Hawaii County E9-1-1 Status Report

February 1, 2024 – February 29, 2024

V2X

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THE MISSION LEADS

Hawaii County E9-1-1 Status Report

February 1, 2024 – February 29, 2024

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME HAWAII COUNTY PSAPS – FEBRUARY 2024

Source: **Intrado Viper system** *(*) Totals are based on calls to Primary PSAP.*

9-1-1 Call Volume																	
HAWAII COUNTY PSAPs		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2024	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
FEB	14,445	1,771	12.26%	10,885	75.35%	17.38%	82.62%	550	3.81%	18	0.12%	0	0.00%	1,221	8.45%	0	0.00%

9-1-1 CALL VOLUME – CALENDAR YEAR 2024

9-1-1 Call Volume																	
HAWAII COUNTY PSAPs		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2024	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
JAN	16,434	1,793	10.91%	12,541	76.31%	17.23%	82.77%	777	4.73%	29	0.18%	0	0.00%	1,294	7.87%	0	0.00%
FEB	14,445	1,771	12.26%	10,885	75.35%	17.38%	82.62%	550	3.81%	18	0.12%	0	0.00%	1,221	8.45%	0	0.00%
MAR																	
APR																	
MAY																	
JUNE																	
JULY																	
AUG																	
SEPT																	
OCT																	
NOV																	
DEC																	
YTD	30,879	3,564		23,426				1,327		47		0		2,515		0	
MON AVG	15,440	1,782	11.59%	11,713	75.83%	17.31%	82.69%	664	4.27%	24	0.15%	0	0.00%	1,258	8.16%	0	0.00%

CALL VOLUME HAWAII COUNTY PSAP NOTES:

***911 Calls with No ALI in February 2024 = 0.12% - Statewide average for 2023 = 0.14%**

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9-1-1 CALL VOLUME BY AGENCY – FEBRUARY 2024

2024	9-1-1 Call Volume by Agency									
	Hawaii Police Department					Hawaii Fire Department				
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls
February	11,432	79.14%	0	1,159	0	1,792	12.41%	0	62	0

Hawaii Fire Department "Number of Total Calls Received" was extracted from the Intrado Viper MIS from the Fire Dispatch Center and the Hawaii Police Dispatch Supervisor's Workstation (HIPDWKS7). Calls were merged together by the class of service for the month of February.

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2024

2024	9-1-1 Call Volume by Agency									
	Hawaii Police Department					Hawaii Fire Department				
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Abandoned Dropped Calls	Number of Other Calls
January	14,216	86.50%	0	1,217	0	2,218	13.50%	0	77	0
February	11,432	79.14%	0	1,159	0	1,792	12.41%	0	62	0
March										
April										
May										
June										
July										
August										
September										
October										
November										
December										
YTD	25,648		0	2,376	0	4,010		0	139	0
MON AVG	12,824	82.82%	0	1,188	0	2,005	12.95%	0	70	0

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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.**
- **All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.**
- **A New Class of Service (COS): FIXD = Wireless 911 calls to the PSAP via fixed indoor antennas.**
- X (911) call with the COS of FIXD were added to the Wireless Phase I (WPH 1) percentage total.
- **A New Class of Service (COS): WDL1/WDL2 = Wireless 911 calls to the PSAP via fixed indoor antennas with a general location i.e., pool area (WDL1) or a specific area i.e., room 101 (WDL2).**
- X (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	988,670	68.33%	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	2.55%	31,827	2.28%	39,253	2.58%	37,014	2.66%	37,905	2.45%	37,068	2.53%
Hawaii County	207,715	14.35%	199,811	14.29%	214,220	14.00%	188,329	13.51%	211,611	13.70%	206,648	14.11%
Maui County	152,397	10.54%	140,524	10.05%	160,241	10.51%	125,626	9.01%	157,127	10.18%	133,869	9.14%
Kauai County	61,197	4.23%	54,923	3.93%	60,986	4.00%	51,653	3.71%	61,754	4.00%	52,623	3.60%
Total	1,446,895	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%

911 Call Volume % increase from 2022 to 2023	
Oahu	1.80%
RDC	15.99%
Hawaii	3.95%
Maui	8.44%
Kauai	11.42%
State of Hawaii	8.32%

911 Calls with No ALI % average for 2023	
Oahu	0.47%
RDC	0.03%
Hawaii	0.04%
Maui	0.13%
Kauai	0.03%
State of Hawaii average	0.14%

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 – FEBRUARY 2024

TEXT TO 911 Hawaii County PSAPs 2024		
Month	Received at Police	Received at Fire
January	186	8
February	20	0
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
YTD	206	8
Monthly Avg.	103.00	4.00

NOTE:

- 911 Text messages received at the Fire Department are transfers from the Police Department.
- 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 – FEBRUARY 2024

HAWAII COUNTY - FEBRUARY 2024						
Date	**WSP**	**Sites Tested**	**Sectors Tested**	**Tested By:**	**Test Pass/Fail**	**Comments:**

NOTES:

- There were no (0) scheduled Wireless 911 Tests for the month of February 2024.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – FEBRUARY 2024

HAWAII COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			Customer Addresses Affected
2024		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
JANUARY	268	246	13	9	0	474	0	0	14
FEBRUARY	316	311	5	0	0	536	0	0	0
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL YTD	**584**	**557**	**18**	**9**	**0**	1,010	0	0	**14**
AVG PER MONTH	292	279	9	5	0	505	0	0	7

Definitions

(A) **D**ispatchable **L**ocation - is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party. Please see Dispatchable Location Section for more information.
(B) **M**aster **S**treet **A**ddress **G**uide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
(C) **T**elephone **N**umber **C**hange **R**equest - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 299 attached to them which indicates the need for validation.
(D) **A**utomatic **L**ocation **I**nformation **D**iscrepancy **R**ecord - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline OR a VoIP phone. These record corrections are treated with a higher priority and should be processed within 48 hours if wireline, and 72 hours if a VoIP phone, as a general guideline.

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MSAG CURRENT MONTH NOTES:

A total of **316** MSAG transactions were processed in 9-1-1 Net during the current month. Five (**5**) 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 Military response areas, and inserting new MSAG records.

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

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

No Telephone Number Change Requests (TN CR) transactions were processed in 9-1-1 Net with valid MSAG addresses, as a result of the ESN 299 clean-up effort.
ESN 299 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record.

V2X (formerly Akimeka) submitted three hundred and eleven (**311**) TN CRs related to the Dispatchable Location Project during the current month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 536 Open TN CR Transactions.**
- **Refer to chart in the next section "TNCR Current Status"**

536 Open TN CR transactions are a direct result of the Dispatchable Location Project and ESN 299 clean-up, both are awaiting approval from Hawaiian Telcom, Inc. Once a telephone number is submitted to Intrado for correction, it is verified against HT records and/or by the customer. Intrado's internal process requires calling each telephone customer individually for verification to update an address in the 9-1-1 database. V2X (formerly Akimeka) continues to monitor and track the progress of the remaining 536 Referred records.

- **There are currently no Open ALI-DRs as of February 29, 2024**
- **There are currently no Open VoIP DRs as of February 29, 2024**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – FEBRUARY 2024

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 V2X FORMERLY AKIMEKA	OPENED TNCRS PENDING FURTHER ACTION BY INTRADO	OPENED TNCRS REFERRED TO TELCO BY INTRADO	TOTAL UNOPENED TNCR RECORDS
HAWAII	536	0	276	260

STATUS
TOTAL TNCRs SUBMITTED - The total number of TNCR requests for modification that have been submitted in 9-1-1 NET.
PENDING STATUS - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.
REFERRED STATUS - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and the request requires additional information to validate. The Intrado Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.
TOTAL UNOPENED TNCR RECORDS STATUS - The request is submitted by V2X 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 – FEBRUARY 2024

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, V2X (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, V2X (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), V2X (formerly Akimeka) standardized an additional information data format to proceed with this project. During the month of September 2015, V2X (formerly Akimeka) started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically, the **Kings Shops at 690250 Waikoloa Beach Dr., Waikoloa**. 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. There are a total of 16,651 Dispatchable Locations processed to date. There were 311 Dispatchable locations submitted and 14 were processed in February 2024.

Dispatchable Location			
2024 Quarter 1	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
2023 Carryover		**16,807**	**16,448**
February	Hawaii District Office/Waiakea High School, 155 W Kawili St, Hilo	270	0
	Multi Bus, 440 W Kawailani St, Hilo	41	6
	C W Maintenance, 56 Wiwoole St, Hilo	0	1
	Big Island Toyota, 165 Wiwoole St, Hilo	0	1
	Multi Bus, 170 Wiwoole St, Hilo	0	3
	Multi Bus, 194 Wiwoole St, Hilo	0	1
	Hawaii Collision Center, 199 Makaala St, Hilo	0	1
	Burger King/Panda Express Store, 368 E Makaala St, Hilo	0	1
March			
Q1 Total		**557**	**203**
Total		**17,364**	**16,651**

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT - FEBRUARY 2024

V2X (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 V2X (formerly Akimeka) has access to these ALI Records, V2X (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 V2X 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**

**** V2X (formerly Akimeka) provided VoIP Records with Latitude/Longitude coordinates**

(A)	VoIP Database records submitted by Spectrum to V2X (formerly Akimeka) for research and MSAG address validation.
(B)	V2X formerly Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. V2X 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 – FEBRUARY 2024

V2X (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 V2X (formerly Akimeka) has access to these ALI Records, V2X (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.

V2X (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 V2X (FORMERLY AKIMEKA)	BANDWIDTH FALLOUT RECORDS (B)	NON MATCHING RECORDS CORRECTED BY V2X (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 V2X 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.

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – FEBRUARY 2024

MAPPING LAYERS UPDATED (PART I)

9-1-1 GIS layers provided by V2X (formerly Akimeka) to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

HAWAII COUNTY		
Type of Layer	**V2X formerly Akimeka GIS Server** **Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	**2/20/2024 To 2/29/2024**	**Next Delivery 3/5/2024**
		Added address for one (1) record in Honokaa
		Added address for three (3) records in Naalehu
		Added address for two (2) records in Pahoa
		Corrected spatial for five (5) records in Holualoa
		Corrected spatial for eleven (11) records in Kurtistown
		Added address for five (5) records in Volcano
		Added address for one (1) record in Holualoa
		Corrected spatial for one (1) record in Kailua Kona
		Updated house number for one (1) record in Hilo
		Added address for three (3) records in Ocean View
		Added address for thirty-two (32) records in Hilo
		Corrected spatial for one (1) record in Captain Cook
		Added address for thirteen (13) records in Kailua Kona
		Corrected spatial for one (1) record in Ocean View
		Corrected spatial for one (1) record in Mountain View
		Added address for one (1) record in Laupahoehoe
		Corrected spatial for eight (8) records in Keaau
		Added address for two (2) records in Captain Cook
		Corrected spatial for three (3) records in Keauhou
		Added address for three (3) records in Keaau
		Added address for seven (7) records in Mountain View
		Added address for two (2) records in Kamuela
		Added address for twelve (12) records in Kurtistown

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MAPPING LAYERS UPDATED (PART II)

9-1-1 GIS layers provided by V2X (formerly Akimeka) to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

HAWAII COUNTY		
Type of Layer	**V2X formerly Akimeka GIS Server** **Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	**2/6/2024 To 2/19/2024**	**Delivered 2/20/2024**
		Added address for thirteen (13) records in Ocean View
		Corrected spatial for one (1) record in Kamuela
		Added address for ten (10) records in Pahoa
		Added address for one (1) record in Papaikou
		Added address for six (6) records in Keaau
		Added address for two (2) records in Kamuela
		Corrected spatial for seven (7) records in Pahoa
		Corrected spatial for one (1) record in Ocean View
		Added address for eleven (11) records in Volcano
		Added address for two (2) records in Captain Cook
		Corrected spatial for one (1) record in Kailua Kona
		Added address for one (1) record in Kapaau
		Verified address for one (1) record in Kurtistown
		Added address for seven (7) records in Mountain View
		Added address for eight (8) records in Kurtistown
		Corrected spatial for eleven (11) records in Keaau
		Corrected spatial for thirty-three (33) records in Kurtistown
	2/1/2024 To 2/5/2024	**Delivered 2/6/2024**
		Corrected spatial for four (4) records in Pahoa
		Corrected spatial for two (2) records in Kurtistown
Airports		
Bridges		
Building Footprints		
Bus Stops		

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MAPPING LAYERS UPDATED (PART III)

9-1-1 GIS layers provided by V2X (formerly Akimeka) to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

HAWAII COUNTY		
Type of Layer	**V2X formerly Akimeka GIS Server** **Date Created/ Edits Performed**	**Other/Remarks**
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		

Hawaii County E9-1-1 Status Report

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MAPPING LAYERS UPDATED (PART IV)

9-1-1 GIS layers provided by V2X (formerly Akimeka) to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

HAWAII COUNTY		
Type of Layer	**V2X 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		
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 V)

9-1-1 GIS layers provided by V2X (formerly Akimeka) to the PSAP are designed for use on E9-1-1 systems and NG9-1-1 systems.

HAWAII COUNTY		
Type of Layer	**V2X formerly Akimeka GIS Server Date Created/ Edits Performed**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Street Centerlines	**2/6/2024 To 2/19/2024**	**Delivered 2/20/2024**
		Updated range for one (1) record in Mountain View
		Split segment for and updated range for two (2) records in Kamuela
		Updated range for one (1) record in Captain Cook
		Updated street name and updated range for one (1) record in Kamuela
		Updated range for three (3) records in Kamuela
		Updated range for one (1) record in Pahoa
		Updated range for one (1) record in Pepeekeo
	2/1/2024 To 2/5/2024	**Delivered 2/6/2024**
		Split segment for and updated range for two (2) records in Pahoa
		Updated MSAG exception for one (1) record in Kamuela
Subdivisions		
Tow Jurisdictions		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		
WSP Cell Sectors	**2/20/2024 To 2/29/2024**	**Next Delivery 3/5/2024**
		Updated seventeen (17) sectors per AT&T CRS
		Added twelve (12) sectors per AT&T CRS
	2/6/2024 To 2/19/2024	**Delivered 2/20/2024**
		Added three (3) sectors per T-Mobile CRS
WSP Cell Towers	**2/20/2024 To 2/29/2024**	**Next Delivery 3/5/2024**
		Updated three (3) towers per AT&T CRS
	2/6/2024 To 2/19/2024	**Delivered 2/20/2024**
		Updated one (1) tower per Verizon Wireless CRS
		Added one (1) tower per T-Mobile 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
2/20/2024	Delivered Address Points, City, Common Names Alt Table, Display Streets, Fire EMS Zone, First In, Points of Interest, POI Alt Names, Police Zones, Street Centerlines, Street Alt Names, and Street Routes for Hawaii County Spillman
2/20/2024	Delivered Address Points, Cell Sectors, Cell Towers, Points of Interest, Street Centerlines, ESN, MSAG Communities, MedicResponseAreas, and FireResponseAreas for Hawaii County Mapflex
2/6/2024	Delivered Address Points, City, Common Names Alt Table, Display Streets, Fire EMS Zone, First In, Points of Interest, POI Alt Names, Police Zones, Street Centerlines, Street Alt Names, and Street Routes for Hawaii County Spillman
2/6/2024	Delivered Address Points, Cell Sectors, Cell Towers, Points of Interest, Street Centerlines, ESN, MSAG Communities, MedicResponseAreas, and FireResponseAreas for Hawaii County Mapflex

GIS FOR 911

As part of ensuring GIS data compatibility with 911 CAD systems, V2X (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.

LAVA FLOW AND ALTERNATE ROUTES

Historical events are archived in the 2018 Monthly Status Reports. V2X (formerly Akimeka) will resume to deliver updates should the event start up again.

FIRE DEPARTMENT IMT (INCIDENT MANAGEMENT TEAM) MAP

Historical events are archived in the 2018 Monthly Status Reports.

V2X (formerly Akimeka) will update these GIS layers upon request by the Hilo Fire Department.

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ADDRESS POINTS AND STREET CENTERLINES UPDATE COMPARISON

On a routine basis, upon receipt of Hawai'i County Planning Department's Address Points and Street Centerlines layer updates, V2X (formerly Akimeka) compares and incorporates any of the County's additions, changes, and deletions into the V2X (formerly Akimeka) Address Points and Street Centerlines layers that appear necessary for the dispatch and response of 911 personnel.

The new Address Points and Street Centerlines geodatabase comparative analysis was received from the Hawai'i County Planning Department on **February 29, 2024**. A new compare process was developed by V2X (formerly Akimeka) to perform this analysis.

HAWAII COUNTY	Address Points Layer	Street Centerlines Layer
New Addresses Added	144	
Addresses Removed	0	
Address Street Name Changes	0	
Address Street Number Changes	1	
New Street Segments Added		5
Street Segments Removed		0
Street Segment Range Changes		2
Street Segment Name Changes		0

NOTE:

Some Address Points have multiple updates that are required, including Street Name and Street Number. These updates are counted as separate actions since the changes are required in order to make the GIS layers "9-1-1 capable" for CAD system recommendations affecting public safety dispatch and response operations.

MAPFLEX SYSTEM

February 2024

V2X (formerly Akimeka) delivered GIS data to the MapFlex system on the following dates in February 2024.

Hawaii County – February 6, 2024, and February 20, 2024
Maui County – February 7, 2024, and February 21, 2024
Kauai County – February 8, 2024, and February 22, 2024
Honolulu – February 9, 2024, and February 23, 2024

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.

Hawaii County E9-1-1 Status Report

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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – FEBRUARY 2024

#	Date	Ticket #	Description	PSAP	Urgency	Comments

NOTE* THERE ARE NO (0) OPENED SERVICE REQUEST PENDING FOR FEBRUARY 2024.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2024

HAWAII COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2024	TOTAL		Open	WIRELINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2023 Carryover*			0						
January	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note:	* The 2023 Carryover row indicated the number of Service Requests that were opened in 2023 and brought forward into 2024 in an effort to track the service request until completion. Detailed information on service tickets are available upon request.

	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

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 Hawaii 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 Zones 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 (ESZs) 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 Selective Router (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 V2X (formerly Akimeka) Corporation's (V2X (formerly Akimeka) value added services, V2X (formerly Akimeka) conducts four quarterly, in-depth 9-1-1 Database Synchronization audits per year for the Hawaii County Police Department. They are conducted in February, May, August, and November of each Calendar Year (CY) while under contract with V2X (formerly Akimeka).

The results of the February 21, 2024, database synchronization audits are presented below.

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TWO-WAY (2-WAY) COMPARISION – FEBRUARY 2024

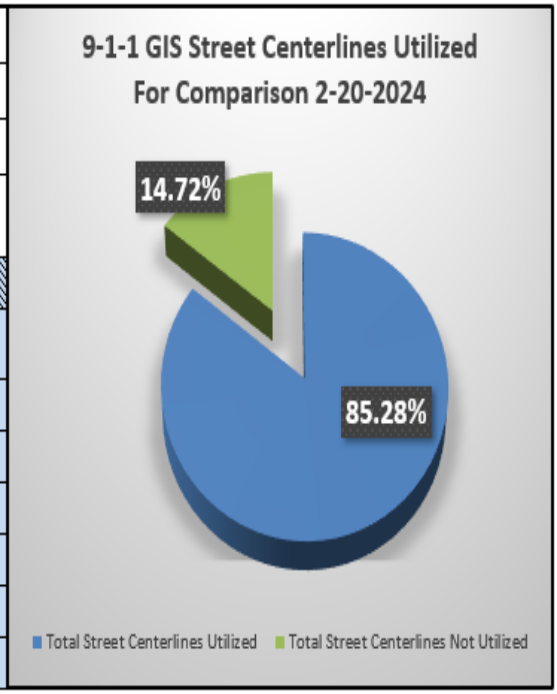
V2X (formerly Akimeka)'s two-way database comparison service provides for comparing the Local Exchange Carriers (LECs) MSAG Database to the Hawaii Police Department's 9-1-1 GIS Street Centerline layer. This ensures the Telephone or VoIP Telephone Company device information is accurate and correct. This 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 of **5,667 9-1-1 GIS Records** are maintained for the Hawaii Police Department's 9-1-1 GIS database by V2X (formerly Akimeka). For this comparison, **834** GIS street records were excluded. V2X (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 **4,818 9-1-1 GIS Records** called "Valid 9-1-1 GIS Street Centerline records" and are compared against the Valid MSAG Records. The results of the 9-1-1 GIS Street Centerline Records comparison analysis are provided below:

9-1-1 GIS STREET CENTERLINE Records AUDIT COMPARISON RESULTS	As of February 20, 2024 GIS Update 1-31-2024 9-1-1 MSAG Dated 2-01-24	
	# of Records	Exact Match Rate %
Total 9-1-1 GIS Records Reviewed	5,667	
9-1-1 GIS Records Exempt for Comparison (Subtract 9-1-1 MSAG Exempt and GIS number 1 Exempt)	834	14.72%
Subtotal 9-1-1 GIS Records Eligible for Comparison	4,833	85.28%
Subtotal 9-1-1 GIS Records Utilized for Comparison	4,833	100%
Total 9-1-1 GIS Records That Do Not Match MSAG Records	7	0%
9-1-1 GIS Records with No Matching MSAG Record	0	0%
Total 9-1-1 GIS Records Requiring Minor Correction	7	0%
Total 9-1-1 GIS Street Centerline Match Rate Percentage	4,826	100%

NENA Recommended Match Rate = 98%



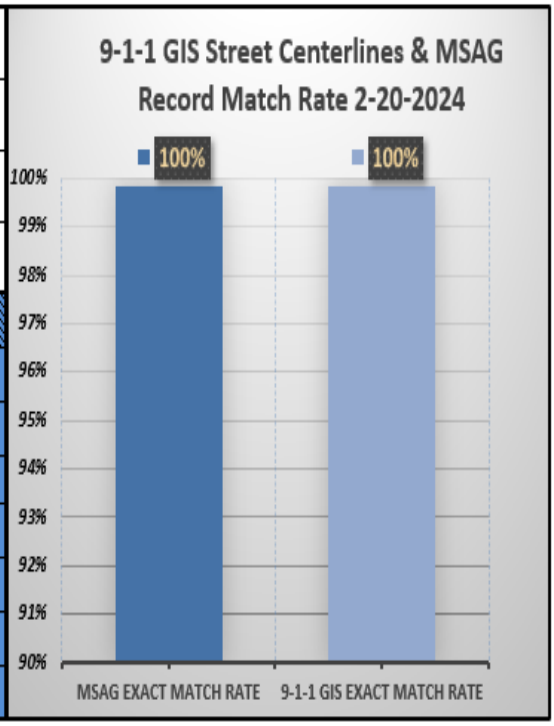
9-1-1 GIS Street Centerline to MSAG Record Comparison

A total of **4,870 9-1-1 MSAG Records** are maintained for the Hawaii Police Department's 9-1-1 GIS database by V2X (formerly Akimeka). V2X (formerly Akimeka) has removed **37, 9-1-1 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 remaining 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 matched records for this comparison audit was **4,826 MSAG records**.

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

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	As of February 20, 2024 GIS Update 1-31-2024 9-1-1 MSAG Dated 2-01-24	
	# of Records	Exact Match Rate %
Total 9-1-1 MSAG Records Reviewed	4,870	
Less: 9-1-1 MSAG Exemption Records	37	0.76%
Net 9-1-1 MSAG Records Eligible for Comparison	4,833	99.24%
Net 9-1-1 MSAG Records Utilized for Comparison	4,833	100%
Total 9-1-1 MSAG Records That Have Descrepancies	7	0%
Total 9-1-1 MSAG Records with No Matching GIS Record	0	0%
Total 9-1-1 MSAG Records Requiring Minor Correction	7	0%
Total 9-1-1 MSAG Records Match Rate Percentage	4,826	100%

NENA Recommended Match Rate = 98%



THREE-WAY (3-WAY) COMPARISION – FEBRUARY 2024

(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%.

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

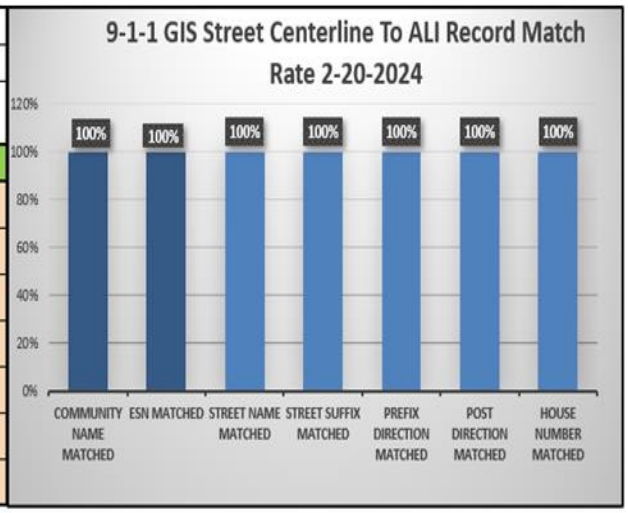
The 9-1-1 GIS Street Centerline to ALI records attribute comparison is used to identify the "course location", or main MSAG valid address that will geocode to the street centerline data. Geocoding is the process of assigning a geographic coordinate for a location and converting it to a valid address 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 next page:

9-1-1 Street Centerline to ALI Records AUDIT COMPARISON RESULTS	As of February 20, 2024 9-1-1 ALI Records pulled Dated 2-01-2024	
	# of Records Decrepancies	GIS to ALI Exact Match Rate %
GIS Street Centerlines to ALI Records Comparison		
Community Name Matched	0	100%
ESN Matched	0	100%
Street Name Matched	0	100%
Street Suffix Matched	0	100%
Prefix Direction Matched	0	100%
Post Direction Matched	0	100%
House Number Matched	0	100%

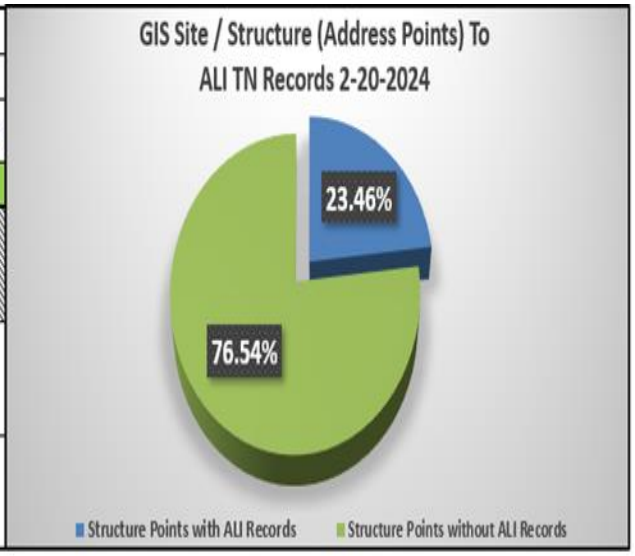


NENA Recommended Match Rate = 98%

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 Hawaii County Jurisdiction has approximately **104,990** total **Site Structure Points** with approximately **24,628 Site Structure Points** that have exact matching ALI telephone records. See chart below:

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of February 20, 2024 9-1-1 GIS Records pulled Dated 2-20-2024	
	# of Records	Exact Match Rate %
GIS Structure Points to ALI Records Comparison		
9-1-1 GIS Structure Points Reviewed	104,990	
9-1-1 GIS Structure Points With Matching ALI Record	24,628	23.46%
9-1-1 GIS Structure Points Without Matching ALI Record	80,362	76.54%



NENA Recommended Match Rate = 98%

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.

There are **64,660 total Valid Automatic Location Identification (ALI) Records** with the Wireline Provider. There are **64,572 Valid ALI records** that have an exact match with a GIS Site Structure Point. There are a total of **5 Valid ALI Records** that require reviewed and/or correction to achieve an exact match. This does not mean the Valid ALI Records and Site Structure Point do not possess sufficient information that will impact a 9-1-1 call. It indicates that these records require additional research and update to exactly match the two different database records. The are **83 ESN 299 Invalid ALI Records** remaining that are in the process of determining a verified valid address. ESN 299 ALI records are records that the 9-1-1 Database Maintenance Service Provider (DBMSP) could not determine an actual address for the Telephone Company.

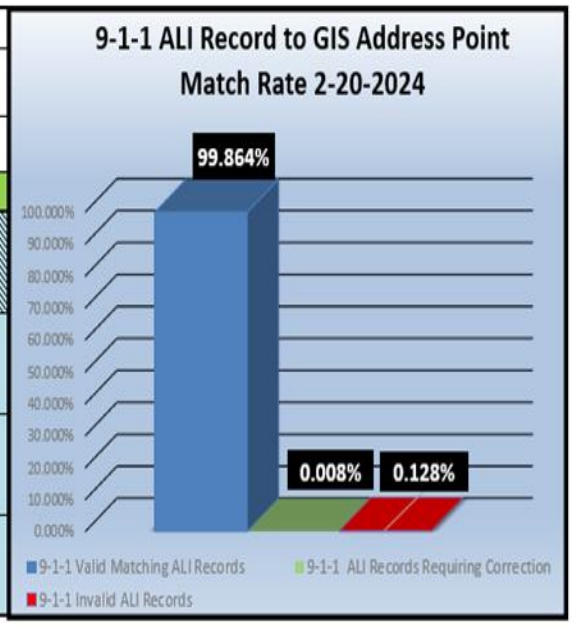
Attributes from the two Databases that were compared during this audit include these attributes:

- 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 next page:

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of February 20, 2024	
	9-1-1 ALI Records pulled Dated 2-20-2024	
	# of Records	Exact Match Rate %
ALI Records Comparison		
9-1-1 Total ALI Records Reviewed	64,660	
9-1-1 Valid Matching ALI Records	64,572	99.864%
9-1-1 Valid ALI Records Requiring Correction	5	0.008%
9-1-1 Invalid ALI Records Requiring Correction	83	0.128%

NENA Recommended Match Rate = 98%



INVALID MSAG STREETS AND ADDRESS RANGES – ESN 299 MSAG & ALI RECORDS

In 2016, at the request of the Hawaii Police Department Chief of Police, Hawaiian Telcom, Inc. (HTI) provided V2X (formerly Akimeka), with access to the Hawaii County ESN 299 MSAG and ALI records. The ESN 299 MSAG Street Records represent and identify all "known" invalid streets in the MSAG Database on file with Hawaiian TelCom.

The ESN 299 MSAG Street Centerline Records and the ESN 299 ALI Records represent all "known" invalid telephone device/home or office addresses in the ALI Database that are associated and subordinate to the invalid MSAG Street Records. These ALI records are required to be corrected to avoid dispatching 9-1-1 resources to erroneous address/locations.

V2X (formerly Akimeka) has completed the necessary initial investigation of the **2,089** 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.

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Valid MSAG Records to Invalid ESN 299 MSAG Records

V2X (formerly Akimeka) Corporation has performed the NENA MSAG/GIS process for Street Name validation and address verification for Hawaii County. This process is basically a Street Centerline & Road Network Analysis determination and verification in order to perform the MSAG Street Name MSAG translation. The Street Name and MSAG Community translation process in necessary to ensure there are no loss in data characters in the delivery of ALI Data information during live 9-1-1 calls.

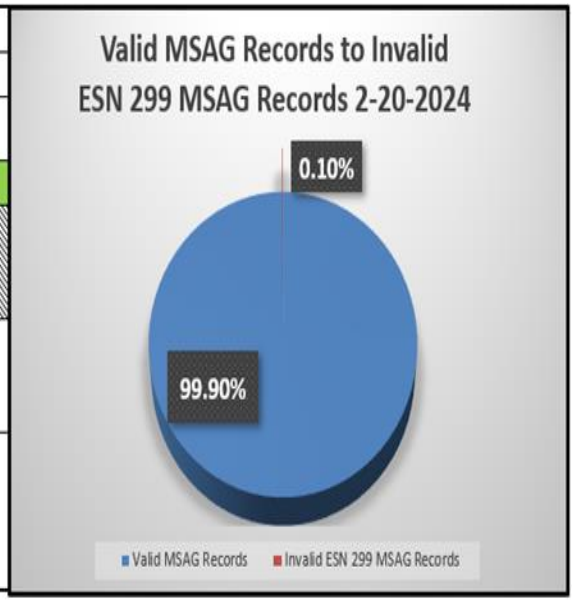
There are currently **4,875 valid MSAG Street Centerline Records** in Hawaii County that are on file with Hawaiian Telcom and their Database Maintenance Service Provider. This number represents the total number of valid **MSAG Streets Records** that can be utilized during a 9-1-1 call. There are a total of **4,870 Valid MSAG Street Records** which represents **99.90%** of the Valid MSAG records. There are a total of **5 invalid MSAG Street Records.** This represents **0.10%** of the total MSAG Street Records. These MSAG street records require additional research and ALI address correction to certain TNs to make the MSAG Street Record corrections.

The ESN 299 MSAG Street Records represented the number of invalid MSAG Streets Records in Hawaii County that are on file that still have a valid telephone number that needs to be reassigned to a valid MSAG address and requires further research.

Please see the chart below:

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of February 20, 2024 9-1-1 MSAG Records pulled Dated 11-01-2023	
	# of Records	Exact Match %
GIS Address Points to ALI Records Comparison		
9-1-1 Total MSAG Street Records Reviewed	4,875	
9-1-1 Total Valid MSAG Street Records Reviewed	4,870	99.90%
9-1-1 Total Invalid MSAG Records (ESN 299) Reviewed	5	0.10%

NENA Recommended Match Rate = 98%



Hawaii County E9-1-1 Status Report

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Valid ALI Records to Invalid ESN 299 ALI Records

There was **64,660** ALI Records that have undergone the process of address determination and verification. A total of **64,577** ALI Records, which represent **99.87%** of the total ALI records are MSAG address valid and will accurately display on the 9-1-1 system within the PSAP. There are **83** ESN 299 ALI Records which represent **0.13%** of the Total ALI records for Hawaii County that require further research and validation to ensure their accuracy.

ESN 299 ALI records are records that the 9-1-1 Database Maintenance Service Provider (DBMSP) could not determine an actual address for the Telephone Company. The ESN 299 Automatic Location Identification (ALI) Records represent the number of invalid TNs that must still go through the address determination and validation process. V2X Corporation is conducting the research and performing the investigation and corrections to these remaining ALI records to make them Valid records.

9-1-1 ALI RECORDS TO GIS RECORDS AUDIT COMPARISON RESULTS	As of February 20, 2024	
	9-1-1 ALI Records pulled Dated 2-01-2024	
	# of Records	Exact Match %
ALI Records Comparison		
9-1-1 Total ALI Records Reviewed	64,660	
9-1-1 Total Valid ALI Records	64,577	99.87%
9-1-1 Total Invalid ALI Records (ESN 299)	83	0.13%

NENA Recommended Match Rate = 98%