



Oracle ERP Implementation: Audit Update
- Contractor Oversight (performance audit)
- Review of Quality Assurance Services for
Oracle Implementation (1st Quarterly Report)

City Auditor's Office

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Audit Requests

- Oracle implementation process (contractor oversight)
 - Audit committee directive, May 2006
 - Concerns about cost and schedule overruns
- Interim report on contractor oversight
 - Finance executive committee request, Nov. 2006
 - Legislation introduced to increase funding and extend contracts for the implementation
- Quality assurance services provided by Tescom
 - Resolution 06-R-2577, Nov. 2006
 - Requested quarterly reports to finance executive committee



Audit Objectives

Contractor Oversight Audit Report

- Is the city providing sufficient oversight of contractors' work on the implementation?
- Are the quality assurance processes for the implementation working effectively?
- Report covers 2005 and 2006

Quality Assurance Quarterly Report

- What risks are being reported to the steering committee by Tescom and what is being done to mitigate those risks?
- Report covers December 2006 through early March 2007



Audit Methods

Interviews

- Steering committee members
- City project team staff
- Program director and other project contractors

Document Review

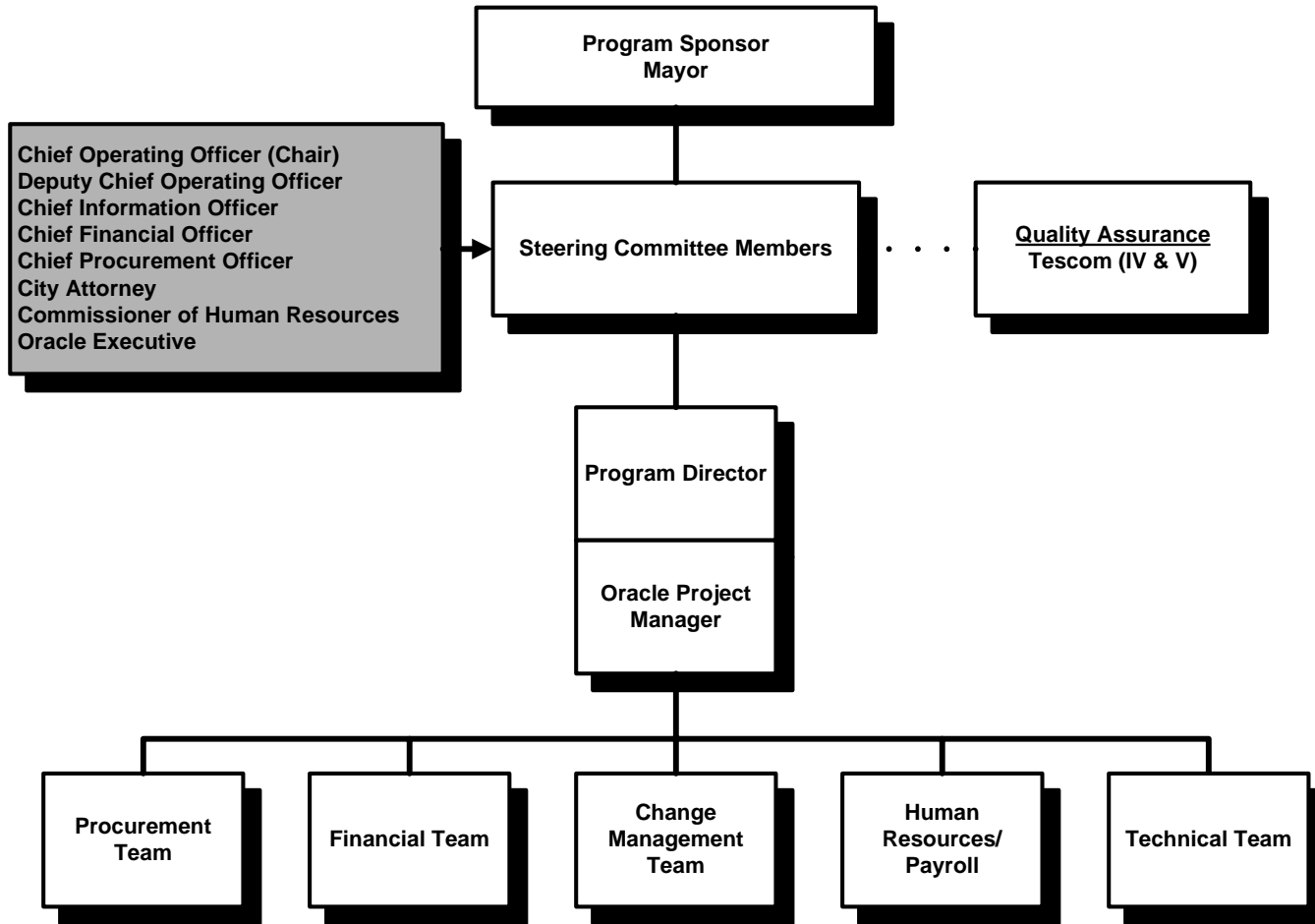
- Selection processes and statements of work for contractors
- Steering committee agendas, minutes and handouts
- Contractor work products
- Contractor invoices and payments

Analysis

- Flowchart of approval and signoff processes for contractor work products
- Compilation and grouping of issues and in project tracking database

The audits were conducted in accordance with generally accepted government auditing standards.

ERP Project Organization





Performance Audit: Contractor Oversight in Oracle Implementation

Conclusions

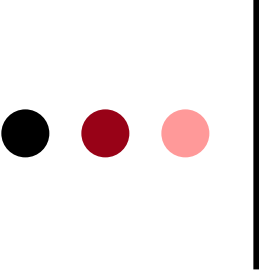
- Steering committee was slow to make decisions and communicate requirements, which hampered oversight
- At end of phase I, system requirements were not defined
- When city hired new consultants for phase II, the project manager wrote a scope of work that showed the project as further along than it was



November 2006 interim audit recommendations largely implemented

We recommended that Tescom should

- Review process change requests to determine:
 - ❖ If the price quoted by Oracle to implement the request is reasonable
 - ❖ If the request can be accommodated within Oracle's standard functionality
 - ⇒ *Started in February*
- Review the work of the project manager
 - ✓ *Started in March*
- Report directly to the steering committee as a whole and concurrently provide reports to the city audit team
 - ✓ *Tescom is providing reports to the steering committee*
 - ⇒ *We don't receive reports concurrently, but we do get them when posted or on request*
- Other recommendations addressed program director's contract
 - ✓ *Done with RFP in December, new contract authorized in February*



Steering committee agreed with recommendations in final report on contractor oversight

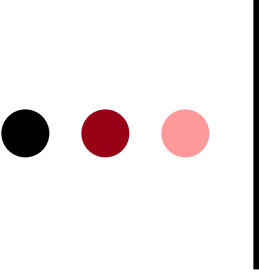
The steering committee agreed to the following actions regarding Tescom's role in the project:

- Develop a process for evaluating whether requested changes in software functionality are necessary:
 - ❖ The steering committee agreed and stated that beginning in March 2007, Tescom will conduct an evaluation of the financial benefits and costs of change requests
- Require direct reporting and accountability from Tescom
 - ❖ The steering committee agreed and stated that Tescom began reporting directly to the steering committee in November 2006



Conclusions – Quality Assurance

- Implementation is behind schedule, jeopardizing go-live date and posing quality risks
- Tescom provides reports to steering committee but reports lack important elements
- Tescom reports indicate recurring problems in project management and decision-making, similar to those we observed in phase 1



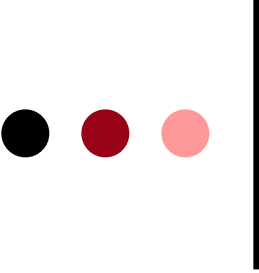
Implementation is behind schedule,
jeopardizing go-live date and posing
quality risks

- Important activities are behind schedule
- Some components are postponed indefinitely, to be done after go-live
- Critical/high priority issues are unresolved
- Scheduled go-live dates are unchanged
- Time left for testing and training before go-live is reduced



Important activities are behind schedule

- Reports, interfaces, conversions, and extensions (RICE) are a critical component of implementing the system
- Scheduled completion date pushed back from January 19 to February 29
- 3 extensions and 8 custom reports were incomplete at end of February
- Planned airport interfaces postponed until after go-live



3 Aviation interfaces are postponed indefinitely, to be done after go-live

- Aviation's inventory and maintenance information system will not be connected with Oracle at go-live
- Aviation staff will “upload” data from Aviation's Maximo system into Oracle in batches
 - These data are needed for daily updates that affect timely financial information
- Manual batch transfers of data mean more work for staff and higher risk of human error than automatic transfers
- The city will bear the cost of completing this work later



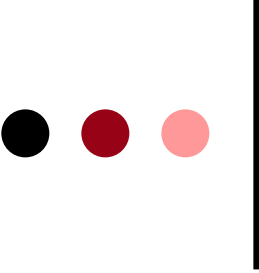
First phase of system testing behind schedule

- System integration testing (SIT) is first major test of the implementation
- Completion date moved from March 16 to March 30, but meeting new date also in doubt
- Testing completed as of March 22:
 - HR 66%
 - Finance 46%
 - Procurement 21%



Testing is highlighting issues that must be addressed

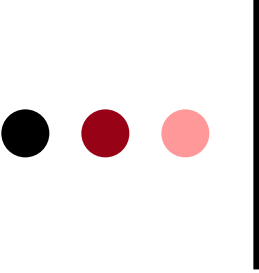
- Tescom identified 107 unresolved issues that can affect SIT at March 15 steering committee meeting, up from 83 at Feb. 15 meeting
- 40 of the March issues were classified as high or critical priorities by the project team, up from 31 in February
- None of the high or critical priorities were past due in March, down from 7 in February



Testing points to data problems and lack of needed decisions

Of the 83 open issues as of February 15:

- 43 are problems with data - bad data in existing systems, or data moved into Oracle but ending up in the wrong place
 - Nearly all are in HR/Payroll data from PeopleSoft system
 - Included are problems with social security numbers that we reported to management in March 2005 and summarized in March 2006 payroll audit report
- 15 issues require management decisions
 - 2 were subjects of audit recommendations we made in a July 2006 memo



Testing points to data problems and lack of needed decisions

Of the 107 open issues as of March 15:

- 55 are problems with data - bad data in existing systems, or data moved into Oracle but ending up in the wrong place
 - The majority are in HR/Payroll data from PeopleSoft system
 - Included are problems with social security numbers that we reported to management in March 2005 and summarized in March 2006 payroll audit report
- 12 issues require management decisions
 - More than half related to HR/Payroll
 - One requires the city's confirmation of a business process, was originally due Feb. 1, now due March 31.

Delays and unchanged go-live date compress time for testing and training

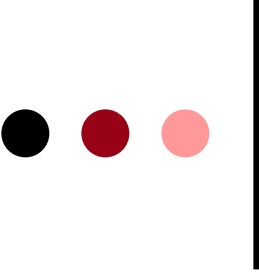
Project Plan as of December 19, 2006

ID	Task Name	Dec 2006	Jan 2007				Feb 2007				Mar 2007				Apr 2007				May 2007				Jun 2007				Jul 2007											
						1/7	1/14	1/21	1/28	2/4	2/11	2/18	2/25	3/4	3/11	3/18	3/25	4/1	4/8	4/15	4/22	4/29	5/6	5/13	5/20	5/27	6/3	6/10	6/17	6/24	7/1	7/8						
1	Responsibility Matrices	[Red bar]																																				
2	System Integration Testing					[Green bar]																																
3	User Acceptance Testing														[Blue bar]																							
4	End User Training														[Yellow bar]																							
5	Go live Human Resources																														◆							
6	Go live Payroll																														◆							
7	Go live Financial/Procurement																														◆							

Project Plan as of March 21, 2007

ID	Task Name	Dec 2006	Jan 2007				Feb 2007				Mar 2007				Apr 2007				May 2007				Jun 2007				Jul 2007						
						1/7	1/14	1/21	1/28	2/4	2/11	2/18	2/25	3/4	3/11	3/18	3/25	4/1	4/8	4/15	4/22	4/29	5/6	5/13	5/20	5/27	6/3	6/10	6/17	6/24	7/1	7/8	
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Source: Project plan as of December 19, 2006, project plan as of March 21, 2007, plan for adding names to responsibility matrices



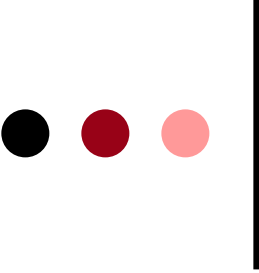
Delays and unchanged go-live date compress time for testing and training

- Aggressive schedule now seems unrealistic
 - Plan allows no time for resolving issues between current testing and the next step - user acceptance testing
 - Time allowed for user acceptance testing assumed current testing would be “clean”
- Tight time frame could compromise quality
 - Temptation to push things forward without full resolution of problems
 - User training and satisfaction could suffer



Tescom is providing reports to steering committee

- Reports focus attention on status of project plan and schedule, but
- Reports should spell out implications of the problems they identify, and
- Reports should include meaningful recommendations



Tescom reports brought attention to status of project plan and schedule

- Project plan wasn't up to date
- Tescom's first steering committee report in December 2006 showed 400 items past due
- Some tasks appeared to be 2 or 3 months behind schedule
- Tasks had been completed but not updated in the project plan
- After Tescom review, completed tasks were updated, past due tasks were actually 45



Consultants made requested changes without steering committee approval

- Tescom reviewed 5 unapproved change requests and reported results to steering committee on February 27
- Oracle consultants had made 3 of the changes:
 - ❖ One was a new business requirement requiring major customization
 - ❖ Two clarified existing requirements and led to minor modifications
- Tescom recommended that the steering committee disapprove the other 2 requests, which asked for new business requirements



Reports should describe implications of identified issues

- Reports summarize numbers of issues
- Project team rates priority of issues
- Discussion of how issues could affect implementation quality or schedule would assist steering committee
- Steering committee members, mostly non-technical executives, could benefit from more explanation



Reports should include meaningful recommendations

- Recommendations suggest continued monitoring by Tescom
- Action-oriented suggestions could be directed to program director, Oracle consultants, and city staff
- Needed decisions or directives by steering committee could also be recommended



Tescom reports highlight recurring problems

- Audit report and Tescom reports show continuing problems:
 - Slow decision making and issue resolution
 - Changing system requirements
 - Tasks postponed in effort to stay on schedule and within budget
 - Quality suffers if system launched before it is complete
 - Costs postponed, shifted, may increase