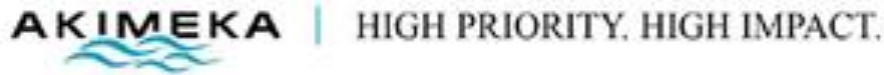# Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

TABLE CONTENTS

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

1. PSAP OPERATIONS

9-1-1 CALL VOLUME HAWAII COUNTY PSAPS – NOVEMBER 2017

(Source: **West Safety Services 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**	
2017	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
NOV	15,842	2,927	18.48%	10,859	68.55%	42.34%	57.66%	827	5.22%	17	0.11%	0	0.00%	1,212	7.65%	0	0.00%

CALL VOLUME HAWAII COUNTY PSAP NOTES:

**The percentage of Wireless Phase 2 calls (57.66%) has surpassed the number of Wireless Phase 1 calls (42.34%) in November 2017.

**911 Calls with No Ali in November 2017 = 0.11% - Statewide average for 2016 = 0.15%

9-1-1 CALL VOLUME – CALENDAR YEAR 2017

	9-1-1 Call Volume															
HAWAII COUNTY PSAPs	**Wireline**		**Wireless**				**VOIP**		**Calls with No ALI**		**Admin Calls**		**Abandoned Calls**		**Other Calls**	
2017	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	17,004	3,088	18.16%	11,658	68.56%	45.79%	54.21%	961	5.65%	18	0.11%	0	0.00%	1,279	7.52%	0	0.00%
FEB	14,128	2,676	18.94%	9,675	68.48%	45.03%	54.97%	670	4.74%	29	0.21%	0	0.00%	1,078	7.63%	0	0.00%
MAR	16,310	2,859	17.53%	11,328	69.45%	44.99%	55.01%	966	5.92%	33	0.20%	0	0.00%	1,124	6.89%	0	0.00%
APR	15,277	2,981	19.51%	10,339	67.68%	42.99%	57.01%	852	5.58%	20	0.13%	0	0.00%	1,085	7.10%	0	0.00%
MAY	15,894	2,821	17.75%	11,118	69.95%	42.38%	57.62%	859	5.40%	14	0.09%	0	0.00%	1,082	6.81%	0	0.00%
JUNE	15,204	2,906	19.11%	10,439	68.66%	41.08%	58.92%	804	5.29%	18	0.12%	0	0.00%	1,037	6.82%	0	0.00%
JULY	16,812	3,133	18.64%	11,694	69.56%	41.93%	58.07%	837	4.98%	16	0.10%	0	0.00%	1,132	6.73%	0	0.00%
AUG	16,545	2,879	17.40%	11,692	70.67%	41.76%	58.24%	847	5.12%	14	0.08%	0	0.00%	1,113	6.73%	0	0.00%
SEPT	15,614	2,897	18.55%	11,006	70.49%	42.28%	57.72%	743	4.76%	22	0.14%	0	0.00%	946	6.06%	0	0.00%
OCT	16,815	3,119	18.55%	11,587	68.91%	45.25%	54.75%	856	5.09%	19	0.11%	0	0.00%	1,234	7.34%	0	0.00%
NOV	15,842	2,927	18.48%	10,859	68.55%	42.34%	57.66%	827	5.22%	17	0.11%	0	0.00%	1,212	7.65%	0	0.00%
DEC																	
YTD	175,445	32,286		121,395				9,222		220		0		12,322		0	
MON AVG	15,950	2,935	18.42%	11,036	69.18%	43.26%	56.74%	838	5.25%	20	0.13%	0	0.00%	1,120	7.03%	0	0.00%

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9-1-1 CALL VOLUME BY AGENCY – NOVEMBER 2017

2017	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
November	12,500	78.90%	0	1,189	0	2,130	13.45%	0	23	0

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2017

2017	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	13,182	77.52%	0	1,237	0	2,543	14.96%	0	42	0
February	11,065	78.32%	0	1,048	0	1,985	14.05%	0	30	0
March	14,146	86.73%	0	1,097	0	2,164	13.27%	0	27	0
April	12,191	79.80%	0	1,065	0	2,001	13.10%	0	20	0
May	12,605	79.31%	0	1,053	0	2,207	13.89%	0	29	0
June	11,997	78.91%	0	1,015	0	2,170	14.27%	0	22	0
July	13,180	78.40%	0	1,112	0	2,500	14.87%	0	20	0
August	13,191	79.73%	0	1,082	0	2,241	13.54%	0	31	0
September	12,433	79.63%	0	922	0	2,235	14.31%	0	24	0
October	13,206	78.54%	0	1,193	0	2,375	14.12%	0	41	0
November	12,500	78.90%	0	1,189	0	2,130	13.45%	0	23	0
December										
YTD	139,696		0	12,013	0	24,551		0	309	0
MON AVG	12,700	79.62%	0	1,092	0	2,232	13.98%	0	28	0

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. Abandoned Calls are <u>not</u> included in the % of Total Calls.**
- **All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.**

Hawaii County E9-1-1 Status Report

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FOR YOUR INFORMATION

FYI ……….. For Your Information				
PSAP Operations				
Statewide 911 Call Volumes for 2016 & 2015 compare				
PSAP	2016		2015	
Oahu Civilian	1,009,059	71.93%	1,019,402	70.94%
Hawaii County	205,412	14.64%	217,768	15.15%
Maui County	137,333	9.80%	142,952	9.95%
Kauai County	50,955	3.63%	56,874	3.96%
Total	1,402,759	100.00%	1,436,997	100.00%
*Statewide average does not include Military 911 calls.				

TEXT TO 911 – CURRENT MONTH – NOVEMBER 2017

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 reliable. Text to 911 Dispatchers should use their skills to ascertain the exact location of the emergency response.

TEXT TO 911 Hawaii County PSAPs 2017		
Month	Received at Police	Received at Fire
January	27	1
February	37	2
March	32	1
April	25	2
May	24	1
June	29	2
July	26	3
August	30	4
September	14	0
October	7	0
November	16	3
December		
YTD	267	19
Monthly Avg.	24.27	1.73

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WIRELESS PSAP TESTING – NOVEMBER 2017

HAWAII COUNTY - NOVEMBER 2017						
Date	**WSP**	**Sites Tested**	**Sectors Tested**	**Tested By:**	**Test Pass/Fail**	**Comments:**
11/15/17	Sprint	1	3	Hawaii PSAP	Pass	

NOTES:

- There was one (1) scheduled Wireless 911 Tests for the month of November, 2017.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

MSAG TRANSACTIONS CURRENT MONTH/YEAR – NOVEMBER 2017

HAWAII COUNTY	9-1-1 TRANSACTIONS								
	Total	Dispatchable Location Transactions Submitted	MSAG	ALI Submitted		Open ALI Discrepancy Records			Customer Addresses Affected
2017		DL (A)	MSAG (B)	TN CR (C)	ALI DR (D)	TNCR	ALI DR	VoIP DR	
JANUARY	330	139	32	157	2	318	1	0	485
FEBRUARY	269	148	32	87	2	283	1	0	280
MARCH	302	216	28	57	1	203	1	0	423
APRIL	263	204	24	34	1	201	1	0	1,093
MAY	255	133	25	86	11	196	1	0	229
JUNE	272	159	35	74	4	165	1	0	368
JULY	270	150	26	93	1	164	0	0	259
AUGUST	265	222	11	31	1	158	0	0	262
SEPTEMBER	212	180	5	23	4	164	0	0	218
OCTOBER	249	215	19	10	5	153	0	0	215
NOVEMBER	294	173	15	99	7	212	0	0	227
DECEMBER									
TOTAL YTD	**2,981**	**1,939**	**252**	**751**	**39**				**4,059**
AVG PER MONTH	271	176	23	68	4				369

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 **294** MSAG transactions were processed in 9-1-1 Net during the current month. Fifteen (**15**) 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 **227** customer ANI/ALI (telephone number/address) records updated as a direct result.

TELEPHONE RECORD (ALI) TRANSACTIONS CURRENT MONTH NOTES:

272 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 and the Dispatchable Location Project. ESN 299 TN CRs must be validated against HT records and approved by the end user Hawaiian Telcom customer before updating the ALI record. Seven (**7**) ALI DRs were submitted as the result of 9-1-1 calls. Two (2) calls were made from wireline residential phones in Kailua Kona and Mountain View. Four (4) calls were made from VoIP phones, including residences in Pahoa and Kailua Kona, and one business in Hilo. One 9-1-1 call was made from a previous wireline residential phone in Kamuela that had been switched to an EDT (Express Dial Tone) line. Sometimes these old phone networks experience line trouble such as water in the connections and will dial 911. Because this number dialing 911 was not an active number belonging to anyone, the telephone number was disconnected by Hawaiian Telcom from EDT services. Hawaii County Fire Department submitted these change requests to Akimeka to update the customer information and the discrepancy was corrected in 9-1-1 Net and by Time Warner/Spectrum via email.

OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

- **There are currently 212 Open TN CR Transactions.**
- **Refer to chart in the next section "TNCR Current Status"**

212 Open TN CR transactions are a direct result of the ESN 299 clean-up and are awaiting approval from Hawaiian Telcom, Inc. Once a telephone number is submitted to West for correction, it is verified against HT records and/or by the customer. West's internal process requires calling each telephone customer individually for verification to update an address in the 9-1-1 database. Akimeka continues to monitor and track the progress of the remaining 212 Referred records.

- **There are currently no Open ALI-DRs.**

- **There are currently no Open VoIP DRs.**

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TNCR (TELEPHONE NUMBER CHANGE REQUEST) CURRENT STATUS – NOVEMBER 2017

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 West Safety Services 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 WEST SAFETY SERVICES (INTRADO)**	**OPENED TNCRS REFERRED TO TELCO BY WEST SAFETY SERVICES (INTRADO)**	**TOTAL UNOPENED TNCR RECORDS**
HAWAII	**212**	**137**	**17**	**58**

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 West Safety Services 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.

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DISPATCHABLE LOCATION – STATUS AS OF – NOVEMBER 2017

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 September 2015, 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 3,058 Dispatchable Locations processed to date. There were 173 Dispatchable locations submitted and processed in November, 2017.

Dispatchable Location			
2017 **Quarter 4**	**Common Name Place** **MSAG Address**	**TNCR* Transactions Submitted**	**Transactions Processed****
Quarter 3 Carryover		2,670	2,670
October	Hilton Waikoloa, 690425 Waikoloa Beach DR	73	73
	Hualalai Elderly Complex*, 750256 Hualalai Rd, Kailua Kona	42	42
	Hualalai Village, 750346 Hualalai Rd, Kailua Kona	12	12
	Mauna Lani Terrace, 681399 Mauna Lani Dr, Kamuela	60	60
	The Islands At Mauna Lani, 681375 S Pauoa Rd, Kamuela	28	28
November	Fairways at Mauna Lani, 681125 N Kaniku Dr, Kamuela	28	28
	Hilton Waikoloa, 690425 Waikoloa Beach DR	56	56
	Kulalani at Mauna Lani, 681118 N Kaniku Dr, Kamuela	14	14
	Villages at Mauna Lani, 681025 N Kaniku Dr, Kamuela	41	41
	The Fairmont Orchid, 681200 N Kaniku Dr, Kamuela	34	34
December			
Total		**388**	**388**
YTD Total		**3,058**	**3,058**

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SPECTRUM (CHARTER) 9-1-1 VOIP DATABASE VERIFICATION PROJECT - NOVEMBER 2017

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.

PSAP	*Spectrum (Charter) 9-1-1 VoIP Database Verification Project				
	TOTAL RECORDS SUBMITTED BY SPECTRUM (A)	TOTAL RECORDS MATCHING & VERIFIED WITH 911 DATABASES (B)	TOTAL RECORDS NOT MATCHING	NON MATCHING RECORDS CORRECTED BY 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**	**383**	**18.37%**
OAHU Military	**3,663**	**710 (19%)**	**2,953**	**2,355**	**79.75%**
TOTAL	**140,313**	****133,889**	**6,424**	**4,124**	**79.62%**

* 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.

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – NOVEMBER 2017

MAPPING LAYERS UPDATED (PART I)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server** **Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
Address Points	11/30/2017		Corrected Location Names for two (2) Addresses in Waikoloa.
	11/30/2017		Corrected Location Names for two (2) Addresses in Kailua Kona.
	11/30/2017		Corrected Location Names for two (2) Addresses in Honokaa.
	11/30/2017		Corrected Location Names for five (5) Addresses in Hilo.
	11/30/2017		Corrected Location Name for one (1) Address in Kealakekua.
	11/30/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/30/2017		Corrected Location Names for twenty one (21) Addresses in Keauhou.
	11/30/2017		Corrected Location Name for one (1) Address in Paauilo.
	11/30/2017		Corrected Location Names for four (4) Addresses in Volcano.
	11/30/2017		Corrected Location Name for one (1) Address in Kurtistown.
	11/30/2017		Corrected Location Names for two (2) Addresses in Papaikou.
	11/30/2017		Corrected Location Name for one (1) Address in Ocean View.
	11/30/2017		Added forty five (45) Addresses and Added Location Names in Holualoa.
	11/29/2017		Corrected Location Names for two (2) Addresses in Kurtistown.
	11/29/2017		Corrected Location Names for fourteen (14) Addresses in Hilo.
	11/29/2017		Corrected Location Names for eight (8) Addresses in Kamuela.
	11/29/2017		Corrected Location Names for two (2) Addresses in Captain Cook.
	11/29/2017		Corrected Location Names for two (2) Addresses in Honomu.
	11/29/2017		Corrected Location Names for three (3) Addresses in Volcano.
	11/29/2017		Corrected Location Names for two (2) Addresses in Keauhou.
	11/29/2017		Corrected Location Names for four (4) Addresses in Kailua Kona.
	11/29/2017		Corrected Location Names for three (3) Addresses in Waikoloa.
	11/29/2017		Corrected Location Name for one (1) Address in Mountain View.
	11/29/2017		Corrected Location Names for four (4) Addresses in Honokaa.
	11/29/2017		Corrected Location Names for four (4) Addresses in Pahoa.
	11/29/2017		Corrected Location Name for one (1) Address in Holualoa.
	11/29/2017		Corrected Location Name for one (1) Address in Kealakekua.
	11/29/2017		Added two (2) Addresses and Location Names in Hilo.
	11/29/2017		Added one (1) Address and Location Name in Pahala.
	11/28/2017		Corrected Location Names for three (3) Addresses in Pahala.
	11/28/2017		Corrected Location Names for three (3) Addresses in Mountain View.
	11/28/2017		Corrected Location Names for eight (8) Addresses in Pahoa.

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MAPPING LAYERS UPDATED (PART II)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server** **Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)			
Address Points	11/28/2017		Corrected Location Names for twelve (12) Addresses in Hilo.
	11/28/2017		Corrected Location Names for twelve (12) Addresses in Kamuela.
	11/28/2017		Corrected Location Names for three (3) Addresses in Naalehu.
	11/28/2017		Corrected Location Name for one (1) Address in Kurtistown.
	11/28/2017		Corrected Location Names for two (2) Addresses in Laupahoehoe.
	11/28/2017		Corrected Location Names for eight (8) Addresses in Kailua Kona.
	11/28/2017		Corrected Location Names for two (2) Addresses in Papaikou.
	11/28/2017		Corrected Location Name for one (1) Address in Hawi.
	11/28/2017		Corrected Location Names for two (2) Addresses in Keauhou.
	11/28/2017		Corrected Location Name for one (1) Address in HVN.
	11/28/2017		Corrected Location Names for two (2) Addresses in Honokaa.
	11/27/2017		Corrected Location Names for fifteen (15) Addresses in Pahala.
	11/27/2017		Corrected Location Names for three (3) Addresses in Hilo.
	11/27/2017		Corrected Location Name for one (1) Address in Kealakekua.
	11/27/2017		Corrected Location Names for five (5) Addresses in Kailua Kona.
	11/27/2017		Corrected Location Name for one (1) Address in Captain Cook.
	11/27/2017		Corrected Location Name for one (1) Address in Volcano.
	11/27/2017		Corrected Location Names for two (1) Addresses in Pahoa.
	11/27/2017		Corrected Location Name for one (1) Address in Paauilo.
	11/27/2017		Corrected Location Name for one (1) Address in Honaunau.
	11/27/2017		Corrected Location Name for one (1) Address in Laupahoehoe.
	11/27/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/27/2017		Corrected Location Name for one (1) Address in HVNP.
	11/27/2017		Corrected Location Names for three (3) Addresses in Waikoloa.
	11/27/2017		Corrected Location Name for one (1) Address in Ninole.
	11/27/2017		Corrected Location Names for nine (9) Addresses in Keauhou.
	11/24/2017		Corrected Location Names for three (3) Addresses in Pahoa.
	11/24/2017		Corrected Location Names for two (2) Addresses in Keahou.
	11/24/2017		Corrected Location Names for two (2) Addresses in Ocean View.
	11/24/2017		Corrected Location Names for thirteen (13) Addresses in Hilo.
	11/24/2017		Corrected Location Name for one (1) Address in Keaau.
	11/24/2017		Corrected Location Name for one (1) Address in Kapaau.

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MAPPING LAYERS UPDATED (PART III)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server** **Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
Address Points	11/24/2017		Corrected Location Names for five (5) Addresses in Kamuela.
	11/24/2017		Corrected Location Names for two (2) Addresses in Kealakekua.
	11/24/2017		Corrected Location Names for two (2) Addresses in Kailua Kona.
	11/24/2017		Corrected Location Name for one (1) Address in Pepeekeo.
	11/24/2017		Corrected Location Name for one (1) Address in Captain Cook.
	11/24/2017		Corrected Location Names for two (2) Addresses in Paauilo.
	11/24/2017		Corrected Location Names for two (2) Addresses in Honokaa.
	11/24/2017		Corrected Location Name for one (1) Address in Mountain View.
	11/24/2017		Corrected Location Name for one (1) Address in Waikoloa.
	11/22/2017		Corrected one (1) Address Change in Kealakekua.
	11/22/2017		Corrected Location Names for two (2) Addresses in Captain Cook.
	11/22/2017		Corrected Location Names for four (4) Addresses in Keaau.
	11/22/2017		Corrected Location Names for two (2) Addresses in Pahoa.
	11/22/2017		Corrected Location Name for one (1) Address in Papaikou.
	11/22/2017		Corrected Location Name for one (1) Address in Laupahoehoe.
	11/22/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/22/2017		Corrected Location Name for one (1) Address in Waikoloa.
	11/22/2017		Corrected Location Names for three (3) Addresses in Kailua Kona.
	11/22/2017		Corrected Location Name for one (1) Address in Keauhou.
	11/22/2017		Corrected Location Name for one (1) Address in Pepeekeo.
	11/22/2017		Corrected Location Names for two (2) Addresses in Volcano.
	11/22/2017		Corrected Location Names for two (2) Addresses in Hilo.
	11/22/2017		Corrected Location Name for one (1) Address in Papaaloa.
	11/22/2017		Corrected Location Name for one (1) Address in Paauilo.
		11/21/17	
	11/21/2017		Corrected Location Name for ten (10) Addresses in Hilo.
	11/20/2017		Added one (1) Address and Location Name in Hilo.
	11/20/2017		Corrected Location Names for six (6) Addresses in Hilo.
	11/20/2017		Corrected Street Class for one (1) Street in Naalehu.
	11/17/2017		Corrected Location Name for one (1) Address in Hilo.
	11/17/2017		Added two (2) Addresses in Mountain View.
	11/17/2017		Added two (2) Addresses in Keaau.

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MAPPING LAYERS UPDATED (PART IV)

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

Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks
HAWAII COUNTY			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
Address Points	11/17/2017		Added three (3) Addresses in Kurtistown.
	11/17/2017		Corrected one (1) Address in Kealakekua.
	11/17/2017		Corrected two (2) Addresses in Kailua Kona.
	11/16/2017		Added twelve (12) Addresses for Keaau.
	11/16/2017		Added fourteen (14) Addresses in Mountain View.
	11/16/2017		Added seven (7) Addresses in Captain Cook.
	11/16/2017		Added twelve (12) Addresses in Ocean View.
	11/16/2017		Added two (2) Addresses in Hawi.
	11/16/2017		Added fifteen (15) Addresses in Kurtistown.
	11/16/2017		Added ten (10) Addresses in Hilo.
	11/16/2017		Added one (1) Address in Pepeekeo.
	11/16/2017		Added three (3) Addresses in Paauilo.
	11/16/2017		Added twenty two (22) Addresses in Pahoa.
	11/16/2017		Added three (3) Addresses in Naalehu.
	11/16/2017		Added one (1) Address in Laupahoehoe.
	11/16/2017		Added two (2) Addresses in Keauhou.
	11/16/2017		Added fifteen (15) Addresses in Volcano.
	11/16/2017		Added two (2) Addresses in Papaikou.
	11/16/2017		Added four (4) Addresses in Kamuela.
	11/16/2017		Added two (2) Addresses in Honokaa.
	11/16/2017		Added five (5) Addresses in Kapaau.
	11/16/2017		Added three (3) Addresses in Kailua Kona.
	11/16/2017		Added two (2) Addresses in Kealakekua.
	11/16/2017		Added two (2) Addresses in Waikoloa.
	11/16/2017		Added two (2) Addresses in Holualoa.
	11/16/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/16/2017		Corrected Location Names for three (3) Addresses in Waikoloa.
	11/15/2017		Corrected Location Name for one (1) Address in Volcano.
	11/15/2017		Corrected Location Name for two (2) Addresses in Hawi.
	11/15/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/15/2017		Spatially Corrected one (1) Address in Kapaau.
	11/14/2017		Corrected Location Names for two (2) Addresses in Kailua Kona.

MAPPING LAYERS UPDATED (PART V)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server** **Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
Address Points	11/14/2017		Corrected Location Names for three (3) Addresses in Kamuela.
	11/14/2017		Added one (1) Address and Location Name in Ocean View.
	11/14/2017		Spatially Corrected one (1) Address in Paauilo.
	11/14/2017		Verified and reported fifty (50) Random Addresses for Accuracy and Data check.
	11/13/2017		Corrected Location Names for six (6) Addresses in Kamuela.
	11/13/2017		Corrected Location Names for six (6) Addresses in Hilo.
	11/13/2017		Corrected Location Names for three (3) Addresses in Kailua Kona.
	11/13/2017		Corrected Location Names for two (2) Addresses in Captain Cook.
	11/13/2017		Added two (2) Addresses and Location Names for Kailua Kona.
	11/13/2017		Added two (2) Addresses and Location Names for Hilo.
	11/9/2017		Corrected Location Name for seven (7) Addresses in Kailua Kona.
	11/9/2017		Corrected Location Name for seventeen (17) Addresses in Hilo.
	11/9/2017		Corrected Location Name for one (1) Address in Volcano.
	11/9/2017		Corrected Location Names for two (2) Addresses in Waikoloa.
	11/9/2017		Added one (1) Address and Location Name for Keaau.
	11/9/2017		Added one (1) Address and Location Name for Kealakekua.
	11/9/2017		Added two (2) Addresses and Location Names for Kamuela.
	11/9/2017		Added two (2) Addresses and Location Names for Kailua Kona.
	11/9/2017		Added two (2) Addresses and Location Names for Hilo.
	11/9/2017		Added two (2) Addresses and Location Names for Waikoloa.
	11/8/2017		Added one (1) Address and Location Name for Ocean View.
	11/8/2017		Added three (3) Addresses and Location Names for Hilo.
	11/8/2017		Corrected Location Name for one (1) Address in Captain Cook.
	11/8/2017		Corrected Location Name for one (1) Address in Hakalau.
	11/8/2017		Corrected Location Name for one (1) Address in Hawi.
	11/8/2017		Corrected Location Names for six (6) Addresses in Hilo.
	11/8/2017		Corrected Location Name for one (1) Address in Holualoa.
	11/8/2017		Corrected Location Names for two (2) Addresses in Honokaa.
	11/8/2017		Corrected Location Name for one (1) Address in Honomu.
	11/8/2017		Corrected Location Name for one (1) Address in Mountain View.
	11/8/2017		Corrected Location Name for one (1) Address in Pahoa.
	11/8/2017		Corrected Location Name for one (1) Address in Pahala.

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MAPPING LAYERS UPDATED (PART VI)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server** **Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
	CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE (Listed Alphabetically)		
Address Points	11/8/2017		Corrected Location Name for one (1) Address in Ocean View.
	11/8/2017		Corrected Location Name for two (2) Addresses in Kailua Kona.
	11/8/2017		Corrected Location Name for one (1) Address in Kapaau.
	11/8/2017		Corrected Location Name for one (1) Address in Keaau.
	11/8/2017		Corrected Location Name for one (1) Address in Kealakekua.
	11/8/2017		Corrected Location Name for one (1) Address in Kurtistown.
	11/8/2017		Corrected Location Name for one (1) Address in Naalehu.
	11/8/2017		Corrected Location Name for one (1) Address in Laupahoehoe.
	11/8/2017		Corrected Location Name for one (1) Address in Papaikou.
	11/8/2017		Corrected Location Name for one (1) Address in Volcano.
	11/8/2017		Corrected Location Name for one (1) Address in Waikoloa.
		11/07/17	
	11/7/2017		Corrected Location Names for five (5) Addresses in Hilo.
	11/7/2017		Corrected Location Names for two (2) Addresses in Pahala.
	11/7/2017		Added one (1) Address in Honokaa.
	11/7/2017		Corrected Location Names for two (2) Addresses in Pahoa.
	11/7/2017		Corrected Location Name for one (1) Address in Honomu.
	11/7/2017		Corrected Location Name for one (1) Address in Waikoloa.
	11/7/2017		Corrected Location Name for one (1) Address in Papaikou.
	11/7/2017		Corrected Location Name for one (1) Address in Kailua Kona.
	11/7/2017		Corrected Location Name for one (1) Address in Keaau.
	11/7/2017		Added one (1) Address and Location Name for Pahoa.
	11/7/2017		Added one (1) Address and Location Name for Kailua Kona.
	11/7/2017		Added one (1) Address and Location Name for Kamuela.
	11/7/2017		Added one (1) Address and Location Name for Hilo.
	11/7/2017		Added two (2) Addresses and Location Names for Kailua Kona.
	11/7/2017		Updated Phone and Website for one (1) Address in Kamuela.
	11/6/2017		Corrected Location Name for two (2) Addresses in Paauilo.
	11/6/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/3/2017		Corrected Location Name for one (1) Address in Mountain View.
	11/3/2017		Corrected Location Name for one (1) Address in Kealakekua.
	11/3/2017		Corrected one (1) Full Address in Hilo.

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MAPPING LAYERS UPDATED (PART VII)

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

Type of Layer	Akimeka GIS Server — Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks
HAWAII COUNTY			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE *(Listed Alphabetically)*			
Address Points	11/3/2017		Corrected Location Name for one (1) Address in Keaau.
	11/3/2017		Corrected Location Name for one (1) Address in Kapaau.
	11/3/2017		Added one (1) Address in Waikoloa and Corrected Location Name.
	11/3/2017		Added two (2) Addresses in Kailua Kona and Corrected Location Name.
	11/2/2017		Corrected Location Names for seven (7) Addresses in Kailua Kona.
	11/2/2017		Corrected Location Names for six (6) Addresses in Hilo.
	11/2/2017		Corrected Location Name for one (1) Address in Waikoloa.
	11/2/2017		Corrected Location Names for three (3) Addresses in Keauhou.
	11/2/2017		Corrected Location Name for one (1) Address in Ocean View.
	11/2/2017		Corrected Location Name for one (1) Address in Pahoa.
	11/2/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/2/2017		Corrected Location Name for one (1) Address in Keaau.
	11/2/2017		Corrected Location Names for two (2) Addresses in Mountain View.
	11/2/2017		Added one (1) Address in Waikoloa and Added Location Name.
	11/2/2017		Added two (2) Addresses in Kealakekua and Added Location Names.
	11/2/2017		Added two (2) Addresses in Kailua Kona and added Location Names.
	11/2/2017		Added two (2) Addresses in Hilo and added Location Names.
	11/1/2017		Corrected Location Names for two (2) Addresses in Pahoa.
	11/1/2017		Corrected Location Name for one (1) Address in Pepeekeo.
	11/1/2017		Corrected Location Names for three (3) Addresses in Hilo.
	11/1/2017		Corrected Location Name for one (1) Address in Kailua Kona.
	11/1/2017		Corrected Location Name for one (1) Address in Hawi.
	11/1/2017		Corrected Location Name for one (1) Address in Kamuela.
	11/1/2017		Added two (2) Address Points in Kailua Kona.
	11/1/2017		Added two (2) Address Points in Hilo.
Airports			
Bridges			
Building Footprints			
Bus Stops			
Churches			
Coastal Names			
Coastline			

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MAPPING LAYERS UPDATED (PART VIII)

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

Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks
HAWAII COUNTY			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
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			
Lodging			
Major Roads			
Medic Beats			
Medic Districts			
Medic Response Areas			
Medic Stations			
Medical Facilities			
Milepost Markers			
MSAG Communities			
Net Junctions			
Ocean Rescue Boundaries			

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MAPPING LAYERS UPDATED (PART IX)

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

Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	Date GIS Delivered	Other/Remarks
HAWAII COUNTY			
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
Ocean Safety			
Parcels			
Parks			
Parks Polygon			
Points of Interest		**11/21/17**	
	11/16/2017		Corrected Location Name for one (1) POI in Naalehu.
	11/15/2017		Corrected Location Name for one (1) POI in Honokaa.
	11/15/2017		Corrected Location Name for one (1) POI in Honomu.
	11/15/2017		Corrected Location Name for one (1) POI in Pahoa.
	11/15/2017		Corrected Location Name for one (1) POI in Keaau.
	11/15/2017		Corrected Location Name for one (1) POI in Holualoa.
	11/15/2017		Corrected Location Name for four (4) POI's in Captain Cook.
	11/15/2017		Corrected Location Name for one (1) POI in Laupahoehoe.
	11/15/2017		Corrected Location Name for one (1) POI in Paauilo.
	11/15/2017		Corrected Location Name for one (1) POI in Kailua Kona.
	11/15/2017		Corrected Location Name for one (1) POI in Pahala.
	11/15/2017		Corrected Location Name for one (1) POI in Volcano.
	11/15/2017		Added one (1) POI in Hilo.
	11/14/2017		Added one (1) POI and Location Name in Ocean View.
	11/14/2017		Added one (1) POI and Location Name for Papaaloa.
	11/13/2017		Added two (2) POI's and Location Names in Ookala.
	11/13/2017		Added one (1) POI and Location Name for Address in Hawi.
		11/07/17	
Police Beats			
Police Districts			
Police Response Areas			
Police Stations			
Post Offices			
Schools			
Street Centerlines	11/29/2017		Corrected Street Name for one (1) Street in Kamuela.
		11/21/17	
	11/21/2017		Corrected Parity Left/Right for one (1) Street in Honomu.

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MAPPING LAYERS UPDATED (PART X)

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

HAWAII COUNTY			
Type of Layer	**Akimeka GIS Server** **Date Created/ Edits Performed**	**Date GIS Delivered**	**Other/Remarks**
CRITICAL 9-1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE **(Listed Alphabetically)**			
Street Centerlines	11/21/2017		Corrected Parity Left/Right for one (1) Street in Kamuela.
	11/20/2017		Corrected Street Class for three (3) Streets in Pahala.
	11/20/2017		Corrected Street Class for six (6) Streets in Hilo.
	11/20/2017		Corrected Street Class for one (1) Street in Captain Cook.
	11/20/2017		Corrected Street Class for one (1) Street in Kukuihaele.
	11/20/2017		Corrected Street Class for one (1) Street in Hawi.
	11/20/2017		Corrected Street Code for one (1) Street in Honokaa.
	11/20/2017		Corrected Street Code for three (3) Streets in Kailua Kona.
	11/17/2017		Updated Ranges for three (3) Centerlines in Kamuela.
	11/17/2017		Updated Range for one (1) Centerline in Naalehu.
	11/17/2017		Updated Range for one (1) Centerline in Honokaa.
		11/07/17	
	11/7/2017		Added Alias Route Numbers and Verified Existing Route Numbers.
	11/6/2017		Added Alias Route Numbers and Verified Exiting Route Numbers.
	11/3/2017		Added Alias Route Numbers and Verified Existing Route Numbers.
	11/2/2017		Added Alias Route Numbers and Verified Existing Route Numbers.
	11/1/2017		Added Alias Route Numbers and Verified Existing Route Numbers.
Subdivisions			
Tow Jurisdictions			
Tsunami Evacuation Zones			
Tsunami Heights			
Waste Water Plants			
WSP Cell Sectors		**11/21/17**	
	11/20/2017		Per Verizon CRS
	11/14/2017		Per AT&T CRS
		11/07/17	
	11/2/2017		Per Verizon CRS
WSP Cell Towers		**11/21/17**	
	11/20/2017		Per Verizon CRS
	11/14/2017		Per AT&T CRS
		11/07/17	
	11/2/2017		Per Verizon 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
11/21/2017	Address Points, Cell Sectors, Cell Towers, Points of Interest, Street Centerlines, ESN, and MSAG Communities
11/21/2017	Address Points, Clty, Common Names Alt Table, Display Streets, Fire EMS Zones, First In, Points of Interest, POI Alt Names, Police Zones, Street Centerlines, Street Alt Names, Street Routes
11/7/2017	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, Street Routes
11/7/2017	Address Points, Cell Sectors, Cell Towers, Points of Interest, Street Centerlines, ESN, and MSAG Communities

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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, Akimeka compares and incorporates any of the County's additions, changes, and deletions into the Akimeka Address Points and Street Centerlines layers that appear necessary for the dispatch and response of 911 personnel.

The Address Points and Street Centerlines layer comparative analysis was completed on the updates received from the Hawai'i County Planning Department on **November 17, 2017**. Results are as follows:

HAWAII COUNTY	Address Points Layer	Street Centerlines Layer
New Addresses Added	151	
Addresses Removed	0	
Address Street Name Changes	4	
Address Street Number Changes	6	
New Street Segments Added		0
Street Segments Removed		0
Street Segment Range Changes		3
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.

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POLICE BEAT REVIEW

Each year as part of a data review process, Akimeka conducts a Police Beats review process. During this time, the Police Beats are reviewed with the written descriptions of the Hawaii Police Beat Boundaries, whereby corrections are made to the Police Beat GIS layer where applicable in an effort to synchronize the GIS layer with the written descriptions and provide the 911 centers in Hawaii with a more accurately defined boundary layer which align with operational jurisdictions.

1. Subsequent to the GIS updates that were provided into the CAD/Mapping Systems in September, there have been no requested updates to the Police Beats.

CAD SYSTEM DEPLOYMENT

The system has not gone live yet but has received regular GIS updates, as scheduled.

1. On September 28, 2017, Akimeka and Spillman held a conference call to discuss some of the items in the training sessions, noted above. There were two key topics discussed; the Street Name searches and an additional item not previously discussed – the ability to search street names with first 5 characters.
   a. Spillman discussed a workflow they saw being used to make these changes in the GIS. Akimeka reserved a slight hesitation with the workflows because there is room for potential discrepancies for the PSAP. The proposed solution for the Street Names, for instance, requires the creation of a midpoint location on a particular street within a given community. One of the issues with this, is that for several streets in Hawaii County the midpoint will be entirely unrelated to the potential caller's location, and may add time to the call process.
   b. Akimeka identified the proposed solution as a potential fix to a system limitation but may only be a partial solution, leaving a potential gap where during a 9-1-1 call the "solution" may not be of help. Akimeka thought it was best to discuss the items in more detail and include HPD for their approval and awareness of the potential risk involved.
2. On October 5, 2017, HPD had asked Akimeka to hold on the requested updates until the system has gone live and they could test it at that point.
3. On October 11, 2017, after Akimeka had provided the GIS data for delivery, Spillman followed up to query if the changes to include the proposed solution were included.
   a. Akimeka had replied that HPD had asked us not to proceed until further discussed.
   b. Spillman had questioned the rationale of the decision
4. On October 31, 2017, HPD, HFD, Akimeka, and Spillman held a conference call to further discuss the item.
   a. Overview of the request and the issue
      i. These are almost entirely for non-emergency calls or wireless phase I calls
      ii. According to Spillman, hardware or software issues may be involved in the transferring of calls from HPD if calls are dropped
      iii. During traffic stops, officers are often times only giving street names. Issue is that Spillman requires a validated address.
      iv. Discussion of standards were highlighted. Akimeka is obligated to follow industry standards regarding data accuracy. Similarly Spillman briefed that they are required to follow standards. This proposed solution negates both objectives so neither cannot make the change without HPD approving the request.
      v. Akimeka briefed that the solution is likely not all encompassing and will likely open other issues not being recognized before put into a live environment. Their focus is on the GIS data accuracy so if the proposed

solution accommodates a portion of scenarios but not all of them, there is a concern with it and what those impacts may be.

b. Address Locator and GIS changes were discussed
   i. The concern with creating a point in the GIS which represents the center of a given street within a particular community was discussed. For streets which are short in length, this proposed solution may suffice. The issue, discussed by Akimeka, is with regards to longer streets which span across an entire community like Mamalahoa Hwy. The extent to which the map will pan, may require the dispatcher to spend a significant time locating within the map, features which can be used for the validated address. Using the street as the validated address will likely cause issues.
   ii. An additional concern brought forward was that this solution will likely degrade the quality of data being cataloged in RMS. Incidents recorded for just a street name will likely lose some pertinent information on specific addresses.
   iii. Spillman briefed why their system could not do this natively without modifying the data
       1. Akimeka asked why Spillman is the only CAD or Mapping System in the State that has difficulty with this feature.

c. Timeline and Next Steps
   i. HPD mentioned that their go-live date is in one (1) month so if any changes are needed, there is a compressed timeline.
       1. Akimeka briefed that if this is desired and approved by HPD, we would make sure it is finished beforehand.
   ii. Spillman was asked for references of other PSAPs which have implemented this solution so that they can be asked of its use case and any potential issues.
   iii. During the call there was a verbal approval from HPD for Akimeka to move forward with the proposed solution, which could later be tested by HPD and HFD.
   iv. Agreement was made to hold off on the 5 character street name aliases until the first item could be looked at.

5. On November 7, 2017 Akimeka and Spillman held a quick conference call to verify the requirements of the proposed modification. All information was captured and Akimeka prepared the data shortly after the meeting.

6. During November, there were no PSAP references provided to ensure this fix works properly so the modification was asked not to be provided until that occurs.

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

During the month of November 2017, the MapFlex system received updates manually as a result of MapFlex having several issues pertaining to the automated upload processes.

Considering that the MapFlex initiative being provided by Hawaiian Telecom and sub-contractor, West, was implemented across the State of Hawaii, in the below narrative there is some information pertaining to all of the Hawaiian Islands. For a record of historical information regarding the MapFlex system, please see MSRs during the 2015 and 2016 years.

1. Akimeka delivered GIS data to the MapFlex system on the following dates in November 2017
   a. **Hawaii County** – November 7th, 2017 and November 21st, 2017
   b. **Maui County** – November 8th, 2017 and November 22nd, 2017
   c. **Kauai County** – November 9th, 2017 and November 22nd, 2017
   d. **Honolulu** – November 10th, 2017 and November 22nd, 2017

MAPFLEX ISSUES

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

DATE	ISSUE	DESCRIPTION	STATUS
7/24/2016	Automatic Uploads Malfunctioning	It was identified that the Automatic uploads were creating issues within the MapFlex systems, where locators were not being published, etc. as a result of a scripting error at West. Manual uploads have been taking place of the GIS as necessary and agreed by all PSAPs.	Resolved, as of April 2017, West/HT has decided to implement a process to upload data the following week after GIS uploads (manually)
7/24/2016	Blank MapFlex Screen	The MapFlex screen went blank and there was no mapping capability, similar to what had occurred with Maui PD. Resulted from West's automatic update script. All of the PSAPs agreed to hold off on all GIS updates in MapFlex until West has resolved the issue.	Resolved (Nov 2016) There have been no reported blank screens
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
8/2016	Text-to-911 Icons	Icons for text calls have stopped displaying. Previously when calls came in as a text call, there would be an icon displaying "TEXT" where the call was plotted.	Resolved (Nov 2016)
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 West, in which the mapping did not point to the correct information in MapFlex.	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 West. West provides the PDE services for Sprint.	Pending

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November 1, 2017 – November 30, 2017

1/18/2017	RDC MapFlex	During a meeting between Akimeka and RDC, it was identified that HPD GIS data was contained within the RDC MapFlex and was missing RDC's data. Due to the proprietary nature of the GIS data provided by Akimeka for the civilian PSAP's mapping systems and the confidential information contained to support HPD operations, it was concerning. Actions were taken to request West to stop this and to pull RDC's archive data. West has since replied that they never knew RDC was military and functioned separately from the civilian PSAPs. HPD, RDC, and Akimeka have taken corrective actions to construct GIS data that will be used as a baseline for the RDC and to remove sensitive information supplied for the RDC MapFlex.	Resolved (August 2017)
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.	A new SP 5.4 update by West 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 West FMCC.	West is currently researching their configurations (May - June 2017). Aside from the MapFlex, Akimeka is working with Spectrum (previously Time Warner) to correct their Lat/Longs on a mass scale Discussion has taken place on a temporary solution by suppressing XY in ALI. West had announced later October 2017 that engineering was working on an interim release that allows the PSAP to suppress Lat/Long at the MapFlex server.
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.	West is looking into this (May - June 2017)

4. SERVICE REQUESTS TRANSACTIONS

OPEN SERVICE REQUESTS – NOVEMBER 2017

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

#	Date	Ticket #	Description	PSAP	Urgency	Comments
			None			

Note* There are no (0) opened service request pending for November 2017.

SERVICE REQUEST YEAR-TO-DATE (YTD) SUMMARY – 2017

HAWAII COUNTY				MSAG SERVICE REQUEST CATEGORIES					
2017	**TOTAL**		**Open**	**WIRELINE**		**WIRELESS**		**VoIP**	
	Created	**Closed**		Created	Closed	Created	Closed	Created	Closed
2016 Carryover*			1						
January	3	3	1	2	2	0	0	1	1
February	2	2	1	2	2	0	0	0	0
March	1	1	1	1	1	0	0	0	0
April	1	1	1	0	0	0	0	1	1
May	11	11	1	8	8	0	0	3	3
June	4	4	1	2	2	0	0	2	2
July	2	3	0	1	2	0	0	1	1
August	3	3	0	1	1	0	0	2	2
September	4	4	0	4	4	0	0	0	0
October	5	5	0	4	4	0	0	1	1
November	7	7	0	3	3	0	0	4	4
December									
TOTAL	**43**	**44**	**0**	**28**	**29**	**0**	**0**	**15**	**15**

Note:	* The 2016 Carryover row indicated the number of Service Requests that were opened in 2016 and brought forward into 2017 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 West Safety Services 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) for correction

5. E9-1-1 DATABASE SYNCHRONIZATION

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

(**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 quarterly database synchronization audit for Hawaii County in **November 2017**.

The database synchronization effort included comparing Hawaii County's 9-1-1 MSAG against its GIS Street Centerline data. A total number of **4,542** 9-1-1 MSAG records were reviewed in the audit and analyzed. Results of the database synchronization audit completed on November 1, 2017 for Hawaii 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 yield a 100 percent match rate. As such, NENA's recommended minimum match rate is **98%**.

The database synchronization process is essential to monitor and ensure the level of accuracy of the E9-1-1 databases and prepare for Next Generation 9-1-1 (NG9-1-1). As such, Akimeka will perform database synchronization audits on a quarterly basis as part of it ongoing maintenance process. Results of the database synchronization audit will be included and reported in the Monthly Status Report (MSR) accordingly.

AUDIT SUMMARY RESULTS – NOVEMBER 2017

9-1-1 MSAG TO GIS STREET CENTERLINE AUDIT COMPARISON RESULTS	Notes	As of February 1, 2017 9-1-1 MSAG Dated 02-01-17		As of May 1, 2017 9-1-1 MSAG Dated 05-01-17		As of August 1, 2017 9-1-1 MSAG Dated 08-01-17		As of November 1, 2017 9-1-1 MSAG Dated 11-01-17	
		# of Records	%	# of Records	%	# of Records	%	# of Records	%
Total 9-1-1 MSAG Records Reviewed		4,503		4,520		4,537		4,542	
Less: 9-1-1 MSAG Exception Records	(1)	46	1.0%	51	1.1%	51	1.1%	51	1.1%
Net 9-1-1 MSAG Records Eligible for Comparison		4,457		4,469		4,486		4,491	
Total 9-1-1 MSAG Records Match (9-1-1 MSAG -- GIS Match -- No Corrections Required)		4,446	99.8%	4,460	99.8%	4,476	99.8%	4,470	99.5%
9-1-1 MSAG -- GIS No Match Minor Correction Required	(2)	9	0.2%	8	0.2%	9	0.2%	16	0.4%
9-1-1 MSAG Record With No GIS Record	(3)	2	0.0%	1	0.0%	1	0.0%	5	0.1%
Total 9-1-1 MSAG Records No Match		11	0.2%	9	0.2%	10	0.2%	21	0.5%

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.
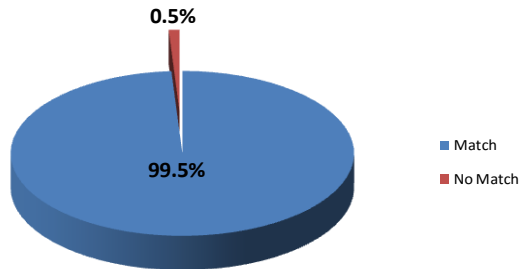
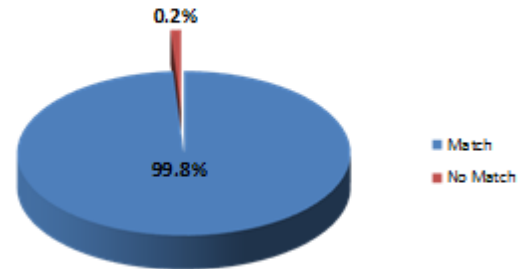## AUDIT SUMMARY RESULTS COMPARISION – NOVEMBER 1, 2017 VS AUGUST 1, 2017

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

9-1-1 MSAG Dated 11-01-17

0.5%
99.5%
■ Match
■ No Match

9-1-1 MSAG Dated 8-01-17

0.2%
99.8%
■ Match
■ No Match

NOTE:

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

from 99.5% as of November 1, 2017 to 99.8% as of August 1, 2017

NENA Recommended Match Rate = 98%

AUDIT SUMMARY RESULTS

COMPARISON NOTES:

❖ There continues to be a tremendous work effort to synchronize the MSAG and GIS data. Akimeka continues to work closely with County Planning to address problem areas. Hawai`i County has worked very hard to assign addresses and name and range street centerlines which have helped facilitate Akimeka's synchronization efforts.

❖ "MSAG - MSAG with Missing GIS Records" increased from ten (10) to twenty-one (21) records from August 2017 to November 2017. MSAG records with missing record were due primarily to the verification of the MSAG records against multiple GIS databases to determine if the roads are existing within Hawaii County.

❖ "MSAG - GIS Minor Corrections" increased from nine (9) to sixteen (16) records from August 2017 to November 2017. The non-match condition of the nine records are a result in which MSAG records submitted in 9-1-1 Net were not completed prior to the end of month. The MSAG section will monitor these records to ensure they are processed in 9-1-1Net prior to the February 2018 re-analysis

❖ "GIS Record with No Matching MSAG Record" increased from seven (7) to twenty-four (24) records from August 2017 to November 2017. This includes GIS records that have no MSAG records, and/or GIS records that do not match the MSAG record exactly.

❖ "GIS Record with No MSAG Record" increased from zero to seven (7) records from August 2017 to November 2017. This was primarily the result of edits made to the GIS Street Centerlines layer in order to meet new NG9-1-1 requirements.

❖ Ongoing maintenance is critical to ensure the database synchronized level of address accuracy is maintained each time an MSAG or GIS record is "touched".

INVALID MSAG STREETS AND ADDRESS RANGES – ESN X99 RECORDS

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

At the request of the County of Hawaiʻi Chief of Police, Hawaiian Telcom, Inc. (HTI) provided Hawaiʻi 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. Results of the data provided are as follows:

HAWAII	Invalid MSAG Records							
	9-1-1 MSAG Dated 02-01-17		9-1-1 MSAG Dated 05-01-17		9-1-1 MSAG Dated 08-01-17		9-1-1 MSAG Dated 11-01-17	
	Number of Records	% of Total Inlavid MSAG Records	Number of Records	% of Total Inlavid MSAG Records	Number of Records	% of Total Inlavid MSAG Records	Number of Records	% of Total Inlavid MSAG Records
ESN 299	398	8.8%	356	7.9%	327	6.8%	309	6.4%

These invalid MSAG records represent **6.4%** of the Total MSAG records for Hawaiʻi County. The individual ALI records associated with these records are provided below.

TN CRs are submitted by Akimeka when valid MSAG addresses are identified and validated against the GIS data. Akimeka will continue to investigate and report on these ESN 299 MSAG records as a separate project and add-on to the Database Synchronization quarterly report.

AUTOMATIC LOCATION IDENTIFICATION (ALI) DISCREPANCY REPORT

Hawaii County E9-1-1 Status Report

November 1, 2017 – November 30, 2017

As part of Akimeka's ongoing database synchronization efforts, Akimeka reviewed and summarized the ALI discrepancy reports by community for Hawaiʻi County. As of November 28, 2017, **945** ESN 299 records, representing **1.4%** of Hawaiʻi County's total ALI records, require research and corrective action, if needed. These ALI discrepancy reports may result in a No Record Found (NRF) condition during a 9-1-1 call.

Hawaiʻi County ALI Records as of 11/28/17