# City of Markham

## Report of the Auditor General
## Human Resources Information System ("HRIS") Implementation Audit

**Presented to:** General Committee of Council, City of Markham

**Date:** June 18, 2018

# AGENDA

- Background
- Audit Objective
- Audit Approach
- Scope
- Strengths
- Observations and Recommendations
- Acknowledgement

## Background

In 2016, the City decided to upgrade its human resources system. The system in place at the time was ADP's Premier Performance Pack, which was based on older technology that was beset with inefficiencies that cost the City time in duplicating data entry efforts and required paper-based processes.

A new system was selected, ADP's Workforce Now, which is a full-service HRIS that includes modules such as Payroll, Benefits Management, Human Resources, Time and Attendance, and Recruitment.

The project team worked in conjunction with the vendor (ADP), to plan, test, and implement the new system which went live in early 2017.

# AUDIT OBJECTIVE

The audit objective was to evaluate the effectiveness of key change management controls and related system implementation and data migration activities. This included assessing and evaluating:

- The system implementation methodology and approach that was followed to implement the HRIS;
- Adherence to change management policy, process, and procedures;
- Key HRIS application functions and reporting perform as expected, and meet defined business requirements;
- The data migration approach that was followed;
- Testing and reconciliations completed to provide reasonable assurance that legacy data was completely and accurately uploaded into the new system;
- Key security controls implemented on the new system, including passwords, user access administration procedures, access to privileged accounts, and segregation of duties;
- Required security controls managed by the outsourced service provider (ADP); and,
- Key HRIS system generated HR reports meet business and stakeholder needs, and are reliable (i.e. complete and accurate).

# AUDIT APPROACH

## 1. Planning
- Define objective and scope.
- Confirm project duration and schedule.
- Assign team members and develop team structure.
- Describe deliverables.
- Create Audit Planning Memo.

## 2. Execution
- Obtain existing system implementation and data migration documentation.
- Conduct interviews / discussions.
- Understand current state.
- Evaluate current state by performing tests and assessing processes and controls in place.

## 3. Reporting
- Identify improvement opportunities.
- Prepare draft report with observations and recommendations.
- Validate and present recommendations.
- Issue final report.

## SCOPE

The scope of the audit included all the Workforce Now modules that were implemented at the time the audit commenced (i.e. December 2017) and focussed on the following assessment criteria:

- Implementation methodology and approach items including the implementation plan, project charter, test plan, milestones and go-no-go criteria;
- HRIS functionality items including business requirements and gap analysis;
- Data migration items including migration plan, data sets that were migrated and field mapping;
- Testing and reconciliation items including parallel test documents, reconciliation results, issue logs and affiliated communication;
- Logical security items including vendor resources (e.g. manuals and SOC reports), role profiles / descriptions and user lists; and,
- Reporting items including the list of system reports, custom report analysis, and sample reports.

## Outside of Scope

Detailed testing of the Payroll Module, including processes and controls for payments, pay calculations, and reporting, was not in scope for this audit as this will be the scope of an upcoming Auditor General audit.

## Audit Observations – Strengths:

**Planning and Preparation Activities**
- The City prepared its employees for use of the new tool through various communication mechanisms and engagement initiatives. A series of training sessions were provided to employees at all levels.

**Project Management**
- The HRIS Project was governed by committees at multiple levels, along with an effective escalation mechanism that was used as needed, and a clear decisioning process.
- The main project team and supporting committees were comprised of knowledgeable individuals who closely monitored the progress of the project.
- A detailed project plan, including project milestones, deliverables, required resources, activities, and timelines was developed and followed.

## Strengths Continued:

**Change Management**
- A User Acceptance Test ("UAT") plan was developed for the HRIS implementation.
- Test scripts were executed, and test results were documented.
- An issue log was maintained. The issue log demonstrated that issues noted during the implementation were logged, analyzed, and remediated.

**User Access Management**
- The City documented procedures for provisioning and de-provisioning access within the HRIS.

# CONCLUSION

## Observation Rating Scale

| Rating | Rating Description |
|---|---|
| **L = Low** | The observation is not critical but should be addressed in the longer term to either improve internal controls or efficiency of the process (i.e. 6 to 12 months). |
| **M = Medium** | The observation should be addressed in the short to intermediate term to either improve internal controls or efficiency of the process (i.e. 3 to 6 months). |
| **H = High** | The observation should be given immediate attention due to the existence of either a potentially significant internal control weakness or operational improvement opportunity (i.e. 0 to 3 months). |

– Overall 2 **Medium** and 1 **Low** priority observations were identified.

## OBSERVATION #1:

**MEDIUM**

**Implementation of Complementary User Entity Controls ("CUEC")**

Workforce Now was designed under the assumption that certain key controls would be implemented by the City, in addition to the controls maintained by the service provider (ADP).

It was noted that one CUEC identified in the ADP Service Organization Control ("SOC 1") report has not been implemented. As such, there is a risk that CUECs that are required for a complete and fulsome system of controls are not sufficiently implemented and operating effectively at the City, thereby not supporting the service organizations system of controls.

The City has not implemented the following CUEC that relates to the logical access of Workforce Now:
- Periodic review of assigned clients' (i.e. City) employees' access to the in-scope applications for appropriateness, including assigned roles to promote segregation of duties.

## OBSERVATION #1 CONTINUED:

**Auditor General Recommendations**

The following CUEC should be implemented:

- Periodic reviews of assigned City employee access to Workforce Now to validate that:
    - access permissions granted to users continue to be appropriate; and,
    - dormant accounts are identified and access is removed on a timely basis.

## OBSERVATION #1 CONTINUED:

**Management Response**

Management supports the Auditor General's recommendation.

The City currently has a process in place within Human Resources to review, set up and authorize all staff related activity. For example, changes to compensation levels, approval levels and vacation entitlements.

As part of the "Responsibility Matrix" being developed by the City, staff will create formal procedures and documentation, including responsibility for reviewing user roles and status to ensure that each user has been assigned to the group that fits their current role and responsibility level. The procedure will be implemented with a recommended frequency for review.

The documentation will also define notification procedures that must be initiated if a breach is detected, internal or to ADP, depending on the type of incident and under whose authority the control exists.

**Timeline to Implement: Q4 2018**

## OBSERVATION #2:

**MEDIUM**

### Role Based Access Controls ("RBAC")

A RBAC approach is implemented to restrict access to authorized users in Workforce Now. Users are assigned access rights through predefined roles that are configured in the application.

The project team worked with ADP and representatives from the business lines to define the different roles and document them in profiles that identify the access rights for each role (i.e. accessible functionalities in the application for each type of role).

However, we noted the following:
- Evidence was not retained to support that the roles were reviewed and signed off for segregation of duties conflicts prior to the system going live;
- Evidence was not retained to support that access assigned to users was reviewed and approved before going live, or after going live; and,
- The Library Practitioner role (which has been assigned to two individuals) has access to edit both HR and payroll modules. Mitigating controls to address the segregation of duties conflicts have not been identified and implemented.

## OBSERVATION #2 CONTINUED:

**Auditor General Recommendations**

A review of all roles in Workforce Now should be performed to identify segregation of duty conflicts. Where segregation of duty conflicts exist in the roles, an assessment of the risk should be completed and documented with monitoring controls implemented that address the conflict.

The Manager, Financial Reporting and Payroll should review the access rights for all current Workforce Now user profiles and sign-off to approve the access rights provisioned.

**MEDIUM**

## OBSERVATION #2 CONTINUED:

### Management Response

Management supports the Auditor General's recommendation.

Shortly after going live, segregation of duties between Human Resources and Payroll were approved and implemented, although evidence of approval was not retained. The HRIS Executive Committee defined, approved and assigned the detailed roles and responsibilities relating to access for key personnel post-implementation.

Security roles, for access and revoking access, follows a documented approval process and is part of the on-boarding and off-boarding procedures.  A change approval form and workflow documents have been created, approved and implemented by the HRIS Executive Committee. A quarterly schedule was initiated in March 2018 to review special access (role based) users to ensure that users are current and that assigned roles are appropriate.  This is a joint sign-off between the Security Administrator (ITS Manager) and the Manager, Financial Reporting and Payroll.

Formal documentation will be completed as part of the "Responsibility Matrix" development described above.
**Timeline to Implement:  Q4 2018**

Mitigating controls to address the lack of segregation of duties in the Library Practitioner role were implemented in April 2018.
**Timeline to Implement:  Completed**

## OBSERVATION #3:

**Review of ADP Service Organization Controls ("SOC 1") Report**

The Workforce Now application is hosted and managed by the vendor, ADP. The vendor issues a SOC 1 Type 2 report addressing the design and operating effectiveness of the controls managed by ADP.

Although the latest SOC 1 Type 2 audit report was obtained and reviewed at a high level by the Internal Project Lead, we noted that accountability over formally reviewing the report to assess the adequacy and effectiveness of the control activities at the service organization has not been formally assigned.

This is expected to be assigned in the Responsibility Matrix, however this matrix has yet to be finalized.

## OBSERVATION #3 CONTINUED:

**Auditor General Recommendations**

Responsibility for reviewing and evaluating the ADP SOC report should be formally assigned to an individual with an adequate understanding of the HRIS and system of internal controls.

The SOC 1 audit report should be reviewed to:
- Assess the adequacy of the scope of the control objectives and control activities outlined in the report;
- Evaluate the impact of any service organization control gaps or deficiencies noted and their impact to the City's control environment; and,
- Identify compensating controls within the City's processes to address the gaps or deficiencies noted.

## OBSERVATION #3 CONTINUED:

**Management Response**

Management supports the Auditor General's recommendations.

The City reviewed the ADP 2017 SOC report audited by Ernst and Young. The report identified two deviations that were subsequently addressed by ADP.

The SOC report will be requested and reviewed annually to address the recommendations of the Auditor General.

Review will be jointly undertaken by ITS and Finance Departments and appropriate action will be taken, if required.

**Timeline to Implement: Q2 2019**

## OVERALL RECOMMENDATION

The Auditor General recommends that:

1) The Human Resources Information System ("HRIS") Implementation Audit Presentation be received.

## ACKNOWLEDGEMENT

MNP extends our appreciation to the staff and management of the City for their co-operation and assistance throughout the engagement.