Maui County E9-1-1 Status Report

December 1, 2019 – December 31, 2019

AKIMEKA

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME MAUI PSAP – DECEMBER 2019

Source: **Intrado Viper system**

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

9-1-1 Call Volume																	
MAUI PSAP		Wireline		Wireless				VOIP		Calls With No ALI		Admin Calls		Abandoned Calls		Other Calls	
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 Calls	% of Total Calls
DEC	13,692	1,220	8.91%	10,406	76.00%	57.59%	42.41%	366	2.67%	3	0.02%	0	0.00%	1,697	12.39%	0	0.00%

CALL VOLUME MAUI PSAP NOTES:

***Calls with No ALI for December 2019 = 0.02% - Statewide average for 2018 = 0.09%**

9-1-1 CALL VOLUME MAUI PSAP – CALENDAR YEAR 2019

9-1-1 Call Volume																	
MAUI 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 Calls	% of Total Calls
JAN	11,085	1,607	14.50%	8,204	74.01%	60.68%	39.32%	295	2.66%	3	0.03%	0	0.00%	976	8.80%	0	0.00%
FEB	10,875	1,606	14.77%	7,841	72.10%	59.60%	40.40%	312	2.87%	4	0.04%	0	0.00%	1,112	10.23%	0	0.00%
MAR	12,403	1,626	13.11%	9,022	72.74%	58.93%	41.07%	360	2.90%	6	0.05%	0	0.00%	1,389	11.20%	0	0.00%
APR	12,358	1,495	12.10%	9,186	74.33%	57.72%	42.28%	338	2.74%	7	0.06%	0	0.00%	1,332	10.78%	0	0.00%
MAY	12,440	1,491	11.99%	9,277	74.57%	59.12%	40.88%	319	2.56%	3	0.02%	0	0.00%	1,350	10.85%	0	0.00%
JUNE	12,512	1,448	11.57%	9,460	75.61%	60.17%	39.83%	304	2.43%	5	0.04%	0	0.00%	1,295	10.35%	0	0.00%
JULY	13,746	1,604	11.67%	10,360	75.37%	56.18%	43.82%	376	2.74%	16	0.12%	0	0.00%	1,390	10.11%	0	0.00%
AUG	13,669	1,517	11.10%	10,423	76.25%	58.43%	41.57%	310	2.27%	3	0.02%	0	0.00%	1,416	10.36%	0	0.00%
SEPT	12,122	1,190	9.82%	9,207	75.95%	59.79%	40.21%	315	2.60%	4	0.03%	0	0.00%	1,406	11.60%	0	0.00%
OCT	13,535	1,173	8.67%	10,361	76.55%	59.17%	40.83%	331	2.45%	8	0.06%	0	0.00%	1,662	12.28%	0	0.00%
NOV	12,136	1,107	9.12%	9,249	76.21%	56.18%	43.82%	349	2.88%	8	0.07%	0	0.00%	1,423	11.73%	0	0.00%
DEC	13,692	1,220	8.91%	10,406	76.00%	57.59%	42.41%	366	2.67%	3	0.02%	0	0.00%	1,697	12.39%	0	0.00%
YTD	150,573	17,084		112,996				3,975		70		0		16,448		0	
MON AVG	12,548	1,424	11.44%	9,416	74.97%	58.63%	41.37%	331	2.65%	6	0.05%	0	0.00%	1,371	10.89%	0.00	0.00%

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9-1-1 CALL VOLUME MOLOKAI PSAP – DECEMBER 2019

9-1-1 Call Volume																	
MOLOKAI 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 Calls	% of Total Calls
DEC	648	205	31.64%	351	54.17%	57.83%	42.17%	2	0.31%	0	0.00%	0	0.00%	90	13.89%	0	0.00%

CALL VOLUME MOLOKAI PSAP NOTES:

* **Calls with No ALI for December 2019 = 0.00% - Statewide average for 2018 = 0.09%**

9-1-1 CALL VOLUME MOLOKAI PSAP – CALENDAR YEAR 2019

9-1-1 Call Volume																	
MOLOKAI 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 Calls	% of Total Calls
JAN	474	145	30.59%	285	60.13%	55.79%	44.21%	1	0.21%	0	0.00%	0	0.00%	43	9.07%	0	0.00%
FEB	574	222	38.68%	266	46.34%	62.03%	37.97%	5	0.87%	0	0.00%	0	0.00%	81	14.11%	0	0.00%
MAR	484	135	27.89%	279	57.64%	62.72%	37.28%	2	0.41%	2	0.41%	0	0.00%	66	13.64%	0	0.00%
APR	514	109	21.21%	331	64.40%	63.44%	36.56%	0	0.00%	1	0.19%	0	0.00%	73	14.20%	0	0.00%
MAY	550	132	24.00%	353	64.18%	64.59%	35.41%	2	0.36%	0	0.00%	0	0.00%	63	11.45%	0	0.00%
JUNE	632	159	25.16%	399	63.13%	56.89%	43.11%	0	0.00%	0	0.00%	0	0.00%	74	11.71%	0	0.00%
JULY	578	126	21.80%	357	61.76%	54.90%	45.10%	22	3.81%	7	1.21%	0	0.00%	66	11.42%	0	0.00%
AUG	591	106	17.94%	394	66.67%	56.60%	43.40%	5	0.85%	0	0.00%	0	0.00%	86	14.55%	0	0.00%
SEPT	492	88	17.89%	340	69.11%	57.35%	42.65%	4	0.81%	0	0.00%	0	0.00%	60	12.20%	0	0.00%
OCT	496	136	27.42%	287	57.86%	65.85%	34.15%	0	0.00%	1	0.20%	0	0.00%	72	14.52%	0	0.00%
NOV	521	141	27.06%	327	62.76%	57.49%	42.51%	0	0.00%	0	0.00%	0	0.00%	53	10.17%	0	0.00%
DEC	648	205	31.64%	351	54.17%	57.83%	42.17%	2	0.31%	0	0.00%	0	0.00%	90	13.89%	0	0.00%
YTD	6,554	1,704		3,969				43		11		0		827		0	
MON AVG	546	142	25.94%	331	60.68%	59.63%	40.37%	3.58	0.64%	1	0.17%	0	0.00%	68.917	12.58%	0	0.00%

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9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – DECEMBER 2019

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		Wireline		Wireless				VOIP Calls		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 Calls	% of Total Calls
DEC	14,340	1,425	9.94%	10,757	75.01%	57.60%	42.40%	368	2.57%	3	0.02%	0	0.00%	1,787	12.46%	0	0.00%

9-1-1 CALL VOLUME (COMBINED MAUI & MOLOKAI PSAPS) – CALENDAR YEAR 2019

9-1-1 Call Volume																	
MAUI COUNTY PSAPs		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 Calls	% of Total Calls
JAN	11,559	1,752	15.16%	8,489	73.44%	60.51%	39.49%	296	2.56%	3	0.03%	0	0.00%	1,019	8.82%	0	0.00%
FEB	11,449	1,828	15.97%	8,107	70.81%	59.68%	40.32%	317	2.77%	4	0.03%	0	0.00%	1,193	10.42%	0	0.00%
MAR	12,887	1,761	13.66%	9,301	72.17%	59.05%	40.95%	362	2.81%	8	0.06%	0	0.00%	1,455	11.29%	0	0.00%
APR	12,872	1,604	12.46%	9,517	73.94%	57.92%	42.08%	338	2.63%	8	0.06%	0	0.00%	1,405	10.92%	0	0.00%
MAY	12,990	1,623	12.49%	9,630	74.13%	59.33%	40.67%	321	2.47%	3	0.02%	0	0.00%	1,413	10.88%	0	0.00%
JUNE	13,144	1,607	12.23%	9,859	75.01%	60.04%	39.96%	304	2.31%	5	0.04%	0	0.00%	1,369	10.42%	0	0.00%
JULY	14,324	1,730	12.08%	10,717	74.82%	56.14%	43.86%	398	2.78%	23	0.16%	0	0.00%	1,456	10.16%	0	0.00%
AUG	14,260	1,623	11.38%	10,817	75.86%	58.36%	41.64%	315	2.21%	3	0.02%	0	0.00%	1,502	10.53%	0	0.00%
SEPT	12,614	1,278	10.13%	9,547	75.69%	59.70%	40.30%	319	2.53%	4	0.03%	0	0.00%	1,466	11.62%	0	0.00%
OCT	14,031	1,309	9.33%	10,648	75.89%	59.35%	40.65%	331	2.36%	9	0.06%	0	0.00%	1,734	12.36%	0	0.00%
NOV	12,657	1,248	9.86%	9,576	75.66%	56.22%	43.78%	349	2.76%	8	0.06%	0	0.00%	1,476	11.66%	0	0.00%
DEC	14,340	1,425	9.94%	10,757	75.01%	57.60%	42.40%	368	2.57%	3	0.02%	0	0.00%	1,787	12.46%	0	0.00%
YTD	157,127	18,788		116,965				4,018		81		0		17,275		0	
MON AVG	13,094	1,566	12.06%	9,747	74.37%	58.66%	41.34%	335	2.56%	7	0.05%	0.00	0.00%	1,440	10.96%	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 Wireline and Wireless total counts respectively.**
- **All VoIP (Voice over Internet Protocol) 911 calls are combined in the Call Volume statistic.**
- **Outgoing 911 calls are included in the totals. These are ringback or callback 911calls made from the Viper System.**

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FOR YOUR INFORMATION

FYI.....For Your Information										
PSAP Operations										
Statewide 911 Call Volumes										
PSAP	2019		2018		2017		2016		2015	
Oahu Civilian	1,075,726	69.67%	1,034,190	70.62%	1,022,818	72.16%	1,009,059	71.93%	1,019,402	70.94%
RDC Pearl Harbor	37,905	2.45%	37,068	2.53%	27,916	1.97%	N/A	N/A	N/A	N/A
Hawaii County	211,611	13.70%	206,648	14.11%	193,166	13.62%	205,412	14.64%	217,768	15.15%
Maui County	157,127	10.18%	133,869	9.14%	123,685	8.73%	137,333	9.80%	142,952	9.95%
Kauai County	61,754	4.00%	52,623	3.60%	49,902	3.52%	50,955	3.63%	56,874	3.96%
Total	1,544,123	100.00%	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										

911 Call Volume % increase from 2018 to 2019	
Oahu	4.02%
RDC	2.25%
Hawaii	2.40%
Maui	17.37%
Kauai	17.35%
State of Hawaii average	8.68%

911 Calls with No ALI % average for 2019	
Oahu	0.03%
RDC	0.01%
Hawaii	0.10%
Maui	0.05%
Kauai	0.03%
State of Hawaii average	0.04%

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TEXT TO 911 – CURRENT MONTH – DECEMBER 2019

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.

TEXT TO 911 Maui County PSAPs 2019		
Month	Received at Maui	Received at Molokai
January	25	4
February	29	5
March	16	0
April	10	4
May	10	2
June	12	0
July	14	4
August	17	0
September	16	0
October	14	1
November	24	1
December	19	1
YTD	206	22
Monthly Avg.	17	2

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WIRELESS PSAP TESTING – DECEMBER 2019

MAUI COUNTY - DECEMBER 2019						
Date	**WSP**	**Sites Tested**	**Sectors Tested**	**Tested By:**	**Test Pass/Fail**	**Comments:**
12/13/2019	Verizon	2	2	Maui PSAP	Pass	
12/13/2019	Sprint	1	1	Maui PSAP	Pass	

NOTES:

- There were three (3) scheduled Wireless 911 tests conducted in December 2019 for the Maui and Molokai PSAPs.
- 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 – DECEMBER 2019

MAUI 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	65	46	7	6	6	18	0	0	122
FEBRUARY	20	0	5	11	4	18	0	0	98
MARCH	248	224	15	8	1	209	0	0	58
APRIL	258	250	5	1	2	309	0	0	224
MAY	116	102	13	1	0	334	0	0	61
JUNE	126	119	3	1	3	347	0	0	245
JULY	184	166	7	9	2	34	0	0	39
AUGUST	150	137	6	6	1	64	0	0	55
SEPTEMBER	106	77	1	27	1	94	0	0	0
OCTOBER	331	322	3	6	0	80	0	0	8
NOVEMBER	146	139	5	2	0	207	0	0	15
DECEMBER	288	276	5	3	4	148	0	0	8
TOTAL YTD	2,038	1,858	75	81	24	1,862	0	0	933
AVG PER MONTH	170	155	6	7	2	155	0	0	78

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 399 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 **288** 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 inserting new MSAG records.

8 customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

Three **(3)** Telephone Number Change Request (TN CR) transaction was processed in 9-1-1 Net with valid MSAG address, as a result of the ESN 399 clean-up effort. ESN 399 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record.

Three (**3**) ALI DR's were submitted as the result of 9-1-1 calls from one residence in Lahaina, and two residences in Kaunakakai on Molokai. One **(1)** VoIP Dr was submitted as a result of 9-1-1 call from a resident in Kahului.

Akimeka submitted two hundred and seventy six **(276)** TN CRs related to the Dispatchable Location Project during the current month.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 148 Open TN CRs.**

148 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 Intrado for correction, it must be verified against HT records and/or approved by the customer. Intrado's internal process requires calling each telephone customer individually for approval to update an address in the 9-1-1 database.

- **There are no open VoIP DRs as of December 31, 2019**
- **There are no open ALI DRs as of November 31, 2019**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – DECEMBER, 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)				
County	**TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA**	**OPENED TNCRS PENDING FURTHER ACTION BY INTRADO**	**OPENED TNCRS REFERRED TO TELCO BY INTRADO**	**TOTAL UNOPENED TNCR RECORDS**
MAUI	**148**	**0**	**148**	**0**
MOLOKAI	**0**	**0**	**0**	**0**
TOTAL	**148**	**0**	**148**	**0**

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 Akimeka on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

Maui County E9-1-1 Status Report

December 1, 2019 - December 31, 2019

DISPATCHABLE LOCATION – STATUS AS OF – DECEMBER 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 Queen Kaahumanu Shopping Center at 275 Kaahumanu Ave. The "Dispatchable Location" data is entered into the "Driving Directions" field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the "Exact" field should a 911 call be received from that telephone number. Screen shots of the "Before" ALI screen, and the "After" ALI screen with the updated "Dispatchable Location" information visible, were presented to the Dispatch Supervisors. Akimeka received positive feedback from the 911 Dispatch Personnel because the information that the 911 Call Takers will receive, will certainly cut down on the process of determining the exact location of the 911 caller. In addition to this, Akimeka was informed that the Mobile Dispatch Terminals (MDTs) in the Police Vehicles, also are able to view this "Dispatchable Location" information which will reduce the response times for Public Safety. There were 276 Dispatchable Locations submitted in December 2019 and 223 were processed by Intrado.

Dispatchable Location			
2019 Quarter 4	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**
Quarter 3 Carryover		3,815	3,603
October	Haiku Market Place, 810 Haiku Rd, Haiku	0	36
	Fairway Shops, 2580 Kekaa Dr, Kaanapali	58	57
	Polo Beach Club, 4400 Makena Rd, Wailea	11	11
	Wailea Elua Village, 3600 Wailea Alanui Dr, Wailea	126	76
	Four Seasons Resort, 3900 Wailea Alanui Dr, Wailea	28	28
	Pukalani Square, 81 Makawao Ave, Pukalani	39	38
	Piilani Village, Piikea Ave, Kihei	0	3
	Wailea Gateway Center, Wailea Gateway Pl, Wailea	0	1
	Pukalani Terrace Center, 55 Pukalani St, Pukalani	60	57
November	Napili Plaza, 5095 Napilihau St, Napili	52	43
	Kahana Gateway Center, 4405 Honoapiilani Hwy, Napili	34	1
	Harbor Shops and Restaurants, 300 Maalaea Rd, Maalaea	49	0
	Da Rose Mall, 3481 Lower Honoapiilani Rd, Napili	4	0
December	Kahana Gateway Center, 4405 Honoapiilani Hwy, Napili	0	32
	Harbor Shops and Restaurants, 300 Maalaea Rd, Maalaea	0	32
	Da Rose Mall, 3481 Lower Honoapiilani Rd, Napili	0	3
	Honokowai Beach Cntr, 3636 Lower Honoapiilani Rd, Napi	13	10
	Mana Foods, 49 Baldwin Ave, Paia	10	0
	Honokowai Market Pl, 3350 Lower Honoapiilani Rd, Napil	97	0
	Maui Marketplace, 270 Dairy Rd, Kahului	156	147
Total		737	575
YTD Total		4,552	4,178

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December 1, 2019 - December 31, 2019

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

**** 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)	Verifcation Process Completed.

Maui County E9-1-1 Status Report

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

Maui County E9-1-1 Status Report

December 1, 2019 - December 31, 2019

3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 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.

MAUI COUNTY		
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**GIS Delivery Dates/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	12/18/19 To 12/30/19	**Delivered 12/31/2019**
		Added address for two (2) records in Kihei
		Verified address for one (1) record in Kihei
		Added address for three (3) records in Kahului
		Spatially corrected one (1) record in Kula
		Spatially corrected three (3) records in Makawao
		Added address for one (1) record in Kula
		Added address for one (1) record in Haiku
		Verified address for one (1) record in Waihee
	12/4/19 To 12/17/19	**Delivered 12/18/2019**
		Added address for one (1) record in Makawao
		Verified address for two (2) records in Haiku
		Added address for three (3) records in Hana
		Added address for one (1) record in Haiku
		Spatially corrected one (1) record in Makawao
		Changed address one (1) record in Haiku
Airports		
Bridges		
Building Footprints		
Bus Stops		
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		

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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.

MAUI COUNTY		
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**GIS Delivery Dates/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Food & Beverage		
Gas Stations		
Gate Codes	12/4/19 To 12/17/19	**Delivered 12/18/2019**
		Added gate code for one (1) record in Kihei
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		
Net Junctions		
Ocean Rescue Boundaries		
Ocean Safety		
Parcels		
Parks		
Parks Polygon		
Points of Interest	12/18/19 To 12/30/19	**Delivered 12/31/2019**
		Added POI for one (1) record in Kahului
		Spatially corrected, added info for two (2) records in Kahului
		Added info for fifteen (15) records in Kahului
Police Beats		
Police Districts		
Police Response Areas		

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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.

MAUI COUNTY		
Type of Layer	**Akimeka GIS Server Date Created/ Edits Performed**	**GIS Delivery Dates/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Police Stations		
Post Offices		
Schools		
Street Centerlines	12/18/19 To 12/30/19	**Delivered 12/31/2019**
		Partial spatial correction for two (2) records in Kaunakakai
		Spatially corrected twelve (12) records in Kaunakakai
		Verified address for two (2) records in Haiku
		Modified range for one (1) record in Haiku
		Corrected ESN for one (1) record in Kaunakakai
		Verified address for three (3) records in Kaunakakai
		Spatially corrected two (2) records in Haiku
	12/4/19 To 12/17/19	**Delivered 12/18/2019**
		Updated range for one (1) record in Makawao
		Partial spatial correction for three (3) records in Makawao
		Verified address for three (3) records in Kihei
		Spatially corrected ten (10) records in Kaunakakai
		Verified address for one (1) record in Makawao
Subdivisions		
Tow Jurisdictions		
Tsunami Evacuation Zones		
Tsunami Heights		
Waste Water Plants		
WSP Cell Sectors	12/18/19 To 12/30/19	**Delivered 12/31/2019**
		Added two (2) sectors per AT&T CRS
		Updated one (1) sector per AT&T CRS
	12/4/19 To 12/17/19	**Delivered 12/18/2019**
		Added five (5) sectors per AT&T CRS
		Added three (3) sectors per Verizon Wireless CRS
		Added nine (9) sectors per Sprint CRS
WSP Cell Towers	12/18/19 To 12/30/19	**Delivered 12/31/2019**
		Updated one (1) tower per AT&T CRS
	12/4/19 To 12/17/19	**Delivered 12/18/2019**
		Added three (3) towers per Sprint CRS
		Added two (2) towers per Verizon Wireless CRS
		Updated one (1) tower per AT&T CRS

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NOTE:

The Parcels layer is provided by Maui 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
12/31/2019	Delivered .map, .str, .rte, Maui Cell Coverage.csv, and database files, which included updated Address Points, Common Name Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers for Intergraph.
12/31/2019	Delivered updated data for MapFlex which included Address Points, Points Of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers.
12/18/2019	Delivered .map, .str, .rte, Maui Cell Coverage.csv, and database files, which included updated Address Points, Common Name Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers for Intergraph.
12/18/2019	Delivered updated data for MapFlex which included Address Points, Points Of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers.
12/4/2019	Delivered .map, .str, .rte, Maui Cell Coverage.csv, and database files, which included updated Address Points, Common Name Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers for Intergraph.
12/4/2019	Delivered updated data for MapFlex which included Address Points, Points Of Interest, Street Centerlines, WSP Cell Sectors and WSP Cell Towers.

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INTERGRAPH CAD UPGRADE

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

1. Akimeka delivered an updated Intergraph CAD map December 4th, 2019 which included:
    a. Address Points, Common Name Lookup Table, Points of Interest, Street Centerlines, and WSP Cell Towers.
    b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv

2. On December 18th, 2019 Akimeka delivered an updated Intergraph CAD map which included:
    a. Address Points, Common Name Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers
    b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv

3. On December 31st, 2019 Akimeka delivered an updated Intergraph CAD map which included:
    a. Address Points, Common Name Lookup Table, Points Of Interest, Street Centerlines, and WSP Cell Towers
    b. .map, .str, .rte, CAD Map Build database and Cell Coverage.csv

During January 2020, the Intergraph CAD map will continue to be delivered every other week, which has been coordinated with all mapping system updates and synchronizations with other 911 databases.

MAPFLEX SYSTEM

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

Hawaii County – December 3rd, 2019, December 17th, 2019, and December 31st, 2019
Maui County – December 4th, December 18th, 2019, and December 31st, 2019
Kauai County – December 5th, 2019, and December 29th, 2019
Honolulu – December 6th, 2019, and December 20th, 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.
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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4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – MAUI COUNTY PSAPS - DECEMBER 2019

MAUI COUNTY						
#	Date	Ticket #	Description	PSAP	Urgency	Comments
1	12/13/2019	1018	Updated Address	Maui	Normal	Confirmation pending from Time Warner Cable 12/31/2019

NOTE:

There is one (1) Open Service Request for the Maui County PSAPs for December, 2019.

MAUI PSAP SERVICE REQUESTS YEAR-TO-DATE (YTD) SUMMARY – 2019

MAUI COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2019	TOTAL		Open	WIRELINE		WIRELESS		VoIP	
	Created	Closed		Created	Closed	Created	Closed	Created	Closed
2018 Carryover*			1						
January	5	5	1	5	5	0	0	0	0
February	4	3	2	4	3	0	0	0	0
March	1	3	1	1	3	0	0	0	0
April	1	1	0	1	1	0	0	0	0
May	0	0	0	0	0	0	0	0	0
June	3	3	0	3	3	0	0	0	0
July	2	2	0	2	2	0	0	0	0
August	1	1	0	1	1	0	0	0	0
September	1	1	0	1	1	0	0	0	0
October	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0
December	4	3	1	3	3	0	0	1	0
TOTAL	**22**	**22**	**1**	**21**	**22**	**0**	**0**	**1**	**0**

Note:	*The 2018 Carry Over row indicates the number of Service Requests that were opened in 2018; however, were brought forward into 2019 in an effort to track the service request until completion.

Definitions:	Category	Description
	Wireline	Telephone Number (ALI) Discrepancies from land line phones that have been submitted to Intrado via 9-1-1 Net for correction.
	Wireless	Telephone Number (ALI) Discrepancies from phones that were land lines at one time, and were ported out to a wireless carrier. However, the phone number was never removed from the MSAG database.
	VoIP	Telephone Number (ALI) Discrepancies from VoIP phones that have been submitted to Time Warner Cable (TWCBL) or other VoIP providers for correction

5. E9-1-1 DATABASE SYNCHRONIZATION

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

As part of Akimeka's value added services, Akimeka conducted the next quarterly database synchronization audit for Maui County in December 2019.

The database synchronization effort included comparing Maui County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **2,741** 9-1-1 MSAG (ESN 300 – 357) records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on December 1, 2019 for Maui 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 March 1, 2019		As of June 1, 2019		As of September 1, 2019		As of December 1, 2019	
		9-1-1 MSAG Dated 3-01-19		9-1-1 MSAG Dated 6-01-19		9-1-1 MSAG Dated 9-01-19		9-1-1 MSAG Dated 12-01-19	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		2,730		2,739		2,740		2,741	
Less: 9-1-1 MSAG Exception Records	(1)	64	2.3%	64	2.3%	64	2.3%	64	2.3%
Net 9-1-1 MSAG Records Eligible for Comparison		**2,666**		**2,675**		**2,676**		**2,677**	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		**2,666**	**100.00%**	**2,673**	**100.00%**	**2,674**	**100.00%**	**2,673**	**100.00%**
9-1-1 MSAG -- GIS No Match - Minor Correction Required	(2)	0	0.0%	0	0.0%	2	0.0%	2	0.0%
9-1-1 MSAG Record With No GIS Record	(3)	0	0.0%	2	0.0%	0	0.0%	2	0.0%
Total 9-1-1 MSAG Records No Match		**0**	0.0%	**2**	0.0%	**2**	0.0%	**4**	0.0%

AUDIT SUMMARY NOTES:

- **(1)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.**

- **(2)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.).**

- **(3)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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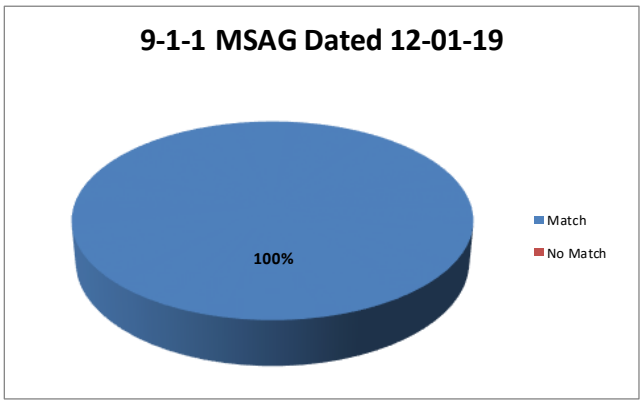
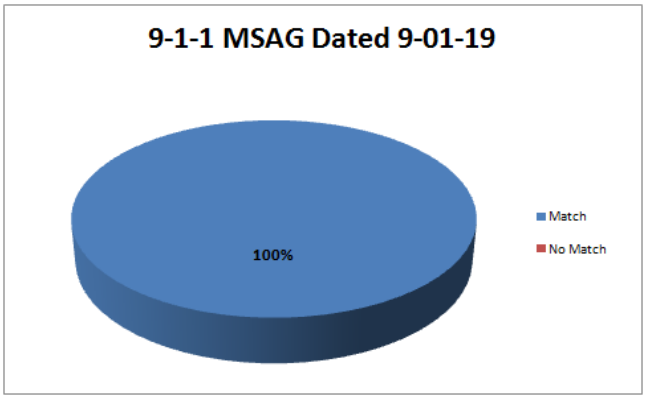
MSAG AUDIT SUMMARY RESULTS – DECEMBER 1, 2019 VS SEPTEMBER 1, 2019





Maui County's level of accuracy or 9-1-1 Match percentage remained constant

at 100% as of December 1, 2019 to 100% on September 1, 2019

NENA Recommended Match Rate = 98%

MSAG AUDIT SUMMARY RESULTS NOTES:

- **"MSAG - GIS Minor Corrections" remained the same (2 to 2) from September 2019 to December 2019. Minor corrections were primarily the result of edits made to the GIS Street Centerlines layer in order to meet new NG9-1-1 requirements. Low and high address ranges were then adjusted in the MSAG to correspond with the GIS record. Although this is a minor correction, customer telephone numbers (TNs) need to be validated by the service providers prior to adjusting an address range.**
- **"MSAG Record with No GIS Record" increased (0 to 2) from September 2019 to December 2019. MSAG Record with No GIS Record were zero due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Maui County records.**
- **Ongoing maintenance is critical to ensure the database synchronized level of address accuracy is maintained each time an MSAG or GIS record is "last modified".**

Maui County E9-1-1 Status Report

December 1, 2019 - December 31, 2019

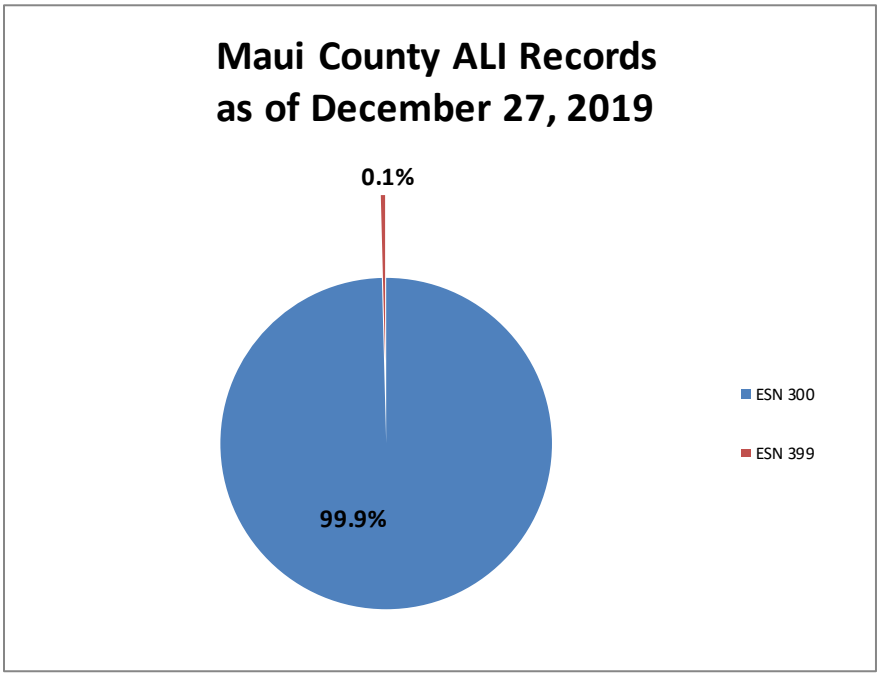
INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

Hawaiian Telcom, Inc. (HTI) provides Maui County and Akimeka, as the PSAP's agent, with access and visibility to the ESN 359/399 MSAG records which are "known" invalid streets and address ranges. Results of the data provided are as follows:

PSAP	ESN	Invalid MSAG Records							
		9-1-1 MSAG Dated 03-01-19		9-1-1 MSAG Dated 06-01-19		9-1-1 MSAG Dated 09-01-19		9-1-1 MSAG Dated 12-01-19	
		# of Records	% of Total MSAG Records (Valid and Invalid)	# of Records	% of Total MSAG Records (Valid and Invalid)	# of Records	% of Total MSAG Records (Valid and Invalid)	# of Records	% of Total MSAG Records (Valid and Invalid)
MAUI	399	13	0.5%	9	0.4%	5	0.2%	2	0.05%
MOLOKAI	359	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL MAUI		13	0.5%	9	0.4%	5	0.2%	2	0.05%

Maui County E9-1-1 Status Report

December 1, 2019 - December 31, 2019

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT

As part of Akimeka's ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Maui County. As of December 27, 2019, **2** ESN 399 (Maui/Lanai) and ESN 359 (Molokai) records, representing **.01%** of Maui County's total ALI records, require research and corrective action, if needed.