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The Regional Municipality of Durham

Report

To: Works Committee
From: Acting Commissioner of Works
Report: #2024-W-2
Date: January 10, 2024

Subject:

Sole Source Purchase of System Integrator Services from Talan (formerly Createch) for the upgrade of IBM's (the vendor) Enterprise Maintenance Management System (Maximo) to IBM's (Maximo Application Suite (MAS) Platform)

Recommendation:

That the Works Committee recommends to Regional Council:

- A) That staff be authorized to negotiate and award a sole source contract to Talan (formerly Createch) for the provision of System Integrator Services for the upgrade of the existing IBM's Enterprise Asset Management Software (Maximo) to be compatible with the Software provider's (IBM) most recent platform, Maximo Application Suite (MAS), for a total project estimated amount of \$751,250* to be funded within the approved project budget; and
 - B) That the Commissioner of Finance be authorized to execute the necessary documents for the negotiated agreement.
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Report:

1. Purpose

- 1.1 The purpose of this report is to obtain Regional Council authorization to negotiate and award a sole source contract to Talan (formerly Createch) to provide System Integrator Services for the upgrade of IBM Maximo to IBM Maximo Application Suite (MAS).
- 1.2 Dollar amounts followed by an asterisk (*) are before applicable taxes.

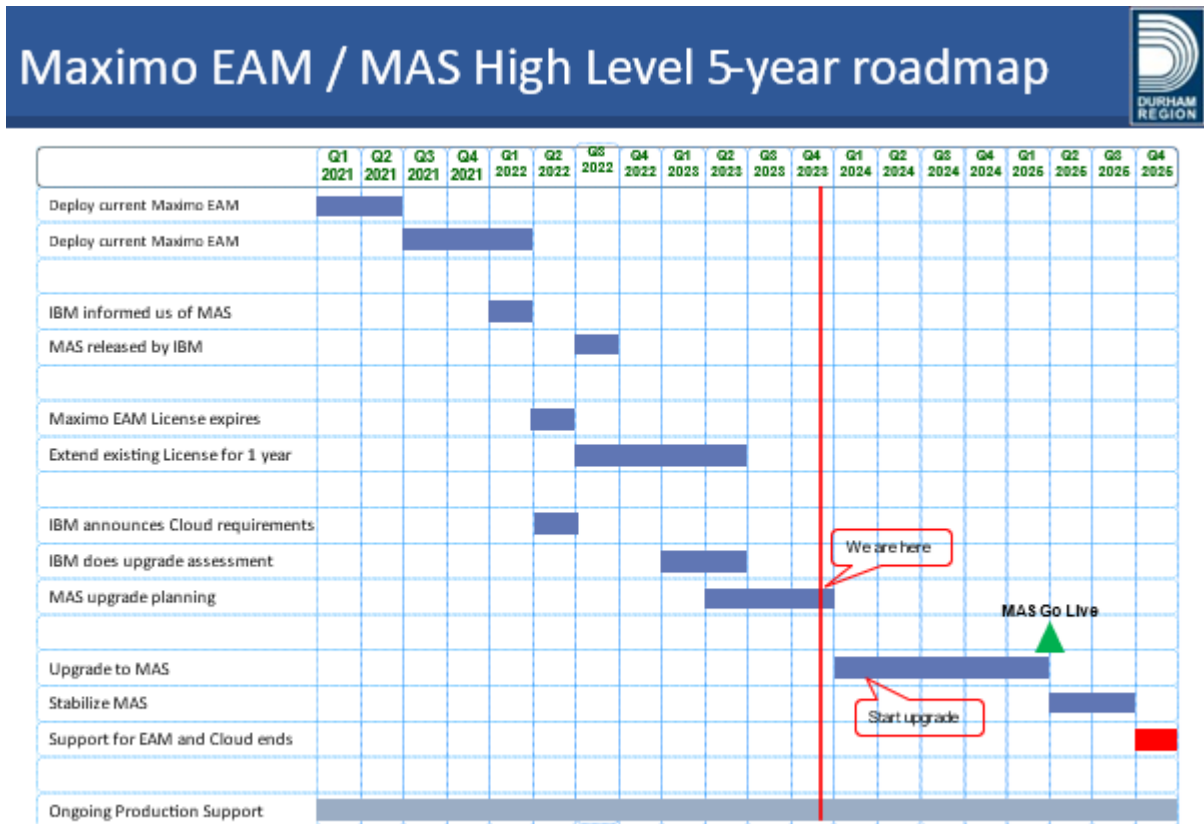
2. Background

- 2.1 Before the implementation of IBM Maximo software, the Regional Municipality of Durham (Region) leveraged a series of disconnected applications and business processes to manage maintenance and work order activities. These applications were outdated and unsupported and lacked the integration capability to share information across the organization. As a result, effective data analysis for strategic business decisions about operations was gathered from several systems/sources, which was extremely cumbersome and time-consuming.
- 2.2 Recognizing the need to standardize business processes and effectively track data, the Region embarked on a project to implement an enterprise-wide maintenance management system in 2016, resulting in the selection of IBM solution Maximo Enterprise Management System and Talan (formerly Createch) as system implementor in 2017, through a competitive procurement process.
- 2.3 Talan developed the system interfaces and algorithms that support multiple project customizations to support the business units' unique needs. During the implementation, Talan also configured the "Anywhere" application as the mobile solution for Maximo.
- 2.4 Since the implementation of the EMMS (Maximo), Maximo has enabled the Region to achieve the following goals:
 - a. Streamline and standardize processes and systems across the organization, eliminate paperwork and manual processes and shorten work cycles.
 - b. Support the planning and execution of preventative maintenance activities to support a safe working environment and reliable equipment.
 - c. Provide the tools and technology to Regional staff to improve processes and efficiencies and enhance customer service.
 - d. Enhanced interface for data reporting.
 - e. Enable offsite real-time data access and collection capabilities for workers in the field, including using mobile devices to track and record work orders and the ability of staff to share information and real-time data regarding maintenance issues.
 - f. Ensure compliance with regulations and standards, such as Commercial vehicle operator requirements, and support for warranties and insurance claims.

- g. Full integration of Region-wide solutions with the Financial Information system (PeopleSoft system), ESRI Geographical Information System (GIS), Ontario One Call Locates, Fuel Systems and other applications.
- h. Provide better visibility and improved analytics by capturing higher-quality real-time data.
- i. Manage and maintain service levels for external services such as Locates and Water Billing.

2.5 The Region's Enterprise Maintenance Management System (Maximo) was developed using IBM's Maximo software hosted in the Cloud, in an agreement with IBM Canada Ltd. Under this agreement, IBM provides all infrastructure maintenance and application support to ensure the Maximo system is readily available to the Region's approximately eight hundred (800) users.

2.6 Upon completion of the full implementation of Enterprise Maintenance Management system (Maximo) and learning of IBM's plan for software replacement and Cloud hosting changes, the Region developed a five-year roadmap as a guide to complete the upgrade to the new software, MAS. The chart below outlines the key events, activities, and timing within the five-year roadmap.



- 2.7 The current Enterprise Maintenance Management system (EMMS) was implemented in three releases: November 2021, March 2022, and June 2022. Over the subsequent six to nine months, the Maximo support team, including the System Integrator, focused on fixing minor glitches and stabilizing the system. Another key focus area was working with the business units on solution introduction and improving the adoption of the new system via additional on-demand training and hands-on support.
- 2.8 In quarter 1 of 2022, IBM advised the Region that it would be replacing the current EMMS with a more technologically advanced solution, MAS. IBM also advised that as of October 1, 2025, they will discontinue support for:
 - a. the Maximo EMMS software; and
 - b. cloud Hosting of the Maximo EMMS software.
- 2.9 IBM released the MAS software to the marketplace in quarter 3 of 2022.
- 2.10 The initial license agreements for the EMMS and Cloud hosting were due for renewal at the end of quarter 2, 2022. IBM informed the Region that the licenses and Cloud hosting renewal would be based on the MAS software. At the time of the announcement, detailed information on the MAS software and potential regional implications needed to be clarified. The Maximo Management team did not believe it was prudent to enter into a five-year software and Cloud agreement without clearly understanding the impact on the Region. As such, the Region worked with IBM to secure a one-year extension of the existing agreement, ending in quarter 2, 2023.
- 2.11 At the conclusion of the one-year extension ending June 30, 2023, the new software and Cloud hosting agreement based on MAS was executed for the period July 1, 2023, to June 30, 2028.
- 2.12 To understand the implications of the MAS upgrade, the Region engaged IBM Expert Lab Services in quarter 1 of 2023 to conduct an upgrade assessment of the Region's Maximo EMMS. This exercise aimed to uncover the upgrade details and the necessary remedial work required and to determine an estimate of the cost to execute the upgrade to MAS. From this exercise, the Region has determined the timeline for implementation to be 12 months.
- 2.13 The new technology associated with the upgrade will be leveraged by the Region to support the businesses in a more efficient manner.

2.14 The current mobility system is not the optimal solution for the businesses' functionality. The technology of the new MAS mobile system is a significant improvement over the current system and will enable the Region to deliver improved Mobility functions and increase user adaptation.

3. Justification for Sole Source

3.1 September 2025 is the deadline for the Region to complete the upgrade per the agreement with IBM. To manage any real and perceived risks of failing to meet this deadline, the Region has determined that the MAS upgrade must be completed by March 31, 2025. This will allow six months to mitigate implementation risks and stabilize the MAS solution after implementation. Critical milestones:

- a. November 2023 – February 2024 – Upgrade planning and approvals
- b. March 2024 – February 2025 – MAS upgrade implementation
- c. March 2025 – September 2025 – Risk mitigation and system stabilization

3.2 The Region does not have internal resources with the knowledge and skills to perform the upgrade and must, therefore, seek the services of a qualified Systems Integrator. Considering the critical timelines noted above, the Region is pursuing sole sourcing of a qualified System Integrator, Talan, to perform the upgrade services.

3.3 Failure to sole-source a qualified System Integrator to complete the upgrade will not align with these critical dates. The consequences of missing the September 2025 deadline stipulated by IBM are as follows:

- a. The Region's Maximo EMMS system will function without support from the vendor, IBM. If there are issues with any aspects of the software, IBM will not investigate and resolve these issues. This is a considerable risk because a software failure could result in a dysfunctional system, which will render the system incapable of meeting the current business needs.
- b. As of October 1, 2025, IBM will terminate hosting the Region's Maximo EMMS in their Cloud. The Region expects IBM to provide advance notice of the discontinuation of cloud hosting if the Region does not meet the October 1, 2025, deadline for the MAS upgrade.
- c. The Region must decide on how to move forward with supporting the Maximo EMMS while work is done to complete the upgrade to MAS. The two (2) primary options are to host the system on the Region's premises or seek another Cloud provider that is amenable to hosting Maximo

EMMS. An options analysis would have to be undertaken to determine the best course of action.

- 3.4 In late 2017, Talan was awarded the contract as the System Integrator to implement the Maximo EMMS solution to support the Region's EMMS program. The EMMS solution implementation was completed in 3 releases: November 2021, March 2022, and June 2022. Since the completion of the project, Talan has been providing production system support. During the support period, Regional staff continues to acquire valuable software knowledge and skills from Talan staff through formal knowledge transfer sessions and hands-on guidance.
- 3.5 Talan, the system integrator of the original system implementer, has detailed and intimate knowledge of the system's customizations, complexities, interdependencies, and nuances embedded in the Maximo solution. This invaluable knowledge will be leveraged to resolve upgrade issues efficiently, allowing the project to meet its objectives and milestones. Technical areas that have been identified as significant risks to the project are:
- **Integration** - Multiple complex interfaces are part of the overall Maximo solution. Key interfaces are the back-office financial system , Ontario One Call Locates, Water Billing , all Region's fuel systems and Durham Transit. It is imperative that upgrading the current system ensures these interfaces continue to provide the same level of reliability as they do now. Talan's deep knowledge and experience in the integration details reassure the Region that they are the right resources to upgrade this critical aspect of the solution.
 - **Mobility** - The MAS Mobile system is an entirely different and technically enhanced software compared to its predecessor. Upgrading this system does not follow the standard upgrade path and is a re-implementation of the functions in the existing system. Being the resources that developed the original customizations, Talan's experience and knowledge will mitigate any technical risks encountered.
- 3.6 Talan has committed to deploying the same resources that implemented the initial project to execute the MAS upgrade. This commitment provides resource continuity and solution familiarity, resulting in delivery efficiencies.
- 3.7 Over the last six years, Talan has established strong working relationships with the Region's Maximo delivery team and key business leads. This proved to be beneficial to the initial implementation of Maximo, especially during the pandemic. This strong working relationship will be leveraged for the MAS upgrade project.

- 3.8 Having worked continuously with the Region's teams for the last six years since the procurement of the solution, Talan understands the Region's policies and procedures governing the implementation of projects of this nature, including knowledge of the Region's infrastructure, governance principles and project gating and acceptance guidelines. This knowledge is invaluable at the project's onset as it contributes to efficient project delivery.

4. Talan (Formerly Createch)

- 4.1 Talan has established itself as a preferred partner with IBM and has achieved the status of IBM GOLD Partner and Maximo Certified Support Partner (IBM's Primary Support Provider program). The Region can leverage Talan's proven partnership with IBM during the MAS upgrade project to:
- a. Support resolution of any unexpected software issues.
 - b. Engage the IBM Cloud team to commit and deliver upgrade infrastructural tasks according to the project plan.
- 4.2 Talan's in-depth system knowledge, strong relationship with the Region's team and IBM's partnership makes them the preferred System Integrator for this project.

5. Financial Implications

- 5.1 Section 7.2 of the Region's Purchasing By-Law permits the acquisition of goods and services through sole source negotiations under specific circumstances, including where a change of service provider is not recommended due to compatibility/continuity concerns and cost impacts.
- 5.2 Financing for the purchase of the System Integrator Services will be provided from within the approved EMMS MAS upgrade project.

6. Relationship to Strategic Plan

- 6.1 This report aligns with the following strategic goals and priorities in the Durham Region Strategic plan:
- a. Service Excellence Goal 5.1: Optimize resources and partnerships to deliver exceptional quality services and value.
 - b. Service Excellence Goal 5.4: Drive organizational success through innovation, a skilled workforce and modernized services.

7. Conclusion

- 7.1 It is recommended that staff be authorized to negotiate and award a sole source agreement with Talan for the provision of System Integrator Services for the Maximo Application Suite upgrade at an estimated cost of \$751,250* to be financed from the approved project.
- 7.2 This report has been reviewed by the Finance Department, and the Commissioner of Finance concurs with the financial recommendations.
- 7.3 For additional information, contact: Christine Dunkley, Director, Corporate Infrastructure and Strategic Business Services, at 905-668-7711 extension 3475.

Respectfully submitted,

Original signed by:

Ramesh Jagannathan, MBA, M.Eng., P.Eng., PTOE
Acting Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer