Oahu Civilian E9-1-1

Status Report

April 1, 2023 – April 30, 2023

VSE

FEDERAL & DEFENSE SERVICES

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Alexandria, VA 22310   April 2023   Inspiring the Performance of Tomorrow

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME CIVILIAN PSAPS – APRIL 2023

Source: Intrado Viper system

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

Honolulu City & 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	No. of Other Calls	% of Total Calls
April	85,169	11,327	13.30%	71,227	83.63%	17.51%	66.12%	2,606	3.06%	9	0.01%	1,573	1.85%	13,362	15.69%	992	1.16%

9-1-1 CALL VOLUME CIVILIAN PSAPS – CALENDAR YEAR 2023

Honolulu City & 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	No. of Total Call Received	% of Total Calls
JAN	84,014	11,930	14.20%	69,345	82.54%	16.53%	66.01%	2,688	3.20%	50	0.06%	1,601	1.91%	12,888	15.34%	987	1.17%
FEB	77,214	11,242	14.56%	63,323	82.01%	16.91%	65.10%	2,641	3.42%	8	0.01%	1,484	1.92%	12,058	15.62%	970	1.26%
MAR	87,551	13,387	15.29%	71,407	81.56%	16.98%	64.58%	2,749	3.14%	9	0.01%	1,586	1.81%	13,201	15.08%	1,015	1.16%
APR	85,169	11,327	13.30%	71,227	83.63%	17.51%	66.12%	2,606	3.06%	9	0.01%	1,573	1.85%	13,362	15.69%	992	1.16%
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	333,948	47,886		275,302				10,684		76		6,244		51,509		3,964	
MON AVG	83,487	11,972	14.34%	68,826	82.44%	16.98%	65.45%	2,671	3.21%	19	0.02%	1,561	1.87%	12,877	15.43%	991	1.19%

NOTE:

- ***911 Calls with No ALI for April 2023 = 0.01% - Statewide average for 2022 = 0.05%**
- **Total call volumes do not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.**
- **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 not included in the Wireline and Wireless total counts respectively.**
- **All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.**

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9-1-1 CALL VOLUME BY AGENCY – APRIL 2023

| 2023 | 9-1-1 Call Volume by Agency | | | | | | | | | |
| | Honolulu Police Department | | | | | | Honolulu Fire Department | | | |
	No. of Total Calls Received	% of Total Calls	Number of Emergency Calls	Number of Non Emergency Calls	Number of Admin Calls	Number of Dropped Calls	No. of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls
April	72,368	84.97%	21,154	36,503	1,349	13,362	2,757	3.24%	135	71

| 2023 | 9-1-1 Call Volume by Agency | | | | | | | |
| | Emergency Medical Services | | | | Ocean Safety | | | |
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls
April	9,020	10.59%	62	116	32	0.04%	27	0

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2023

| 2023 | 9-1-1 Call Volume by Agency | | | | | | | | | | | | | | | | | |
| | Honolulu Police Department | | | | | | Honolulu Fire Department | | | | Emergency Medical Services | | | | Ocean Safety | | | |
	Number of Total Calls Received	% of Total Calls	No. of Emergency Calls	No. of Non Emergency Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls
JAN	70,996	84.50%	19,189	37,552	1,367	12,888	2,997	3.57%	112	36	8,970	10.68%	67	123	64	0.08%	55	0
FEB	65,766	85.17%	18,339	34,085	1,284	12,058	2,527	3.27%	122	28	7,910	10.24%	43	102	41	0.05%	35	0
MAR	74,289	84.85%	21,545	38,167	1,376	13,201	2,853	3.26%	106	46	9,341	10.67%	60	108	53	0.06%	44	0
APR	72,368	84.97%	21,154	36,503	1,349	13,362	2,757	3.24%	135	71	9,020	10.59%	62	116	32	0.04%	27	0
MAY																		
JUNE																		
JULY																		
AUG																		
SEPT																		
OCT																		
NOV																		
DEC																		
YTD	283,419		80,227	146,307	5,376	51,509	11,134		475	181	35,241		232	449	190		161	0
MON AVG	70,855	84.87%	20,057	36,577	1,344	12,877	2,784	3.34%	119	45	8,810	10.55%	58	112	48	0.06%	40	0

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PSAP OPERATION NOTES:

- **A New Class of Service (COS): FIXD** = **Wireless 911 calls to the PSAP via fixed indoor antennas.**
- x (911) calls 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).**
- x (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	

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TEXT TO 911 OAHU CIVILIAN PSAPS – CURRENT MONTH – APRIL 2023

TEXT TO 911 Oahu Civilian PSAPs 2023						
Month	Total	HPD	HFD	EMS	OS	911 (handled)
January	274	204	1	4	0	65
February	239	167	2	0	0	70
March	238	193	1	7	0	37
April	322	238	2	0	0	82
May						
June						
July						
August						
September						
October						
November						
December						
YTD	1,073	802	6	11	0	254
Monthly Avg.	268.3	200.5	1.5	2.8	0.0	63.5

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.
- The 9-1-1 handled texts were incidents in which the Division conducted testing or the texter texted 911 in error.

911 WIRELESS OAHU CIVILIAN PSAP TESTING – APRIL 2023

OAHU CIVILIAN - APRIL 2023						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:
4/6/2023	Verizon	1	1	Oahu PSAP	Pass	

NOTES:

- There was one (1) scheduled Wireless 911 Test for the Oahu Civilian PSAP in April 2023.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

OAHU CIVILIAN MSAG TRANSACTIONS CURRENT MONTH/YEAR – APRIL 2023

OAHU CIVILIAN	9-1-1 TRANSACTIONS								
	Total	MSAG	ALI Submitted			Open ALI Discrepancy Records			Customer Addresses Affected
2023		MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	
JANUARY	580	9	571	0	0	4,112	0	0	422
FEBRUARY	443	22	421	0	0	3,900	0	0	1,713
MARCH	201	7	194	0	0	3,825	0	0	1,337
APRIL	435	3	432	0	0	3,849	0	0	0
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	1,659	41	1,618	0	0				3,472
AVG PER MONTH	415	10	405	0	0				868

Definitions

(A)**M**aster **S**treet **A**ddress **G**uide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

(B) **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 199 attached to them which indicates the need for validation.

(C) **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. These record corrections are treated with a higher priority and should be processed within 48 hours as a general guideline.

(D) **V**oice **o**ver **I**nternet **P**rotocol **D**iscrepancy **R**ecord - Represents an address discrepancy discovered during a live 9-1-1 call, from a VoIP phone. These record corrections are treated with a higher priority and should be processed within 72 hours as a general guideline per Time Warner Operations Center. MSR tracking effective April 2014.

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OAHU CIVILIAN MSAG CURRENT MONTH NOTES:

A total of **435** MSAG transactions were processed in 9-1-1 Net during the current reporting month. Three **(3)** requests were processed relating to the MSAG database which include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS, and Military response areas, and inserting new MSAG records.

There were **no** customer ANI/ALI (telephone/address) records updated as a direct result.

OAHU CIVILIAN TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

VSE (formerly Akimeka) processed four hundred thirty-two **(432)** TN CRs related to the Dispatchable Location Project during the current month.

OAHU CIVILIAN OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 3,849 Open TN CRs.**

  3,849 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 no Open ALI-DRs as of April 30, 2023**

- **There is no Open VoIP DRs as of April 30, 2023**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – APRIL 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**
OAHU CIVILIAN	**3,849**	**0**	**3,372**	**477**

STATUS
TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1
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.

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DISPATCHABLE LOCATION – STATUS AS OF – APRIL 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.

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. The Windward Mall will be the pilot location starting in April 2018. There were 471 transactions submitted and 432 processed in April 2023. (see next pages)

Dispatchable Location			
2023 Quarter 2	**Common Name Place** **MSAG Address**	**TNCR*** **Transactions** **Submitted**	**Transactions** **Processed****
Quarter 1 Carryover		33,218	18,976
April	Rainbow Place, 2754 Kuilei St, McCully	0	28
	Hale Kulanui Condo, 2740 Kuilei St, McCully	0	36
	Contessa Condos, 2825 S King St, McCully	0	49
	Brookside Terrance, 2751 Kapiolani Blvd, McCully	0	6
	Plumeria Hale, 2630 Kapiolani Blvd, McCully	0	19
	Iolani Court Plaza, 2499 Kapiolani Blvd, McCully	0	54
	The Royal Iolani Ewa, 581 Kamoku St, McCully	0	15
	The Royal Iolani Diamond Head, 583 Kamoku St, McCully	0	6
	Kapiolani Banyan, 2752 Kaaha St, McCully	0	13
	Lani Home, 2563 Date St, McCully	0	15
	Plaza at Century Court, 2542 Date St, McCully	0	23
	Regency Tower Condos, 2525 Date St, McCully	0	34
	Terrance Towers, 2440 Date St, McCully	0	8
	Kaualana Manor, 1941 Church Ln, McCully	0	19
	Market City Shopping Center, 2919 Kapiolani Blvd, Kapahulu	0	1
	St Mark's Church\ Preschool, 539 Kapahulu Ave, Kapahulu	0	3

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DISPATCHABLE LOCATION – STATUS AS OF – APRIL 2023 – CONTINUED

Dispatchable Location			
2023 Quarter 2	**Common Name Place** **MSAG Address**	**TNCR* Transactions Submitted**	**Transactions Processed****
Quarter 1 Carryover		33,218	18,976
April	Bailey's Antiques, 517 Kapahulu Ave, Kapahulu	0	1
	7-11, 505 Kapahulu Ave, Kapahulu	0	3
	House of Wong Restaurant, 477 Kapahulu Ave, Kapahulu	0	5
	465 Kapahulu Bldg, 465 Kapahulu Ave, Kapahulu	0	10
	Diamond Head Center, 449 Kapahulu Ave, Kapahulu	0	16
	Rainbow Drivie In, 3308 Kanaina Ave, Kapahulu	0	9
	Kapahulu Auto Repair, 3131 Castle St, Kapahulu	0	4
	Domino Pizza, 3298 Campbell Ave, Kaimuki	0	1
	Zippys Kaimuki, 601 Kapahulu Ave, Kaimuki	0	2
	Iolani Condos, 2488 Kapiolani Blvd, McCully	0	3
	Terrance Apartments, 2450 Date St, McCully	0	6
	Sekiya Restaurant, 2746 Kaimuki Ave, Kapahulu	0	1
	Foodland, 2939 Harding Ave, Kapahulu	0	1
	Mulit Bus, Campbell Ave, Kapahulu	0	37
	Aloha Gas , 3327 Campbell Ave, Kapahulu	0	4
	Kapahulu Public Library, 400 Kapahulu Ave, Kapahulu	4	0
	Library for Blind and Handicapped, 402 Kapahulu Ave, Kapahulu	7	0
	Hawaii Cat Café, 415 Kapahulu Ave, Kapahulu	4	0
	First Hawaiian Bank, 433 Kapahulu Ave, Kapahulu	4	0
	Texaco, 407 Kapahulu Ave, Kapahulu	2	0
	Jefferson Elementary School, 324 Kapahulu Ave, Kapahulu	20	0
	Hawaii School for Deaf and Blind, 3440 Leahi Ave, Kapahulu	52	0
	Diamond Head Health Center, 3627 Kilauea Ave, Kahala	378	0
May			
June			
Q2		471	432
Total		33,689	19,408

April 2023

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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.

PSAP	*Spectrum (Charter) 9-1-1 VoIP Database Verification Project				
	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.

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BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT – APRIL 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 Cilivian	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)	Verifcation Process Completed.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – APRIL 2023

MAPPING LAYERS UPDATED (PART I)

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

OAHU CIVILIAN PSAPS		
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	**4/21/2023 To 4/30/2023**	**Next Delivery 5/5/2023**
		Added floor for thirty-two (32) records in Makakilo
		Corrected routing ID for one (1) record in Makakilo
		Added location name, added location type, added building for twenty-two (22) records in Nanakuli
		Corrected location name for three (3) records in Kapolei
		Added location name, added location type, added building, corrected spatial for eighteen (18) records in Nanakuli
		Added location name, added location type for six (6) records in Nanakuli
		Corrected spatial for one (1) record in Makaha
		Corrected location name for nine (9) records in Makakilo
		Corrected location name, added building, added floor, added apartment, corrected spatial for one (1) record in Makakilo
		Corrected spatial for twenty-two (22) records in Kalaeloa
		Corrected routing ID for one (1) record in Kapolei
		Added new address point for two hundred and twenty-seven (227) records in Makakilo
		Corrected Tritech name for seventeen (17) records in Makakilo
		Corrected location name, corrected Tritech name for twelve (12) records in Makakilo
		Added Tritech name for ninety-five (95) records in Makakilo
		Added location type for twenty-three (23) records in Makakilo
		Corrected routing ID for eight (8) records in Waipio
		Corrected routing ID for forty-four (44) records in Kalaeloa

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MAPPING LAYERS UPDATED (PART II)

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

OAHU CIVILIAN PSAPS		
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	**4/21/2023 To 4/30/2023**	Added building for four (4) records in Makakilo
		Added new address point for nine (9) records in Nanakuli
		Added new address point for one (1) record in Pearl City
		Added new address point for one (1) record in Waipio
		Added new address point for one (1) record in Kalaeloa
	4/7/2023 To 4/20/2023	**Delivered 4/21/2023**
		Added new address point for one (1) record in Waianae
		Corrected routing ID, added location name, added location type for two (2) records in Waipio
		Corrected spatial for four (4) records in Ala Moana
		Added new address point for two (2) records in Aiea
		Added new address point for two (2) records in Kailua
		Added new address point for one (1) record in Sunset
		Added new address point for one (1) record in Kapolei
		Added new address point for one (1) record in Kalihi
		Added new address point for four hundred and sixty-six (466) records in Ala Moana
		Added new address point for forty-four (44) records in Punchbowl
		Corrected spatial for one (1) record in Manoa
		Added new address point for two (2) records in Waimanalo
		Added new address point for one (1) record in Kapahulu
		Added new address point for forty-nine (49) records in Manoa
		Corrected spatial for five (5) records in Waipio
		Added new address point for thirty (30) records in Waikiki

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MAPPING LAYERS UPDATED (PART III)

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

OAHU CIVILIAN PSAPS		
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	**4/7/2023** **To** **4/20/2023**	Added new address point for three hundred and fifty-one (351) records in Waipio
		Added new address point for two (2) records in Kaneohe
		Added location name for one (1) record in Kapolei
		Added new address point for one (1) record in Ewa Beach
		Corrected spatial for one (1) record in Waikiki
		Corrected routing ID for one hundred and sixty-three (163) records in Waipio
		Added new address point for one (1) record in Laie
		Added new address point for one (1) record in Moanalua V
		Corrected spatial for one (1) record in Punchbowl
		Added new address point for two (2) records in Pearl City
		Corrected routing ID for one (1) record in Kapolei
	4/1/2023 **To** **4/6/2023**	**Delivered 4/7/2023**
		Corrected routing ID for one (1) record in Kalihi
		Added new address point for one thousand, four hundred and thirteen (1413) records in Waikiki
		Corrected location name, corrected spatial for one (1) record in Waikiki
		Corrected spatial, corrected location type for one (1) record in Waikiki
		Corrected spatial for three (3) records in Waikiki
Airports		
AMR Response Areas		
Bridges		
Building Footprints		
Bus Stops		

MAPPING LAYERS UPDATED (PART IV)

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

Type of Layer	VSE (formerly Akimeka) GIS Server Date Created/ Edits Performed	Other/Remarks
OAHU CIVILIAN PSAPS		
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**		
Churches		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		
Emergency Callboxes		
Emergency Operation Centers		
Emergency Shelters		
ESZ/ESN		
Fire Beats		
Fire Districts		
Fire Response Areas		
Fire Stations		
Food & Beverage		
Gas Stations		
Gate Codes		
Government Buildings		
Harbors		
Helipads		
Hiking Trails		
Hospitals		
Hydrants		
Hyrdology Layers		
Incident Response Areas		

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MAPPING LAYERS UPDATED (PART V)

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

	OAHU CIVILIAN PSAPS	
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)**		
Lodging		
Major Roads		
Medic Beats		
Medic Districts		
Medic Response Areas		
Medic Stations		
Medical Facilities		
Milepost Markers		
Military Response Areas		
MSAG Communities		
Net Junctions		
Ocean Rescue Boundaries		
Ocean Safety		
Parcels		
Parks		
Parks Polygon		
Points of Interest		
Police Beats		
Police Districts		
Police Response Areas		
Police Stations		
Post Offices		
Schools		

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MAPPING LAYERS UPDATED (PART VI)

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

OAHU CIVILIAN PSAPS		
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	**4/21/2023 To 4/30/2023**	**Next Delivery 5/5/2023**
		Split segment, corrected range for five (5) records in Kalaeloa
		Added ingress for five (5) records in Kapolei
		Added new segment for two (2) records in Kapolei
		Split segment for two (2) records in Kapolei
		Corrected street name for one (1) record in Kalihi
		Corrected street name for six (6) records in Airport
		Added ingress for four (4) records in Kalaeloa
	4/7/2023 To 4/20/2023	**Delivered 4/21/2023**
		Spatially corrected, split segment, corrected range for one (1) record in Waipio
		Added new segment for three (3) records in Kapolei
		Corrected street name for nine (9) records in Aiea
		Corrected street name for three (3) records in Pearl City
		Added ingress for twenty (20) records in Waipio
		Split segment, corrected range for twelve (12) records in Waipio
	4/1/2023 To 4/6/2023	**Delivered 4/7/2023**
		Added ingress for two (2) records in Kalihi
Subdivisions		
Tow Jurisdictions		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		

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MAPPING LAYERS UPDATED (PART VII)

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

	OAHU CIVILIAN PSAPS	
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)**		
WSP Cell Sectors	**4/21/2023 To 4/30/2023**	**Next Delivery 5/5/2023**
		Added six (6) sectors per Verizon Wireless CRS
		Updated six (6) sectors per Verizon Wireless CRS
		Added four (4) sectors per AT&T CRS
	4/7/2023 To 4/20/2023	**Delivered 4/21/2023**
		Added one (1) sector per Verizon Wireless CRS
		Added seventeen (17) sectors per AT&T CRS
		Added one (1) sector per T-Mobile CRS
		Updated one (1) sector per T-Mobile CRS
	4/1/2023 To 4/6/2023	**Delivered 4/7/2023**
		Updated two (2) sectors per AT&T CRS
WSP Cell Towers	**4/21/2023 To 4/30/2023**	**Next Delivery 5/5/2023**
		Updated one (1) tower per Verizon Wireless CRS
		Updated three (3) towers per AT&T CRS
	4/7/2023 To 4/20/2023	**Delivered 4/21/2023**
		Added two (2) towers per AT&T CRS
		Added one (1) tower per Verizon Wireless CRS
		Updated one (1) tower per T-Mobile CRS
		Updated four (4) towers per AT&T CRS
	4/1/2023 To 4/6/2023	**Delivered 4/7/2023**
		Updated one (1) tower per AT&T CRS

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GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

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

Date	Key Activities/Updates
4/21/2023	HPD TriTech Deliverable: Delivered data update for Central Square including Streets, Police Beats, and Address Points (with and without the apartment records).
4/21/2023	TriTech Deliverable: Delivered Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD.
4/21/2023	MapFlex Civilian Deliverable: Delivered Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety.
4/7/2023	HPD TriTech Deliverable: Delivered data update for Central Square including Streets, Police Beats, and Address Points (with and without the apartment records).
4/7/2023	TriTech Deliverable: Delivered Street Centerlines, Address Points, Fire Response Areas, Medic Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for TriTech CAD.
4/7/2023	MapFlex Civilian Deliverable: Delivered Address Points, Common Places, Street Centerlines, Police Response Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu MapFlex system for HPD, HFD, EMS, and Ocean Safety.

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.

HONOLULU POLICE DEPARTMENT TRITECH CAD PROJECT

On October 10, 2018, VSE (formerly Akimeka) participated along with the CAD project team of the Honolulu Police Department on a teleconference GIS kickoff meeting with the TriTech CAD Company. Items that were discussed were GIS requirements for the CAD and RMS systems.

On October 25, 2018, VSE (formerly Akimeka)'s initial delivery of 11 GIS layers to the TriTech FTP site included: Address Points, Airports, Coastline, Fire Response Areas, Medic Response Areas, MSAG Communities, Parks, Police Beats, State Boundary, Streams, and Street Centerlines.

Two spreadsheets describing the layers were also provided on the FTP site.

During the month of July 2022, the Honolulu Police Department (HPD) requested an updated map of the Police Sectors and Police Beats for District 8. The updates for District 8 have been loaded into the CAD as of July 22, 2022.

1. District 8 now consists of 4 sectors. Sector 3 was divided in two to create a new Sector 4.
   - Sector 1 includes Beats 850, 852, 854, 856.
   - Sector 2 includes Beats 857, 858, 860, 861, 863.
   - Sector 3 includes Beats 865, 867, 870, 871, 872.
   - Sector 4 includes Beats 874, 875, 876, 877, 878, 879.
2. The boundaries for the following beats were updated:
   - Beats 850 and 852 was updated to follow the south boundary of Makaha Valley Country Club instead of Noholio Rd and Makaha Valley Rd. Beat 852 takes care of everything north of Noholio Rd up to the south boundary of Makaha Valley Country Club.
   - Beats 857 and 858 was updated to follow Saint Johns Road down to Farrington Highway and to the shoreline of Maili Beach Park instead of following Mailiili Stream. Beat 857 takes care of everything west of Saint Johns Road and Beat 858 takes care of everything east of Saint Johns Road.
   - Beats 861 and 863 was updated to follow Nanakuli Avenue south to Farrington Highway then along the west fence line of Nanakuli Beach Park. Beat 861 takes care of everything west of Nanakuli Ave and Beat 863 takes care of everything east of Nanakuli Ave.
   - Beat 863 was updated to take care of Waimanalo Gulch. Everything east of Waimanalo Gulch up to Palailai Gulch has been assigned to Beat 865.
   - Ka Makana Alii mall in Kapolei has been assigned to Beat 871 instead of Beat 872.
   - Honouliuli Water Treatment has been assigned to Beat 874 instead of Beat 871.
   - Beats 872 and 879 has been updated to follow Kualakai Parkway as their division boundary instead of cutting through the newly developed area that continues to be developed.
   - Beat 874 has been updated to follow Kualakai Parkway instead of the western fence line along the Ewa Villages Golf Course.
   - Beats 877 and 878 has been updated to follow the NAVMAG West Loch fence line instead of cutting through the agriculture area near Iroquois Road.

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MAPFLEX SYSTEM

VSE (formerly Akimeka) delivered GIS data to the MapFlex system on the following dates in April 2023
Hawaii County – April 4, 2023, and April 18, 2023
Maui County – April 5, 2023, and April 19, 2023
Kauai County – April 6, 2023, and April 20, 2023
Honolulu – April 7, 2023, and April 21, 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.

SPEED LIMIT UPDATES

Beginning in April 2017, and now that the Street Centerline data has achieved not only an above 98% synchronization rating but also a high degree of accuracy in the spatial accuracy, a new project to correct speed limits has begun. The project is beginning in Waimanalo and continuing in a counterclockwise patter around the island of Oahu. The initial focus is on Highways, Freeways, and other major roads, but also not limited to additional corrections, especially those which are immediately identified to positively impact vehicle routing, etc.

All updates are shared directly with the PSAPs and the agency most affected (positively) is HFD since they actively use vehicle routing, and this will assist in better CAD unit recommendations. During each GIS deliverable, a list of updates is being provided.

1. No updates received in April 2023.

ROUTING ID UPDATES

Beginning in July 2019, all Address Points and Points of Interests will be assigned a Routing ID to ensure that routing to these addresses are correct. The project is beginning in Waimanalo and continuing in a counterclockwise pattern around the island of Oahu.

All updates are shared directly with the PSAPs and the agency most affected (positively) is HFD since they actively use vehicle routing, and this will assist in better CAD unit recommendations. During each GIS deliverable, a list of updates is being provided.

1. During the month of April 2023, there were no Routing IDs added. As of April 2023, the Routing ID updates has been completed for all address points and points of interest. Any new address points and points of interest will be assigned a Routing ID.

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HONOLULU EMS RESPONSE AREA

During the month of December 2017, EMS requested a high-resolution map of the Honolulu Response Area which will be divided into 5 separate response areas to better support the EMS operations and ambulance response times.

1. With HPD's approval, VSE (formerly Akimeka) prepared a map of the requested area and provided to EMS on December 12, 2017.
2. Considering the additional response areas will certainly require the creation of additional ESZ/ESNs; HPD, EMS, and VSE (formerly Akimeka) will be coordinating so that the project can be mapped out on a timeline so that the changes can take place while maintaining an above 99% synchronization level between GIS, MSAG, and ALI.
3. An operational consideration has already begun a discussion, in that the military ESNs will be reallocated to a new numbering so that both civilian and military responses will have enough ESNs to support their individual operations.
4. During the first half of 2018, there will be further discussion on the creation of the new Response Areas, allocation of military ESNs, and creation of new ESZs/ESNs.

During the month of October 2019, EMS requested an updated map of the Honolulu Medic Response Area which was divided based on drive time analysis. There are now 21 (twenty-one) Medic Response Areas in Oahu.

During the month of August 2021, EMS requested an updated map of the Honolulu Medic District and Honolulu Medic Response Area which were extended out from the coastline. A Medic District was also added. There are now three (3) Medic Districts.

During the month of January 2022, there was a quarterly update to the Honolulu Medic Response Area.

During the month of May 2022, there was a quarterly update to the Honolulu Medic Response Area.

During the month of November 2022, there was a quarterly update to the Honolulu Medic Response Area.

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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS - APRIL 2023

#	Date	Ticket #	Description	Category	Urgency	Comments
			None			

NOTE:

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

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

	Oahu PSAPs			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	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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 OAHU CIVILIAN 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 Honolulu Police Department (HPD) 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 purposes. 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 and assigned Emergency Service Zones (ESZs) identified by their respective Emergency Service Numbers. These ESZs and ESNs are maintained by the Primary PSAP for 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 (formerly Akimeka)'s value added services, VSE (formerly Akimeka) conducts four quarterly, in-depth 9-1-1 Database Synchronization audits per year for the Honolulu Police Department. They are conducted in January, April, July, and October of each Calendar Year (CY) while under contract with VSE (formerly Akimeka). The database synchronization process is essential process to ensure the level of accuracy and synchronization of the E9-1-1 databases in preparation for Next Generation 9-1-1 (NG9-1-1) applications.

The results of the **APRIL 31, 2023,** database synchronization audit are reported below.

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

VSE (formerly Akimeka)'s two-way database comparison service provides for comparing the Local Exchange Carriers (LECs) MSAG Database to the Honolulu 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 HPD 9-1-1 GIS layers.
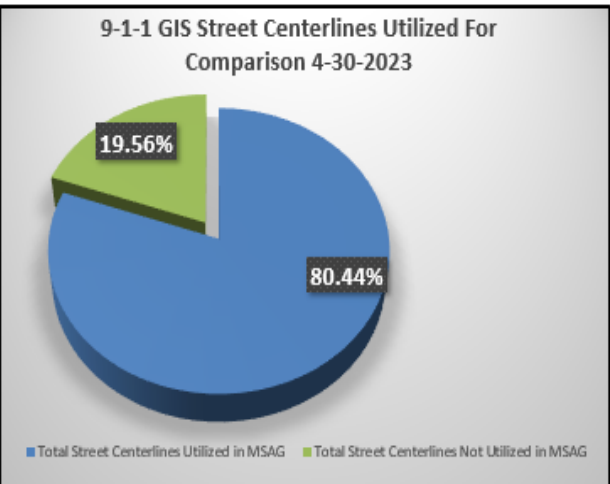

9-1-1 GIS Street Centerlines Utilized For Comparison

A total number of **10,652** GIS Street Centerline Records are maintained for the Honolulu Police Department's 9-1-1 GIS database by VSE (formerly Akimeka). For this comparison, **2,083** 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 **8,569** 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 April 30, 2023	
	GIS Update 4-10-2023	
	9-1-1 MSAG Dated 4-01-23	
	# of Records	Exact Match Rate %
Total 9-1-1 GIS Records Reviewed	10,652	
9-1-1 GIS Records Exempt for Comparison (Subtract 9-1-1 MSAG Exempt and GIS Number 1 Exempt Records)	2,083	19.56%
Subtotal 9-1-1 GIS Records Eligible for Comparison	8,569	80.44%
Subtotal 9-1-1 GIS Records Utilized for Comparison	8,569	100.00%
Total 9-1-1 GIS Records That Do Not Match MSAG Records	17	0.20%
9-1-1 GIS Records with No Matching MSAG Record	0	0.00%
Total 9-1-1 GIS Records Requiring Minor Correction	17	100.00%
Total 9-1-1 GIS Street Centerline Match Rate Percentage	8,552	99.80%

9-1-1 GIS Street Centerlines Utilized For Comparison 4-30-2023

19.56% / 80.44%

■ Total Street Centerlines Utilized in MSAG ■ Total Street Centerlines Not Utilized in MSAG

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

A total of **8,593 9-1-1 MSAG records** are maintained for the Honolulu Police Department's 9-1-1 GIS database by VSE (formerly Akimeka). VSE (formerly Akimeka) removed **27 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 **8,566 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:

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	As of April 30, 2023 GIS Update 4-10-2023 9-1-1 MSAG Dated 4-01-23	
	# of Records	Exact Match Rate %
Total 9-1-1 MSAG Records Reviewed	8,593	
Less: 9-1-1 MSAG Exempted Records	27	0.31%
Net 9-1-1 MSAG Records Eligible for Comparison	8,566	99.69%
Net 9-1-1 MSAG Records Utilized for Comparison	8,566	100.00%
Total 9-1-1 MSAG Records That Have Descrepancies	14	0.16%
Total 9-1-1 MSAG Records with No Matching GIS Record	0	0.00%
Total 9-1-1 MSAG Records Requiring Minor Correction	14	100.00%
Total 9-1-1 MSAG Records Match Rate Percentage	8,552	99.84%

NENA Recommended Match Rate = 98%

9-1-1 GIS Street Centerlines & MSAG Record Match Rate 4-30-2023

99.84% — MSAG to 9-1-1 GIS Exact Match Rate
99.80% — 9-1-1 GIS to MSAG Exact Match Rate

THREE-WAY (3-WAY) COMPARISION – APRIL 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 HPD'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%.

Oahu Civilian E9-1-1 Status Report
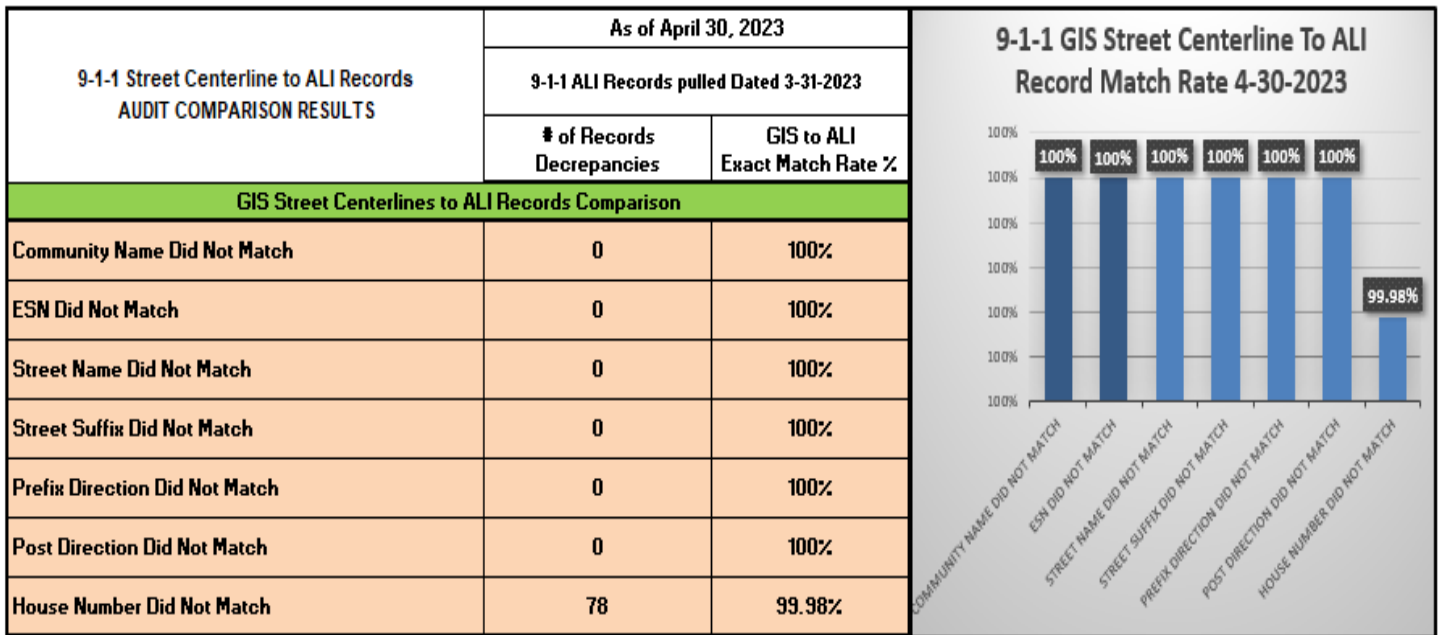
April 1, 2023 - April 30, 2023

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 April 30, 2023	
	9-1-1 ALI Records pulled Dated 3-31-2023	
	# of Records Decrepancies	GIS to ALI Exact Match Rate %
GIS Street Centerlines to ALI Records Comparison		
Community Name Did Not Match	0	100%
ESN Did Not Match	0	100%
Street Name Did Not Match	0	100%
Street Suffix Did Not Match	0	100%
Prefix Direction Did Not Match	0	100%
Post Direction Did Not Match	0	100%
House Number Did Not Match	78	99.98%

NENA Recommended Match Rate = 98%

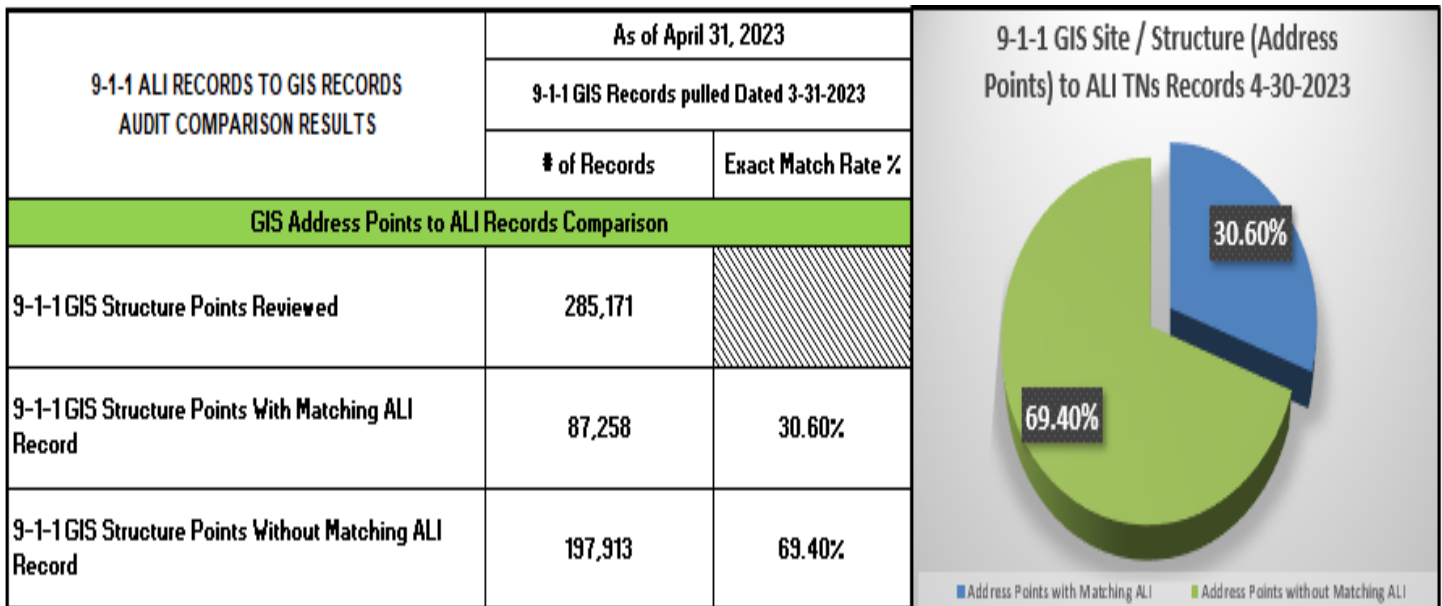9-1-1 GIS Street Centerline To ALI Record Match Rate 4-30-2023

Oahu Civilian E9-1-1 Status Report

April 1, 2023 - April 30, 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 Honolulu City & County Jurisdiction has approximately **285,171 total Site Structure Points** with approximately **87,258** Site Structure Points that have exact matching attributes with the ALI telephone records.

See chart below:

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of April 31, 2023	
	9-1-1 GIS Records pulled Dated 3-31-2023	
	# of Records	Exact Match Rate %
GIS Address Points to ALI Records Comparison		
9-1-1 GIS Structure Points Reviewed	285,171	
9-1-1 GIS Structure Points With Matching ALI Record	87,258	30.60%
9-1-1 GIS Structure Points Without Matching ALI Record	197,913	69.40%

9-1-1 GIS Site / Structure (Address Points) to ALI TNs Records 4-30-2023

- 30.60% Address Points with Matching ALI
- 69.40% Address Points without Matching ALI

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.
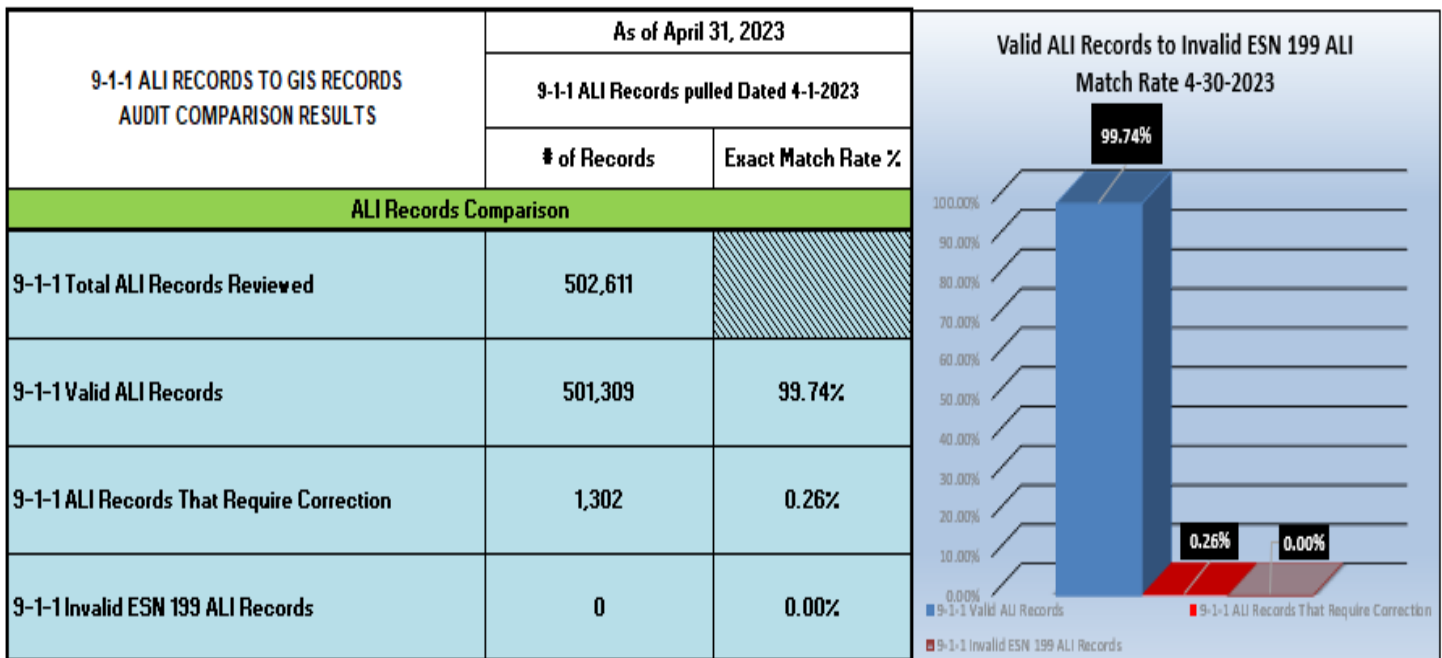
Oahu Civilian E9-1-1 Status Report

April 1, 2023 - April 30, 2023

There are a total of **502,611** Automatic Location Identification (ALI) Records with the Wireline Provider. There are **501,309** ALI records that have an exact match with a GIS Site Structure Point. There are a total of **1,302** ALI Records that require reviewed to determine why there is not an exact match. This does not mean the ALI Records and Site Structure Point do not possess sufficient information to affect a 9-1-1 call. It indicates that these records require additional research and update to exactly match the two different database records.

Items from the Databases that will be compared ed during this audit will include these attributes:

- 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 April 31, 2023	
	9-1-1 ALI Records pulled Dated 4-1-2023	
	# of Records	Exact Match Rate %
ALI Records Comparison		
9-1-1 Total ALI Records Reviewed	502,611	
9-1-1 Valid ALI Records	501,309	99.74%
9-1-1 ALI Records That Require Correction	1,302	0.26%
9-1-1 Invalid ESN 199 ALI Records	0	0.00%

NENA Recommended Match Rate = 98%

Valid ALI Records to Invalid ESN 199 ALI Match Rate 4-30-2023

Oahu Civilian E9-1-1 Status Report

April 1, 2023 - April 30, 2023

INVALID MSAG STREETS AND ADDRESS RANGES – ESN 199 MSAG & ALI RECORDS
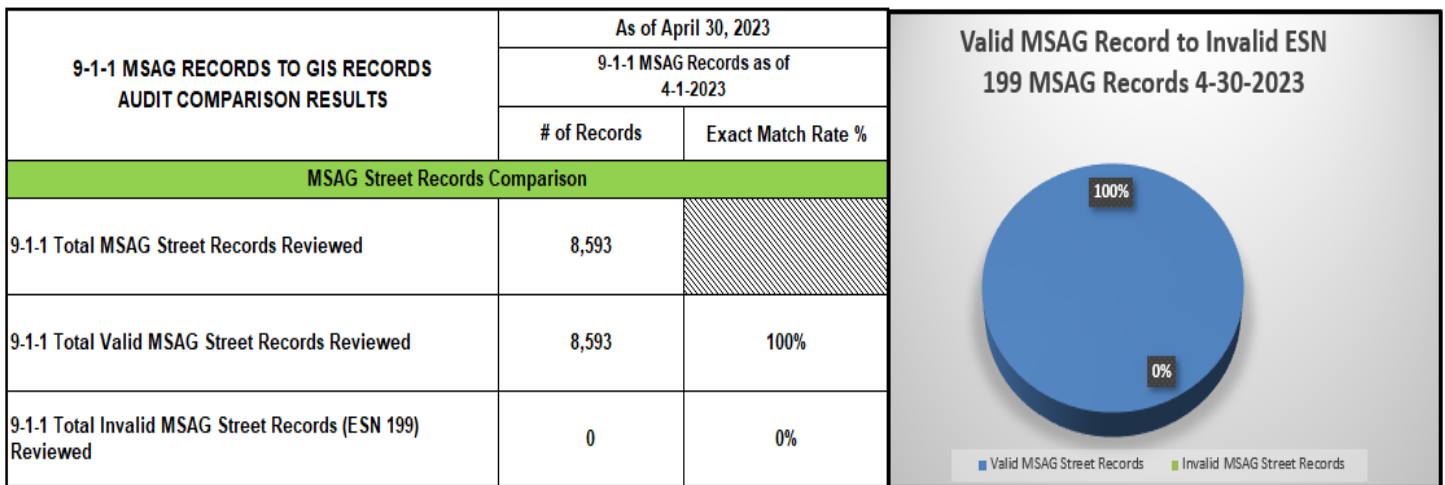**PROJECT COMPLETED**

At the request of the Honolulu Police Department Chief of Police, Hawaiian Telcom, Inc. (HTI) provided VSE (formerly Akimeka), with access to the Honolulu City & County ESN 199 MSAG and ALI records. The ESN 199 MSAG Street Records represented and identified all the "known" invalid streets in the MSAG Database and their corresponding ALI Records.

The ESN 199 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) has completed the necessary investigation and required correction of the **339** 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 199 MSAG Records

The ESN 199 MSAG Street Records represented the number of invalid MSAG Streets Records in Honolulu City & County that were on file with Hawaiian Telcom and their Database Maintenance Service Provider. The ESN 199 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 199 MSAG Street Records that require attention in Honolulu City & County. Please see the chart below:

9-1-1 MSAG RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of April 30, 2023 9-1-1 MSAG Records as of 4-1-2023	
	# of Records	Exact Match Rate %
MSAG Street Records Comparison		
9-1-1 Total MSAG Street Records Reviewed	8,593	
9-1-1 Total Valid MSAG Street Records Reviewed	8,593	100%
9-1-1 Total Invalid MSAG Street Records (ESN 199) Reviewed	0	0%

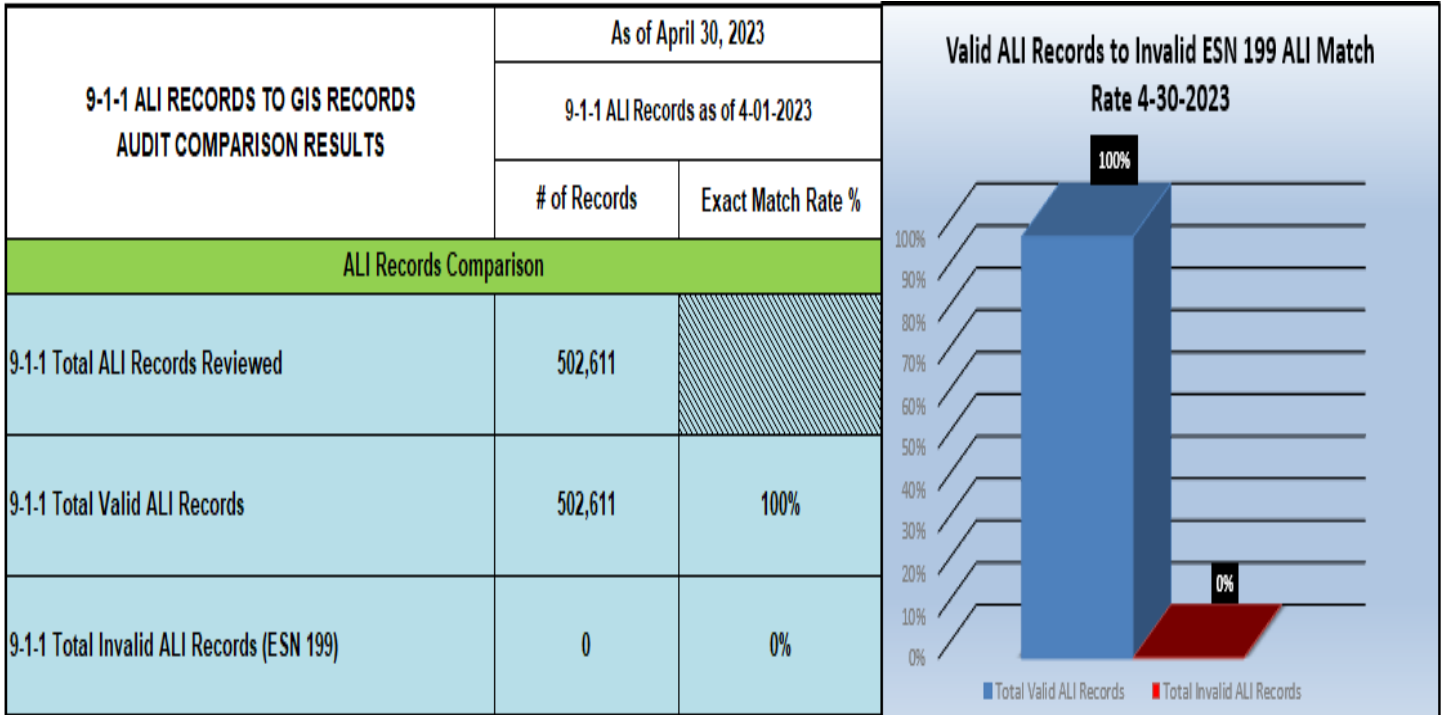Valid MSAG Record to Invalid ESN 199 MSAG Records 4-30-2023

Oahu Civilian E9-1-1 Status Report

April 1, 2023 - April 30, 2023

Valid ALI Records to Invalid ESN 199 ALI Records

The ESN 199 Automatic Location Identification (ALI) Records represent the number of invalid TNs associated with the invalid ESN 199 MSAG Records. There are 0 ESN 199 ALI Records which represent 0.00**%** of the Total ALI records in Honolulu City & County.

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of April 30, 2023	
	9-1-1 ALI Records as of 4-01-2023	
	# of Records	Exact Match Rate %
ALI Records Comparison		
9-1-1 Total ALI Records Reviewed	502,611	
9-1-1 Total Valid ALI Records	502,611	100%
9-1-1 Total Invalid ALI Records (ESN 199)	0	0%

NENA Recommended Match Rate = 98%

Valid ALI Records to Invalid ESN 199 ALI Match Rate 4-30-2023

6348 Walker Lane

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