DEPARTMENT OF INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS
TESTIMONY BEFORE THE CITY COUNCIL COMMITTEE ON TECHNOLOGY IN GOVERNMENT
OVERSIGHT HEARING ON CITYWIDE IT STRATEGY
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Good morning Chair Brewer and members of the City Council Committee on Technology in Government. My name is Paul Cosgrave, the Commissioner of the Department of Information Technology and Telecommunications, or DoITT, and New York City CIO. Thank you for the opportunity to testify today regarding the topic of Citywide IT Strategy, an initiative some of the finest minds across the Bloomberg Administration have devoted considerable energy toward developing over the past six months. Joining me today is Ron Bergmann, DoITT's First Deputy Commissioner. Ron's experience and insights have been invaluable to this process so far, and his guidance will be indispensable as we work to implement this plan.

Introduction: What Drives our Work?

DoITT's mission, as the technology agency for the City of New York, is sufficiently broad and varied. We coordinate citywide IT policy and planning (such as IT security and compliance, and portfolio management); design, build and maintain information systems that support City operations (i.e., the City's voice, data and wireless networks); provide public access to City information and services (through 3-1-1, *NYC.gov* and NYC TV); and serve in a regulatory capacity for City-administered franchises (cable television, telecommunications, and public pay telephones). Be it through 3-1-1 or data center housing, through NYC TV or network provisioning, DoITT has delivered on Mayor Bloomberg's strong belief in the use of technology to improve the performance of government—thereby enhancing the delivery of government services to the public.

Upon joining the Administration last June, the Mayor told me two things: 1) that I was inheriting one of the City's top-performing agencies; and 2) that my charge was to improve upon this performance by structuring the City's IT approach in such a way that these changes would be made permanent. Indeed, this ideal—that the work we do should have an impact beyond the current Administration—underscores all our efforts in developing a Citywide IT Strategy. Mayor Bloomberg is not simply concerned with driving the City's performance to success for the balance of his term; rather, he wants to transform government to an extent that these improvements will be irreversible, and substantial enough to continue to benefit New Yorkers for generations to come.

Today, I will describe how we have gone about taking the Mayor's charge from concept to realization. I will begin by detailing the significant IT strategic planning process we have recently completed, the new IT governance instituted to support it, our resultant agency re-organization, and the process by which we are now tailoring our overall strategic approach to best enable achievement of the City's core public service objectives.

If the overarching ideal behind the City's efforts has been to make permanent the changes to City government, then the recurring theme of our work, or the Mayor's business goals, have been equally clear. The way to ensure these changes have staying power is by leaving a legacy of **transparency**, **accountability** and **accessibility**—the fundamental drivers of a City government more open than ever before. "Transparency" is defined as providing internal and external stakeholders with a clear understanding of how and why decisions are made by City agencies; "accountability," as demonstrating how City agencies are fulfilling their obligations to internal and external stakeholders; and "accessibility," as continuing to improve and expand the channels, languages and media by which the City reaches our constituents, to more fully meet their preferences or specialized needs.

As integral as a Citywide IT Strategy will be to our future success, I must note here that its development is an outgrowth of, rather than the impetus behind, the recurring theme of transparency, accountability, and accessibility. Indeed, such examples are already vast among the City's achievements. It goes beyond the creation of 3-1-1 or expansion of *NYC.gov*—accomplishments in themselves—to initiatives that contribute to transparency, such as the My Neighborhood Statistics application on *NYC.gov*; to those aimed at accessibility and accountability, like the Enhanced 3-1-1 Initiative, ACCESS NYC, and Analytics; to those speaking to all three, as does creation and dissemination of Local Law 47 reports. Each of these, among countless others, serves to better the lives of New Yorkers not only by improving the functions of their government, but by optimizing delivery of government services to them.

Citywide IT Strategy (Phase I): IT Strategic Direction

The first step in codifying these improvements, in making sustainable this recurring theme, is what we call Phase I of the Citywide IT Strategy, or development of an "IT Strategic Direction." Hard copy synopses of that document are available to the Committee here today, and may be accessed anytime on *NYC.gov*.

Over a nine-week period throughout the fall of 2006, in conjunction with a technology research firm, key DoITT staff and I met with Mayor Bloomberg and the deputy mayors to establish the City's primary business goals for the next three years. The project team then conducted interviews and surveys with over 100 participants, including deputy mayors and representatives from 20 agencies. These meetings set the framework for two workshops attended by some 80 participants—Commissioners, senior agency staff, and agency CIOs alike. Key outcomes of these workshops included the development of a citywide IT vision, IT operating principles, IT imperatives, and the criteria needed to ensure that the City's technology projects are aligned with the Administration's goals and objectives.

New York City's IT vision, drawn from the workshops I just mentioned, is as follows:

> ***"NYC transforms the way we interact with residents, businesses, visitors and employees by leveraging technology to improve services and increase transparency, accountability and accessibility across all City agencies."***

In addition to the City's IT vision, a number of key citywide objectives came out of the workshops, among them the need to: improve the IT governance process; develop an Enterprise Architecture for data, applications and hardware; develop IT policies, standards and operations that promote shared services and reduce silos; and to examine citywide IT initiatives as a portfolio of projects that collectively support the City's business objectives.

Also from the workshops came agreed-upon ways by which we should measure our success in fulfilling these objectives. Accordingly, as DoITT works with agencies to achieve these objectives over the course of the next three years, success will be recognized when our constituents and employees can:

- easily conduct transactions with the City and access accurate City information anywhere, anytime;
- report that the City's processes are flexible and responsive to their changing needs;
- have confidence that the City is protecting their personal data and information to the greatest extent possible; and
- have increased visibility into the performance of City agencies.

IT Governance: A Better Model

Once conceived, integral to the development of a Citywide IT Strategic Direction was the establishment of an improved IT governance structure to support it. To that end, the City has strengthened the role of the Technology Steering Committee (TSC) as the designated decision-making authority for setting and overseeing the strategic direction of technology citywide. This past December, in fact, Mayor Bloomberg signed Executive Order 98 of 2006, officially re-constituting the TSC. Now, the Committee is charged to establish criteria for evaluating and approving cross-agency IT projects; monitor the progress of such projects; review and approve citywide IT policies, standards and exceptions; and communicate citywide IT directions and initiatives to stakeholders. The TSC's membership has been duly expanded as well. It now consists of deputy mayors with significant operational authority—it is chaired by Deputy Mayor Doctoroff—and includes representatives from DoITT, the Office of Management and Budget (OMB), and the Mayor's Office of Operations.

Three advisory councils, which I will describe in further detail, have been established under the TSC: an Executive CIO Council, a Portfolio Management Advisory Council, and an Enterprise Architecture Board. These councils, in turn, have been tasked with the following initiatives:

- improving the IT investment management governance process;
- developing an Enterprise Architecture for data, applications, and hardware;
- developing citywide IT policies and standards that support interoperability; and,
- managing all IT initiatives as one portfolio of projects that collectively support the City's business objectives.

The first of the TSC's advisory councils is ***The Executive CIO Council.*** Prior to the restructuring of IT governance as part of our current efforts, the CIO Council brought together some (though not all) agency CIOs, who met quarterly to discuss issues of mutual interest. This group has now been re-chartered, creating both an *Executive CIO Council*, which includes certain agency CIOs who co-chair citywide IT subcommittees on various issues; and the larger *All CIO Council*, whose membership includes agency CIOs and MIS Directors citywide.

Next among TSC advisory councils the ***Portfolio Management Advisory Council***, or PMAC, which supports the TSC's role in monitoring new and existing cross-agency projects. Its role is to assist the TSC by ensuring that agreed-upon resource allocations are being adhered to, and that the City is leveraging cross-agency opportunities appropriately.

Third is the ***Enterprise Architecture Board.*** I will take a moment here to explain what exactly is meant by "Enterprise Architecture," a fancy term sometimes bandied about without the benefit of definition. The City has many agencies that both execute and automate similar business processes, often in different environments, using different technologies, and without sufficient consideration for how the systems should interface or function in relation to each other—or as part of a larger business model. The purpose of the City's overall Enterprise Architecture, then, and the Enterprise Architecture Board in particular, is to address these issues, reduce redundancy, and leverage best-practices and common technical solutions citywide.

The City's five pension boards may serve as an example. Each board performs a similar function—managing pensions—yet they have five separate systems, and even five separate data centers, doing similar things. Using an enterprise architecture approach in this case, the data centers and systems could be consolidated. Each board would still perform its own essential functions, but they would all be leveraging a common approach, using common technologies—and achieving a significant economy of scale.

Agency Re-Organization: Supporting the New IT Governance

To successfully implement the new Citywide IT Strategy, better support our own mission, and better align with the new IT governance process, DoITT was reorganized late in 2006 into three distinct areas: Planning, Policy and Standards; Public Information Services; and Technology Services. The goal of this restructuring was to bring like agency functions together, and to establish clear organizational lines, as appropriate, between policy, operations and applications development. This approach will strengthen our ability to ensure the City has the robust systems and technical expertise necessary to effectively support agency business and goals.

The ***Planning Policy and Standards Division*** is charged with citywide IT planning, policy, and compliance, as well as fulfilling DoITT's regulatory role of franchise administration. Most significant in this area is DoITT's newly-enhanced role in the realm of IT security and privacy, about which I testified before this committee last December. DoITT has always managed IT security from an operational perspective, but we have recently assumed primary oversight of citywide IT security policy and auditing functions. We are also now responsible for developing new security procedures and standards to ensure the confidentiality, integrity, and controlled accessibility of electronic information processed by the City of New York.

Also notable here is creation of a Citywide IT Strategic/Portfolio Management function. Working closely with OMB, this role will help us ensure that citywide IT investments continue to be aligned with the City's core objectives: reducing crime, creating jobs, combating poverty, improving our schools, creating affordable housing, and advancing economic development in all five boroughs.

The ***Public Information Services Division*** includes the NYC Media Group as well as a combined 3-1-1/*NYC.gov* Operations unit. As the principal public-facing components of the agency, the intent of linking these groups is to exploit their common synergies, and to better focus on transforming them into models of customer-centric service delivery.

Finally, the ***Technology Services Division*** provides citywide IT services, with an emphasis on cross-agency applications, to maximize the use of common tools and methodologies.

Together, these Divisions support the three separate, complementary roles DoITT will play in executing the Citywide IT Strategy:

1) **Consulting** – providing subject matter expertise to agencies on an as-requested basis;
2) **Service Provision** – providing centralized IT services for the City that facilitate information data exchange as well as support the City's common IT infrastructure requirements; and
3) **Oversight** – participating in the oversight of City IT projects by developing and implementing simple and agile processes, enabling the City to increase standardization when appropriate, improve interoperability, and reduce costs.

Citywide IT Strategy (Phase II): Strategy to Action

Now that I have spoken at some length about the development of an IT Strategic Direction, and both the citywide governance and DoITT-specific restructuring flowing from it, I will describe where we are today.

Development of a Citywide IT Strategy is properly viewed not as an event, but a process; similarly, the IT Strategic Direction is not intended to be merely a "paper exercise," with little promise of fulfillment, but an rather an intelligent, practical plan for meaningful technological deployment. Indeed, it is now that our most difficult work begins.

The second and final phase of the Citywide IT Strategy, or what we are calling "Strategy to Action," is the most important part of any such high-minded exercise—effectively turning best-laid plans into best results.

Accordingly, Phase II of the Citywide IT Strategy, now underway and to be completed in June, consists first of tailoring the Citywide IT Strategic Direction to fit each of the City's key roles. These roles have been categorized into mission, mission-support, and supporting infrastructure, and may be defined as follows:

- "Mission" functions are those comprising the core objective of government: to serve its constituents. These areas consist of public safety; health, human and educational services; infrastructure and inspectional services; and quality-of-life services;
- "Mission support" speaks to those functions which any organization performs to run effectively, such as human resource and administrative management; financial management; procurement; and legal services; and
- "Supporting infrastructure" refers to the physical and technical infrastructure sustaining the City's operations and service delivery, such as facilities and equipment; telecom and networks; and IT services and security.

Our next step is to focus on those IT initiatives, either planned or underway, that should be pursued to enhance the consumer interface with government's "mission"-specific functions; and, further, on those practices which can transform City functions into a customer-centric experience.

The slide you are viewing now is an example of one such "strawman strategy"—or a framework showing how each piece fits together as a whole. We are now looking to add some "meat" to the frame, in the form of technology projects to be implemented across the enterprise. Permeating all of this, of course, is Mayor Bloomberg's unassailable commitment to superior customer service, evinced by the government transformation 3-1-1 has brought about.

From there, we will review these plans with each deputy mayor, as well as garner feedback from broad sets of stakeholders citywide. We invite the Technology in Government Committee, and other City Council members and staff wishing to participate, to be partners in this *dialogue*. The final result of Phase II will be a roadmap of timely, attainable technology initiatives to be pursued over the next three years, consistent with a citywide, customer-oriented approach to IT development and deployment—projects that improve transparency, accountability and accessibility for the City's residents, businesses, visitors and employees.

The 311 Customer Service Center provides a useful illustration of this goal. 3-1-1 today is a strong, enduring success—more than 45 million calls have been received to date, and we currently handle approximately 40,000 calls daily, with an average speed of answer of less than five seconds. An amazing 98% of those calls are answered in under 30 seconds, and callers can be serviced at any time of the day or night, in some 170 different languages.

Now, viewed in context of the Citywide IT Strategy, 3-1-1 is still remarkable—but it is also much more. As a key Mayoral initative, we will look at 3-1-1 and ask how it may be transformed from a call center to the nexus of a truly customer-centric city government. Nearly 80% of calls to 3-1-1 today are requests for information, provided either by our Call Center Representatives or the agencies to which they transfer callers. The balance of 3-1-1 calls is nearly all service requests (commonly known as complaints)—which are really expectations of City-provided assistance on the part of our customers.

By and large, the City does a fine job in servicing these needs, but we can do it still better, by instilling a customer-focused, rather than agency-focused, business model. So, during Phase II we will be exploring technologies that improve agency accountability in addressing service requests placed to 3-1-1; how we can provide closed-loops for service requests; the feasibility of developing a level of optional account-servicing for our customers; and how best to offer 3-1-1 via extended channels, such as a web portal or walk-in centers. These media should offer a holistic view into customers' interactions with the City, from the benefits for which they may be eligible, to taxes owed, to the permits for which they need to apply or renew for their businesses.

When introducing the themes of transparency, accountability and accessibility earlier in discussing Phase I, I mentioned that these were not necessarily new ideas, but ones which consistently rang true during the Mayor's tenure. So, too, do our plans as we proceed with Phase II. Once again, we are endeavoring to institutionalize what, in a way, we have always known: that engaging the broad participation of stakeholders is a hallmark of this Administration. With implementation of the Citywide IT Strategy, we are further improving upon that legacy.

In conclusion then, I would like to leave you with a few examples of this broad collaboration, after which I will be pleased to answer any questions you may have.

Citywide IT Initiatives: Casting a Wide, Collaborative Net

Last November, DoITT testified before this committee regarding the New York City Wireless Network, or NYCWiN, a next-generation, fully-interoperable, IP-based network, which will enhance emergency communications by linking first responder personnel on-scene with incident managers at remote sites through real-time data and video feeds. During non-emergency periods, NYCWiN will support and enhance a host of other public service applications used by agencies across the City, by enabling data transfer rates 50 times faster than what is used today. This network is now operational throughout lower Manhattan south of Canal Street, river-to-river, with the testing of multiple agency applications underway. These applications include license plate recognition cameras, intelligent transportation equipment, and automatic vehicle location (AVL) technologies. The Department of Environmental Protection has also begun implementing its automated meter reading (AMR) program on the network.

Participation of City agencies will be vital to leveraging this infrastructure going forward. So, in addition to the numerous City agencies we have already engaged, we are now in the process of conducting outreach to the balance of them, describing the network's capabilities and benefits. Next, we will be working with these agencies to develop high-level requirements and plans for strategic implementation of applications on NYCWiN, to further empower the City's mobile workforce.

Local Law 47, though pre-dating development of the Citywide IT Strategy, is clearly aligned with its themes. The law consists of two basic requirements. One is that DoITT issue periodic reports to the City Council Speaker, the Public Advocate, and Community Boards regarding data collected by the 311 Customer Service Center. The second is that we conduct quarterly meetings with the community boards to review the reports' content and format. As you know, the reports produced pursuant to this law are posted monthly to *NYC.gov*, and the dialogue we have with community board managers, over a number of meetings so far, continues to be relevant and productive. It is my firm belief that we ought certainly to be planning with and enabling our community boards to better do their jobs, as it will mean superior City service delivery overall.

We are also pleased to engage broad participation on both the Mayor's Telecommunications Policy Advisory Group, which we coordinate with the Economic Development Corporation (EDC) and the Department of Small Business Services, and the broadband feasibility study we are also conducting with EDC. Improving public access to current, emerging, and newly-developed technologies is, again, something that speaks directly to the goals of our Citywide IT Strategy, and the findings of these groups, as well as our continued work with the City Council in this regard, will help to inform our policy considerations going forward.

In sum, we have made a considerable investment in planning a comprehensive, ambitious, and viable Citywide IT Strategy, by involving a wide cross-section of stakeholders to formulate an IT direction best aligned with the City's business goals and objectives. That plan is now being driven to action by mapping the IT direction to the City's key functional areas; by setting an agenda of technology imperatives attainable over the next three years; and by building upon the principles and practices of transparency, accountability and accessibility so that they are embedded in the foundation of City government. We look to continue engaging the City Council and other elected officials in this process, and are confident the improvements made will endure throughout this Administration and beyond, to the benefit of New Yorkers and the agencies that serve them.

Thank you.