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February 25, 2015

OVERSIGHT: **Examining the New York City Department of Investigation Report on
the City's Program to Overhaul The 9-1-1 System**

I. INTRODUCTION

On February 25, 2015, the Committees on Fire and Criminal Justice Services, chaired by Elizabeth Crowley, the Committee on Public Safety, chaired by Vanessa Gibson, the Committee on Oversight and Investigations, chaired by Vincent Gentile, the Committee on Technology, chaired by James Vacca, and the Committee on Contracts, chaired by Helen Rosenthal, will hold an oversight hearing in which the Committees will examine the City's effort to overhaul its 9-1-1 system and the New York City Department of Investigation's ("DOI") report on this topic, as well as the City's response to that report.

The Council has held several hearings examining the 9-1-1 system and various aspects of the Emergency Communications Transformation Project ("ECTP") over the past few years, including budget hearings that focused on the length of the project and cost overruns.

II. 9-1-1 SYSTEM BACKGROUND

The New York City Police Department ("NYPD") and Fire Department of the City of New York ("FDNY") answer over 30,000 9-1-1 calls each day.¹ When people with emergencies dial 9-1-1, they are connected to an NYPD call taker. Based on the nature of the emergency, the NYPD call taker transmits information to dispatchers in the NYPD, FDNY and Emergency Medical Services ("EMS"). For example, in a fire emergency, the NYPD call taker conferences in a fire dispatcher and continues to gather information from the caller as the fire dispatcher listens in and intervenes as necessary. In a medical emergency, the NYPD call taker conferences in an FDNY Emergency Medical Dispatcher ("EMD") who is also an Emergency Medical

¹ New York City Department of Investigation Report on the Emergency Communications Transformation Program, February 2015 (hereinafter "Report") at page 1.

Technician (“EMT”) and certified in Emergency Medical Dispatch procedures. That EMD then interacts with the caller and provides pre-arrival instructions to callers over the phone.²

Staffing of the NYPD 9-1-1 operation consists of approximately 1,250 Police Communications Technicians (“PCT”), Supervising Police Communication Technicians (“SPCT”), and Principal Police Communication Technicians (“PPCT”). Personnel with the PCT title perform multiple functions including the 9-1-1 call taker and dispatcher positions.³

Staffing of FDNY Dispatch Operations consists of approximately 160 Fire Alarm Dispatchers and 35 Supervising and Chief Dispatchers assigned to Fire Dispatch operations, and approximately 250 EMTs and 35 Lieutenants and Captains assigned to Emergency Medical Dispatch. Personnel in both Fire Dispatch and EMD perform multiple functions including the call taker and dispatch positions.⁴ Fire Dispatch operations for Queens and the Bronx are in their respective boroughs and support the other three boroughs as a backup. Brooklyn, Manhattan and Staten Island Fire Dispatch operations are located at the Public Safety Answering Center (“PSAC1”). Back-up capabilities for Bronx and Manhattan are also located at PSAC1. EMD for all five boroughs is currently located at PSAC1 with an unmanned backup facility at 1 Metrotech in Brooklyn.⁵

III. ECTP BACKGROUND

The City’s 9-1-1 system started in 1968, and efforts to modernize this system started in the 1990s – for example, the City was to build a backup 9-1-1 call center in downtown Manhattan, but it was abandoned after September 11, 2001.⁶ Congress’s 9/11 commission found

² City of New York 9-1-1 Call Processing Review (911CPR), May 1, 2012, Final Report, Windbourne Consulting, LLC

³Id.

⁴Id.

⁵Id.

⁶ Report at 12

problems with the City's 9-1-1 system in its 2004 report,⁷ and that same year the City initiated the ECTP.⁸ ECTP was designed to address shortcomings in the City's emergency public call taking and dispatch operations by overhauling the manner in which operations are managed and supported.⁹ ECTP's articulated purposes were to "enhance the quality of citizen interactions with the emergency call center, improve emergency dispatch times, optimize the use of emergency call taking and dispatching resources, upgrade business continuity and disaster recovery capabilities, and ensure safety of emergency response personnel."¹⁰ ECTP's central objectives included: (i) the establishment of PSAC 1 in Brooklyn, where NYPD, FDNY and EMS personnel are now located; (ii) the construction of a back-up 9-1-1 call-taking and dispatch center ("PSAC 2") in the Bronx; (iii) unifying 9-1-1 call-taking functions in a single call-taking operation at PSAC 1 and PSAC 2 that will be managed by the NYPD; (iv) the integration of the NYPD, FDNY and EMS Computer-Aided Dispatch ("CAD") systems; and (v) generally improving communication infrastructures, including the City's emergency radio system and telephony.¹¹

The initial cost estimate of ECTP was \$1.345 billion and was scheduled to be completed by 2007.¹² However, the project cost has increased to \$2.031 billion for several reasons, chief among them the construction of PSAC 2 in the Bronx instead of using an existing building as originally planned.¹³ The initial management structure of ECTP was complex, but appears to have given equal authority to the mayor's office, the director of the Office of Management and

⁷ National Commission on Terrorist Attacks upon the United States, 9/11 Commission Report, at 318 (July 22, 2004).

⁸ Report at 14

⁹ Submitted testimony by Deputy Mayor Edward Skyler to NYCC Committees on Fire and Criminal Justice Services, Public Safety, and Technology in Government on December 10, 2009.

¹⁰ Report at 15

¹¹ Report at 15-16

¹² Report at 16.

¹³ Id.

Budget, and the commissioners of the FDNY, NYPD, and DoITT.¹⁴ Gartner, Inc. has served as the project's Project Management and Quality Assurance provider, tasked with monitoring and overseeing the project as a whole.¹⁵ In 2008, due to delays and quality issues, the City split ECTP into two stages: stage 1 addressed renovations at PSAC 1, upgrading systems such as telephony at PSAC 1, and co-locating NYPD and FDNY call-taking and dispatch operations within PSAC 1, while stage 2 was meant to include the design and construction of PSAC 2. Due to significant concerns with the project, in 2010 the management structure was changed and the City created the Mayor's Office of Citywide Emergency Communications ("OCEC") to manage the project.¹⁶

The primary contract for ECTP, for "systems integrator" "responsible for overall program activities," went to Hewlett-Packard Company ("HP").¹⁷ HP's selection was essentially by default, as only HP and iXP Corp ("iXP") bid on the project, and iXP dropped out of the bidding process after it was found that iXP had improperly provided expensive meals and entertainment to city executives who had input in the contract process.¹⁸ HP's performance was "widely criticized as inadequate" by both Gartner and the Administration,¹⁹ and when the project was separated into stages 1 and 2, the contract for stage 2 was awarded to Northrop Grumman Systems Corporation ("Northrop"). Recent reports indicate that Northrop "has not demonstrated a clear understanding of ECTP," though other reports note that they are "taking positive steps towards remediating performance issues."²⁰

¹⁴ Report at 17.

¹⁵ Id.

¹⁶ Report at 24.

¹⁷ Report at 19.

¹⁸ Report at 20.

¹⁹ Report at 22.

²⁰ Report at 28-29.

At this point, PSAC 1 is online and the objectives of ECTP stage 1 appear to have been completed. However, reports indicate stage 2 is “off track” to meet its deadlines.²¹ On May 18, 2014, Mayor de Blasio suspended all work on ECTP for 60 days while the program was reviewed. He ordered DOI, DoITT, and the Comptroller to review ECTP. The DOI issued an initial report in August 2014, and its final report in February 2015. Going forward, press reports indicate that ECTP is projected to go at least another \$100 million over budget and will not be completed until at least 2018.²²

IV. THE DOI REPORT

The DOI issued its full report on ECTP on February 6, 2015. The report contained a list of seven basic findings and seven associated recommendations, a number of which have already been implemented. These seven findings and recommendations are discussed below.

A. The Scope of the Program

At the outset, the DOI found that the initial ECTP team “lacked the resources and experience to manage a project of this size and scope” and failed to “develop a concrete set of well-defined objectives or a realistic projection of how long it would take to achieve such objectives.”²³ Instead of sufficiently planning the project at the outset, the City delegated its central planning responsibilities to its principal contractor, HP. In turn, HP appears to have defined the scope of the project in a series of “task orders” that evolved with the project, essentially resulting in a series of ad hoc decisions that regularly changed the scope of the

²¹ Report at 30.

²² Nikita Stewart, *New York City Calls Halt to Overhaul of 911 System*, N.Y. Times (May 19, 2014).

²³ Report at 32.

program.²⁴ By the time HP had finished its contract, there had been 29 task orders and approximately 550 task order amendments.²⁵

The DOI report focused on how HP had initially not met the minimum technical qualifications mandated by City rules, but had been granted the contract when the only other bidder for the contract dropped out of the bidding process.²⁶ The report also noted that throughout the ECTP project, the City set overly aggressive goals they had been warned would be difficult to meet. For example, staffers believed they could use the timeline for completing the 3-1-1 system as a guideline for ECTP, despite being warned that ECTP was far more complicated.²⁷ Other significant delays were caused by the flawed implementation of the VESTA telephony system, essentially a computerized call-taking system, which itself was delayed by many years.²⁸ As another example, when attempting to upgrade the City's radio communications between dispatchers and responders in the field, the DOI found that the City did not initially discover the need for remediation of the proposed radio remote sites due to "insufficient due diligence both during the original determination of scope and during the course of the project."²⁹

Regarding the massive budget overrun, this was caused largely by the shift from using an existing facility to creating a new facility for PSAC 2, which itself raised costs by hundreds of millions of dollars. The report also notes that the decision to hire Northrop for stage 2 of the ECTP project also increased costs by \$285 million dollars.³⁰

²⁴ See Report at 34-35.

²⁵ Report at 4.

²⁶ Report at 37-38.

²⁷ Report at 43.

²⁸ Report at 45-47.

²⁹ Report at 6.

³⁰ Report at 47.

The DOI recommended that going forward the ECTP planning should be more well-defined and carefully designed from the outset.³¹ DOI noted that under the new Administration, there has been a “significant recent effort to define the Program’s scope” and that there has been “a renewed effort to identify all relevant ECTP tasks and account for them in a master schedule, a process that had not previously been performed adequately.”³²

B. Ineffective Program Governance

The management structure of ECTP was flawed from the beginning. Though DoITT was meant to supervise the project, throughout its implementation FDNY and NYPD resisted their authority and DoITT “did not have a clear mandate to lead daily operations of the program,” and crucial differences between these agencies were not resolved.³³ Gartner recommended repeatedly that an independent 911 agency be established to help resolve these differences, but the City felt this was unnecessary.³⁴ The resulting management structure left ECTP “without an effective, central authority,” and the NYPD and FDNY essentially developed their systems “independently.”³⁵

The chief example of this lack of collaboration was the development of a unified Computer Assisted Dispatch (“CAD”) system. Though an original goal of ECTP was to unify the NYPD, FDNY, and EMS CAD systems, the agencies were allowed to build them independently.³⁶ As a result, more than 10 years into ECTP, FDNY still does not have a new CAD program and the three agencies continue to use independent CAD programs.³⁷ This disjointed effort cost more than a unified effort would have; for example, the City spent

³¹ Report at 57.

³² Id.

³³ Report at 58-60

³⁴ Report at 59

³⁵ Report at 61-62

³⁶ Report at 61, 63.

³⁷ Report at 63

approximately \$11 million on software to link NYPD’s system to FDNY and EMS’s system— costs that could have been avoided had the CAD efforts proceeded jointly.³⁸ More importantly, the lack of a unified system has “potentially life-threatening” consequences to responders’ abilities to respond quickly to emergencies.³⁹ At present, the NYPD’s updated CAD system is online, but FDNY’s is not scheduled to be completed for “several more years.”⁴⁰

The DOI report also cited several other inefficiencies caused by the lack of a unified management structure, such as an upgraded network infrastructure that included a “single physical network” (“SPN”) for all agencies.⁴¹ After two years of work on an SPN, the idea was abandoned and the agencies continue to work on separate networks.⁴² The City is also spending \$6-10 million to construct a separate radio room for the NYPD after initially planning to house the agencies’ radio rooms together.⁴³

The DOI report recommended that the City employ a “program manager” with the authority to make “final decisions in the best interest of the program.”⁴⁴ ECTP currently employs DoITT Commissioner Anne Roest in this role as the chairperson of a steering committee that is tasked with making final decisions on major ECTP issues.⁴⁵ This management structure appears to have been ineffective in the past at unifying the agencies affected by ECTP, and the DOI recommended that the Administration ensure that DoITT has its “unwavering support” to unify ECTP efforts.⁴⁶

C. Inadequate Contractor Management

³⁸ Report at 68

³⁹ Id.

⁴⁰ Id.

⁴¹ Report at 69

⁴² Report at 71

⁴³ Report at 71-72

⁴⁴ Report at 75

⁴⁵ Id.

⁴⁶ Id.

ECTP involves multiple layers of contractors and sub-contractors that has resulted in overlapping responsibilities that are unnecessary and costly. For example, though ECTP officials informed the Administration in 2011 that Northrop, its central contractor, was not needed to monitor the implementation of a radio project managed by Motorola, Northrop ultimately did oversee this project and cost the City \$1.4 million in unnecessary equipment markups.⁴⁷ In another example, the DOI found that sub-contractors who bid on a “deep archive storage solution” were “inflated by significant markups” that added up to a “combined total markup...as high as over 600%.⁴⁸” Though the City’s central contract with Northrop limited such markups for Northrop itself to 8%, that 8% cap apparently did not apply to subcontractors: “because there were multiple layers of contractors involved in this procurement, the eight percent limitation in the NGSC contract was effectively nullified.⁴⁹”

The DOI also found that ECTP used contractors to perform tasks that the City could have accomplished by using City employees. For example, ECTP outsourced management of the ECTP schedule to Northrop for Stage 2, which not only could have been accomplished by City employees, but also resulted in cutting the City out of the scheduling process: “City employees did not even have access to the computer program used to manage the schedule, and were required to consult with NGSC to obtain information about the schedule.⁵⁰”

The DOI recommended that the City should establish direct relationships with contractors and avoid subcontractors where possible. The DOI reported that DoITT has now reduced “both

⁴⁷ This is due to the fact that Northrop’s contract includes an 8% markup on equipment purchases that would not have been incurred had the City relied on its pre-existing contract with Motorola. Report at 76.

⁴⁸ Report at 80.

⁴⁹ Report at 80-81.

⁵⁰ Report at 81.

the total number and layers” of ECTP consultants,⁵¹ but it is unclear whether the City has had the opportunity to reduce its use of subcontractors.

D. Pressure to Sanitize ECTP Reports

OCEC has provided monthly reports to the Administration on ECTP progress, but the DOI found that OCEC management “exerted undue pressure on staff to make such changes in order to minimize the severity of problems or concerns reported to City Hall.⁵²” Though the DOI report indicated that the Administration denied such pressure existed, the DOI concluded through its investigation that such pressure existed and “undermines the credibility of the reporting and calls into question whether reports at times downplayed the severity of problems or concerns” about ECTP.⁵³ For example, the December 2013 report indicated the program’s “overall health and schedule” was “positive,” but after the change in administration this status was changed to “at risk” for the months of January through March of 2014, and was then changed to “off track” by May of 2014.⁵⁴ The DOI found that the “abrupt shift from positive to negative reports suggests that through the end of the prior Administration, senior officials failed to heed or to fully appreciate the impact of very real problems that would further delay the Program and ultimately need to be tackled.⁵⁵”

The DOI recommended that reports to the Administration be based on established, published criteria available to all staff.⁵⁶ The DOI also recommended that staff spend less time

⁵¹ Report at 83.

⁵² Report at 84.

⁵³ Report at 86.

⁵⁴ Report at 87

⁵⁵ Id.

⁵⁶ Id.

on reporting – staff indicated that it spent 20-25% of its time drafting reports⁵⁷ – and noted that the City is simplifying its reporting process.⁵⁸

E. The Failure to Appoint an Independent Integrity Monitor

The DOI report drew a sharp distinction between the “quality assurance” provided by Gartner and “independent validation and verification” of ECTP provided by the National Aeronautics and Space Administration (“NASA”) and what services would have been provided by an “integrity monitor.” As the DOI report indicates, Gartner and NASA assured that the products being provided met the goals and technical requirements of the program, but did not audit ECTP billing as an integrity monitor would have to ensure “independent oversight for fraud or corruption.⁵⁹” For a project on the scale of ECTP, the DOI found the lack of an integrity monitor to be “wholly irresponsible.⁶⁰”

The DOI recommended that ECTP employ an integrity monitor, and noted that the City has agreed to do so and begun selecting a candidate.⁶¹

F. Failure to Show Realistic Program Costs

The DOI found that ECTP “has not accounted for the total costs of the Program and has therefore understated those costs,⁶²” including “at least \$211.4 million in expenditures that were not reflected as costs of the Program.⁶³” Of this \$211.4 million, the DOI found that \$32.2 million came from pre-ECTP contracts that were used to help complete ECTP, \$135.2 million came from items billed to agencies that were used to complete ECTP, including costs to build CAD,

⁵⁷ Report at 83

⁵⁸ Report at 88

⁵⁹ Report at 89

⁶⁰ Report at 89

⁶¹ Report at 90

⁶² Id.

⁶³ Report at 91

and \$43.9 million came from contracts for essential ECTP components that were not classified as ECTP contracts.⁶⁴

The DOI report recommended that the City create clear criteria for what costs should be attributable to ECTP, and the report does not indicate whether the City has done so at this time.⁶⁵

G. A Lack of Standardized Recordkeeping

Due to the fragmented nature of the program's implementation, the DOI found that ECTP recordkeeping was fragmented and lacked consistent standards.⁶⁶ For example, ECTP records for various stages were housed by separate agencies using separate software.⁶⁷ Furthermore, the NYPD has no "document retention policy," resulting in the possible loss of "some unknown number of ECTP-related records."⁶⁸

The DOI recommended that ECTP should employ a universal recordkeeping system, and that the NYPD implement a document retention policy. The report does not indicate whether the City has taken steps to fulfill either recommendation.⁶⁹

V. RESPONSES TO THE DOI REPORT

News reports referred to the DOI report as "scathing"⁷⁰ and "blistering."⁷¹ In response, a former deputy mayor in the Bloomberg administration released an over 100-page document responding to the report insisting that ECTP's successes outweigh its problems, and deeming

⁶⁴ Report at 93-94

⁶⁵ See Report at 101

⁶⁶ See Report at 101-102

⁶⁷ Report at 101

⁶⁸ Report at 103-104

⁶⁹ See Id.

⁷⁰ Juan Gonazled, New York Daily News, City's 911 Upgrade Is Decade Behind Schedule And Nearly \$1 Billion Over Budget, A Scathing Report By The Department Of Investigation Finds, available at <http://www.nydailynews.com/new-york/911-overhaul-2b-disaster-report-article-1.2105176>

⁷¹ Sally Goldenberg, Capital New York, DeBlasio 911 Report Savages Bloomberg, Ex-Aide Returns Fire, February 6, 2015, available at <http://www.capitalnewyork.com/article/city-hall/2015/02/8561774/de-blasio-911-report-savages-bloomberg-ex-aide-returns-fire>

ECTP “a tremendous success.”⁷² The current Administration has referred to ECTP as “a plan gone very wrong,” but pledged to complete the project, asserting that “it’s going to get done and it’s going to improve our system.”⁷³

VI. ISSUES AND CONCERNS

The Committees are concerned with the level of mismanagement alleged in the DOI report, not only with how much longer this project has taken to complete and how much more it costs than its initial estimates, but also with whether this City will have an efficient, effective 9-1-1 system in the near future. The Committees are pleased to see that many of the DOI’s recommendations have already been implemented by the Administration, but are interested in discussing why the Administration has not implemented every recommendation.

The Committees want to be assured that a unified 9-1-1 system will be implemented and that responding agencies will communicate efficiently, to ensure that those in need of emergency response receive it as soon as possible. The Committees are interested in learning more about how the FDNY, NYPD, and EMS can work more closely together, and what steps if any the Council can take to assist in this effort. The Committees are also interested in discussing what steps have been taken to ensure proper accounting for ECTP’s costs and to ensure that such costs are transparent. Finally, the committees are interested in discussing the scope of the remaining elements of ECTP, and want to ensure that the City has properly planned the remaining elements of the project to avoid additional cost and time overruns.

⁷²Id.

⁷³ Jillian Jorgensen, New York Observer, *De Blasio Calls Bloomberg 911 Overhaul a ‘Plan Gone Very Wrong’*, published February 6, 2015, available at <http://observer.com/2015/02/de-blasio-calls-bloomberg-911-overhaul-a-plan-gone-very-wrong/>