



Ohio 9-1-1 Newsletter

January 2017

Security Threats and the PSAP by Nick Levin

As technology has advanced in recent years, threat actors have found new avenues for attacking PSAPs to disrupt 9-1-1 service. Whether these threat actors are cyber criminals trying to exploit sensitive information associated with 9-1-1 for personal gain, operatives of foreign states, or other malicious entities, it has never been more important to take steps to ensure that a PSAP can continue to function properly in the midst of such threats and provide emergency services to the public.

Recently, Telephony Denial of Service (TDoS) attacks have been on the rise. The U.S. Department of Homeland Security sent a watch advisory Oct. 26 in regards to a specific TDoS attack on PSAPs in the states of Texas, California, New York, and Washington.

A TDoS attack involves a threat actor using what are called botnets to simultaneously and surreptitiously take control of a large number of mobile devices. These devices are then manipulated, without the knowledge of the owner, to call 9-1-1 at the same time. The resulting extraordinarily high call volume to a PSAP results in that PSAP not being able to answer real 9-1-1 calls.

With the increase in such attacks in recent years, there are now major efforts to mitigate risks associated with TDoS attacks, including attempts to help 9-1-1 systems better differentiate between legitimate 9-1-1 calls for service and calls being initiated by botnets. Such an approach would help ensure that people who are actually in need of emergency services would get the help they need, while calls associated with a TDoS attack would be ignored, without accidentally ignoring legitimate calls. Other potential solutions include increased capacity within PSAPs and the installation of additional firewalls on mobile devices that would detect botnet activity.

With the advent of NG9-1-1, it is hoped that such strategies and other solutions to prevent TDoS and other attacks can be integrated and improved as IP technology is utilized. However, the use of IP technology to transport 9-1-1 traffic also opens up new avenues for potential cyberattacks on the 9-1-1 system, necessitating that cybersecurity be a top priority in the construction of an NG9-1-1 system. The Ohio 9-1-1 Program Office, ESINet Steering Committee, and other partners are aware of this critical element and have taken it into account when working toward the design and construction of the Ohio NG9-1-1 system.

FCC and National 9-1-1 Office Survey and Wireless Government Assistance Reconciliation Reports

The Ohio 9-1-1 Program Office is preparing for the annual release of the Federal Communications Commission (FCC) and National 9-1-1 Program surveys. Similar to last year, it appears that both of these surveys will be released at approximately the same time of the year. To simplify the process and save valuable time for our partners at the local level, the Ohio 9-1-1 Program Office has developed a combined response form that county 9-1-1 coordinators can complete and send back to the Ohio 9-1-1 Program Office. This approach will compile the appropriate data and submit it to the FCC and National 9-1-1 Program, respectively.

As opposed to last year, the response form for 2017, which will collect data from 2016, will be an Excel spreadsheet and not a Word document. Participants are asked to use this format to respond to the survey by entering the requested information directly into the provided spreadsheet. The combined response form to the surveys should be sent to county coordinators in approximately March or April.

In addition to the FCC and National 9-1-1 surveys, the Ohio 9-1-1 Program Office also is preparing to distribute the Wireless 9-1-1 Government Assistance Reconciliation Report form to county coordinators in 2017. This form will ask county coordinators to list the amount of money received by the county from the Wireless 9-1-1 Government Assistance Fund, and expenses for which that money was used, to comply with Ohio Revised Code Chapter 128 in regards to the allowable use of funds.

First Responder Ride Along Program

Ohio 9-1-1 Administrator Rob Jackson continued the First Responder Ride Along Program in December. Jackson rode along with first responders from Athens County Emergency Medical Services (ACEMS) on Dec. 17. Throughout the day, the group saw a variety of situations and had good discussion about ACEMS and its relationship to 9-1-1.

Jackson believes it is essential to include the voices and needs of first responders in the discussion regarding NG9-1-1. The additional capabilities of NG9-1-1 beyond Enhanced 9-1-1, which will include more accurate location information and the ability to send texts, video, and pictures to the PSAP, will create new opportunities and challenges for first responders such as those working for ACEMS. It is vital that first responders have input into the process of building the NG9-1-1 system so that information can move seamlessly from the public to the PSAP, and from the PSAP to the first responder, in order to provide the fastest and best quality service possible to those in need of help.

This ride along was the second taken by Jackson to facilitate communication between the Ohio 9-1-1 Program Office and the first responder community. Jackson hopes to continue this program for as long as possible to gain valuable insight that will be useful when it comes to development of the NG9-1-1

system in Ohio. Jackson wishes to thank Lt. Kayce Carrick, Kylie Cummings, Randy Crossen, Jr., Joel Bitters, and Jonathan Roback for their public service and participation in the ride-along program.



2016 - Year in Review

In 2016, many exciting developments took place in regards to 9-1-1 in Ohio. As such, it was a busy year for the Ohio 9-1-1 Program Office. In its first full year of existence, the Ohio 9-1-1 Program Office sought to continue to support 9-1-1 operations at the local level, as well as driving action towards the development of a statewide NG9-1-1 system, and facilitating communication and cooperation among the various levels of government involved in 9-1-1.

Among the major developments in 9-1-1 during 2016 was the adoption of the PSAP Operations Rules. After undergoing careful examination in the Joint Committee on Agency Rule Review process, the PSAP Operations Rules were formally adopted by the ESINet Steering Committee on April 21, 2016. As of May 12, 2016, the rules became effective, marking the beginning of the two-year time period during which all PSAPs initially answering wireless 9-1-1 calls in the state must reach compliant status.

Also in 2016, the Ohio 9-1-1 Program Office conducted a summer college intern program. Two college interns, Samantha Brown of Ohio University and Amber Leyrer of The Ohio State University, developed an elementary education program designed to teach students in kindergarten through fourth grade about the basics of 9-1-1. That program, titled *9-1-1 With Op and Rader!*, is available for use by local schools and public safety agencies to help students learn about topics such as when to call 9-1-1 and

what to do when calling.

In July and August, the Ohio 9-1-1 Program Office, along with the Ohio AMBER Alert Advisory Committee, engaged in a public outreach program at the Ohio State Fair. The two groups occupied a booth in the Bricker Building at the fair and distributed information to the public about the current state of 9-1-1 in Ohio, what is coming with NG9-1-1 in the next several years, AMBER Alerts and other similar issues, as well as answering any questions from the public. In addition, the fair allowed the Ohio 9-1-1 Program Office to introduce the elementary education program discussed above by distributing stickers, coloring sheets, and other items associated with the program to children attending the fair. Overall, the public outreach program at the fair was a very productive experience that should prove useful in years to come.

Also in July, the State of Ohio selected L.R. Kimball and Associates as its consultant for implementing a statewide NG9-1-1 system. The consultants have been tasked with developing, distributing, receiving, and analyzing a Request for Proposal (RFP) in cooperation with the Ohio Department of Administrative Services' Office of Procurement Services to build the NG9-1-1 system on behalf of the State of Ohio. The RFP should be released in February.

Finally, on Sept. 14, the Ohio 9-1-1 Program Office, in conjunction with the Ohio chapters of APCO and NENA, hosted the first Ohio 9-1-1 Symposium at the Ohio State Highway Patrol Academy. The event featured a keynote speech from local sportscaster Dom Tiberi titled "Maria's Message" about the dangers of distracted driving. He also discussed the important work achieved by those in the public safety world. Also, the Ohio chapters of APCO and NENA held their quarterly joint business meeting. Additionally, there was a discussion panel on text-to-911 and an update on the status of the National Public Safety Broadband Network's development in Ohio.

2016 was a busy and productive year for the Ohio 9-1-1 Program Office. With the help of our partners at the local and national levels, we hope that 2017 will bring further innovation and continued outstanding emergency services to the residents of Ohio.

Staff Profile: Melissa Wulliger

As an office that frequently deals with the public, the Ohio 9-1-1 Program Office wants the public to be familiar with the team members working to help provide quality 9-1-1 services throughout Ohio. As such, the Ohio 9-1-1 Program Office would like to introduce Melissa Wulliger.

Wulliger joined the Ohio 9-1-1 Program Office in October 2015. Prior to joining the state, Wulliger owned a company that provided services to children, including children with disabilities. In 2006, she was appointed by the Ohio Speaker of the House to serve on the Bureau for Children with Medical Handicaps Commission to represent families of children with disabilities from all 88 counties. When she left the private sector to join the state, she started at the Ohio Department of Public Safety's Ohio

Emergency Medical Services and then was promoted to the Ohio Emergency Management Agency.

Melissa lives in Grandview with her family including her husband, Walt, and her three children, Paige, Hope, and Zane, as well as their dog, Bella. When not at work, Melissa enjoys spending time with her family and traveling.



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