Audit of WMATA's Kronos Implementation Project

What We Found

While the Washington Metropolitan Area Transit Authority (WMATA), starting in 2016, followed a structured IT Project Lifecycle Management (PLM) process to implement Kronos, all of the project stages were not fully executed. Specifically, WMATA deployed Kronos without: (1) performing a study of alternative solutions prior to procuring Kronos; (2) understanding and validating all timekeeping processes, practices and business rules; and (3) adequately completing all test cases and scenarios.

Consequently, after spending about $18.4 million on the initial deployment, Kronos implementation was suspended. The configuration errors resulted in employees not being paid or inaccurately paid. After Kronos was suspended, WMATA spent an estimated $1.6 million to fix and validate payroll errors.

Planned redeployment of Kronos in October 2020 is expected to cost an additional $17.7 million. WMATA is projected to spend a total of $37.7 million to implement Kronos – 1.88 times more than the original budget. A successful redeployment is facilitated by WMATA adhering to the IT PLM processes, including reconfirming that Kronos is the best timekeeping solution, developing a project plan, implementing requirements, and adequately performing tests.

Management's Response

WMATA's Chief of Internal Business Operation (CIBO) and CFO provided written comments dated April 5, 2019 (see Appendix B). The CIBO and CFO concurred with the findings and five of the six recommendations. Regarding recommendation 1, the CIBO and CFO recommended not conducting a feasibility study at this juncture of the project. We adjusted recommendation 1 after the exit conference from conducting a feasibility study to confirm Kronos was the best solution for WMATA's mission and objectives. Subsequently, WMATA held discussions with the OIG, and was provided documentation confirming the Kronos solution. With the issuance of this report, we consider recommendation 1 closed. The management's comments also indicated these offices will provide an updated workplan on May 15, 2019, which will contain a full schedule to address the remaining five recommendations. OIG considers management's comments responsive to the recommendations and corrective actions taken or planned should correct the deficiencies identified in the report.

TABLE OF CONTENTS

ABBREVIATIONS AND ACRONYMS

ABBREVIATION	DESCRIPTION
CBA	Collective Bargaining Agreement
CFO	Chief Financial Officer
CIBO	Chief of Internal Business Operations
ESC	Executive Steering Committee
GM/CEO	General Manager/Chief Executive Officer
HCM	Human Capital Management
IT	Information Technology
OIG	Office of Inspector General
PLM	Project Lifecycle Management
SDLC	System Development Life Cycle
WMATA	Washington Metropolitan Area Transit Authority

BACKGROUND

Since 2008, WMATA has used PeopleSoft and Human Capital Management (HCM) modules as its payroll and timekeeping system of record. On June 10, 2014, the Federal Transit Administration issued the *Financial Management Oversight Review* Report citing weaknesses in controls over cash, federal and capital grant management processes, and payroll and human resource processes. WMATA decided to implement Kronos as its primary timekeeping system.

Kronos was intended as the authoritative rules-based system of record for timekeeping. The implementation of Kronos would enforce:

- current timekeeping policies,
- time and labor clauses in all active collective bargaining agreements (CBA) with its unions, and
- payroll and timekeeping data integrity.

The implementation of Kronos is a significant change in business practices and operations that WMATA undertook by moving away from a predominately "schedule based" time and attendance approval process to a "punch based" process.

Kronos implementation was suspended on July 22, 2018, due to several configuration and processing issues. WMATA temporarily reverted back to the PeopleSoft system and paper timesheets until the Kronos issues could be corrected. Kronos redeployment is expected in October 2020.

The CFO is the executive sponsor, and the IT Department, under the CIBO, is one of the primary stakeholders for Kronos. Both offices established a project office and charter outlining project roles and responsibilities.

The Executive Steering Committee[1] (ESC) provides organizational oversight and ensures the project meets the business objectives. The ESC makes key decisions on policy, requirements, design and schedule to meet these business objectives. The ESC is the key decision-making body for Kronos, including the organizational accountability for implementing processes and procedures resulting from the Kronos implementation.

The CFO, IT Department, and the Office of Procurement and Materials collaborated to award contracts as follows:

- March 11, 2016, WMATA awarded ImmixGroup, Inc., a sole-source,[2] and firm-fixed price contract valued at $2.9 million for one year. The contract was modified six times and increased by $4 million.

---

[1]The ESC consists of WMATA Executives or Chiefs of IBOP, CFO, COO, CIO, HR, MTPD, COUN, and LABR.

[2]WMATA's justification for a sole source was that there was "Only One Responsible Source."

- December 21, 2016, WMATA awarded ImmixGroup, Inc., a time and materials contract valued at $552,000 for one year, with three option year periods. This contract was modified twice and increased by $1.4 million.

- Thirty-seven task orders totaling $13 million were awarded under WMATA's Basic Ordering Agreement for staff augmentation.

To date, the total cost of the implementation of Kronos is about $18.4 million.

Prior Reports

On April 28, 2014, the OIG issued the audit of *WMATA's Metroconnect Human Capital Management (HCM) Project*. The audit concluded WMATA: (1) did not update or amend the project management plan to correspond with the changes in the System Development Life Cycle (SDLC) methodology and (2) deviated from the original SDLC methodology. Both of these actions were taken to speed up development and meet project time constraints. To satisfy the recommendation, WMATA developed the IT PLM process.

On September 7, 2018, the Office of IT Quality Assurance conducted a "Root Cause Analysis" and published the lessons learned from the suspended deployment of Kronos on July 15, 2018. The analysis captured the detailed identification of events and root causes dated to 2016.

AUDIT OBJECTIVE AND RESULTS

Audit Objective

The audit objective was to assess the initial deployment and redeployment of Kronos.

Audit Results

While WMATA, starting in 2016, followed a structured IT PLM process to implement Kronos, all of the project stages were not fully executed. Specifically, WMATA deployed Kronos without: (1) performing a study of alternative solutions prior to procuring Kronos;[3] (2) understanding and validating all timekeeping processes, practices and business rules; and (3) adequately completing all test cases and scenarios.

What Is Required

The IT PLM process was used to provide a structured and consistent project management approach to implement Kronos. See chart 1 below.

Chart 1 - Kronos IT PLM Process Stages
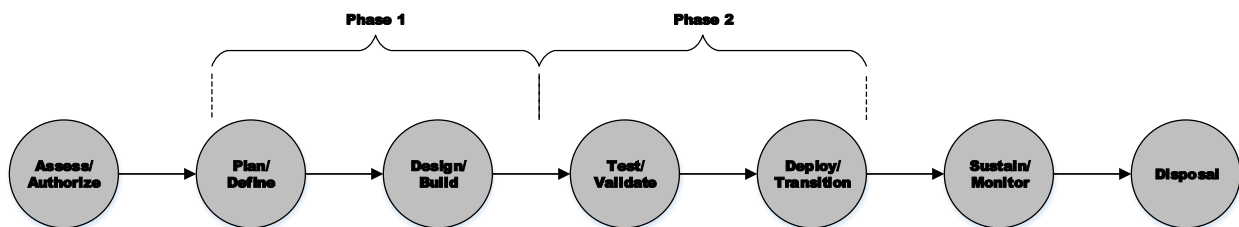
PLM Criteria

- Plan and Define Stage - After the project charter has been approved, the project manager develops a project management plan to identify and assign specific tasks, deliverables, and required resources.

- WMATA's Project Charter, Requirements Gathering Section provides instruction in gathering WMATA's timekeeping and absence management practices, approval workflows, job scheduling and picking processes, and capital project expense practices to identify bottlenecks, gaps, and other problems. Subsequently, the processes would be used to define the business and technical requirements.

---

[3]While WMATA officials indicated that a feasibility study had been conducted, they were unable to provide evidence of it.

- WMATA's Project Charter, Requirements Validation Section provides processes to ensure defined practices are consistent with CBA rules. This section also requires feedback on problems with existing practices, and to begin the process of acquiring approval for future changes. This section would be used to develop the cases and scenarios for the test and validate stages. This included extracting, documenting, and validating timekeeping rules from the CBA agreements and WMATA policies.
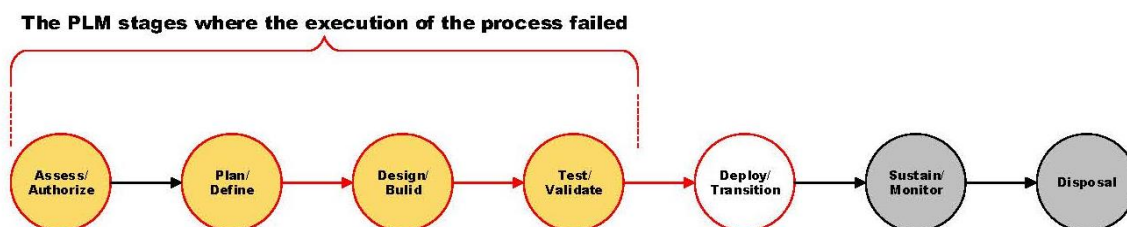
Control Objective for Information and Related Technologies - 5[4] *Customized Process Reference Guide*, in the Build, Acquire and Implement section provides best practices for organizations as follows.

- Perform a feasibility study of potential alternative solutions, assess their viability and select the preferred option. If appropriate, implement the selected option as a pilot to determine possible improvements.

- Prepare for solution testing, establish a test plan and required environments to test the individual and integrated solution components, including the business processes and supporting services, applications and infrastructure.

- Execute solution testing continually during development, including control testing, in accordance with the defined test plan and development practices in the appropriate environment. Engage business process owners and end users in the test team. Identify, log and prioritize errors and issues identified during testing.

What We Found

Starting in 2016, WMATA generally followed the IT PLM process. However, WMATA did not fully execute all IT PLM stages. Chart 2 shows where the breakdowns occurred in each stage.

Chart 2 - Kronos IT PLM Stages Breakdown in Project Execution

---

The details of IT PLM stage breakdowns are contained in the proceeding bulleted sections.

- **Assess and Authorize Stage (Feasibility or Technical Analysis)** - WMATA did not conduct a study of alternative solutions to determine whether Kronos was the best solution to meet WMATA's needs. Contract FQ16082 provides WMATA's justification for implementing Kronos. The justification stated that WMATA needed to meet Federal Transit Administration recommendations and continuity of operations but did not include the identification and evaluation of alternative solutions.

- **Plan and Define Stage (Requirements Gathering)** - WMATA deployed Kronos without fully gathering and accurately implementing all the business and technical requirements. For example, WMATA did not include CBA requirements for timekeeping practices, such as: calculating breaks, paying overtime, and calculating holiday pay.

- **Transition into Design/Build and Test/Validate Stage (Testing)** - WMATA did not adequately test Kronos prior to deployment. The summary test plan provides that 43 employees were selected to test Kronos. However, only 17 of 43 employees fully completed the 11 test scenarios.

Kronos Redeployment Status:

- **Plan and Define Stage (Project Management Plan)** - WMATA officials have not approved the new project management plan. The project management plan ensures that all the project stages, milestones, and deliverables will be executed, and WMATA meets the October 2020 deployment date.

Why This Occurred

These conditions occurred for the following reasons:

- *WMATA Proceeded with Implementation Before Resolving Critical Issues* - WMATA officials made a decision to proceed with implementation, despite missing business and technical requirements and incomplete testing. For example, WMATA decided to go live, even though parallel testing was not completed and results showed there was a high defect rate.

- *Unrealistic Project Timeframe* - WMATA initially awarded a one-year contract for full deployment of Kronos. It subsequently awarded a second contract to complete requirements for the initial deployment. Moreover, an IT official stated that inadequate time was given for key stakeholders to review requirements or participate in testing efforts.

- *Missing Guidance in the PLM Process* - The PLM process did not contain specific guidance to conduct a technical feasibility study including an alternative solutions analysis before acquiring IT systems.

- *Additional Training Needed* – More emphasis on targeted communication and training was needed that explained the benefits and impacts of the new processes and system.

Why This Is Important

Without fully executing the IT PLM process, Kronos implementation was suspended, costing WMATA about $18.4 million, including exceeding project costs by almost $5.3 million. This included inaccurately paying $700,000 to some employees, while other employees were not paid. After Kronos was suspended, WMATA spent $1.6 million to fix and validate payroll errors.

Planned redeployment of Kronos in October 2020 is expected to cost WMATA an additional $17.7 million. WMATA is projected to spend a total of $37.7 million (1.88 times[5] more than the original budget) to implement Kronos (refer to Table 1 below).

Table 1 - Costs of the Kronos Implementation

Initial Deployment	Costs
Initial Budgeted Project Cost in Project Charter:	$ 13,093,000
Additional Cost Over Budget:	$ 4,600,000*
Estimated Payroll Payment Errors:	$ 700,000*
Total Actual Project Cost:	$ 18,393,000
After Initial Deployment	
Estimated Correction/Fixing of Timekeeping Errors:	$ 500,000*
Validation of Timekeeping Errors:	$ 1,132,000*
Total Actual Cost of Fixing and Validation of Errors:	$ 1,632,000
Kronos Redeployment	
Additional Budgeted Project Cost:	$ 17,720,000**
Estimated Total Overall Costs:	**$ 37,745,000**

*Questioned Costs[6] of $6.9 million
**Funds Put to Better Use[7] of $17.7 million

A successful redeployment is facilitated by WMATA adhering to the IT PLM processes, including reconfirming that Kronos is the best timekeeping solution, developing a project plan, implementing requirements, and adequately performing tests.

---

[5]$37,745,000 minus $13,093,000 totals $24,652,000 divided by $13,093,000 = 1.88

[6]Questioned Costs – A cost that is unnecessary, unreasonable, unsupported or results from payment errors.

[7]Funds Put to Better Use – Funds that could be used more efficiently by implementing a recommended action.

In addition, the project management plan for the redeployment of Kronos has not been finalized because of delays in the budget approval process. Until this process is completed, WMATA cannot establish a reasonable set of project milestones and deliverables for Kronos redeployment.

Recommendations

We recommend to the General Manager/Chief Executive Officer:

1. Confirm that Kronos is the best solution for WMATA's mission and objectives. (CLOSED)

2. Develop, implement, and incorporate guidance in the IT PLM process to conduct future feasibility studies to evaluate the best IT solution to fit WMATA's needs. (CIBO)

3. Gather, validate, and approve all informal and formal business processes and requirements prior to Kronos redeployment. (CIBO and CFO)

4. Conduct comprehensive tests with full stakeholder participation prior to Kronos redeployment. (CIBO and CFO)

5. Finalize the project management plan to ensure that WMATA has a roadmap to redeploy Kronos. (CIBO and CFO)

6. Conduct targeted training that explains the benefits and impacts of the new processes and system. (CIBO and CFO)

SUMMARY OF MANAGEMENT'S RESPONSE

WMATA's CIBO and CFO provided written comments dated April 5, 2019 (see Appendix B). The CIBO and CFO concurred with the findings and five of the six recommendations. Regarding recommendation 1, the CIBO and CFO recommended not conducting a feasibility study at this juncture of the project. We adjusted recommendation 1 after the exit conference by conducting a feasibility study to confirm Kronos was the best solution for WMATA's mission and objectives. Subsequently, WMATA held discussions with the OIG, and was provided documentation to confirm the Kronos solution. With the issuance of this report, we consider recommendation 1 closed. The management's comments also indicated these offices will provide an updated workplan on May 15, 2019, which will contain a full schedule to address the remaining five recommendations. OIG considers management's comments responsive to the recommendations and corrective actions taken or planned should correct the deficiencies identified in the report.

OBJECTIVE, SCOPE, AND METHODOLOGY

Objective

The audit objective was to assess the initial deployment and redeployment of Kronos.

Scope

The scope of audit was from the project kick-off in March 2016 to the new projected Kronos implementation date of October 2020.

Methodology

To achieve our audit objective, the OIG:

1. Reviewed Kronos project documentation including SharePoint, JAZZ, and Clarity, WMATA's IT PLM processes, and Contracts FQ16082, FQ17052, and FQ15124 used to implement Kronos.

2. Conducted interviews with management and staff from IT, CFO, Office of Procurement and Materials, Labor Relations, Office of Bus Maintenance, and Management Audits, Risk and Compliance to understand the Kronos project operations, processes, challenges, and root causes of observed deficiencies.

3. Reviewed internal controls over applicable IT PLM stages for the Kronos deployment and the redeployment effort.

4. Reviewed Control Objectives for Information and Related Technologies - *5 Customized Process Reference Guide* as a best practice and various external and internal reports on payroll and timekeeping practices.

5. Reviewed the Office of IT Quality Assurance's "Root Cause Analysis" and lessons learned from the failed deployment of Kronos.

6. Reviewed invoices, purchase orders, and contract price estimates and obtained data from WMATA's financial and contract management systems to estimate Kronos implementation costs.

We did not rely on computer generated data to accomplish our objective.

This audit was from August 2018 through March 2019 in accordance with generally accepted government auditing standards. 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 objective. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objective.

MANAGEMENT'S RESPONSE

M E M O R A N D U M

SUBJECT: Office of Inspector General (OIG)   DATE: April 5, 2019
Audit of WMATA's Kronos
Implementation Project

FROM: IBOP – John T. Kuo
CFO – Dennis Anosike

THRU: GM/CEO – Paul J. Wiedefeld

TO: OIG – Geoffrey Cherrington

M metro

WMATA's Chief of Internal Business Operations (CIBO) and Chief Financial Officer (CFO) have prepared the following in response to the Office of Inspector General's (OIG) Audit of WMATA's Kronos Implementation Project.

WMATA's CIBO and CFO have reviewed the audit report and held preliminary discussions regarding OIG's recommendations with the offices of Information Technology (IT) and Accounting. This memorandum details the initial plans to address referenced areas and improve the implementation of the Kronos Project, in line with the OIG's recommendations.

The CIBO and CFO concur with five of the six recommendations in the report and will proactively use OIG's recommendations to address each of the identified areas. The following actions will be taken:

- Revise the IT Project Lifecycle Management (PLM) process to include feasibility studies;
- Formalize all business processes and requirements prior to Kronos redeployment;
- Finalize the Kronos Project Management Plan;
- Complete comprehensive testing with full stakeholder participation prior to Kronos redeployment; and
- Deliver targeted trainings that explain the benefits and impacts of the new processes and system.

Washington Metropolitan Area Transit Authority

<u>OIG Recommendations & Management Response:</u>

1. Confirm that Kronos is the best solution for WMATA's mission and objectives.

   a. The CIBO and CFO decline this recommendation. The IBOP and CFO

Office of Inspector General (OIG)
Audit of WMATA's Kronos Implementation Project
Page 2

offices do not recommend performing a Feasibility Study at this point, as efforts will be more productive focusing on the improvement of Organizational Change Management (OCM). Additional analysis to review and have WMATA leadership formally approve any previously "informal" requirements are included as part of recommendation 3.

2. Develop, implement and incorporate guidance in the IT PLM process to conduct future feasibility studies to evaluate the best IT solution to fit WMATA's needs.

    a. The CIBO accepts this recommendation. IBOP will work with the appropriate stakeholders to develop, implement, and incorporate their guidance into the IT PLM process. This will include feasibility studies to evaluate the best IT solution to fit WMATA's needs. An update on the progress of this recommendation will be provided to OIG by May 15, 2019. The updated workplan (see response to recommendation 5) will have the full schedule to address this item.

3. Gather, validate and approve all informal and formal business processes and requirements prior to Kronos redeployment.

    a. The CIBO and CFO accept this recommendation. Additional activities and time will be incorporated to the Re-Launch Plan to fully document, socialize, and obtain approval on any previously "informal" requirements. The OCM team will be engaged to ensure that any training, communication, or other business readiness activities are performed as needed. This will allow WMATA to formally include in the scope any of these previously informal requirements.

    Every effort will be made to identify any additional issues with the previously implemented scope and perform extensive user and parallel testing. It should be clearly noted the Kronos Project solution will only implement formally approved requirements going forward. An update on the progress of this recommendation will be provided to OIG by May 15, 2019. The updated workplan (see response to recommendation 5) will have the full schedule to address this item.

4. Conduct comprehensive tests with full stakeholder participation prior to Kronos redeployment.

    a. The CIBO and CFO accept this recommendation. Extensive user testing will be scheduled with all of the previously identified key stakeholders as

Office of Inspector General (OIG)
Audit of WMATA's Kronos Implementation Project
Page 2

a condition of the Re-Launch Plan. The OCM team will work with these stakeholders to accommodate their schedules. If necessary, the project schedule will be delayed to ensure all stakeholders have been engaged and provide signoff acceptance. The team will also proactively monitor the availability and participation of key stakeholders as a project risk and escalate any issues to executive leadership as soon as they arise. An update on the progress of this recommendation will be provided to OIG by May 15, 2019. The updated workplan (see response to recommendation 5) will have the full schedule to address this item.

5. Finalize the project management plan to ensure that WMATA has a roadmap to redeploy Kronos.

   a. The CIBO and CFO accept this recommendation. The project management plan will be finalized to include additional focus on OCM, additional user acceptance training (UAT), and extensive parallel testing in the plan. The estimated completion date for the project management plan is May 15, 2019.

6. Conduct targeted training that explains the benefits and impacts of the new processes and system.

   a. The CIBO and CFO accept this recommendation. We have engaged Kronos to enhance our training function for this project and better integrate it with OCM. We will develop a tailored training that directly reflects the process and day-to-day duties that our users must perform using Kronos (not just Kronos functionality). A more comprehensive and proactive approach to OCM, including improved communication with impacted stakeholders, additional support to executives (in the form of structured guidance and messaging to cascade down to their teams), and assessments of stakeholder impact and potential risks. An update on the progress of this recommendation will be provided to OIG by May 15, 2019. The updated workplan (see response to recommendation 5) will have the full schedule to address this item.

TO REPORT FRAUD, WASTE, OR ABUSE

Please Contact:

Email: wmata-oig-hotline@verizon.net

Telephone: 1-888-234-2374

Address: WMATA
                       Office of Inspector General
                       Hotline Program
                       600 5th Street, NW, Suite 3A
                       Washington, DC 20001