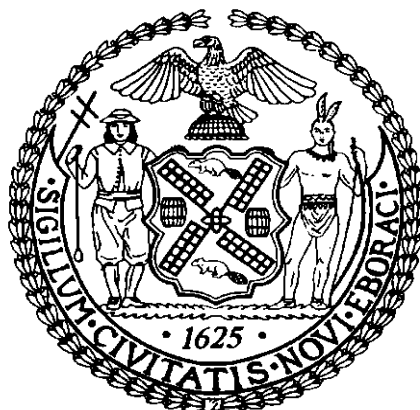


CITY OF NEW YORK OFFICE OF THE COMPTROLLER

**John C. Liu
Comptroller**

FINANCIAL AUDIT

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Deputy Comptroller for Audit**



Audit Report on the Office of Payroll Administration's Monitoring Of the Oversight of the CityTime Project by Spherion Atlantic Enterprises LLC

FM10-135A

September 28, 2010



THE CITY OF NEW YORK
OFFICE OF THE COMPTROLLER
1 CENTRE STREET
NEW YORK, N.Y. 10007-2341

John C. Liu
COMPTROLLER

September 28, 2010

To the Residents of the City of New York:

My office has audited the Office of Payroll Administration's (OPA) monitoring of the oversight of the CityTime project by Spherion Atlantic Enterprises LLC (Spherion). We audit entities such as OPA as a means of ensuring that systems and technological resources of City agencies are cost effective, efficient, secure, and operate in the best interest of the public.

In 1998, the City, through OPA, awarded a contract for the development of CityTime, an automated timekeeping system that would interface with the City's Payroll Management System. The contract was awarded to MCI Systemhouse Corporation and subsequently assigned to Science Applications International Corporation, the developer since 2000. In 2001, OPA contracted with Spherion to provide quality assurance services for the project. The contract was initially for three years, worth approximately \$3.4 million, and subject to five, one-year renewals by the City. There have been 11 amendments to the contract, and payments to Spherion have exceeded \$48.2 million. The initial CityTime contract totaled approximately \$63 million and as of September 30, 2010, will cost the City approximately \$628 million. The project was intended to be fully completed by June 2010, and to serve 81 agencies and approximately 180,000 users—later adjusted to 165,000 users. As of June 2010, CityTime has been implemented at 58 of 81 agencies, with approximately 58,000 employees using the system.

The audit found that OPA mismanaged its quality assurance agreement with Spherion, which severely limited Spherion's ability to oversee the development of CityTime and may have resulted in significant increases to the cost and duration of the project. Thus, the audit recommends that the OPA Board of Directors (Board) create an independent crisis management team to advise the Board on whether it is feasible to continue the CityTime project. In doing so, the team should validate the established budget and timeframe needed to complete the project, estimate future maintenance costs, and consider whether these costs outweigh system benefits. Should the Board then decide to continue the project, it should empower the crisis management team to oversee and evaluate project decisions as well as developer performance in achieving project milestones.

The results of the audit have been discussed with OPA officials, and their comments have been considered in preparing this report. Their complete written response is attached to this report.

If you have any questions concerning this report, please e-mail my audit bureau at audit@Comptroller.nyc.gov.

Sincerely,



John C. Liu

Table of Contents

AUDIT REPORT IN BRIEF	1
Audit Findings	2
Conclusion	2
Audit Recommendation	2
INTRODUCTION.....	4
Background	4
Objective	5
Scope and Methodology	6
Discussion of Audit Results.....	7
FINDINGS	9
Removal of Reviews and Certifications from the Quality Assurance Contract	9
OPA Materially Changed Contract Scope, Raising Concerns about the Independence and Objectivity of Quality Assurance.....	11
Independence and Objectivity Issues Regarding a Critical Report and Cost Projection.....	13
Missing Quality Assurance Reports.....	14
Conclusion	14
RECOMMENDATION.....	16
APPENDIX Discussion of OPA Response	
ADDENDUM OPA Response	

***The City of New York
Office of the Comptroller
Financial Audit***

**Audit Report on the Office of Payroll Administration's
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FM10-135A

AUDIT REPORT IN BRIEF

In 1998, the City, through the Office of Payroll Administration (OPA), awarded a contract for the development of CityTime, an automated timekeeping system that would interface with the City's Payroll Management System (PMS). The contract was awarded to MCI Systemhouse Corporation and subsequently assigned to Science Applications International Corporation, the developer since 2000.

In 2001, OPA contracted with Spherion Atlantic Enterprises, LLC (Spherion), to provide quality assurance services for the CityTime project. Spherion was to validate the developer's recommended infrastructure, methods, and procedures; to certify the deliverables and project phases; to assess risks and recommend mitigation strategies; to track the project; and to review past and future work products and change orders.¹ Spherion's contract was initially for three years, worth approximately \$3.4 million, and subject to five, one-year renewals by the City. Since 2001 there have been 11 amendments to the contract, and payments to Spherion have exceeded \$48.2 million (total contract authorization is for \$51.2 million).

The initial CityTime contract totaled approximately \$63 million, and as of September 30, 2010, will cost the City approximately \$628 million. The project was intended to be fully completed by June 2010, and to serve approximately 180,000 users at 81 agencies. This number was later adjusted to 165,000 users at 81 agencies. As of June 2010, CityTime has been implemented at 58 of 81 agencies, with approximately 58,000 employees using the system.

This audit determined whether OPA, through Spherion effectively monitored its agreement with the CityTime developer and whether Spherion provided the oversight necessary to complete the CityTime project.

¹ A deliverable is a term used in project management to describe a tangible or intangible object produced as a result of the project that is intended to be delivered to a customer. A deliverable could be a report, a document, a server upgrade, or any other building block of an overall project.

Audit Findings

OPA mismanaged its quality assurance agreement with Spherion, which severely limited Spherion's ability to oversee the development of CityTime and may have resulted in significant increases to the cost and duration of the project. In July 2001, six months after the agreement was signed, it was amended to eliminate Spherion's requirement to independently review and certify project deliverables in a systematic manner, even though evidence indicated that deliverables may have been substandard. Approximately a year later, OPA may have violated Procurement Policy Board (PPB) rules by materially altering the agreement to include Subject Matter Experts (SMEs) for project management services. As a result, Spherion was then responsible for quality assurance *and* project management, thereby eroding the line between the two conflicting responsibilities and eliminating the independence of the quality assurance function. The primary purpose of an *independent* quality assurance function is to identify and correct problems early in a project. Correcting these problems reduces costly reprogramming.

In 2005, OPA also relied on Spherion and its subcontractors to validate and estimate information used to justify a major escalation of the project at a juncture when CityTime could have been terminated or possibly rebid. To guarantee the objectivity of the information, OPA should have used a completely independent party that had no interest in the development of the project. Finally, OPA could not provide several years' worth of quality assurance reports therefore making it difficult to determine to what extent the project was being monitored by Spherion.

Conclusion

Since its inception, CityTime has been plagued by poor management decisions. The decisions and associated issues presented in this report deal only with OPA's management of its agreement with Spherion, which is relatively small in cost but significant to the success of the project (\$51 million compared to \$628 million authorized to the developer). There is no way to quantify the effects of these decisions in dollars or to determine whether the project would even have been allowed to continue to the point it did. Every large and complicated project encounters hurdles in its development. However, hindsight is not required to recognize the negative consequences of these decisions for the CityTime project. As a result, the City has been left with an overpriced system, which as of September 30, 2010, will cost approximately \$628 million and as of June 2010 had been implemented at 58 of 81 agencies but serving only 58,000 of the intended 165,000 employees (35 percent).

Audit Recommendation

Due to the severity and magnitude of the issues encountered with the project, we are making the following recommendation to the OPA Board of Directors (Board). Specifically, the Board should:

- Create an independent crisis management team to advise the Board on whether it is feasible to continue the CityTime project.

In determining whether or not to continue the project, the crisis management team should:

- Validate the established budget and timeframe needed to complete the project.
- Estimate future maintenance costs and consider whether these costs outweigh system benefits.

Should the Board decide to continue the project after the aforementioned tasks have been fulfilled, the Board should:

- Empower the crisis management team to oversee and evaluate project decisions as well as developer performance in achieving project milestones.

INTRODUCTION

Background

OPA is responsible for the prompt and accurate payment of employee wages and salaries. OPA is also responsible for coordinating uniform payroll policies and procedures among City agencies; ensuring compliance with applicable federal, state, and City regulations; and ensuring the integrity, accuracy, and operating effectiveness of the City's payroll system.

OPA is implementing a custom built Web-based automated timekeeping system known as CityTime. CityTime records, tracks, and reconciles employee time, attendance, and leave data; provides enhanced support for the collection and approval of this information; and submits the timekeeping data to the City's PMS for processing.

In 1998, the City, through OPA, awarded a contract for the development of CityTime, which would interface with the City's PMS. The contract was awarded to MCI Systemhouse Corporation and subsequently assigned to Science Applications International Corporation, the developer since 2000. The initial contract totaled approximately \$63 million. CityTime development commenced in 1999 and was projected to be fully implemented in five years (2004). It was initially designed to be based on a commercial off-the-shelf (COTS) client/server application. In 2000, the City decided to switch to a Web-based application.

In 2001, OPA contracted with Spherion to provide quality assurance services for the CityTime project. Spherion was to validate the developer's recommended infrastructure, methods, and procedures; to certify the deliverables and project phases; to assess risks and recommend mitigation strategies; to track the project; and to review past and future work products and change orders. Spherion's contract was initially for three years, worth approximately \$3.4 million, and subject to five, one-year renewals by the City. In 2002, Spherion's contract was amended to include the services of Subject Matter Experts (SMEs), individuals who would assist the City in analyzing and managing the CityTime developer's services and other implementation activities. Some of these SMEs were hired by Spherion at the recommendation of OPA.

Subsequently, in 2003, a study commissioned by the developer stated that the technological architecture employed since 2000 was unable to meet the needs of the City. At this point, the developer began to redesign the system. Upon Spherion's validation of the revised design in 2005, the developer received a restructured agreement and an increase in funding to total approximately \$224 million in 2006; that amount increased incrementally to \$628 million as of June 30, 2009. The project was intended to be fully completed by June 2010, and to serve approximately 180,000 users at 81 agencies. This number was later adjusted to 165,000 users at 81 agencies. As of June 2010, CityTime had been implemented at 58 of 81 agencies with approximately 58,000 employees using the system instead of the intended 165,000 employees.

Since 2001 there have been 11 amendments to the Spherion contract, and payments have exceeded \$48.2 million. Table I, below indicates total contract authorization of \$51.2 million.

Table I
Summary of Spherion Contract Increases

Amendments	Date	Total	Description
Original contract	01/16/01	\$3,403,511	Original Contract Amount.
Amendment 1	07/10/01		Changed objective and project structure by limiting Scope of Work.
Amendment 2	06/27/02	\$7,947,378	Added SMEs and Optional QA Testing.
Amendment 3	03/06/03		Optional QA Testing revised so that Spherion will provide consultants to perform Optional Services.
Amendment 4	04/17/03		Revised payment schedule. The City is to pay for Continuing QA, Optional Services, SMEs, and Consultants.
Amendment 5	01/18/05	\$8,572,287	Revised objective. Spherion is to use its QA experience in the performance of the QA services specified in the Delivery/Payment Schedule.
Amendment 6	02/24/05		Added a section for Spherion to perform background inquiries of its employees and contractors.
Amendment 7	05/23/05		Added the Gartner Group as a subcontractor to perform an assessment of the viability of CityTime.
Amendment 8	12/12/05		Added the Fair Isaac Corporation as a subcontractor to perform an assessment of the design and implementation of the Blaze product (Rules).
Amendment 9	07/27/06		Added Computer Network Solutions LLP as a subcontractor to perform a penetration test assessment.
Amendment 10	10/18/06	\$31,312,818	Two-year renewal.
Amendment 11	01/29/09		One-year renewal through 1/15/10.
Total		\$51,235,994	

In 1996, the Comptroller's Office was asked to review OPA's Request for Proposal (RFP) for a quality assurance consultant for CityTime. Within the resulting report, the Comptroller's Office recommended several needed enhancements for the RFP. Some of these enhancements will be discussed later in this report.

On February 9, 2010, the Comptroller's Office rejected OPA's submission of a proposed contract registration with Spherion for the services of a select group of SMEs and quality assurance consultants in the amount of \$8.1 million for a period of two years, January 16, 2010, through January 15, 2012. The contract was rejected because OPA did not demonstrate that Spherion provided a satisfactory record of performance.

Objective

To determine whether OPA, through Spherion, effectively monitored its agreement with the CityTime developer and whether Spherion provided the oversight necessary to complete the CityTime project.

Scope and Methodology

We conducted this performance audit in accordance with generally accepted government auditing standards except for organizational independence as disclosed in the subsequent paragraphs. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. This audit was conducted in accordance with the audit responsibilities of the City Comptroller as set forth in Chapter 5, §93, of the New York City Charter.

OPA is overseen by a two-member unsalaried board of directors, one representing and recommended by the mayor, and one representing and recommended by the Comptroller. The Comptroller's designee was not involved in planning or conducting this audit, or in writing or reviewing this audit report.

The New York City Charter requires that all contracts or agreements between City agencies and vendors be registered by the New York City Comptroller. The Comptroller's Office of Contract Administration is responsible for reviewing all contracts, contract amendments, leases, and concessions between City agencies and vendors to determine whether they should be registered. The Deputy Comptroller for Contracts and Procurement, who is the senior executive directly responsible for this review, was not involved in conducting this audit or in writing or reviewing it.

The scope of this audit was the duration of Spherion's contract, January 16, 2001, to January 15, 2010. To achieve our audit objectives, we reviewed and abstracted the agreement, including all subsequent amendments between OPA and Spherion. We also reviewed subcontractor agreements, OPA correspondence, New York City PPB rules, Comptroller's Directive #18, "Guidelines for the Management, Protection and Control of Agency Information and Information Processing Systems," CityTime project assessments, and other relevant documents.

To obtain an understanding of the history of CityTime and OPA's monitoring of its agreement with Spherion, we interviewed OPA's Executive Director, Deputy Executive Director, Director of Management Review and Analysis, and Assistant Executive Director of Development. To obtain an understanding of Spherion's responsibilities, we interviewed Spherion's Regional Managing Director and Operations Director. In addition, we conversed with officials from the Department of Information Technology and Telecommunications (DoITT) and the Financial Information Services Agency (FISA). We also observed a CityTime weekly status meeting with OPA officials and the developer, and attended a demonstration of the system. Finally, we documented our understanding of CityTime through written narratives and memoranda.

To determine whether Spherion performed the required reviews and certifications, we reconciled Spherion's Schedule of Deliverables and Payments to OPA's deliverable and phase

reviews and certifications. To identify the risks and recommendations pertaining to each deliverable, we analyzed the OPA deliverable review reports.

To determine the effects of the changes made to the initial contract, we reviewed the changes of Spherion's responsibilities and assessed their impact on the CityTime project. We also requested Spherion summary reports and biweekly project reports to determine whether OPA ensured that they were completed, as required by the agreement.

To determine whether all payments made by the City to Spherion were adequately supported and to establish the completeness of the population of invoices, we reconciled a list of payments made through the City's Financial Management System (FMS) to the invoices provided by OPA. For those payments that could not be supported, we contacted Spherion officials and reviewed their files.

Discussion of Audit Results

The matters covered in this report were discussed with OPA officials during and at the conclusion of this audit. An exit conference was held on August 17, 2010. On August 24, 2010, a draft report was submitted to OPA officials with a request for comments. We received a written response from OPA on September 8, 2010.

In their response, OPA officials did not agree with the audit's findings and did not respond to the recommendation. Furthermore, they maintained that "the findings and conclusions of this audit are not consistent with the demonstrated effectiveness of the system now in operation for 70,000 employees. OPA's management of the CityTime project, assisted by Spherion's oversight, has resulted in a system that has dramatically improved the City's timekeeping accuracy and efficiency, a system that will be working and working well for over 160,000 City employees by June 30th."

We continue to disagree with OPA's position. The audit identified several serious conditions that may have significantly contributed to the cost of the project, which started at \$63 million and escalated to \$628 million. GAGAS field work standards for performance audits require audit findings and conclusions to be supported by sufficient and appropriate evidence. In its response, OPA presents several arguments attempting to refute the report's findings, but did not provide any additional evidence in its response to this audit that would cause us to change our findings and conclusion about its oversight of the Spherion contract and the CityTime project.

Briefly, we would like to clarify and discuss certain omissions and errors that we believe were included in OPA's response to this audit as they provided the basis for our decision not to alter our findings and conclusions.

- OPA stated that it required Spherion to review and assess every deliverable. However, the last documented deliverable review provided by OPA was dated July 3, 2001. OPA also stated that the poor scores assigned by Spherion to the deliverable reviews that were

conducted between January and July 2001 were the result of Spherion's late start to the project and not the deliverables themselves. Yet, the Executive Director of OPA at that time stated in a letter to SAIC that "SAIC has been guilty of producing deliverables far below acceptable standards. The City has found that SAIC's commitment to quality is almost non-existent and is reflected from the top down."

- OPA's response asserts that the Spherion contract complied with the recommendations of the Comptroller's 1996 report (in obtaining certifications) stating "The Comptroller's recommendations included certifications, but explicitly excluded certification of design and programming deliverables for which it specified reviews." However, the Comptroller's 1996 report states that the consultants "produce certification letters at the completion of each project phase." By definition the development phase of the project includes design and programming functions, which the 1996 report recommends to be certified. This refutes OPA's current assertion that it need not obtain certifications of design and programming deliverables.
- OPA stated that Spherion's objectivity was not compromised by providing both quality assurance and project management services. However, the independent evaluator hired by OPA cited the conflict in one of their reports stating, "PM / QA resources being provided by same vendor raises question on objectivity of QA process."
- OPA stated that a generally accepted guideline for the cost of quality assurance for major IT projects is approximately 10 percent of the total project cost, which they state is "an industry standard." However, subtracting the cost of the project managers hired through Spherion (which is not quality assurance), OPA only devoted 2.8 percent towards quality assurance. This is far below the unnamed industry standard that OPA cites in its response.

The full text of the response from OPA is included as an addendum to this report. Our comments concerning the response are included as an appendix which precedes the addendum.

FINDINGS

OPA mismanaged its quality assurance agreement with Spherion, which severely limited Spherion's ability to oversee the development of CityTime and may have resulted in significant increases to the cost and duration of the project. In July 2001, six months after the agreement was signed, it was amended to eliminate Spherion's requirement to independently review and certify project deliverables in a systematic manner, even though evidence indicated that deliverables may have been substandard. Approximately a year later, OPA may have violated PPB rules by materially altering the agreement to include SMEs for project management services. As a result, Spherion was then responsible for quality assurance *and* project management, thereby eroding the line between the two conflicting responsibilities and eliminating the independence of the quality assurance function. The primary purpose of an *independent* quality assurance function is to identify and correct problems early in a project. Correcting these problems reduces costly reprogramming.

In 2005, OPA also relied on Spherion and its subcontractors to validate and estimate information used to justify a major escalation of the project at a juncture when CityTime could have been terminated or possibly rebid. To guarantee the objectivity of the information OPA should have used a completely independent party that had no interest in the development of the project. Finally, OPA could not provide several years' worth of quality assurance reports, therefore making it difficult to determine to what extent the project was being monitored by Spherion.

Removal of Reviews and Certifications From the Quality Assurance Contract

Six months after the Spherion agreement was signed, OPA inauspiciously eliminated Spherion's contractual obligations to systematically review and certify developer deliverables. This modification directly affected Spherion's ability to oversee the project and ensure that the system would work effectively and meet the user's needs. It also fully reversed OPA's stated decision to implement a recommendation made by the Comptroller's Office in 1996 after the Comptroller's office had performed a review of OPA's RFP for a quality assurance consultant.²

Under the original quality assurance agreement signed in January 2001, Spherion was to review and evaluate the developer's deliverables and produce letters of certification. The schedule of 391 deliverables was attached to the contract in Appendix B. Spherion was required to review and certify 128 "catch-up" deliverables as well as 263 ongoing deliverables that would have theoretically seen the project to completion.³

During the first six months of the engagement (January–July 2001), Spherion reviewed 94 of the 128 catch-up deliverables. Of the 94 deliverables reviewed, 90 received an average

² *Report on the Draft Request for Proposal for a Quality Assurance Consultant for CITYTIME*, Report # 7B95-204S, issued May 17, 1996.

³ "Catch-up" deliverables are those deliverables that were completed by the developer prior to Spherion's engagement in the project.

score of 55 based on a scale of 1 to 100.⁴ The scores assigned to deliverables by independent quality assurance reviews helped to ensure that project deliverables were complete. The four remaining deliverables were not assigned a numerical value. See Table II, following for the scores assigned to deliverables.

Table II
Schedule of Deliverable Scores

Assigned Score	Number of Deliverables	Percent of Total	
0 to under 9	0	0.0%	72% (65)
10 to under 19	3	3.3%	
20 to under 29	5	5.6%	
30 to under 39	15	16.7%	
40 to under 49	10	11.1%	
50 to under 59	16	17.8%	
60 to under 69	16	17.8%	28% (25)
70 to under 79	8	8.9%	
80 to under 89	14	15.6%	
90 to under 100	3	3.3%	
	90	100.0%	100.0%

On July 10, 2001, OPA amended the original contract (Amendment I). Spherion was still required to “review and evaluate the CityTime Developer’s Deliverables, and produce letters of certification.” However, OPA added a qualifier in the amendment that stated, “as contained in Appendix B.” Appendix B was revised to include only 97 catch-up deliverables, 94 of which were already reviewed by Spherion before the amendment (the other three were not reviewed). The remaining 31 were left out of the revised Appendix B. More importantly, Spherion accepted and certified only 2 of the 94 deliverables it reviewed. Consequently, 126 of the 128 catch-up deliverables never received an official certification that they would contribute to the delivery of a system that would work effectively, meet user requirements, accomplish OPA’s CityTime goals, and meet generally accepted standards.

Further, Spherion was also contracted to perform reviews and certifications of “ongoing” deliverables that would see the project to completion. There were 263 ongoing reviews and certifications in the original Appendix B. After Amendment I, 235 were eliminated from Appendix B even though they were initially contractual requirements. Based on the documentation provided, Spherion conducted only 1 of the 28 remaining ongoing reviews.

⁴ The assigned scores refer to a determination of the completeness of any requirement falling within the functional software design phase of the project.

Under the original contract, Spherion was also required to perform phase reviews and certifications. The project was divided into four phases: Development, Test, Pilot Implementation, and Agency Implementation. At the end of each phase, Spherion was required to certify that the phase had been completed and would contribute to the development of a system that would work effectively. According to an OPA official, OPA directed Spherion not to complete these certification reports.

The deletion of these certifications from the contract put the City at risk because the City could no longer be assured that CityTime deliverables met contractual standards. Amendment I also deleted the following language: “Spherion shall advise OPA of significant requirements that the Developer knows or reasonably should have known be addressed or included in the Deliverables,” This deletion eliminated a major safeguard against omissions in project design or in developer performance.

A recurring Citywide system-development deficiency is the lack of independent quality assurance. Recently, the Comptroller’s Office issued a compilation report summarizing several past audits of systems development and highlighted the importance of quality assurance as well as of oversight committees.⁵ The Comptroller’s Office cited OPA in a 1996 report for not requiring the consultant to certify developer deliverables, and in its response, OPA agreed to add certifications to the request for proposal. The Comptroller’s report specifically warned OPA: “In our experience, the lack of a strong Quality Assurance team on the project results in cost overruns and inevitable delays. In many cases, the system will not perform as conceptualized, thereby wasting funds allocated for the project.” With the exception of the aforementioned two certifications, the CityTime project has since its inception continued without an independent quality assurance team to certify project deliverables. Instead of completing CityTime by the original completion date of 2004, the City was in the midst of a major technological overhaul of the project. Since then, CityTime has missed deadlines and is grossly over budget. Although the decision to weaken quality assurance was made 10 years ago, the effects are still impacting the successful completion of the project today.

OPA Materially Changed Contract Scope, Raising Concerns about the Independence and Objectivity of Quality Assurance

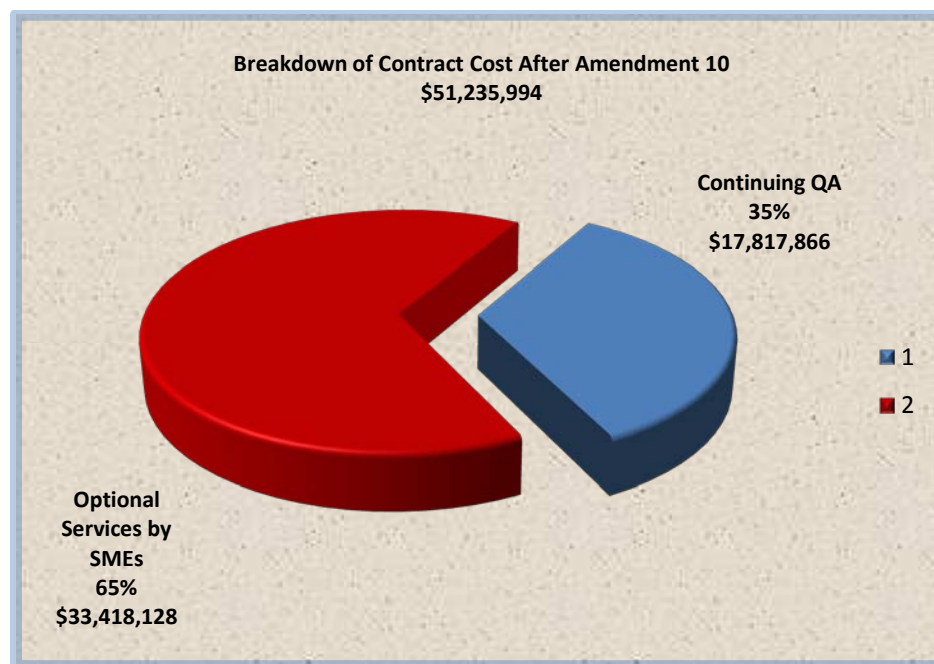
OPA may have violated PPB rules by materially altering the scope of Spherion’s work to include SMEs in addition to its quality assurance staff. On June 27, 2002, OPA and Spherion amended the agreement to include SMEs, individuals who were to assist the City in analyzing and managing the CityTime developer’s services and other implementation activities. According to OPA officials, OPA did not have the resources and personnel to manage the project and required additional consultants to supplement OPA staff. PPB rules state, “Material alterations to the scope of the work may be made only by a new procurement.” Even assuming the contract permitted a material modification to the scope of services, once Spherion took on SME services and became involved in the management of the project, such an arrangement created an inherent

⁵ *A Compilation of System Development Audits and an Assessment of Citywide Systems-Development Strategy*, Report # FS10-136S, issued May 13, 2010.

conflict of interest and severely compromised Spherion's independence and responsibilities as OPA's quality assurance vendor. As a result of these dual responsibilities, Spherion was compromised in its ability to perform its quality assurance duties in any meaningful way to ensure that the CityTime project was being properly performed.

Over the course of the project, through subsequent contract amendments, the engagement became more a function of project management than of quality assurance. Three of the 11 amendments to Spherion's contract included monetary increases. Spherion's initial contract for quality assurance was approximately \$3.4 million. As of Amendment 10, signed in October 2006, the contract amount increased to \$51.2 million, and quality assurance accounted for only 35 percent (\$17.8 million) of the total contract price. The major part of the funds was allocated to SMEs, as shown on Chart I, below.

Chart I
Allocation of Contract Authorization by Category



It is likely that the City overpaid for SME services since 2002 because they were not competitively bid. More important, the addition of SMEs to Spherion's contractual responsibilities raises concerns about Spherion's role as the provider of independent quality assurance.

Although Spherion's ability to systematically review and evaluate the developer's deliverables was already compromised by OPA's decision to remove that requirement from the agreement, Spherion's quality assurance team continued to work at the direction of OPA. OPA's decision that Spherion provide both quality assurance and project management functions put Spherion in a position in which it was required to review and critique its own work. Furthermore, Spherion retained its function as quality assurance consultant, responsible for helping to ensure the timely and successful completion of CityTime. However, by 2006, nearly

two-thirds of the costs of Spherion's contract were directly related to the uncapped hourly charges for SMEs. OPA's decision to include SMEs under the quality assurance agreement placed Spherion in a position rife with conflicting interests.

Independence and Objectivity Issues **Regarding a Critical Report and Cost Projection**

In 2005, OPA used reports generated by Spherion and its subcontractors to justify the continuation and cost escalation of CityTime, even though the technology previously used had been proven inadequate. For a project of this magnitude, the prudent decision should have been to assign the assessment and cost projection to parties completely independent of and without a stake in the continuation of the project. However, OPA's decision to proceed as it did raises questions, at least in perception, about the objectivity of these reports and the justification to continue on the chosen course.

As previously stated, the technological architecture originally employed for CityTime was proven to be inadequate. A study conducted in 2003 by Ariel Partners, LLC, a firm hired by the developer, revealed that the technology used since 2000 was unable to meet the needs of the City. The report concluded, "The software constitutes a fragile system that will be prohibitively expensive to maintain and to extend." Subsequently, the developer, with the approval of OPA, began to design and build a new application based on a different platform. According to OPA officials, the developer agreed to re-platform the package at no cost. However, in exchange the City would restructure the developer's contract to a "level-of-effort" contract.⁶ Payments under level-of-effort contracts are based on team size and duration rather than on fixed deliverables, as had been the case.

Before the City gave its approval to modify the contract and continue the project, an assessment of the scalability of the new system architecture had to be conducted. It was decided that Spherion would subcontract the assessment to the Gartner Group. However, Spherion was paid to coordinate, facilitate, and oversee Gartner. The report stated that the new technology was sufficient and flexible enough to meet the needs of the City.

The City also had to give approval of the costs associated with the change in technology and in contract strategy. Rather than having a party unrelated to the project draft a cost projection, OPA assigned this task to Spherion SMEs. According to the projection, the total cost to complete CityTime starting in 2006 and ending in 2012 was \$209.43 million. However, between September 1, 2005, and August 31, 2009, actual payments to the developer by OPA were in excess of \$411 million.⁷ As of June 11, 2010, the developer still had well over \$110 million authorized in its contract with only one-third of total targeted users implemented (58,387 of 164,807 users in 58 of 81 agencies). The cost projection either grossly underestimated the cost of the project or did not include significant costs.

⁶ A "level-of-effort" is used to define the amount of work to be performed within a period of time and is measured in man days or man hours per day/week/month.

⁷ Years refer to contract year, which ends in August.

After the assessment and cost projection were presented, the City gave its approval and a major escalation of the project followed. As a result, the developer's contract was amended to allow for a level-of-effort contract instead of fixed deliverables, even though past deliverables were late and not always up to standard.⁸ Level-of-effort contracts are more favorable to developers than fixed-price contracts. Given the scale of the project, the size of the investment, and past performance of the developer, OPA should have taken the most conservative approach possible and assigned the assessment and projection tasks to parties completely independent of CityTime to guarantee the objectivity of this information.

Missing Quality Assurance Reports

According to its contract, Spherion was required to provide quality assurance summary reports. However, OPA could not provide quality assurance summary reports for the period between January 2001 and April 2008. The earliest quality assurance summary report provided by OPA was dated May 2008. This document outlines 15 different areas of the project. Each area of the project appears to have been tracked. The categories include schedule, scope, risk, and success-quality factors. These quality assurance summary reports were produced on a weekly basis and appear to have been a valuable tool for monitoring and tracking the project. However, we were unable to determine why OPA did not require these reports during the first seven years of CityTime development.

Between July 2001 and May 2008, following Amendment I described previously, there appears to be a significant lack of documentation regarding the oversight of this project. Under the original scope of work, Spherion was required to systematically review and certify developer deliverables. Had this requirement continued in force, one could examine Spherion's deliverables database and associated deliverable reviews and certifications to gain an objective and independent understanding of the status of the project and the issues encountered. Since OPA amended the contract and the quality assurance summaries were not initiated until 2008, it is therefore difficult to determine to what extent the project was being monitored by Spherion.

Conclusion

Since its inception, CityTime has been plagued by poor management decisions. The decisions and associated issues presented in this report deal only with OPA's management of its agreement with Spherion, which is relatively small in cost but significant to the success of the project (\$51 million compared to \$628 million authorized to the developer). The independent quality assurance function of a project is an invaluable safeguard designed to detect and prevent many of the problems encountered in systems development. Although this presents no guarantees, OPA's decisions all but assured ineffective oversight. OPA removed from the contract Spherion's responsibilities to systematically review and certify project deliverables. OPA decided to have Spherion provide both quality assurance and project management services, which may have influenced, consciously or not, the progression of the project. OPA also decided to have Spherion and its subcontractors compose reports used to justify the continuation

⁸ Under a fixed-price contract, the contractor is paid a negotiated amount, regardless of incurred expenses.

of the project when it could have been terminated relatively early on. There is no way to quantify the effects of these decisions in dollars, or to determine whether the project would have even been allowed to continue to the point it did. Every large and complicated project encounters hurdles in its development. However, hindsight is not required to recognize the negative consequences of these decisions for the CityTime project. As a result, the City has been left with an overpriced system, which as of September 30, 2010 will cost approximately \$628 million and which as of June 2010 had been implemented at 58 of 81 agencies but serving only 58,000 of the intended 165,000 employees (35 percent).

RECOMMENDATION

Due to the severity and magnitude of the issues encountered with the project, we are making the following recommendation to the OPA Board. Specifically, the Board should:

1. Create an independent crisis management team to advise the Board on whether it is feasible to continue the CityTime project.

In determining whether or not to continue the project, the crisis management team should:

- Validate the established budget and timeframe needed to complete the project.
- Estimate future maintenance costs and consider whether these costs outweigh system benefits.

Should the Board decide to continue the project after the aforementioned tasks have been fulfilled, the Board should:

- Empower the crisis management team to oversee and evaluate project decisions as well as developer performance in achieving project milestones.

Discussion of OPA's Response

I - The removal of reviews and certifications from the Quality Assurance (QA) contract

OPA Response: "The Spherion contract as amended required a systematic review of deliverables and therefore did not negatively affect Spherion's ability to oversee the project. Further, OPA found that certification of development deliverables by a third party required significant duplicative effort and cost to the City with little or no added benefit. Finally, while the recommendations made by the Comptroller's Office in their 1996 report referenced in the audit did include certifications, they explicitly did not recommend certification of development deliverables."

Auditor Comment: OPA is attempting to downplay the importance of certifying deliverables, while overstating the extent of the reviews conducted by Spherion. Certification, which is the formal guarantee that a process complies with regulations, conditions, or in this case specifications, is a generally accepted industry standard for quality assurance consultants and is vital to the successful completion of software development. Regardless of whether OPA believes certifications were redundant, OPA was still unable to provide sufficient evidence to support its assertion that deliverables were reviewed by Spherion after Amendment 1 was signed on July 10, 2001. Furthermore, in the event that Spherion was reviewing deliverables but not documenting the results, there was no assurance that these reviews were conducted in a systematic manner.

In 2005, OPA modified the objective of the contract again to further reduce Spherion's liability on the project. The revised contract stated "Spherion shall not be responsible for reviews when the CityTime Developer's Deliverables are withheld from Spherion, **either knowingly or unknowingly by the City...**" [Emphasis Added]. By including "either knowingly or unknowingly by the City" to the contract, OPA was allowed to withhold, or manage the deliverables that were to be reviewed by Spherion. The low scores assigned to the developer's deliverables by Spherion at the start of the engagement should have emphasized the need for systematic review rather than eliminating it.

OPA also contends that the low scores assigned by Spherion to the deliverables were the result of Spherion's "lack of participation [rather] than of any shortcomings in the deliverables themselves." However, a letter sent from OPA's former Executive Director to SAIC dated February 19, 2003 appears to agree with Spherion's assessment. The letter repeatedly states "SAIC has been late on virtually every deliverable. The inability of SAIC to deliver on time has resulted repeatedly in wasted City resources." The letter further states, "SAIC has been guilty of producing deliverables far below acceptable standards. The City has found that SAIC's commitment to quality is almost non-existent and is reflected from the top down."

Additionally, OPA's response cites the Comptroller's 1996 report stating "[t]he Comptroller's recommendations included certifications, but explicitly excluded certification of design and programming deliverables, for which it specified reviews." Therefore, "the Spherion contract is in compliance with the Comptroller's recommendations." However, OPA contradicts itself by stating that "OPA removed the requirement [certification]." It now takes the position that it met the Comptroller's requirement to obtain certifications, except for design and program

deliverables, which it contends the 1996 report excluded. However, the Comptroller's 1996 report states that the consultants "produce certification letters at the completion of each project phase." By definition the development phase of the project includes design and programming functions, which the 1996 report recommends to be certified. Again, OPA's positions are unsupported.

II - OPA materially changed the contract scope, raising concerns about the independence and objectivity of quality assurance

OPA's Summary: "Amendment No. 2 was approved as to form and certified as to legal authority by the City's Law Department at the time the amendment was executed. After reviewing the issue in light of this audit, it continues to be the Law Department's view that Amendment No. 2 does not violate the PPB Rules. Amendment No. 2 was registered by the Comptroller's Office, after review by its Office of Contract Administration. The independence and objectivity of Spherion was unaffected by this amendment and is no different than any firm engaged in the provision of Quality Assurance services."

Auditor Comment: OPA contends that changes to the CityTime developer's contract necessitated changes to the Spherion contract and were explicitly permitted. The Spherion contract does allow for changes, but not changes that would materially alter the scope of work. The scope of work only includes quality assurance services, not project management. In fact, the RFP soliciting the QA consultants specifically excluded project management services. In its response, OPA states "the technical and project management functions performed by Spherion SMEs are not inherently different in purpose or scope from quality assurance services."

However, a report provided to the auditors by OPA and issued on September 24, 2001, *CityTime Project Review: Strategy Alternatives Report*, states "often, the role of this Q/A entity is confused with the role of project management or program management. However, the role of Q/A is distinctly different because Q/A does not manage the day-to-day project events, resources or budget." Moreover, "[t]he lack of clarity regarding the role of Q/A, as well as confusion with its positioning often results in an ineffective Q/A function." Clearly, project management services provided by SMEs are separate and distinct from quality assurance.

Furthermore, the independent assessment report of the CityTime project that OPA references on page four of its response, that was issued by Keane, Inc. on October 19, 2007, cites OPA for having Spherion provide both quality assurance and project management services. Keane specifically states, "PM / QA resources being provided by same vendor raises question on objectivity of the QA process."

In addition, OPA mentions "total QA costs remained below 10% of the project total, which is the industry norm." In his testimony to the City Council on December 18, 2009, OPA's Executive Director states, "a generally accepted guideline for the cost of quality assurance for major IT projects is around 10% of the total project cost." The aggregate total of Spherion's contract was \$51.2 million, \$17.8 million for quality assurance and \$33.4 million for project management (SMEs). Apparently, OPA allocated only 2.8 percent (\$17.8 million of \$628 million) of the

developer's total contract amount towards quality assurance—significantly less than the 10 percent claimed by OPA.

Finally, OPA did not provide evidence documenting its claim that hourly rates paid to its SMEs represents a 48.3% discount, compared to the rates in the New York State Office of General Services (NYS OGS) contracts. Moreover, the published NYS OGS rates that are cited by OPA in its response on page six only represent a not-to-exceed or maximum amount that should be paid not the rates that would be obtained after further negotiations or a competitive process. According to NYS OGS, “[t]he prices posted for the contractor you refer to [Spherion Atlantic Enterprises LLC] are hourly not-to-exceed rates. They are the maximum prices the vendor is allowed to charge for hourly services. There are a number of options open to authorized users wishing to establish their own contract off of our prequalified vendors. Some of these options would permit the authorized user to obtain lower hourly rates through further negotiations or a competitive mini-bid process.” Had OPA procured the services of SMEs through competitive bidding, a lower rate may have been attained, thus resulting in significant cost savings to the City. However, since OPA added SMEs to Spherion's quality assurance contract without the benefit of competition, the City may not have received the best value.

III - Independence and objectivity issues regarding a critical report and a cost projection

OPA Response: “The architecture assessment was clearly within the scope of the QA contract and has been proven to be accurate. The independence and objectivity of Spherion is no different than any firm engaged in the provision of Quality Assurance services. The cost projection was not a Spherion product, but an OPA report, validated by Spherion, that proved to be a useful starting point for a budget process that resulted in a reasonably accurate project budget.”

Auditor Comment: The audit questions OPA's decision to use Spherion to oversee and facilitate an assessment that helped determine the fate of the project and not the contractual mechanism by which the Gartner Group was procured. We question Spherion's role and influence over Gartner's assessment because Spherion was no longer paid on a fixed deliverable basis (payments on a fixed deliverable increases vendor incentive to complete the project as expeditiously as possible), no longer independent due to the SMEs (who are paid on an hourly rate), no longer liable for certifying deliverables, and had a material financial interest in the continuation of the project. Given the significant taxpayer investment in the project, we continue to believe that OPA should not have procured Gartner's services through its agreement with Spherion due to their involvement with the project. It should be noted that, OPA had two years to procure an independent vendor without having to involve Spherion.

OPA responded that the assessment has been proven accurate and that the “system works, works well and performs above expectation.” However, OPA does not mention those agencies (FDNY, NYPD, DSNY) with complex timekeeping rules that are only partially implemented and the roughly 90,000 intended users that have yet to use the system. In its most recent report dated March 19, 2009, Keane Inc., the aforementioned independent evaluator referenced in OPA's response, stated that “delays and other complications due to unknowns associated with deployment to uniformed agencies may adversely affect the Transition Strategy.” In a separate

section, the report states that the number of defects was growing. Although the audit only questions OPA's decision to have Spherion participate in the assessment and not the content of the assessment itself, judgment on the scalability of the technology should be reserved until all intended users are using the system and not just 42 percent (70,000 of 165,000) of the targeted population.

As stated in the audit, the assessment was presented in conjunction with a cost projection to obtain approval for the escalation of the project and change in contract strategy. Again, OPA states that Spherion was contractually permitted to "validate" the cost projection prepared by SAIC. Although OPA's Assistant Executive Director of Development for CityTime stated that the report was prepared by Spherion SME's, we are not questioning whether the scope of the contract permits SMEs to prepare or validate, as OPA claims, the cost projection. We question OPA's decision to assign the cost projection to an SME since Spherion and the SME's had a significant financial interest in the continuation of the project.

Furthermore, in his testimony before the City Council on May 8, 2008, OPA's Executive Director stated, "[w]e approached -- I approached the Board, the OPA Board, with these proposed changes in strategy, and then based on the approval of the Board, we approached OMB with these proposed changes in strategy and included in those proposed changes of strategy were very specific costs of what it was going to actually take to implement CityTime on a Citywide basis, that these proposals and costs were accepted, were reflected in a modified capital plan for the CityTime Program..." The very specific costs the Executive Director was referring to was the cost projection presented to OMB on September 23, 2005. These costs amounted to \$209 million and were expected to cover the project through 2012.

Further the Executive Director's testimony states, "The expenditures that we are incurring and have been incurring have been in the capital plan since 2005." However, as of September 2005, the City still had not formally recognized the increased cost of the project. In September 2005, OMB published the Fiscal Year 2006 Authorized Capital Commitment Plan, which projected funds specifically earmarked for the CityTime project that totaled approximately \$106 million.

It was not until May 2006 that the City recognized that CityTime would cost substantially more than the Executive Director presented to OMB on September 23, 2005. In the proposed Capital Commitment Plan published in May 2006 with the Mayor's Executive Budget for fiscal year 2007, funds specifically earmarked for the CityTime project were increased to approximately \$432 million. This amount was in addition to what OPA contends it already had spent to that point, \$114 million, for a total anticipated spending on the project of \$546 million as of May 2006. This represents a considerable increase from the cost projection of the project estimated by Spherion in September 2005 of \$209 million. It should be noted that SAIC had already received a level-of-effort contract and an additional \$110 million increase through two amendments signed in January and February of 2006 — three months before the revised costs were reflected in the revised capital plan.

In its response, OPA believes the project will now cost at least \$575 million, but also recognizes that it granted the developer a contract with a "maximum amount [of] \$628 million." So the

potential cost to complete the project may be even higher than the \$575 million figure now anticipated by OPA.

IV - Missing quality assurance reports

OPA Response: “The contract did not require written reports with respect to all activities. Certain reports were acceptable and delivered orally at the bi-weekly project meetings and the quarterly Steering Committee meetings. All reports required by the Contract were delivered by Spherion. “

Auditor Comment: OPA’s contention that the QA summary reports were not required to be written is not substantiated by the fact that OPA actually provided us with QA summary reports that were dated as early as May 2008 and produced consistently on a weekly basis. It is difficult to understand how OPA would not require such reports to be documented, especially since they appeared to have been a valuable tool for monitoring and tracking the project. Therefore, we cannot understand why OPA did not require the QA summary reports to be documented during the first seven years of CityTime’s development.

It is difficult to believe that “such reporting was done orally at the bi-weekly project meetings and the quarterly Steering Committee meetings.” On average, each QA summary report contains approximately 22 pages’ worth of important and detailed technical information, which would be difficult for OPA staff to rely upon without having an actual document to review. It is industry practice to distribute such reports well in advance so that the reader has time to read and understand them. Documenting such a critical report would not only have been necessary, but would have also been in the best interest of OPA and the City.

Subsequent to the exit conference, OPA’s General Counsel informed us of several additional boxes that contained what they believed to be the QA summary reports we reported as never completed. However, upon review of the contents of each box, we determined that the reports were actually Project Status reports that had been provided to us previously. It was not until the General Counsel went back and read the actual contract that she stated that the QA summary reports were not required to be in a written form. If that was the case, as OPA officials claim, they should not have wasted valuable resources by having OPA employees search through a great number of boxes in storage in order to find QA summary reports that were not required.



OFFICE OF PAYROLL ADMINISTRATION

One Centre Street, Room 200N, New York, New York 10007

ADDENDUM

Page 1 of 9

JOEL BONDY
Executive Director

BUREAU OF ADMINISTRATIVE SERVICES AND SYSTEMS
MOHAMED H. HAFEEZ
Deputy Executive Director

MANAGEMENT REVIEW & ANALYSIS
BRIAN NEWSON
Director
Phone: 212-669-4648

September 8, 2010

Tina Kim
Deputy Comptroller, Bureau of Audit
Office of the Comptroller
One Centre Street, Room 1100
New York, NY 10007-2341

Re: Audit Report on the Office of Payroll Administration's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC

Dear Ms. Kim:

Attached is the Office of Payroll Administration response to the referenced audit report. Please let me know if you have any additional comments or questions.

Thank you.

Sincerely,

Brian Newson

Attachment

c: Joel Bondy
James Icobelli ✓

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

Summary

CityTime is the City's electronic timekeeping system, which currently serves 70,332 City employees at 58 agencies. The system has proven continually to be an effective tool for the City to track and manage the timekeeping upon which City employees are paid. Moreover, CityTime has

- Eliminated timekeeping inefficiencies and improved timekeeping accuracy across the City
- Allowed for improved management of human resources including overtime costs
- Enhanced the City's compliance with the Fair Labor Standards Act and
- Improved the efficiency of calculating pension benefits

As you may know, actions are underway that will, within nine months, substantially complete the rollout and system implementation for essentially all employees excluding the Department of Education. Indeed, **by June 30th, there will be over 160,000 City employees using CityTime for timekeeping, which is essentially all City employees excluding employees of the Department of Education.** There has been acceptance of CityTime at agencies where it has been implemented already, and there are implementation teams currently in place at the remaining City agencies to ensure that the City's implementation goals are met.

The system works and works well, keeping time accurately in 58 City agencies for over 220 collective bargaining units and over 5,000 civil service job titles, each with its own unique set of timekeeping requirements.

Beginning in March 2010, your office, the Audit Bureau of the Office of the Comptroller conducted an audit of the Office of Payroll Administration's (OPA) monitoring of the oversight of the CityTime project by Spherion Atlantic LLC (Spherion) for the period which ended on January 15, 2010. Spherion was contracted with OPA to provide quality assurance services for the CityTime project.

The audit contained various findings which are shown below, each followed by a summary of OPA's response.

1. *The removal of reviews and certifications from the Quality Assurance (QA) contract*

The audit report finds that when OPA removed Spherion's contractual obligation to certify the Developer's deliverables, it affected Spherion's ability to effectively oversee the project and reversed a commitment to implement a recommendation made by the Comptroller's Office in 1996 to require certifications.

The Spherion contract as amended required a systematic review of deliverables and therefore did not negatively affect Spherion's ability to oversee the project. Further, OPA found that certification of development deliverables by a third party required significant duplicative effort and cost to the City with little or no added benefit. Finally, while the recommendations made by the Comptroller's Office in their 1996 report referenced in the audit did include certifications, they explicitly did not recommend certification of development deliverables.

2. *OPA materially changed the contract scope, raising concerns about the independence and objectivity of quality assurance*

The audit report suggests that Amendment No. 2 to the Spherion Atlantic Enterprises LLC contract

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

with OPA, which added the services of Subject Matter Experts, "may have violated" Procurement Policy Board Rules.

Amendment No. 2 was approved as to form and certified as to legal authority by the City's Law Department at the time the amendment was executed. After reviewing the issue in light of this audit, it continues to be the Law Department's view that Amendment No. 2 does not violate the PPB Rules. Amendment No. 2 was registered by the Comptroller's Office, after review by its Office of Contract Administration. The independence and objectivity of Spherion was unaffected by this amendment and is no different than any firm engaged in the provision of Quality Assurance services.

3. *Independence and objectivity issues regarding a critical report and cost projection*

The audit findings in this section question the objectivity and accuracy of two key reports. One was an assessment of the application system architecture and scalability, the other a cost projection. Further, the audit finds the cost projection to have been inaccurate.

The architecture assessment was clearly within the scope of the QA contract and has been proven to be accurate. The independence and objectivity of Spherion is no different than any firm engaged in the provision of Quality Assurance services. The cost projection was not a Spherion product, but an OPA report, validated by Spherion, that proved to be a useful starting point for a budget process that resulted in a reasonably accurate project budget.

4. *Missing quality assurance reports*

The audit found that Spherion did not produce QA Summary Reports required by the Contract, or the reports were missing, for the period January 2001 through April 2008, and that this shortcoming limited the auditors' ability to gain insight into the Quality Assurance process.

The contract did not require written reports with respect to all activities. Certain reports were acceptable and delivered orally at the bi-weekly project meetings and the quarterly Steering Committee meetings. All reports required by the Contract were delivered by Spherion.

As OPA demonstrates below, the findings and conclusions of this audit are not consistent with the demonstrated effectiveness of the system now in operation for 70,000 employees. OPA's management of the CityTime project, assisted by Spherion's oversight, has resulted in a system that has dramatically improved the City's timekeeping accuracy and efficiency, a system that will be working and working well for over 160,000 City employees by June 30th.

OPA's more detailed response to the Audit's findings is presented below.

The Removal Of Reviews And Certifications From The Quality Assurance Contract

In the first amendment to the Spherion QA contract with OPA (the Contract), OPA removed the requirement for Spherion to certify deliverables produced by the Developer of the software (SAIC and its predecessor organizations aka "the Developer"). As described below, Spherion continued to conduct reviews. What was changed was the requirement to *certify* Developer deliverables. Certification would, in effect, give the City a contractual guarantee backed by Spherion that a deliverable produced by the Developer would meet the needs of the City. To be able to ascertain whether a deliverable should be certified, Spherion would need to have knowledge as deep as or deeper than both the Developer and the

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

City in a number of subject areas. Some of these subject areas, such as information technology architecture, Spherion could be reasonably expected to bring to the project. Others, such as the detailed requirements of the City regarding the desired functionality of the timekeeping system that was to be developed, would need to be cultivated as a result of participating in the project. Ascertaining and documenting the City's requirements were the objectives of the earliest deliverables of the project. This was accomplished by conducting analysis sessions with every City agency. The Developer had started the process of gathering and documenting requirements almost two years before the QA Contract was initiated and completed the deliverables before Spherion's QA team started. These deliverables had already been reviewed and approved by the City. For Spherion to be in a position to contractually certify these deliverables would require the work to be substantially repeated for the benefit and education of the Spherion analysts. This rework would involve the redundant efforts of every City agency, the Developer and OPA to reconfirm their requirements and was not in the scope of the Developer's contract with OPA. For Spherion to be in a position to perform the certification of historical deliverables, it would be necessary to amend the Developer's contract, at significant cost to the City. Since it is the City that is responsible for the success of the program, not the QA contractor, and these deliverables had already been reviewed by the City and were found to be acceptable, it was decided that certification was not necessary.

The audit also describes Spherion's attempt to review and certify these historical deliverables and the numerical scores assigned to them. OPA determined that Spherion was not able to properly assess the work done prior to their engagement, through no fault of their own, because they did not yet possess the depth of knowledge necessary to do so - knowledge that could only be gained through participation in the project. The low numerical value that resulted from Spherion's attempt to assess these historical deliverables is more indicative of their lack of participation than of any shortcomings in the deliverables themselves. OPA does not believe that the results of finishing the retrospective deliverable assessment would have impacted results in any material way.

On a prospective basis, deliverable certification would require significant participation by Spherion in every project activity. This level of participation was not envisioned in the original QA contract. The magnitude of resources that the QA function was expected to bring to the project is indicated by the cost. The Spherion QA contract was budgeted at just under 10% of the Developer contract, which is an industry standard. The City did not expect Spherion to devote enough staff to attend every session, document every meeting and thereby be in a position to certify every deliverable with such a small proportion of the resources that it took to develop those deliverables in the first place. Also, this is not how the City as a whole conducts QA engagements. The Department of Information Technology and Telecommunications (DoITT) manages the citywide contracts used by agencies to procure QA services to oversee information technology projects. According to DoITT, not a single QA engagement made under those contracts has ever required the QA firm to certify deliverables. It is not a "best practice". On a prospective basis, OPA required Spherion to review and assess, but not certify, every deliverable. All of the other contractual responsibilities Spherion was assigned with respect to review of deliverables in the original scope of work were left intact by Amendment No. 1, including the specific requirement that Spherion "monitor the development of CityTime deliverables with respect to their scheduled delivery dates, report conditions where the deliverables may not be completed on time and within allotted budgets and where insufficient City or Developer resources have been assigned, and make recommendations to OPA as early in the process as possible for corrective actions required to reduce risk." See, the Contract, Section 2.2 c (iii). The first amendment to the Spherion Contract thus simply aligned Spherion's QA services to the City's standard to more effectively meet the program's requirements and more efficiently utilize the City's resources.

The audit report states, "The Comptroller's Office cited OPA in a 1996 report for not requiring the consultant to certify developer deliverables." The 1996 report was actually the Comptroller's Office

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

response to a request made by OPA for a review of the Request For Proposals (RFP) for A Quality Assurance Consultant for CityTime. That RFP resulted in the selection and award of the Contract to Spherion. The Comptroller's recommendations included certifications, but explicitly excluded certification of design and programming deliverables, for which it specified reviews. As amended, the Spherion contract is in compliance with the Comptroller's recommendations.

The audit report states that OPA directed Spherion not to produce phase completion certification reports. These phases were: Development, Test, Pilot Implementation and Agency Implementation. Further, the report states that a small number of the reviews included in the original contract were conducted. When the project was re-baselined in 2006, the development and implementation approaches were changed. Rather than the discrete phases mentioned above, software was to be developed in six incremental releases, each release tested prior to promotion into production, implementation to be done while development was on-going. Each release would go through its own Requirements, Design, Development, Test and Implementation phases, adding thirty phases to the overall project. The different project approach required a revised QA approach. The reviews envisioned in the original contract were no longer relevant. Rather than certifying a phase, Spherion oversaw testing, conducted lessons-learned sessions and recommended process improvements as each release was developed and each agency was implemented. In 2007, an independent evaluator was hired to assess the viability of the project. This independent assessment validated the new, more detailed approach in a report dated October 11, 2007 which stated, "There appears to be appropriate project oversight and ongoing status reviews to ensure progress, issues, etc. are communicated and known by the management team. Project risks are well known and appropriate actions to mitigate the risks are being undertaken." In June 2008, the independent evaluator added regarding QA, "The overall project is benefiting from implementing recommendations for quality improvements. Their influence on the project is notable in the level of detail and quality imparted to the weekly project reporting."

The audit report states, "Spherion's ability to systematically review and evaluate the developer's deliverables was already compromised by OPA's decision to remove that requirement from the agreement". OPA removed the requirement for Spherion to certify deliverables, not the requirement to review and evaluate them. That activity continued. The report concludes that by making these changes, the CityTime project continued without benefit of a strong QA function and therefore put the City at risk. In fact, OPA proceeded with a fully engaged, appropriately sized QA team providing services in a manner consistent with the Comptroller's prior recommendations and the City's and industry standards for such engagements.

OPA Materially Changed The Contract Scope, Raising Concerns About The Independence And Objectivity Of Quality Assurance

We note at the outset that Amendment No. 2 was approved as to form and certified as to legal authority by the Law Department at the time the amendment was executed. In addition, we shared the draft audit with the Law Department and, after reviewing the issue in light of the audit, it continues to be the Law Department's view that Amendment No. 2 does not violate the PPB Rules. Amendment No. 2 was registered by the Comptroller's Office, after review by its Office of Contract Administration.

The Spherion Contract broadly stated its objectives in the original version of Section 2.1, in pertinent part:

"One of the OPA's express purposes in entering into this Agreement with Spherion is to benefit from Spherion's Quality Assurance expertise. It is the responsibility of Spherion, therefore, in its provision of QA Services, to perform all work and services necessary and required to be performed, prepared, and/or furnished to help ensure the

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

timely and successful completion of the CityTime project. Spherion shall advise OPA of significant requirements that the Developer knows or reasonably should have known should be addressed or included in Deliverables. It is understood that Spherion shall use its expertise in the performance of the QA Services specified in this Agreement. It is also understood that it is Spherion's responsibility to provide OPA with advice and recommendations based upon its expert analysis and that final decisions regarding CityTime shall be made by the City. * * *

Contract changes to the Spherion Contract that were necessitated by a change in the scope of the underlying CityTime contract with the CityTime developer were explicitly permitted in Section 1.4.1(b) of the Spherion Contract.

Amendment No. 1 to the Spherion Contract, dated July 10, 2010, among other things, added to Spherion's responsibilities the following:

"provide technical and project management advice, as required by the OPA Assistant Executive Director, CityTime, or designee, to the Project Team, ...FISA...DoITT ..." Section 2.2(c)(viii).

Amendment No. 2 to the Spherion Contract, dated June 27, 2002, among other things, added a new section "Subject Matter Experts" to read in pertinent part:

"Upon request by the City, Spherion agrees to provide certain Subject Matter Experts chosen by the City who will assist the City in analyzing and managing the CityTime Developer's services and in other implementation activities...These SME's shall report directly to the OPA Assistant Executive Director, CityTime..." Section 2.3.6.

Prior to the execution of Amendment No. 2, the structure of the underlying CityTime contract was undergoing significant changes, principally the change of the CityTime system design to a web-based architecture as well as other technology changes. It became clear to OPA that the changes to the CityTime project necessitated that Spherion add additional expertise and perform monitoring services, particularly in the area of system architecture requirements and technology changes. One of the ways that the additional expertise was added in order to perform the additional services was through SMEs. The SMEs were used to assist OPA with its project management responsibilities under the CityTime contract such as reviewing acceptance testing protocols and conducting acceptance testing, defining City agency requirements, and advising OPA on the size, composition and effectiveness of the CityTime developer's staffing teams.

As noted at the outset, the audit report questions whether adding SME's materially altered the scope of Spherion's work. There is nothing unusual about the inclusion of SMEs in addition to quality assurance staff to perform functions under a contract. Here, those responsibilities were to review and assure the quality of the CityTime developer's performance. Subcontractors and subconsultants are normal parts of City contracts. Moreover, given the broad objectives of the Spherion Contract and the complexity of the ongoing changes to the development of the CityTime system, such work performed by SMEs clearly did not constitute a material change in scope of Spherion's work. These additional functions of Spherion's SMEs served the very same objectives articulated above for quality assurance services—"to help ensure the timely and successful completion of the CityTime project," as well as "to provide OPA with advice and recommendations based upon its expert analysis." The technical and project management functions performed by Spherion SMEs are not inherently different in purpose or scope from quality assurance services. Moreover, it is common in other City quality assurance contracts for large system integration projects to combine quality assurance services with project management (including services performed in

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

part by SMEs) in a single contract. Therefore, the addition of SMEs in Amendment No. 2 to the Spherion Agreement did not constitute a material change in scope in violation of the PPB Rules.

The audit report also contends that even if Amendment No. 2 was proper, once Spherion took on SME services and became involved in the management of the project, such an arrangement created a conflict of interest, potentially compromising Spherion's independence and responsibilities as OPA's quality assurance vendor. The important feature of any quality assurance contract is that the quality assurance contractor maintain its independence from the project developer and that it not perform quality assurance on its own services. Spherion stayed within those boundaries and, in doing so, performed a role that was no different than other quality assurance contractors. It worked for and reported directly to OPA, it continued to maintain its independence from the CityTime Developer, and its independence was in no way undermined by the SME's providing technical and project management assistance to OPA. It did not perform any quality assurance reviews of its own work. In this regard, it is important to emphasize that it is not uncommon for quality assurance contractors to combine both quality assurance services and project management. In the Spherion Contract, as with the other quality assurance contracts, the quality assurance contractor reports directly to the management responsible for the underlying project being reviewed. A quality assurance contractor is equally independent of the project developer when it performs strictly quality assurance services as when it assists a City agency with project management.

The report makes reference to the increasing costs over time of the QA function. Total QA costs remained below 10% of the project total, which is the industry norm. Given that the cost of the CityTime project as a whole was increasing, the magnitude of the effort required to oversee it increased commensurately. The report further states: "It is likely that the City overpaid for SME services since 2002 because they were not competitively bid." The report provides no information supporting this statement. An analysis performed by OPA compares the rates in the Spherion Contract with OPA to the rates published in Spherion's contract with the New York State Office of General Services (NYS OGS). The NYS OGS contracts are negotiated by the State and are used by State, County and local government agencies. These contracts are competitively bid and the rates OPA has paid for SMEs represents a 48.3% discount from those rates.

Independence And Objectivity Issues Regarding A Critical Report And Cost Projection

When SAIC became the Developer in 2000, software development had already commenced based on a system architecture that had been accepted by the City. In 2003, when it became clear that the architecture needed to be updated, a new design was developed with the agreement of the City. Before proceeding with the project, the City needed assurance that the system as designed was scalable, flexible and maintainable to meet the City's needs going forward. Clearly this assessment was within the scope of the Spherion QA services. (*See*, the Contract, Sections 2.2 c (ii) and (iv) which provide that Spherion shall "review and evaluate system architecture during design and implementation to help ensure CityTime effectiveness and efficiency" and "monitor and evaluate the CityTime Developer's adherence to proposed system architecture".) Rather than have such an important assessment reflect the opinion of a Spherion QA analyst, OPA directed Spherion to have this assessment done by the Gartner Group, a technology consultancy that has long served as a trusted advisor to the City on matters of information technology which had no stake in the project. The independence of Spherion has already been addressed. The Gartner Group's positive findings regarding the suitability of the architecture have been proven to be accurate by the performance of the CityTime system as it has been implemented to now over 70,000 employees, with new users added every week. The CityTime system works, works well and performs above expectation.

The cost projection was an OPA document produced in 2005 that was used to re-baseline the budget and schedule of the project. It was based on estimates to complete the development and implementation of

The Office of Payroll Administration's Response to the City Comptroller Audit Report on OPA's Monitoring of the Oversight of the CityTime Project By Spherion Atlantic Enterprises LLC - FM10-135A

CityTime that were initially prepared by the Developer and then validated by Spherion. This validation is clearly within the envisioned scope of Spherion's QA services. (See, the Contract, Sections 2.2 c (iii) and (v) which provide that Spherion shall "monitor the development of CityTime deliverables with respect to their scheduled delivery dates, report conditions where the deliverables may not be completed on time and within allotted budgets..." and "assess requested modifications to deliverables, costs, and schedule to determine if they are within the scope of the CityTime Contract and in compliance with its provisions and advise if a Change Order is required.").

The audit report concludes that because the eventual project costs exceeded those in the 2005 cost projection, this projection was grossly inaccurate. The report states that "the cost projection either grossly underestimated the cost of the project or did not include significant costs." Indeed, the footnotes to that projection clearly state that it excluded the costs of system operations, production data center costs after 2006, field costs to install timekeeping devices and networks, and the deployment of WorkForce Management (WFM) to the uniformed agencies. These are significant costs. More important, this projection was only the starting point of a dialog with OMB, not the conclusion. That dialog resulted in a revised project budget, adopted approximately nine months later, that included some, but not all, of the excluded costs. As of June 2006 and based on the planning that began with the September 2005 cost projection, the capital plan for CityTime was revised by OMB, adding over \$425 million to the over \$114 million already contracted with the Developer and covering an implementation period through fiscal year 2010.

The audit report compares the \$209 million September 2005 cost projection to the current Developer contract maximum of \$628 million, implying a budget underestimation of 300%. As described above, the actual projected cost was the \$114 million spent to date plus the \$425 million budgeted to complete the effort, for a total of \$539 million. The \$628 million is a maximum amount, the committed amount is less. The more appropriate comparison would be the 2006 projected budget of \$539 million to the approximately \$575 million committed at the time of the audit, a 6.7% underestimation.

One factor not anticipated in the planning process was the degree to which agencies would, when it came time to implement CityTime, articulate new requirements of the system not presented at the beginning of the project. Some of these requirements were deemed critical to the acceptance of the system by the requesting agencies, and were therefore approved. This led to additional software development that, although planned to coincide with the implementation plan, also led to extending the duration of implementation. This project risk was noted by Spherion repeatedly in its reports to OPA, and was neither the fault of the Developer nor of Spherion. Implementation progress was documented throughout the duration of the project and the impacts on the project budget and schedule were considered unavoidable.

The other cost not recognized in the September 2005 projection was the cost of the developers who support the production when in operation. These two costs combined account for the underestimation.

Missing Quality Assurance Reports

OPA shared with the Comptroller's Office staff conducting the audit hundreds of required progress reports that had been prepared by Spherion during the period in question. According to the Contract, while several reports were required to be written, QA Summary Reports were not. For much of the period in question, the progress reports clearly stated that a summary of QA risks and findings were presented in weekly Project Status meetings and in meetings with the Executive Director of OPA. All other required reports were provided in writing. Spherion met all contractual reporting requirements.

Section 2.2 (d) of the Contract outlines Spherion's reporting requirements under the Contract as follows:

**The Office of Payroll Administration's Response to the City Comptroller Audit
Report on OPA's Monitoring of the Oversight of the CityTime Project By
Spherion Atlantic Enterprises LLC - FM10-135A**

(d) Spherion shall provide:

- (i) bi-weekly written progress reports reflecting tasks performed by the Spherion team in accordance with Spherion reporting standards, or to a standard as agreed upon with OPA.
- (ii) written issue papers noting issues requiring resolution and recommending appropriate actions and alternate solutions or methods, as appropriate.
- (iii) written reviews of the CityTime Developer's deliverables, within the CityTime contract review time frames,
- (iv) written certification of the CityTime Developer's deliverables, and
- (v) Spherion QA summary reports at
 - (a) bi-weekly CityTime Project Management meetings and
 - (b) quarterly CityTime Steering Committee meetings.

The contract language clearly requires that the first four reports be written. The contract does not specify that the fifth reporting requirement be written. Rather, such reporting was done orally at the bi-weekly project meetings and the quarterly Steering Committee meetings. Written progress reports and meeting minutes provided in connection with the audit clearly indicate that Spherion was present and participating in the Project Management meetings and the Steering Committee meetings, as well as numerous other project meetings, as required. Throughout the duration of the project, reports were produced that document significant dialog between OPA and Spherion on project issues and risks. The reports were produced in formats tailored to the needs of the project at any given time and to the evolving requirements of the City.