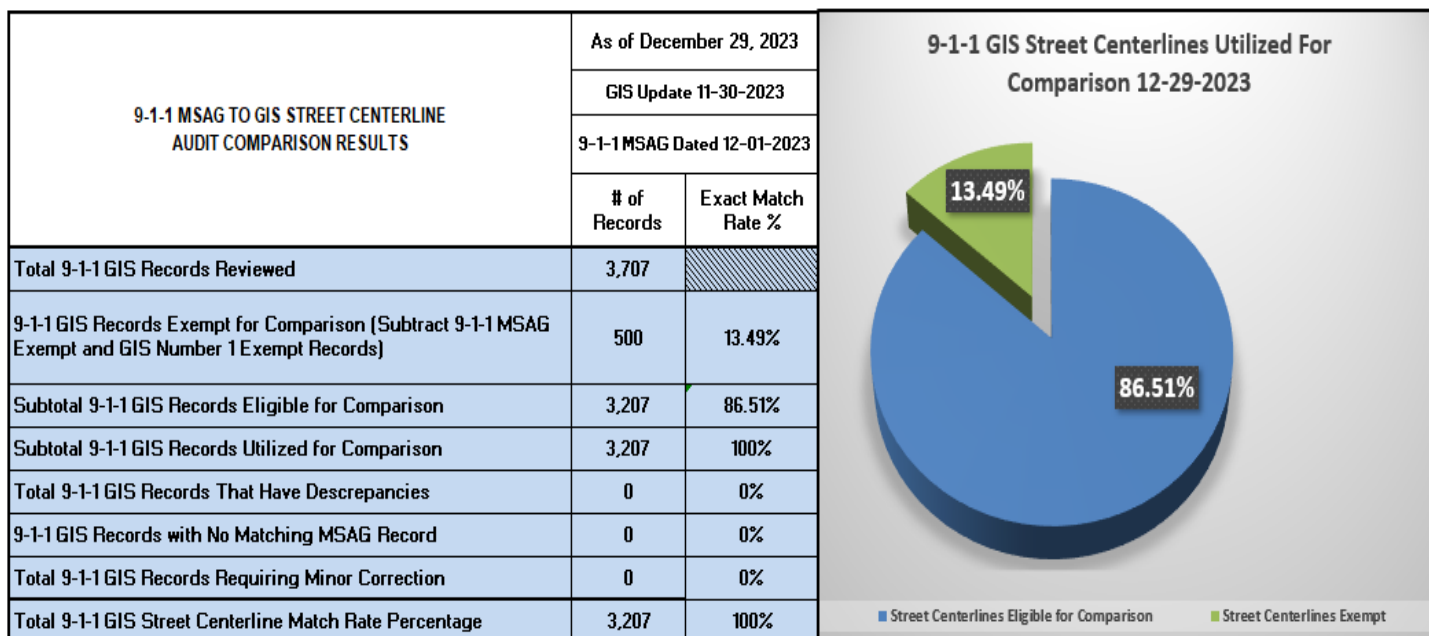
VSE’s (Formally Akimeka LLC) two-way database comparison service provides for comparing the Local Exchange Carriers (LECs) MSAG Database to the Maui Police Department’s 9-1-1 GIS Street Centerline layer. This ensures the Telephone or VoIP Telephone Company device information is accurate and correct. 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 MPD 9-1-1 GIS layers.

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9-1-1 GIS Street Centerlines Utilized For Comparison

A total number of **3,707** GIS Street Centerline Records are maintained for the Maui Police Department’s 9-1-1 GIS database by VSE (Formally Akimeka LLC). For this comparison, **500** GIS street records were excluded as database exemptions. VSE (Formally Akimeka LLC) 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 **3,207** 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:



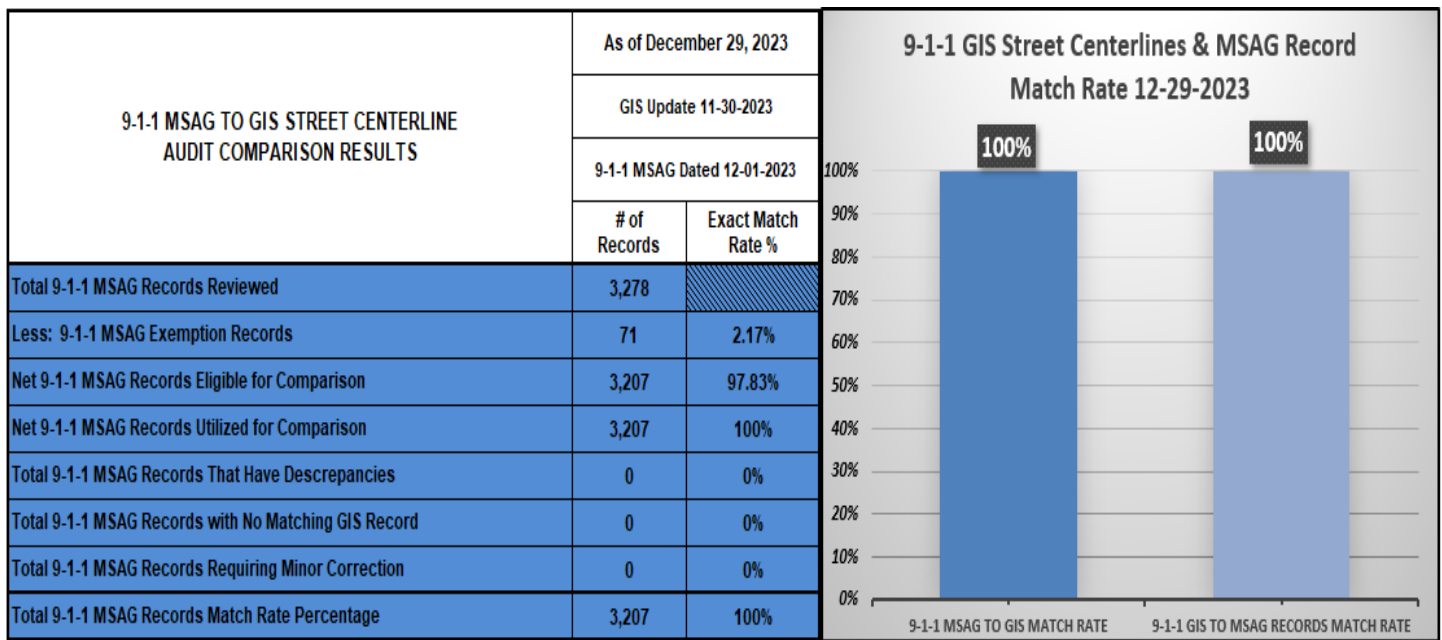
9-1-1 GIS Street Centerline to MSAG Record Comparison

A total of **3,278 9-1-1 MSAG Records** are maintained for the Maui Police Department’s 9-1-1 GIS database by VSE (Formally Akimeka LLC). VSE (Formally Akimeka LLC) removed **71** MSAG street records from this 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”. 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 9-1-1 Service Provider for Public Safety Agencies 9-1-1 use. The total number of MSAG records utilized for this comparison audit was **3,207 MSAG Records**.

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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.



NENA Recommended Match Rate = 98%

THREE-WAY (3-WAY) COMPARISON – DECEMBER 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 MPD’s 9-1-1 GIS Site Structure Points layer and the 9-1-1 Road Network or 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 match rate is 98%.

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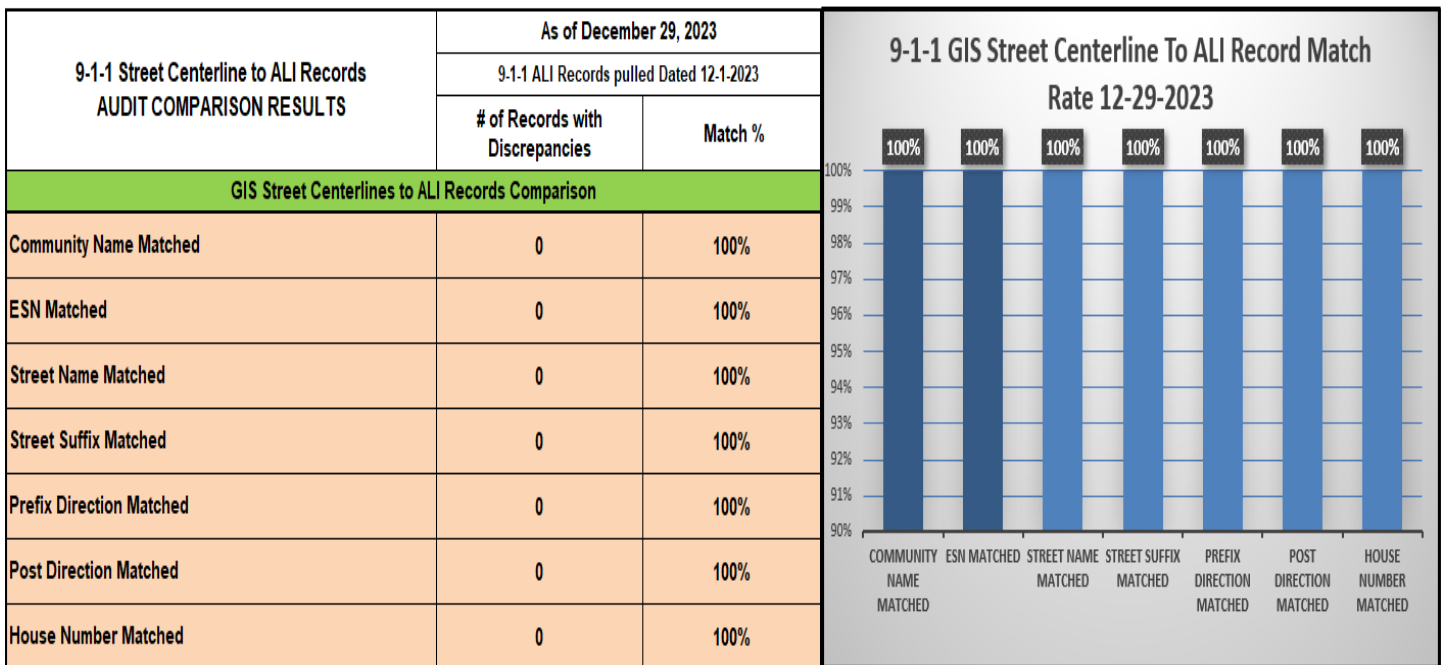
9-1-1 GIS Street Centerline To ALI Record Attribute Match Rate

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:



NENA Recommended Match Rate = 98%

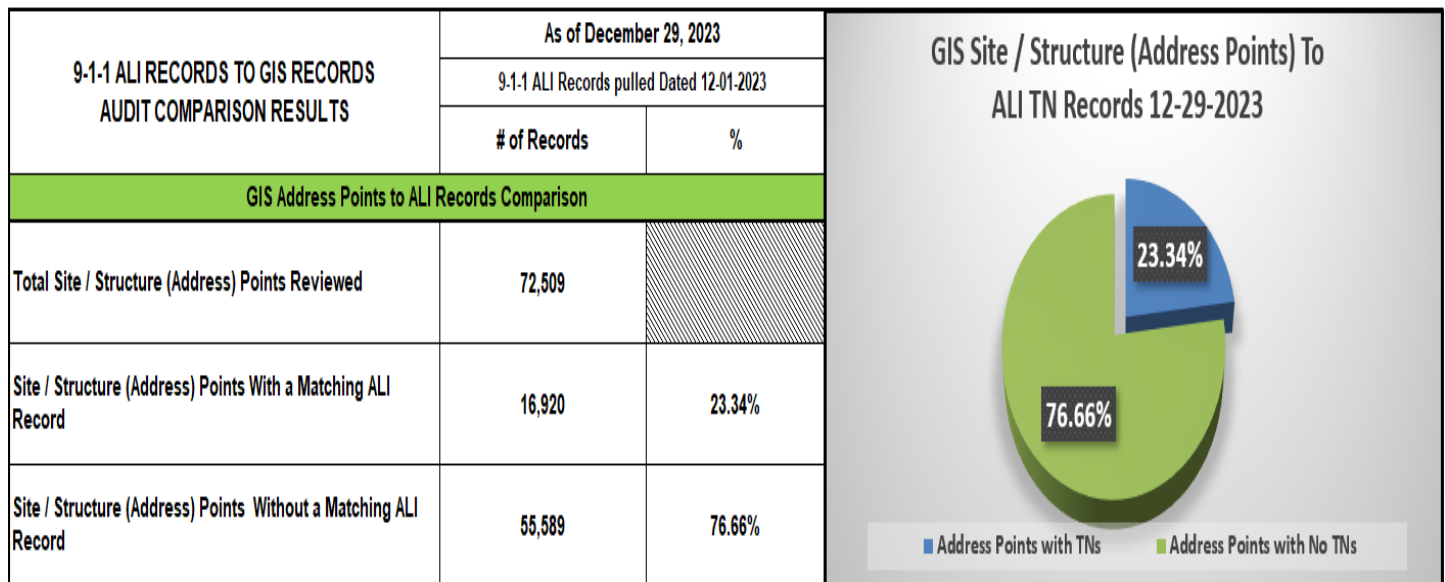
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Total GIS Site/Structure (Address) Points and those with Matching ALI Records

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 how many of those Site/Structure Points (Address Points) have been matched against a matching ALI record. The Maui Jurisdiction has approximately **72,509 total Site Structure Points** with approximately **16,920 Site Structure Points** that have a matching ALI telephone record. These locations with a matching ALI record indicate a potential location from which a wireline 9-1-1 call may originate as provided by the Communication Service Provider (CSP).

See chart below:



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 are exactly matched and accurate.

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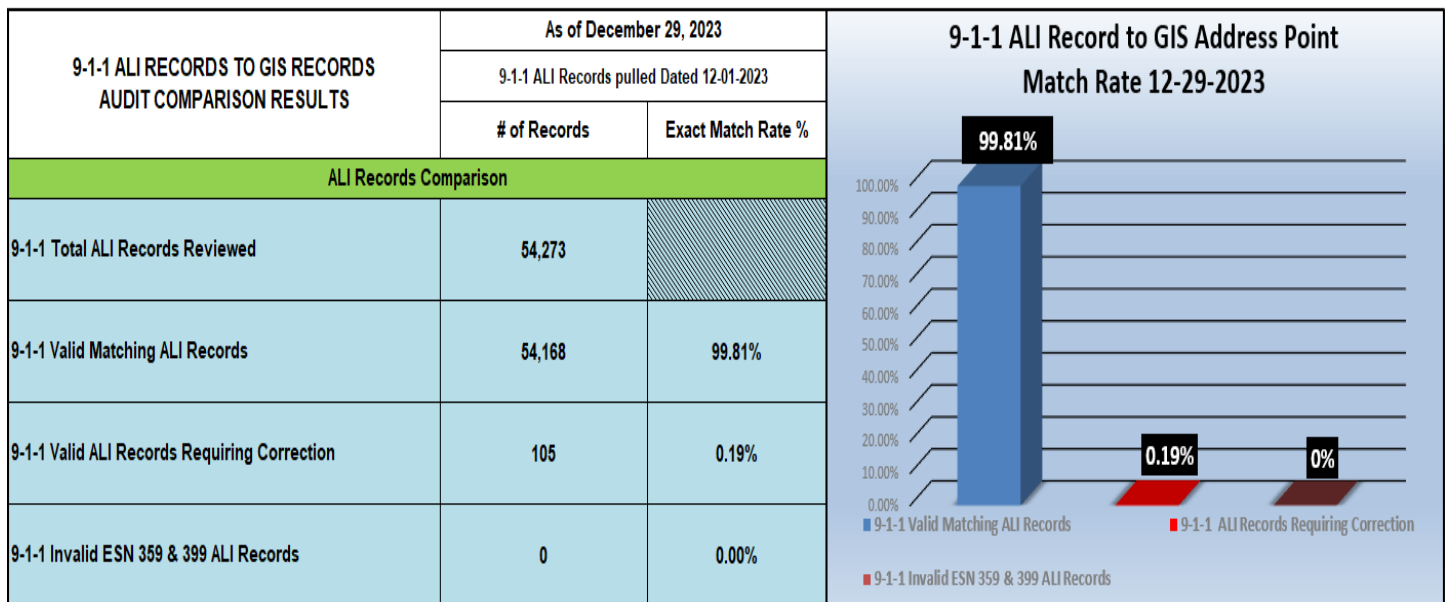
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There are **54,273 total Automatic Location Identification (ALI) Records** with the Wireline Provider. There are **54,168 Valid ALI records** that have an exact match with a GIS Site Structure Point. There are a total of **105 Valid ALI Records** that 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 or its location information. It indicates that these records require additional research and update to exactly match the two different database records. There are zero **0 ESN 359 & ESN 399 Invalid ALI Records** remaining that are in the process of determining a verified valid address. ESN 359 & ESN 399 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:



NENA Recommended Match Rate = 98%

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN 359 & ESN 399 MSAG & ALI RECORDS PROJECT COMPLETED

At the request of the Maui Chief of Police, Hawaiian Telcom, Inc. (HTI) provided Akimeka LLC, with access to the Maui County ESN 359 and ESN 399 MSAG and ALI records. The ESN 359 and ESN 399 MSAG Street Records represented the and identified all the “known” invalid streets in the MSAG Database.

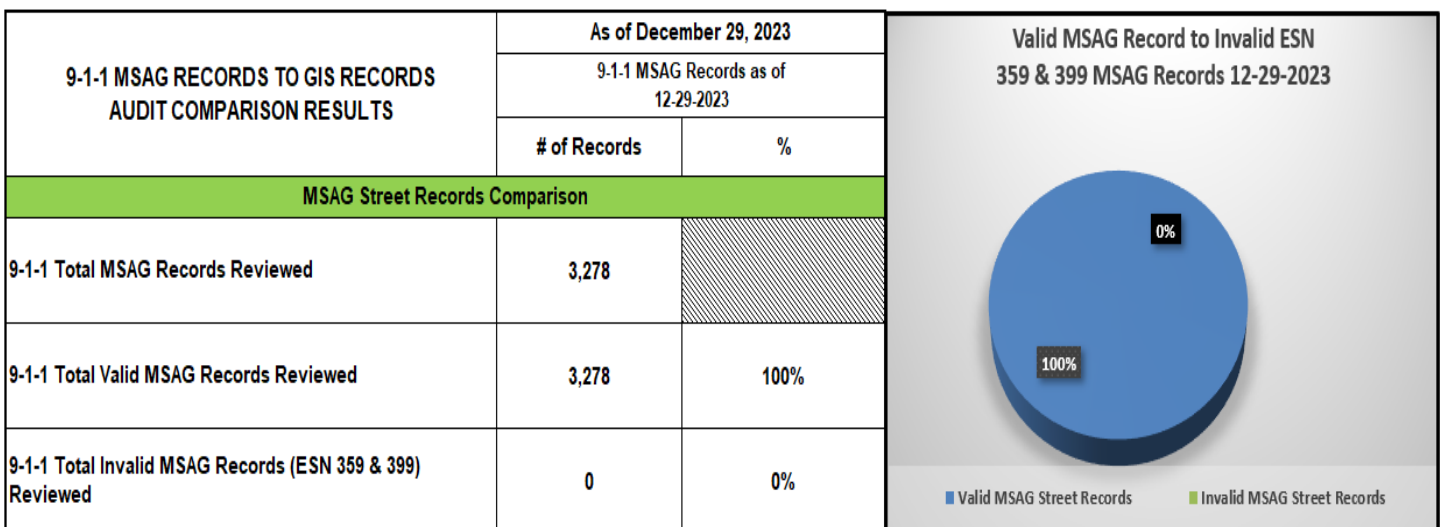
The ESN 359 and ESN 399 ALI Records represented the and identified all the “known” invalid streets telephone device/home or office addresses in the ALI Database that were associated with the known invalid MSAG Street Records. These ALI records were required to be corrected to ensure no 9-1-1 emergencies were dispatched to erroneous address/locations.

Akimeka LLC has completed the necessary investigation and required correction of the **378** 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 359 & ESN 399 MSAG Records

The ESN 359 and ESN 399 MSAG Street Records represented the number of invalid MSAG Streets Records in Maui County that were on file with Hawaiian Telcom and their Database Maintenance Service Provider. The ESN 359 (on Molokai), and ESN 399 MSAG Records represented invalid MSAG Street Records that still had a valid telephone number that needs to be reassigned to a valid address.

VSE (Formally Akimeka LLC) 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 359 and ESN 399 MSAG Street Records that require attention in Maui County. Please see the chart below:

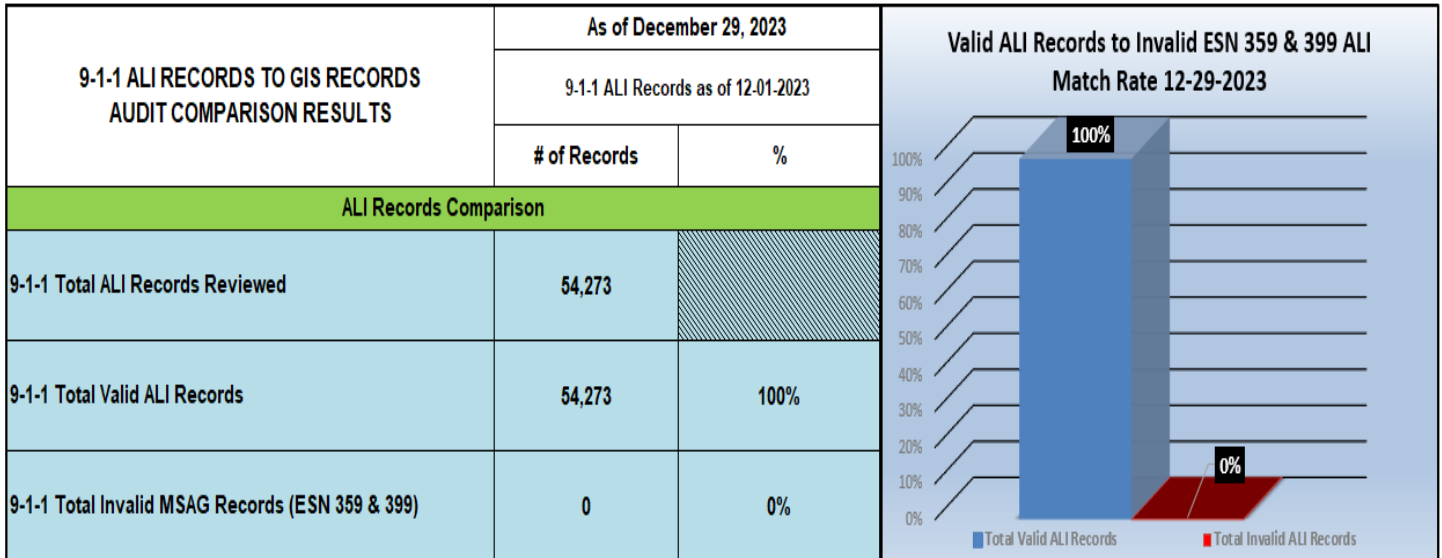


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Valid ALI Records to Invalid ESN 359 & ESN 399 ALI Records

The ESN 359 and ESN 399 invalid ALI records have been investigated and corrected. There are 0 ESN 359 and 0 ESN 399 ALI records. VSE (Formally Akimeka LLC) has completed the research and has corrected all invalid ALI records within Maui County.



NENA Recommended Match Rate = 98%