To:                  PSAP Directors  
From:    William Youell, DSET Director  
Date:    August 1, 2016  
Subject:  Next Generation 9-1-1 Outage

Incident/Root Cause/Status:

On the evening of Friday, July 15, 2016 the Next Generation system experienced problems which resulted in 52 NG911 PSAPs which had difficulties with answering 9-1-1 calls, answering administrative calls, making outbound calls, or some combination of the above. Legacy 9-1-1 PSAPs were unaffected. The troubles were intermittent. While some calls presented and completed without incident and many PSAPs could make calls, the issues reported beginning around 1800 hours by PSAPS included:

• Calls presented, but could not be answered
• Calls rang, but did not “pop” the call answer window for the telecommunicator
• PSAP was unable to make outbound calls
• Workstations became “logged out”
• Workstations showing as “logged out,” but still actually logged in and taking calls

AT&T has reported to us that the root cause of the problem Friday evening was a messaging application that exceeded its capacity to process clients, which caused delays. Because of the delays, duplicate requests were generated, causing even more traffic on the system, which consumed all of the available memory. Once the memory was used up, the system could not process calls.

This problem was overcome Friday night by removing a client process on all workstations that was not needed for call handling. This reduced the number of running clients and cured the memory utilization problem. The system is now stable and has been since 21:00 hours that night. In addition, a memory increase is scheduled to be installed, which provides an extra margin of safety for the system. ComTech is currently monitoring server memory usage and is providing hourly updates to AT&T.

AT&T is currently testing a permanent fix for this capacity problem, targeted to be installed the week of August 15th. Further installations of NG911 are on hold until the update is installed and successfully implemented.

Additional Steps: Resiliency/System Enhancement

These initiatives will provide additional resiliency for Connecticut PSAPs in the event of software, hardware, network or power issue with your PSAPs or with the larger system, as well as process changes for improved communications and user experience.
Notification:
In order to provide timely notifications to our PSAPs, we will use Everbridge Mass Notification Platform to alert PSAPs of outages and events. DSET has, and will maintain, a 24x7 contact information database for all PSAPs within the Everbridge system.

Fallout lines:
Fallout lines are intended to:

- provide a method for the Network Operations Center (NOC) to contact the PSAP
- provide a method for the PSAP to call for help and contact the NOC and request a re-route
- provide a pathway, in certain types of failures, to allow delivery of 9-1-1 calls to the PSAP until a re-route can be established.

DSET staff are in the process of contacting each NG PSAP to confirm that failover lines are:

- active
- sufficient for the PSAP, and
- telecommunicators are familiar with how to use them

Re-route:
DSET has confirmed and updated the PSAP re-route options. We will provide the list in a separate communication. It has been modified to ensure that at least one legacy PSAP has been identified as a re-route option for all NG911 PSAPs.

Cell phones:
Cell phones have been delivered to those PSAPs which have integrated their administrative lines into the NG911 system. They will provide an additional pathway to allow these PSAPs to contact, and be contacted by the NOC.

Resolution Center:
We will be re-sending your leave-behind sheets and AT&T escalation numbers, in order to ensure that every PSAP has the required information for trouble reporting.

In order to improve communications between PSAPs and the Resolution Center, a number of changes at the Resolution Center are underway or have already been accomplished:

- AT&T will ensure that PSAPs requesting re-routes receive higher priority access than callers seeking status or updates
- AT&T is providing a dedicated Connecticut representative within the resolution center who is familiar with the state’s installation and its configuration, and can provide better customer service
- AT&T is planning to provide additional staff during outages
- AT&T will be providing additional technical training on commonly reported troubles to enable staff to deliver first call resolution to PSAPs

We are committed to maintaining our tradition of providing excellent 911 service to the State of Connecticut. We welcome any suggestions you may have to continue that standard.