Statewide Emergency Services Internet Protocol Network
Steering Committee – Combined Sub-Committee Meeting Minutes
August 30, 2016

The combined meeting of the ESINet PSAP Operations and Technical Standards Sub-Committees was held on August 30, 2016 at 10:00 AM at the State EOC. The meeting was called to order by Chairman Jay Somerville (PSAP Operations) and Rob Jackson (filling in for Jeff Smith – Technical Standards) and Melissa Wulliger called the respective rolls.

Technical-Standards Subcommittee
Skip Dalton
Tom Bretthauer
Paul Schopis
Matthew Franke
Chris Santer
Nancy Serafino

Public-Safety-Answering-Point (PSAP) Operations Subcommittee
Jay Somerville, Co-Chair
S/Lt. Tony Bradshaw
Jeff Busch
Chief Brad Shull
Patrick Goldschmidt
Matthew Hiscock

Other Notable Attendees
Rob Jackson, 9-1-1 Administrator
Barbara Vos, Project Manager CDI/Kimball
R.D. Porter, Senior Consultant for CDI/ Kimball
Rich Ehlinger, Network Consultant, CDI/Kimball
John Leutz, ESINet Steering Committee

This combined Technical Standards and PSAP Operations Sub-Committee meeting is being held for the members to see the presentation from Kimball. Kimball presented their initial findings, and shared they are in the process of finalizing the economic impact study, funding analysis and initial design documents. The meeting floor is open to anyone in the audience who would like to provide input or ask questions as the consultants continue to build the draft RFP. We would ask that you follow-up your question in an e-mail to the Ohio 9-1-1 Program Office, so that we have it in writing. We will keep this request open until the close of business next Tuesday.
The consultants presented their update, initial findings and highlights from the funding study to the sub-committees and the audience. It was noted by Mr. Jackson that after input is received and finalized, it will be published to our website.

There were a variety of technical discussions, mostly related to GIS, ANI/ALI and other issues audience members felt should be included. Roger Hixson (NENA) and Chris Santer (DDTI) both indicated they would follow-up with their issues in writing. Kimball recapped the issues discussed and indicated they would include this in their final documents to be posted to the website. Submitted feedback is attached to these minutes, which outlines the technical discussion.

The DRAFT RFP is expected by end of September.

No other business was discussed by the sub-committees and the meeting was adjourned.

Submitted Feedback:

<u>*Chris Santer - 1*</u>

It is my opinion that the legacy ALI systems deployed across the State of Ohio must be replaced with a single i3 compliant location solution as part of the NG9-1-1 RFP.
Currently, ALI databases are fragmented across multiple service providers in Ohio, and no interoperability has been established (for example, through an FOC-R process). This often means, when a call is transferred across county boundaries, all location information is lost. The problem has can put the citizenry of Ohio at risk, particularly with the increase of wireless calls in recent years (more wireless calls have to be transferred across county boundaries than wireline, particularly when a wireless call hits a cell tower in close proximity to a county boundary). As an example, a caller may dial 9-1-1 from County A, but hit a cell tower in County B. The call is likely to be routed to County B, where an ALI dip to Service Provider 2 would likely be successful. Once it is determined that the caller is in County A, and the call is transferred, the ALI dip will not go to Service Provider 2, as County A is served by Service Provider 1, and will likely result in a No Record Found (NRF) condition. Effectively, the County A dispatcher will have no ALI derived location for the call.
Additionally, current legacy ALI systems are not compatible with other NG9-1-1 functional elements. As an example, the ECRF must be provisioned with GIS data that adheres to the NG9-1-1 data models. The NG9-1-1 data model is very different from the legacy MSAG/ALI style data model. This means it is extremely difficult to match a legacy ALI location with a NG9-1-1 ECRF location in order to successfully route a call. Additionally, all location within NG9-1-1 is supposed to be in a PIDF-LO, whose contents in the United States is governed by the CLDXF standard, which is again very different from the legacy MSAG/ALI style data produced by existing ALI database systems.
Lastly, the existing fragmented ALI systems are unable to LVF validate their records. This is imperative in order for a successful NG9-1-1 deployment. Without this, the system does not know if a location is routable until an actual 9-1-1 call is made, a situation which is unacceptable.
NENA defines various options to ease the transition of location services into an i3 system, and these must be considered as part of the RFP.
In summary, the system should accomplish the following:
-   Replace multiple fragmented systems with a single state-wide system, with the goal of not only significantly reducing overall costs, but greatly improving accuracy, interoperability (including other states) and efficiencies.
-   Provide a system that can allow service providers to still provision the new system using existing methods (such as SOI), but is able to convert the data to new data formats (through use of the NENA defined MSAG Conversion Service, or other mechanisms).
-   Provide a system that can LVF validate records against a GIS dataset in, an authoritative Lost Server, that is in the NG9-1-1 GIS Data Model, ensuring that discrepancies can be worked prior to any 9-1-1 call.
-   Provide a system in which all location data, and RFC 7852 additional data, is provided in PIDF-LO.

<u>*Chris Santer - 2*</u>
Hi Rob,

As promised, here is the link:

http://www.fairfaxcounty.gov/solicitation/

You'll need to scroll down to the "Next Generation Core Services Solution" section.

The link for "Appendix C TECHNICAL REQUIREMENTS" contains the meat of the RFP, and specifically section 4.10 which contains all of the NG9-1-1 core elements.

I hope this is helpful.

Thanks,
Chris

Chris Santer – 3

The presentation specified "Synchronizing GIS data with MSAG". The MSAG data model goes away with NG9-1-1, although it does have a role during transition. I would recommend that the GIS follows the NG9-1-1 GIS Data Model, which cannot directly be synchronized with the MSAG. As an example, the NG9-1-1 GIS Data Model might have a street "NORTH MAIN STREET", which would be "N MAIN ST" in the MSAG. What would make the most sense is to specify that the GIS is in the NG9-1-1 GIS Data Model, and a cross reference check is performed to make sure each legacy MSAG record has a corresponding record in the new data model. Ultimately the results of this cross reference should be loaded into a NENA i3 defined MSAG Conversion Service (MCS) so data can easily be converted between NG9-1-1 and legacy data formats.

The presentation indicated that bill and keep will stay in place. If a universal device fee was introduced, wouldn't landline customers get taxed twice (once for their current bill and keep and once for the new fee)? I am not clear why you would keep bill and keep, especially if the service providers no longer need to provide selective routing and ALI database services.

The presentation included the continued use of ALI databases. It is my opinion that the legacy ALI systems deployed across the State of Ohio must be replaced with a single i3 compliant location solution as part of the NG9-1-1 RFP.

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-   Provide a system that can allow service providers to still provision the new system using existing methods (such as SOI), but is able to convert the data to new data formats (through use of the NENA defined MSAG Conversion Service, or other mechanisms).

-   Provide a system that can LVF validate records against a GIS dataset in, an authoritative LoST Server, that is in the NG9-1-1 GIS Data Model, ensuring that discrepancies can be worked prior to any 9-1-1 call.

-   Provide a system in which all location data, and RFC 7852 additional data, is provided in PIDF-LO.

The various diagrams in the presentation need to be corrected. It is not realistic to think that wireless and VoIP providers are going to deliver calls directly into the ESInet on day one. I would expect wireless and VoIP to continue legacy processes for some time, and will likely be routed to the ESInet via the LNG. Location services for wireless and nomadic VoIP are also likely to continue to need MPC/VPC connectivity for some time (over E2+).

Any ingress into the network must either be native i3 (including location, which must be validated if it is a civic address) or must go through the LNG.

Text-to-911 is not shown, but it must be delivered in a i3 compliant manner. This means it must use MSRP and must provide location using HELD. This option exists from at least one of the TCC providers today (and maybe both). Non-i3 Text-to-911 options should not be considered.

NENA i3 logging must be part of the system. Without it, it will be very difficult to troubleshoot any call routing issues or other failures.

Data within the system must adhere to NENA standards. I was concerned with the MSAG comment, so would like to stress that the following should be required:

•   GIS in the NG9-1-1 GIS Data Model

•   Location delivery using HELD, with PIDF-LO compliant to the CLDXF standard

o   Updated location delivery using HELD location dereference

•   Additional data compliant to the various standards, such as ECRIT

•   During the transitional period, I would recommend the use of an MSAG Conversion Service (MCS), which will require some up front work to ensure legacy MSAG records have a corresponding (but not "matching" – see earlier comment about "NORTH MAIN STREET" vs "N MAIN ST") record in the GIS – this is required as many service providers will still want to deliver location in legacy formats, but it needs to converted to NG9-1-1 format

There should be a requirement in the RFP for interoperability with surrounding states for call transfers.

<u>Roger Hixson</u>

How will the RFP define the type or level of transitional NG9-1-1 to be assumed by the vendors for the state system?

To avoid terminology surprises, since vendors are well known for their tendency to define things their own way, effort should be made in the RFP to clearly define terms and acronyms. For example, clearly defining what `i3 capable PSAP' means. (more than ip capable…)

How will the draft RFP handle the Location Validation process? Typical approaches are that the OSP runs this, using GIS data from the NG9-1-1 core system (which means there must be a process/linkage to handle, or taht the NG9-1-1 Core process provides an LVF service to the OSPs.

What assumptions will be involved for OSP access methods? State level Forest Guide to identify what points are to get calls (big meaning) for what parts of the NG9-1-1 systems in Ohio (sate, regional, etc)? Separate OSP access connection directly to each individual system?
(Consider that this may evolve over time, possible to only a state level access, passed through to all individual NG9-1-1 systems)

What will be the plan for GIS management? If each county updates their GIS data to their NG9-1-1 system, and that is not the state Core Services point, do they also provide that data to the state level? What methods are involved at state level to coordinate a full state wide GIS data set (needed for some functions at the state level, even if a county or region has their own NG9-1-1 system)?

How will requirements for NG9-1-1 Core service logging capabilites be defined?

If there are multiple NG9-1-1 Core Services in place for Ohio, what standards for Core Service operations will be defined?