Ombudsman
Rose City Watchdog

Ombudsman Report: Problem with City's Emergency Communications System

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OMBUDSMAN REPORT:
PROBLEM WITH CITY'S EMERGENCY COMMUNICATIONS SYSTEM

This report is issued pursuant to the Ombudsman's powers and duties under City Code Chapter 3.77. The Bureau of Emergency Communications submitted a brief statement in response that is included as part of this report.

Summary

In May 2016, a house fire in Southeast Portland resulted in the death of an elderly woman. The Ombudsman's Office received a complaint alleging that the City took too long to respond to the fire. Although the allegations in the complaint were not substantiated, the Ombudsman's investigation uncovered a problem with the City's 911 system.

For more than a decade, the City's emergency communications system has unintentionally lost important information about a subset of emergency calls, preventing operators from following City policy and causing underreporting of call hold times and abandoned call rates. In 2015 alone, the number of affected calls totaled 18,482. The problem occurs when a cell phone caller hangs up or is disconnected while waiting to speak with a 911 operator. Under City policy, these calls are supposed to receive a return call to determine whether an emergency exists. However, the system does not retain the callers' phone numbers and does not apprise operators that the call occurred.

The lost information is the result of a screening system, known as the Reno Solution, that is designed to reduce the volume of accidental cell phone calls to 911.[1] The Reno Solution has reduced cell phone call volume. But the Reno Solution's interaction with the existing emergency communications system created a new, unintended problem: the inability to call back tens of thousands of people who are presumed to have dialed 911 on purpose.

Providentially, a State-funded phone system upgrade planned for Spring 2017 has the potential to resolve the problem. The upgrade includes an integrated screening system that will

[1] The screening system is also referred to as the "XMU+."

replace the Reno Solution. The new system promises to preserve the call back information for all intentional phone calls so that 911 operators can return calls that are currently disappearing from the call records.

Before accepting funding from the State and implementing the planned upgrade, the Bureau of Emergency Communications should seek City Council's approval. Council did not have an opportunity to vet and approve the Reno Solution when it was first implemented more than a decade ago. Going forward, Council should have the opportunity to consider the inherent risks and trade-offs associated with using a screening system and make sure that there will not be collateral damage to other parts of the system.

Background

AT&T first made the number sequence "911" available for calling emergency services in 1965, but it was not until 1999 that the United States Congress made 911 the universal emergency number for all telephone services. In doing so, Congress proclaimed that our Nation's public safety requires a seamless, ubiquitous and reliable end-to-end emergency communications system.

Responsibility for producing a seamless and reliable emergency communications system is shared between federal, state and local governments. The Federal Communications Commission (FCC) issues uniform, national rules to protect the quality and reliability of 911 service in the face of ever-evolving communications technologies. In Oregon, the Office of Emergency Management oversees the statewide 911 system and regulates the equipment used to process emergency calls. The Bureau of Emergency Communications (Bureau) operates the City of Portland's 911 Center, serving residents and emergency response agencies in Multnomah County.

All three levels of government have grappled with the technical and operational challenges that cell phones pose for the emergency communications system. Among the challenges have

been a lack of information about the caller's location and call back number, as well as high volumes of accidental calls. For its part, the FCC adopted rules requiring cell phone service providers, such as Verizon and T-Mobile, to convey the caller's number and approximate location to 911 centers.

The FCC has not adopted rules to address the high volumes of accidental cell phone calls. In the absence of federal rules, state and local jurisdictions tend to rely on public education campaigns to reduce the incidences of accidentally dialing 911. Several jurisdictions have gone further, using automated systems to screen out unintended phone calls. However, this approach has been in the minority in part because of concerns about screening out true emergency calls, according to the global sales manager of Interalia, a manufacturer of automated screening systems. In Oregon, automated screening systems are permitted as an exception to the Office of Emergency Management's requirement that a live operator must answer all emergency calls.

In 2004, the Bureau sought a variance and funding from the Office of Emergency Management to pilot a new screening technology. The Bureau highlighted Reno, Nevada's use of the technology, indicating Reno's 911 Center had not experienced any problems and that cell phone call volume was down significantly. It is believed that the Office of Emergency Management vetted the so-called "Reno Solution" prior to issuing a variance; however, apart from a November 2009 letter clarifying the previously issued variance, the Office of Emergency Management could not produce any supporting documentation regarding its vetting process, because any relevant records were past the date of retention under public records law.

At the local level, the Bureau sought approval to use the Reno Solution from its User Board, which includes representatives from first responder agencies. It did not seek approval from City Council. Instead, it notified the City's elected officials via email a few weeks before the Reno Solution went live.

In that same email and in a press release, the Bureau's director promised to report the findings of the pilot project to the Portland City Council in February 2005. According to the User Board's February 2005 minutes, the User Board "endorsed the continuation of the system. [The Director] will take the endorsement to the Council and get approval to permanently use the [Reno Solution]." There is no evidence that the Bureau ever sought Council approval to permanently use the Reno Solution. The Reno Solution has been in use ever since.

The Reno Solution works by routing all cell phone calls to 911 through an automated attendant. Callers hear a short message prompting them to say "911" or press any number. If a caller responds to the prompts, they are routed to a 911 operator. When there are no available operators, callers are placed on hold in the emergency queue. As operators become available, calls on hold are answered in the order they were received.

The Reno Solution has been successful in screening out cell phone calls. At the time of its implementation in December 2004, the Bureau reported that the Reno Solution immediately caused the average number of cell phone calls per day to drop from 580 to 184. Fast forward to 2015 and the Reno Solution screened out 26 percent of cell phone calls, totaling 124,649 for the year.

Problem: Missing Information

A latent problem with the Reno Solution came to light because of a May 2016 complaint to the Ombudsman's Office. The complaint alleged that the City took too long to respond to a residential house fire that resulted in a fatality. Allegations in the complaint were not substantiated.[2] However, statements from neighbors that they had tried but were unable to reach 911 operators merited further inquiry.

[2] The complainant theorized that the delayed response was due to the Portland Fire & Rescue Bureau assigning too many resources to an earlier commercial fire, leaving it ill-equipped to respond to the subsequent residential fire. This theory was not borne out by the facts. The Fire Bureau arrived at the location within 4 minutes of being dispatched, well under the City's goal of responding to calls within 5 minutes and 20 seconds.

One neighbor made it through the Reno Solution's prompts, waited on hold, but gave up before speaking with an operator. In the past, she said, 911 would have called her back. This time no one did. When asked about her call, the Bureau said it had no record of any calls from her phone on the date of the fire. The neighbor checked with her cell phone company and was able to obtain proof of her call to 911 that night. Dispatching responders to the house fire would not have occurred earlier had her call been answered or returned, but proof of its existence revealed that the Bureau had a problem.

Under the City's current emergency communications system, calls are treated differently depending on the device used to place the call. Calls from landlines and Voice over Internet Protocol (VoIP) bypass the Reno Solution and are answered by an operator or placed on hold in the emergency queue. Cell phone calls are routed through the Reno Solution. Only after a caller has responded to the Reno Solution's prompts will the call be answered by a 911 operator or placed on hold if no one is available.

While callers of any source are holding, operators are presented with real time information on a reader board indicating how many calls are on hold and the current hold time.

If a caller using a landline or the internet hangs up or is disconnected while waiting on hold, the system preserves the number and an operator generally returns the call to determine whether an emergency exists, in accordance with City policy. By contrast, if a cell phone caller hangs up or is disconnected, the

number drops off the reader board and vanishes. The call essentially disappears through a crack in the phone system, making it look like it never happened. That is what happened to the neighbor who tried to alert 911 about the house fire but hung up while she was on hold.

Although the City is unable to recover vital information about the disappearing calls, such as the call back number, City technology staff was able to quantify the number of affected calls. In 2015 alone, that number was 18,482.

A system in which vital information about thousands upon thousands of intentional emergency calls disappears undermines federal and state rules designed to ensure a seamless and reliable emergency communications system. Whereas federal rules require cell phone service providers to convey call back information to the Bureau, and state rules require the Bureau to maintain equipment capable of accepting call back information, the Reno Solution disrupts the conveyance, resulting in the loss of that information. Whereas state rules say that all emergency calls must be answered by a live person, because of communication problems between the Reno Solution and the rest of the Bureau's phone system, potentially thousands of presumptively intentional emergency calls each year since 2004 were neither answered nor called back.

Further, this subset of emergency calls is not reflected in the Bureau's reporting on how long callers remain on hold and abandoned call rates. By underreporting on these measures during the budget process, the Bureau has provided City Council with an inaccurate depiction of the extent to which the Bureau's chronic staffing crisis may be jeopardizing public safety.

Solution: System Upgrade

The City's technology staff says there is no fix available under the current phone system configuration, short of deactivating the Reno Solution and routing all cell phone calls directly to operators. The Bureau is opposed to removing the Reno Solution because, despite advancements in cell phone technologies in the

last decade, the volume of accidental calls remains high.

Using the Bureau's 2015 numbers, if the City removed the Reno Solution, the Bureau would have handled an additional 124,649 cell phone calls last year, or about 342 more calls per day. Assuming each call lasts at least three minutes, the Bureau would have needed to absorb more than 17 hours of additional work each day. This would be difficult to do under current staffing conditions. For years, the Bureau has reported that it is unable to keep up with increasing call volumes. Chronic staffing shortages have led to the use of forced overtime, and operators are leaving faster than the Bureau can replace them. As such, deactivating the Reno Solution appears untenable.

Continuing the status quo is likewise untenable. Fortunately, a fix appears to be on the horizon. A previously scheduled phone upgrade is planned for April or May of 2017. The upgrade will replace much of the Bureau's patchwork of communications hardware and software with a new, integrated system. The new system includes internal screening software that would replace the Reno Solution hardware. Technology staff confirmed that the new system will be able to keep track of emergency cell phone calls that are abandoned or disconnected while in the 911 queue. Specifically, the new system can be configured to present those calls to the operators as incomplete and provide a phone number for the operators to place a return call. Technology staff say they will also be able to include these calls in the Bureau's statistical reporting, making reports about the Bureau's performance and staffing needs more accurate.

Calling back abandoned or disconnected cell phone calls will result in a modest workload increase for operators. In 2015, the Bureau's operators handled 846,362 emergency and non-emergency calls. During that same time period, 18,482 cell phone calls to 911 were abandoned or disconnected while in the emergency queue. Including those abandoned or disconnected calls in the total call volume would represent a workload increase of 2.2 percent. Stated differently, it would mean an increase of 51 calls per day. Assuming each call lasts at least three minutes,

the Bureau would need to absorb around 2.6 hours of additional work each day.

Recommendations

In response to the Ombudsman's recommendations, the Bureau has already taken two interim steps to mitigate current risks. The Bureau revised the message callers hear while waiting on hold in the 911 queue. The new message cautions callers to not hang up "as we may not be able to locate you or call you back." The Bureau has also conducted community outreach by putting out information on social media forums, such as NextDoor.

The Bureau should take one other immediate step. It should formally notify the Bureau's User Board and other 911 centers that use the Reno Solution about its interoperability problems and its potential to cause emergency call records to disappear.

Moving forward, even though the State of Oregon has approved and is funding the City's phone upgrade, the Bureau should still seek City Council's approval to accept the State funding and use the integrated screening system.

The Bureau is opposed to seeking City Council's approval to continue using a call screening system, claiming that City Council, through a 1995 intergovernmental agreement, gave control over the policies and procedures of the 911 Center to the User Board and the Commissioner-in-charge. Contrary to the Bureau's position (and practice), the intergovernmental agreement defines the User Board as an advisory body. The agreement only authorizes the User Board to review policies and make recommendations; the City retained control over the management, operations and administration of the 911 Center. The agreement also expressly indicates that nothing in the agreement should be construed as a grant of any legislative authority.[3]

[3] It appears that City Council has effectively relinquished its legislative authority over the Bureau of Emergency Communications, despite the agreement's nondelegation of legislative authority and City Charter language in Section 2-104 that "Council may delegate any of its nonlegislative functions or powers." Unlike every other Bureau in the City, there is no chapter in City Code that establishes the Bureau of Emergency Communications and prescribes its parameters.

Regardless, several considerations favor bringing the matter before the full City Council: the significant public interest in the 911 system, the interconnectedness of the Bureau's operations with fire and police, and the lack of Council vetting of the original decision. In a public hearing, the Bureau should:

- Present its argument that it needs a cell phone call screening system,
- Demonstrate that the one it plans to use is the best option available,[4]
- Report on the early experiences of other jurisdictions using the upgraded system,
- Explain whether the Technology Oversight Committee should have oversight over the upgrade project,
- Explain whether State funding of the phone upgrade is subject to and in compliance with the City's grants management policies, and
- Schedule follow-up reporting to Council to discuss the system's performance.

In the event the Bureau pursues the planned upgrade, it should implement it as soon as possible, notwithstanding its typical practice of avoiding upgrades during the summer months when call volumes are higher.

[4] It is not known what other screening technologies currently exist; however, the California Highway Patrol piloted a different screening system for reducing unintentional wireless calls in in 2001. This system was used during peak 911 calling times. Calls would only be routed through an automated screening system if an operator first determined no one was on the line. At that point, the operator would switch the call to a separate queue. From there, an automated attendant asked the caller to press any number (or to say yes) if an emergency existed. If the caller did not press a number or say yes after the message played twice, the call was terminated.

CITY OF PORTLAND

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Ombudsman Margie Sollinger

Thank you for the opportunity to respond to the Ombudsman Report: Problem with City's Emergency Communications System.

I appreciate this opportunity to continue our public education efforts to provide consistent and continuous messaging for the public to understand the capabilities of the current technology in use at BOEC. First and foremost – technology in the real world is not nearly as awesome as what people see on television and movies. Hopefully, this letter provides additional information about the problem identified, as well as the solutions BOEC has identified and implemented in partnership with BTS.

The Problem

The XMU auto attendant is a complex piece of equipment, and, like most technology, it is not perfect and should never be perceived as infallible. The limitations of the XMU do require callers to follow outlined steps to reach and speak to a call taker.

The XMU does screen out nonresponsive incoming calls to 9-1-1, and it does so without capturing the cell number of the device used to make the call. It should be noted that not all unresponsive calls are screened out; the XMU is very sensitive and detects noises, intentional or unintentional, that it assumes to be the required prompt and moves those calls to the queue where they are answered by the next available call taker.

9-1-1 and emergency calls are not placed on hold; rather, they are queued in an automatic call distribution system and routed to the first available call taker. Actual 9-1-1 calls receive top priority and all 9-1-1 calls (including landline, VOIP and wireless calls) are routed to the top of the queue. Operator-assisted calls, calls from alarm companies, and calls from other 9-1-1 centers are routed in after 9-1-1 calls.

Once in queue, if a call taker is not available, callers hear the following recorded script:

> *"Please do not hang up. This is the 9-1-1 emergency line. The operator will be with you as soon as possible. Do not hang up. We may not be able to send help or call you back if you hang up. Stay on the line please."*

In 30 seconds, another recording is played and will continue until the call is answered:

> *"9-1-1 operators and non-emergency operators are still busy. Please stay on the line. An operator will be with you as soon as possible."*

If a cell caller opts to hang up during these messages, we are unable to retrieve their device information and are unable to return calls to determine if an emergency exists. The actual number of these calls is unknown, but it is very misleading to imply that we "lose" information from thousands upon thousands of calls received in our center.

Solutions

As noted in your report, the scheduled system upgrade will eliminate the technological limitations of the XMU in the spring of 2017. This statewide upgrade offers seamless and equal 9-1-1 services across all jurisdictions in Oregon. BOEC will conduct public education and

outreach to ensure community awareness of the upgrades and system abilities. Again, our messaging must be consistent and continuous to ensure communitywide awareness.

As you noted, in 2004 City Council was apprised of the intention to implement the XMU switch and since then BOEC has always made our Commissioner-in-Charge aware of its continued use and its impact. As an element of our operations, the XMU switch does not require re-approval by Council.

BOEC's jurisdictional partners are aware of the current XMU process and limitations. On October 20, 2016, staff presented early information from the Ombudsman's investigation and report to the User Board, which voted unanimously to continue utilizing the XMU until further notice. Despite concern about the unknown number of intentional calls that the Bureau is not able to call back, at the meeting on October 20, representatives of BOEC's public safety partners indicated that they understand the extraordinary impact turning off the XMU would have on public safety resources.

The assumed increase in workload estimates provided in this report are not an accurate depiction of the potential operational impact to BOEC. The estimates also do not include police and fire resources that would be needed to verify unknown circumstances. In addition, in September and October 2016 BOEC notified the other 9-1-1 centers in Oregon currently using the XMU switch about the technology issue detailed in this report. Those centers concur with BOEC's position that the benefits garnered from continued reliance on this technology far outweigh the potential impacts.

The report also mentions a few short-term steps we have taken to ensure community awareness that callers should not hang up after calling 9-1-1, especially if the call to 9-1-1 is from a cell phone. In addition to updating the recording played when someone is waiting for a 9-1-1 call taker to respond, BOEC has updated our public materials and used social media to get the word out about calling 9-1-1 from a cell phone.

Again, we appreciate your research and ask that you assist us in our continued efforts to keep our callers informed of the limitations of our current system as well as upcoming improvements.

Lisa Turley
BOEC Director

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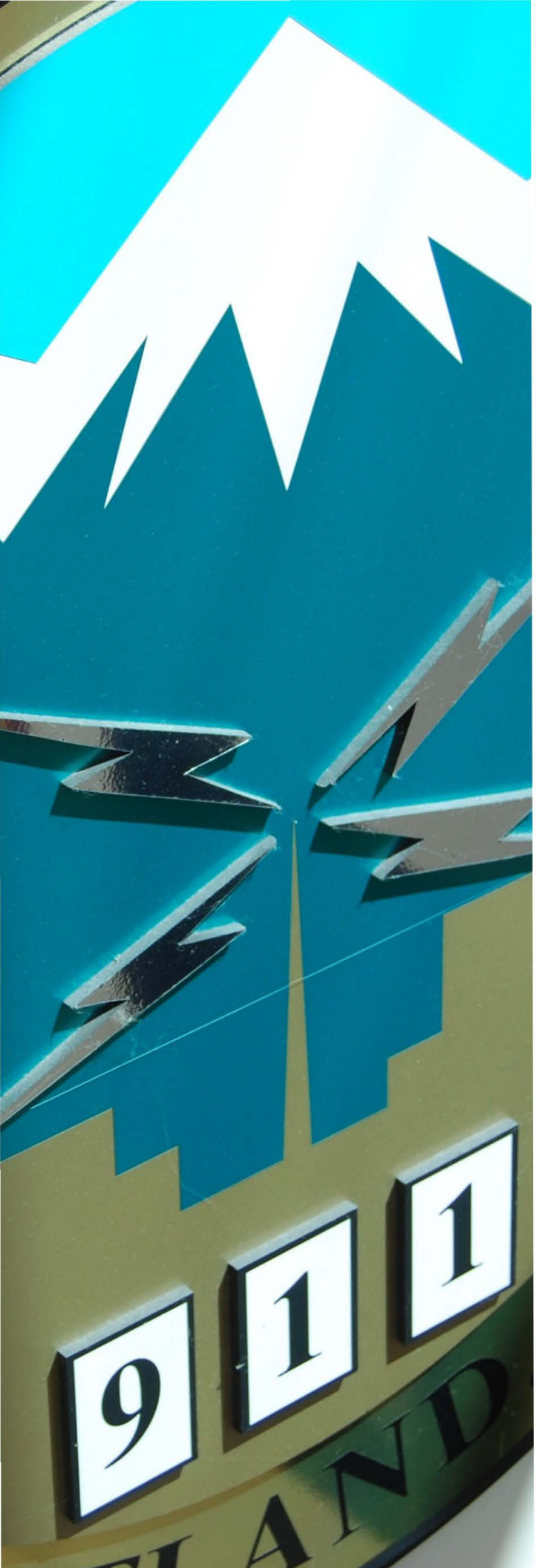

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911 Hold Times Longer Than Reported

June 2017

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OMBUDSMAN REPORT:
911 HOLD TIMES LONGER THAN REPORTED

The Bureau of Emergency Communications (Bureau) is responsible for providing the public with a seamless and reliable 911 service. One of the key measurements of the Bureau's performance is how quickly 911 operators answer emergency calls. The length of time on hold directly influences how rapidly paramedics, firefighters and police officers respond to individual emergencies and largescale disasters. Minutes can be the difference between a life saved or a life lost.

For years, chronic staffing shortages have threatened the Bureau's ability to meet acceptable service levels. Insufficient staffing poses a threat to promptly answering 911 calls and dispatching the appropriate emergency response. Despite the ongoing staffing challenges, the Bureau has consistently reported exceeding one of its key performance standards. It claims that nearly 100 percent of 911 calls are answered in under 20 seconds. It also claims that the average time to answer a 911 call is one second.

For the reasons outlined in this report, the Bureau's staffing shortage is already compromising service levels. Contrary to the Bureau's assertions, it is performing well below accepted standards. This report provides a technical explanation for the discrepancy between the Bureau's self-reported and actual performance and makes recommendations to City Council. This report does not offer an explanation for why the Bureau reported inaccurate numbers, but there is evidence that the Bureau continued to report the inaccurate numbers even after Bureau leadership learned of the problem in 2015. It is also clear that the Bureau should have known it was reporting faulty performance information prior to 2015.

This report follows a December 2016 report[1] in which the Ombudsman found that the Bureau of Emergency Communications was losing track of tens of thousands of cell phone calls to 911. The earlier report focused on the concern that the Bureau was not calling individual callers back to determine if an emergency existed in situations where the caller

[1] "Ombudsman Report: Problem with City's Emergency Communications System," available at www.portlandoregon.gov/ombudsman/911report (issued December 21, 2016).

hung-up or was disconnected after making it through the call screening system but before speaking with an operator. The earlier report raised as a secondary concern the fact that the lost calls were not being accounted for in the Bureau's performance reporting.

Taken together, the two reports demonstrate that the Bureau of Emergency Communications needs greater scrutiny from City Council and the public. Since its creation by intergovernmental agreement decades ago, the Bureau has existed outside the normal confines of City governance. It has made important policy and operational decisions without the benefit of Council review or public input, begging the question whether its unparalleled level of autonomy has come at the expense of public safety.

The method of counting how long it takes to answer cell phone calls to 911 is flawed

The length of time it takes to answer a 911 call is supposed to be counted from the moment a call is received by the 911 Center to the point in time when an individual operator gets on the line.[2] Since 2004, however, the Bureau has used an incomplete measure of the answer time for cell phone calls to 911, resulting in an inaccurate depiction of its performance.

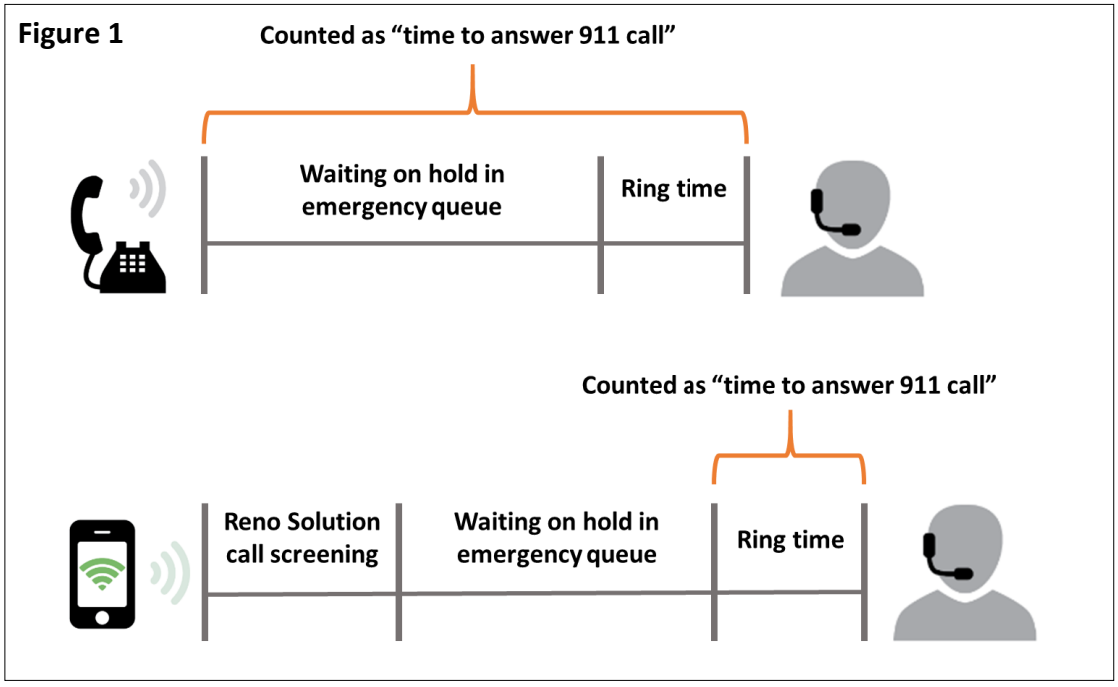
The problem can be traced to the Bureau's adoption of the Reno Solution, a call screening system designed to filter out high volumes of accidental dials to 911 from cell phones. The Reno Solution requires callers using cell phones to affirm their intention to reach a 911 operator by pressing a key or saying "911" in response to an automated prompt. If a caller successfully makes it through the Reno Solution, they are routed to an operator or placed on hold in the emergency queue if an operator is unavailable. The Reno Solution allows operators to focus on intentional 911 calls, but it also means cell phone calls to 911 take longer than landline calls to get to an operator. Emergency calls from landlines move more quickly through the system because they bypass the Reno Solution and are routed directly to an operator or to the emergency queue.

[2] For example, according to the San Francisco Department of Emergency Management, the call-taking time interval is measured from the time a 911 call arrives at the Public Safety Answering Point until a dispatcher answers the call, http://sfgov.org/scorecards/911-call-volume-and-response.

Every year, the Bureau reports what percentage of calls are picked up within 20 seconds and the average time it takes to pick up a call. That number is supposed to reflect both cell phone and landline calls to 911. However, since the introduction of the Reno Solution in 2004, the Bureau of Technology Services was no longer able to accurately track call hold times for cell phone calls to 911. According to one account, Technology Services informed the then-Director of Emergency Communications of the data tracking problem.[3] However, for unknown reasons, the problem went unaddressed. And from that point forward, the Bureau has used incomplete data to measure its performance.

For landline calls, the Bureau collects data that indicates how long a caller was on hold and the "ring time" before the operator picked up the call. By contrast, since the introduction of the Reno Solution, the Bureau has only captured the "ring time" data for cell phone calls, leaving out both the time it takes to proceed through the Reno Solution and the time a call waited on hold. See Figure 1.

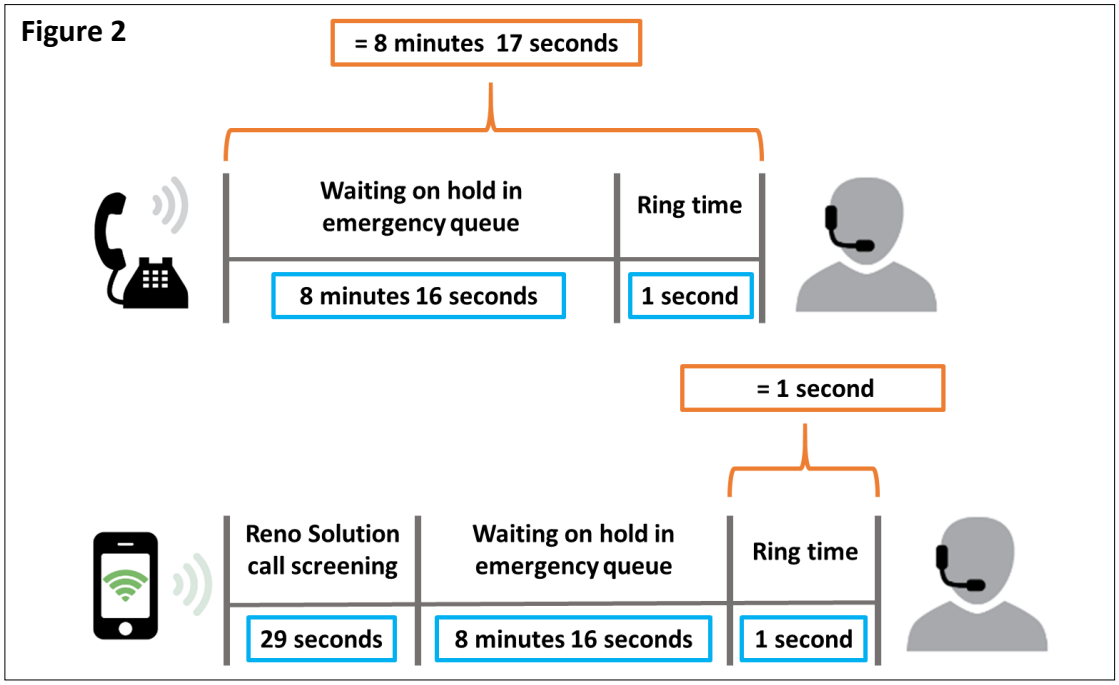
Figure 1



[3] According to a November 2015 email from the Bureau's Operations Manager to staff in the Office of the Commissioner-in-Charge, the Bureau of Technology Services indicated it informed a prior Director of the Bureau of Emergency Communications of the data tracking problem back when the Reno Solution was first implemented a decade prior. The Ombudsman's investigation did not independently verify this account.

For cell phone calls, excluding the time it takes to move through the Reno Solution (up to 29 seconds if the caller listens to the full recording) and the time a caller is waiting on hold in the emergency queue distorts the actual time it takes to answer. Figure 2 compares how the Bureau's approach affects how the answer time is measured for a landline versus a cell phone for an actual call to 911 that waited on hold for 8 minutes and 16 seconds.

Figure 2



Using the Bureau's method of measurement, the landline call is accurately counted as being answered in 8 minutes and 17 seconds. A cell phone call that was answered a total of 8 minutes and 46 seconds after it arrived at the 911 Center is inaccurately counted as being answered in one second. To varying degrees, this method underestimates the time it takes to answer every cell phone call. Because cell phone calls to 911 account for about 75 percent of the call volume, the Bureau's approach results in a significantly inaccurate representation of the Bureau's overall performance.

The flawed method of measurement resulted in the Bureau overstating how quickly it is answering 911 calls

In the most recent budget session, the Bureau reported exceeding performance expectations despite chronic staffing shortages. Specifically, the Bureau reported surpassing its performance goal of answering 90 percent of 911 calls within 20 seconds by answering 99.6% within 20 seconds. The Bureau also reported averaging one second to answer 911 calls.

These numbers are substantially inaccurate because the Bureau's data collection method did not capture the complete data from cell phones. Table 1 shows that when fully accounting for the time it takes operators to answer 911 calls from land lines and cell phones, the Bureau is missing its target service level by a wide margin:

Table 1

Performance Measure	Bureau's Numbers (FY15-16)	Corrected Numbers (Dec. 2016 – Apr. 2017)*
90% of emergency 911 calls answered within 20 seconds	99.6%	67.8%
Average time to answer emergency 911 calls	1 second	23 seconds

*The Bureau of Technology Services calculated five months with complete data at the Ombudsman's request.

The Bureau is not meeting one critical performance measure and significantly misstates another. The Bureau's under-performance is compounded by its selection of a modest target service level. The industry standard established by the National Emergency Number Association is that 90 percent of all emergency calls should be answered within *10 seconds during the busy hour*.[4] Against the national standard (for any hour, not just the busy hour), the Bureau's performance is even worse: only 29.6% of 911 calls are answered within 10 seconds.

Bureau leadership has known for at least 18 months the numbers compiled by Technology Services were inaccurate, but took no steps to correct its public reporting or qualify the information's

[4] National Emergency Number Association Call Answering Standard/Model Recommendation, Document 56-005 at page 8 (June 10, 2006), available at https://www.nena.org/?page=911CallAnswerStnd.

veracity. It is also clear that the Bureau should have recognized the problem prior to 2015. Each day Bureau leadership is provided with a daily overview of call statistics that regularly show long call-hold times. Reporting on its performance for fiscal year 2014-15, the Bureau provided information to City Council that could not have been true: it reported that the Bureau was answering 100 percent of 911 calls in under 20 seconds. At the same time, it reported that 258 calls to 911 held for longer than two minutes.[5] There is also the incongruity between the Bureau's call-taking and dispatch performance. Presumably, staffing shortages would impact call-taking and dispatching to a similar degree; yet, in the same years the Bureau reported missing by significant margins its standards for dispatching priority emergency calls for police, fire and medical, it also reported surpassing its standard for how quickly it answered incoming 911 calls.

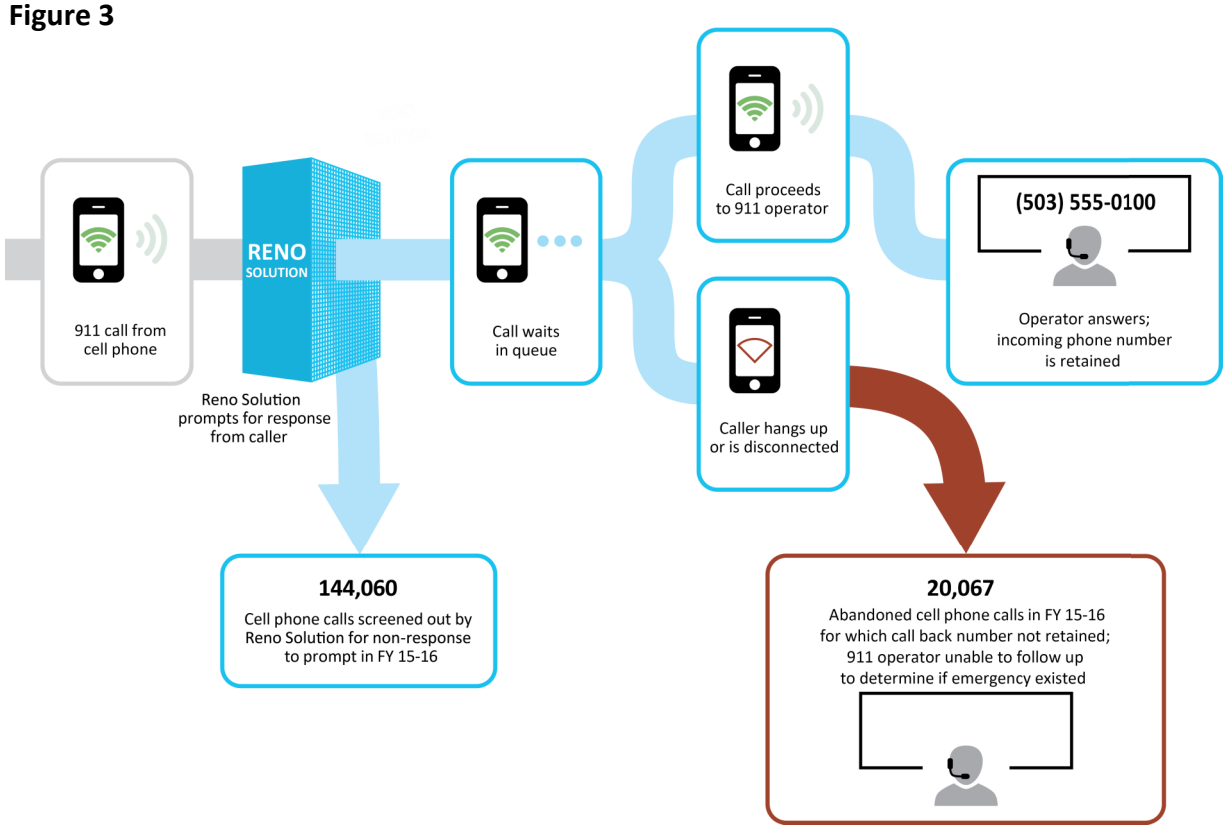
Unlike leadership, the Bureau staff that answers calls to 911 has long maintained that the numbers were wrong. For years they attempted to sound the alarm. For example, in early 2016 staff complained to the Ombudsman's Office that the Bureau was allegedly producing statistics that excluded the longest 911 hold times to mask mismanagement problems. Staff also alleged having emailed the Commissioner-in-charge in 2015 regarding long holding times for 911 calls, only to be told by supervisors to cease contact and take concerns up through the Bureau's chain-of-command.

[5] Compare Bureau of Emergency Communications FY16-17 Requested Budget (page 6) with its Budget Presentation (page 3).

The Bureau continues to ignore the existence of tens of thousands of calls to 911

The Bureau's inaccurate performance reporting is further compounded by its failure to account for tens of thousands of cell phone calls that the Bureau lost track of. The Ombudsman's prior report revealed a previously undiscovered technological flaw stemming from the Reno Solution. Figure 3 illustrates that in fiscal year 2015-16, the Reno Solution deemed 144,060 cell phone calls to 911 as accidental. However, the technological flaw caused the Bureau to lose track of an additional 20,067 cell phone calls to 911 that *successfully made it past the screening system* and were waiting on hold for an operator when the caller hung-up or was otherwise disconnected.

Figure 3



Losing track of the calls prevented the Bureau from complying with a policy to return abandoned calls to determine if an emergency existed.

The Bureau also took no steps to account for the calls in its recent budget presentation. As a result, the Bureau treated a total of 20,067 presumptively intentional calls as if they never happened, further distorting the depiction of its performance to City Council and the public.

City Council does not exercise legislative authority over the Bureau

The Bureau of Emergency Communications exists pursuant to a 1995 intergovernmental agreement. Unlike other bureaus in the City, the Bureau largely exists and operates outside the normal confines of City governance. There is no chapter in City Code establishing the Bureau. There are virtually no provisions in City Code that delineate the Bureau's authority or guide its operations. The intergovernmental agreement should not necessarily preclude the Bureau's codification. Indeed, the Joint Office of Homeless Services, for example, is codified in Multnomah County's Code Section 25.710.

The consequence of the Bureau existing outside the normal structure is that it makes important decisions out of the view of City Council and the public. The 2004 decision to adopt the Reno Solution, for example, was made at the Bureau-level and never brought before Council. Whether the Bureau uses an automated screening system for 911 calls was a critical decision about a vital component of the City's emergency response system.[6] City Council, with the benefit of public testimony, should have been responsible for assessing the risks and determining whether using such a system is in the public's interest.

Additional technological changes are being planned by the Bureau. There is no plan to get Council approval before they are implemented, as recommended in the Ombudsman's prior report. The planned phone upgrade is supposed to, among other things, fix the flaw that led the Bureau to lose track of tens of thousands of cell phone calls to 911. City Council heavily regulates other areas of public concern, such a tree removal, and routinely weighs in on issues of equal or lesser importance, such as whether to purchase an asphalt grinder. City Council should assert its responsibility for setting substantive policy and authorizing critical decisions about a core City service.

[6] In contrast, The Joint Office of Homeless Service Agreement Section 7.3 (page 8) provides that policy changes shall be presented to the Multnomah County Board of Commissioners and City Council for approval.

Recommendations

1. Ensure performance data collection and reporting is accurate,

2. Hold a Government Accountability Transparency Results (GATR) Session[7] to address the City's 911 service or hold a legislative oversight hearing;

3. Task the City's Technology Oversight Committee with overseeing any significant technological changes to the 911 service, including the upcoming phone system upgrade;

4. Reassess additional call taker/dispatcher staffing needs, and

5. Codify the Bureau of Emergency Communications as a stand-alone Bureau or as program within an existing Bureau,

   and/or

   Revisit and amend the Bureau of Emergency Communications Intergovernmental Agreement to ensure that it provides for appropriate City Council oversight of 911 services.

[7] GATR Session described at https://www.portlandoregon.gov/cbo/gatr.

Office of Mayor Ted Wheeler
City of Portland

DATE: June 1, 2017

TO: Margie Sollinger, City Ombudsman

FROM: Mayor Ted Wheeler

SUBJECT: Response to the Ombudsman's report

As the current Commissioner-in-Charge of BOEC, I take the findings of the Ombudsman's report very seriously. 911 is a vital service and must be evaluated accurately if the City is to make good decisions.

To that end, I am bringing forward Council items to address this and other issues related to the support and delivery of this critical community service.

Best practices and good data should drive our decision making – and if a goal isn't being met it's the City's responsibility to move forward addressing issues transparently.

Since taking all of the bureaus back, I have become aware of issues such as the findings of the Ombudsman's report. I will engage the bureau leadership, employees, and other jurisdictional partners to ensure that Portland is providing the best service to the community. I am also committed to addressing these issues fully, holistically, and seeing that necessary changes are made.

1221 SW Fourth Avenue, Suite 340 ♦ Portland, Oregon 97204
MayorWheeler@PortlandOregon.gov

CITY OF PORTLAND

BUREAU OF EMERGENCY COMMUNICATIONS

Ted Wheeler, Mayor
Amanda Fritz, Commissioner

Lisa St. Helen, Interim Director
Post Box 1927
Portland, Oregon 97207
503.823.0911
FAX 503.823.4630
www.portlandoregon.gov/911

June 2, 2017

TO: Margie Solinger, Ombudsman, City of Portland

FROM: Lisa St. Helen, Interim Director

RE: Response to Ombudsman Report

Ms. Solinger,

Thank you for the opportunity to respond to your report regarding BOEC's reporting of statistical call data. I appreciate your analysis of the shortcomings in our technology, which we are in the process of addressing in order to continue to provide our community with the best possible emergency communications service.

The bureau is aware of and has been working to rectify the technological issues that have led to incorrect statistics and performance reporting.

Bureau decision-making has been transparent and collaborative, as all important policy and operational decisions are vetted through the Commissioner-in-Charge, partner agency committees, as well as the BOEC User Board which consists of cross-jurisdictional partner agency representatives who provide critical input and directional guidance.

The National Emergency Number Association (NENA) Standard/Model Recommendations provide guidelines and best practices which are referred to by most 911 centers in the country, including BOEC. These best practices are intended to be adapted to a call handling process that fits with the size of a center and corresponds to the partner agencies involved. The NENA guidelines provide an excellent starting point from which to hold service level conversations with our partner agencies as well as the BOEC User Board. I fully support utilizing these best practices to review and consider revision, where appropriate, of BOEC's call processing standards.

Related to your recommendations:

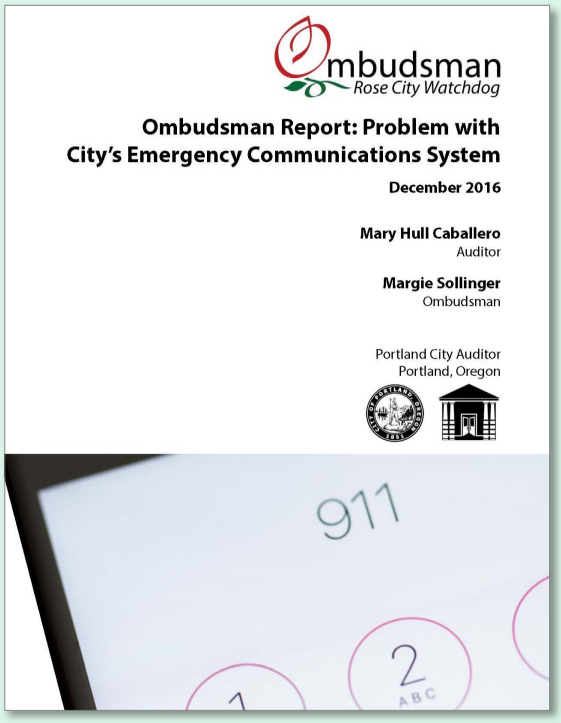
#1- The bureau has had a "fix" in place since November 2016 ensuring the data we are providing is complete and correct. With the implementation of our state-provided upgraded phone system (implementation slated for November 2017) new statistical data retrieval capabilities will make this process far more streamlined. The bureau has communicated extensively to ensure our phone provider is aware of our needs and expectations related to accurate and complete statistical data.

#2 – We welcome and would participate fully in any GATR session.

#3 - We support the Technology Oversight Committee's provision of oversight for any significant technology projects.

#4 – The bureau had a staffing study completed in March of 2017 and we are working towards building our staffing to the number recommended by this study. We added a third training academy last year and will continue to do so through next year (2018) to more quickly increase staffing levels.

#5 – We fully support codifying the Bureau of Emergency Communications as a stand-alone bureau to be consistent with all other City bureaus in Portland City Code.



Opened in the wake of a fatal house fire, the Ombudsman's investigation focused on the discovery of a technological flaw in the City's system for screening cell phone calls to 9-1-1. The flaw prevents operators from calling back thousands of emergency calls each year where the caller either hung up or was disconnected before speaking with an operator. It also caused underreporting of call hold times and abandoned call rates.

To read the full report:
www.portlandoregon.gov/ombudsman/911report

Contact the Ombudsman

Telephone: (503) 823-0144

Email: ombudsman@portlandoregon.gov

Address: 1221 SW 4th Avenue, Room 310

Portland, OR 97204

www.portlandoregon.gov/ombudsman

@PDX_Ombuds

Image credits

Cover: Bureau of Emergency Communication's website (www.portlandoregon.gov/911)

IMPACT STATEMENT

Legislation title: Direct the Bureau of Emergency Communications to work in consultation with partner agencies to review standards for call answering based upon national best practices (Resolution)

Contact name: Kyle Chisek
Contact phone: 3-1126
Presenter name: Kristin Dennis

Purpose of proposed legislation and background information:
Based upon both the December 2016 and the current draft report on BOEC, it is clear that performance measures refinements are necessary. This resolution directs BOEC in conjunction with other bureaus to recommend and implement improvements to call answering performance metrics.

Financial and budgetary impacts:
N/A – future budget impacts may occur based upon fully reviewed recommendations.

Community impacts and community involvement:
911 is a critical service and the community is better served through accurate information and good business practices.

Budgetary Impact Worksheet

Does this action change appropriations?

☐ **YES**: Please complete the information below.
☒ **NO**: Skip this section

Fund	Fund Center	Commitment Item	Functional Area	Funded Program	Grant	Sponsored Program	Amount