

Kauai County E9-1-1 Status Report

October 1, 2019 – October 31, 2019



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1. PSAP OPERATIONS

9-1-1 CALL VOLUME – OCTOBER 2019

(Source :) Intrado Viper system

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
2019	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other	% of Total Calls
Oct	5,232	536	10.24%	3,743	71.54%	47.80%	52.20%	167	3.19%	1	0.02%	0	0.00%	785	15.00%	0	0.00%

9-1-1 CALL VOLUME – CALENDAR YEAR 2019

9-1-1 Call Volume																	
KAUAI PSAP		Wireline		Wireless				VOIP		Calls with No ALI		Admin Calls		Abandoned Calls		Other Calls	
2019	Total 9-1-1 Calls Processed	No. of Wireline Calls	% of Total Calls	No. of Wireless Calls	% of Total Calls	% of Wireless WPH1 Calls	% of Wireless WPH2 Calls	No. of VoIP Calls	% of Total Calls	No. of Calls with No ALI	% of Total Calls	No. of Admin Calls	% of Total Calls	No. of 9-1-1 Abandoned	% of Total Calls	Other	% of Total Calls
JAN	4,314	496	11.50%	3,252	75.38%	40.10%	59.90%	145	3.36%	2	0.05%	0	0.00%	419	9.71%	0	0.00%
FEB	4,718	466	9.88%	3,414	72.36%	42.24%	57.76%	176	3.73%	3	0.06%	0	0.00%	659	13.97%	0	0.00%
MAR	4,931	521	10.57%	3,539	71.77%	43.15%	56.85%	158	3.20%	1	0.02%	0	0.00%	712	14.44%	0	0.00%
APR	4,867	550	11.30%	3,466	71.21%	46.05%	53.95%	189	3.88%	0	0.00%	0	0.00%	662	13.60%	0	0.00%
MAY	4,986	514	10.31%	3,600	72.20%	44.86%	55.14%	184	3.69%	0	0.00%	0	0.00%	688	13.80%	0	0.00%
JUNE	5,317	524	9.86%	3,902	73.39%	44.26%	55.74%	150	2.82%	2	0.04%	0	0.00%	739	13.90%	0	0.00%
JULY	5,804	616	10.61%	4,116	70.92%	45.94%	54.06%	235	4.05%	3	0.05%	0	0.00%	834	14.37%	0	0.00%
AUG	5,652	553	9.78%	4,135	73.16%	45.59%	54.41%	193	3.41%	0	0.00%	0	0.00%	771	13.64%	0	0.00%
SEPT	5,250	533	10.15%	3,762	71.66%	46.84%	53.16%	165	3.14%	2	0.04%	0	0.00%	788	15.01%	0	0.00%
OCT	5,232	536	10.24%	3,743	71.54%	47.80%	52.20%	167	3.19%	1	0.02%	0	0.00%	785	15.00%	0	0.00%
NOV																	
DEC																	
YTD	51,071	5,309		36,929				1762		14		0		7,057		0	
MON AVG	5,107	531	10.42%	3,693	72.36%	44.68%	55.32%	176	3.45%	1	0.03%	0	0.00%	706	13.74%	0	0.00%

PSAP OPERATION NOTES:

- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are included in the total Wireline and Wireless counts respectively.
- All VoIP (Voice over Internet Protocol) type of 911 calls is combined in the Call Volume statistic.
- 911 Calls with No Ali for October 2019 = 0.02% - Statewide average for 2018 = 0.09%

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FOR YOUR INFORMATION

FYI.....For Your Information								
PSAP Operations								
Statewide 911 Call Volumes								
PSAP	2018		2017		2016		2015	
Oahu Civilian	1,034,190	70.62%	1,022,818	72.16%	1,009,059	71.93%	1,019,402	70.94%
RDC Pearl Harbor	37,068	2.53%	27,916	1.97%	N/A	N/A	N/A	N/A
Hawaii County	206,648	14.11%	193,166	13.62%	205,412	14.64%	217,768	15.15%
Maui County	133,869	9.14%	123,685	8.73%	137,333	9.80%	142,952	9.95%
Kauai County	52,623	3.60%	49,902	3.52%	50,955	3.63%	56,874	3.96%
Total	1,464,398	100.00%	1,417,487	100.00%	1,402,759	100.00%	1,436,996	100.00%
*2016 & 2015 Statewide average does not include Military 911 calls								

TEXT TO 911 – CURRENT MONTH – OCTOBER 2019

TEXT TO 911 Kauai County 2019	
Month	Total received
January	11
February	18
March	4
April	10
May	3
June	12
July	9
August	9
September	11
October	8
November	
December	
YTD	95
Monthly Avg.	9.5

NOTE:

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

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WIRELESS PSAP TESTING – OCTOBER 2019

KAUAI COUNTY - OCTOBER 2019						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:
10/1/2019	Sprint	4	4	Kauai PSAP	Pass	
10/31/19	Sprint	1	1	Kauai PSAP	Pass	

NOTES:

- There were (2) scheduled Wireless 911 tests for the month of October 2019.
- Verizon Wireless has completed migrating their Wireless network database from Intrado to ComTech.
- During the 4th quarter of 2018, there was an increasing amount of “MOBL” class of service type of 911 calls delivered to the State of Hawaii PSAPs. On January 15th, 2019, Intrado completed the position source mapping for ComTech which appears to have resolved this issue.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – OCTOBER 2019

KAUAI COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			Customer Addresses Affected
2019		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
JANUARY	103	96	6	0	1	19	0	0	87
FEBRUARY	3	1	2	0	0	18	0	0	0
MARCH	52	52	0	0	0	59	0	0	0
APRIL	248	245	2	0	1	259	0	0	17
MAY	94	90	4	0	0	121	0	0	93
JUNE	134	121	9	4	0	157	0	0	6
JULY	129	119	10	0	0	99	0	0	128
AUGUST	83	83	0	0	0	134	0	0	0
SEPTEMBER	181	177	3	1	0	76	0	0	0
OCTOBER	71	71	0	0	0	58	0	0	0
NOVEMBER									
DECEMBER									
TOTAL YTD	1,098	1,055	36	5	2				331
AVG PER MONTH	110	106	4	1	0	100	0	0	33

Definitions

- (A) **Dispatchable Location** - is defined in the FCC 15-9 Docket as the verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party. Please see Dispatchable Location Section for more information.
- (B) **Master Street Address Guide** - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.
- (C) **Telephone Number Change Request** - Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 499 attached to them which indicates the need for validation.
- (D) **Automatic Location Information Discrepancy Record** - Represents an address discrepancy discovered during a live 9-1-1 call, from a landline OR a VoIP phone. These record corrections are treated with a higher priority and should be processed within 48 hours if wireline, and 72 hours if a VoIP phone, as a general guideline.

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MSAG CURRENT MONTH NOTES:

A total of seventy-one (71) MSAG transactions were submitted in 9-1-1 Net during the current month. No (0) requests were processed relating to the MSAG database. Changes include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS, and inserting new MSAG records.

No customers ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

Akimeka submitted one seventy-one (71) TN CRs related to the Dispatchable Location Project during the current month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 58 Open TN CRs.**

58 Open TN CR transactions are a result of the Dispatchable Location project. Akimeka continues to monitor and track the progress of the Referred records. Once a telephone number is submitted to West for correction, it must be verified against HT records and/or approved by the customer. West's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- **There are currently no Open ALI-DRs as of October 31, 2019.**
- **There are currently no Open VoIP DRs as of October 31, 2019.**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – OCTOBER, 2019

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 AKIMEKA	OPENED TNCRS PENDING FURTHER ACTION BY INTRADO	OPENED TNCRS REFERRED TO TELCO BY INTRADO	TOTAL UNOPENED TNCR RECORDS
KAUAI	58	0	43	15

STATUS
<u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1
<u>PENDING STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.
<u>REFERRED STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service Provider Data Analyst, and the request requires additional information to validate. The Intrado Data Analysts assigns this status to a TNCR and the request is referred to the telephone service providers for further research.
<u>TOTAL UNOPENED TNCR RECORDS STATUS</u> - The request is submitted by 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 – OCTOBER 2019

NARRATIVE:

During the August 2015 State of Hawaii 911 Board meeting, Akimeka provided a “State of Hawaii PSAPs Proposed ALI Compliancy with FCC 15-9” presentation. Based on the 9-1-1 Board’s confirmation to add the “Dispatchable Location” information into the ALI database, Akimeka researched the format standards of each pertinent field, and tested the delivery of the data to the PSAP. After a few configuration adjustments (eliminating the TelCo comments field from appearing on the ALI Screen), Akimeka standardized an additional information data format to proceed with this project.

During the month of August 2015, Akimeka started a pilot project, entering additional location information to a verified MSAG address with multiple telephone numbers. Specifically the **Kukui Grove Center at 302600 Kaumualii Hwy, Lihue**. The “Dispatchable Location” data is entered into the “Driving Directions” field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the “Exact” field should a 911 call be received from that telephone number. 71 transactions were submitted and 157 transaction were processed by Intrado in October 2019.

Dispatchable Location			
2019	Common Name Place MSAG Address	TNCR Transactions Submitted	Transactions Processed
Quarter 4			
Quarter 3 Carryover		4,233	3,825
October	Kauai Village Shopping Cntr, 40831 Kuhio Hwy, Waipouli	0	21
	Whalers Anahola, 404350 Kuhio Hwy, Anahola	9	9
	Shops at Kilohana, 302087 Kaumualii Hwy, Puhi	0	16
	Kauai Community College, 301901 Kaumualii Hwy, Puhi	0	48
	Hanalei Dolphin Center, 505016 Kuhio Hwy, Hanalei	0	2
	Poipu Shopping VLG, 2360 Kiahuna Plantation Dr, Poipu	62	61
November			
December			
Quarter 4 Total		71	157
Total		4,304	3,982

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT - OCTOBER 2019

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 Akimeka has access to these ALI Records, 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 AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	22,044	21,638 (98%)	406	406	100.00%
KAUAI County	8,936	8,695 (97%)	241	241	100.00%
MAUI County	18,256	17,517 (96%)	739	739	100.00%
OAHU Civilian	87,414	85,329 (98%)	2,085	2,085	100.00%
OAHU Military	3,663	710 (19%)	2,953	2,953	100.00%
TOTAL	140,313	**133,889	6,424	6,424	100.00%

* Spectrum VoIP Database received on June 21st, 2017

** Akimeka provided VoIP Records with Latitude/Longitude coordinates

(A)	VoIP Database records submitted by Spectrum to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Spectrum. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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BANDWIDTH 9-1-1 VOIP DATABASE VERIFICATION PROJECT – OCTOBER 2019

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 Akimeka has access to these ALI Records, 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.

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 NEW RECORDS VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY AKIMEKA (C)	PERCENT COMPLETED
HAWAII County	545	85	0	0	100.00%
KAUAI County	306	41	0	0	100.00%
MAUI County	914	222	1	1	100.00%
OAHU Civilian	4,065	888	1	1	100.00%
OAHU Military	56	7	0	0	100.00%
TOTAL	5,886	1,243	2	2	100.00%

***Bandwidth VoIP Database received on April 5th, 2018**

****Updated Bandwidth VoIP Database received on September 6th, 2018**

(A)	VoIP Database records submitted by Bandwidth to Akimeka for research and MSAG address validation.
(B)	Akimeka has researched and verified the VoIP record against an MSAG valid address and GIS data. Akimeka is tracking corrections needed to be performed by Bandwidth. Addressing data will be updated or added in the GIS if the VoIP record is determined to be valid.
(C)	Verification Process Completed.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – OCTOBER 2019

MAPPING LAYERS UPDATED (PART I)

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

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Spatially corrected three (3) records in Lihue
		Verified address for one (1) record in Lihue
	10/10/19 To 10/23/19	Delivered 11/24/2019
		Verified address for six (6) records in Lihue
	10/1/19 To 10/9/19	Delivered 10/10/2019
		Spatially corrected thirty (30) records in Lihue
		Spatially corrected five (5) records in Pakala
		Verified address for five (5) records in Lihue
		Verified address for three (3) records in Pakala
Airports		
Bridges		
Building Footprints		
Bus Stops		
Churches		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		
Emergency Callboxes		
Emergency Operation Centers		
Emergency Shelters		
ESZ/ESN	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Modified boundary for to match spatially corrected street centerlines for two (2) records
Fire Beats	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Modified boundary for to match spatially corrected street centerlines for two (2) records
Fire Districts		
Fire Response Areas	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Modified boundary for to match spatially corrected street centerlines for two (2) records
Fire Stations		
Food & Beverage		
Gas Stations		

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MAPPING LAYERS UPDATED (PART II)

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

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Gate Codes		
Government Buildings		
Harbors		
Helipads		
Hiking Trails		
Hospitals		
Hydrants		
Hyrdology Layers		
Incident Response Areas		
Lodging		
Major Roads		
Medic Beats		
Medic Districts		
Medic Response Areas		
Medic Stations		
Medical Facilities		
Milepost Markers		
MSAG Communities	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Modified boundary for to match spatially corrected street centerlines for one (1) record in Koloa
		Modified boundary for to match spatially corrected street centerlines for one (1) record in Omao
Net Junctions		
Ocean Rescue Boundaries		
Ocean Safety		
Parcels		
Parks		
Parks Polygon		
Points of Interest		
Police Beats	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Modified boundary for one (1) record
		Modified boundary for to match spatially corrected street centerlines for two (2) records
Police Districts		
Police Response Areas	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Modified boundary for two (2) records
		Modified boundary for to match spatially corrected street centerlines for three (3) records

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MAPPING LAYERS UPDATED (PART III)

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

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Police Stations		
Post Offices		
Schools		
Street Centerlines	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Spatially corrected one (1) record in Omao
		Spatially corrected one (1) record in Omao
		Spatially corrected five (5) records in Lihue
		Spatially corrected one (1) record in Lihue
		Spatially corrected two (2) records in Koloa
		Spatially corrected one (1) record in Poipu
		Verified address for six (6) records in Kokee
		Not verified by county one (1) record in Lihue
		Verified address for two (2) records in Lihue
		Verified address for two (2) records in Lihue
	10/10/19 To 10/23/19	Delivered 11/24/2019
		Spatially corrected twenty-five (25) records in Lihue
		Partial spatial correction for two (2) records in Lihue
		Spatially corrected five (5) records in Lihue
		Verified address for five (5) records in Lihue
		Partial spatial correction for one (1) record in Lihue
	10/1/19 To 10/9/19	Delivered 10/10/2019
		Spatially corrected thirteen (13) records in Lihue
		Partial spatial correction for one (1) record in Lihue
		Spatially corrected two (2) records in Lihue
		Verified address for three (3) records in Lihue
		Verified address for one (1) record in Lihue
Subdivisions		
Tow Jurisdictions		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		
WSP Cell Sectors	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Added ten (10) sectors per T-Mobile CRS

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MAPPING LAYERS UPDATED (PART IV)

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

KAUAI COUNTY		
Type of Layer	Akimeka GIS Server	GIS Delivery Dates/Remarks
	Date Created/ Edits Performed	
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
WSP Cell Sectors	10/10/19 To 10/23/19	Delivered 11/24/2019
		Added seven (7) sectors per Verizon Wireless CRS
		Updated one (1) sector per T-Mobile audit
		Updated eight (8) sectors per Verizon Wireless CRS
WSP Cell Towers	10/24/19 To 10/31/19	Next Delivery 11/7/2019
		Added two (2) towers per T-Mobile CRS
	10/10/19 To 10/23/19	Delivered 11/24/2019
		Updated two (2) towers per Verizon Wireless CRS
		Updated one (1) tower per T-Mobile audit

NOTE:

- The Parcels layer is provided by Kauai County. Akimeka performs edits on the spatial information of the layer for 9-1-1 purposes. Changes to the attribute table are made when needed. The Parcels layer uploaded to the PSAP GIS server is intended for 9-1-1 purposes only and should not be disseminated to other county agencies.

GEOGRAPHIC INFORMATION SYSTEM (GIS) NARRATIVES

GIS KEY ACTIVITIES/UPDATES

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

Date	Key Activities/Updates
10/24/2019	Delivered updated data for MapFlex which included Address Points, Points of Interest, Police Response Areas, Street Centerlines, WSP Cell Sectors and WSP Cell Towers.
10/24/2019	Delivered updated data for Spillman which included Address Points, Points of Interest, Police Beats and Street Centerlines.
10/10/2019	Delivered updated data for MapFlex which included Address Points, Points of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers.
10/10/2019	Delivered updated data for Spillman which included Address Points, Points of Interest, and Street Centerlines.

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SPILLMAN PROJECT

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

MAPFLEX SYSTEM

Akimeka delivered GIS data to the MapFlex system on the following dates in October 2019

Hawaii County – October 8th, 2019 and October 22nd, 2019

Maui County – October 9th, 2019 and October 23rd, 2019

Kauai County – October 10th, 2019, and October 24th, 2019

Honolulu – October 11th, 2019, and October 25th, 2019

MAPFLEX ISSUES

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

DATE	ISSUE	DESCRIPTION	STATUS
8/2016	Wireless Addresses	MapFlex system began displaying wireless information incorrectly. MapFlex system is doing a reverse query for additional information in the GIS and this is overriding the ALI information with the closest address in the GIS.	Partially Resolved (Nov 2016) The overriding ALI with updated Lat/Longs from the GIS is still occurring
11/2016	Phase I Display	Wireless Phase I calls plotting at centroid of coverage area and landing in the ocean. After installation of new MapFlex version to correct other issues, the configurations for Wireless Phase I were not set up properly by Intrado, in which the mapping did not point to the correct information in MapFlex.	Partially Resolved (Dec 2016) According to PSAPs, it's not fully resolved. The icon of the tower still doesn't plot for Phase I.
11/2016	Wireless Confidence	Sprint calls coming across with unusually high confidence. Coordination is taking place with Sprint and Intrado. Intrado provides the PDE services for Sprint.	Pending
3/22/2017	ArcGIS Address Locator	The locators in MapFlex have a configurations which does not include ESNs. A reported issue has occurred with the Sheraton in Waikiki. The address locator does not differentiate between the Sheraton hotel and the surf break and plots on the surf break. The bigger issue is that this same issue will occur with complexes that have same primary address.	Pending A new SP 5.4 update by Intrado is aimed to correct this issue.

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5/17/2017	VoIP Calls Plotting Incorrectly	Recognized in late April and early May 2017, the PSAPs have been receiving several VoIP calls which are plotting in the incorrect locations. After further research it was determined that it is because MapFlex is configured to plot the received Lat/Long. The problem is that these are not always maintained properly and that ideally the system should first choose to match with the GIS data based on the provided address. During the September 20, 2017 PSAP conference call, HT relayed there was confirmation that the Time Warner records were in fact passing through the Intrado FMCC.	Partially Resolved – the Lat/Longs are no longer being plotted in MapFlex due to a software release.
5/17/2017	Landline Calls Producing X/Y on calls	It was determined that for normal landline calls, the X/Y coordinates are being sent. The PSAPs have asked where these are being generated and why would they be sent for landline calls.	Intrado is looking into this (May - June 2017)
5/23/2018	Phase I & Phase II coverage area	Phase I calls received at the Kihei Maui PSAP are displaying a circular circumference area rather than a cone shaped directional coverage. Phase II calls are not plotting the COF meters correctly.	Pending
5/24/2018	Incorrect Addresses	MapFlex system began displaying incorrect addresses in the bubble display when an Address Point is right mouse clicked to see information by the PSAPs. However, the address in the data is still correct as shown on the left hand side.	Pending
6/27/2018	Moving Labels	It was brought up during the PSAP teleconference with Hawaiian Tel and Intrado that the Hawaii Fire Department submitted a trouble ticket regarding the parcel labels. When the base map is checked on for viewing the owner's names on the parcel layer, the names of some of the parcels will follow and leave their parcel as the map is panned following streets. This problem was also recreated at the Hawaii Police Department.	Pending

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OPEN SERVICE REQUESTS – OCTOBER 2019

#	Date	Ticket #	Description	Category	Urgency	Comments
			None			

NOTE:

There are no (0) open service request for October 2019.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2019

KAUAI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2019	TOTAL		Open	WIRELINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2018 Carryover*			0						
January	1	0	1	0	0	0	0	1	0
February	0	0	1	0	0	0	0	0	0
March	0	0	1	0	0	0	0	0	0
April	0	1	0	0	0	0	0	0	1
May	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0
November									
December									
TOTAL	1	1	0	0	0	0	0	1	1

Note:

* The 2018 Carryover row indicated the number of Service Requests that were opened in 2018 and brought forward into 2019 in an effort to track the service request until completion. Detailed information on service tickets are available upon request.

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

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5. E9-1-1 DATABASE SYNCHRONIZATION

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

As part of Akimeka's value added services, Akimeka conducted a database synchronization audit for Kauai County in October 2019.

The database synchronization effort included comparing Kauai County's 9-1-1 MSAG received from the 911 Database provider, West on October 1, 2019, against its 9-1-1 GIS Street Centerline data. A total number of **1,364** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on October 1, 2019 for Kauai County are reported below.

Database synchronization should be part of an ongoing and continuous process to ensure that the databases remain current and synchronized. Since neither database is static in nature, the synchronization process will never remain at a 100 percent match rate. It can be expected that the percentage will fluctuate by a small degree. As such, NENA's recommended minimum match rate is 98%.

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AUDIT SUMMARY RESULTS – 2019

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of January 1 , 2019		As of April 1 , 2019		As of July 1 , 2019		As of October 1 , 2019	
		9-1-1 MSAG Dated 1-01-19		9-1-1 MSAG Dated 4-01-19		9-1-1 MSAG Dated 7-01-19		9-1-1 MSAG Dated 10-01-19	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		1,357		1,353		1,363		1,364	
Less: 9-1-1 MSAG Exception Records	(1)	84	6.2%	57	4.2%	58	4.3%	67	4.9%
Net 9-1-1 MSAG Records Eligible for Comparison		1,273		1,296		1,305		1,297	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		1,273	100.0%	1,291	99.6%	1,296	99.3%	1,297	100.0%
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	0	0.0%	1	0.1%	1	0.1%	0	0.0%
9-1-1 MSAG Record With No GIS Record	(3)	0	0.0%	4	0.3%	8	0.6%	0	0.0%
Total 9-1-1 MSAG Records No Match		0	0.0%	5	0.4%	9	0.7%	0	0.0%

Objective: NENA Recommended Match Rate = 98%

The two-way (MSAG – GIS) database synchronization audit for the Kauai County was completed as scheduled. The match rate improved from October 2019 with a 100% Match Rate to a 99.3% Match Rate as of July 2019.

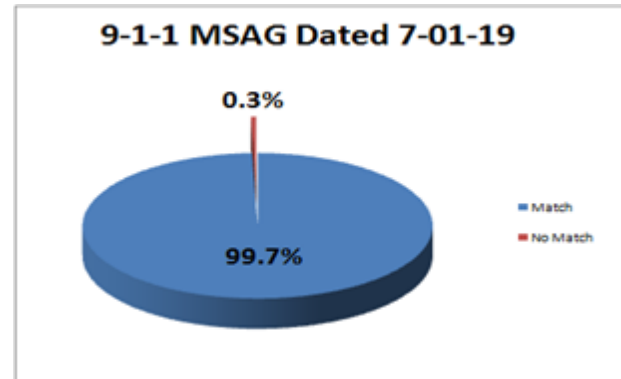
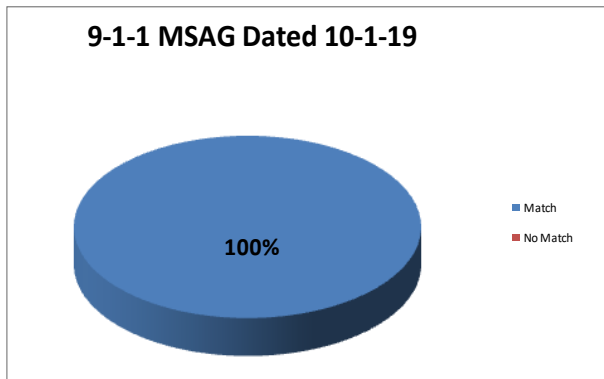
NOTES:

- An MSAG Record that will not have a corresponding GIS Street Centerline Record but is required for the routing of E9-1-1 calls (i.e., Emergency Call Box, Foreign Exchange Records, Wireless Shell Records, etc.). No further action is required.
- An MSAG Record that requires minor MSAG attention in 9-1-1Net to correct MSAG Records (i.e., Reassignment of an MSAG Community, modification of the Site Address Range, assignment of an ESN, performing a combine or insert of an existing MSAG Record, etc.).
- An MSAG Record that does not have a corresponding GIS Record and will require additional research and validation. The GIS Section will assist with this effort.

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AUDIT SUMMARY RESULTS – OCTOBER 1, 2019 MSAG VS. JULY 1, 2019 MSAG



Kauai County level of accuracy for 9-1-1 Match percentage improved to 100% match as of October 1, 2019 as it was 99.7% on July 1, 2019

- ❖ Akimeka continues to work with Kauai County GIS and Planning departments to validate streets and communities.
- ❖ In achieving and exceeding the NENA minimum match rate of 98% for data accuracy, Kauai County is ready for Next Generation 9-1-1 (NG9-1-1) from a database perspective.
- ❖ A constant effort to keep the databases synchronized and maintained are required to ensure the level of accuracy of the E9-1-1 databases each time an MSAG or GIS record is “last modified”.
- ❖ “MSAG record that doesn’t match the GIS” decreased (9 to 0) from July 2019 to October 2019. A non-match condition is also a result in which MSAG transactions were not completed prior to the running of the end of month report.
- ❖ “MSAG record with no GIS record” decreased (8 to 0) from July 2019 to October 2019. MSAG records with no matching record were due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Kauai County.
- ❖ “MSAG Records Corrections Required” decreased (1 to 0) from July 2019 to October 2019. MSAG records have been combined, split, and high/low ranges have been changed, to match the Street Centerlines.
- ❖ Accurate location and GIS information will ensure proper dispatching and response in a timely manner for all Public Safety agencies.
- ❖ All the hard work to maintain and synchronize the E9-1-1 databases is validated when a life and/or property is saved.
- ❖ Coordinating the clean-up of the ALI discrepancy records associated with an assigned ESN of 499 with the respective Service Providers is needed to ensure all records are MSAG valid.

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INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

At the request of the Kauai County Chief of Police, Hawaiian Telcom, Inc. (HTI) provided Kauai County and Akimeka, as the PSAP's agent, with access and visibility to the ESN x99 MSAG records which are "known" invalid streets and address ranges. Akimeka will be investigating and reporting on these ESN x99 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

Results of the data provided are as follows:

KAUAI	Invalid MSAG Records							
	9-1-1 MSAG Dated 1-01-19		9-1-1 MSAG Dated 04-01-19		9-1-1 MSAG Dated 07-01-19		9-1-1 MSAG Dated 10-01-19	
	Number of Records	% of Total Invalid MSAG Records	Number of Records	% of Total Invalid MSAG Records	Number of Records	% of Total Invalid MSAG Records	Number of Records	% of Total Invalid MSAG Records
ESN 499	0	0.0%	0	0.0%	0	0.0%	0	0.0%

These invalid MSAG records represent **0%** of the Total MSAG records for Kauai County as of the October 1, 2019.

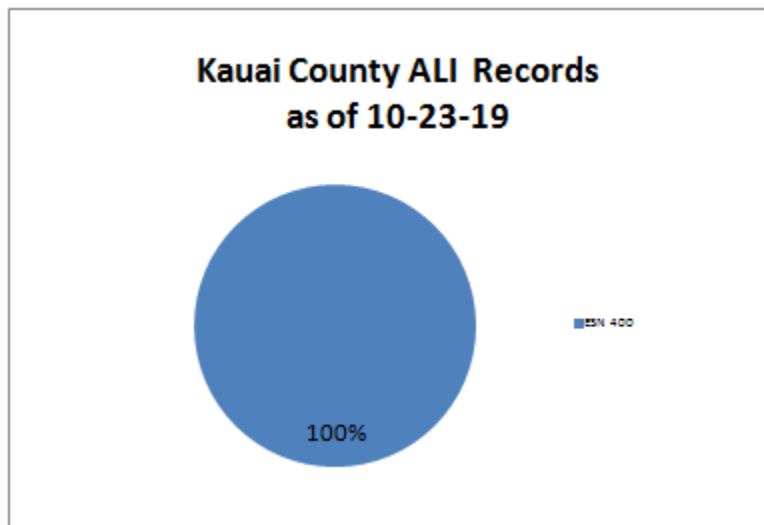
The cleanup of invalid MSAG records is a result of Akimeka's research and validation of telephone numbers (TNs) assigned an invalid MSAG address. In order for a TN to be corrected, Akimeka submitted the update to the Service Provider via Intrado for approval.

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AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE DISCREPANCIES

As part of Akimeka's ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancies by community in 9-1-1Net for Kauai County. As of October 23, 2019, there are **zero (0)** ESN 499 ALI records. The number of ESN 499 ALI records remained at **100%** (0 to 0) from **October 23, 2019 to October 26, 2018**.



Although the ESN 499 is a “valid” MSAG utilized for overflow addressing, the voice portion of the 9-1-1 call will still be routed to the PSAP. However, the address information will present an invalid address/location to the dispatcher or a “No Record Found” condition which may affect the processing of the 9-1-1 response and/or cause confusion or delay during the dispatch of 9-1-1 resources to the caller’s location.

The goal, which requires the cooperation among all service providers, is to clean-up all ESN 499 MSAG records to a valid Kauai County ESN 400 – 448 to ensure that all ALI records assigned to the County of Kauai have an “MSAG valid address”.