



STATE OF UTAH

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AUDITOR GENERAL

Dec 7, 2021

Report No: ILR 2021-C

Subject: Twelve-Month Follow-Up of 911 Call Answer Times for VECC and Salt Lake City 911

Audit report #2020-06, *An In-Depth Follow-Up of 911 Audits and Review of 911 Staffing*, was presented to the Legislative Audit Subcommittee in August 2020. That report showed significant deficiencies in the 911 emergency call answer times at Salt Lake Valley Emergency Communication Center (VECC), Utah's largest public safety answering point (PSAP). The report also showed past call answering deficiencies at the Salt Lake City 911 PSAP.

In response to these call answering deficiencies, the Legislative Audit Subcommittee unanimously adopted a motion for us to revisit the call answering performance for both VECC and Salt Lake City 911 in 6 months and again in 12 months. We presented our six-month review to the subcommittee in May 2021. This limited review represents our 12-month update in response to the committee's motion. In light of the updated performance numbers here, we reaffirm our original audit recommendation that the Board of Trustees for VECC direct management to bring the center's call answering performance in line with the national standards referenced in *Utah Code* 63H-7a-304.5.

National Standards Are Reflected in Utah Statute

The National Emergency Number Association (NENA) establishes two key targets for how quickly emergency calls should be answered.

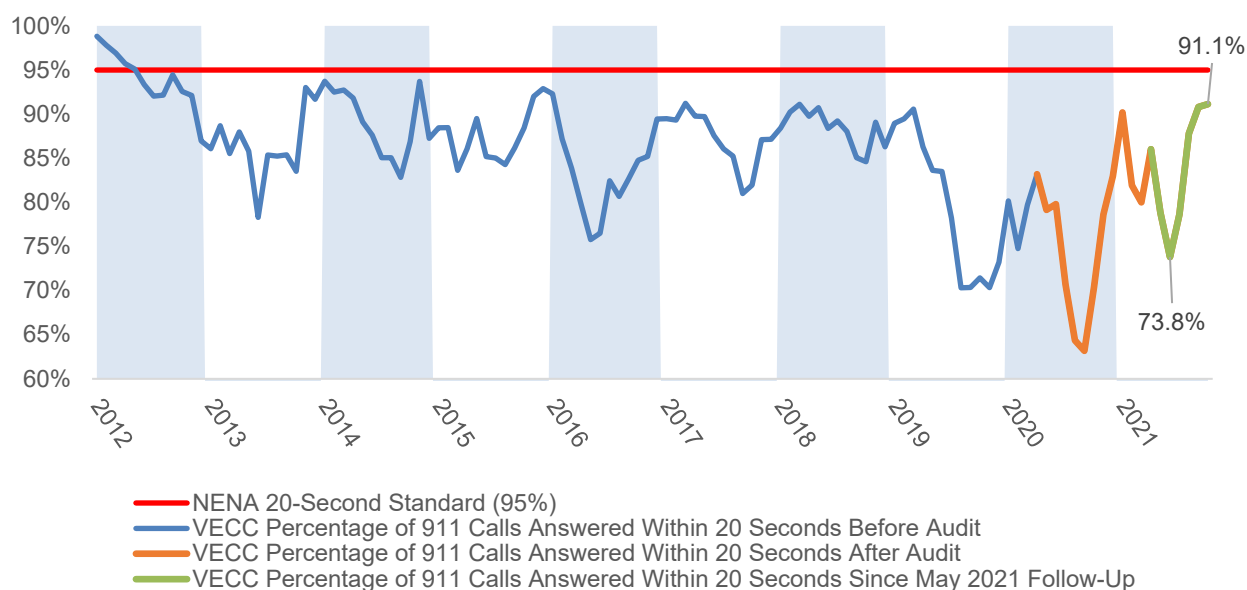
- 90 percent of emergency calls shall be answered within 15 seconds.
- 95 percent of emergency calls should be answered within 20 seconds.

These call answering standards were also adopted in statute in *Utah Code* 63H-7a-304.5 as one of the conditions for receiving certain 911 funding from the Utah Communications Authority (UCA). The focus of our analysis in report #2020-06 and in this limited review is on NENA's 20-second standard.

VECC Has Improved But is Still Underperforming Relative to Call Answering Standards

We have analyzed monthly 911 call answering at VECC in three phases. The first phase covered 2012 through April 2020. In response to the Audit Subcommittee's motion, we updated that analysis through March of 2021 and reported those results in our 6-month follow-up. For this report, we updated the numbers through October 2021. Figure 1 shows VECC's call answering performance against NENA's 20-second 911 call answering standards. Our three phases of analysis are reflected in blue, orange, and green respectively.

Figure 1 Though Still Short of the 95 Percent Standard, VECC's Performance in October 2021 Was Higher Than Any Month Since March 2017. VECC leadership believes that efforts to hire more employees and the installation of a new phone system in August have been the main causes of this improvement.



Source: Auditor analysis of ECaTS 911 call answering data

Shown on the far right of Figure 1, performance dropped again to 73.8 percent in June 2021 but climbed to 91.1 percent in October 2021. VECC's October performance was higher than any month since March 2017. Also reflected in Figure 1, August, September, and October have been, on average, VECC's lowest performing months each year from 2012-2020. VECC's 911 call answering performance in August, September, and October of 2021 was 88, 91, and 91 percent respectively. These are 6-10 percent higher than the historical average and hopefully foreshadow continued improvement in 911 call answering.

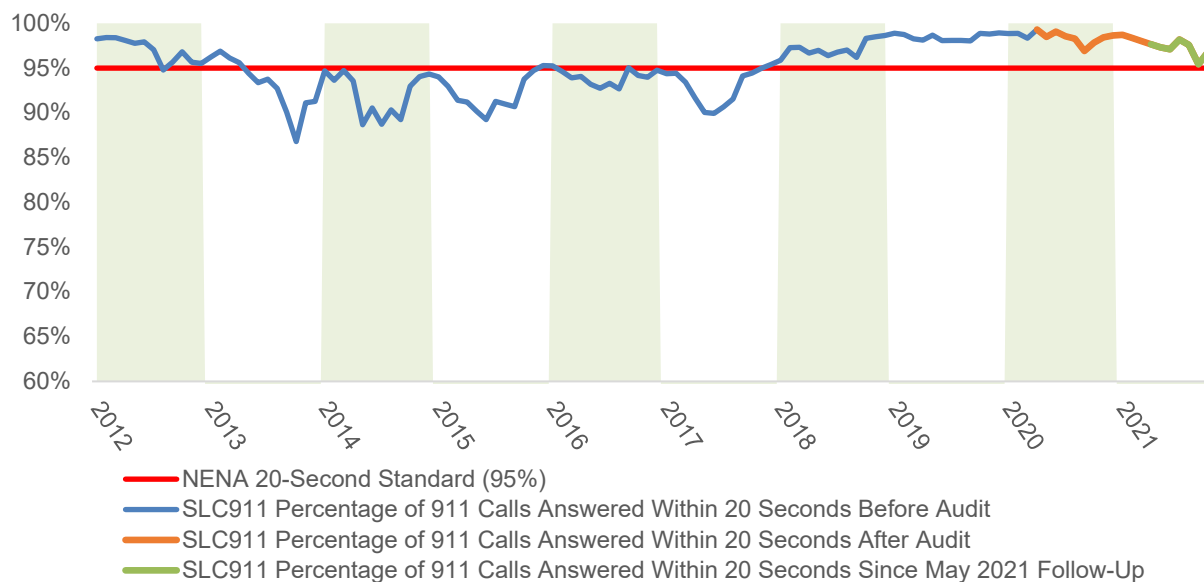
Although VECC is still falling short of the standard, the installation of the new state-funded next generation 911 phone system on August 11, 2021 seems to have had a significant positive impact on call answering performance. Data showing daily call answering performance shows a clear improvement after the installation. In addition to the

new phone system, VECC leadership explained that this improvement is due to multiple efforts and initiatives including adjustments to staff supervision, changes to work schedules, ongoing recruitment efforts, and significant budget increases approved by the VECC Board of Trustees. While we acknowledge the efforts of VECC, we restate our audit recommendation from audit report #2020-06 that the Board of Trustees for VECC direct management to bring the center’s call answering performance in line with the national standards referenced in **Utah Code 63H-7a-304.5**.

Salt Lake City 911 Continues to Satisfy The National Call Answering Standard

Audit report #2020-06 shows that Salt Lake City 911 (SLC911) was out of compliance with NENA’s 20-second call answering standard for 32 of 60 months from 2015-2019.¹ The report notes, however, that SLC911 had made improvements—consistently meeting the 20-second NENA standard from December 2017 through the end of our analysis in December 2019. Figure 2 shows that SLC911 has continued to perform above the 95 percent NENA 911 call answering standard through October 2021. Like VECC, SLC911 also installed the new state-funded next generation 911 phone system in August 2021.

Figure 2 SLC911 Has Continued to Exceed the NENA 20-Second Call Answering Standard. Prior to 2018, SLC911 frequently fell short of the 95% answer percentage.



Source: Auditor analysis of ECaTS 911 call answering data

During the updated period, reflected by the green line in Figure 2, SLC911’s 20-second 911 call answering performance ranged from a low of 95.4 percent in September 2021 to a

¹ See report #2020-06, Figure 3.1, p. 17

high of 98.2 percent in July 2021. SLC911 leadership explains that the relatively low performance in September, which was still above the 95 percent standard, was the result of the operational turbulence around the new phone system installation in August. They explained that they have had to make operational adjustments in response to certain system glitches and are still working to stabilize operations.

Beyond VECC and SLC911, all other Utah PSAPs have continued to satisfy the NENA 20-second call answering standard through this updated time period.

VECC's Automated Call Queue Data Changed With the New Phone System Installation

Audit report #2020-06 also detailed our concerns with the high number of emergency 911 callers who are placed in VECC's automated call queue. When no call takers are available at VECC to answer emergency calls, the queue system automatically places emergency callers on hold where they hear a pre-recorded message telling them to wait for assistance.

We did not have sufficient data to update our VECC call queue analysis. Given the timing of this report, call data for 2021 only goes through mid-November. This makes it impossible to compare an entire year of 911 calls as we have done in our last two reports. Also, the new state phone system changed how queue time is measured making it difficult to prepare a consistent analysis across time. We looked at the 2021 queue usage from January through the end of July (i.e., before the new phone system was installed in August) and we see a slight improvement compared to 2020.

Recommendation

1. We restate our audit recommendation from audit report #2020-06, *An In-Depth Follow-Up of 911 Audits and Review of 911 Staffing* that the Board of Trustees for VECC direct management to bring the center's call answering performance in line with the national standards referenced in *Utah Code* 63H-7a-304.5.

For further questions or inquiries, please contact Brian Dean at 801-326-1730 (bdean@le.utah.gov) or Jake Dinsdale at 801-755-7322 (jdinsdale@le.utah.gov).

Agency Responses



SALT LAKE VALLEY EMERGENCY COMMUNICATIONS

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November 24, 2021

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RE: Response to Twelve Month Follow Up of 911 Call Answer Times for VECC

The members of the VECC Board of Trustees wish to extend our gratitude to the Office of Legislative Auditor General, particularly Mr. Brian Dean and Jake Dinsdale, for their fair approach to the deficiencies identified at VECC.

We are pleased with the progress Executive Director Scott Ruf has made during his tenure at VECC. As your report states, the installation of the new 911 phone system on August 11, 2021, has made a significant positive impact on call answering performance. In addition, improved work schedules, recruitment efforts, and substantial budget increases approved by the Board of Trustees continue to improve the service VECC provides the community and police and fire agencies.

In addition to what the updated report identified on November 17, 2021, the Board of Trustees approved \$5,300,000 in capital improvements to update radio consoles and displays to enhance the environment and efficiency of the center. Also authorized was the transition of the CAD product to a cloud service, this will nearly eliminate the potential for the system to be unavailable for any reason. The initial cost for this transition is \$325,000 and will require an annual subscription of \$140,000 to maintain, however, this is part of the necessary critical infrastructure. Both investments were made with unanimous approval by the Board of Trustees

VECC has been in transition to a single CAD system for all of Salt Lake County since June of 2020 and anticipates all fire and police agencies will be fully on the Versaterm Platform by January 2022. VECC has been required to manage two separate CAD systems inside the center, which has compromised their ability to provide efficient and effective service. This led the Board of Trustees to adopt a standard at the September 2020 trustees meeting, of answering the 911 emergency line within 20 seconds, 90% of the time as a transitional standard. The trustees provided strong direction to Director Ruf to meet this standard and tied this performance metric to his employment agreement.

The phone system and operating two CAD systems was identified by Director Ruf as the primary issue that would prevent VECC from meeting the standard of answering the 911 emergency line within 20 seconds, 95% of the time as is outlined in Utah Code 63H-7a-304.5. The standard adopted by Utah Code is for the purpose of distributing a proportional share of remaining funds after the normal center disbursements to all 911 centers.

VECC has completed the installation of the phone system and will complete the transition to a single CAD in January of 2022. ***The Trustees will consider adopting the answering of 911 emergency calls within 20 seconds, 95% of the time at the January 19, 2022, Board of Trustees Meeting.*** The Trustees believe that adopting a transitional standard and holding Director Ruf accountable for that standard demonstrates that the Board takes these standards seriously. Unanimous support is anticipated to adopt the updated standard in January 2022.

In closing, the Board of Trustees appreciate the focus of your office and find that our goals have been aligned for several years. Over the last two years, VECC has made significant advancements and is continuing to focus on quality service for the communities served. Thank you again for the fair and unbiased look at VECC service levels.

Respectfully,



Dan Petersen
VECC Board of Trustees - Chair
Unified Fire Authority, Fire Chief - CEO



Legislative Audit Committee:

During the final part of 2021 SLC911 experienced several challenges, however our employees remained resilient and worked through these challenges and were able to meet the expectations set forth in NENA's call handling standards.

We have made several internal operational changes that allow us to have more call takers on duty at a time. We are continuing to look at operational adjustments that will allow us to provide outstanding service to our customers while ensuring that we maintain the maximum staffing possible at the correct times.

During 2022 SLC911 will embark on a new journey to think outside the box and implement industry changing programs like a 32-hour work week, and weekly training for current dispatchers. As part of this initiative, we will be ramping up our hiring, and have a goal to have 108 employees hired by July 1st. The 32-hour work week will allow our staff to have a better work life balance, reduce burnout, and become better trained. With this combination we expect to see even more improvement in our answer times than we have already have. We believe that the reduction in absenteeism and mandatory overtime will result in a positive impact statistically on our call answering times, and in a significant increase in customer satisfaction.

On November 1st I took over as the Executive Director from Interim Director Elyse Haggerty. During her tenure she faced many changes and had to show a lot of adversity. Due to her tenacious focus on improving our answer times, SLC911 hit a high point of 98.2% during her role as Interim Director. The vision and leadership that she displayed during this period of transition has allowed SLC911 to be successful in meeting our obligations to the citizens and visitors of Salt Lake City.

SLC911 is staffed by a team of dedicated, highly competent, Public Safety Dispatchers who take pride in the service that they provide. They take pride in the improvement that we have shown over the last 6 years and we will continue to work on creating a culture of feedback, and improvement in the coming months and years. We also appreciate the hard work that has been put in by this committee to ensure that we are meeting our basic obligations to our citizens. I look forward to a continued partnership with the Legislature, and we are always willing to be part of the solution of improving 911 services in the state of Utah.

Respectfully,

A handwritten signature in dark ink, appearing to read "Stephen Meyer".

Stephen Meyer

Executive Director

Salt Lake City 911

A handwritten signature in dark ink, appearing to read "Elyse Haggerty".

Elyse Haggerty

Deputy Director

Salt Lake City 911