

**QUESTIONS AND ANSWERS**

**To:** Prospective Responders  
**From:** John Katsorhis, Agency Chief Contracting Officer  
**Date:** February 18, 2016  
**Re:** Request for Information (RFI) - New York City Next Generation 9-1-1 Program  
**Web:** <http://www1.nyc.gov/site/doitt/business/nyc-next-gen-911-program.page>  
**PIN:** 85816RFI0001  
**Due:** 2:00 P.M. ET, March 11, 2016.

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**This document lists questions that were received within the prescribed time frame in the RFI. DoITT’s responses are also included.**

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No.	QUESTIONS	ANSWERS
1	Who is the Project Manager taking the lead on this effort?	The information sought in this question is not required for a vendor to respond to the RFI.
2	What is the anticipated cost of the Core Services replacement? Funding source to be utilized?	The information sought in this question is not required for a vendor to respond to the RFI.
3	What is the anticipated cost of the ESInet replacement? Funding source to be utilized?	The information sought in this question is not required for a vendor to respond to the RFI.
4	What is the anticipated cost of the Call Handling replacement? What Funding source(s) to be utilized?	The information sought in this question is not required for a vendor to respond to the RFI.
5	Will Call Logging Recorders be acquired as part of this overall upgrade? If not, when will the City address the replacement of the Logging Recorders? How many channels will be needed?	Information about NG9-1-1 Logging and Recording is requested in this RFI. It is covered in the NG9-1-1 Core Services section of the RFI. Logging and Recording is a critical piece of the system both technically and operationally. Vendors of NG9-1-1 Logging and Recording systems are encouraged to discuss how they have deployed systems in other large NG9-1-1 systems including the NG9-1-1 <i>Functional Elements</i> covered, the latency between recording and availability for access, and other features. Note that logging and recording vendors are encouraged to provide a partial response to the Core Services Section.

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6	How many CAD systems are currently in operation and which vendors provide them?	At the projected time of the migration to NG9-1-1, all CAD systems in use by NYPD and FDNY will be in place. All will have been procured by the City from Hexagon (Intergraph).
7	What is the average monthly volume of 911 calls received currently by the City?	The average monthly call volume is currently between 800,000 and 1,000,000 calls.
8	Will the GIS Data Management System be acquired separately? If so, which procurement method will be used?	The RFI seeks information from vendors about the management of geospatial data, the provisioning of the Emergency Call routing Function, and the Location Validation Function. Any decisions about procuring a GIS Data Management Systems will be made after reviewing RFI responses that address these subjects. Vendors of GIS Data Management systems are encouraged to help the City understand the advantages of a system specifically designed to support NG9-1-1 vs. generic GIS tools. This includes provisioning of the ECRF and maps in CAD. Vendors that offer professional services related to their GIS Data Management systems are encouraged to provide information about these services. Note that vendors of GIS data management systems are encouraged to provide a partial response to the Core Services section of the RFI.
9	Will new radio dispatch consoles be required as part of the overall upgrade? If so, how many consoles will be needed and how will they be acquired?	New consoles are not within the scope of the NG9-1-1 Program.
10	What type of CAD system is currently deployed? Is it IP based or hosted?	See answer 1 above. CAD systems procured from Hexagon/Intergraph are expected to be in place at the time of the migration to NG9-1-1.
11	Can you provide any information on the interim text to 9-1-1 solutions being considered?	An interim text to 9-1-1 system is not within the scope of the NG9-1-1 program. However, vendors should anticipate that an interim text-to-9-1-1 system will be in use at the time of the migration to NG9-1-1.
12	Can you provide any figures on projected call volume growth for new centers?	Responders should assume a modest growth rate in traditional 9-1-1 voice calls. The City's population is growing at roughly 1% a year. This growth rate can be used as a proxy for 9-1-1- call growth rate. The introduction of an interim Text to 9-1-1 system may have an impact on voice 9-1-1 call volume. RFI responders with experience in deploying NG9-1-1 systems are encouraged to share their insights into changes in call volume do to the introduction of text-to-9-1-1 and other methods of calling for help made available as a result of implementing NG9-1-1.

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13	Any current figures on volume for 10 digit calls into centers?	At this time, the City does not have an accurate count of emergency calls that were initiated through a 10 digit number. Responders should assume that this volume is minimal as compared to the total call volume. Responders are encouraged to discuss how their products and services can bring calls to 10 digit numbers into the 9-1-1 call queues and route them along with all other 9-1-1 calls. A discussion of how the caller's location can be determined and presented to the call takers is also an important topic to cover. Finally, NG9-1-1 allows for the direct routing of calls based on the service URN presented with the call. Responders are encouraged to describe how this might be used in the City if the NYPD and FDNY choose to do so.
14	Is there any crime tip or crime reporting application used by the public to communicate into NYPD that would be integrated into new PSAC? Any mass notification or "reverse 9-1-1" application that would require integration?	These applications and services are not within the scope of the NG9-1-1 program.
15	What are the current PBX systems being used?	There are no PBXs used in the current configuration. The DMS 100s act as a Centrex and route calls directly to call handling workstations. There is no intermediate call routing or distribution. PBXs, as they are generally defined today, are not part of a NG9-1-1 system.
16	How many data centers will be established?	The current plan is to consolidate all call handling into PSAC 1 and PSAC 2. There will be data centers in each. No decisions about additional data centers have been made. The City seeks comment from qualified vendors on the advantages and disadvantages of using additional data centers to host the NG9-1-1 Core Services, including the ESRP, ECRF, and LIS. The City also seeks comment on using additional data centers at co-location facilities as points of presence for interconnection with Carriers. The City intends to implement a NG9-1-1 system with the highest level of availability possible. The number of data centers and the NG9-1-1 Functional Elements hosted in each may have a significant impact on overall system availability. Vendors are encouraged to share their thoughts on the options available to the city in the deployment of NG9-1-1 functional elements. More specifically, the City would like thoughts on the value of having tertiary data centers for some or all the NG9-1-1 Functional Elements.

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17	What are the power capabilities of the facilities?	The City does not want to limit the exploration of options for implementing a NG9-1-1 system based on power requirements. Power requirements are an important factor that will be explored in an RFP phase of the project but are not a constraint at this stage.
18	Is there a current ALI database that can be transferred into a LIS?	The current plan is to migrate the current ALI database to a shared LIS. However, the City will be contacting OSPs to determine their plans to implement their own LIS per the end-state NENA standard. Qualified vendors should use the Core Services section of the RFI to offer thoughts on the City's current plan and alternatives the City should consider. Thoughts from vendors with experience in migrating data from an ALI to a LIS and running both systems in parallel would be very helpful.
19	What is the current map base being used? Is it totally encompassing to the project?	The Department of Information Technology and Telecommunications has developed maps of the 5 boroughs and is responsible for maintaining them. Vendors of products and services that support the ongoing maintenance of these maps specifically for use in a NG9-1-1 system should provide information about their offerings in the Core Services section of the RFI. Information about NG9-1-1 GIS Data management and the Spatial Information Function (SIF) are appreciated especially as compared with generic GIS data management tools.
20	Could the new PBX grow to over 1000 phones at installation or just as shown in the RFI?	The RFI describes the functional requirements of NG9-1-1 system and the City's current thinking about the architecture to be used to satisfy these functional requirements. No decisions have been made about the technologies, like a PBX, to be used in satisfying the functional requirements. The City is, however, committed to implementing a NG9-1-1 system consistent with the NENA 08-003 (and successor) standard.
21	Will the NYC Staff look to replace the operations of the DMS and go with pure IPSR components? Are direct connections to the Central offices at the "A" and "B" links going to be permitted?	The City is committed to implementing a NG9-1-1 system consistent with the NENA 08-003 standard. The term "IPSR" is not present in the standard.

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22	What is the demarc for the phone system?	The NG9-1-1 system envisioned will have points of presence around the city for OSPs to interconnect. BCFs will be provided at these locations for OSPs that interface via SIP. The BCFs are the demarcs for OSPs interfacing via SIP. The City may support OSPs that require a TDM interconnection (SS7 or CAMA) by deploying Legacy Network Gateways. These Legacy Network Gateways may be co-located with the BCFs or they may be located in the data centers that host the NG9-1-1 Core Services. In either case, the demarc point for OSPs interconnecting via SS7 or CAMA will be a LNG deployed by the City.
23	Will the Telephone system have its own subnet?	No implementation decisions have been made. Vendors are encouraged to offer their thoughts on implementation options based on their experience in implementing NG9-1- systems in other projects. Security is of utmost importance to the City. Thoughts on deployment options and the implications to system security are appreciated.
24	Do you have POE Ethernet switches with QOS for the Telephone endpoints?	No implementation decisions have been made. Vendors are encouraged to offer their thoughts on implementation options based on their experience in implementing NG9-1- systems in other projects.
25	Does the Call handling positions require physical telephones or will they be softphones?	Currently all call handling positions have both physical telephones and softphones. Vendors offering call handling systems are encouraged to provide thoughts on the need to maintain both and suggest alternatives based on their previous experience. The physical telephones in place today offer a backup to the call handling system softphones. Thoughts on approaches to allow call takers to answer 9-1-1 calls even with a failure in the call handling system are appreciated.
26	How is the City's GIS system organized for 9-1-1 services? Which City departments maintain the following GIS data layers: road centerlines, site structure address points, parcels, responder boundaries, and PSAP boundaries? If available, could an organizational diagram of the 9-1-1 GIS function be provided?	DoITT is responsible for the overall maintenance of the GIS data for use in the 9-1-1 system. Contributions are made by other City departments. NYPD and FDNY are responsible for their responder boundaries. Vendors providing products and services for GIS data management and/or provisioning will interface with a lead person in DoITT. Vendors are encouraged to explain how their GIS data management systems can help the collaboration between NYPD, FDNY, DoITT and the other City agencies in the management of the NG9-1-1 GIS data. Also please note that the term used in New York City is Public Safety Answering Center or PSAC. An organizational diagram is not important or relevant to the RFI response, so it will not be provided.

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27	Is there a central department in the City that would be responsible for 9-1-1-related GIS needs? If so, which department?	No, the responsibility for GIS is shared between DoITT, NYPD and FDNY.
28	Does the department currently use 9-1-1-specific GIS data management tools? If so, please describe the tools currently in use.	No, DoITT does not use any 9-1-1 Specific GIS management tools. DoITT and other departments use tools provide by ESRI to manage the GIS data. Vendors are encouraged to provide information about the NG9-1-1 specific tools they offer. And especially the extensions to basic GIS tools that streamline the work required to maintain the GIS data used for the NG9-1-1 system.
29	Please describe the City’s current process for QA/QC of GIS data used in the City’s 9-1-1 GIS applications.	This RFI seeks to gather information that can inform future Citywide technologies and processes. The implementation of NG9-1-1 will give the City the opportunity to revisit its current QA/QC process for GIS data. Vendors are encouraged to provide the City with best practices for QA/QC process.
30	Based on the FCC’s rules for indoor location accuracy, does the City have plans to incorporate any aspects of exterior and/or interior 3D mapping/visualization in its NG9-1-1 initiative (e.g., “z” elevation values and/or dispatchable locations)? If so, are there specific aspects concerning indoor location accuracy the City would like to obtain from the RFI responses?	The City, given the large number of high-rise building is keenly interested in the new FCC rules for indoor accuracy and the commission's direction related to the z axis. Vendors are encouraged to provide an overview of their capabilities in supporting and enhancing indoor location accuracy and the “z” axis.
31	The RFI states that “an evaluation of the GIS data and the requirements of a NG9-1-1 system is underway.” Please describe the GIS evaluation and its objectives. What layers are being evaluated, and what is the evaluation timeframe? What stakeholders and departments are involved? Is there a vendor(s) performing the evaluation – if so, which vendor(s)?	DoITT has undertaken the evaluation of the GIS data with respect to NG9-1-1 internally. The evaluation has been primarily focused on the requirements documented in NENA standards. Vendors are encouraged to offer thoughts on additional categories of evaluation that may be useful. In particular, the City would like to understand what evaluation services might be available from the vendors. This evaluation has been undertaken wholly in-house. The layers being evaluated and the departments involved are not important for responding to the RFI. Vendors with experience in evaluating GIS data are encouraged to provide thoughts on best practices and a description of products and services they offer for the evaluation of GIS data for NG9-1-1 systems.
32	Page 8, at the bottom of the first paragraph, references Appendix D as providing the outline to be used in responding. Should this instead reference Appendix B, or is there an Appendix D?	The reference to Appendix D was a typographical error. The correct reference should be Appendix B. This error was addressed in RFI Addendum 1.

No.	QUESTIONS	ANSWERS
33	On the cover page to the RFI it stipulates that final responses should be submitted by mail, whereas on page 8 it states that responses should be sent electronically. Which is the preferred method of delivery?	Responses must be presented in an electronic format, as indicated on page 8 under “Preferred Format and Method of Delivering Responses”. Responders must submit their electronic files on a CD or flash/thumb drive, to the mailing address specified on page 1 of the RFI document.
34	Alarms - What systems require alarming? i.e. OnStar and Cross Country, home alarm services from ADT and Brinks, dedicated bank alarm systems	The City is in the process of inventorying all alarms that must interface to the NG9-1-1 system. A complete inventory along with a detailed description of the interfaces will be provided in an RFP. Vendors are encouraged to provide their thoughts on alarm interfaces they have encountered in other NG9-1-1 migration projects.
35	Alarms - What are the different interface types? i.e. ring downs, dry/wet, IP	See answer to question 34.
36	How are calls from the Call boxes delivered to the call takers via the emergency reporting system (ERS) – if they bypass the DMS today?	See answer to question 34.
37	Are the DMS switches used for 911 calls, 10 digit emergency calls, transfers and outgoing only or is it also being used for admin call purposes (internal/external calls non-emergency call related)?	The DMS 100s are primary used to aggregate and route 9-1-1 and 10-digit emergency calls. They are also currently used for administrative use but on a very limited basis. At the time of a migration to NG9-1-1, all administrative lines will be supported by a separate VoIP system. This system will be interconnected with the NG9-1-1 system. Vendors are encouraged to provide thoughts on possible interconnection options with a special emphasis on system security.
38	What are the services provided by the two DMS 100s?	See response to question 37.
39	How many standalone business phones (not used for 911) are connected to the DMS switches	Replacement of telephones used for administrative purposes is not within the scope of this RFI.
40	How does the city envision the decommissioning effort of the DMS 100?	Once all OSPs and both PSACs have been migrated to a new NG9-1-1 system, the DMS 100s will not provide any services to the City. It is anticipated that the DMS 100s will be decommissioned by the current operator. Vendors having experience in decommissioning legacy E9-1-1 systems when NG9-1-1 systems are in steady-stay operation are encouraged to share their experience with the City.

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41	Is transport of multimedia currently available today? If yes, can you describe the operational requirements for transporting the data?	No, however multimedia transport should be built into the envisioned NG9-1-1 system. Any transport of multimedia currently available is out of scope for the NG9-1-1 project. Multimedia transport will be designed into the NG9-1-1 system. Vendors with experience transporting multimedia information are encouraged to share their thoughts on the impact to the provisioning of the ESInet, Core Services, and Call Handling. Vendors are encouraged to share thoughts on managing multimedia data and issues of privacy and security.
42	Is there need for integration of the 911 call handling with CAD/Radio (such as the existing LMR system), or other subsystems? (If yes, please specify which applications.)	Yes, the new system will be integrated with the CAD and Radio systems. Both of these systems, especially CAD, will continue to evolve as NYPD and FDNY implement new features as they become available from the vendor. More detail will be provided on the interface in an RFP
43	Do you currently cohabitate any applications within the scope of this RFI?	No. The City is not seeking any information about other applications in this RFI.
44	Is there a requirement to decommission the LSR entirely?	The Legacy Selective Router will be decommissioned once the NG9-1-1 system is in steady-state production. The RFI does not seek comment on decommissioning process. Vendors may wish to offer thoughts on this process.
45	Is there a timeline for LSR decommissioning from service provider?	The DMS 100s will be decommissioned after all OSPs and the two PSACs have migrated to the NG9-1-1 system.
46	Are there any complications associated with decommissioning the LSR that could impact the transition of EO trunks such as tariffs or regulatory requirements?	The City is not currently aware of any complications. Vendors are encouraged to provide insights into complications encountered in other NG9-1-1 projects.
47	How many EO currently serve the NYC PSAPs?	The inventory of end offices [EO] switches, MSCs, and other systems interconnecting with the DMS 100s will be conducted and the results will be made available in an RFP. Also please note that the term used in New York City is Public Safety Answering Center or PSAC.
48	How many tandems currently serve the NYC PSAPs and who are the service providers?	At the time of a migration to NG9-1-1, two DMS 100s will serve PSAC 1 and PSAC 2. Verizon has responsibility currently for operating both tandems. Also please note that the term used in New York City is Public Safety Answering Center or PSAC.

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49	Describe current disaster recovery plan for inability to deliver emergency calls to a destination?	At the time a migration to NG9-1-1, PSAC 1 and PSAC 2 will be in full operation. Both will be capable of handling the full call load of the City in the event that the other is unreachable. The migration to NG9-1-1 provides an opportunity to implement a highly reliable and available system through the use of diverse and redundant systems. Vendors providing ESInet, Core Services and Call Handling are expected to comment on best practices of deploying a NG9-1-1 system so as to provide the absolute highest level of availability possible.
50	What are the operational characteristics of the PSAC's with respect to one another? i.e. Primary and backup / active-active	At the time of a migration to NG9-1-1, both PSACs will be operating in parallel. Each will be capable of handling the full call volume of the City. The NG9-1-1 system is expected to share the call load between the two facilities. The system should also be capable of automatically diverting calls to one PSAC if the other is for any reason unreachable.
51	Do the city owned facilities proposed in the RFI have diverse entrance facilities and diverse interior paths for circuits?	Yes, both PSACs provide diverse entrance facilities and interior paths for circuits. PSAC 2 in particular is a purpose-built facility.
52	What are the recording requirements? i.e. radio, workstation, ingress	Logging and Recording is a critical component of the envisioned NG9-1-1 system. Logging and recording should be implemented in accordance with NENA standard 08-003. Vendors offering L&R systems should provide insights into the NG9-1-1 functional elements that could be covered by the L&R system. In addition, vendors are encouraged to share their thoughts on the risks and benefits of extending a new NG9-1-1 L & R system to radio and CAD. Operationally, NYPD and FDNY currently have separate systems. Vendors are encouraged to offer thoughts on how this operational model can be continued if the agencies choose to do so.
53	Describe the user access requirements to the centralized logging? i.e. remote, local	The City continues to seek state of the art, robust, cost effective and secure logging and recording systems. The City's access requirements will be further defined as we move closer to the RFP phase of this project. The goal of the RFI is to gather information on how NG9-1-1 will introduce new capabilities and requirements to the City's current logging and recording systems (i.e. text, video, etc.) We seek to better understand the pros and cons of centralized logging and recording systems and whether or not such a model will work for the City given its diverse access requirements and public safety needs.

No.	QUESTIONS	ANSWERS
54	Describe any requirements for mobile laptop access to handle emergency calls?	At this time, the use of mobile laptops to handle emergency calls is not in the scope of this project. However, vendors are encouraged to provide thoughts on this option especially as it relates to opportunities created as a result of implementing NG9-1-1. NYPD and FDNY will use the implementation of a NG9-1-1 system to enhance operational efficiencies. Vendors with experience interfacing other technologies used by first responders to a NG9-1-1 system are encouraged to share their findings.
55	What are the total ingress and egress trunking requirements?	An inventory of all ingress & egress trunking will be conducted and published in an RFP.
56	ECRF (GIS based routing). Who is responsible for maintaining the GIS data? What is the expected update frequency?	DoITT is responsible for maintaining the GIS data for the NG9-1-1 system. The frequency of updates and the operational process for making updates is under discussion between DoITT, NYPD and FDNY. Vendors are encouraged to provide thoughts on best practices seen in other NG9-1-1 projects.
57	If the city desires to provide tier 1 and tier 2 support, what are the expectations of responders to provide local field forces?	The City is seeking guidance on how best to participate in the support of all systems being implemented in this project. As indicated in the RFI, there is a strong desire to provide as much of the support using City staff and resources as possible. It would be helpful to understand the components of each tier of service the vendors routinely provide so that a discussion of which components can be taken on by the City and which should be retained by the vendor(s) can occur. Expectations of what responders would provide locally and remotely can be derived through such a discussion. Vendors are encouraged to present their support offerings tier by tier and suggest roles and responsibilities that the City could assume if it so desired
58	The DMS 100s provide basic telephony services for all stations connected. When the DMS 100s are decommissioned, the new system will need to replace these telephony services. It is likely therefore that a VoIP Call Manager will be required.	At the time of a migration to NG9-1-1, a VoIP system will be in place for all administrative calls. The NG9-1-1 system will need to interconnect with this system for administrative calls. Vendors are encouraged to present different configurations for this interconnection and the impacts of each option including and especially on system security.

No.	QUESTIONS	ANSWERS
59	<p>What is the total number of phones and phone types that need to be replaced? Since this is a DMS 100, there could be many phone types as well as analog lines for various uses. Vendors will need to know all of the phones that have to be supported by the new telephony and the locations of those phones.</p>	<p>The RFI was written to solicit high-level feedback from leading vendors of NG9-1-1 products and services based on their experience in other NG9-1-1 migration projects. Some information related to call volumes and the number of workstations that will be replaced are provided to give vendors a sense of the scope of the project. Detailed architectural, system configuration, pricing, and other aspects of the program are not requested at this time. The information requested in this question is not required for the level of feedback the City is requesting. If the answer to the question has a material impact on the project, please provide the City with your thoughts on the challenges associated with the types and locations of the phones.</p>
60	<p>Can a vendor submit a bid solely for the Colocation portion of the project, as there is nothing stated on the RFI specifically?</p>	<p>Yes. Colocation facilities are potential locations for the ESInet's Points of Presence (POPs) to interconnect with OSPs operating in the City. These POPs can be used for demarc points as described in the answer to question 22 above. As described in the RFI, each OSP will be required to interconnect to the NG9-1-1 system at a minimum of two POPs. Responders are encouraged to discuss which OSPs have facilities at each of their colocation facilities and the diversity and redundancy in POPs they can provide.</p>