Report to
Rapport au:

Information Technology Sub-Committee
Sous-comité de la technologie de l'information
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Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE   **File Number**: ACS2019-CSD-ITS-0001

SUBJECT: Information Technology Services 2019 Work Plan Update

OBJET: Plan de travail de 2019 des Services de technologie de l'information

REPORT RECOMMENDATION

That the Information Technology Sub-Committee receive for information the following report summarizing updates on the Information Technology Services 2019 work plan.

RECOMMANDATION DU RAPPORT

Que le Sous-comité de la technologie de l'information prenne connaissance du présent rapport, qui résume le plan de travail de 2019 des Services de technologie de l'information

BACKGROUND

In 2017, Information Technology Services (ITS) developed a three-year Strategic Work Plan. The Strategic Work Plan establishes a framework for how ITS will plan and will work for the next three years.

The Strategic Work Plan was developed collaboratively, seeking input from all levels of ITS, and links ITS' principles to its mission, vision and mandate. Information Technology Services has developed four strategic objectives to move the service towards its mandate of being a valued partner with client departments in the delivery of municipal services:

1. **Connected & Collaborative:** Provide clients with secure access to tools and information anytime, anywhere, from any device.
2. **Efficient & Flexible:** Promote operational efficiency, enabling response to both rapid growth and rapid change.
3. **Reliable & Sustainable:** Provide clients with secure, modern, reliable infrastructure and tools to support their business needs.
4. **Modern & Innovative:** Develop and support leading-edge technology tools and practices that support the business priorities of the corporation.

The achievement of these objectives will be monitored using a framework called 'Objectives and Key Results.' Through this highly transparent and collaborative framework, staff throughout ITS are engaged in contributing, monitoring and adjusting the details of the plan as the organization works towards these long-term outcomes.

The purpose of this report is to provide IT Sub-Committee members with an update on work completed to date in 2019 and an overview of other work in progress.

DISCUSSION

The ITS Strategic Work Plan is a living document that is continually referred to, updated, and refreshed. Each objective has a set of priorities and long-term goals. This report will provide an update on some of those key priorities that are included on ITS' 2019 work plan. Updates included in this report are as follows:

- Cyber Security;
- Cloud Infrastructure;
- Software Rationalization and Modernization; and,
- ITS Staff Skills Modernization.

Cyber Security:

Security is the top priority of managing and supporting the Corporation's technology systems. ITS has qualified staff who are certified in risk and security management, supported by rigorous procedures, training and tools that are used to assess and mitigate evolving security risks.

As included in the Strategic Work Plan, ITS' commitment is to create and maintain a 'Best in Class' technology security environment for the Corporation and to ensure all City informational technology assets are protected appropriately in an ever-changing security landscape.

Through these objectives, the ITS has completed significant work in the following areas:

- Annual risk validation and standards/policy exemption processes;
- Rollout of a Corporate-wide mandatory Cyber Security Awareness program. This training program has recently become part of the New Employee Orientation for both networked and non-networked staff. Currently there are approximately 3,400 staff who have completed the training. All networked staff are expected to complete this training by the end of July 2019;
- Consulted with many departments on their risk management standards and vulnerability testing plans;
- A new monitoring tool has been installed that allows ITS to monitor internet traffic and better predict upcoming issues;
- To mitigate overloading the firewalls and to support increased traffic to the cloud, ITS upgraded the City's main firewalls and upgraded the capacity of the City's internet connections;
- Assisted in the implementation of email security controls and assisted with remote access Multi-factor Authentication (MFA) deployments. MFA is an additional layer of security to protect the City of Ottawa when connecting to the City network over the internet;
- Completed numerous threat and risk assessments to ensure new projects are being securely implemented and to conduct successful priority incident investigations according to the Computer Incident Response Plan (CIRP); and,
- Implementing a Privileged Access Management System with CGI (our managed security services provider) to better manage elevated access to our systems.

Cloud Infrastructure:

As the City continues to move towards cloud-based services, several infrastructure upgrades need to take place. Planned cloud infrastructure activities taking place in 2019 include:

- New cloud data centre hosted by Microsoft Azure to be built by end of Q4 2019; and
- ITS is reviewing current applications to determine which are best fit to move to the cloud.

Software Rationalization and Modernization:

Information Technology Services (ITS) supports more than 400 enterprise and business-specific applications and is accountable for all software lifecycle decisions to ensure technology investments are risk-conscious, value-driven, financially responsible and meet the needs of City departments. With a variety of application types – in-house, third party, on-premise, hosted – the application environment is complex and requires increasing resources to manage and maintain.

ITS' software rationalization program consists of identifying legacy systems that are reaching end of life. Examples of platforms in the City's IT environment include SAP, ESRI, Maximo and the Microsoft Office 365 suite of products (Dynamics 365, SharePoint, PowerApps, etc.). ITS is proactively engaging with all service areas who would benefit from these tools to maximize investments. Where applicable, ITS will recommend leveraging existing platform solutions before considering custom-built and/or third-party Commercial-Off-The-Shelf (COTS) alternatives.

Some benefits of ITS' software rationalization and platform alignment approach include:

- Overall reduction in the City's technology footprint and total cost of ownership;
- Less complex technology environment that lends itself well to scaling digital business;
- Faster delivery of software solutions;
- Ensuring the use of modern technical systems and languages; and,
- Improving standard maintenance processes and activities.

In 2019, ITS has prioritized an assessment of critical applications with the capability of our software platforms to identify opportunities for solution replacements. These include:

Ariba

The Procure-to-Pay (P2P) Ottawa project will be implementing the SAP Ariba solution. This transformational initiative will allow the City to further automate transactional activities such as invoice approvals. It is also expected to improve contractual compliance and increase efficiency from requisition to payment. Ariba will also replace MarkView, the City's invoice processing system, as that system reaches end of life.

This project is currently in the design phase. Discovery workshops with City staff are underway to gather business requirements and develop the overall solution design, including integrations to core systems. The development phase of the project is scheduled to begin in July, with a planned launch scheduled for Q1 2020.

Records Management System

The Records Management System (RMS) which houses the City's inventory of physical records, is the tool that supports much of the work done by City employees. It was built in 2003 using PowerBuilder, and although it was originally intended to be a temporary solution, it remains in place today.

As the City continues upgrading to Windows 10, RMS was identified as having compatibility issues and an upgrade is needed. With the City moving towards SharePoint Online as part of its Microsoft platform offerings, ITS is testing the feasibility of moving the RMS application into SharePoint Online.

A demonstration of this capability is anticipated for June 2019 with development to begin thereafter.

Contact Centre Solution Replacement

The Connectivity project team, including staff across multiple service areas and ITS, completed the successful implementation of Computer Talk's Intelligent Communications Exchange (ICE) to replace the CISCO Unified Contact Center Enterprise (UCCE) solution. The project is currently in solution-stabilizing mode and project completion close-out activities are ongoing. The following City departments and service areas are using ICE:

- 3-1-1 contact call center;
- Revenue Services;
- Community and Social Services (CSSD)
- IT Service Desk;

- Ottawa Public Health (OPH);
- Ottawa Public Library (OPL); and,
- OC Transpo.

Water Billing Replacement Project

The City's previous Water & Sewer Billing Customer Information System called AquaCIS, which had been in production for 20 years, had reached its end-of-life from a technical and functional perspective. AquaCIS was based on an older technology (Power Builder Version 8) for which vendor support was no longer provided and resources were limited and scarce. Specifically, it did not support flexible billing rate structures for water and sewer usage which form the new water rate structure.

Through a competitive procurement process, a successful proponent was chosen, and the new billing system was rebranded as H2Ottawa. H2Ottawa went live on February 25, 2019 after a two-year and 10-month development period. Over 70 Revenue Services staff, ITS staff and the vendor, worked to complete the successful transition.

Project by the numbers:

- Well over 82,000 staff hours, broken down by Revenue Services staff (49,000), ITS and Contractors (approximately 15,000) and the vendor Advanced Utility System (approximately 18,000 estimated);
- Over 11,000 total test cases have been executed since the project started;
- 233 City staff have been trained; and,
- There were 19 systems integrations required.

ITS Staff Skills Modernization

The objective of the ITS Skills Modernization Program is to enhance the skills of ITS' current staff resources as new technology is introduced into ITS and across the organization. This continues to be a priority as ITS continues to implement new technology, and to ensure staff and client groups are comfortable utilizing the tools. This reduces the need to hire external resources, encourages internal staff development and supports succession planning.

There are three (3) main components of the ITS Skills Modernization Program as outlined below.

Certifications

ITS has identified more than 25 certifications that are available for ITS employees. Currently, there are 15 employees onboarded into certification streams. A skills modernization roadshow has been deployed to engage employees and make them aware of the certifications available to them. Examples of different types of certifications available are as follows:

- Office 365;
- Microsoft Dynamics 365;
- Azure certifications;
- Cloud certifications;
- Project Management; and,
- Business Analyst.

ITS Mentorship Program

The ITS Mentorship Program was designed and customized to help connect employees across ITS and explore new roles of interest to them. This mentorship program launched in April 2019 with 11 mentees assigned to 10 mentors. There are five paths that mentees can choose from: Business Analyst, Leadership, Project Leader, Developer, Technical Architect, and Security Architect. Recruitment for additional mentees and mentors will begin in June 2019.

Technical Intact Training

Intact training is available and encouraged for all ITS staff. There are many training opportunities available in 2019 within ITS, specifically:

- On-demand online training and certifications using the leading online course provider Pluralsight. Most popular subjects include: cloud platforms, soft skills, and automation;
- Project Management training;
- Web Platform training;
- Web Accessible Training; and,
- Dynamics training sessions

RURAL IMPLICATIONS

There are no rural implications associated with this report.

CONSULTATION

This is section is not applicable since this is an information report.

COMMENTS BY THE WARD COUNCILLOR(S)

As a city-wide report, this section is not applicable.

ADVISORY COMMITTEE(S) COMMENTS

This section is not applicable.

LEGAL IMPLICATIONS

There are no legal impediments to receiving the information in this report.

RISK MANAGEMENT IMPLICATIONS

The ITS work in 2019 will continue to strengthen the City's key systems, practices, procedures and governance to identify and mitigate risks.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

ACCESSIBILITY IMPACTS

All ITS projects and initiatives include an assessment of accessibility requirements. Accessible criteria, features and functionality are included in all public-facing technologies to ensure compliance with AODA requirements.

TERM OF COUNCIL PRIORITIES

The ITS work plan has been developed to support the overall delivery of the City's Strategic Plan.

DISPOSITION

As required, ITS will follow-up on direction received as part of consideration of this information report.