

The City of Kingston

Consolidated Report

Payroll Scheduling, Time and Attendance Review

October 31, 2021

Contents

Executive Summary	1
Objectives and Scope	1
Overall Summary of Results	3
Summary of Observations	4
Implementation Roadmap	8
Detailed Observations and Recommendations	

This report has been prepared by KPMG LLP ("KPMG") for the internal use of The City of Kingston ("the City" or "Kingston") pursuant to the terms of our engagement agreement with Kingston signed June 29, 2021 (the "Engagement Agreement"). This report is being provided to Kingston on a confidential basis and may not be disclosed to any other person or entity without the express written consent of KPMG and Kingston. KPMG neither warrants nor represents that the information contained in this report is accurate, complete, sufficient or appropriate for use by any person or entity other than Kingston for any purpose other than set out in the Engagement Agreement. This report may not be relied upon by any person or entity other than Kingston, and KPMG hereby expressly disclaims any and all responsibility or liability to any person or entity other than Kingston in connection with their use of this report.

We had access to information up to October 6, 2021 in order to arrive at our observations but, should additional documentation or other information become available which impacts upon the observations reached in our report, we will reserve the right, if we consider it necessary, to amend our report accordingly. This report and the observations and recommendations expressed herein are valid only in the context of the whole report. Selected observations and recommendations should not be examined outside of the context of the report in its entirety.

Our observations and full report are confidential and are intended for the use of Kingston. Our review was limited to, and our recommendations are based on, the procedures conducted. The scope of our engagement was, by design, limited and therefore the observations and recommendations should be considered in the context of the procedures performed. In this capacity, we are not acting as external auditors nor value for money auditors and, accordingly, our work does not constitute an audit, examination, value for money, attestation, or specified procedures engagement in the nature of that conducted by external auditors on financial statements or other information and does not result in the expression of an opinion.

Pursuant to the terms of our engagement, it is understood and agreed that all decisions in connection with the implementation of advice and recommendations as provided by KPMG during the course of this engagement shall be the responsibility of, and made by, Kingston. KPMG has not and will not perform management functions or make management decisions for Kingston.

Executive Summary

Objectives and Scope

In accordance with the approved engagement letter signed June 29, 2021, a review of the payroll scheduling, time and attendance process was conducted for the City of Kingston.

The objective of this review was to assist The City of Kingston (the "City"), on behalf of the Project Sponsor, in identifying a path forward to optimize and modernize the City's time and attendance systems and various sub-systems through a review of existing processes. This included identifying opportunities for, and formulating recommendations with respect to:

- The existing time, attendance and scheduling systems in use across the corporation
- Streamlining the tracking of time and attendance to reduce manual effort
- Reducing opportunity for errors, improved processing efficiency and turnaround times with fewer adjustments
- Eliminating manual processes for requesting and approving time-off and updating leave entitlement balances
- Integrated scheduling processes that will minimize duplicate entry
- Enhancing internal controls and reducing risks
- Associated workorder management and vehicle usage processes and systems
- Building agility to be able to adapt to the changing requirements and complexities of the municipal business environment
- Leading practices in this area such as allowing employees to enter time and attendance data and allowing managers to approve/reject time and attendance data
- A phased-in implementation plan that identifies scope, timing and resources required to address the recommendations.

The responsibility for establishing and maintaining Internal Control Over Financial Reporting ("ICOFR") and directing activities related to the assessment of business processes and controls rests with management of the City.

This consolidated report is an extract of our full report dated October 25, 2021 and should be considered a summary only; this full report has been separately provided to City staff.

KPMG carried out the review using our Internal Audit Services methodology consisting of the following:

Phase	Approach
1. Project initiation	 Project Sponsor / Project Manager Meeting Introduced team members, confirmed the scope, established expectations and validated our approach.
	 Kick-off Meeting Oriented the Committee to key project elements, including approach, milestones, timeline, project structure, communication plan and consultation/engagement plan. Feedback was gathered and any necessary changes to the elements of the charter were made.
2. Current State Analysis	 Documentation review KPMG collated and analyzed key documentation requested from, and provided by, the City.
	 Identification of processes to be mapped KPMG proposed a progressive mapping plan via an iterative approach that included the following sub-processes: Scheduling Employee requests and approval for time off Timesheet collection and entry Integration (or entry into) HRMS Payroll processing (audit and pay run). Current state process mapping

	KPMG developed an understanding of the current state through 6 process mapping workshops in line with the sub- processes above. These process mapping exercises included a specific focus on key information systems including TTS, Hastus, CMMS, M5, Goldcare, and manual systems.	
	 Key stakeholder consultations 	
	 KPMG engaged key stakeholders during the facilitated workshops to provide input on high level visioning and design criteria for a future state. Key individuals were also engaged on a "one on one" basis outside of these sessions as needed – see our full report for a detailed list of personnel contacted during this review. 	
	 Broader stakeholder consultation 	
	 KPMG prepared, distributed and analyzed two separate employee-facing surveys targeting municipal employees on their perception of the City's payroll process. 	
	 Validation of process maps 	
	 KPMG worked with the City to validate that the information and the maps are accurate. 	
3. Desired	 Control design assessment 	
State & Gap Analysis	 KPMG considered key sub-processes and related risks from an internal control design perspective. 	
	— Gap Analysis	
	 KPMG undertook a detailed gap analysis that assessed current processes against the City's goals, needs/opportunities, future demand/service expectation and other better practices and delivery models. 	
	 Future state design 	
	 Due to extensive individual observations and the strong need for a more modern information system to support the payroll scheduling, time and attendance process, KPMG liaised directly with the project team and key members of 	

	management in lieu of broader "future state" workshops, to ensure that our recommendations were practical and considerate of the City's needs.
4. Final Report & Presentation	 Draft report KPMG provided a final report to be reviewed with the Project Sponsor / Committee.
	 Final report KPMG issued this final report reflecting the feedback received during the iterative draft report review process.

	High	1	Low	-
# of Observations ¹	Medium	1	Improvement Opportunity	2

Sı	Summary of Observations2		
#	Rating	Observation	
1	Improvement Opportunity	Short-term solutions: Inefficiencies and other gaps may be temporarily resolved via short-term solutions	
2	Improvement Opportunity	Partial solutions: Inefficiencies and other gaps may be partially resolved via short-term solutions	
3	High	System weaknesses and unreliable user-led solutions have led to reduced control over personal information	
4	Medium	Current systems are outdated and do not meet the needs of most users	

¹ Please refer to Appendix 9 of our full report dated October 31, 2021 for definitions of observation rating criteria.

² Observations within this report have been prioritized in order of the roadmap presented on the following page: the associated risks of each unmitigated observation are as described in Appendix 9 of our full report dated October 31, 2021.

Overall Summary of Results

The payroll scheduling, time and attendance process has been assessed in line with the scope described above. Via this review, we have worked with the various departments of the City to gain an understanding of the current payroll scheduling, time and attendance processes pain points and requirements, and have collaboratively developed a work plan to address these current-state challenges.

Personnel responsible for the payroll scheduling, time and attendance activities at the City have demonstrated a strong understanding of the tasks required to effectively pay City employees without the benefit of a modern software solution. Nonetheless, as the volume, frequency and complexity of the HR and Payroll environment increases, a capable HCM and Payroll system is urgently required to ensure that the City continues to meet its workforce management and regulatory responsibilities.

Based on the results of our process understanding and control design testing, we observed several weaknesses in the information systems in place to support the payroll and HR processes:

- Current systems are outdated, with key systems having been implemented and in use since 1999. Key requirements of a modern Human Capital Management ("HCM") and Payroll environment are missing or currently being serviced with aging in-house developed solutions. In certain circumstances, this has resulted in user-led solutions that impact the security and reliability of personal information (e.g. Time Tracking System (TTS), user-led spreadsheet solutions).
- Due to system limitations, there are weaknesses over the accuracy/existence of employee hours. Preventative and/or detective controls over errors reported in employee timesheets are primarily manual controls; system functionality has not been effectively established to monitor for material variances, missing time, coding errors, and other common data entry inaccuracies. This has also led to inefficiencies in the effort required to perform these duties
- There are inefficiencies throughout the scheduling, time, attendance and payroll processing sub-activities. Extensive time is spent maintaining time and attendance spreadsheets outside of the current HRMS or sub-systems. Lack of confidence in the system, challenges in functionality, and lack of automation (e.g. approval workflows) are creating inefficiencies for staff at all levels, although predominantly at the clerical and supervisor levels.

- There is a lack of standardization across departments and "clusters" of staff. Current processes are decentralized across the City resulting in a variety of differing systems, methods and tools. This has contributed to both increased costs (labour hours, system and process maintenance) in addition to increased processing errors (for example, in most cases, application of Collective Bargaining Agreement (CBA) requirements, benefits, allowances and premiums are left to the interpretation and knowledge of the clerk inputting the time into the system).
- Duplication of effort and redundancies in the approval processes (i.e. vacation approvals, timecard approvals). Duplicate entries and efforts are occurring at a variety of points within the City's scheduling, time and attendance processes differing across each department. This includes duplication of time and attendance entry into multiple systems, contributing to data inconsistencies and labour inefficiencies.
- Recurring timesheet coding errors require weekly effort from key payroll and clerk personnel to resolve.
- Overreliance on key personnel, where certain Clerk and Supervisory roles are heavily relied upon to process large batches of employee timesheets; these individuals harbour unique institutional knowledge that would be difficult to quickly re-establish should the employee depart the City (e.g. recurring errors to be corrected before submission). This has also led to restrictions on personnel leave, and difficulties arranging back-up support.
- Existing systems may not be utilized to their full benefit; however, implementation of unused system features may require substantial configuration effort.

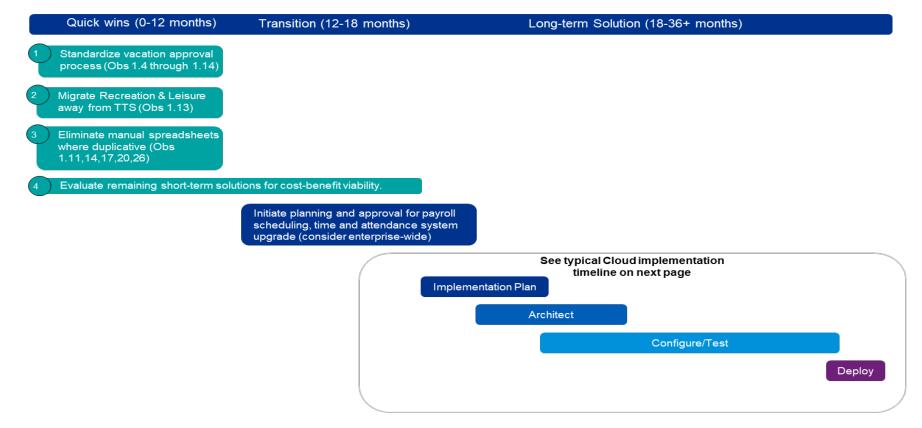
During our review, we identified approximately 100 gaps or weaknesses for which the substantial majority can be resolved, or partially resolved, by a modern Human Capital Management (HCM) and Payroll software solution. As part of our scope of work, we explored various short-term solutions to remediate these gaps without the benefit of a system upgrade. While these short-term solutions have been identified, we do not recommend actioning these in lieu of a system upgrade due to prohibitive costs and change management barriers. In short, a large proportion of these observations do not have an effective short-term solution.

Going forward, a strong focus on consistent IT governance of all systems and software solutions will be important to ensure that the pattern of user-driven solutions does not persist. The authority of the IS&T department, alongside user education, will be critical to ensure solutions introduced to resolve the above weaknesses remain effective. The capacity of the IS&T department must be a key consideration in the implementation of any IT-enabled solution.

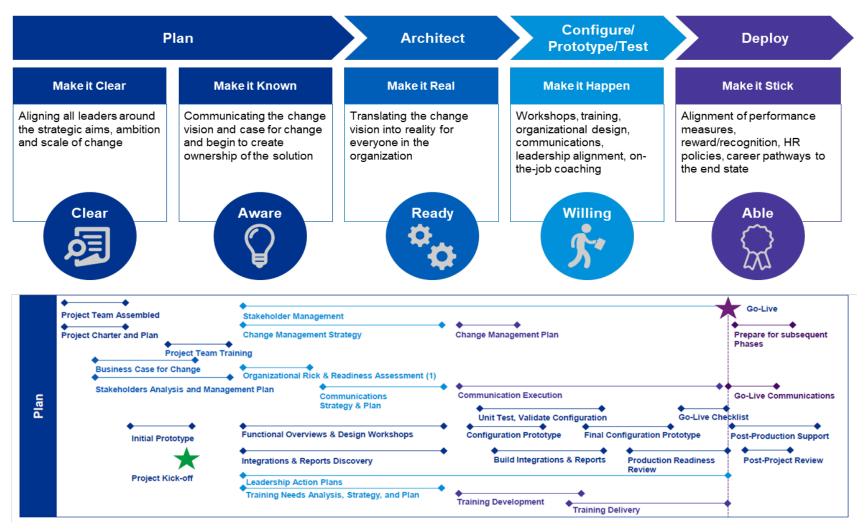
We thank management and staff for their full cooperation and professionalism during the conduct of this review.

Implementation Roadmap

The diagram below identifies a journey for improvement that considers both the implementation of certain short-term solutions, in addition to a future system upgrade. Short-term solutions have been included at the request of the City and have been selected based on anticipated level of effort, while considering the status of existing ongoing initiatives within the department. It is ultimately the decision of the City regarding which short-term solutions, if any, should be prioritized in advance of necessary system improvements.



Typical Cloud Implementation



Detailed Observations and Recommendations

1. Short-term solutions: Inefficiencies and other gaps may be temporarily resolved via short-term solutions

Observation Rating: Improvement Opportunity

Root Cause Category — System weaknesses; lack of standardized processes.

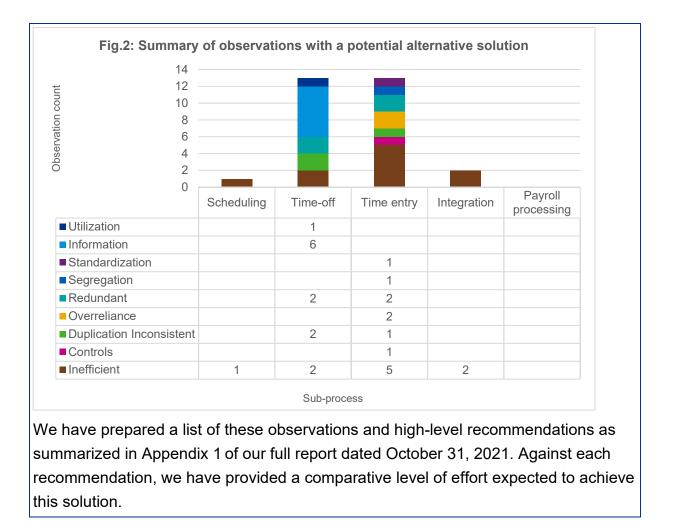
Findings and Impact

Criteria:

While system limitations are a significant barrier to improvement for the City's payroll scheduling, time and attendance processes, certain observations may be resolved via short-term solutions. At the City's request, we have identified potential resolutions to a variety of gaps identified during the review.

Condition:

As part of our scope of work, we explored various short-term solutions in an attempt to close these gaps without the benefit of a system upgrade; while not recommended in lieu of a system upgrade due to prohibitive costs and change management barriers, the following 29 observations can likely be resolved by other means:



2. Partial solutions: Inefficiencies and other gaps
may be partially resolved via short-term solutionsObservation
Rating:
Improvement
OpportunityRoot Cause Category — System weaknesses; lack of
standardized processes.Standardized processes

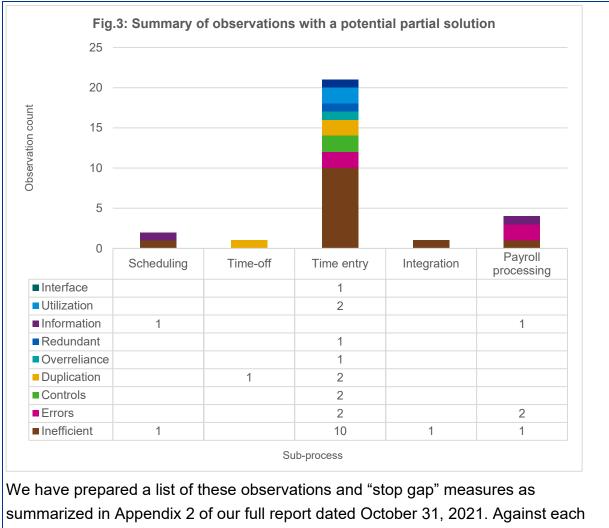
Findings and Impact

Criteria:

In addition to the short-term solutions identified in observation #3, a variety of observations could be partially resolved considering current system limitations. At the City's request, we have identified potential resolutions to a variety of gaps identified during the review.

Condition:

As part of our scope of work, we explored various short-term solutions in an attempt to close these gaps without the benefit of a system upgrade. The following 29 observations could be partially resolved via "stop gap" measures; however, we do not recommend these measures due to prohibitive costs, non-ideal solutions, and the significant amount of change management activities required to implement in some cases:



summarized in Appendix 2 of our full report dated October 31, 2021. Against each measure, we have provided an indication of the level of effort expected to achieve this solution.

3. System weaknesses and unreliable user-led solutions have led to reduced control over personal information	Observation Rating: HIGH
Root Cause — Ineffective systems in place to meet user needs; lack of policy and URL (web address) filtering on unapproved shadow-IT solutions.	
Findings and Impact	

Criteria:

Software solutions are generally managed by, or at a minimum approved and tracked by, a centralized Information Systems & Technology department. This department performs a variety of key functions to govern the City's IT infrastructure, including the implementation and maintenance of key information systems and related software. Systems and solutions that do not fall under this central IS&T oversight are referred to as "shadow IT", being IT solutions developed and/or deployed by departments to work around system shortfalls and other weaknesses.

Software leveraged for City use must be approved and implemented in a way that is legal (i.e. meets vendor commercial use requirements), secure, and effective in interfacing with other systems across the various interrelated departments and user groups.

IS&T must be aware of, and maintain an oversight role over, all systems to ensure general IT controls are satisfied, including but not limited to system access (i.e. segregation of duties), physical access controls, program change management (including security updates/patches), back-up and recovery, and data integrity/integration with other systems.

Condition:

TTS

Time Tracking System (TTS) is an in-house time capture and cost tracking solution that was developed by the City of Kingston, primarily for the use of the Utilities

department. With historical changes to the legislation surrounding the governance of the Utility, ownership and maintenance of TTS has migrated to Utilities Kingston which, while owned by the City, does not fall into the operating structure of the City's IS&T department. As a result, oversight of TTS (including security, backup and recovery, data integration, and other integrity controls) falls outside of the City's core control. Personal employee information for certain City of Kingston employees is housed on Utilities Kingston Infrastructure.

Non-approved end user computing

A variety of user-acquired tools are being used within the payroll scheduling, time and attendance process. Based on an internal survey issued by KPMG to City personnel, the following self-reported responses suggest heavy reliance on custom solutions, including solutions outside of the City's IS&T control:

- Employee scheduling: 41% of respondents with scheduling responsibilities reported using Microsoft Excel as their primary tool for planning and monitoring employee schedules. 10% indicated that they use Google Docs/Sheets. Only 15% relied on purpose-built software such as TTS, Goldcare, CMMS or M5.
- Time-off Requests and Approvals: Of those employees responsible for administering or approving time-off requests, 28% reported using Microsoft Excel as their primary administration tool. 5% of this group self-reported as using Google Docs/Sheets.
- Time sheet approvals and data collection/submission: Approximately 50% of all personnel tasked with collating, approving and/or entering employee time into the Time Capture system indicated that they rely on Microsoft Excel to process this data.

For full survey results, see Appendix 5 and 6 of our full report dated October 31, 2021.

Potential risk(s) and consequence:

 TTS is not directly controlled by the City and, as such, results in the following risks:

- Employee personal data exists outside of the City's custody, increasing the risk of data breach, exposure of personal information, and non-compliance with the Personal Information Protection and Electronic Documents Act (PIPEDA) and other privacy laws.
- Lack of oversight over data backups and integrity controls, leading to an increased risk of data loss.
- Limited control over system upgrades and improvements, thereby reducing the suitability of the tool over time.
- Google Workspace (Docs, Sheets, etc.) is a Google-owned collection of productivity tools, often available for limited free use for individual users. Use of these tools by City personnel results in the following risks:
 - Personal Google accounts are used in lieu of commercial agreements, resulting in software use that is inconsistent with the acceptable use policy for these services.
 - Employee personal data exists outside of the City's custody; servers for these services are located internationally, and Terms and Conditions do not favour users' data ownership. Private users do not have control over data location (commonly located in the USA); commercial users may choose a geographic location.
- Microsoft Excel, while a common and often powerful tool, is not suitable for enduser computing within Payroll and HR processes. Wide and uncontrolled use of Excel in this environment results in:
 - Disaggregated control over employee personal information with employee names, schedules, vacation banks, and other information saved on a variety of user terminals (e.g. Clerk desktops).
 - Lack of end-user computing controls.

Recommendation(s)

- 1.1. Where possible, business units should discontinue the use of TTS. See observation 2 for additional details.
- 1.2. The City, in consultation with the IS&T department, should determine its position on Google Workspace software and other end-user cloud tools. If

commercial use of this software is not pursued, IS&T should explore URL blocking and expansion of Software Installation Policy tools to block access to non-approved, higher-risk software.

- 1.3. Alternatively, the City could develop a communication to be released to all employees, outlining approved vs non-approved software, and requesting that solutions such as Google Workspace are not used for commercial purposes. Monitoring may be required to ensure compliance with this policy. IT policies and self-declarations should be updated to reflect this position to ensure that all new employees are aware of these restrictions.
- 1.4. A communication should be developed to provide guidance to all employees on the expectations regarding the use and retention of personal information consistent with the principles of PIPEDA. Data retention/management policies should be reiterated to ensure that personal information is correctly maintained/retained (or deleted) where appropriate.

4. Current systems are outdated and do not meet the needs of most users

Root Cause — Ineffective systems in place to meet business requirements; system has been in use since 1999.

Observation Rating: MEDIUM

Findings and Impact

Criteria:

Business operating requirements must be supported by effective and appropriate systems and software. Modern payroll scheduling, time and attendance software is particularly important for reasons including, but not limited to:

- Workforce needs and resource planning is accurate and complete
- Time and attendance is complete and employees are paid in an accurate and timely manner
- Regulatory compliance requirements are met
- Personal information is protected and PIPEDA-compliant
- Interfaces are user-friendly and easy to navigate, enabling more efficient processing and fewer errors
- City-specific rules and rate tables are automated as much as possible to reduce errors and increase efficiency
- Interfaces between systems, where required, are consistent and current.

Condition:

The current payroll scheduling, time and attendance systems do not meet the needs of the City. These systems primarily consist of the following differing and, at times, outdated software solutions:

Sub-process	Supporting system
Scheduling	Various (Goldcare, M5, CMMS, Excel, Google Docs, email, calendar)
Time-off requests	Various (Excel, Google Docs, email, calendar, paper)
Time and attendance	Various (Time Capture, TTS, Hastus, Goldcare, Excel, email, paper)

Payroll processing

PeopleSoft HCM Version 9.2 (Core HR, Payroll), PeopleTools Version 8.58.08, Tax Update 21-C

The primary payroll software solution, PeopleSoft, was implemented in 1999. Since implementation, the system has been upgraded to version 9.2. This is the latest version of PeopleSoft released by the vendor Oracle in 2013 and is the final major version release. Oracle has announced that support for PeopleSoft 9.2 will continue through 2032, marking a potential 10-year lifespan for the on-premises solution. Updates will be released in the form of PeopleSoft Update Images (PUMs) during this period, requiring significant implementation effort on an annual basis when compared to more modern solutions. Typically, announcements such as this are indicative of a pending end-of-life decision, allowing existing users to plan their migrations accordingly.

Weaknesses in processes mostly due to system limitations

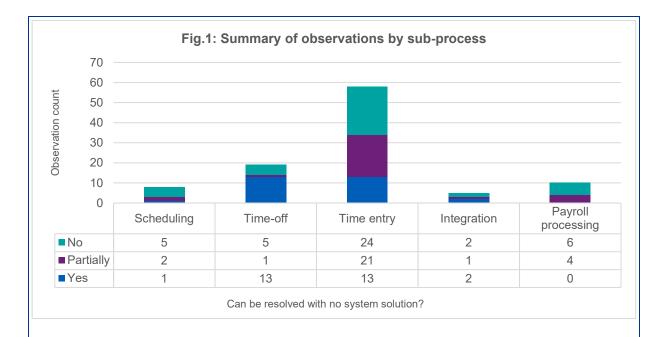
During our review, we identified approximately 100 gaps or weaknesses for which 96% can be resolved, or partially resolved, by a modern Human Capital Management (HCM) and Payroll software solution. As part of our scope of work, we explored various short-term solutions in an attempt to close these gaps without the benefit of a system upgrade; while not recommended due to prohibitive costs and change management barriers, a large percentage of these observations do not have an effective short-term solution:

- Scheduling and workforce planning is manually performed, often in Microsoft
 Outlook calendars or Excel spreadsheets, and differs across all business units
- Vacation and other time-off approvals are manually performed (email, Excel spreadsheets, paper requests) and differ across all business units. Approvers are often not aware of employee leave balances when approving time off.
- Time entry is highly manual and often duplicative. Employees submit timesheets using a variety of methods including paper timesheets, excel spreadsheets, email submissions, and various interfaced systems. Supervisors and Clerks are manually approving time submissions, and often individually inputting these hours into Time Capture. Where interfaces exist between systems, various errors are impacting the accuracy and efficiency of these tools.

- Processing of payroll requires recurring error identification and correction.
 Deductions and Collective Bargaining Agreement (CBA) rules are often manually entered. Controls to verify the accuracy of timesheets and payments are labourintensive and sometimes inconsistent, relying on payroll processors to validate each pay run manually.
- Better practice methods of time collection and approval, such as employee selfserve, manager approval workflows, and rules-based time and attendance accounting (including rate assignments and GL code mapping) are not in place.

Many observations cannot be resolved with short-term solutions

In addition to the context provided throughout Observations 1-3, Figure 1 describes the various categories of detailed findings identified during our review. In total, 42% of these findings are unlikely to be effectively resolved via a short-term solution. Of the remaining 58%, approximately half (29 findings) can be addressed via short- and medium-term solutions, albeit with significant effort versus benefit in some cases. For the remaining 29 findings, we have identified a "stop-gap" solution at the city's request; however, these solutions are not recommended – in fact, operating under the existing environment while a software solution is arranged is likely less impactful to the employees of the City versus the substantial change management required to close these gaps with non-ideal solutions. Furthermore, the majority of these findings represent "symptoms" of an outdated software environment – resolving these symptoms will not resolve the root cause.



Enhancements to existing PeopleSoft instance may be prohibitive

PeopleSoft has a variety of optional applications to address gaps similar to those described above, including³:

- Time and Labour Mobile (for employees or managers who need to be able report time, view their weekly timesheet, or view their calculated payable time from any location)
- Manager Self Service (interface for managers to enter and edit time, manage approvals, and review analytics, including leave balances).
- Approval Workflow Engine (including approval process definitions to support organizational hierarchies and multiple levels of approval)
- Rules Engine (enables creation of real-time rules for reporting, managing or processing time).
- Scheduling (fixed, rotating or dynamic schedule environments, including reconciliation to actual work).

The City's version of PeopleSoft 9.2 can support these applications. However, implementing these tools is costly and likely exceeds the cost of migrating to a more modern system. Additionally, the lifecycle costs of an on-premises system such as PeopleSoft will vastly exceed the cost of a cloud-based system (see

³ Oracle PeopleSoft Time and Labour data sheet.

recommendations, below). End-of-life announcements for PeopleSoft, when made, will reinforce this reality.

Potential risk(s) and consequence:

Failure to migrate to a more suitable payroll scheduling, time and attendance solution exposes the City to the following risks/consequences:

- The vast majority of issues identified during our review, consistent with issues reported by users and employees, will remain unresolved.
- Short-term solutions to various pain-points identified throughout the review are onerous and expensive.
- Licensing and support fees for the existing PeopleSoft solution are expensive and less versatile when compared to more modern Software as a Service (SaaS or "cloud") solutions, including Oracle's own Cloud products.
- Oracle has given indications that Premier Support for PeopleSoft will end in 2032, an announcement that is intended to give businesses time to plan their migration. Maintaining the current PeopleSoft instance via Oracle PeopleSoft Update Manager ("PUMs") is onerous and expensive; additionally, failing to adhere to the maintenance schedule will only increase the gap between the user needs and the software capabilities. This cost will increase when Premier support expires, in the event that this support model transitions to "Extended Support" similar to PeopleSoft version 9.1 and prior.
- The City has multiple systems for similar functions and will continue to experience integration issues without some level of consolidation.

Recommendation(s)

We recommend that the City prioritize the selection and implementation of a modern Human Capital Management (HCM) and Payroll system. During this transition, effort and resources expended on short-term solutions should be kept to a minimum where practical – resolution of the various observations identified are simply "stop gaps" that address symptoms only, and often will not pass a cost vs benefit analysis.

2.1. Consider the implementation of a Software as a Service solution (Saas). The cost of adding required applications to the City's existing PeopleSoft instance

will be prohibitive and short-lived (for example, the annual cost of just the Time and Labour application are comparable to the entire annual licensing fee of Oracle Cloud). By comparison, SaaS solutions are in most cases a fraction of this cost and include a variety of added benefits such as easy updates/patches, greater security, and less physical infrastructure.

- 2.2. As part of the implementation lifecycle, a business needs assessment will be performed to determine the requirements of the City's various departments and user groups. During this process, there is an opportunity to consolidate the various software solutions across the City's payroll scheduling, time and attendance process (e.g. TTS, Goldcare, Hastus, etc). Where replacement is not advised, interfaces can be built to integrate these few remaining systems into the broader HCM/Payroll environment. These interfaces should be developed during the implementation of this software.
- 2.3. FTE-equivalent inefficiencies identified during our review have been estimated to be comparable to the annual cost of a Cloud solution (excluding initial implementation costs). With the implementation of a more appropriate HCM and Payroll system, these inefficiencies may be redeployment to more valuable tasks.
- 2.4. Should the City choose to pursue Oracle Cloud, there are added benefits such as streamlined data migrations (e.g. via Oracle Soar, an automated cloud migration offering) and the potential recovery of unused licensing and support fees already paid.

These recommendations are a summary of our suggested actions. System migrations can be daunting; however, a measured and organized approach will help ensure a smooth transition. Return on Investment periods are often short when other factors are included in this calculation such as FTEs of inefficient labour, and potential consolidation of various third-party solutions already in place within the City's payroll and other departments.

Estimates for a new system vary greatly by vendor and applications selected; however, the City should expect an initial capital investment for system implementation (which can often range from \$750,000 to \$1.5MM) and ongoing annual licensing fees (e.g. \$200,000 - \$300,000) for the solutions described above.



© 2021 KPMG LLP, an Ontario limited liability partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.