2019 IN911 INdigital Annual Board Report

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ESiNet Summary

(Please refer to graph A-1.1 in the appendix)

Summary of work done in 2019

INdigital made several changes to improve the G-15 ESiNet network. While making these changes work was in progress to buildout the G-19 ESiNet that subsequently replaced the G-15 network. Testing was continuously conducted on the G-19 network until it was placed into production with improvements made as those were identified. 911 Authority and Ritter Strategic Services received updates during the buildout and testing as well as during the move to production.

G-19 ESiNet timeline

Discussions started early in 2019 on updating the Indiana ESiNet to what is now known as the G-19 network. Shortly after beginning discussion of updating the Indiana network, INdigital experienced a Cisco ASR failure. As a result of this failure, it was evident that updating the Indiana ESiNet was necessary. Building the new network began almost immediately after the failure, followed by months of testing. After successful completion of all testing, September was determined as the month we will turn up the G-19 network and turn down the G-15 network. The final steps of this work is being completed with the movement of the ESRPs into the G-19 network. A timeline in the appendix has been developed to navigate the ESiNet update timeline.

2020 Expectations

During the 2020 calendar year, INdigital will continue to work on the fully implementation of the G-19 ESiNet as well as all of the features and benefits of the network. One such benefit is geo-routing of 911 calls, which will allow public safety officials to designate areas for specific 911 call routing. Calls in these geo-fenced areas can be routed to a specific position in the 911 center or to a remote location such as mobile communications vehicle or backup center. Columbia City, Indiana is the first site in Indiana to test geo-routing on the G-19 network.

INdigital has always taken a proactive approach to cyber security. As it becomes more and more prevalent in our industry with public safety agencies becoming more frequently targeted by bad actors. INdigital again is taking more aggressive steps to mitigate the risk of our systems and protect our customers. We are preparing for a Statement on Standards for Attestation Engagements (SSAE18) System and Organization Controls Type 2 (SOC2) audit of our National Service Operations Center (NSOC). This audit will evaluate our business practices, access controls, policies and procedures supporting the NSOC. As part of the preparation for this audit we have engaged with SecuLore Solutions to have their Cyber Benchmark 3rd party assessment conducted. In addition to this engagement we are investigating a further ongoing partnership with SecuLore Solutions to provide 3rd party oversight and remediation assistance to further identify threat vectors and enhance INdigital's defense in depth strategy.

Continued work is needed for the NNI such as purchasing the last of the circuits and buildout. After the buildout of the NNI, continued testing will be conducted until such time testing is completed and approved by all parties. We continue to support AT&T in the buildout of their ESiNet in Indiana. Late in 2019, AT&T provided us with the connection point locations in Alabama and Michigan for the Network to Network Interface (NNI). These connection points need connections back to our data centers in Indiana. INdigital designed a network back to Indiana and submitted those plans for approval. Before the end of 2019 the most critical circuits were ordered with the rest orders shortly after the first of the year.

PSAP news

We are very proud to serve Indiana PSAPs and the citizens of our home state. Our goal is to continue to evolve to provide the best 911 service and technology available in the Country. Over the past year our State Service Manage Lori Forrer worked tirelessly to support our PSAP community. She directly visited 39 PSAPs and spent over 30 additional days supporting training, PSAP meetings, and industry conferences just in Indiana. She is always anxious to meet, facilitate information sharing, and solve complex problems.

To maintain this type of commitment to personal service with our PSAPs. We've added Shane Rekeweg as our Indiana Market Manager. Shane comes with years of experience in law enforcement and PSAP oversite. For those that do not know, he is also very passionate about new uses for technology in Public Safety.

Our goal is to constantly improve and evolve with our Indiana PSAPs. We think we have a great team of leadership and support staff to continue to serve IN911. Below are a couple of highlights from last year.

Notable 2019 events

All of the Indiana State Police (ISP) posts that handle 911 calls have had new call answering equipment installed by the mid 2019 year. Additionally, Owen County was brought onto the IN911 network and the Indianapolis International Airport received two (2) MEVO phones as part of their backup.

In mid-2019 Vigo Co. suffered from a malware attack, Spencer Co. had a severe lighting strike to their dispatch center, and AT&T Mobility had an outage that affected call delivery to the vast majority of Indiana. Each of these events involving Vigo Co. and Spencer Co. had an impact on operations although there were no reported effects on 911 call delivery. The AT&T Mobility outage did have an effect on 911 call delivery although the number of calls that were not delivered has not yet been revealed.

Jefferson and Rush Counties are both in the process of moving their 911 centers sometime in 2020. This has been a long process for both of these counties and INdigital continues to support them in the move.

Marion County (Indy Metro) reported issues with call routing, with wireless calls overflowing to their alternate routing number. After an investigation from INdigital an increase of trunks were added to Marion County to support the increase of wireless 911 calls.

In 2019 INdigital added One-Call Now Service as an additional method of communicating important messages to key public safety personnel. PSAP Directors and staff may enroll in receiving these communications. In 2020 we will be adding another key piece of this mass communication system which is sending messages to the ISP. ISP will then re-send these messages over their IDACS system to all terminals in the State of Indiana. Currently there are 172 members enrolled to receive messages from One-Call.

During 2019 the busiest week for PSAPs was the first week of June with 85,200 911 calls made. March 31, 2019 was the busiest day for PSAPs for the year with 17,415 calls processed by IN911.

Wireless calls

(Please refer to graph C-1.1 in the appendix)

Wireless call volumes for Indiana remained fairly constant examining call volumes for years 2017, 2018, 2019 for totals of 3,277,434, 3,178,432, and 3,839,342 respectively.

Since the start of the IN911 network in 2006, 40,007,688 wireless calls have been processed on the IN911 network.

Over the past 13 years, the IN911 network has averaged 3,003,136 calls and has seen an annual increase in call volume of 2.52%.

Translation services

(Please refer to graphs D-1.1 through D-1.5 in the appendix)

Improvements were made at the PSAP level for translation services. The most notable improvement was providing two different translation services access. If dispatchers are able to identify the language they need assistance with, such as Spanish, they have a direct link to get Spanish translation. All other languages are on a second link and are processed in a similar way languages were processed before the changes. By separating this helps dispatchers get translation services for one of the most demanded translated languages. In addition to the two language line links the elimination of the PIN to further expedite the process. The combination of these two improvements have improved response times by an estimated 7-20 seconds.

Usage by the top five counties (Marion, Howard, Allen, Elkhart, and Tippecanoe) remained consistent with prior periods. Spanish counts for the last three quarters of this year totals are 6,682 with 36,262 minutes of usage.

Non-Spanish translation has similar month to month trends, with the top five counties (Allen, Marion, Howard, Tippecanoe, and LaPorte). Non-spanish usage for the first three quarters total 619 sessions with 3,725 minutes.

In 2019 Spanish was the most frequently translated language with Burmese, Mandarin, Hatian Creole, and Swahli wrapping up as the top five languages translated. In all, there were 48 different languages translated by Indiana PSAPs in 2019.

Texty services

(Please refer to graph E-1.1 through E-1.4 in the appendix)

The Texty platform was updated to 17.0.0.2 early in 2019. As a result of that improvement dispatchers will see benefits of Barge/Conference/Transfer as well as display of the carrier information. Additionally, sessions can be transferred from one PSAP to another giving this version's further enhancements to the Texty service. Additionally, PSAPs could query supplemental data from the Rapid SOS clearinghouse in this release. Indiana was the first state to have statewide access to the Rapid SOS services.

In 2019 there were 10,397 inbound text sessions received by 99 PSAPs within the State of Indiana. Additionally, outbound text sessions for 2019 totaled 260,881, sent from 113 PSAPs within the State of Indiana.

A future version of Texty 17.0.0.3 supports RapidSOS manual lookup in addition to giving the dispatcher the ability to "Rebid" location information from RapidSOS. Dispatchers will also have the ability to see who's logged into Texty at their center for call transfers.

The next version, 17.0.0.4 will have the ability to support language translation although this version is currently in QA testing. Finally version 17.0.0.5 supports supplemental (uber app) and additional data developed in applications.

Help desk ticket analysis

(Please refer to graphs F-1.1 through F-1.4 in the appendix)

INdigital's growth over the last decade has allowed for the deployment of National Service Operations Center (NSOC) to meet the 24x7x365 needs of the PSAPs. NSOC staff is entirely dedicated to support 911 services and INdigital technologies. The company continues to evolve and provide new products, services, and systems to support the complexities of Next Generation 911. Work is always fresh at the NSOC.

Rob Fisher is the NSOC manager and is always at the ready to improve services provided. Rob and the NSOC can be reached at 877-469-2010 anytime.

Support tickets for 2019 in the IN911 network has seen light increases in all areas except for eCats, VPN, Maintenance, and IDACS. Areas such as eCats, and VPN seen a decrease in support for 2019 as compared to 2018. Maintenance has seen an increase as a result of the G-19 ESiNet buildout although we expect to see this number to decrease to previous levels. IDACS is a new field we are tracking therefore there is not much historical data at this point.

Overall in 2019 INdigital's support to the PSAPs for all types of service has seen steady increase except for Database and Training related support. Database has seen a decrease as a result of no new counties coming onto the network, whereas training has seen a decrease as a result of no new products or updates to products that require training in 2019 except for Texty.

Carrier support tickets have seen more than double the number of support tickets than seen in 2018. Carriers such as Centurylink, Comcast, Com Tech, Intelligent Fiber Network, US Signal, and West Safety Services have seen the most dramatic increases in support. Some but not all of these increases can be contributed to the buildout of the G-19 as well as the turndown of the G-15 networks. Further tracking of these carriers will be needed to determine

Event analysis

(Please refer to graphs G-1.1 through G-1.4 in the appendix)

1. The first Indiana snow storm event on November 11, 2019 produced over 5,000 more calls than normally seen statewide.

2. There were 424 911 calls during the Indiana State Fair from August 2-18, 2019.

3. On May 23, 2019 Severe Storms in northern Indiana created about 1,000 extra 911 calls as a result of 80 mph winds and heavy tree damage.

4. Tractor trailer fire on February 20, 2020 at I-70 / I-465 in Indianapolis, Indiana. Marion Co PSAP received 158 911 calls in approximately a 10 minute period shortly before 2:00 pm.

INdigital is celebrating its 25th Anniversary this year. INdigital was incorporated on June 6, 1995.

Appendix

Graph A-1.1

Timeline for the IN911 G-19 ESiNet.
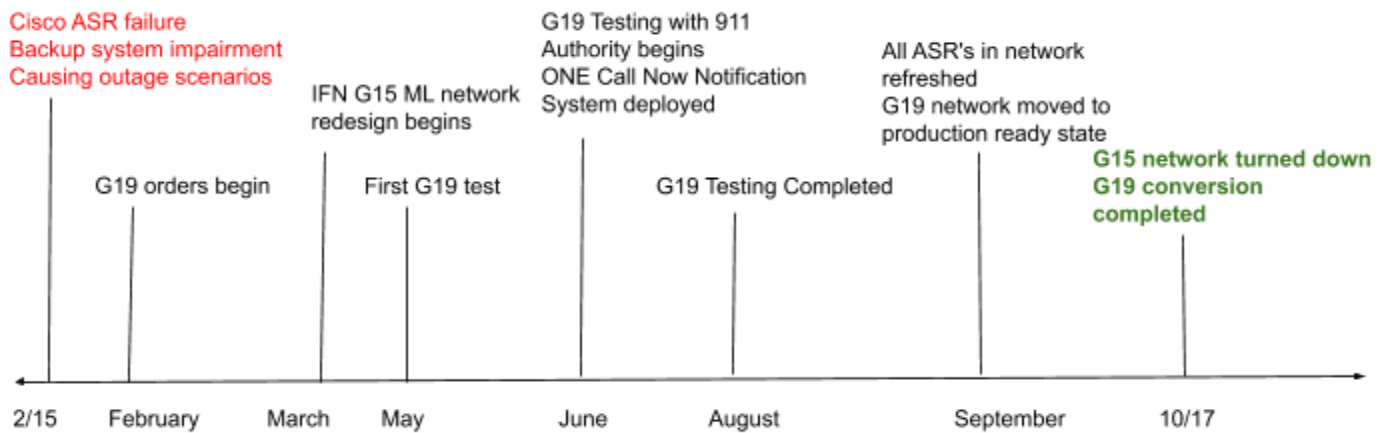
Graph C-1.1

Call volume from 2017 to September 2019.
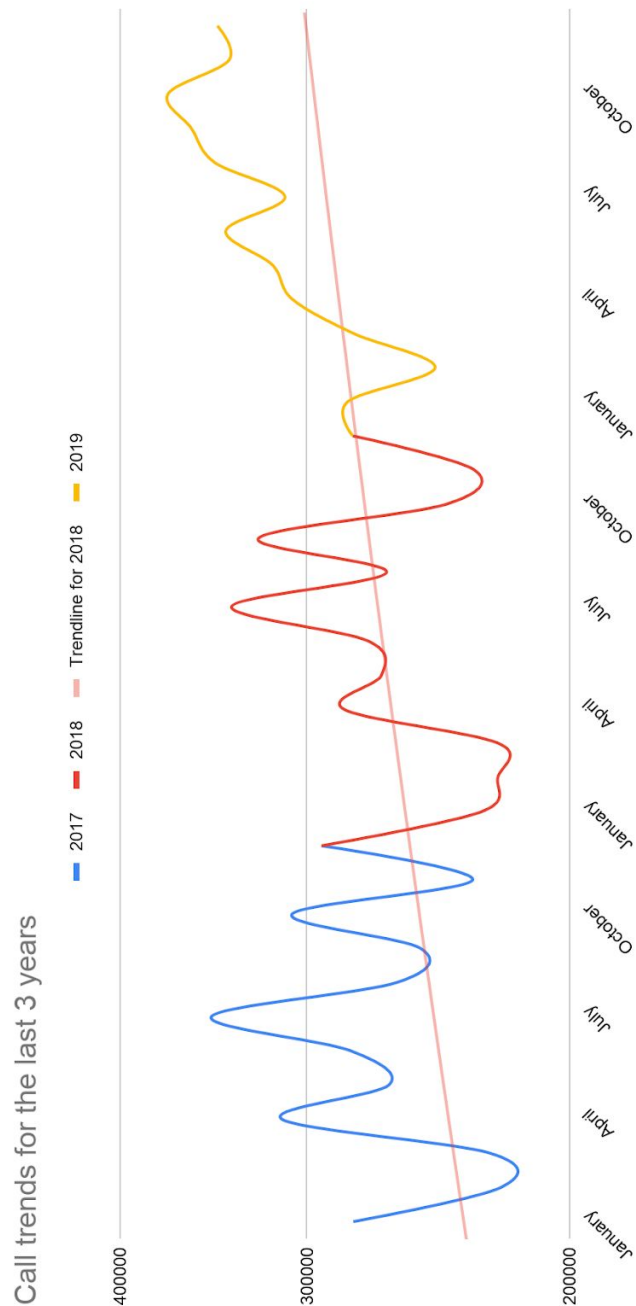
Graph D-1.1

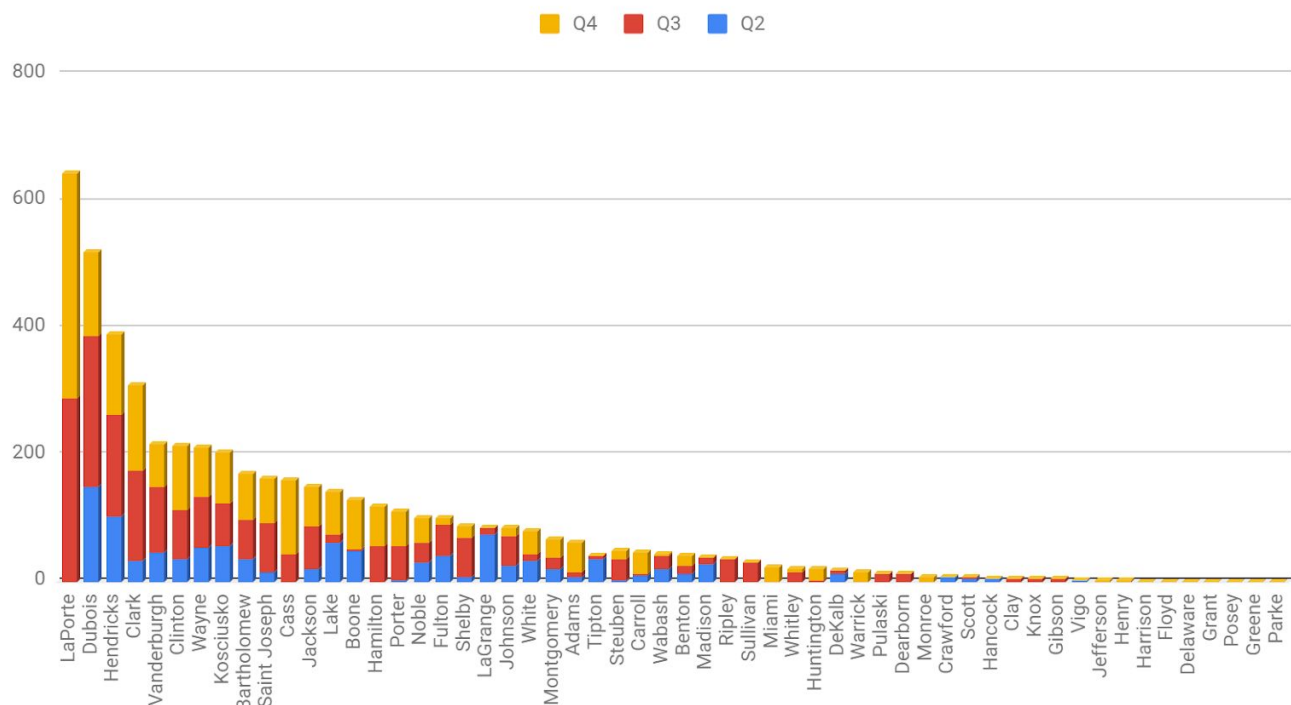Counties with the top 5 Spanish translation minutes.

Spanish total minutes (top 5)

Legend: ■ Q4 ■ Q3 ■ Q2
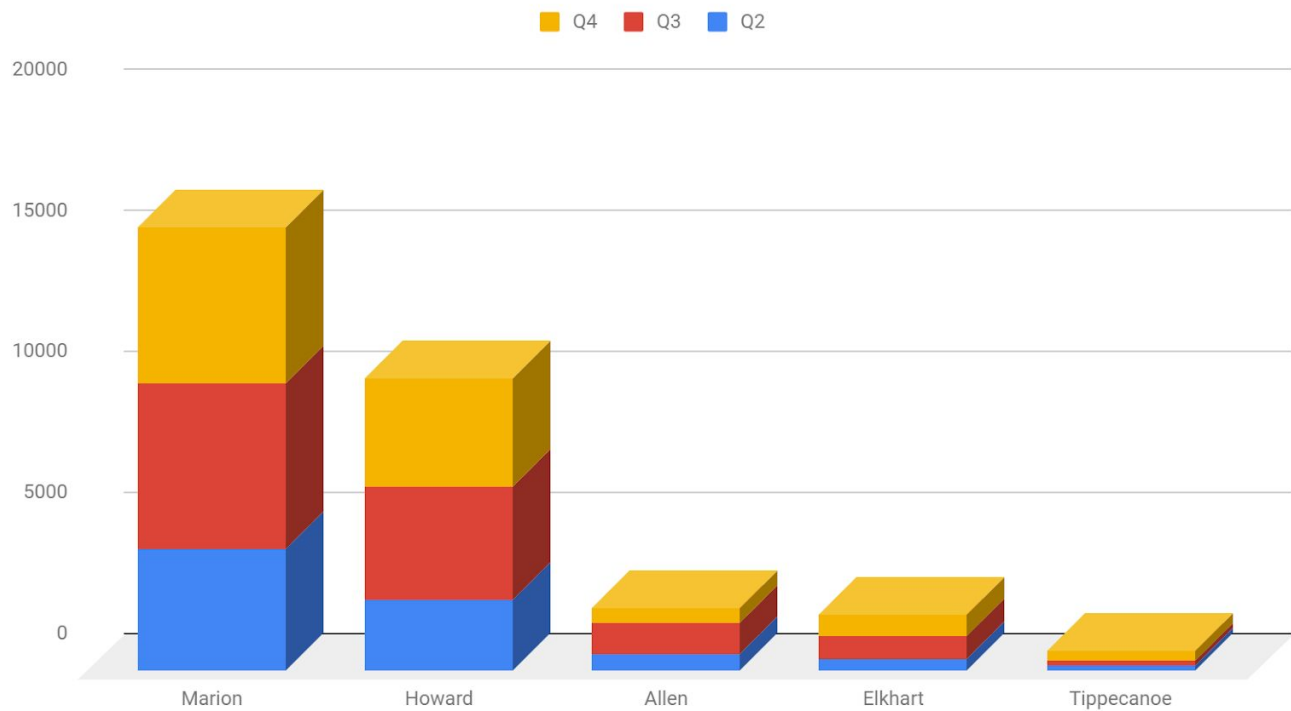
Graph D-1.2

All other counties with spanish translation in minutes.

Spanish total minutes (balance of counties)

■ Q4   ■ Q3   ■ Q2

Graph D-1.3

Counties with the top 5 non-Spanish translation minutes.
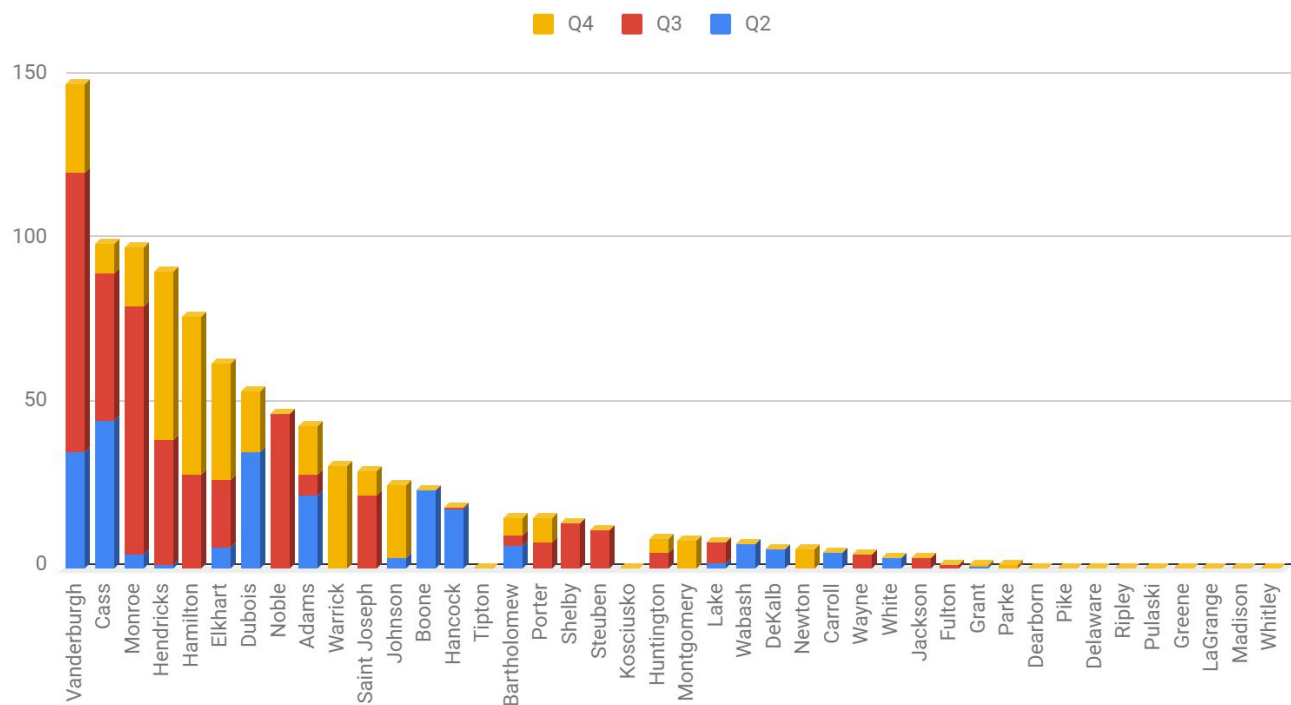
Non-Spanish total minutes (top 5)

■ Q4 ■ Q3 ■ Q2
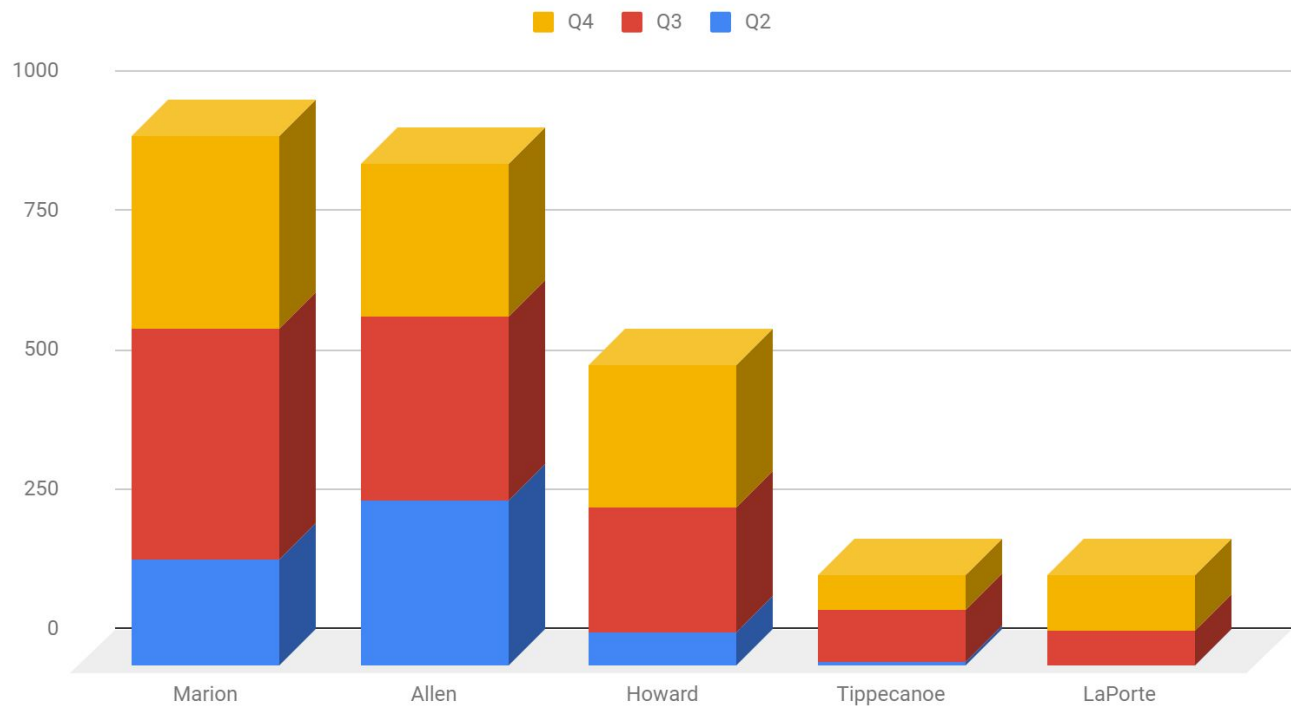
Graph D-1.4

All other counties with non-spanish translation minutes.

Non-Spanish total minutes (balance of counties)

■ Q4   ■ Q3   ■ Q2

Graph D-1.5

Total minutes of each language used in 2019.

Language	Annual Total	Language	Annual Total
SPANISH	36,262	PORTUGUESE	23
BURMESE	1934	CROATIAN	22
MANDARIN	1060	SERBIAN	20
HAITIAN CREOLE	669	YORUBA	17
SWAHILI	548	AMHARIC	13
FRENCH	514	BOSNIAN	13
CHIN	394	NEPALI	13
ROMANIAN	280	MONGOLIAN	12
ARABIC	264	TURKISH	12
VIETNAMESE	219	DARI	10
PUNJABI	215	Nigerian Pidgin	10
RUSSIAN	193	ENGLISH	9
TIGRINYA	165	ZO	9
JAPANESE	141	CANTONESE	8
HINDI	124	GERMAN	8
SOMALI	117	GREEK	8
KINYARWANDA	115	URDU	8
POLISH	88	GUJARATI	7
Portuguese Br.	50	MOROCCAN ARABIC	6
ROHINGYA	50	TAMIL	5
KAREN	46	AFRIKAANS	4
KOREAN	46	TAGALOG	4
ALBANIAN	25	CAMBODIAN	3
BENGALI	24		

Graph E-1.1

All Inbound Text to 911 by month.
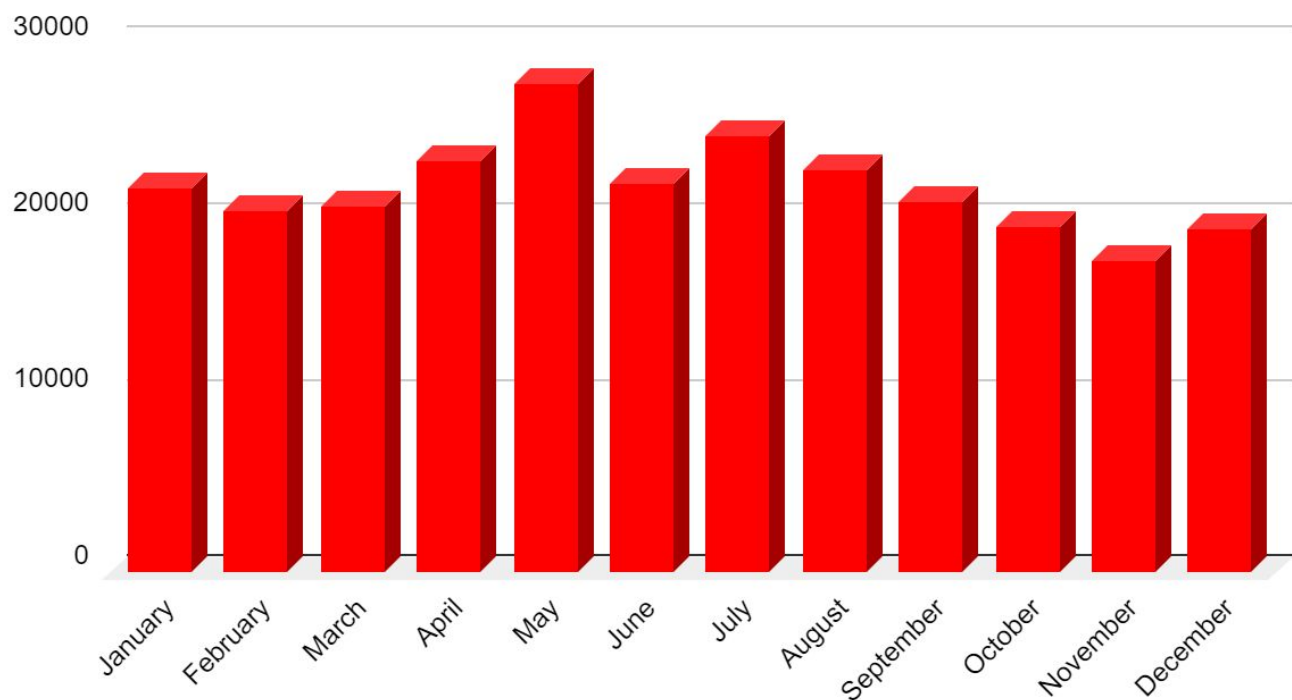
Total Inbound Text Sessions
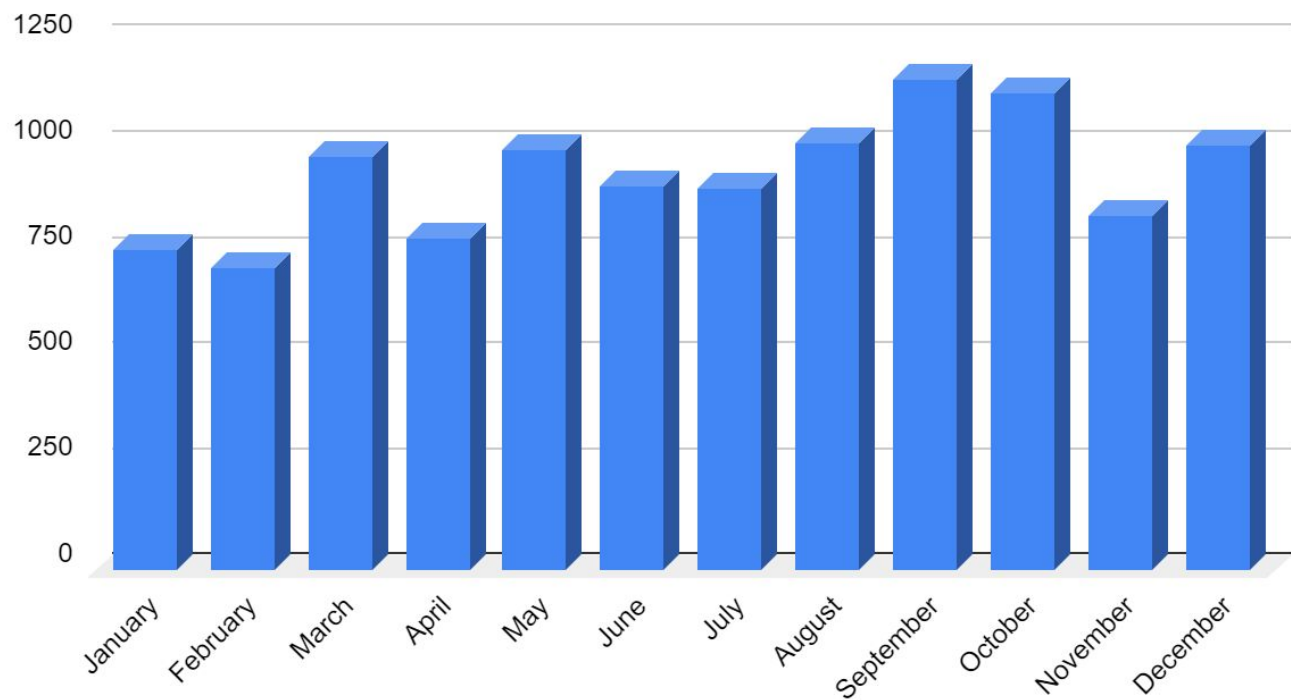
Graph E-1.2

All Outbound Text from 911 by month.

Total Outbound Text Sessions

Graph E-1.3

All Inbound Text to 911 by PSAP.

Inbound Text to 911: 10,397

100 +

PSAP	Count
IMC-SD (Indianapolis-Marion County Sheri	3072
Lake County Sheriffs Office	634
Allen County Sheriffs Department	533
Vanderburgh County Central Dispatch	497
St Joseph County Police Department	489
Elkhart County 911 Center	355
Vigo County 911	320
Kosciusko County	259
Lafayette Police Department	217
Hamilton County Sheriffs Office Dispatch	210
Wayne County Emergency Communication	208
Bartholomew County Emergency Operation	189
Monroe County Central Dispatch	189
LaPorte County 911 Communications	149
Madison County Sheriffs Office	143
Delaware County Emer. Com. Center	142
Johnson County Sheriffs Department	141
Hendricks County Communications Center	132
Indigital Text Test PSAP	119
Clark County 911 Center	114
Porter County Sheriffs Office	112
Montgomery County / Crawfordsville E911	111

40 - 99

PSAP	Count
Floyd County Sheriff's Department	84
Jackson County 911	80
Boone County Sheriffs Department	77
Hancock County Emergency Operations C	74
Grant County Sheriffs Department	70
Howard County Sheriff Department	61
Morgan County 911	60
Harrison County Sherrifs Department Disp	58
Jennings County 911	57
Shelby County Sheriffs Department	57
White County	56
Ripley County E-911 Communications	47
Henry County Emergency Services	46
Tippecanoe County Sheriffs Office	46
Clay County Justice Center	45
Dubois County Communications Center	42

20 - 39

PSAP	Count
Huntington County Sheriffs Office	39
Jefferson County 911	39
Steuben County 911	38
Jasper County Sheriffs Office	37
LaGrange County Communications	37
Noble County Sheriffs Department	37
Clinton County 911	36
Warrick County Sheriffs Office	35
DeKalb County Sheriffs Department	33
Knox County Dispatch Office	33
Cass County E911	32
Decatur County Sheriffs Department	32
Adams County Sheriff Department	29
Fulton County Communications	29
Lawrence County Sheriffs Office	29
Whitley County Communications Center	29
Marshall County Police Department	27
Tipton County E911	25
Miami County 911	24
Putnam County Sheriffs Office	23
Scott County Emergency Communications	23
Carroll County E911	22
Fayette County Communications	22
Bluffton Police Department (Wells County)	21
Vermillion County Sheriff's Office	21
Owen County Sheriffs Office	21
Spencer County 911	21
Randolph County Communications	20

< 20

PSAP	Count
Dearborn County	19
Wabash County Central Dispatch	18
Gibson County Sheriffs Department	17
Posey County 911	17
Franklin County Communications E-911	15
Starke County Sheriffs Office	15
Fountain/Warren County Regional Dispatc	14
Brown County Sheriffs Department	13
Jay County Sheriff Department	13
Parke County 911	11
Schererville Police Department	11
Greene County Sheriffs Office	10
Union County 911	10
Pike County Sheriffs Office	9
Blackford County Central Dispatch	8
Marion Co.Indy FD	8
Newton County 911	8
Orange County Sheriffs Department	8
Daviess County 911	7
Rush County Sheriffs Department	7
Pulaski County Sheriffs Office	6
Sullivan County 911	6
Switzerland County Communication	6
Vermillion County Sheriff's Office	6
Jasper Police Department	5
Washington County Sheriffs Office	4
Bedford Police Department	3
Benton County Jail/Sheriffs Office	3
Crawford County Central Dispatch	3
Elkhart City Police Department	2
Martin County Sheriffs Department	1
Rushville Police Department	1
Speedway Police	1

Graph E-1.4

All Outbound Text from 911 by PSAP.

Outbound Text from 911	260,881						
1,600 +		**600 - 1,599**		**100 - 599**		**< 100**	
IMC-SD (Indianapolis-Marion County Sheri	77385	Morgan County 911	1540	Brown County Sheriffs Department	573	Rush County Sheriffs Department	97
Allen County Sheriffs Department	18844	Clinton County 911	1510	Tippecanoe County Sheriffs Office	564	Warrick County Sheriffs Office	92
Hamilton County Sheriffs Office Dispatch	13896	Marshall County Police Department	1505	Jackson County 911	534	Putnam County Sheriffs Office	90
Elkhart County 911 Center	11373	Bluffton Police Department (Wells County)	1453	Elkhart City Police Department	495	Mooresville Police Department	87
St Joseph County Police Department	10178	Dearborn County	1446	Jennings County 911	481	Marion Co Indy FD	83
Lafayette Police Department	9216	Miami County 911	1433	Owen County Sheriffs Office	359	Indigital Text Test PSAP	74
Monroe County Central Dispatch	8562	Madison County Sheriffs Office	1401	Decatur County Sheriffs Department	358	Fayette County Communications	71
Lake County Sheriffs Office	8307	Shelby County Sheriffs Department	1386	Starke County Sheriffs Office	346	Benton County Jail/Sheriffs Office	58
Clark County 911 Center	6063	LaPorte County 911 Communications	1369	Franklin County Communications E-911	327	Tipton County E911	56
Wayne County Emergency Communication	5406	Steuben County 911	1355	Pulaski County Sheriffs Office	326	Tell City Police Department	44
Porter County Sheriffs Office	5318	Spencer County 911	1289	Jasper County Sheriffs Office	311	Bedford Police Department	43
Hancock County Emergency Operations C	4818	Purdue University Police Department	1107	Orange County Sheriffs Department	309	Seymour PD	40
Vigo County 911	4701	Jay County Sheriff Department	953	Delaware County Emer. Com. Center	294	ISP | D 42 - Versailles (serving Versailles d	38
Vanderburgh County Central Dispatch	4509	Henry County Emergency Services	894	Sullivan County 911	293	New Haven Police Department	32
Hendricks County Communications Center	4349	DeKalb County Sheriffs Department	873	Newton County 911	269	Pike County Sheriffs Office	31
Bartholomew County Emergency Operation	3962	Schererville Police Department	870	Knox County Dispatch Office	237	Daviess County 911	30
Grant County Sheriffs Department	2983	Whitley County Communications Center	862	Lowell Police Department	219	ISP | D 21 - Toll Road	28
West Lafayette Police Department	2964	Jefferson County 911	849	Switzerland County Communication	219	Parke County 911	24
Montgomery County / Crawfordsville E911	2950	Fountain/Warren County Regional Dispatch	842	Floyd County Sheriff's Department	211	Batesville Police Department	18
Kosciusko County	2587	Scott County Emergency Communications	839	Blackford County Central Dispatch	203	Columbia City Communications Center	18
White County	2526	LaGrange County Communications	829	Randolph County Communications	201	Kendalville Police Department	18
Crawford County Central Dispatch	2342	Huntington County Sheriffs Office	827	Harrison County Sheriffs Department Disp	199	Gibson County Sheriffs Department	15
Dubois County Communications Center	2196	Cass County E911	759	Washington County Sheriffs Office	151	ISP | D 22 - Fort Wayne (serving Fort Wayr	14
Noble County Sheriffs Department	1844	Fulton County Communications	741	Greene County Sheriffs Office	137	Jasper Police Department	10
Boone County Sheriffs Department	1813	Lawrence County Sheriffs Office	740	Union County 911	137	Martin County Sheriffs Department	9
Wabash County Central Dispatch	1695	Clay County Justice Center	677	Howard County Sheriff Department	123	Speedway Police	9
		Ripley County E-911 Communications	651	Johnson County Sheriffs Department	110	Rushville Police Department	8
		Carroll County E911	636	Ohio County Communications	100	ISP | D 33 - Bloomington (serving Blooming	7
		Adams County Sheriff Department	619			Vermillion County Sheriffs Office	3
		Posey County 911	606				

Graph F-1.1

Quarterly totals of trouble tickets for core support.

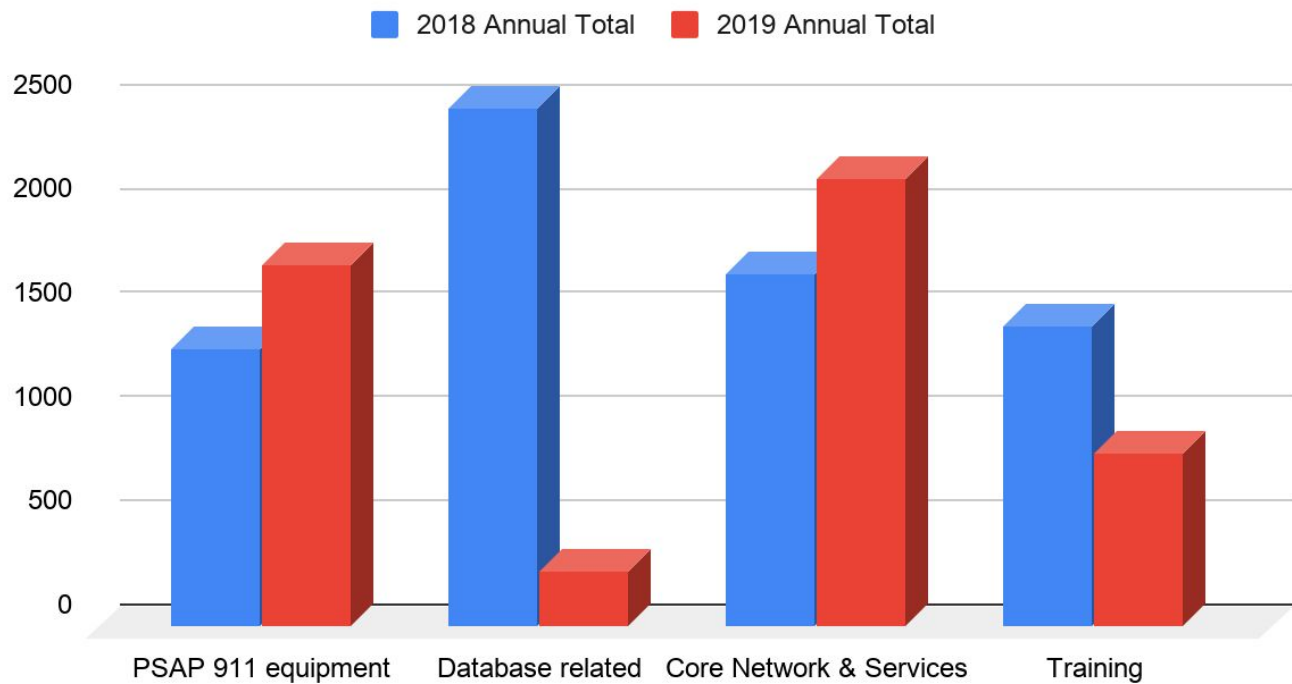### Support Quarter Comparison (2019)

■ Q1   ■ Q2   ■ Q3   ■ Q4
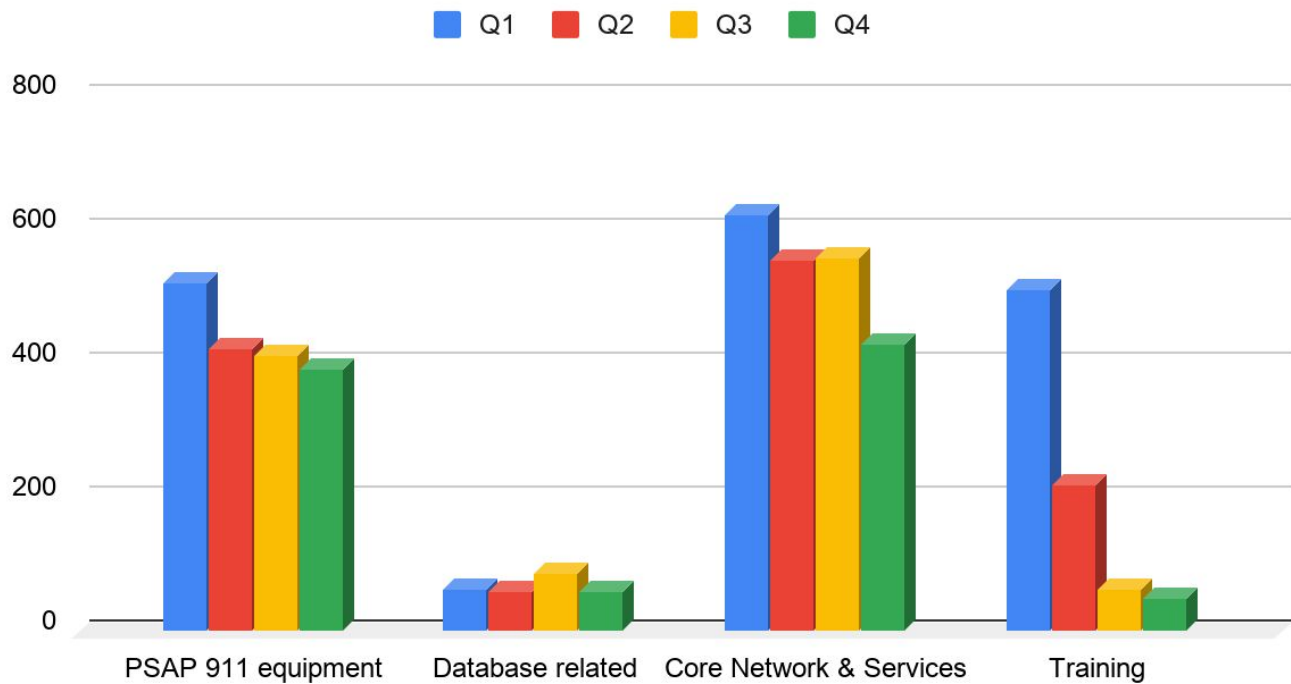
Graph F-1.2

Annual comparison of core support.

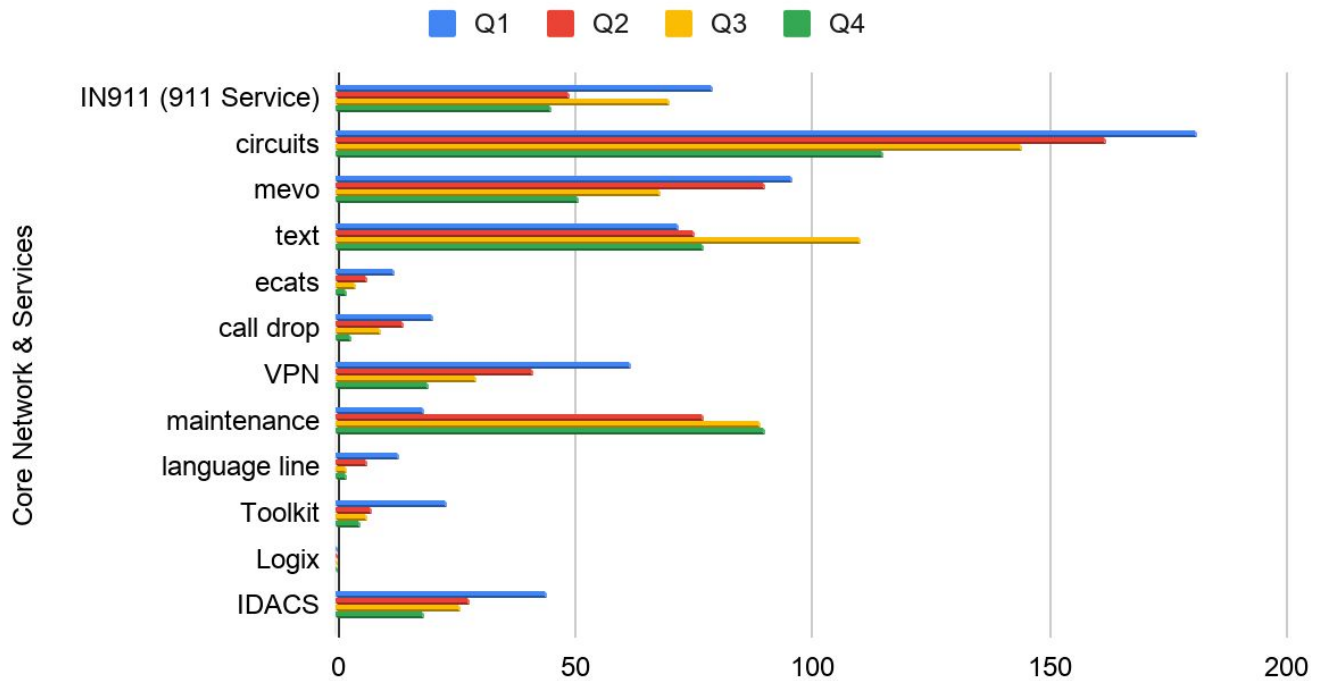### 2018 / 2019 Support Comparison Annual Comparison

Graph F-1.3

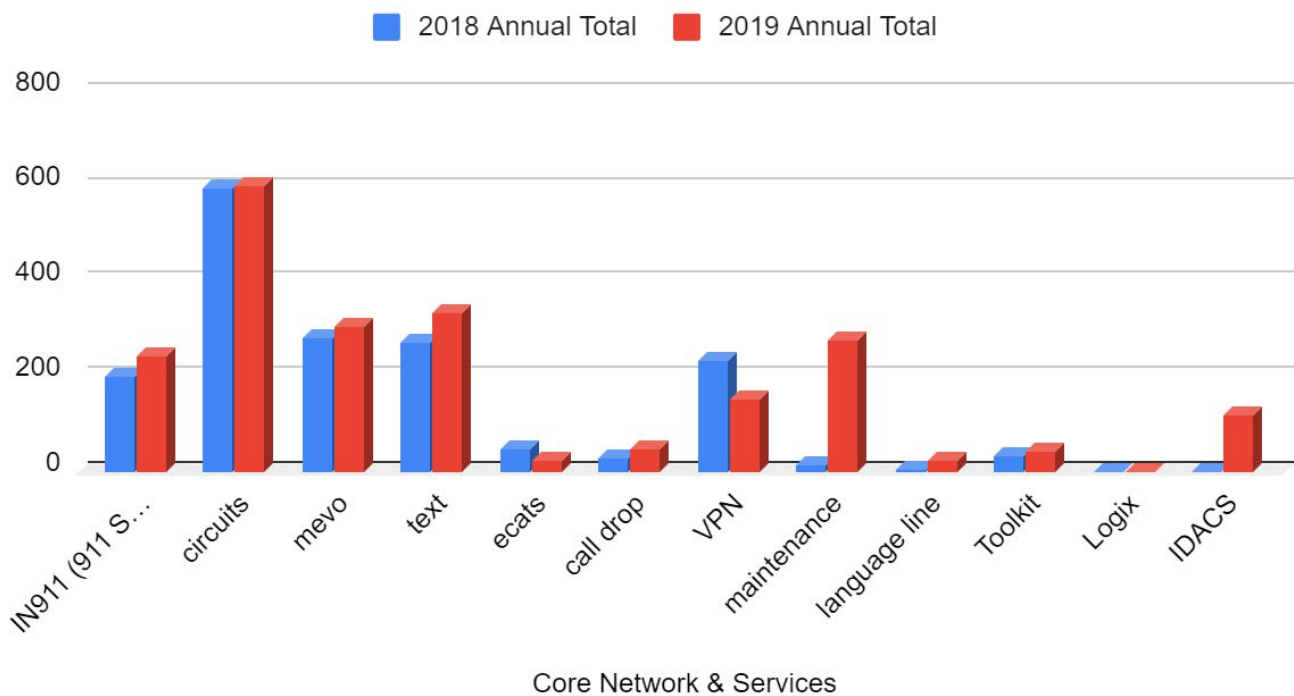Quarterly totals of core network & service support totals.

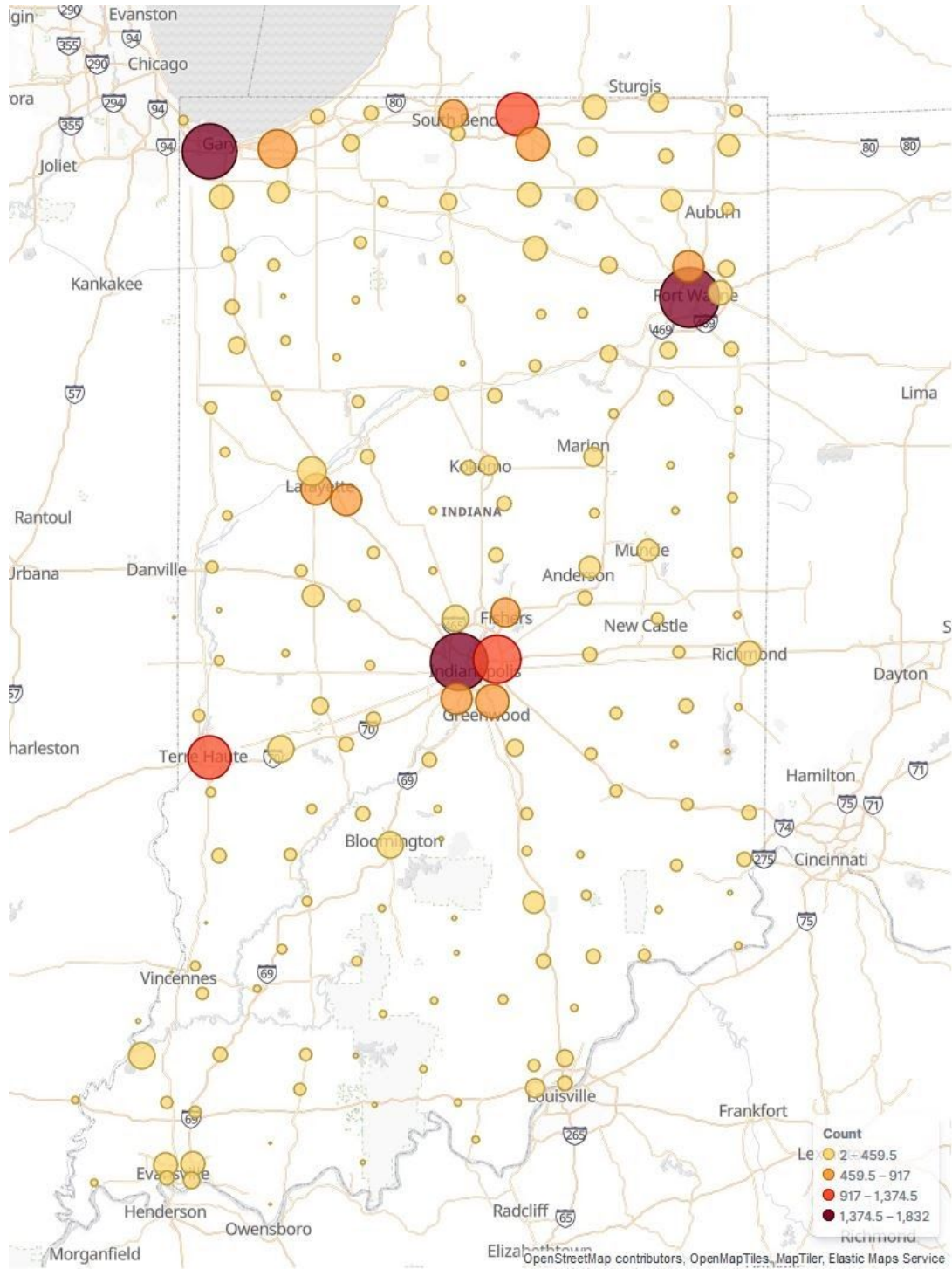### Core Network & Services (2019)

Graph F-1.4

Annual comparison of core network services.
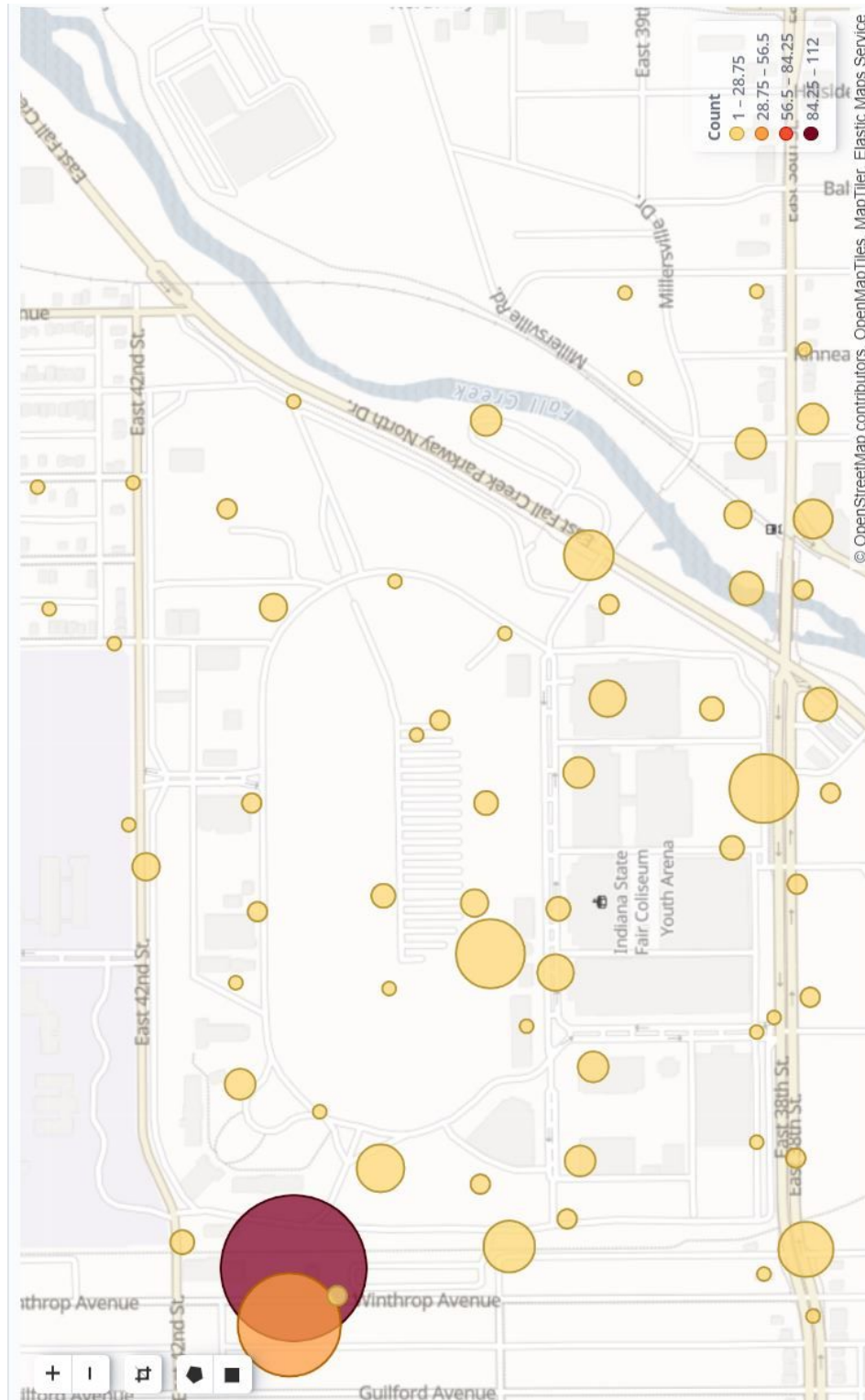

2018 / 2019 Core Network & Services Annual Comparison

Graph G-1.1 Event Analysis

Indiana's first snowstorm of the season.

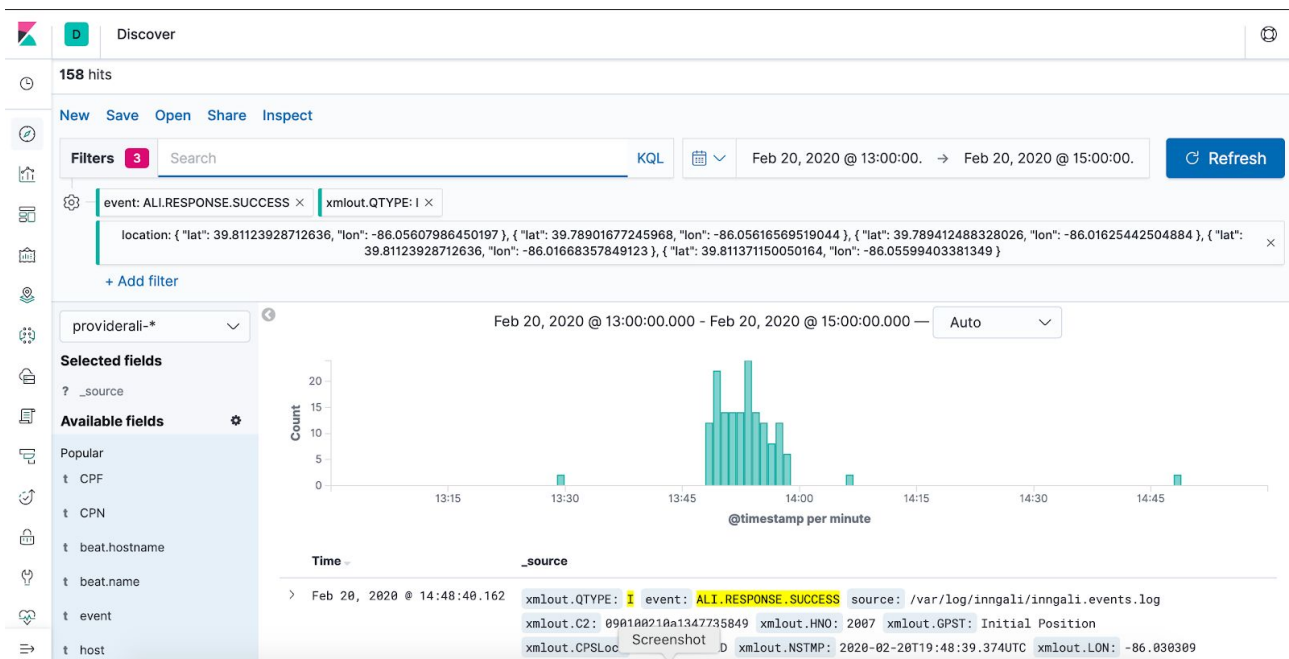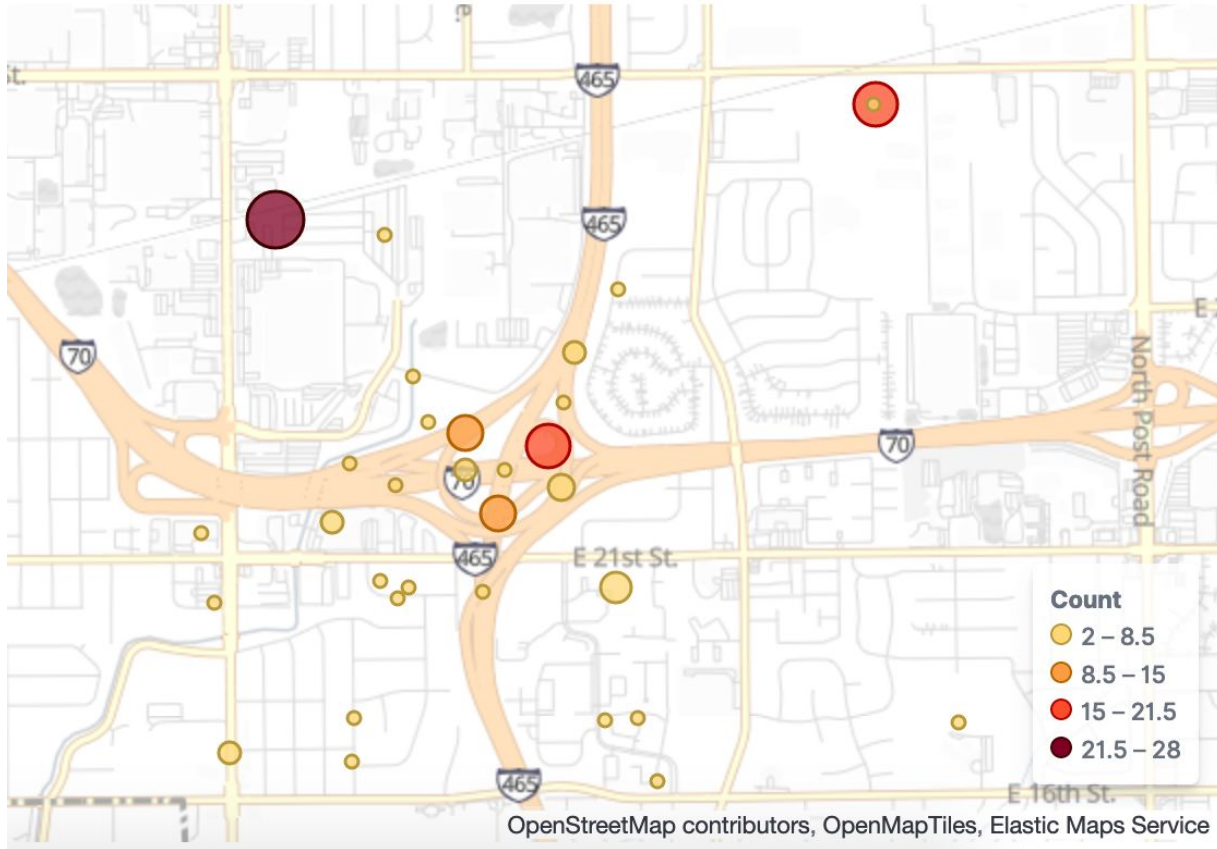## Graph G-1.2 Event Analysis

Indiana's State Fair Grounds.

Graph G-1.4   Event Analysis

Severe Thunderstorms May 23, 2019 in northern Indiana.
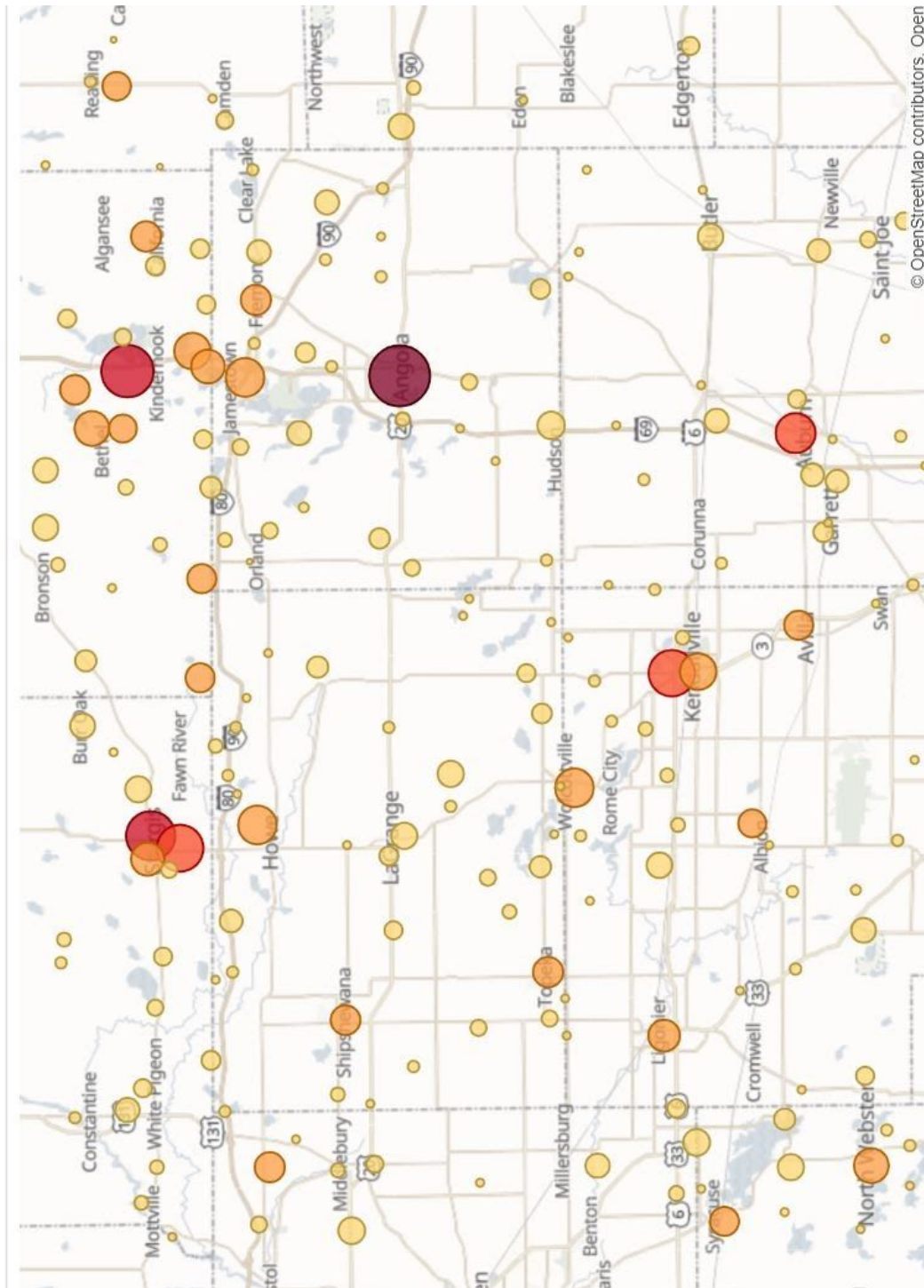
Graph G-1.3 Event Analysis

Tractor Trailer Fire February 20, 2020 in Indianapolis, Indiana.

Lori Forrer-Beckman
Indiana Service Manager
lforrer@indigital.net
574-601-9618

Shane Rekeweg
Indiana Market Manager
srekeweg@indigital.net
260-517-8228