NYC Mayor's Office of Operations

Michael R. Bloomberg, Mayor
Stephen Goldsmith, Deputy Mayor for Operations

Maximizing Efficiency in NYC Government: A Plan to Consolidate and Modernize Back-Office Operations

Table of Contents

Introduction

In his 2010 State of the City speech, Mayor Michael R. Bloomberg asked, "How do we find new ways to stretch every dollar to the limit, making City government more highly efficient, and continuing to bring it into the 21st century?" As the first stage of a comprehensive initiative to turn ideas into efficiencies and save money in creative and previously unexamined ways, this report presents a concrete plan to save taxpayers $500 million over the next four years.

This efficiency plan focuses on five key areas:

- **Real Estate Management**: Creating an office real estate portfolio that is appropriately sized to City needs and instituting clear governance to better utilize space.
- **Payments and Revenue Collection:** Designing a more efficient and productive revenue collection process that is more accessible to City agencies and residents.
- **Fleet Operations:** Ensuring that the management, maintenance and fueling of the City's 26,000 vehicles are as cost-effective and efficient as possible.
- **Human Resources Management**: Designing HR processes responsible for supporting almost 200,000 City workers that are more cost-effective and responsive to customers.
- **Information Technology**: Making the City's IT infrastructure and development more efficient and a model for 21st century cities.

Across these key areas -- from revenue collection to fleet operations, from human resources to real estate management, and even within the City's IT infrastructure -- five common themes emerged that provide parameters for our current challenges and act as guideposts for our recommendations. Those themes are:

- **Operational Efficiency:** To increase the coordination and cooperation of agencies to maximize citywide operational efficiency and capitalize on economies of scale, many of the recommendations in this report will speak to a concept of "shared services" -- the centralization of administrative functions from several departments or agencies into a single, independent organization with the mission of providing services as efficiently and effectively as possible.
- **Accountability:** These recommendations address opportunities to clarify which agency will be held responsible for the effective provision of various services, and will identify specific metrics that will track how efficiently and cost-effectively those services are performed.
- **Governance:** Good governance involves the promulgation of a clear strategy for citywide operations, and these recommendations will eliminate instances where different agencies

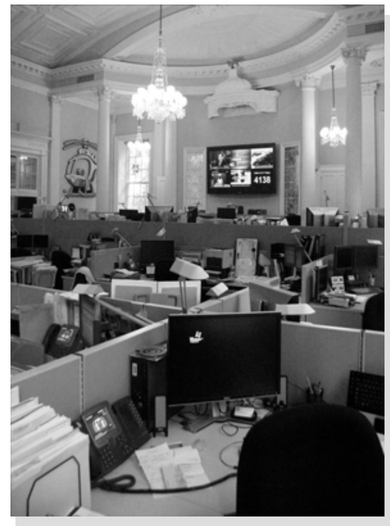
have developed different policies for reaching the same goal, and coordinate agency activity in a way that works best for the City as a whole.

- **Customer Service:** By refocusing all agencies towards a customer service mentality, the internal provision of necessary services will become more responsive to the needs of the agencies and workers that keep the City running, and ultimately to the City's external customers -- its residents, businesses and visitors.
- **Technology:** Leveraging cutting-edge IT resources and best practices will enable the implementation of many of this report's recommendations and make New York City a model for 21st century technological innovation.

There is ample good news here for New York City's customers. They will continue to get the services they depend on and deserve -- while we stretch every dollar of their taxes, and become a better functioning government in the process.

Real Estate Management

Overview



Real estate is an extremely valuable asset for the City of New York, and the City has a responsibility to maximize its real estate portfolio in terms of utilization and economic value. The City occupies over 300 million square feet of space in office buildings, warehouses, police precincts, schools and other buildings.

Within the City's portfolio, the most valuable real estate, in terms of annual cost, is office space. At least 75,000 City employees work in office space that together occupies over 19 million square feet in 250 buildings. This office space can be divided into leased and City-owned categories: 12.5 million square feet is leased at an annual expense cost of $365 million and 6.5 million square feet is City-owned at an annual expense cost of at least $70 million in operating expenses. This report details how the City views this important asset, how that view has evolved in recent years, and how it will continue to evolve in the future to enable more efficient and collaborative work environments that reduce the size, cost and energy consumption of office space.

Using office space more efficiently is an important cost-saving action that will also positively impact the provision of City services. For this reason, the City is committed to reducing its office portfolio by 1.2 million square feet and $36 million annually by the end of 2014. This sizable reduction in office space will save at least $4 million per year in energy costs and reduce the City's emissions significantly. Once these savings are achieved, the City will retain them and continue to right-size its space through enhanced real estate management practices.

Approach

To maximize the utilization of office space, the first step was to understand the characteristics of the current portfolio, including vacancy, layout, projected growth and market conditions. The second step was to identify priority spaces, those with the greatest opportunity for space and cost savings, including spaces with high vacancy and near-term lease expirations. And finally, the last step will be to execute the projects identified to achieve efficiency and continually analyze the portfolio to ensure we retain cost and space savings.

Current State

In 2009, the Mayor's Office conducted an office space utilization survey of 50 agencies and found that there were over 8,000 vacant workstations scattered throughout the City's office space. This represents approximately 11% of all desks and amounts to at least $13 million in annual costs.

The survey also revealed that much of the City's office portfolio was constructed many years ago under generous private office standards from the early 1990s, resulting in an average rentable square feet per employee (RSF/emp) of 290. In 2008, the City released the Space Guidelines for Baseline Programming and Planning ("Space Guidelines"), which introduced a modern, largely open plan layout for office space that reduces the amount of space allocated for individual employees, increases the use of teaming environments and conference rooms, and stresses function and collaboration over hierarchy. The City's new baseline standard, reflected in the Space Guidelines, starts at 176 RSF/emp.

City employment is expected to decline by approximately 1.75% between 2009 and 2013. Moreover, the decline in the commercial real estate market has offered an additional opportunity for cost savings through selective lease renegotiation. Therefore, the effort to reduce the City's office space is an appropriate right-sizing strategy.

In addition to confirming the City's potential to decrease its office space, we also discovered opportunities to enhance our real estate management policies, including the clarification of governance issues and creation of citywide performance indicators for space utilization. Implementation of these policies will ensure the portfolio remains right-sized as agencies' needs evolve, leases expire and the market changes. In summary, there are opportunities for streamlining the current office space portfolio, while improving the management of the City's real estate assets.

Current Challenges

- There is a significant number of vacant workstations (11%) spread across the portfolio in all five boroughs
- Most office space was constructed under older office space guidelines and averages 290 RSF per employee, significantly greater than the new baseline of 176
- There is not a single, permanent entity responsible for citywide, strategic real estate planning with fiscal and project timeline accountability
- The split of project management responsibility between the tenant agency and the Department of Citywide Administrative Services (DCAS) can hinder effective project implementation
- There is no standard process to gauge the customer experience for citywide real estate services provided to client agencies
- The City does not employ citywide performance metrics for space utilization or condition, or standardized reporting and monitoring
- There is a significant amount of office space inefficiently used for storage of paper files and surplus items

Recommendations

The following recommendations would improve the management and oversight of the City's real estate portfolio, while ensuring maximum efficiency in space usage.

1. **Reduce the City's office space by 1.2 million square feet and $36 million in annual expenses**

   The Mayor set a goal in his State of the City address to reduce the City's office space by 1.2 million square feet and $36 million in annual expenses. Since it would cost billions of dollars and many years to retrofit the City's entire current office portfolio to the new Space Guidelines, a more targeted approach is needed. Once initial data was compiled through surveys and verified through site visits, we classified and prioritized spaces based on their potential for size and cost savings. Spaces identified as high priority for the reduction strategy were those with one or more of the following characteristics:

   - Large number or high percentage of vacant desks
   - High rentable square footage per employee
   - Near-term lease expiration

   These characteristics together indicate a need for one or more of the following actions:

   - Consolidate additional staff into the space
   - Relinquish the space
   - Reconfigure the layout of the space

We also reached out to 50 agencies to identify opportunities within their portfolio. Together, the agencies proposed a total of 65 relocation, consolidation, and termination projects that could save $32.8 million annually in expenses (90% of that goal) and 1.28 million square feet (more than 100% of that goal). Fourteen of these projects have already been implemented, which together have achieved 13% of the cost savings goal and 12% of the space savings goal. Over 30 other projects are underway and at least 21 other proposed projects are being evaluated. Together, the projects already identified will account for 90% of the cost savings goal and will exceed the space savings goal.

The remaining $3.7 million in annual cost savings can be achieved by examining an additional four million square feet of expiring leases or leases with termination options through 2014. In total, the estimated net savings over the next four years is $50 million.

2. **Create a citywide, strategic space planning unit**
   Establish a new unit that ensures investment in real estate and serves the needs of the City in an efficient manner. This new oversight unit will monitor and benchmark space utilization through surveys and site visits and produce an annual office space report with recommendations to improve efficiency.

3. **Institute and publish citywide office space utilization performance indicators**
   Formulate public citywide metrics that monitor office space efficiency, including the rentable square footage per employee and vacancy, in order to hold agencies accountable for space usage and to identify trends and opportunities within the real estate portfolio.

4. **Create dashboards for agencies and oversight entities to access real estate information**
   Leverage a new workplace management system to provide facilities managers, other agency personnel and oversight entities with regular reports on office space. Users will have online access to data, including vacancies by floor and detailed information on occupancy, as well as query and reporting capabilities.

5. **Implement a system of accountability for, and formalize the assignment of, City-owned space**
   Establish an internal occupancy chargeback system for agencies that occupy City-owned space and Memorandums of Understanding that memorialize occupancy terms to clarify responsibilities.

6. **Develop a real estate customer service strategy**
   Create a roadmap to enhance customer service to client agencies that addresses governance and responsibilities, including project management accountability, protocols for project start and end, collection of customer feedback, and tracking and responding to space inquiries.

7. **Reduce storage in office spaces to improve operational efficiency**
   Develop storage management plans for each agency to set targets for disposal of unnecessary storage and records and transfer of records that must be retained off-site.

The following table illustrates the timing and impact of these recommendations.

	Preliminary Recommendations	Anticipated Impact						
		Improve Operational Efficiency	Improve Accountability	Leverage Technology	Improve Governance	Improve Customer Service	Potential Cost Savings	Date to be Completed
1	Reduce the City's office space by 1.2 million SF and $36 million in annual expenses	✓					$50M	06/2014
2	Create a citywide, strategic space planning unit	✓	✓	✓	✓		E	06/2011
3	Institute and publish citywide office space utilization performance indicators	✓	✓	✓			E	03/2011
4	Create dashboards for agencies and oversight entities to access real estate information	✓	✓	✓		✓	E	06/2011
5	Implement a system of accountability for, and formalize the assignment of, City-owned space	✓	✓		✓	✓	E	06/2012
6	Develop a real estate customer service strategy		✓	✓	✓	✓	E	06/2011
7	Reduce storage in office spaces to improve operational efficiency	✓		✓			E	06/2014

E = Efficiencies will be gained but are not currently quantifiable
"Potential Cost Savings" represents cumulative savings over the next four fiscal years

In addition to implementing the recommendations listed above, we believe there are efficiencies to be gained in other areas of real estate management. We recommend further analysis in the following areas:

- Leverage a real estate advisor to identify additional savings opportunities;
- Review all existing real estate-related information systems for value and scalability;
- Identify potential efficiencies in non-office real estate;
- Explore collaboration between DCAS, the Department of Design and Construction and the Economic Development Corporation; and
- Ensure optimal organization and allocation of staff in real estate roles.

Given the magnitude and value of office real estate, the one-time 10% reduction and improvement of management policies will ensure the City's real estate portfolio is efficiently sized to support the City's operations and will generate approximately $50 million in net savings by the end of 2014.

Payments and Revenue Collection

Overview

New York City generates, processes and collects billions of dollars in receivables each year in taxes, fines and service fees. In Fiscal Year 2009, the City collected $40.5 billion across more than 20 distinct revenue categories, such as business taxes, licensing fees and water charges. In addition to the high revenues collected each year, the City also carries a large amount of uncollected receivables on its books. Much of this debt is aged more than a decade and is unlikely to be collected. This accumulation of debt is a symptom of flaws in the current process across the receivables life cycle, and it illuminates the need to closely examine the way in which receivables are managed from inception to their ultimate collection or write-off.

The City's receivables life cycle consists of four main phases: Origination, Adjudication, Payments and Collections. Origination refers to the moment at which a receivable is created, through the issuance of a ticket, the assessment of a tax or the imposition of a service fee. The Adjudication stage grants those with open receivables due process to contest the assessed amount. Payments refers to the process by which fee obligations are fulfilled through a payment to the City, which may take place prior or subsequent to a receivable's due date. Finally, Collections comprises the remedial actions taken by the City after a receivable is delinquent and must be proactively pursued. Each of these phases has implications for the City's ability to efficiently complete the life cycle for each fee obligation it creates.

The receivables life cycle is a multi-agency endeavor, with many agencies responsible for discrete phases. In addition to the assessment of business and property taxes by the Department of Finance (DOF), at least 12 agencies issue fines for violations of parking rules, the Health Code, the Consumer Protection Law, and a host of quality-of-life regulations. More than 10 agencies originate fees for inspections, cleanups, repairs and other services. Five administrative tribunals conduct hearings, and at least four agencies engage in collections for a wide array of debt types. More than 25 agencies have distinct policies for the acceptance of payments. Without strong governance to ensure standard operating procedures, the implementation of leading practices and commitment to leveraging economies of scale, the City misses opportunities for cost savings and increased efficiency throughout the entire life cycle.

Approach

In order to develop an in-depth understanding of the challenges facing the City's receivables life cycle, we convened two weekly interagency working groups. One group focused on Origination, Adjudication and Collections, while the other confronted the complexities of citywide Payment practices. Working groups included participants from all phases of the life cycle and identified cross-agency challenges impacting the efficiency of end-to-end receivables management. We also collected and analyzed data that reflected both the cost and breadth of current practices and researched leading practices from other jurisdictions and private companies.

Current State

To comprehend the current state of New York City's receivables life cycle, it is useful to address each phase sequentially. The findings below delineate several challenges the working groups identified as critical to address in developing a vision for improvement.

Origination challenges center on both the data underlying receivables and the procedures employed to issue those receivables. The data used to identify names and addresses of recipients are decentralized across databases maintained by multiple agencies, leading to discrepancies among data provided for a single entity. Inaccuracies and the uncertain delivery of receivables to the proper respondent may lead to dismissed receivables, default hearings, an undermining of due process and the inability to enforce debt. The success of origination is integral to ensuring that a receivable will be collectible if it becomes delinquent.

Adjudication delays may hinder collections by aging receivables, and rendering them less collectible by the time they reach collections. High volumes of in-person hearings overload tribunals that do not have the capacity to consistently meet the demand for timely hearings. The City does not always leverage more efficient alternatives to in-person hearings, such as hearings by mail, web or phone. Often, respondents would admit guilt and pay a fine without a hearing if given the option, but many summonses require that a judge set a fine amount following a hearing.

Payment processes do not conform to a single citywide strategy and as a result each agency has independently made decisions and accommodations as necessary to accept payments from its customers. This decentralized decision-making makes it difficult to gain efficiencies by leveraging economies of scale, reusing existing infrastructure or utilizing citywide expertise in developing contracting practices in line with industry standards. For example, there is an opportunity to recognize payments more quickly by replacing manual processes with electronic tools. Non-uniform payment services create an inconsistent customer payment experience, and do not provide the financial and administrative benefits of a modern, integrated approach.

Collection of delinquent debt is heavily influenced by the proper execution of the preceding phases, but there are also obstacles within this final phase that must be overcome to achieve optimal results. The decentralization of receivable data across agency systems makes coordinated collections difficult, as it becomes challenging to generate a consolidated view of citywide debt or of all debts owed by a single entity. Enforcement for certain debt types is limited due to legal or operational hurdles. Management of contracted outside collection agencies (OCAs) could be enhanced with improved incentives and competition among vendors. Finally, the City does not employ standard procedures to write off uncollectible debt, resulting in inflated accounts receivable (A/R) figures that distract from truly collectible debt.

Current Challenges

Origination

- Inconsistencies in origination data can lead to uncollectible debt
- Originating agencies are not always held accountable for the success of receivables later in the life cycle

Adjudication

- Prolonged hearing procedures age receivables, making them more difficult to collect
- Tribunals experience high in-person volumes and do not fully leverage more efficient methods

Payments

- There is not a single entity charged with setting standard operating procedures and overseeing payments
- Industry leading payment practices are not widely used
- Customers have inconsistent payment experiences across the City

Collections

- A/R data are siloed across agency systems
- Enforcement for many debt types is statutorily limited or not effectively utilized where permitted
- Current use of outside collection agencies is not optimal
- There is not a standard write-off policy to ensure that the City properly disposes of aging receivables

Recommendations

The examination of leading practices from other jurisdictions as well as private companies offered guidance as to the direction the City will take to improve its management of receivables. On the payments front, many municipalities today rely on banks and other third-party vendors to provide state-of-the-art, modern payment technologies that minimize risk and leverage the banks' or vendors' existing infrastructures. Many private corporations have employed models that allow customers to pay "anytime and anywhere," enhancing collections by making payments easier for customers. Leading payment practices also capitalize more fully on electronic tools that enhance the efficiency and accuracy of payment processing. Many cities have tightened collections practices through data-sharing and cross-enforcement. Through data-sharing, some cities maintain a single view of all receivables from inception through collection or write-off. Through sophisticated cross-enforcement, other cities allow outstanding debt of any type to trigger holds on permit and license issuance.

The City has already begun to effect changes that will improve the efficiency of the receivables life cycle and the success of collections. The Police Department recently acquired and deployed 2,000 new handheld devices for ticket issuance to ensure a higher level of accuracy, confidence and collectability of parking summonses. DOF has implemented and continues to enhance a hearings-by-web system to reduce parking tribunal foot traffic and offer a more convenient customer experience. On the collections front, enforcement efforts like the Department of Transportation's "Take Back the Streets" program have successfully compelled payments by withholding permits.

To continue to improve the treatment of receivables throughout the end-to-end process, the City requires a suite of solutions that improve the efficiency, accountability and customer service orientation of each life cycle phase. Some improvements will reduce costs by introducing greater operational efficiency, while others will enhance collections through originating more enforceable receivables, adjudicating them faster and collecting them more effectively. The following recommendations offer a new vision for the receivables life cycle.

1. **Improve the certainty and accuracy of origination**
   The accuracy of the data used to originate receivables must be addressed on both a retroactive and prospective basis, and procedures employed for issuance must be improved. The City will improve the data used to originate receivables by conducting an assessment of owner and address data currently housed in multiple databases. We will also implement protocols to correct data errors upon discovery, preventing bad receivables from flowing through the life cycle. The deployment of more handheld devices will reduce current

dismissal and default rates. Finally, the City will develop metrics that hold originating agencies accountable for the success of receivables in later phases of the life cycle.

2. **Expedite the hearing process**
   A faster hearing process not only improves customer service, but also increases the probability of collecting fines while reducing the cost of hearings to the City. Three initiatives will achieve this goal. First, the City will provide more opportunities for online, mail-in and telephone hearings to allow respondents to participate in more efficient court methods. Second, the City will limit the number of summonses that require a court appearance to plead guilty as is currently the case with some Environmental Control Board, Department of Consumer Affairs and Taxi and Limousine Commission summonses. Third, the City will create and communicate clear guidelines to ensure timely conclusion to all court matters.

3. **Draft and enforce payment policies and centralize oversight at DOF**
   By centralizing the governance and decision-making for payments and cash management, the City will remove the burden of crafting individual payment solutions at the many agencies and shift the responsibility for both oversight and contracting to DOF. This will improve operational efficiency by removing contract authority for lockbox services, web-based payments engines, merchant card processing, cashiering systems, and other services from all other agencies. DOF will consolidate these needs and provide service-based solutions.

4. **Operate the City's cash collections and payments using state-of-the-art treasury management techniques and services available through well-capitalized commercial banks, their operating partners and other third party entities**
   The City will consider outsourcing payment processing to regulated experts such as banks or comparable vendors to improve the City's ability to leverage emerging payment channels, remove or lessen the risk and regulatory compliance obligations related to the payments process and create cost savings. Savings could be derived from a reduction in the internal resources required to build, deploy, maintain and update these systems across the City. As a result of this shift, customer service would improve through increased access to a variety of payment channels. Any outsourcing strategy would be accompanied by citywide standards for banking relationships and standard operating procedures for payment processing, and will be supported by the consolidated A/R practices described in Recommendation Six.

5. **Increase the use of electronic payment tools**
   For the remaining processes and infrastructure that will not be outsourced, the City will leverage technology to institute upgrades that improve cash flow and decrease risk. One such enhancement is the addition of bank or third party-owned secure safes at payment centers for faster recognition of cash flow. A second change, which will also expedite cash availability, is to implement the relatively new Check21 standards, which permit the conversion of paper checks to digital images and allow for immediate deposit in the City's bank accounts. A third and critical shift will be to reduce the City's reliance on lockboxes, through which checks are manually handled and processed for a fee, to online bill payment services, which trigger an electronic transfer to the City's accounts.

6. **Implement consolidated accounts receivable management**
   The City must transcend its decentralized management of A/R data by employing a consolidated solution. Consolidated A/R management will allow DOF to manage receivables from the moment a fee is determined through its collection or write-off. A consolidated A/R system maintained by DOF will also provide access to agencies currently without the resources or technology to track A/R in a sophisticated way. Employing a data-sharing strategy will facilitate a consolidated view of citywide debt and allow the City to move toward consolidated billing, the acceptance of multiple payments from a single entity, and more coordinated efforts against entities owing debt across agencies and debt types.

7. **Pursue enhanced enforcement against delinquent debtors**
   It is critical that the City employ effective enforcement mechanisms for debtors not compelled to pay following preliminary calls and letters. Enforcement must be enhanced through several means, including: 1) Reporting debtors to credit reporting bureaus; 2) expanding the withholding of permits and licenses for applicants with unpaid City debt; and 3) proposing legislation to expand the lien sale to include additional property-based debt types.

8. **Implement more strategic use of outside collection agencies**
   The way in which OCAs are utilized can have a significant impact on delinquent debt. The City will improve its relationship with OCAs in several ways. First, the City will contract with multiple vendors, creating higher levels of competition and greater incentive to collect. Second, commission rates will be structured to reward for optimal collections. Third, all contracts will be centrally managed by DOF.

9. **Implement a citywide write-off policy**
   Working with the Comptroller, we will implement a coordinated approach to writing off debt that cannot be collected. This policy will consist of a retroactive strategy for aged debt currently on the books as well as a prospective policy to prevent the accumulation of large amounts of new, uncollectible debt. The City will send appropriate segments of aging debt to OCAs for a last attempt at collection then write off of accounts considered fully uncollectible. The City will also establish clear criteria for the write-off of all debt types moving forward. Finally, the City will evaluate the benefits of selling debt before or after write-off.

The following table illustrates the timing and impact of these recommendations.

	Preliminary Recommendations	Anticipated Impact						
		Improve Operational Efficiency	Improve Accountability	Leverage Technology	Improve Governance	Improve Customer Service	Potential Cost Savings	Date to be Completed
1	Improve the certainty and accuracy of origination		✓	✓		✓	$15-18M	12/2013
2	Expedite the hearing process	✓	✓	✓		✓	$1-3M	12/2012
3	Draft and enforce payment policies and centralize oversight at DOF	✓	✓		✓		$18-35M	12/2011
4	Operate payments using state-of-the-art treasury management techniques and services available through commercial banks/third parties	✓	✓	✓	✓		$18-25M	12/2012
5	Increase the use of electronic payment tools	✓	✓	✓		✓	$1M	12/2012
6	Implement consolidated accounts receivable management	✓		✓			E	12/2012
7	Pursue enhanced enforcement against delinquent debtors	✓	✓				$100M	12/2013
8	Implement more strategic use of outside collection agencies	✓					E	06/2012
9	Implement a citywide write-off policy		✓		✓		E	06/2011

E = Efficiencies will be gained but are not currently quantifiable
"Potential Cost Savings" represents cumulative savings over the next four fiscal years

The implementation of these recommendations could save the City $25-$35 million per year in addition to increasing collections by more than $100 million. Some of the recommendations will introduce increased savings which, although not presently measurable, will provide benefits to the City of a reengineered and more efficient receivables life cycle. Additionally, the above recommendations will serve New Yorkers by offering more customer-friendly services and ensuring that customers know how much they owe, how to dispute it, and how to pay it through a variety of convenient channels.

Fleet Operations

Overview

The City of New York manages a fleet of over 26,000 vehicles and other mobile equipment, a size unsurpassed by any other municipality in the country. While the City's fleet operations have attracted highly qualified managers, mechanics and trades people, they have also become increasingly decentralized, with very little citywide coordination or guidance, resulting in significant management challenges.

Approach

Based on an exhaustive survey of agency fleet data and follow-up interviews with individual agencies, we assessed the cost-effectiveness and efficiency of fleet operations, including vehicle maintenance, fueling and administration. In addition, we hosted two weekly working group meetings with fleet managers, one for fleet maintenance and one for vehicle fueling, to further understand how they addressed specific management issues like performance metrics, staffing, warranty management, parts management, vendor contracts, fuel tracking and other logistics.

Current State

We estimate that the City spends approximately $667 million annually on fleet operations – this includes $283 million on maintenance, $120 million for fuel, $14 million for fuel tank compliance, maintenance and spill remediation, and approximately $250 million for vehicle and equipment procurement. Maintenance expenditures consist of salary, which includes overtime, differential and fringe benefits; overhead, which includes building maintenance and rent; and vendor expenditures, which include parts and maintenance services. Salary alone represents 70% of the City's expenditures for maintenance.

Our assessment also found a high degree of decentralization across the City's fleet operations. While a small percentage of the City's fleet is maintained by outside vendors, the majority of the fleet is maintained in-house: nine agencies manage 125 in-house vehicle maintenance shops, with over 1,700 staff and over 300 vendor contracts for parts and maintenance services. In addition, eight City agencies manage over 400 fueling locations. The City's decentralized approach to fleet management, as well as its high level of expenditures on fleet operations, provides significant opportunities for cost savings and structural improvements.

Current Challenges

- There is limited attention to customer service and streamlined processes for fleet administration
- Agencies use diverse and inconsistent performance metrics to track fleet operations
- There is limited transparency and accountability for the cost of fleet operations
- Redundant and decentralized resources exist across agencies (e.g. fueling, maintenance, and technology)
- Agency fleets are not optimally right-sized
- There are unclear or absent citywide standard operating procedures for maintenance, parts management and fueling
- The City maintains duplicative and outdated systems for vehicle tracking

To provide additional context for our analysis, we conducted research to identify best practices in fleet maintenance both in private industry and in other large cities and states. Over the past decade, there has been a considerable trend towards downsizing vehicle fleets, reducing overhead, and consolidating operations to achieve cost savings and improve overall management. Demonstrated best practices as well as interviews with other government fleet managers show that cities and businesses across the country are finding ways to improve the way they deliver and manage fleet services. Strategically implementing best practices consistently across all agencies will allow the City to strengthen this critical function and provide measurable cost savings.

The City does not have to look far to see the positive results of implementing best practices. Several agencies have achieved cost savings and improvements in performance by implementing best practices and leveraging outside vendors for vehicle maintenance to drive down costs and foster competition in the municipal marketplace. Several agency managers have also been recognized nationally for their innovation and leadership in certain aspects of fleet management. In addition, the City has taken aggressive steps to reduce fleet size and emissions. In January 2009, the Mayor issued a mandate to all City agencies, requiring a 10% cut in the non-emergency passenger fleet, which resulted in the sale of over 700 vehicles, a one-time savings of $20 million and $2 million in annual savings. The City has also been working towards a greener fleet, as part of the City's aggressive PlaNYC goal to reduce greenhouse gas emissions from City government by 30% by 2017.

Recommendations

The following recommendations for the City's fleet operations will increase efficiency by applying best practices consistently across all agencies and result in significant cost savings over time. In order to successfully implement these steps, the City will need to maintain a strong partnership with union leaders.

1. **Improve fleet administration**

   In order to improve effective management of the City's fleet, the Department of Citywide Administrative Services (DCAS), the Mayor's Office of Operations and the Office of Management and Budget (OMB) will create the central Committee for Fleet Management (CFM), which will be responsible for developing and codifying citywide fleet policies and standard operating procedures. To improve customer service for central fleet services, the City will streamline and automate the many steps involved in fleet reporting, procurement and relinquishment. The City will also issue a request for proposals (RFP) to explore privatizing the DCAS auto auction in order to leverage nationwide buying power and online services of well-established auto retailers.

2. **Standardize performance metrics**

   Standardizing the use of performance metrics has the potential to help agencies achieve continuous improvement in their operations. Ongoing monitoring of standard performance metrics throughout all stages of fleet operations will help agency managers easily identify trends in their agency's vehicle use, reduce downtime, potentially decrease the total number of spare vehicles required for operations, identify areas of maintenance that are no longer cost-effective to be completed in-house, reduce fuel use, and avoid expensive breakdowns by providing preventative maintenance on a regular basis. In addition, standard performance metrics will improve accountability and transparency of fleet operations.

3. **Assess opportunities to consolidate, standardize and/or outsource maintenance services and resources across agencies**

   There are significant opportunities to increase operational efficiency and improve customer service by consolidating agency maintenance shops, utilizing a more centralized agency shop model, and/or transferring certain types of repair work to outside vendors.

   While many agencies already share resources on an informal basis, the formalization and expansion of these practices will reduce redundant services while optimizing existing resources. Potential opportunities to share resources and reduce redundancy include the consolidation of maintenance functions for certain types of vehicles in select agency shops, the consolidation of existing contracts into citywide requirements contracts, and implementation of a citywide intranet site to identify fleet resources that could be leveraged by multiple agencies. In order to implement any type of shared fleet services, the City would first need to establish an inter-agency charge-back system as well as to clearly define service level agreements. In addition, the City should develop guidance to achieve appropriate staffing levels at agency maintenance shops based on their fleet composition, and to achieve the appropriate diversity of staff positions for each shop.

Passenger vehicles, which comprise over 50% of the City's fleet, are particularly suited for maintenance at the many commercial repair shops operating in New York City because a competitive market already exists for this type of vehicle. By effectively introducing a higher level of competition within the City for the provision of maintenance services, agencies are encouraged to innovate and improve operations. Utilizing private vendors more extensively can instill this sense of competition within each agency.

As a first step towards evaluating these options, the City will engage a consultant to further assess these potential opportunities to improve operational efficiency across agencies.

4. **Identify opportunities to decrease fleet size and/or average age of the fleet**

   Two clear steps to decrease the cost of operating a fleet are to reduce the number of vehicles in the fleet, and to decrease the average age of the fleet. Effective mechanisms to achieve these steps include identifying opportunities to pool passenger vehicles through car-share models, identifying and eliminating underutilized vehicles, and leasing instead of purchasing vehicles. As a first step, the City will monitor the outcome of the Department of Transportation's car-sharing pilot, develop a citywide policy for spare vehicles, further analyze leasing options, and identify underutilized vehicles by December 31, 2010.

5. **Improve parts management**

   Many agencies spend significant resources managing contracts to procure parts, tracking and delivering parts across their shops, and storing large inventories of parts. In order to minimize these costs and gain operational efficiencies, agencies should implement best practices for parts management and explore opportunities to leverage the New York City Police Department's upcoming contract for parts management. We expect that outsourcing this function will allow agencies to leverage nationwide buying power to negotiate cheaper prices, decrease vehicle out-of-service rates, and increase the availability of specialty parts.

6. **Assess opportunities to eliminate fuel tanks and consolidate fueling operations**
   Our analysis of the City's in-house fuel sites indicates that there are opportunities for efficiency gains and cost savings by reducing the number of City-owned vehicle fuel tanks. Agencies currently operate more than 550 in-house tanks, including more than 150 unleaded tanks, at more than 400 sites, many of which are in close proximity to other City-owned tanks and to commercial fueling stations. Since the City incurs significant costs associated with the operation of fuel tanks, reducing the number of in-house unleaded tanks by 20% in the near future as well as reducing the number of diesel tanks over time will produce significant cost savings.

7. **Leverage technology by implementing modern fleet and fuel tracking systems**
   The City's current fleet tracking database, MCMS, is a green screen legacy system that is significantly outdated and cumbersome to use. Converting to a web-based modern fleet tracking system with built-in industry best practices, as well as better reporting and workflow capabilities, will improve transparency and accessibility of fleet data and facilitate tracking of key performance metrics. In addition, a modern system will also eliminate redundant systems currently used to track procurement and relinquishment activities. By utilizing a similar approach towards fueling operations, the City will be able to decrease administrative resources devoted to fuel tracking and benefit from reliable and real-time data on fuel usage.

The following table illustrates the timing and impact of these recommendations.

	Preliminary Recommendations	Anticipated Impact						
		Improve Operational Efficiency	Improve Accountability	Leverage Technology	Improve Governance	Improve Customer Service	**Potential Cost Savings**	**Date to be Completed**
1	Improve fleet administration	✓	✓	✓	✓	✓	$5M	06/2012
2	Standardize performance metrics	✓	✓	✓	✓		$10M	12/2012
3	Assess opportunities to consolidate, standardize and/or outsource maintenance services and resources across agencies	✓		✓		✓	$27M	06/2013
4	Identify opportunities to decrease fleet size and/or average age of fleet	✓		✓			$6M	06/2012
5	Improve parts management	✓	✓	✓	✓	✓	$8M	06/2013
6	Assess opportunities to eliminate fuel tanks and consolidate fueling operations	✓			✓		$5M	06/2013
7	Leverage technology by implementing modern fleet and fuel tracking systems	✓	✓	✓	✓	✓	$10M	06/2013

“Potential Cost Savings” represents cumulative savings over the next four fiscal years

Implementation of these recommendations will guide the City toward an efficient, 21st century fleet operation. By utilizing the resources of City and commercial maintenance shops and fueling sites to their optimal capacity, the City will provide more efficient fleet services at lower cost to the taxpayers. By implementing all of these measures, the City will save up to $71 million over the next four years.

Human Resources Management

Overview

The City of New York is one of the world's largest employers, with a workforce size surpassing those of major global companies. While human resources ("HR") staff are deeply committed to supporting the City's workforce, they are highly decentralized, which has precluded a coordinated, citywide HR strategy.

Approach

Through an extensive survey, numerous working group meetings, and multiple structured interviews, we assessed the efficiency of the City's HR operations at a sample of agencies. Agencies were selected to represent a broad spectrum of the City's diverse workforce needs. In addition, we researched leading HR practices in both the public and private sectors.

Current State

We estimate that the City will spend approximately $410 million on HR in Fiscal Year 2010. The City currently employs over 4,600 HR professionals, resulting in an employee-to-HR staff ratio of 38:1. This ratio reflects the current decentralization as organizations similar to the City average an employee-to-HR staff ratio of 95:1. The City also maintains several hundred agency-specific HR legacy systems, many of which could be replaced with the City's existing enterprise system.

Our study revealed a high degree of decentralization; each agency has its own HR staff and additional HR services are provided by certain oversight agencies – the Department of Citywide Administrative Services (DCAS), the Financial Information Services Agency (FISA), the Office of Labor Relations (OLR) and the Office of Payroll Administration (OPA). Each agency's HR professionals are responsible for their own workforce programs and perform agency-specific recruiting, personnel management, labor and employee relations, training, benefits administration, and timekeeping and payroll activities. Based on our research, we estimate that over 70% of the HR work being performed today is transactional in nature. By redirecting time spent on transactional work there will be significant opportunities for cost savings and the development of workforce strategy and talent management programs.

Current Challenges

- Decentralized HR operations lack strong governance
- Limited use of performance metrics and enforceable Service Level Agreements
- Redundant software systems and missed opportunities for leveraging existing technology
- Emphasis on transactional work leaves limited resources for strategic workforce developments
- Due to the *Long Beach* court decision, the City must dramatically reduce the number of provisional employees and develop new civil service exams

The City has already made strides toward implementing best practices. The City owns licenses for PeopleSoft, the leading HR management software tool, which has been configured based on the City's requirements and is referred to as the New York City Automated Personnel System (NYCAPS). In addition, self-service technology has enabled employees to easily update some personal, health benefits and tax information. Implementation has also begun on HR Shared Services by consolidating some HR processing functions and health benefit enrollments at NYCAPS Central, which is overseen by DCAS.

Recommendations

The following improvements to the City's HR operations will increase efficiency, create significant cost savings and enhance internal customer service.

1. **Establish governance and analytics to implement accountability, policy and strategy**
   In order to implement the strategic direction and policy for HR, the City will establish central accountability and build an HR analytics capability. To do this, the City will adopt an HR governance and service delivery model that consists of four important, interconnected roles:
   - *Chief HR Officer and HR Advisory Board*– A newly appointed Chief HR Officer will have direct oversight of Service Level Agreement enforcement, HR analytics, and HR transformation program management. The Chief HR Officer will be supported by an HR Advisory Board consisting of DCAS, the Mayor's Office of Operations, OLR and OMB.
   - *HR Shared Services Center* – A comprehensive shared services center will provide HR call center services through the expansion of the 311 Call Center and an HR transactions processing center that will include, expand, and rebrand the capabilities delivered by NYCAPS Central today.

- *Agency HR* – Smaller, more strategic HR offices within each agency will focus on workforce development (e.g. retention and succession planning) and employee-facing transactions (e.g. recruiting decisions, grievances).
- *Centers of Expertise* – The City's existing HR oversight entities (DCAS, FISA, OLR and OPA) will focus on the strategy, design, process and outcomes of citywide HR programs such as civil service, labor relations, training, HR systems, and payroll. These Centers of Expertise will no longer focus on transactional work, which will move to the HR Shared Services Center.

Analytics will include standard HR reports, dashboards and tools to monitor the cost of HR processes and implement predictive workforce metrics.

2. **Evaluate existing HR projects for potential acceleration or termination**
Through agency interviews we identified a number of different citywide and agency-specific HR initiatives that are currently in progress, including eHire, health benefits consolidation at NYCAPS Central, and document management policy reviews. The City will inventory all such projects to determine if any are redundant, lack a strong business case or merit acceleration. A project management team will conduct continual reviews of the initiatives to measure progress and track results against established benchmarks.

3. **Expand and rebrand HR Shared Services**
To deliver HR services efficiently and with a strong customer service focus, the City will implement Shared Services for many HR transactions and inquiries. The City will optimize existing resources by expanding the 311 Call Center to include an HR Call Center to handle employee and agency HR inquiries. In addition, an HR Processing Center will be built by expanding and rebranding NYCAPS Central into a citywide, full-service processing center reporting to the Chief HR Officer.

Various HR processes will be moved from agency HR departments into the HR Shared Services Center. In phase one of this implementation, transactional aspects of personnel management, benefits, leaves and separations will move from the agencies to the HR Shared Services Center. Phase two will move payroll, timekeeping and training. The last phase will move aspects of recruiting and performance management. The City will also build a single, comprehensive web portal for HR policies and benefits information that will enable employees and managers to conduct work through self-service.

4. **Mobilize and restructure Centers of Expertise to focus on strategy and design**
   Existing Centers of Expertise are currently responsible for strategy and design of HR policies and benefits but are burdened with a heavy focus on transaction processing. The City will re-focus each Center of Expertise on strategy and design activities by moving transaction processing to the HR Shared Services Center. The Centers of Expertise will have the following features:
   - *DCAS* – DCAS has multiple HR responsibilities, including civil service administration and citywide training. HR restructuring will occur at the Citywide Training Center, whose focus will shift to strategy and design for learning programs and away from transactional work.
   - *FISA* – FISA will continue to serve as the technical owner for NYCAPS while expanding its focus to the development and maintenance of all citywide and agency specific HR systems. FISA's expanded role will include serving as the technical owner of CityTime once the system is fully implemented. While traditionally FISA and OPA have served as the technical and business owners of HR systems respectively, these roles have blurred with CityTime, in which OPA has served as both the technical and business owner.
   - *OPA* – OPA will focus on the management of payroll rules and programs and will continue to serve as the business owner of payroll-related citywide HR systems.
   - *OLR* – OLR will focus on strategy and design for labor relations, health benefits, long-term care and special labor programs (including Deferred Compensation, IRAs, and the Management Benefits Fund). In addition, OLR will assume strategy and design for savings bonds, transit check and college savings programs from OPA. The transactional aspects of retiree health benefits, long-term care and special labor programs will move from OLR to the HR Shared Services Center.

5. **Conduct study to modernize civil service**
   In response to the 2007 *Long Beach* court decision, the City adopted a five year plan to expand testing and dramatically reduce the number of provisional employees. The City will conduct a study of potential policy and legislative changes that may be pursued to modernize the civil service process and allow for more flexible hiring practices.

All recommendations will be completed within three years. We estimate that over four years the recommendations will result in HR operational savings of $107 million.

The following table illustrates the timing and impact of these recommendations.

	Preliminary Recommendations	Anticipated Impact						
		Improve Operational Efficiency	Improve Accountability	Leverage Technology	Improve Governance	Improve Customer Service	Potential Cost Savings	Date to be Completed
1	Establish governance and analytics to implement accountability, policy and strategy	✓	✓	✓	✓	✓	$22M	06/2013
2	Evaluate existing HR projects for potential acceleration or termination	✓		✓	✓	✓	E	06/2013
3	Expand and rebrand HR Shared Services	✓	✓	✓	✓	✓	$73M	06/2013
4	Mobilize and restructure Centers of Expertise to focus on strategy and design	✓	✓	✓	✓	✓	$12M	06/2011
5	Conduct study to modernize civil service	✓		✓	✓	✓	E	10/2010

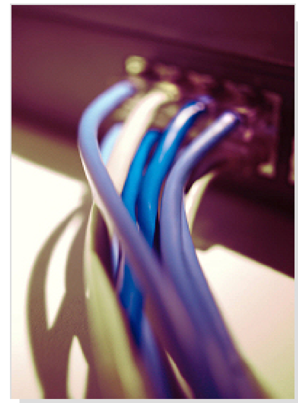
E = Efficiencies will be gained but are not currently quantifiable
"Potential Cost Savings" represents cumulative savings over the next four fiscal years

Implementation of these recommendations will provide the City with a more efficient HR structure while enabling the development of its human capital. By shifting transactional work to HR Shared Services, agency HR and Centers of Expertise will now focus on talent management, strategy and program design to leverage the diverse skills of the City's workforce.

Information Technology

Overview

To modernize New York City government and "stretch every dollar to the limit," the power of technology must be maximized to anchor the Mayor's cost savings and efficiency initiatives. Citywide technology solutions will enable agencies to focus on their core competencies and operate more efficiently. In addition, the City will optimize its existing information technology (IT) assets—the people, hardware, infrastructure and applications at the heart of IT service delivery—and drive business innovation by applying new cost-sharing models and management standards to enterprise IT services.



Operational savings are particularly attainable by applying consistent and strategic IT management standards, consolidating and upgrading the City's IT infrastructure, standardizing development platforms for IT solutions and business capabilities, and increasing the utilization of enterprise contracts and licensing agreements. By focusing on these key areas, the City will achieve increased operational efficiencies and deliver exceptional customer service through greater sharing of costs, information, and services.

Three of these key IT solution areas are:

1. **IT Asset Consolidation** of data centers and networks to achieve new cost savings and operational efficiencies
2. **Vendor and Fiscal Management** policies to ensure sound practices that support future infrastructure and service needs
3. **Service Delivery** to maximize the breadth and depth of technology offerings to customers and provide excellent customer service

Approach

To achieve these goals, we began by conducting an in-depth review of the operational capabilities of the City's technology agency: the Department of Information Technology and Telecommunications (DoITT). To complete our analysis, we engaged DoITT staff at every level of its operational divisions, as well as other City agency representatives and research organizations. In conjunction with the Citywide IT Infrastructure Services (CITIServ) program, we also conducted a survey of IT assets across 49 City agencies to begin compiling a citywide IT asset inventory. This inventory will help the City identify opportunities for further efficiencies, consolidation, and modernization. Finally, we reviewed the recommendations from the DoITT 30-Day Report to the Mayor, entitled “Enabling the Connected City.”

Current State

The City currently operates in a large and fragmented IT environment, consisting of more than 80 data centers that support approximately 3,000 applications in more than 50 different locations. Over two-thirds of the data center footprints are small (less than 1,000 square feet) and are currently straining space and power boundaries due in large part to high-density servers, which generate substantial heat and thus require increased cooling capacity. Since each agency typically makes independent decisions concerning its data center, there is a significant opportunity to centralize the City’s IT operation, leading to better investments, effective standards, and the reduction of infrastructure and maintenance costs.

Furthermore, a vast array of technical assets such as hardware, software, contracts, and applications are tracked independently by City agencies, with no central inventorying system to leverage economies of scale. DoITT’s recent review of its mainframe software inventory, coupled with the IT asset survey, has developed the foundation for a citywide IT asset inventory.

Vendor management presents additional opportunities for improvement. Standardizing vendor management policies, procedures, performance and information sharing within and across City agencies will streamline management and enhance accountability. Opportunities also exist to improve fiscal management practices by maximizing economies of scale from enterprise contracts and licensing agreements.

Agencies also have difficulty navigating DoITT's extensive catalog of service offerings. The existence of multiple points of contact and project leads further frustrate agency customers who do not know how to best engage DoITT in its own internal technology projects. To that end, DoITT is currently centralizing communications and project management functions so agencies can easily navigate its service offerings and easily find the appropriate IT solution for their business needs. The City’s IT service delivery function is working to proactively identify opportunities for enterprise solutions, so it can operate more effectively and reduce the current challenges that agencies face when doing business with DoITT.

DoITT can reduce burdensome costs for agencies by developing shared business capabilities to reach its customers in new and innovative ways. While agencies are increasingly interested in creating mobile applications to better engage their customers, developing these applications can cost up to $120,000 per target device platform. DoITT has received development requests from a number of agencies, including the Department of Health and Mental Hygiene and the Department of Parks and Recreation for example, but the high cost associated with developing these applications on an ad hoc basis presented challenges to implementation. Centralizing and standardizing citywide solutions will ensure that business capabilities are consistently and efficiently obtained and built.

Current Challenges

- The City is not leveraging the benefits derived from a centrally managed IT infrastructure
- The inventory of all citywide IT assets is outdated and inaccurate, which leads to duplicative efforts across agencies and inefficiencies with obtaining IT goods and services
- The City's fragmented IT infrastructure causes unnecessarily high maintenance costs and inefficient operational management
- Evolving high-bandwidth business needs and applications are overloading the City's existing network backbone infrastructure
- Vendor management processes and procedures are inconsistent citywide
- There are still unrealized opportunities to achieve citywide savings by leveraging enterprise contracts and licensing agreements
- The management of citywide telecommunications services has made it challenging to monitor the utilization of those services and ensure billing is aligned with accurate usage
- Inconsistent structures and standards for project management within DoITT have hindered information sharing with agency partners and created challenges for agencies to access DoITT's services
- Mobile application development is currently cost-prohibitive for City agencies

Recommendations
The following recommendations for the City's IT operations will increase efficiency by applying policies and standards focused on cost savings and avoidance through the consolidation, upgrade, inventory, and strategic management of the City's core IT infrastructure assets.

The City will streamline and transform technology delivery into a singular core business process citywide. DoITT will consolidate and fortify the provision of IT infrastructure, assess economies of scale and focus on strategic technology service delivery.

This model requires that client agencies be fully engaged in a governance partnership that ensures greater access to information regarding these services as they are leveraged citywide. The following recommendations outline how the City can select and adopt industry best practices to achieve these goals.

1. **Formalize DoITT's role as a provider of consolidated IT infrastructure as well as citywide IT shared services**
   A Mayoral executive order will be issued to formalize DoITT's role as the citywide enforcer of IT policies and standards as well as the provider of citywide IT services. This executive order will empower DoITT to lead an agenda for citywide IT, consolidating infrastructure where appropriate to achieve efficiencies. This will ensure that the City's IT environment shifts away from silos where each agency largely sets its own IT standards to one where the necessary IT infrastructure is managed, maintained and leveraged as a citywide asset.

2. **Leverage findings from the IT asset survey to gain efficiencies and reduce duplicative resources**
   In tandem with ongoing inventory efforts, DoITT will develop a framework for consolidating, upgrading and inventorying the City's core IT infrastructure assets. DoITT will work in conjunction with the efforts of CITIServ's deep-dive agency assessments to understand the scope of existing IT infrastructure assets at participating agencies. These preliminary self-reporting exercises will allow DoITT to formulate a methodology for conducting agency-by-agency IT asset inventories. Current information is essential to understand the breadth and depth of the City's existing IT assets, how to leverage them more efficiently, and how to create advantageous positions for contract maintenance and licensing negotiations.

   For example, as part of the initial phases of data center consolidation, DoITT conducted an inventory of the DoITT-managed mainframe software and discovered many duplicative data management tools. DoITT has targeted this legacy software for migration and modernization to reduce redundancies across the City and achieve a standardized set of products for client agencies as applicable. To date, DoITT has replaced 50 percent of these tools with more efficient products, and continues to migrate these legacy software systems to meet industry standards and save millions of dollars by the end of 2010.

3. **Consolidate and modernize the City's IT infrastructure**
   The City will consolidate disparate data centers and modernize the City's IT infrastructure to achieve new cost savings and operational efficiencies. In 2009, the City began CITIServ to develop a standardized infrastructure environment comparable to those of leading industry IT providers. By consolidating the City's IT infrastructure into a centralized environment, the City will lower existing costs of data center operations, reduce energy consumption and emissions, strengthen security, and improve overall IT service quality. This environment will also provide a unified portfolio of shared services to agencies, such as email, web and application hosting. Where appropriate, the City will also explore the utility of cloud computing to deliver on-demand network access to a shared pool of computing resources. This pooling of resources will allow the City to rapidly scale to meet changing customer demands and save money through reduced hardware and energy costs.

4. **Upgrade the network backbone (CityNet) and deploy additional agency applications and devices onto the New York City Wireless Network (NYCWiN)**
   CityNet, the City's dedicated wide area network, supplies the fundamental transportation mechanism, or backbone, for data communications among the City's substantial workforce. The recent growth of business needs requires network backbone enhancement and increased bandwidth. Integrating additional agency networks into CityNet allows the City to apply consistent management, maintenance and procurement standards which improves the overall operation of the network including security and efficiency.

   NYCWiN, the City's dedicated broadband wireless network, has laid the foundation for the deployment of mobile and remote applications. There are currently more than 30 applications serving 18 agencies running over the network, representing over a million wireless transactions every day. The NYCWiN team will set forth and manage a specific strategy and sequence to use the network to deliver business solutions, focus on agency transformation, and create gains in productivity. The City continues to deliver valuable programs such as Advanced Traffic Control and Automatic Meter Reading. The City can continue to realize millions of dollars of savings annually by broadening the network and enhancing the existing infrastructure with solutions to sense, analyze and integrate data more efficiently.

5. **Implement a Vendor Management Program**

   DoITT will establish an IT Vendor Management Program that will examine current procedures related to vendor accountability, introduce new best practices for vendor selection and compensation, and increase transparency in vendor engagements. This program will also manage the on-boarding, activity tracking, and off-boarding of vendors and consultants. Further, it will develop and oversee a performance evaluation tracking and reporting protocol to ensure that IT vendor resources at DoITT—and throughout the City—are delivering services on-time and on-budget for New Yorkers. Working in coordination with the Office of Management and Budget (OMB), the Mayor's Office of Contract Services (MOCS), and the Law Department, the program will reduce the City's operational costs and better achieve business objectives by improving information sharing on vendor performance and implementing standardized processes where applicable.

6. **Expand the use of enterprise contracts and licensing agreements**

   In the interest of pursuing a citywide IT procurement strategy that takes full advantage of the City's buying power, DoITT will become the single point of contact for procuring certain goods and services used for IT infrastructure development. In doing so, DoITT will enhance its capabilities to research, develop, and maintain enterprise contracts and licensing agreements. Additionally, OMB will enforce this strategy by minimizing the ad-hoc procurement of these goods and services by other agencies. DoITT will also re-negotiate existing contracts where applicable, and build upon current negotiation techniques and beneficial terms and conditions. These practices will allow both DoITT and the City to achieve advantageous positions in future contracting efforts, resulting in significant discounts and citywide savings.

7. **Conduct an audit of citywide telecommunications services**

   As part of DoITT's role of centrally managing the City's IT services, the agency will conduct an audit of the utilization of telecom services. Beginning with the citywide telecom services, DoITT will implement tools to ensure the City is paying only for the services it uses. To achieve this, DoITT will explore service management tools to discover new savings in telecom services and report on the findings of these audits. This will allow the City to realize cost savings through re-negotiating existing telecom contracts and provide more accurate scoping and utilization for future contracts.

8. **Implement rigorous standards and project management surrounding DoITT shared service offerings**
   As the City's technology leader, DoITT will work closely with agency partners to establish enterprise solutions for common business functions. In addition, DoITT will focus on improving its customer service by creating more accessible and transparent processes for those doing business with it. To meet this goal, DoITT will:
   - Reorganize its project management services to provide a centralized and unified way to initiate, track, manage, and deliver projects and programs to customer agencies;
   - Apply a rigorous strategic planning methodology across technology initiatives that includes industry best practices such as "Enterprise Architecture" standards, which apply a common set of principles around IT investments;
   - Adopt an Enterprise Capability Center (ECC) model, which centralizes teams of experts that focus on specific business capabilities. Adopting the ECC model will enable DoITT to proactively identify, deploy, and support enterprise solutions for multiple agencies in shorter timeframes;
   - Re-publish, revamp, and update DoITT's IT Service Catalog – which provides comprehensive information about technology services offerings that can help agencies avoid or reduce costs – to allow agencies to easily access DoITT's shared service offerings; and
   - Develop "Project Management Portals" for City agencies to view the status of their individual projects. These portals will display each project in an easy-to-use dashboard format that will help increase oversight and transparency for client agencies during the Software Development Lifecycle.

9. **Develop and deploy a citywide mobile application development platform**
   DoITT will provide a mobile application development platform as a standard capability to agencies through its IT Service Catalog. Through internal or outsourced methods, this platform will offer dramatic cost and time savings in the development of mobile applications by leveraging economies of scale and creating reusable development solutions.

The following table illustrates the timing and impact of these recommendations.

	Preliminary Recommendations	Anticipated Impact						
		Improve Operational Efficiency	Improve Accountability	Leverage Technology	Improve Governance	Improve Customer Service	Potential Cost Savings	Date to be Completed
1	Formalize DoITT's role as a provider of consolidated IT infrastructure as well as citywide IT shared services	✓	✓	✓	✓	✓	E	08/2010
2	Leverage findings from the IT Asset survey to gain efficiencies	✓	✓	✓	✓	✓	E	12/2011
3	Consolidate and modernize the City's IT infrastructure	✓	✓	✓	✓	✓	$58M*	06/2014
4	Upgrade the network backbone, CityNet, and deploy additional agency applications and devices onto the NYCWiN network	✓		✓		✓	E	06/2014
5	Implement a Vendor Management Program	✓	✓	✓	✓	✓	E	10/2010
6	Expand the use of enterprise contracts and licensing agreements	✓	✓		✓	✓	$30M	Ongoing
7	Conduct an audit of citywide telecommunications services and identify savings and efficiencies	✓	✓	✓	✓	✓	E	12/2011
8	Implement rigorous standards and project management surrounding DoITT's shared services offerings	✓	✓	✓	✓	✓	E	10/2010
9	Develop and deploy a Citywide mobile application platform	✓		✓	✓	✓	$5M-$10M	06/2011

E = Efficiencies will be gained but are not currently quantifiable

"Potential Cost Savings" represents cumulative savings over the next four fiscal years

* The CITIServ Program will reach full maturity in year five, increasing cost savings and avoidance by an additional approximately $42M/year.

By fortifying the policies, planning processes, and physical assets that comprise the City's IT operations, we estimate that the City could potentially achieve a savings of more than $98 million over the next four years, as well as increased operational efficiencies through greater sharing of information, and services, as well as applying strategic IT standards citywide. Working collaboratively with partner agencies and as authorized by the aforementioned Mayoral Executive Order, DoITT will assume the leadership position as the City's business-enabling technology provider. Its charge will be to meet the technological needs of City customers while increasing efficiencies, ensuring high quality services for New Yorkers and decreasing costs for agencies that serve them.