



REQUEST FOR INFORMATION (RFI)

Metadata Management Solution

PURPOSE OF THE REQUEST FOR INFORMATION:

This is not a bid solicitation. This RFI will not necessarily result in any procurement action. A contract will not result from this activity.

The Canada Revenue Agency (CRA) is seeking feedback from the vendor community on the availability of a Metadata Management Solution. Vendors are requested to provide specific responses to the product questions outlined herein. Vendors are requested to provide product whitepapers if available.

The objective of this Request for Information (RFI) is to gather the most current information possible from industry on the different Metadata Management Solutions as it relates to the CRA's business requirements.

The key objectives of the RFI include:

1. Receive responses from the vendor community about available solutions; and
2. Get a better understanding of the current and future trends; and
3. Vendors who establish via their response to the RFI how their products(s) meet the detailed solution requirements may be invited to provide an interactive demonstration and discuss in detail how their solutions meet the listed requirements.

PURPOSE OF THE SOLUTION

The Canada Revenue Agency (CRA) Intelligence and Data Division (IDD) in the Strategy and Integration Branch is the Agency's lead for effective and efficient business intelligence and provides direction for the stewardship of data across the Agency.

This project is performed in conjunction with the Data Services and Technology Management (DSTM) Division that provides Data Management Services in support of CRA's Information Technology (IT) mandate.

The purpose of this Request for Information (RFI) is to determine if there are vendors who can provide a suitable metadata management solution that can meet CRA's business requirements.

A suitable metadata management solution will be able to capture all business and technical metadata on structured information. Accordingly, business and IT users of data/metadata will be able to select the most accurate data source for their purpose, in the most efficient manner.



SOLUTION REQUIREMENTS:

Introduction

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Objective of Request For Information

The purpose of this Request for Information (RFI) is to determine if there are vendors who can provide a suitable metadata management solution that can meet CRA's business requirements.

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Background Information

As the CRA progresses further in business intelligence, the importance of properly capturing the meaning and context of each piece of data (i.e. the metadata) found in its databases is key.

As computing technology evolved over the years, the Agency has captured metadata in many different repositories (e.g., spreadsheets, various custom built systems). The Managed Metadata Environment (MME) is the CRA's current central/primary metadata registry/repository and is primarily used to document technical metadata, including database identifier codes, table identifier codes, and schema identifier codes, as well as business names and descriptions where available.

Business users and program areas have identified a more prominent need to understand the meaning of data from the business aspect in order to effectively use it, particularly when business intelligence techniques are being employed. The identified business need is to allow stakeholders to access consistent metadata on business forms, line numbers, legislation sources, business names and definitions, including the location of the data in the correct databases. The CRA has determined that the MME in its current state cannot meet the above business needs. The CRA is looking for a more suitable metadata management solution.



CRA Metadata Management Concept Overview

Within the context of CRA's metadata management, there are three important concepts: the metadata item, the metadata registry and metadata repositories.

A **metadata item (MDI)** represents an item within CRA's managed data environment that CRA wishes to keep metadata about. Metadata items contain metadata about the items they represent.

Metadata item examples are:

MDI	MDI type	MDI attribute/metadata/field	MDI metadata
Last Name	Attribute	Definition	The last name of the client
TBL_001	Table	Business Creation Date	2001-02-03
DB_OP_V1	Database Schema	Note	Note about this database

The **metadata registry** is the catalog in which all of the MDIs are specified and related to one another. The registry will contain the corporate knowledge about every MDI at CRA. The best example of a current metadata registry at CRA is the aforementioned MME.

Metadata repositories are the sources that hold metadata about MDIs registered in the metadata registry.

Examples of metadata repositories are:

- Business glossaries (e.g., spreadsheets, webpages)
- Database catalogues (e.g., CRA developed databases)
- Data models
- Data files (e.g., flat files and XML)

When metadata repositories do not exist, or are not easily accessible for metadata items, the CRA metadata registry can serve as the metadata repository for such metadata items.



Appendix A – General Questions

A. 1 - General Information	
1.	What is your company's overall methodology and approach to metadata management of structured and unstructured data?
2.	What other products or services do you provide that is complementary to the metadata management solution? (E.g. data lineage, collaboration products.)
3.	What are the available licensing models for a complete metadata management solution, including ongoing costs such as licensing or maintenance and support?
A. 2 - Product Line	
4.	List and describe all the various features / applications / repositories that comprise your solution.
5.	Provide the system requirements of your solution. E.g.: CPU/cores, RAM, HDD capacity, O/S version(s), network.
6.	On which DBMS(s) is the software solution capable of operating?
7.	Describe in what capacity your metadata management solution provides user interfaces functionality and documentation in English and French.
A. 3 - Training, Documentation and Support	
8.	Describe the training services that your company offers (types of training and resources) as it pertains to your metadata management solution.
9.	In general, how much time would it take for a user to become self-sufficient in using the solution?
10.	Describe your maintenance and support offerings (e.g. pre-deployment, post-deployment, consulting, after-hours support, 7/24 on-call support) and how you provide them.
11.	What are the activities and the type/level of expertise CRA would require in order to maintain the solution on an on-going basis? (E.g. administrator for the repository)

Appendix B – Technical Questions

B. 1 - Create and maintain metadata	
12.	Describe the various ways a metadata item can be registered in the software solution (aka: metadata registration processes).
13.	List the software solution's pre-set metadata item types (and their attributes/metadata/fields) and describe their scalability E.g. Data elements (name definition, comments), data models (version, author), XML elements (namespace, version).
14.	Does the software solution allow the addition and management of customized metadata item types? Describe how the solution does this.
15.	Does the software solution allow the addition and management of customized metadata item type attributes/metadata/fields? Describe how the solution does this.
16.	List and describe any limitations of the software solution. (E.g. total volume capacity, number of metadata items that can be registered/managed, number of attributes/metadata/fields per



	metadata item, size/length of attributes/metadata/fields)
B. 2 - Metadata integration	
17.	Which DBMS(s) (and on which platform and O/S(s)) is the software solution capable of interacting, for the purpose of automatically extracting metadata information. Describe how this is done.
18.	What data modelling software and/or data model repositories (proprietary or open source) can your software solution interact with (e.g., automatically import and/or extract metadata information). Describe how this is done.
19.	List software and/or repositories (proprietary or open source) your software solution can interact with and how it interacts.
20.	Describe all other ways metadata can be imported into the software solution.
21.	Does the software solution allow programmatic access (e.g., an Application Programming Interface -API) to the metadata managed by the software solution? Describe how this is done.
22.	Describe how the software solution consolidates metadata from the various sources. E.g.: Describe how metadata from databases is related to metadata from data models, Extract Transform and Load (ETL) tools, and BI reporting tools.
B. 3 - Manage metadata registry	
23.	Does the software solution have customizable role based access to the metadata and the management of metadata? Describe how this is done.
24.	Does the software solution have submission management features that can accept, reject, modify, and view submissions that have been made to the metadata registry? Describe how this is done.
25.	Does the software solution provide a security management interface that allows authorization and access control to metadata within the metadata registry? Describe how this is done.
26.	Does the software solution provide audit features that track changes made to the registry? Describe how this is done.
27.	Does the software solution provide versioning of metadata items? Describe how this is done.
28.	Does the software solution allow for customizable standards to be applied to metadata items? (E.g. standard abbreviations, controlled vocabularies, naming standards, taxonomies) Describe how this is done.
29.	Can the software solution trace a metadata item's lineage upstream and downstream? Describe how this is done.
30.	Which control activities (e.g., archiving, backup/recovery, configuration modifications, versioning, etc.) can you implement in order to manage the metadata registry?
B. 4 - Distribute and deliver metadata	
31.	Describe all ways the software solution can be used to access metadata. This description should be in relation to viewing and/or exporting metadata out of the software solution.
32.	Describe how the software solution can distribute metadata information to business and technical analysts who may not have access to the software solution.
33.	Can the metadata be viewed through third party software? Describe how this is done.
B. 5 - Query, report and analyze metadata	
34.	Does the software solution provide a search feature that searches all metadata within the metadata registry? Describe how this is done.
35.	Does the software solution provide analysis features? Describe how this is done.
36.	Does the software solution allow for quality assessment of the metadata? Describe how this is done.
37.	Does the software solution provide reporting capabilities and customization? Describe how this is done.
38.	Does the software solution provide impact reporting based on data lineage/data provenance?



Describe how this is done.

Glossary of Terms and Acronyms

Term or acronym	Description
API	Application Programming Interface
CRA	Canada Revenue Agency
DBMS	Database Management System
DSTM	Data Services and Technology Management (ITB)
ETL	Extract, Transform and Load
IDD	Intelligence and Data Division (SIB)
ISDD	Intelligence, Statistics and Data Directorate (SIB)
IT	Information Technology
ITB	Information Technology Branch
MME	Managed Metadata Environment
MDI	Metadata Item
O/S	Operating System
RFI	Request for Information
SIB	Strategy and Integration Branch
XML	Extensible Markup Language

INTERACTIVE PRESENTATION SESSIONS:

CRA may at its sole discretion request meetings with interested respondents who have clearly addressed the Solution Requirements in their response to CRA to provide them with the opportunity for a follow-up to their written response and to present /discuss their capabilities in relation to this RFI.

Respondents may be contacted within 6 weeks of the RFI closing date to schedule the presentation. An Invite Agenda will be provided to the interested respondents. Specific questions or areas of interest to be covered during the session may also be provided and will be based on responses received.

The on-site presentation session will be located in the National Capital Region. The exact location and timeframe will be detailed in the Invite Agenda. However, at no time will the session exceed 2 hours in length. Respondents will also be asked to provide an electronic version of their presentation material after the presentation session.

The respondent sessions must cover specific details relevant to the key objectives stated within this RFI. As such, representatives attending the session must include Subject Matter Expert(s) in these areas in order to meaningfully respond to questions at the session.

RESPONSES AND ENQUIRIES:

Respondents are advised to clearly identify which portions of their response are proprietary. The confidentiality of each Vendor's response will be maintained. Due to the nature of an RFI activity, respondents must be aware that aspects (that have not been labelled confidential) of their responses may be used as a basis for any subsequent Request for Proposal (RFP), if and when the CRA decides to



prepare for any future procurement initiative.

Information provided in response to this RFI will be divulged only to individuals authorized to participate in this RFI activity.

Responses to this RFI will not be used to pre-qualify or otherwise restrict participation in any future procurement process (e.g. an RFP). Responses will not be formally evaluated.

CRA will not reimburse any expenditure incurred in preparing responses and participating in the presentation sessions related to this RFI.

The vendor must provide a contact name, email address and telephone number when submitting their response.

In the event that a response is not sufficiently clear, CRA reserves the right to seek additional information at their sole discretion.

Respondents are requested to submit responses by Friday, August 29th, 2014, 2 p.m. Eastern Standard Time. The review of responses will begin after the date and time mentioned above. Responses received after that date may not be reviewed.

Electronic submissions are preferred.

Vendors are requested to submit responses to this RFI using the following facsimile number, e-mail or delivery address:

Canada Revenue Agency
Contracting Division
IT Distributed Section
250 Albert, Room 8088
Ottawa, ON K1A 0L5
Attn: Judy Bonacci
Telephone No: (613) 948-2454
Facsimile No: (613) 957-6655
E-mail: judy.bonacci@cra-arc.gc.ca

For delivery by hand or by courier, Monday to Friday 8:30am to 3:00pm, please contact Judy Bonacci to arrange a drop off time.

Only enquiries which clarify the questions asked or feedback requested may be answered with respect to this RFI.

All enquiries must be submitted via email to the attention of Judy Bonacci at judy.bonacci@cra-arc.gc.ca or by phone at 613-948-2454.