Oahu Civilian E9-1-1

Status Report

December 1, 2019 – December 31, 2019



December 1, 2019 - December 31, 2019

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1. PSAP OPERATIONS

9-1-1 CALL VOLUME CIVILIAN PSAPS – DECEMBER 2019

Source: Intrado Viper system

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

	9-1-1 Primary PSAP Call Volume																
Honolulu City & 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	Wireless	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
December	99,448	17,701	17.80%	77,898	78.33%	37.56%	40.77%	3,819	3.84%	30	0.03%	1,292	1.30%	17,602	17.70%	754	0.76%

9-1-1 CALL VOLUME CILILIAN PSAPS – CALENDAR YEAR 2019

	9-1-1 Primary PSAP Call Volume																
Honolul	Honolulu City & 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	No. of Total Call Received	% of Total Calls
JAN	88,651	17,145	19.34%	68,155	76.88%	43.80%	33.08%	3,333	3.76%	18	0.02%	1,427	1.61%	15,027	16.95%	746	0.84%
FEB	81,871	16,620	20.30%	62,099	75.85%	43.70%	32.15%	3,127	3.82%	25	0.03%	754	0.92%	13,784	16.84%	697	0.85%
MAR	88,137	17,125	19.43%	67,804	76.93%	43.76%	33.17%	3,182	3.61%	26	0.03%	1,135	1.29%	13,461	15.27%	693	0.79%
APR	88,811	16,785	18.90%	68,855	77.53%	43.71%	33.82%	3,144	3.54%	27	0.03%	1,220	1.37%	14,154	15.94%	699	0.79%
MAY	96,789	18,167	18.77%	75,186	77.68%	44.07%	33.61%	3,417	3.53%	19	0.02%	980	1.01%	20,432	21.11%	574	0.59%
JUNE	86,913	16,600	19.10%	67,132	77.24%	42.54%	34.70%	3,164	3.64%	17	0.02%	1,179	1.36%	14,520	16.71%	624	0.72%
JULY	89,089	16,303	18.30%	69,543	78.06%	42.86%	35.20%	3,225	3.62%	18	0.02%	1,300	1.46%	14,085	15.81%	705	0.79%
AUG	92,120	17,060	18.52%	71,946	78.10%	43.29%	34.81%	3,086	3.35%	28	0.03%	971	1.05%	16,255	17.65%	679	0.74%
SEPT	87,722	16,167	18.43%	68,371	77.94%	42.87%	35.07%	3,158	3.60%	26	0.03%	1,202	1.37%	15,590	17.77%	742	0.85%
ост	87,952	16,007	18.20%	68,849	78.28%	40.79%	37.49%	3,078	3.50%	18	0.02%	1,284	1.46%	14,452	16.43%	684	0.78%
NOV	88,223	15,942	18.07%	68,946	78.15%	39.37%	38.78%	3,317	3.76%	18	0.02%	1,261	1.43%	14,161	16.05%	698	0.79%
DEC	99,448	17,701	17.80%	77,898	78.33%	37.56%	40.77%	3,819	3.84%	30	0.03%	1,292	1.30%	17,602	17.70%	754	0.76%
YTD	1,075,726	201,622		834,784				39,050		270		14,005		183,523		8,295	
MON AVG	89,644	16,802	18.76%	69,565	77.58%	42.36%	35.22%	3,254	3.63%	23	0.03%	1,167	1.30%	15,294	17.02%	691	0.77%

NOTE:

- 911 Calls with No ALI for December 2019 = 0.03% Statewide average for 2018 = 0.09%
- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are not included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

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9-1-1 CALL VOLUME BY AGENCY – DECEMBER 2019

		9-1-1 Call Volume by Agency													
2019		Hor	olulu Poli	ce Departn		Honolulu Fire Department									
2019	No. of Total Calls Received	% of Total Calls	Number of Emergency Calls		Number of Admin Calls	Number of Dropped Calls	No. of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls					
December	86,813	87.29%	22,077	45,946	1,188	17,602	2,899	2.92%	83	68					

			9	-1-1 Call Volu	me by Agen	су					
2019	Er	nergency M	edical Servic	es	Ocean Safety						
	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls	Number of Total Calls Received	% of Total Calls	Number of Admin Calls	Number of Dropped Calls			
December	8,979	9.03%	20	94	3	0.00%	1	0			

9-1-1 CALL VOLUME BY AGENCY – CALENDAR YEAR 2019

							9	-1-1 Cal	l Volun	ne by A	gency							
2019		Honol	ulu Polic	e Depar	tment		Honolulu Fire Department			Emergency Medical Services				Ocean Safety				
	Number of Total Calls Received	% of Total Calls	No. of Emergency Calls	No. of Non Emergency Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls	No. of Total Calls Received	% of Total Calls	No. of Admin Calls	No. of Dropped Calls
JAN	76,658	86.47%	19,605	40,890	1,136	15,027	2,885	3.25%	127	35	8,311	9.37%	114	84	51	0.06%	50	2
FEB	71,410	87.22%	19,014	37,981	631	13,784	2,521	3.08%	86	35	7,212	8.81%	7	130	31	0.04%	30	2
MAR	75,630	85.81%	20,604	40,625	940	13,461	2,896	3.29%	121	44	8,865	10.06%	21	114	53	0.06%	53	0
APR	76,613	86.27%	20,309	41,091	1,059	14,154	3,391	3.82%	108	97	8,065	9.08%	11	100	43	0.05%	42	0
MAY	84,829	87.64%	20,869	42,752	776	20,432	3,044	3.14%	141	45	8,287	8.56%	15	109	55	0.06%	48	0
JUNE	75,356	86.70%	19,881	39,964	991	14,520	3,123	3.59%	136	63	7,758	8.93%	4	106	52	0.06%	48	0
JULY	77,352	86.83%	21,033	41,176	1,058	14,085	3,029	3.40%	137	50	7,948	8.92%	51	95	55	0.06%	54	0
AUG	80,472	87.36%	20,922	42,483	812	16,255	3,045	3.31%	110	57	7,885	8.56%	10	81	39	0.04%	39	0
SEPT	76,455	87.16%	19,595	40,196	1,074	15,590	2,850	3.25%	99	47	7,659	8.73%	13	76	16	0.02%	16	0
ост	76,892	87.42%	20,497	40,790	1,153	14,452	2,471	2.81%	110	58	7,904	8.99%	20	80	1	0.00%	1	0
NOV	76,532	86.75%	20,024	41,222	1,125	14,161	2,772	3.14%	118	61	8,221	9.32%	18	80	0	0.00%	0	0
DEC	86,813	87.29%	22,077	45,946	1,188	17,602	2,899	2.92%	83	68	8,979	9.03%	20	94	3	0.00%	1	0
YTD	935,012		244,430	495,116	11,943	183,523	34,926		1,376	660	97,094		304	1,149	399		382	4
MON AVG	77,918	86.91%	20,369	41,260	995	15,294	2,911	3.25%	115	55	8,091	9.03%	25	96	33	0.04%	32	0

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PSAP OPERATION NOTES:

- Total call volumes does not include Administrative Calls. Administrative calls = Calls originating on Administrative lines that required 911 service.
- Abandoned Calls represent the number of incoming 9-1-1 calls for which the caller had hung up before a call-taker answered. Dropped Calls are hang ups after transfers.
- Abandoned Calls are included in the Wireline and Wireless total counts respectively.
- All VoIP (Voice over Internet Protocol) types of 911 calls are combined in the Call Volume statistic.

FOR YOUR INFORMATION

	FYIFor Your Information													
	PSAP Operations													
	Statewide 911 Call Volumes													
PSAP	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														
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 avera	2016 & 2015 Statewide average does not include Military 911 calls													

911 Call Volume % increas	se 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 OAHU CIVILIAN PSAPS - 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	O 911 Oah	u Civilian F	PSAPs 2019)	
Month	Total	HPD	HFD	EMS	os	911 (handled)
January	153	131	1	4	0	17
February	106	92	0	2	0	12
March	114	95	1	2	0	17
April	92	85	1	3	0	3
May	130	112	2	1	0	15
June	150	133	2	3	0	12
July	142	128	2	3	0	9
August	151	134	0	2	0	15
September	172	139	1	1	0	31
October	125	100	0	0	0	25
November	145	125	3	2	0	15
December	149	132	2	2	0	13
YTD	1,629	1,406	15	25	0	184
Monthly Avg.	135.8	117.2	1.3	2.1	0.0	15.3

NOTE:

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

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911 WIRELESS OAHU CIVILIAN PSAP TESTING - DECEMBER 2019

	OAHU CIVILIAN - DECEMBER 2019						
Date	WSP	Sites Tested	Sectors Tested	Tested By:	Test Pass/Fail	Comments:	
12/2/2019	Sprint	1	2	Oahu PSAP	Pass		
12/3/2019	Verizon	1	1	Oahu PSAP	Pass		
12/4/2019	Sprint	2	2	Oahu PSAP	Pass		
12/9/2019	Sprint	1	7	Oahu PSAP	Fail	Nanakuli	
12/10/2019	Sprint	2	2	Oahu PSAP	Fail	Waikiki/equipment problem	
12/10/2019	Sprint	1	1	Oahu PSAP	Fail	H3/tester problem	
12/11/2019	Sprint	2	2	Oahu PSAP	Pass		
12/12/2019	Sprint	1	6	Oahu PSAP	Pass/Fail	5 pass/1 fail	
12/13/2019	Sprint	3	9	Oahu PSAP	Pass		

NOTES:

- There were fourteen (14) scheduled Wireless 911 Test for the Oahu Civilian PSAP in December 2019.
- Verizon Wireless has completed migrating their Wireless network database from Intrado to ComTech.
- During the 4th quarter of 2018, there was an increasing amount of "MOBL" class of service type of 911 calls delivered to the State of Hawaii PSAPs. On January 15th, 2019, Intrado completed the position source mapping for ComTech which appears to have resolved this issue.

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2. MSAG (MASTER STREET ADDRESS GUIDE)

OAHU CIVILIAN MSAG TRANSACTIONS CURRENT MONTH/YEAR - DECEMBER 2019

OAHU	9-1-1 TRANSACTIONS								
CIVILIAN		MSAG	Al	LI Submitte	ed	Discre	Open ALI epancy Re		Customer
2019	Total	MSAG (A)	TN CR (B)	ALI DR (C)	VoIP (D)	TNCR	ALI DR	VoIP DR	Addresses Affected
JANUARY	178	24	154	0	0	403	0	0	683
FEBRUARY	177	1	176	0	0	123	0	0	176
MARCH	39	23	16	0	0	339	0	0	26
APRIL	217	20	197	0	0	355	0	0	2,344
MAY	217	18	199	0	0	767	0	0	3,634
JUNE	477	13	464	0	0	539	0	0	3,582
JULY	278	9	269	0	0	538	0	0	824
AUGUST	280	8	271	0	1	344	0	0	1,337
SEPTEMBER	222	13	208	1	0	274	0	0	1,529
OCTOBER	131	18	112	1	0	355	0	0	1,193
NOVEMBER	180	2	178	0	0	513	0	0	178
DECEMBER	261	82	178	1	0	230	0	0	10,837
TOTAL YTD	2,657	231	2,422	3	1				26,343
AVG PER MONTH	221	19	202	0	0				2,195

Definitions

(A) Master Street Address Guide - Represents corrections made to street records including, street names, address ranges, MSAG Communities and ESNs.

- (B) **T**elephone **N**umber **C**hange **R**equest Represents address corrections on a specific TN or group of TNs. These "invalid" TNs usually have an associated ESN 199 attached to them which indicates the need for validation.
- (C) **A**utomatic **L**ocation **I**nformation **D**iscrepancy **R**ecord Represents an address discrepancy discovered during a live 9-1-1 call, from a landline. These record corrections are treated with a higher priority and should be processed within 48 hours as a general guideline.
- (D) **V**oice **o**ver **I**nternet **P**rotocol **D**iscrepancy **R**ecord Represents an address discrepancy discovered during a live 9-1-1 call, from a VoIP phone. These record corrections are treated with a higher priority and should be processed within 72 hours as a general guideline per Time Warner Operations Center. MSR tracking effective April 2014.

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OAHU CIVILIAN MSAG CURRENT MONTH NOTES:

A total of **261** MSAG transactions were processed in 9-1-1 Net during the current reporting month. Eighty two (**82**) requests were processed relating to the MSAG database which include: changes to high – low street ranges, combining street records, deletion of invalid records, splitting street records to align with Police, Fire, EMS and Military response areas, and inserting new MSAG records.

There were 10,837 customer ANI/ALI (telephone/address) records updated as a direct result.

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

Akimeka processed one hundred seventy eight (178) TN CRs related to the Dispatchable Location Project during the current month.

One (1) ALI DR was submitted as the result of 9-1-1 call from a payphone in Waikiki.

OAHU CIVILIAN OPEN TELEPHONE RECORD (ALI) DISCREPANCY STATUS:

• There are currently 230 Open TN CRs.

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

- Refer to chart in the next section "TNCR Current Status"
- There are no Open ALI-DRs as of December 31, 2019
- There is no Open VoIP DRs as of December 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)						
PSAP	TOTAL TNCR RECORDS SUBMITTED BY AKIMEKA	OPENED TNCRS PENDING FURTHER ACTION BY INTRADO	OPENED TNCRS REFERRED TO TELCO BY INTRADO	TOTAL UNOPENED TNCR RECORDS		
OAHU CIVILIAN	230	0	223	7		

STATUS

<u>TOTAL TNCRs SUBMITTED</u> - The total number of TNCR requests for modification that have been submitted in 9-1-1 <u>PENDING STATUS</u> - TNCRs assigned this status are requests which have been reviewed by the 9-1-1 Database Service

Provider Data Analyst, and are pending investigation whether the request is valid or invalid, and/or whether the request requires additional information to validate.

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.

<u>TOTAL UNOPENED TNCR RECORDS STATUS</u> - The request is submitted by Akimeka on behalf the PSAP; however, processing by the 9-1-1 Database Service Provider Data Analyst has not begun.

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DISPATCHABLE LOCATION - STATUS AS OF - 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.

The "Dispatchable Location" data is entered into the "Driving Directions" field in the 9-1-1 Net system, and will display on the Viper Power 911 ALI Screen in the "Exact" field should a 911 call be received from that telephone number. The Windward Mall will be the pilot location starting in March 2018. There were 110 transactions submitted and 178 processed in December 2019.

Dispatchable Location					
2019 Quarter 4	Common Name Place MSAG Address	TNCR* Transactions Submitted	Transactions Processed**		
Quarter 3 Carryover		5,101	4,423		
	Waikiki Grand Hotel, 134 Kapahulu Ave, Waikiki	70	3		
	Honolulu Zoo, 151 Kapahulu Ave, Waikiki	41	4		
	Moanalua Shopping Center, Valkenburgh St, Moanalua	0	39		
October	Diamond Head Shopping Center, 3045 Monsarrat Ave, Waikiki	0	6		
October	Waikiki Shell, 2805 Monsarrat Ave, Waikiki	0	16		
	Kapahulu Shopping Center, 909 Kapahulu Ave, Kaimuki	15	2		
	Kilohana Square, 1016 Kapahulu Ave, Kapahulu	0	1		
	Kahala Mall Shopping Center, 1173 21st Ave, Kaimuki	35	34		
	Waikiki Grand Hotel, 134 Kapahulu Ave, Waikiki	0	71		
	Honolulu Zoo, 151 Kapahulu Ave, Waikiki	0	30		
	Kilohana Square, 1016 Kapahulu Ave, Kapahulu	0	28		
	Kapahulu Shopping Center, 909 Kapahulu Ave, Kaimuki	0	13		
	Ala Wai Golf Course, 404 Kapahulu Ave, Kapahulu	18	18		
	Park Shore Hotel, 2586 Kalakaua Ave, Waikiki	143	1		
November	Hostel Polynesian, 2584 Lemon Rd, Waikiki	2	0		
	Hostel Waikiki Beachside, 2556 Lemon Rd, Waikiki	13	0		
	Aqua Ewa Beach Hotel, 2555 Cartwright Rd, Waikiki	8	0		
	Waikiki Beach Hotel, 2570 Kalakaua Ave, Waikiki	29	3		
	Queen Kapiolani Hotel, 150 Kapahulu Ave, Waikiki	8	0		
	Tradewinds Plaza, 2572 Lemon Rd, Waikiki	25	9		
	Waikiki Beach Marriot, 2552 Kalakaua Ave, Waikiki	104	5		

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Dispatchable Location					
2019 Quarter 4	Common Name Place MSAG Address	Transactions Processed**			
	Queen Kapiolani Hotel, 150 Kapahulu Ave, Waikiki	0	6		
	Honolulu Zoo, 151 Kapahulu Ave, Waikiki Aqua Ewa Beach Hotel, 2555 Cartwright Rd, Waikiki	0	1 6		
	Hostel Waikiki Beachside, 2556 Lemon Rd, Waikiki	0	13		
	Waikiki Beach Hotel, 2570 Kalakaua Ave, Waikiki	0	15		
December	Tradewinds Plaza, 2572 Lemon Rd, Waikiki	0	13		
December	Hostel Polynesian, 2584 Lemon Rd, Waikiki	0	2		
	Hyatt Place Waikiki Beach, 175 Paoakalani Ave, Waikiki	7	0		
	Park Shore Hotel, 2586 Kalakaua Ave, Waikiki	20	121		
	Ala Wai Golf Course, 404 Kapahulu Ave, Kapahulu	0	1		
	Waikiki Beach Hotel, 2570 Kalakaua Ave, Waikiki	4	0		
	Waikiki Beach Marriot, 2552 Kalakaua Ave, Waikiki	79	0		
Q4 Total		621	461		
Total		5,722	4,884		

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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.
	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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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	9-1-1 VoIP Database Verification Project **(Updated)						
	TOTAL	TOTAL NEW	TOTAL	NON	PERCENT		
	RECORDS	RECORDS	RECORDS	MATCHING	COMPLETED		
PSAP	SUBMITTED BY	VERIFIED WITH	NOT	RECORDS			
ISAI	BANDWIDTH	911 DATABASES	MATCHING	CORRECTED			
	(A)	(B)		BY AKIMEKA			
				(C)			
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

(A)	VoIP Database records submitted by Bandwidth to Akimeka for research and MSAG address validation.
	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.

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

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3. GEOGRAPHIC INFORMATION SYSTEM (GIS) – DECEMBER 2019

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.

		OAHU CIVILIAN PSAPS
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)
		Next Delivery 1/3/2020
	40/00/40	Added routingID for two hundred and sixteen (216) records in Waipahu
	12/20/19 To	Added new address point for thirty-three (33) records in Ewa Beach
	12/31/19	Added routingID for one hundred and thirty-one (131) records in Ewa Beach
	1201/10	Corrected routingID for two hundred and eighteen (218) records in Waipio
		Added routingID for three thousand, three hundred and ninety (3390) records in Waipio
		Delivered 12/20/2019
		Added new address point for one (1) record in Nuuanu
		Corrected address for two (2) records in Mililani
		Corrected spatial for six (6) records in Kalihi
		Corrected spatial for six (6) records in Waianae
		Corrected address for one (1) record in Nuuanu
		Corrected spatial for one (1) record in Pearl City
		Added apartment for one (1) record in Makaha
		Corrected address for one (1) record in Wahiawa
		Added new address point for one (1) record in Wahiawa
Address Points		Added apartment for two (2) records in Wahiawa
Address Folits		Corrected address for one (1) record in Pearl City
	10/0/10	Added location name, routingID, corrected spatial for one (1) record in Aiea
	12/6/19 To	Corrected spatial for two (2) records in Makaha
	12/19/19	Corrected spatial for one (1) record in Kapolei
	12,10,10	Added location name for one (1) record in Waianae
		Added apartment for one (1) record in Kalihi
		Added location name for one (1) record in Waikiki
		Corrected address for one (1) record in Nanakuli
		Added new address point for three (3) records in Waikiki
		Added building for thirteen (13) records in Ewa Beach
		Corrected address for two (2) records in Ewa Beach
		Added location name for one (1) record in Aiea
		Added routingID, corrected spatial, corrected address for one (1) record in Pearl City
		Corrected spatial for five (5) records in Nanakuli
		Added routingID, corrected spatial for two (2) records in Kalihi
		Added location name for two (2) records in Makakilo
		Added location name, corrected spatial for one (1) record in Kalihi

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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.

		OAHU CIVILIAN PSAPS
Type of Layer	Akimeka GIS Server Date Created/	GIS Delivery Dates/Remarks
	Edits Performed	
	CRITICAL 9-1	1-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE
		(Listed Alphabetically)
		Corrected address for one (1) record in Radford T
		Added apartment for one (1) record in Nanakuli
		Corrected spatial for four (4) records in Waikiki
		Added location name for three (3) records in Kalihi
		Corrected routingID for three hundred and twelve (312) records in Waipio
		Added routingID for one hundred and thirty-two (132) records in Waipio
		Added apartment for one (1) record in Nuuanu
	12/6/19	Corrected spatial for two (2) records in Waipahu
	To 12/19/19	Added routingID for twelve thousand, seven hundred and seven (12707) records in Mililani
	12/19/19	Corrected apartment for one (1) record in Ewa Beach
		Added routingID for one (1) record in Pearl City
		Added apartment for eleven (11) records in Ewa Beach
		Corrected spatial for nineteen (19) records in Wahiawa
		Corrected spatial for three (3) records in Ewa Beach
		Corrected spatial for two (2) records in Mililani
		Added apartment for one (1) record in Kapolei Corrected spatial for one (1) record in Aiea
Address Points		Delivered 12/6/2019
		Corrected spatial for four (4) records in Punaluu
		Corrected routingID for one hundred and thirty-five (135) records in Mililani
		Corrected spatial for one (1) record in Kapolei
		Added location name for one (1) record in Kaneohe
		Added building for four (4) records in Kahaluu
		Added location name for one (1) record in Haleiwa
	12/1/19	Added new address point for eleven (11) records in Kapolei
	То	Added routingID for one (1) record in Laie
	12/5/19	Corrected address for two (2) records in Hauula
		Corrected address for two (2) records in Laie
		Corrected spatial for two (2) records in Kaneohe
		Corrected address for one (1) record in Sunset
		Corrected address for one (1) record in Haleiwa
		Added apartment for two (2) records in Haleiwa
		Corrected address for two (2) records in Kahaluu
		Corrected spatial for one (1) record in Kahaluu

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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.

		OAHU CIVILIAN PSAPS
Type of Layer	Akimeka GIS Server Date Created/ Edits Performed	GIS Delivery Dates/Remarks
	CRITICAL 9-1	I-1 PUBLIC SAFETY LAYERS FOR DISPATCH & RESPONSE
		(Listed Alphabetically)
		Corrected address, added apartment for one (1) record in Hauula
		Added location name for two (2) records in Downtown
		Added building, corrected spatial for two (2) records in Kaneohe
		Corrected apartment for one (1) record in Kahaluu
		Corrected address for two (2) records in Kaneohe
		Added location name for one (1) record in Kahuku
		Added routingID for one thousand, three hundred and fifty-two (1352) records in Mililani
		Corrected spatial for two (2) records in Haleiwa
	12/1/19	Added routingID for one (1) record in Haleiwa
Address Points	То	Added apartment for one (1) record in Kahaluu
	12/5/19	Added apartment for two (2) records in Laie
		Added apartment for one (1) record in Manoa
		Corrected spatial for one (1) record in Kaaawa
		Corrected spatial for four (4) records in Laie
		Added apartment for one (1) record in Hauula
		Corrected address for one (1) record in Mokuleia
		Added apartment for two (2) records in Punaluu
		Added apartment for one (1) record in Makiki
		Added apartment for one (1) record in Punchbowl
Airports		
AMR Response Areas		
Bridges		
Building Footprints		
Bus Stops		
Churches		
Coastal Names		
Coastline		
Common Places		
Correctional Facilities		
Emergency Callboxes		
Emergency Operation		
Centers		
Emergency Shelters		
ESZ/ESN		

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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.

OAHU CIVILIAN PSAPS					
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)			
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					
Military Response Areas					
MSAG Communities					
Net Junctions					
Ocean Rescue Boundaries					
Ocean Safety					
Parcels					
Parks					
Parks Polygon					
	12/20/19	Next Delivery 1/3/2020			
Points of Interest	To 12/31/19	Corrected spatial for one (1) record in Waipahu			
		Added routingID for five hundred and eighty-three (583) records in Waipahu			

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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.

OAHU CIVILIAN PSAPS				
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)		
Delivered 12/20/2019				
	12/6/19	Corrected routingID for one (1) record in Waipahu		
	То	Added routingID for five hundred and twenty-eight (528) records in Waipio		
	12/19/19	Corrected routingID for nineteen (19) records in Waipio		
		Corrected spatial for five (5) records in Waikiki		
		Delivered 12/6/2019		
		Corrected routingID for four (4) records in Laie		
		Corrected routingID for thirty-one (31) records in Kalaeloa		
		Added routingID for nine hundred and forty-eight (948) records in Mililani		
Points of Interest		Corrected routingID for thirty-eight (38) records in Mililani		
		Corrected routingID for one hundred and twenty-seven (127) records in Ewa Beach		
	12/1/19	Corrected routingID for twenty-six (26) records in Kaneohe		
	To 12/5/19	Corrected routingID for six (6) records in Makakilo		
		Corrected routingID for one (1) record in Mokuleia		
		Corrected routingID for one (1) record in Haleiwa		
		Corrected routingID for one (1) record in Kahuku		
		Corrected routingID for twenty (20) records in Kapolei		
		Added general address for complex for ten (10) records in Mililani		
		Corrected routingID for one (1) record in Nanakuli		
Police Beats				
Police Districts				
Police Response Areas				
Police Stations				
Post Offices				
Schools				
	12/20/19 To 12/31/19	Next Delivery 1/3/2020		
		New segment for twenty-one (21) records in Ewa Beach		
		Corrected street name for one (1) record in Waialua		
Street Centerlines		Corrected range for one (1) record in Ewa Beach		
		Corrected range for one (1) record in Punchbowl		
		New hiking trail nine (9) records in Waimanalo		
		New hiking trail eight (8) records in Hawaii Kai		

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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.

OAHU CIVILIAN PSAPS			
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)	
		Delivered 12/20/2019	
	12/6/19	Corrected elevation for nine (9) records in Kapolei	
Street Centerlines	То	Corrected elevation for ten (10) records in Makakilo	
	12/19/19	Corrected elevation for four (4) records in Aiea	
		Corrected street type for four (4) records in Ewa Beach	
Subdivisions			
Tow Jurisdictions			
Tsunami Evacuation Zones			
Tsunami Heights			
Waste Water Plants			
	12/20/19 To 12/31/19	Next Delivery 1/3/2020 Updated three (3) sectors per Sprint CRS Added eight (8) sectors per AT&T CRS	
		Delivered 12/20/2019	
		Added twenty-nine (29) sectors per Verizon Wireless CRS	
WSP Cell Sectors	12/6/19	Updated seven (7) sectors per Sprint CRS	
	To 12/19/19	Added thirty-nine (39) sectors per AT&T CRS	
	12/19/19	Updated sixty-three (63) sectors per Verizon Wireless CRS	
		Updated six (6) sectors per AT&T CRS	
	12/1/19 To	Delivered 12/6/2019	
	12/5/19	Added one (1) sector per AT&T CRS	
		Next Delivery 1/3/2020	
	12/20/19	Added one (1) tower per AT&T CRS	
	To 12/31/19	Updated one (1) tower per Sprint CRS	
	12/31/19	Updated three (3) towers per AT&T CRS	
WSP Cell Towers	12/6/19 To 12/19/19	Delivered 12/20/2019	
		Added one (1) tower per AT&T CRS	
		Updated thirteen (13) towers per Verizon Wireless CRS	
		Updated thirteen (13) towers per AT&T CRS	
		Updated two (2) towers per Sprint 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			
12/20/2019	Delivered Street Centerlines, Common Places, Police Beats, MSAG			
	Communities to HPD for Motorola CAD.			
12/20/2019	Delivered Street Centerlines, Address Points, Fire Response Areas, Medic			
	Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for			
	TriTech CAD.			
12/20/2019	Delivered Address Points, Common Places, Street Centerlines, Police Response			
	Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response			
	Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu			
	MapFlex system for HPD, HFD, EMS, and Ocean Safety.			
12/20/2019	Delivered ITD "Test Deliverable" to HPD ITD.			
12/17/2019	Delivered two data updates to TriTech/Central Square for testing the new			
	locator with sub-address information and mobile mapping.			
12/6/2019	Delivered Street Centerlines, Common Places, Police Beats, MSAG			
	Communities to HPD for Motorola CAD.			
12/6/2019	Delivered Street Centerlines, Address Points, Fire Response Areas, Medic			
	Response Areas, and Display Address Points to HFD, EMS, and Ocean Safety for			
	TriTech CAD.			
12/6/2019	Delivered Address Points, Common Places, Street Centerlines, Police Response			
	Areas, Fire Response Areas, Medic Response Areas, Ocean Safety Response			
	Areas, ESN, MSAG Communities, Cell Towers, Cell Sectors to the Honolulu			
	MapFlex system for HPD, HFD, EMS, and Ocean Safety.			

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HONOLULU POLICE DEPARTMENT TRITECH CAD PROJECT

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

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

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

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	Partially Resolved (Nov 2016) The overriding ALI with
		additional information in the GIS and this is overriding the	updated Lat/Longs from the
		ALI information with the closest address in the GIS.	GIS is still occurring
11/2016	Phase I Display	Wireless Phase I calls plotting at centroid of coverage area	Partially Resolved (Dec 2016)
		and landing in the ocean. After installation of new MapFlex	According to PSAPs, it's not
		version to correct other issues, the configurations for	fully resolved. The icon of the
		Wireless Phase I were not set up properly by Intrado, in	tower still doesn't plot for
		which the mapping did not point to the correct information	Phase I.
		in MapFlex.	
11/2016	Wireless	Sprint calls coming across with unusually high confidence. Pending	
	Confidence	Coordination is taking place with Sprint and Intrado. Intrado	
		provides the PDE services for Sprint.	

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3/22/2017	ArcGIS Address	The locators in MapFlex have a configurations which does	Pending
	Locator	not include ESNs. A reported issue has occurred with the	A new SP 5.4 update by Intrado
		Sheraton in Waikiki. The address locator does not	is aimed to correct this issue.
		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.	
5/17/2017	VoIP Calls Plotting	Recognized in late April and early May 2017, the PSAPs	Partially Resolved – the
	Incorrectly	have been receiving several VoIP calls which are plotting in	Lat/Longs are no longer being
		the incorrect locations. After further research it was	plotted in MapFlex due to a
		determined that it is because MapFlex is configured to plot	software release.
		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.	
5/17/2017	Landline Calls	It was determined that for normal landline calls, the X/Y	Intrado is looking into this
	Producing X/Y on	coordinates are being sent. The PSAPs have asked where	(May - June 2017)
	calls	these are being generated and why would they be sent for	
		landline calls.	
5/23/2018	Phase I & Phase II	Phase I calls received at the Kihei Maui PSAP are displaying	Pending
	coverage area	a circular circumference area rather than a cone shaped	
		directional coverage. Phase II calls are not plotting the COF	
		meters correctly.	
5/24/2018	Incorrect Addresses	MapFlex system began displaying incorrect addresses in the	Pending
		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.	
6/27/2018	Moving Labels	It was brought up during the PSAP teleconference with	Pending
		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.	

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STREET UTILITY CHECK

This is an ongoing project to correct the errors identified. A comparison of the raw CAD generated report from the Street Check Utility was performed between the Street Centerline GIS data on April 1, 2019 and April 30, 2019. There were no updates received for December, 2019.

Street Utility Check						
	First Report 06/01/13	3/31/2019	4/30/2019	Improvements/Corrections		
Total Number of GIS Records	26,602	31,286	31,313	Increased by 27 records		
Errors Identified						
Zero Errors	5,112	1	4	Increased by 3 records		
Low > High Errors	3	0	1	Increased by 1 record		
Mixed Parity Errors	1	0	0	No change		
Changed Parity Errors	105	1	2	Increased by 1 record		
Address Gap Errors	2,629	25	7	Decreased by 18 records		
Address Overlap Errors	ss Overlap Errors 423		9	Decreased by 17 records		
Flipped Link Errors	1,030	368	20	Decreased by 348 records		
Total Errors	9,303	421	43	Decreased by 378 records		

In addition to Akimeka's internal validation tools, Akimeka will continue to utilize the various CAD reports to further identify and correct the multitude of discrepancies in the GIS data. This is an ongoing and routine process which Akimeka has been using to improve the accuracy of the GIS data for Public Safety.

As a result of the GIS efforts within the military jurisdictional areas covered primarily by the RDC, the GIS data is undergoing several changes within the bases which will cause a fluctuation in the Street Check results, which is to be expected. Any discrepancies that are identified will be corrected in the following GIS deliverable.

TRITECH CAD ADDRESS POINT PROJECT

During the month of February 2018 after several months of discussion and testing, the Address Points were loaded into TriTech and moved into the HFD/EMS shared CAD. Since that time, HFD, EMS, and Akimeka have been working closely together to identify and update subaddress location for various complexes around Oahu. Several hundred new address points have been added to the GIS as a result of this collaboration.

During the month of March 2018, there were only a couple minor updates communicated and one issue identified with addresses within close proximity to the H1 freeway.

1. Akimeka ran an analysis and added routing information into more than 27,000 Address Points to resolve the geotolerance within TriTech.

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- 2. During the month of April 2018, it was identified that the issue related to the H1 Fwy still remain and after investigation it was determined that a component within the SQL server for TriTech requires a potential update to allow for routing to be overridden based off of the Routing ID information.
 - a. A trouble ticket has been opened with TriTech who is further investigating the potential correction, outside of the GIS data.
- 3. During the month of February 2019, HFD has requested assistance with labelling the mobile map.
 - a. Akimeka worked with HFD to develop a labeling scheme that showed complex names, addresses, and apartment numbers, without label duplication. The labeling scheme requires three additional shapefiles, which will be provided to HFD as part of every deliverable.

SPEED LIMIT UPDATES

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

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

- 1. During the 2017 year, from April 2017 to December 2017, more than 4,200 street segments were updated to reflect posted speed limit restrictions from Waimanalo to Nanakuli.
- 2. During January 2018, 1,187 segments were updated in Maili, Nanakuli, and Kapolei.
- 3. Throughout the month of February 2018, 2,025 speed limits were updated in Ewa Beach, Makakilo, and Iroquois.
- 4. During March 2018, 3,743 street segments were updated across Makakilo, Kunia, Iroquois, Pearl Harbor, Waipahu, Wahiawa, Waialua, and Mililani.
- 5. During the month of April 2018, Akimeka held on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure the routing is correct (see TriTech Address Points Project narrative above for further information on routing items)
- 6. During the month of May 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (see TriTech Address Points Project narrative above for further information on routing items)
- 7. During the month of June 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (see TriTech Address Points Project narrative above for further information on routing items).
- 8. During the month of July 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (refer to TriTech Address Points Project narrative above for further information on routing items).
- 9. During the month of August 2018, Akimeka continued the hold on the speed limit updates until HFD has had a chance to test out the TriTech and to ensure routing is correct (refer to TriTech Address Points Project narrative above for further information on routing items).
- 10. During the month of September 2018, Akimeka resumed the speed limit updates. 1,081 street segments were updated across Waipio and Pearl City.

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- 11. During the month of October 2018, Akimeka continued the speed limit updates. 1,094 street segments were updated across Aiea, McGrew Point (McGrew Pt) and Pearl City Peninsula (PC PEN).
- 12. During the month of November 2018, Akimeka continued the speed limit updates. 265 street segments were updated across Halawa and Moanalua Valley.
- 13. During the month of December 2018, Akimeka continued the speed limit updates. 1,978 street segments were updated across Hale Moku, Hokulani, Salt Lake, Mapunapuna, Radford Terrace, Halsey Terrace, Miller Park, Catlin Park, and Kalihi.
- 14. During the month of January 2019, Akimeka continued the speed limit updates. 1,843 street segments were updated across Airport, Nuuanu, Downtown, Punchbowl, Makiki, Kakaako, Honolulu, and Ala Moana.
- 15. During the month of February 2019, Akimeka continued the speed limit updates. 956 street segments were updated across Manoa and McCully.
- 16. During the month of March 2019, Akimeka continued the speed limit updates. 518 street segments were updated across Waikiki, Fort DeRussy, and Kapahulu.
- 17. During the month of April 2019, Akimeka completed the speed limit updates. 2467 street segments were updated across Kaimuki, Kahala, Waialae, Aina Haina and Hawaii Kai.
- 18. During the month of May 2019, Akimeka updated speed limits on State highways. 453 segments were updated across Aiea, Airport, Downtown, Ewa Beach, Kalihi, Kapolei, Kunia, Nuuanu, Pearl City, Punchbowl, Waipahu and Waipio.
- 19. During the month of June 2019, no speed limit update requests were received. As of June 2019, the speed limit updates has been completed for all city streets that were previously 30 MPH, State streets that were previously 50 MPH, and other major roadways. If any requests for update are received in the future, Akimeka will update the speed limit(s).
- 20. No updates received in December 2019.

ROUTING ID UPDATES

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

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

- 1. During the month of July, Routing IDs were assigned to seven thousand three hundred twenty eight (7328) Address Points and sixty eight (68) Points of Interests.
- 2. During the month of August, Routing IDs were assigned to eighteen thousand eight hundred ninety one (18,891) Address Points and one thousand two hundred twenty eight (1,228) Points of Interests across Aiea, Kaaawa, Kahaluu, Kailua, Kaneohe, MCBH and Waimanalo.
- 3. During the month of September, Routing IDs were assigned to fourteen thousand three hundred twenty seven (14,327) Address Points and seven hundred ninety (790) Points of Interest across Haleiwa, Kahuku, Laie, Wahiawa, Schofield, Wailua and Sunset.
- 4. During the month of October, Routing IDs were assigned to twenty four thousand nine hundred sixty seven (24,967) Address Points and one thousand fifty seven (1,057) Points of Interest across Waianae, Maili, Nanakuli, Kapolei, Makakilo and Ewa Beach.
- 5. During the month of November, Routing IDs were assigned to six thousand three hundred twenty one (6,321) Address Points and three thousand three hundred fifty four (3,354) Points of Interest across Makaha, Waianae, Nanakuli, Kapolei and Ewa Beach.
- 6. During the month of December, Routing IDs were assigned to seventeen thousand nine hundred thirty four (17,934) Address Points and two thousand fifty nine (2,059) Points of Interest across Kunia, Waipahu and Mililani.

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HONOLULU EMS RESPONSE AREA

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

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

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

- 5. With EMS's approval, Akimeka prepared a map of the requested area and provided to EMS on October 24, 2019.
- 6. A new medic station and Response Area called Salt Lake (MED23) was added to the database.
- 7. The Honolulu Response Area was divided into 5 separate response areas to better support the EMS operations and ambulance response times. The 5 response areas are: Charlie 1 (MED01), Baker 1 (MED11), Makiki (MED20), Metro 1 (MED02), and Pawaa 1 (MED05).
- 8. The Metro 1 Response Area was divided into two separate areas using Wilder Avenue and Dole Street as the dividing line.
- 9. The additional response areas will require the creation of additional ESZ/ESNs; HPD, EMS, and Akimeka will be coordinating so that the project can be mapped out on a timeline so that the changes can take place while maintaining an above 99% synchronization level between GIS, MSAG, and ALI.

AMR-H

The American Medical Response Hawaii (AMR-H) Project is a joint venture by the Honolulu Emergency Services Department (HESD) to provide accurate address and location information to its other public safety agencies. This project is to ensure AMR-H is utilizing the same address and location information as the other HESD public safety agencies, and to ensure compliance with National 9-1-1 directives such as the FCC Docket 15-9 regarding location accuracy. The intent is to provide the same accurate location information to all the HESD public safety response agencies to help reduce response times to the 9-1-1 caller.

NOTE:

This work is performed under a separate contract.

This contract has lapsed and will be removed from this report pending further developments.

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AMERICAN MEDICAL RESPONSE (AMR) HAWAII PROJECT

Since the start of the GIS deliverable schedule with AMR, there have been no reported issues or concerns. In order to open up discussion on any operational improvements via the GIS data, or to identify any updates that can be made, AMR and Akimeka held a brief conference call on December 5, 2017.

- 1. During the discussion there was overwhelming agreement that the data provided by Akimeka is working great for the dispatchers and first responders at AMR.
- 2. There were some areas that were discussed where searching for certain addresses will prompt a list of invalid addresses.
 - a. Through the discussion it was identified that the CAD system is aggregating various data sources since they are dispatching throughout the State. The data that Akimeka provides for the island of Oahu is working great, however since the neighbor islands are using various sources of data in different formats, the accuracy of that data is greatly in question and is likely not fully supportive of the search requirements in the CAD.
- 3. A final topic of discussion was on training for the AMR dispatcher. Joe from AMR who was on the call, took this as an action item to prepare training material for searching criteria, especially intersections. Akimeka volunteered that they can make themselves available to collaborate on the training material if needed.
- 4. There are no follow up calls scheduled at this time, however Akimeka informed that any issues or improvements identified will be looked at immediately and to send the requests as they are identified.

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4. E9-1-1 OAHU CIVILIAN DATABASE SYNCHRONIZATION

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

Next Scheduled Database Synchronization Report – January 2020

AUDIT SUMMARY RESULTS - 2019-2020 - TBA

AUDIT SUMMARY RESULTS - JANUARY 1, 2020 MSAG VS OCTOBER 1, 2019 MSAG -- TBA

AUDIT SUMMARY RESULTS- JANUARY 1, 2020 MSAG VS OCTOBER 1, 2019 MSAG CONTINUED

INVALID MSAG STREETS AND ADDRESS RANGES - ESN X99 RECORDS -- TBA

AUTOMATIC LOCATION IDENTIFICATION (ALI) DATABASE DISCREPANCIES -- TBA

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