



IT ADVISORY

# **Miami Dade County Public Schools**

## **Payroll Parallel Testing Strategy Assessment Findings and Recommendation Report with Management Response**

KPMG LLP

August 16, 2010



# Table of Contents

- ◆ Scope of KPMG's Assessment
- ◆ Approach
- ◆ Executive Summary
- ◆ Assessment Results
- ◆ Recommended Next Steps
- ◆ Appendix A – Documentation Reviewed



## Scope of KPMG's Assessment

On August 3, 2010, Miami-Dade County Public Schools (M-DCPS or District) agreed to an addendum to the Agreement with KPMG LLP (KPMG) dated July 15, 2008 that would continue KPMG's point-in-time assessment of M-DCPS's SAP ERP project during the month of August, 2010. KPMG was engaged to assess the parallel test solution strategy of the Payroll release.

As such, the scope of this report includes the assessment of the parallel payroll testing strategy only. This effort was comprised of the review of project documentation and other materials related to the testing strategy (see Appendix A).

This report constitutes KPMG's observations and recommendations as a result of the field work conducted from August 3<sup>rd</sup> to August 15<sup>th</sup>, 2010.



## Approach

KPMG assessed the payroll test strategy against the IT Governance Institute's COBIT<sup>1</sup> (v4.1) framework. COBIT is an internationally accepted framework that integrates all of the main global IT standards and best practices, including ITIL, CMMI, and ISO/**IEC 27002**. COBIT assists in the implementation of effective IT control and governance.

The COBIT framework is organized into high-level IT processes that are categorized into four domains to measure whether an IT control process is meeting its objective: Planning and Organization, Acquisition and Implementation, Delivery and Support, and Monitoring and Evaluation. These COBIT domains assist management in defining a strategic IT plan, defining the information architecture, acquiring the necessary IT hardware and software to execute an IT strategy, ensuring continuous service, and monitoring the performance of an IT system.

<sup>1</sup> *Control Objectives for Information and related Technology (COBIT)*



## Approach (Continued...)

Using COBIT as the framework, KPMG evaluated the applicability of parallel payroll test strategy against the Acquire and Implement (AI) domain, specifically for control considerations within AI7.2 (Testing Strategies and Plan) and AI7.6 (Parallel/Pilot Testing) that were applicable to the parallel payroll test strategy.

KPMG's Test Strategy assessment focused on the payroll parallel testing strategy and compared it to leading practice strategies for system implementation projects. The key document reviewed was the "*Payroll Parallel Testing Strategy*", and a complete list of documentation can be found in Appendix A.

KPMG did not re-perform testing of test scripts or assess if test criteria was complete to meet user requirements.



## Approach (Continued...)

The assessment included the listed areas as related to payroll parallel testing:

- Testing Methodology (ASAP methodology used)
- Test scope verification (ensuring the presence of a finite scope for testing purposes e.g., accounts receivables, account payables, etc)
- Types and levels of testing to be done
- Test environment, population and focus areas
- Structure of testing team
- Test roles and accompanying security policies
- Test schedules
- Testing tools
- Defect management
- Audit of test results
- Risk and Issues management



## Executive Summary

Overall, the parallel payroll testing strategy contains leading practices for an implementation of this size and complexity.

The HP Quality Center (QC) solution is being used during the payroll testing project as the integrated tool for automated testing, quality assurance, and defect tracking. The use of this tool is consistent and leverages many automated test management capabilities that significantly improves the test management process over those more manual and 'home-grown' approaches like desktop databases and spreadsheets.

The review of the testing strategy for payroll testing did not result in any significant findings. However, a few observations were noted that should be taken into consideration. Details of these process improvement opportunities can be found in the *Assessment Results* section of this report.



# Assessment Results





## Assessment Results

Overall, the parallel payroll testing strategy contains leading practices for an implementation of this size and complexity, and the review of the parallel payroll test strategy did not result in any significant findings.

KPMG noted the following leading practices:

- Key considerations *have been* documented in the strategy and plan, including test and site preparation; training requirements; installation of a defined test environment; performance/documentation/retention of test scripts; defect handling, appropriate test phases; and exit criteria have been established.
- The system-to-system parallel testing approach *will be* used for the majority of the employee data. This captures all the required inputs to the Legacy payroll and converts them to SAP before running SAP Payroll. Users' involvement will be limited to the comparison of the data and the resolution of differences.



## Assessment Results

- The Dual entry approach (setup the SAP system with the base master data Legacy inputs but allow users to enter transactional data in both systems ) *will be* utilized for a small but representative selection of employees.
- *Indefinite* parallel testing will be done until the District is comfortable with testing results.
- Gross Payroll, Net Payroll, and Gross to Net Payroll parallel testing scenarios *will be* done.
- Once SAP Payroll has completed, a custom comparison tool *will be* utilized to compare/analyze Gross/Net wage types against Legacy payroll results.
- Testing acceptance criteria *has been* defined.



## Assessment Results (Continued...)

KPMG noted the following additional observations:

- An issue log exists to track issues but the existence of a risk log was not identified.
- Roles and responsibilities have been defined for testing, however resources have not been identified by name to fulfill the identified roles specific to the payroll release.
- The number of man hours required to complete integration testing has not been estimated. Scheduling resources is essential to ensure timely completion of the testing phase and quality in execution and resolution of defects.
- All outstanding defect are discussed at a daily defect meeting attended by the PMO/CIO. Defects are escalated at this meeting based upon their impact, but it is unclear whether or not formally documented escalation procedures and contingency plans exist for issues and risks for the benefit of all stakeholders.



## Recommended Next Steps



## Recommended Next Steps

### Define Key Categories

- The testing team should clearly define the key categories that cause deviation within the parallel test results even when within the testing acceptance criteria.

***Management Response:*** *M-DCPS will add the required categories to the strategy document to ensure that testing routing and recording will be done properly.*

The purpose of this is to mitigate the risk of exponentially growing the variance after deployment to the production environment.



## Recommended Next Steps

### Create a Risk Register

- A risk register should be used to track items that could potentially become issues.

***Managements Response:*** M-DCPS will create a risk log and add it to the project site for proper monitoring.

- While it is important to have an issues log, it is also important to have a risk log that tracks suspected events before they become issues.

***Management Response:*** This has been addressed as part of the PY 1.0 implementation scope document.

- Create a corresponding risk mitigation strategy.

***Management Response:*** This has been addressed as part of the PY 1.0 implementation scope document.



## Recommended Next Steps (Continued...)

### Develop a Resource Plan

- The plan should assign resources to each identified testing role and estimates the number of man hours required to complete the tasks identified for each role.

**Management Response:** *A resource plan is being developed as part of the re-base line of the PY 1.0 testing effort. Resources are being allocated based on an 8 hour work day.*

- Assigning resources and estimating duration ensures capacity management and resource leveling in order to complete testing procedures with the appropriate level of quality and in a timely manner.

**Management Response:** *As part of resource plan we are ensuring that proper weighting is being given to each resource to ensure proper testing. Additionally, BPO participation has also been taken into account to ensure that acceptance criteria is met.*



## Recommended Next Steps (Continued...)

### Define Contingency Plans

- Contingency plans should be formally documented for the benefit of all project stakeholders. Not all project stakeholders—such as sponsors, developers, and others—will have an opportunity to participate in the daily defect meetings. Plans should cover cases for when defect turnaround times exceed the defined limits. Defining contingency plans ensure that defects are tracked to resolution and that status updates are made on an interim basis.

**Management Response:** *A weekly touch point meeting with key stakeholders will be scheduled to ensure proper steps are taken to keep testing on schedule.*

- Further contingency plans may assist the PMO and Release Lead to identify when workarounds will be required to address defects prior to go-live. The contingency plans can be used to manage the daily defect meeting.

**Management Response:** *For every defect that is identified a workaround will be implemented e.g. calendar year end, data re-alignment, etc. This will be documented appropriately within the defect management tool.*





## Appendix A: Documentation Reviewed



## Appendix A: Documentation Reviewed

- ◆ KPMG's assessment was also based upon reviewing the following project documentation:

#	Description	Document Name / Application
1	Payroll Parallel Testing Strategy	M-DCPS PY 1 Payroll Parallel Testing Strategy Draft.docx (as of 7/23/2010)
2	Payroll Parallel Testing Strategy	PY 1 0 Parallel Testing DRAFT EXTENDED.ppt (as of 7/23/2010)
3	Test Plan	Test Plan v 10.doc (03/22/10)
4	Issues Log	Maintained directly in SharePoint under path ERP Project \Project Issues