IN911 Q-4 board report
INdigital G-19 ESiNet

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INdigital G-19 ESiNet summary

During the week of September 16th work was completed for the removal of the legacy Multi-Layer-protocol (ML) network. The ML network has been the core of the IN911 ESiNet since its inception in 2006. The last upgrade to the network happened in 2015 with increased bandwidth and services to the PSAP.

The successor is a newly designed ESiNet referred to as the G-19 ESiNet. This version of IN911 will better meet the evolving demand for reliability and new traffic types that are transported over the ESiNet. Work was completed on the turndown of the G-15 network on October 1, 2019.

The G-19 ESiNet has been in development since February of this year. This network will allow for 'route-by-caller' and the use of geo-fences, or in another words areas that need specific call routing during special events and conditions. The new G-19 network has had continuous testing. Starting the week of September 30th and throughout the week, all hosted PSAPs were moved onto the G-19 ESiNet. The impact to PSAPs was kept to the minimum by routing calls to the MEVO phones, which took over call handling.

An additional update to the network is to interface with the AT&T ESINet™, and the connection points of the networks have been identified. Originally, the locations were in Dallas, Texas and Southfield, Michigan. These locations evolved to be in Southfield, Michigan and Birmingham, Alabama. We continue to work with AT&T for the connections between the IN911 G-19 ESiNet and the AT&T ESINet.

PSAP news

On September 12, 2019, AT&T completed their repairs to the equipment used by Spencer County. The 911 center moved from a temporary district command trailer and back into their dispatch room. The 911 center took a lightning strike on July 10, 2019. INdigital supplied the county with a Cisco cellular router and additional equipment needed to route 911 calls to MEVO phones in the command trailer. This support was provided by INdigital on behalf of the Board to allow them to continue PSAP operation.

On September 24, 2019 an INdigital field team surveyed the Indianapolis International Airport to plan the installation of two MEVO phones in their dispatch center. We have also worked with Johnson, Hancock, and Owen Counties to install additional MEVO phones. Installation was completed on November 26, 2019.

The Purdue telecom building's power had scheduled maintenance on October 5, 2019. There was a refresh on their power system, which could have affected 911 call delivery to Purdue PD. Although the building and equipment had generator backup, steps were put in place to roll over any calls that could not be delivered as normal. The maintenance event was completed without any interruption to 911 services.

Jefferson and Rush Counties are moving their 911 centers to new locations. We are working to ensure a smooth transition for each of these counties. As those projects continue to move forward we will work to keep the Board and the staff informed on our progress in these projects.

Marion County (Indy Metro) reported issues with call routing, with calls overflowing to their alternate routing number. As a result of INdigital investigation, it was discovered that there were not enough trunk lines to the agency. Additional trunks were added on October 29, 2019.

Wireless calls

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

Wireless call volumes for Indiana remained constant from January 2017 to September 2019 with 9,153,905 wireless calls placed. That volume translates to approximately 277,391 wireless calls each month.

Since the start of the IN911 network in 2006, 38,866,385 wireless calls have been processed on the IN911 network.

Over the past 13 years, the IN911 network has averaged 235,554 calls per month.

Translation services

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

Earlier this year we began a reporting method on the use of translation services in greater detail. We also split the reporting of translation services into Spanish and "non-Spanish" as well as total minutes and usage counts. This data became available beginning in March as the service transitioned to an improved methods and speed of delivery.

The conversion took some time, as system configuration of the call handling systems at the PSAPs needed to be re-programmed to make access to the translation faster, and make it possible for the call taker to pre-select the language. As counties came online, the data made usage trends more clear.

Spanish usage by the top five counties (Marion, Howard, Allen, Elkhart, and Tippecanoe) remained consistent with prior periods. Spanish counts for the first three quarters of this year totals are 4,366 with 23,202 minutes of usage.

Non-Spanish translation has similar month to month trends, but beginning in August the total minutes of use had a slight increase. Non-spanish usage for the first three quarters total 405 sessions with 2,373 minutes which is approximately 1/10 of Spanish.

Texty services

(No graph in the appendix)

Texty service's data is currently being recompiled into a new database structure.

The purpose of converting the legacy data is to allow better access and validation, and provide a single reporting and monitoring tool using a simplified approach to see trends and usage patterns.

As a result of this ongoing work, Texty data was not yet fully compiled in the new database. We will have more detailed information in our year end report.

Help desk ticket analysis

(Please refer to graphs F-1.1 through 1.3 in the appendix)

Support tickets for the third quarter remained steady. Although training requirements for new services such as the Texty update to version 17.3 began shortly after the first of the year, which explains the amount of training provided early in 2019. Training has decreased as a result of no new products being delivered since the new Texty 17.3 platform.

The data in this report shows the steady rise of help desk activity. Maintenance events began in the 2nd quarter, and continued through October, just beyond this report. These maintenance events were related to turndown of the G-15 ESiNet ML ring, and the transition to the G-19 ESiNet.

The G-19 network started to transition into service on September 16th, and work continued to completion of the network on September 23rd. Work continues with testing of the network and functional elements as many of these are updated to current software releases. None of this work is affecting service, but does require outreach and coordination with the PSAPs. Tickets are created to allow workflow tracking and provide visibility to stakeholders of the current status of our work.

Carrier support tickets have also increased as a result of the G-19 buildout and testing of the new system. We would forecast that these will return to previous levels at the conclusion of our work.

Because there is a continuous influx of new call takers and local directors, we will be planning regional meetings to review the operation of the IN911 system throughout 2020. There will always be a need for individuals to receive training on the IN911 system operation.

Event analysis

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

1. Indiana University in Bloomington, Indiana generated 3,789 calls from September 2018 to the following September.

   a. IU has a student enrollment of approximately 43,710.

2. Purdue University in West Lafayette, Indiana generated 7,159 calls from September 2018 to the following September.

   a. The difference with Purdue over the other universities in the state is that the INdigital reporting system has access to all types of calls (not just wireless). The Purdue report includes wireless calls, wireline, and VOIP.

   b. Purdue has a student enrollment of approximately 43,411.

3. Notre Dame University (near South Bend, IN) generated 1,248 calls from September 2018 to the following September. ND has a student enrollment of approximately 12,467.

   a. Significant increases of 911 calls occur during home football games when stadium occupancy is 80,795.

4. The first Indiana snow storm event was on November 11th.

   a. This event produced over 5,000 more calls than normally seen statewide as a result of poor road conditions.

Appendix

Graph C-1.1

Call volume from 2017 to September 2019.

Call trends for the last 3 years

Legend: 2017 | 2018 | Trendline for 2018 | 2019
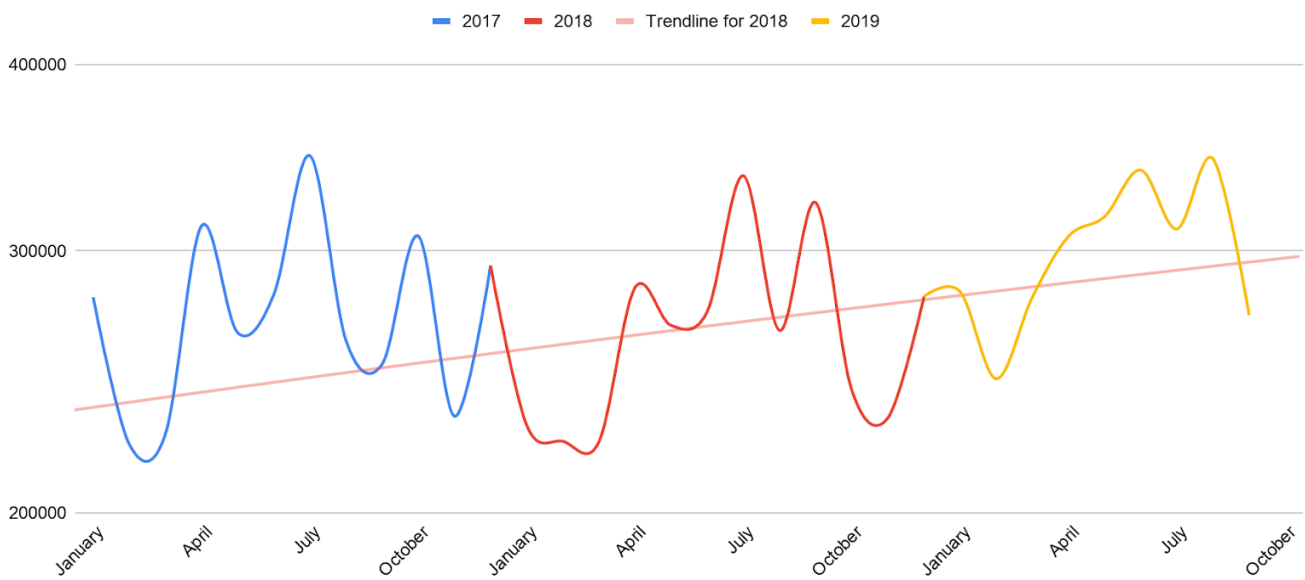
Graph D-1.1

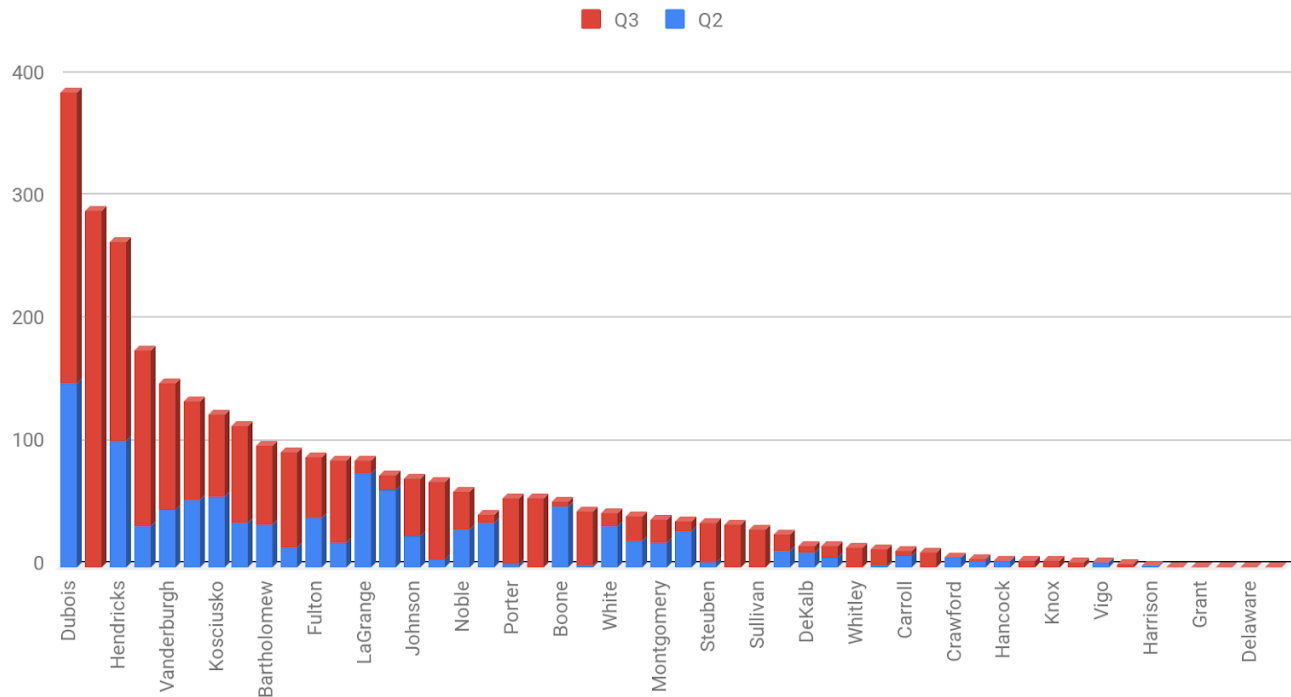Counties with the top 5 Spanish translation minutes.

Spanish total minutes (top 5)
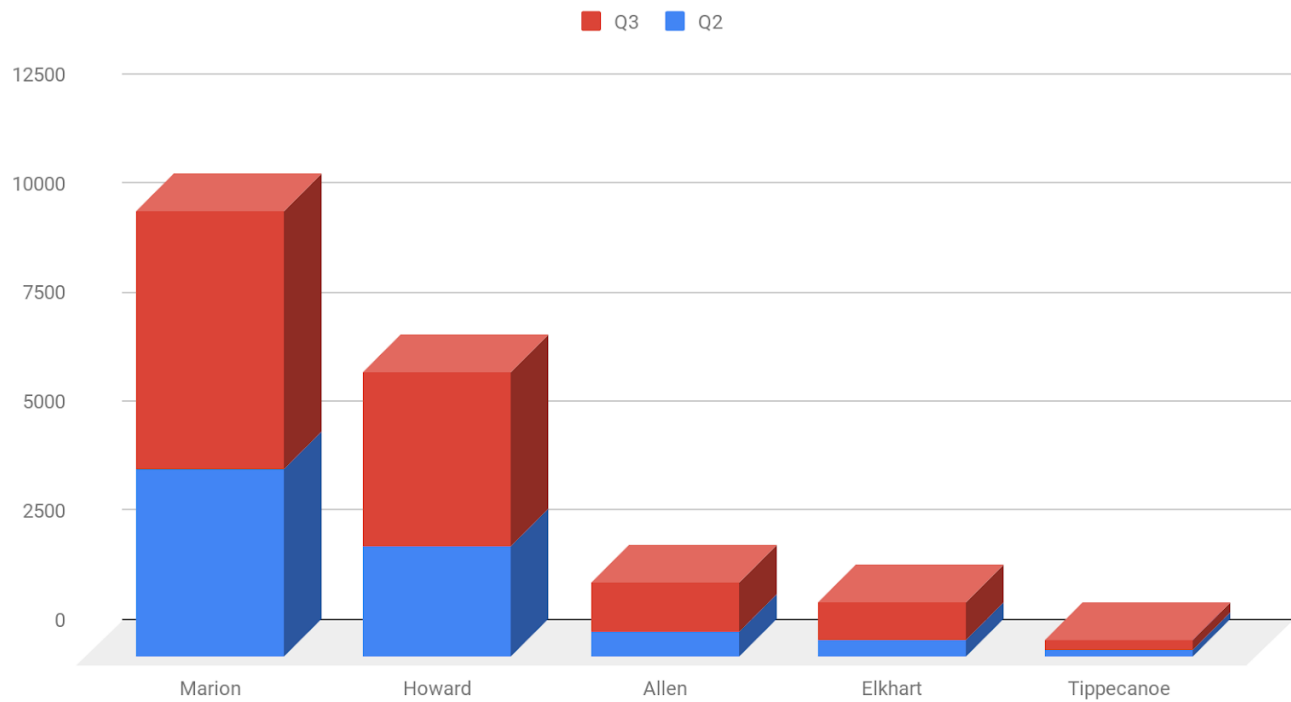
Graph D-1.2

All other counties with spanish translation in minutes.

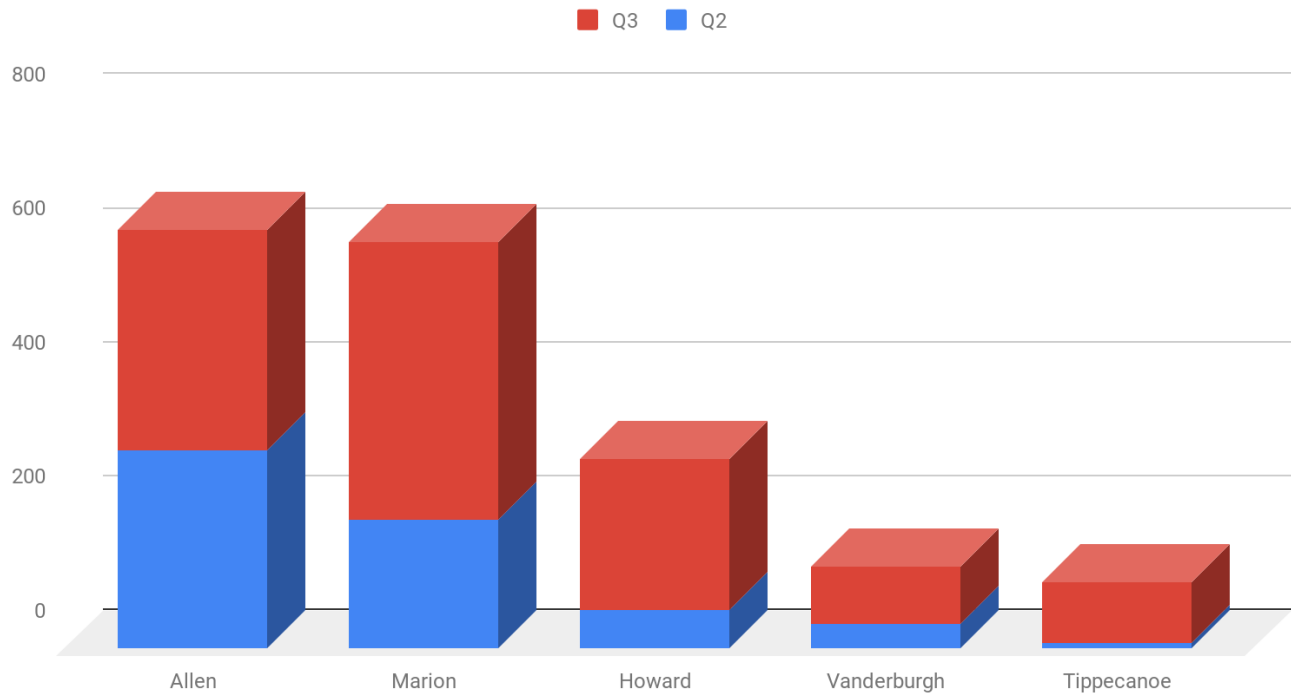**Spanish total minutes (balance of counties)**

Graph D-1.3

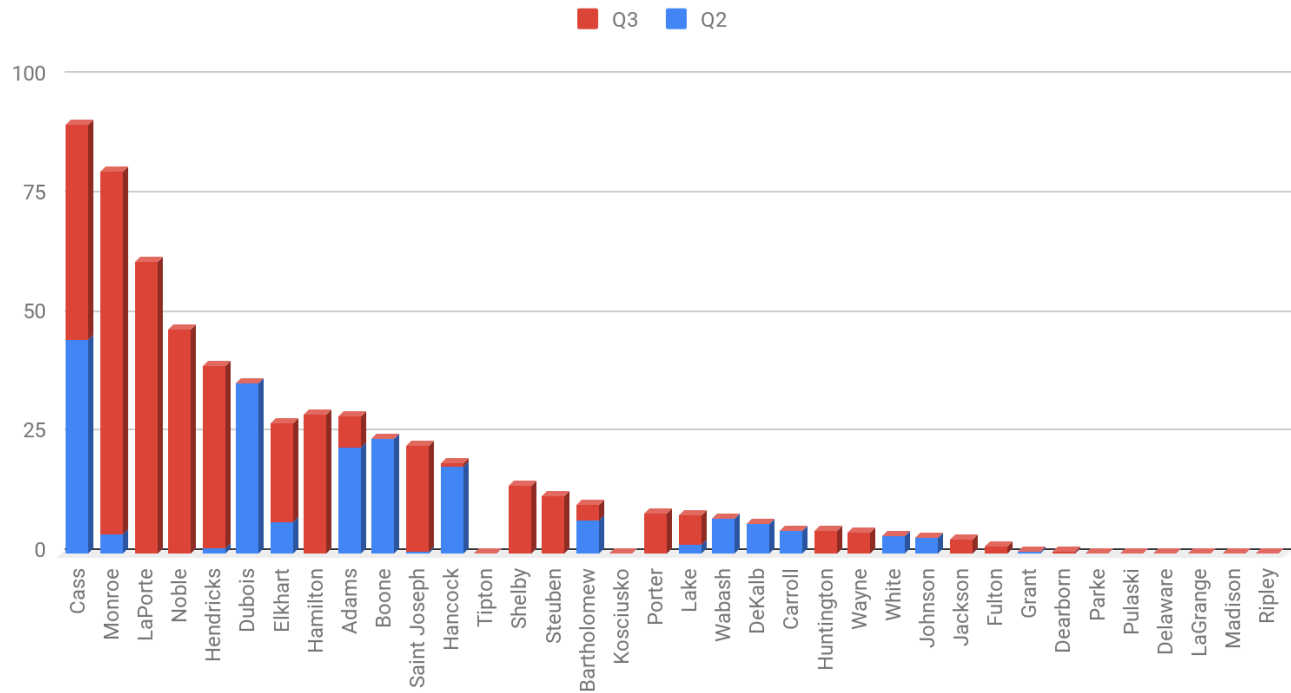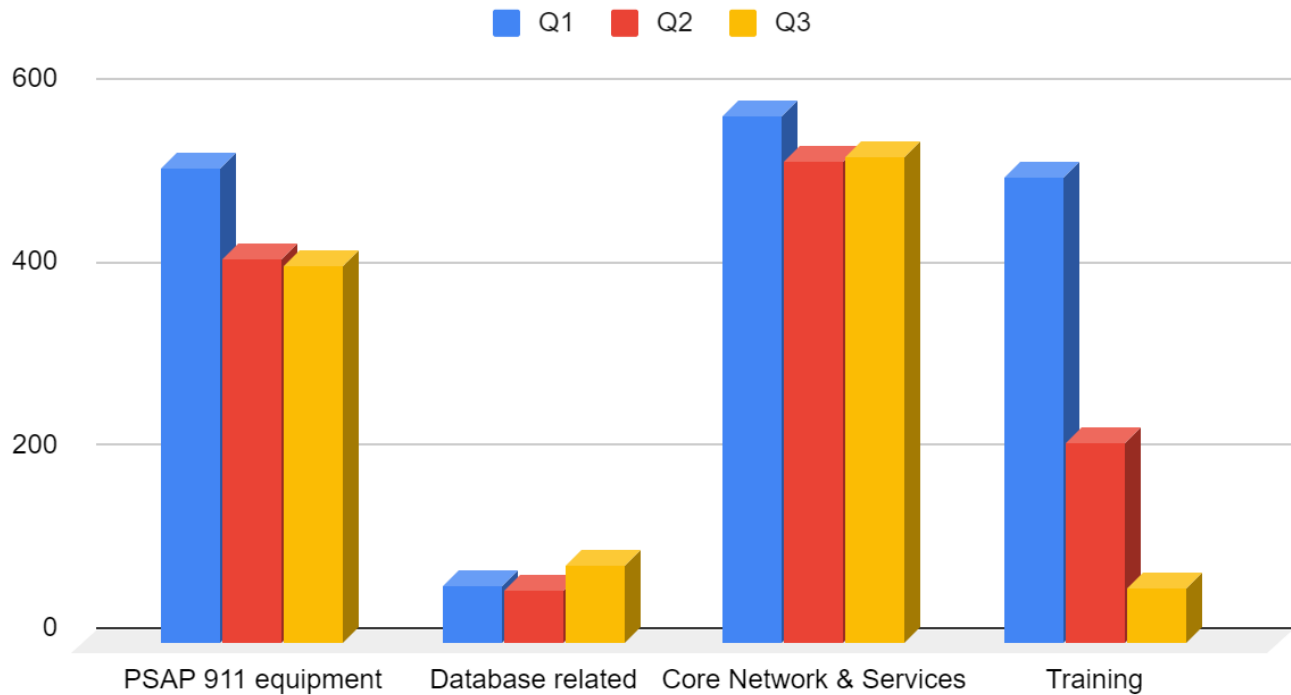Counties with the top 5 non-Spanish translation minutes.

Non-Spanish total minutes (top 5)

Graph D-1.4

All other counties with non-spanish translation minutes.

Non-Spanish total minutes (balance of counties)

Graph F-1.1

Quarterly totals of trouble tickets for core support.

Support Quarter Comparison

Legend: ■ Q1 ■ Q2 ■ Q3

Categories: PSAP 911 equipment, Database related, Core Network & Services, Training

Y-axis: 0, 200, 400, 600

Graph F-1.2

Quarterly totals of core network & service support totals.

Core Network & Services
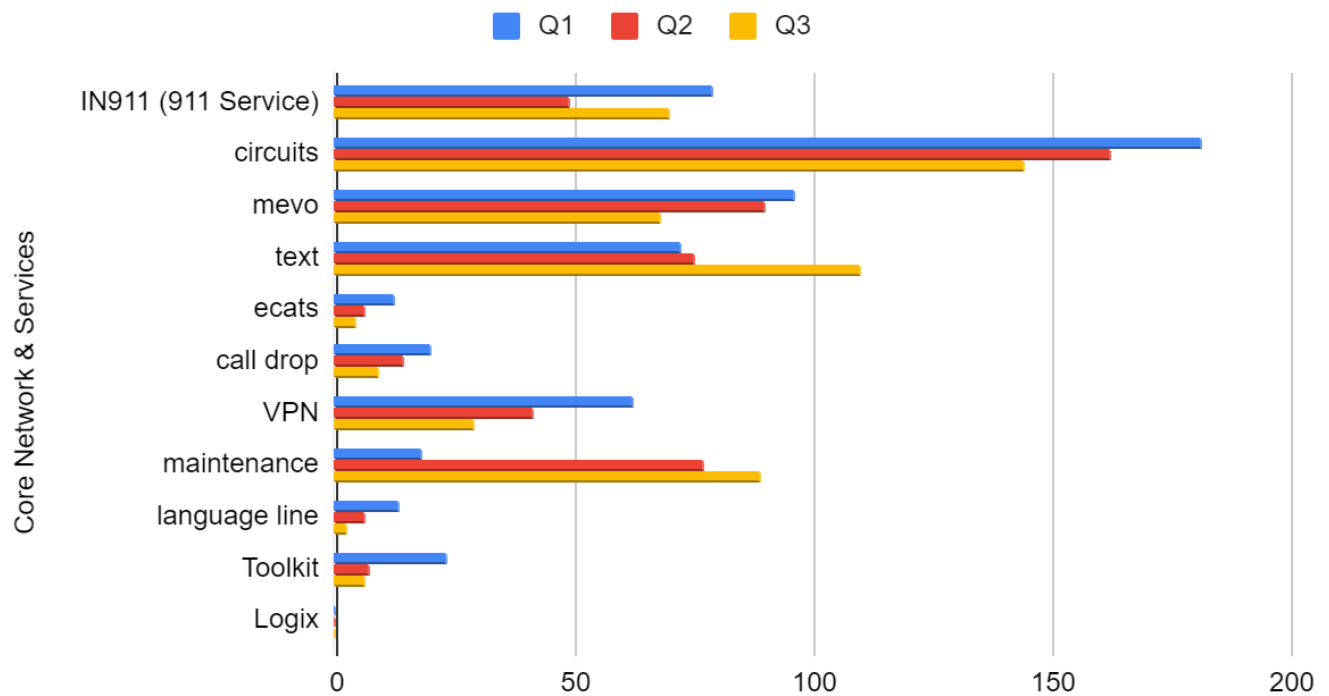
Graph F-1.3

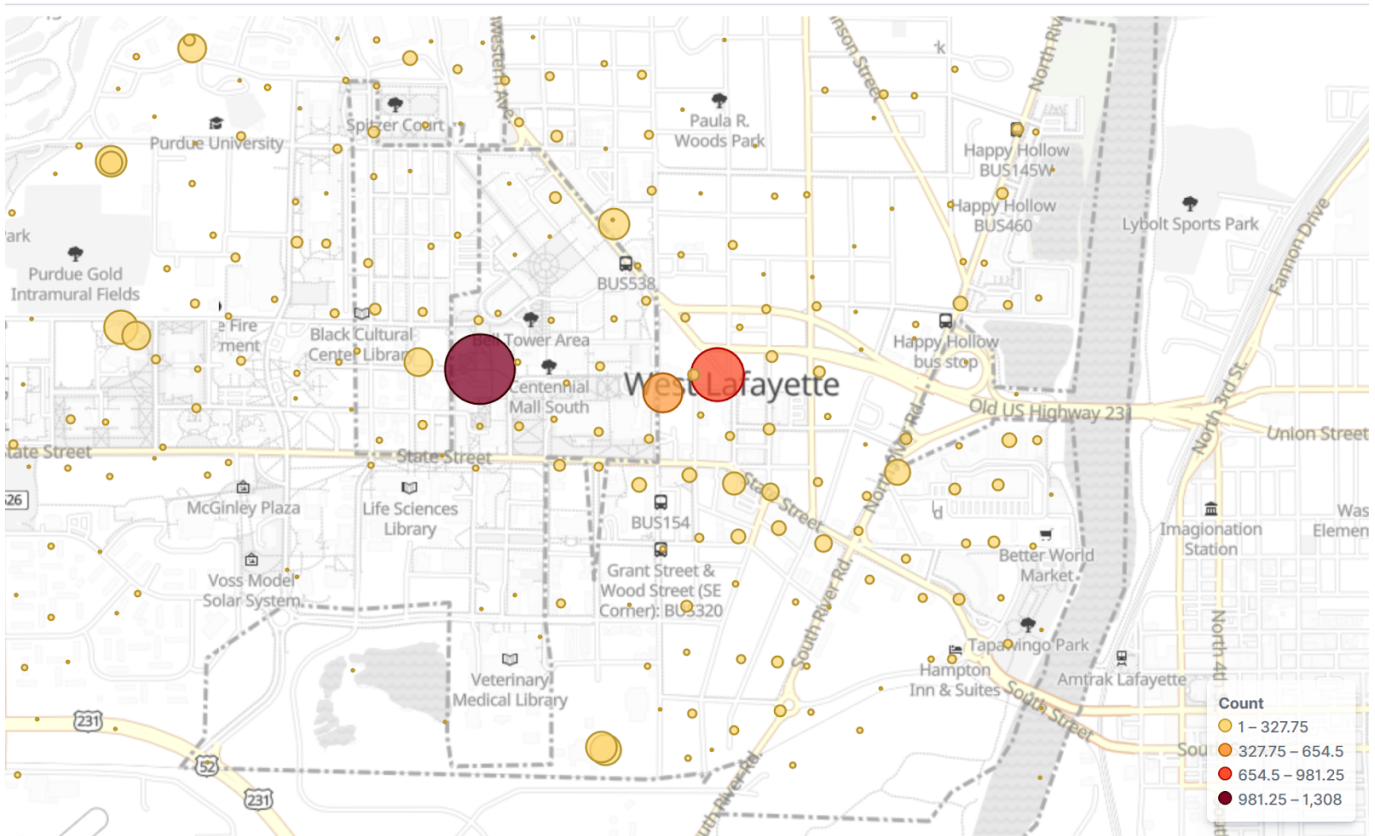Quarterly totals of core support over the last seven quarters.
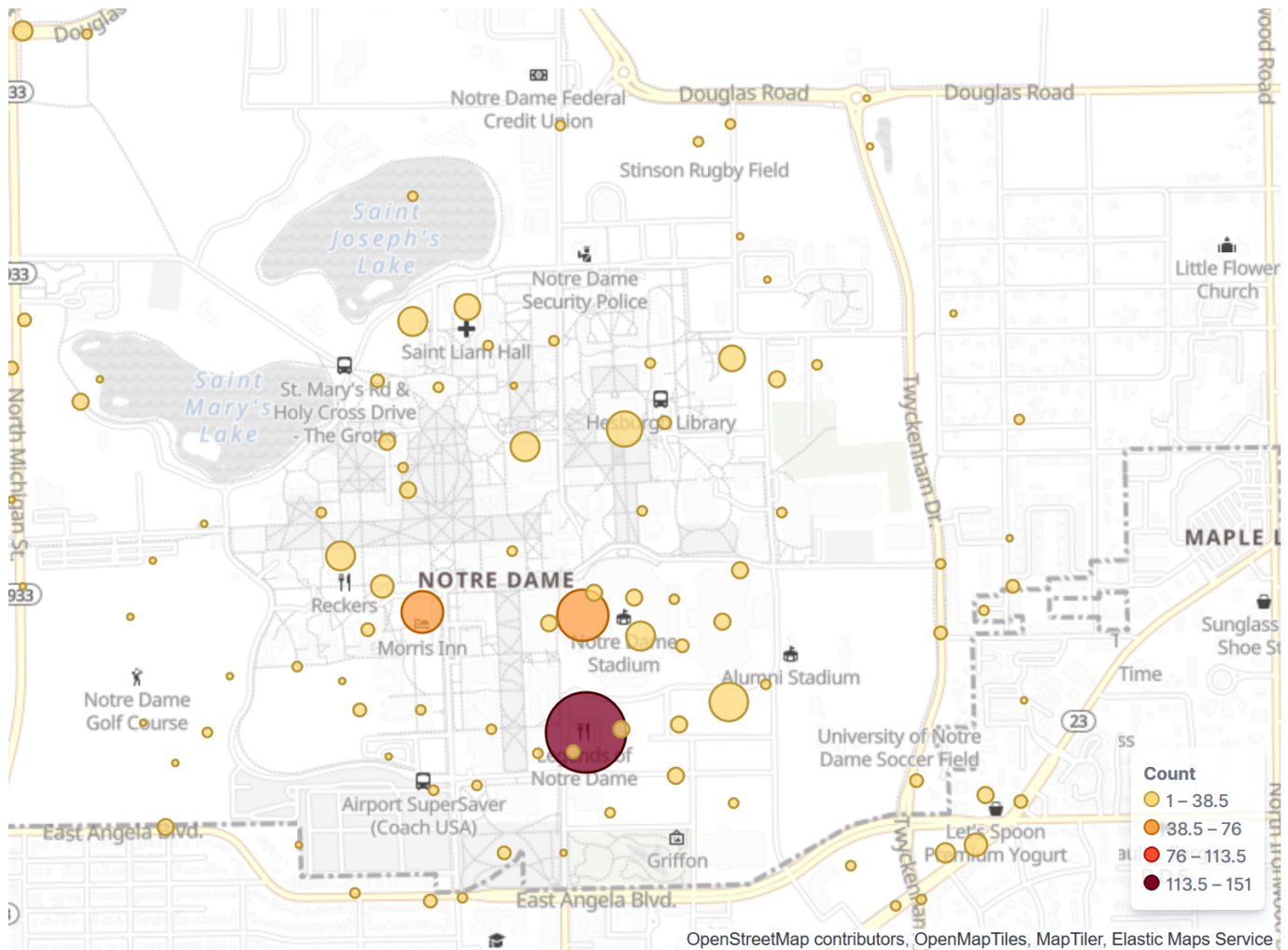

2018 vs 2019 Core Network & Services

Legend:
- Q1 2018
- Q2 2018
- Q3 2018
- Q4 2018
- Q1 2019
- Q2 2019
- Q3 2019

X-axis categories: IN911 (911 Service), circuits, mevo, text, ecats, call drop, VPN, maintenance, language line, Toolkit, Logix
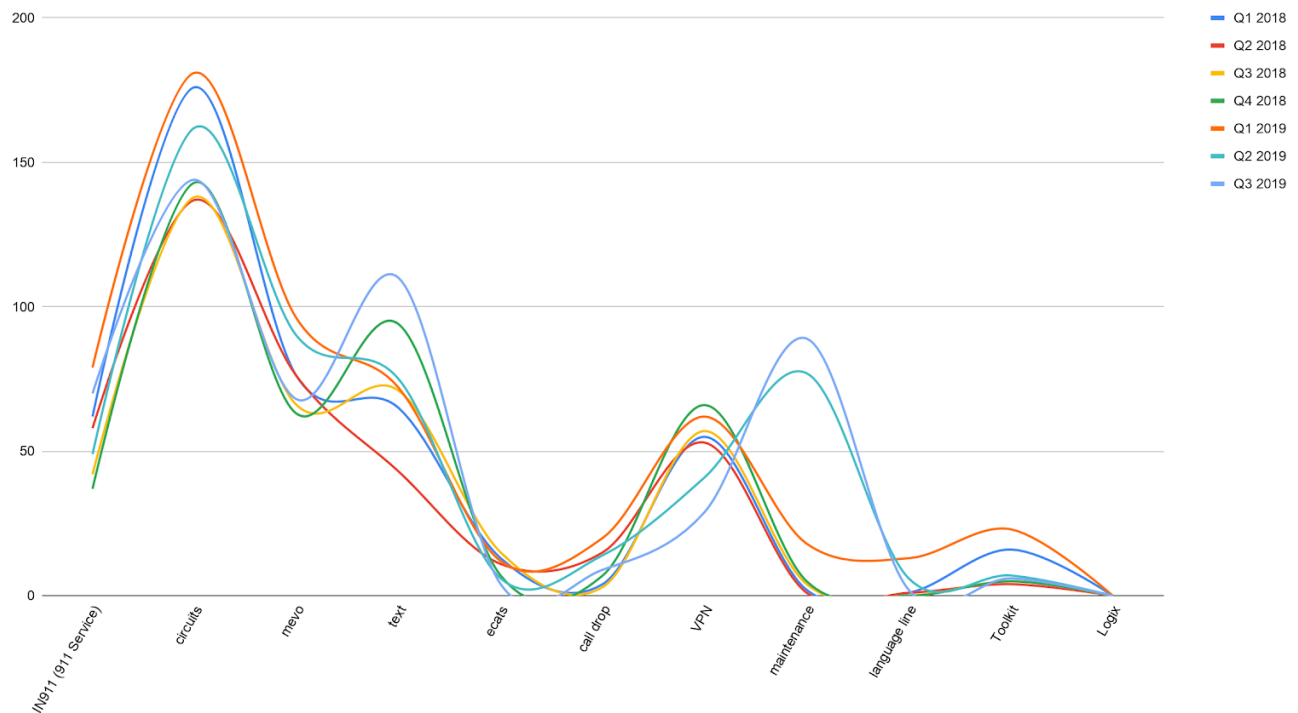
Graph G-1.1   Indiana University
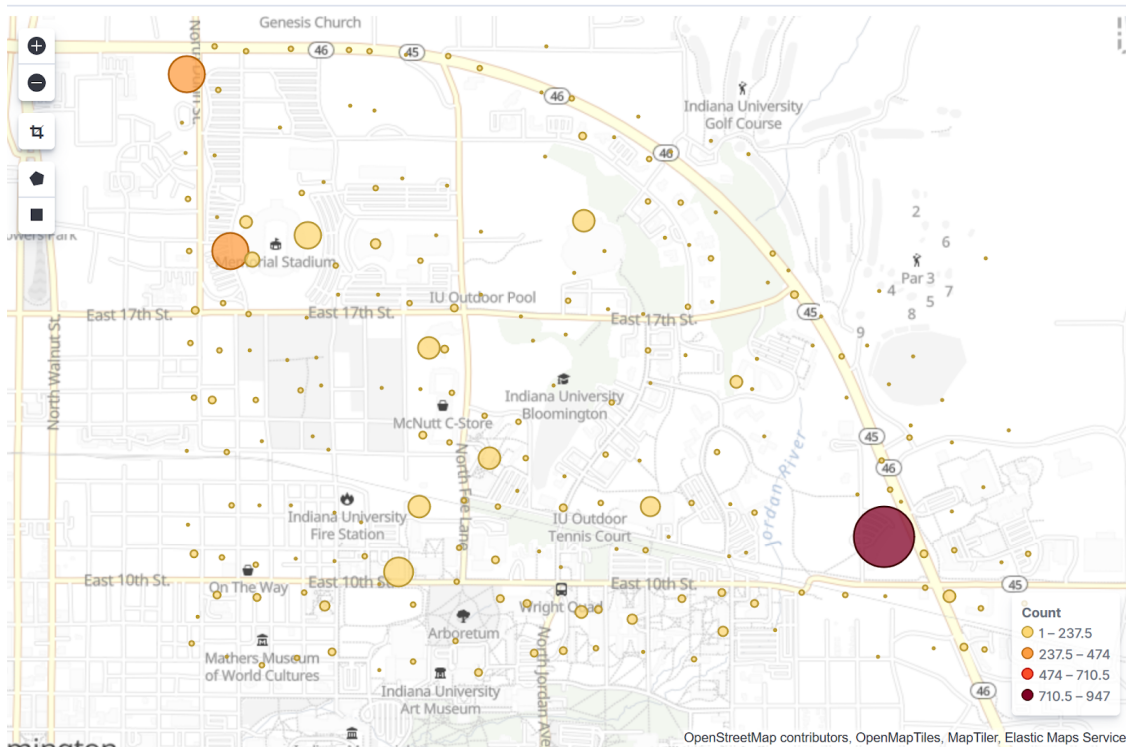
Graph G-1.2 Purdue University
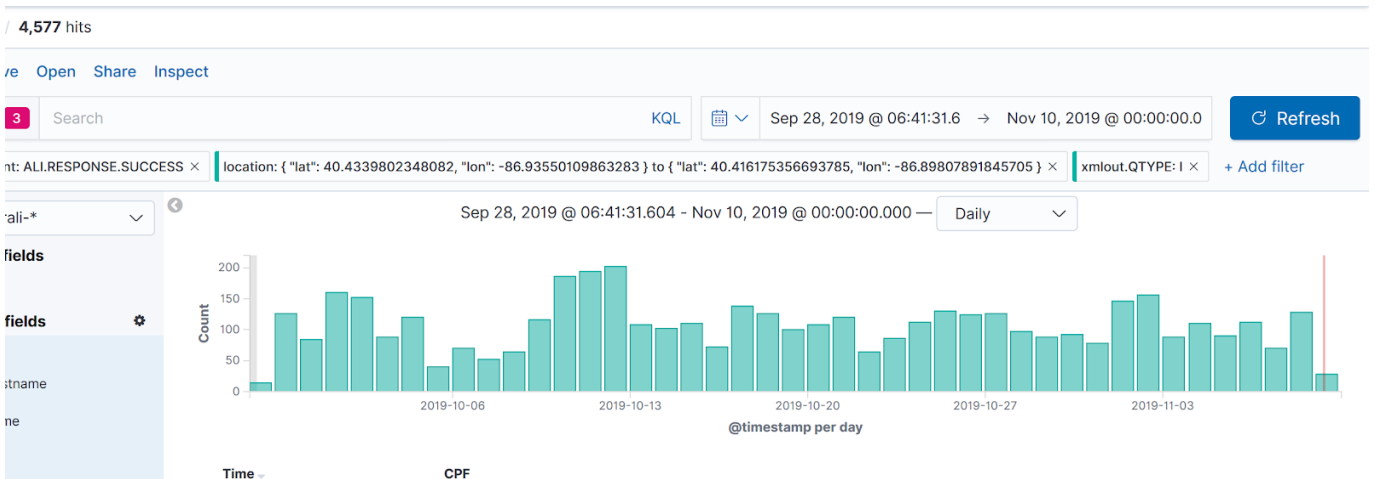
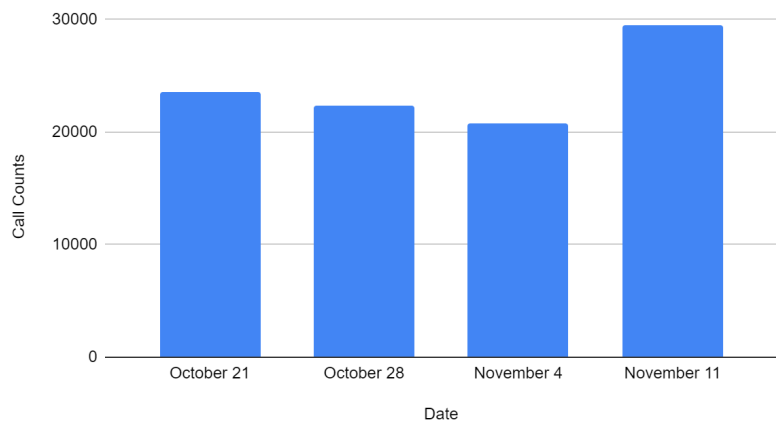# Graph G-1.3 Notre Dame University
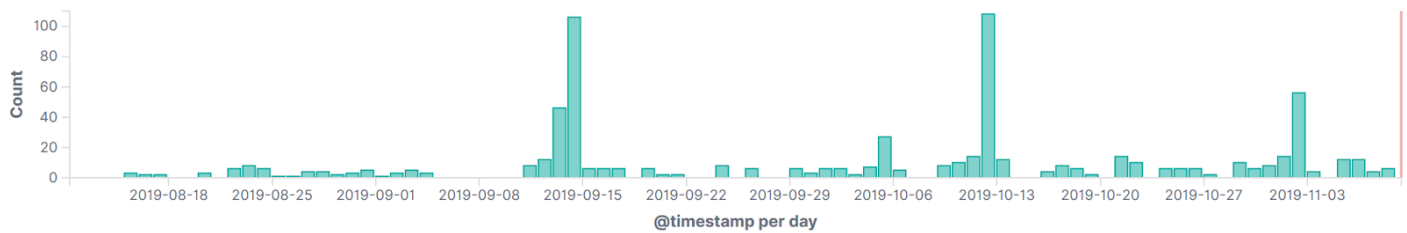
Graph G-1.4 November 11th (first heavy snowfall)
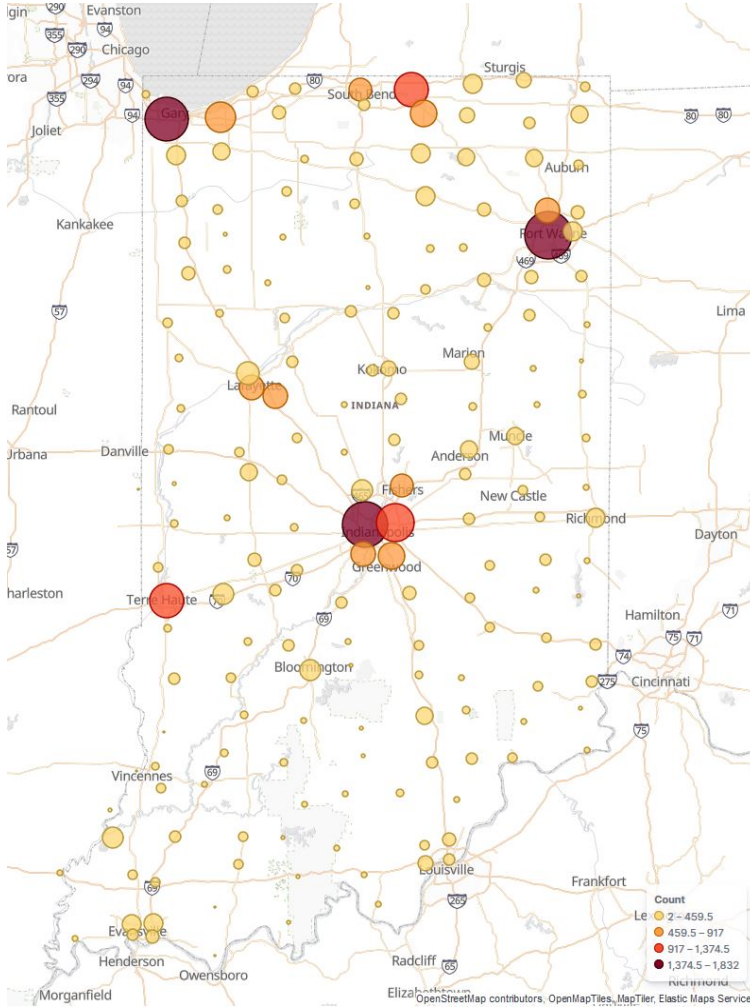
Call Counts vs. Date

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