Request for Information

Operations Master Systems Integrator

Science and Parliamentary Infrastructure Branch (SPIB)

Canada

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1. INTRODUCTION

Public Services and Procurement Canada is requesting industry feedback on the proposed Scope Statement found in the Appendix A for a Master System Integrator (MSI) through a series of questions located in Section 12 of this Request for Information (RFI).Request for Information (RFI).

The objectives of this RFI are to:

1. receive feedback from industry that will allow PSPC to align the technical requirements, evaluation criteria, and contract terms and conditions of any future solicitation with industry best practices.

2. provide the industry with an opportunity to assess and comment on the proposed requirements.

2. BACKGROUND

SPIB is responsible for 35 crown-owned buildings, of which 28 are designated heritage properties. The nature of the Science and Parliamentary Precinct Branch (SPIB) portfolio is rather complex; a combination of recently rehabilitated, state of the art assets, as well as several heritage assets in fair to poor condition. The portfolio's current state consists of a mixture of old and obsolete building systems as well as newly installed building systems, such as; Building Automation Systems (BAS), lighting control systems, elevator systems, power and water metering, etc. Currently each asset operates in silos as a stand-alone systems with many subsystems.

3. NATURE OF THIS RFI

This RFI process is intended to elicit feedback from industry regarding MSI. This RFI is not: (i) a tender notice or call for tenders; (ii) a notice of intended procurement; or (iii) a notice of planned procurement.

This RFI will not result in the award of any contract; therefore, potential suppliers of any goods or services described in this RFI should not earmark facilities, nor allocate resources, as a result of any information contained herein. Nor will this RFI result in the creation of any source list, therefore, whether a potential supplier

responds to this RFI or not, it will not preclude that supplier from participating in any future procurement. Also, the procurement of any of the goods and services described in this RFI will not necessarily follow this RFI. This RFI is not considered as an authorization by PSPC to undertake any work that would result in costs to PSPC.

4. METHODS OF ENGAGEMENT

4.1. WRITTEN FORMAT OF RESPONSES REQUESTED

Respondents are requested to provide their comments, raise any concerns and, where applicable, make recommendations on how this RFI could be satisfied. Respondents should explain any assumptions they make in their responses.

5. RESPONSE COSTS

PSPC will not reimburse any respondent for expenses incurred in responding to this RFI.

6. TREATMENT OF RESPONSES

6.1 USE OF RESPONSES

PSPC intends to use the responses to develop the scope and details of the MSI requirements and to form the foundation for future consultations. PSPC will review all responses received by the RFI closing date. However, PSPC may, at its discretion, review responses received after the RFI closing date.

6.2 REVIEW TEAM

A review team consisting of representatives of PSPC will review the responses received. PSPC reserves the right to use independent consultants or any Government resources that it deems necessary to review any response. Not all members of the review team will necessarily review all responses.

6.3 CONFIDENTIALITY

Information provided may be used by PSPC for future procurement requirements. As a result, respondents are advised not to include any proprietary information in

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the response submitted. All responses will be handled in accordance with the *Access to Information Act*.

6.4   FOLLOW-UP

At its discretion, PSPC may;

i.   Contact any respondents to follow up with additional questions or for clarification of any aspect of a response;

ii.   Convene with any or all respondents to discuss any aspect of a response.

Should PSPC request any or all respondents to meet to discuss their response, any request shall be optional, and participation shall be at the respondent's expense.

6.5   ENQUIRIES

Since this is not a bid solicitation, PSPC will not necessarily respond in writing to enquiries or distribute the responses. However, respondents with questions regarding this RFI may send an e-mail to the following address:
Eric.Beaudry@tpsgc-pwgsc.gc.ca

7. OFFICIAL LANGUAGES

Responses to this RFI may be submitted in either of Canada's official languages.

8. QESTIONS

This RFI includes a questionnaire that consists of specific questions which suppliers, or their representatives, can respond to. Your participation in this exercise would be greatly appreciated.

9. SUBMISSION OF WRITTEN RESPONSES

Responses must be sent, by e-mail, to the Contracting Authority of this RFI.

10. CONTRACTING AUTHORITY

Respondents with questions regarding this RFI may direct their enquiries to:

Eric Beaudry

Procurement Specialist

Real Property and Commercial Acquisition Sector

Public Services and Procurement Canada

Gatineau, Qc

We thank all participants for their participation in this RFI.

11. SCOPE STATEMENT

11.1 PROJECT OVERVIEW

The purpose of this project is to engage a Master System Integrator (MSI) to coordinate and manage the integration of multiple systems across multiple assets within the Science and Parliamentary Infrastructure Branch. The MSI will be responsible for ensuring seamless interoperability, data flow, and functionality between various systems involved in the project. The project aims to achieve efficient and effective integration, streamline processes, and optimize system performance. The project aims to pilot these efforts through a proof of concept and, depending on performance, incrementally expand to additional assets.

The incrementally added assets will be subject to priority; however, they will include all 35 assets within the Science and Parliamentary Precinct Branch located within the National Capital Region. The MSI will provide design and project support for major rehabilitation projects, and will support the onboarding of new project technologies, and the implementation of use cases as they are deployed.

The following 4 use cases were identified through a PSPC internal governance process:

1.   Monitor Indoor Air Quality (IAQ):

A platform of sensors and software necessary to monitor the building for potentially harmful off-gassing and volatile organic compounds (VOCs). This

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system will report back to the Building Automation System (BAS), initiating a sequence to provide additional ventilation to the space, helping minimize or eliminate any harmful indoor air.

2.   Fault Detection Diagnostics (FDD):

Systems integrated with building analytic engines and software platforms that process building system data into useful information. Through programmed rules and machine learning algorithms, FDD leverages large data sets to identify changes in equipment conditions, drifts from expected inputs or outputs, and opportunities for energy improvements. The analytics can also detect when equipment is nearing potential maintenance issues, providing the operations and maintenance (O&M) teams the information to perform proactive and predictive (as opposed to reactive or scheduled) maintenance on equipment.

3.   Data analytics and energy consumption metrics:

An advanced analytics platform that analyzes metering and operational data, provides consumption monitoring, tracking, reporting, and performance analysis, and offers actionable recommendations to improve building operations. The platform would also integrate with third-party systems (e.g., utility information, weather services) to optimize energy and consumption usage.

4.   Implement a Unified User Interface (UUI):

Traditionally, various building systems (e.g., access control, BAS, lighting, metering, etc.) have been siloed. A UUI consolidates these systems to report back to a central interface. This improves the ease with which operations teams can access building system data and information. This allows for the integration and convergence of various systems and sequences of operations to improve the efficiency and experience of the building. A UUI will be implemented for the monitoring, supervision, and OT control from a centralized location without a dependency on the end-user knowing the disparate system nuances. While each individual system will still maintain control (in the event the UUI fails), the majority of day-to-day changes will be made from the UUI.

11.2   PROOF OF CONCEPT

A pilot will be conducted in a parliamentary building with basement and sub-basement comprising of multiple offices and boardrooms throughout each floor, with several mechanical spaces throughout its basements and penthouse. Several renovations occurred following its construction with an extensive restoration and modernization completed in 2018.

The pilot project will cover an estimated 24-month period at and focus on the interconnectivity of the following but not limited to; building automation system (BAS), lighting control system, elevator system, utilities and fire detection. The MSI solution must be compatible and interface with an on-premises network for data management and provide local and remote access to the various systems.

12. Questionnaire

Technical and Functional Requirements

PSPC is considering engaging with a Master System Integrator (MSI) to coordinate and manage the integration of multiple systems within a campus environment. Answers to the following questions will help PSPC obtain knowledge of industry and evolving trends related to the most relevant technical and functional requirements.

1. Describe your strategies on implementing, and managing the deployment and integration, and maintenance support for use cases, such as but not limited: Integration, fault detection diagnostics, monitoring indoor air quality, and data analytics and energy consumption metrics in new or legacy systems.

2. Describe your cybersecurity protocol processes to secure all solutions and their connectivity? Along with the Data governance to ensure all pertinent data is secure and drives resiliency, business continuity, and disaster recovery?

3. Describe at a high level the various platforms, software, systems, applications modules, and components to support use cases such as IAQ, FDD, UUI, and Data Analytics, along with a high-level line diagram architecture.

4. Describe typical project timelines to design, deploy, and implement IAQ, FDD, UUI, and Data Analytics, and provide a general description of post-implementation support, warranties, and ongoing maintenance, and associated Service Level Agreements (SLA's). Please ensure to include any 3rd party vendors that are required to achieve this.

5. Describe life cycle management for ensuring that all end of life assets are refreshed (hardware, appliances, software, applications, platforms, etc.).

6. Describe your Computerized Maintenance Management System (CMMS) platform and its workflow process.

7. Describe how you deploy a UUI and how it integrates with various modern and legacy systems, platforms, devices, controllers and run operational analytics.

8. Describe your master system integration plan, including elements such as but not limited to; design strategies for implementation, procurement, deployment, integration, commissioning, post implementation support, warranties, and all associated risks.

Commercial Questions

1. What are the benefits and challenges to master system integration (financial, technical, management, operational)?

2. What are the requirements or conditions that you believe should be integrated in the procurement of an MSI?

3. PSPC is considering including a full spectrum of services for MSI (e.g., system procurement, installation, maintenance and repair, integration services and software updates). What do you normally see as complementary or additional services that are useful to your clients?

4. What systems and solutions could you provide to enable the following 4 use cases: IAQ, FDD, Data Analytics and Energy Consumption Metrics, and UUI.

   a. Provide an example of a IAQ Dashboard and IAQ Report you have developed for an entire building and if possible a campus.
   b. Please provide a list of the base ruleset used in your Fault Detection and Diagnostics Platform.
   c. Provide an example of an Energy Consumption dashboard and report you have developed for an entire building and if possible a campus.
   d. Provide screenshots of your Graphic User Interface (GUI) or point us to your website where we can view the Interface you offer.

5. Outline a 2 to 5 year roadmap of products and services to support the aforementioned.

6. Describe how your systems, platforms, and resources can be scaled efficiently to include all buildings within our portfolio.

General Questions

1. Do you have any lessons learned from previous projects of a similar nature?

2. Have you provided similar services within the private sector or other governmental bodies with similar privacy and security requirements? If so, describe them.

3. Do you have any feedback or other considerations relative to this project?

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