

## **Library and Archives Canada**

### Testing of the Executive Correspondence Management Metadata Standard

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## **1 BACKGROUND**

In 2005/6, Library and Archives Canada (LAC) created a Government on Line (GOL) endorsed Records Management Metadata Set and Application Profile with support from the community. That same year, LAC created a Executive Correspondence Management Metadata Set and Application Profile.

Metadata is necessary in order to manage electronic records with consistent terms and vocabulary to reuse and repurpose, and to present reliable and authentic documents. It also enables archival value records to be transferred from departments and agencies to LAC at the Disposition Phase.

In February 2007, LAC embarked on a project to validate the metadata elements in a sample of specific departments in order to identify the business process and changes that each will have to make in order to incorporate the use of the metadata elements into their normal day-to-day management of electronic records.

LAC will use the results of the metadata testing in both the RM and ECM environments as a benchmark to measure awareness, and adoption. The testing is also intended to reveal the following:

- gap analysis between metadata elements that are mandatory vs. non-mandatory
- definition of “next steps”

## 2 TESTING METHODOLOGY

The methodology used for the testing is a modular one that requires specific tasks within each phase to feed into the subsequent phase. This section provides details on those phases.

### 2.1 Pre-testing Phase

#### Defining Compliancy

Compliancy was defined in three ways. The elements could be exact, equivalent, or mappable to the elements in the metadata set as follows:

**Exact** – having the same element name and same definition

**Equivalent** – having a different element name but the same definition

**Mappable** – when required result was obtained through different elements or a combination of elements and processes. In other words, the spirit of the standard was met.

All those elements that did not share an element name or definition were defined as **non-compliant**.

### 2.2 Testing Phase

The testing was conducted using data collected from partner institutions. The sources of data included screen shots, data dictionaries, database schema, training literature and software product literature. The data was analysed and elements mapped against the metadata set to determine compliance. Results were tallied by element for the mandatory, mandatory if applicable and optional elements.

### 2.3 Consultation Phase

The consultation phase spanned six weeks and included interviews and discussions with stakeholders from both the partner institutions and central agencies in order to determine awareness, acceptance, future adoption plans and particular concerns regarding the specific element names (labels) used. In addition, feedback was gathered on whether or not there was sufficient awareness in the RM community of the metadata standard. Although not all data collected was tested against the standard, representatives from the following institutions were consulted:

Library and Archives Canada  
Library of Parliament  
Industry Canada  
Treasury Board Secretariat/Finance Canada  
Indian and Northern Affairs

Privy Council Office  
Department of Justice  
Department of National Defence  
Department of Foreign Affairs and International Trade  
Agriculture and Agri-foods Canada  
Canada Revenue Agency  
Health Canada  
Supreme Court of Canada  
Service Canada  
Transport Canada

## **2.4 Analysis Phase**

The analysis phase was conducted after compiling the test results from five institutions. There were a variety of metrics compiled but five important tables were developed to present relevant statistics intended to reflect compliancy and to illustrate any anomalies. Based on the outputs of this analysis phase, recommendations and “next steps” were developed.

### 3 ANALYSIS AND FINDINGS

#### 3.1 Total Compliance by Department

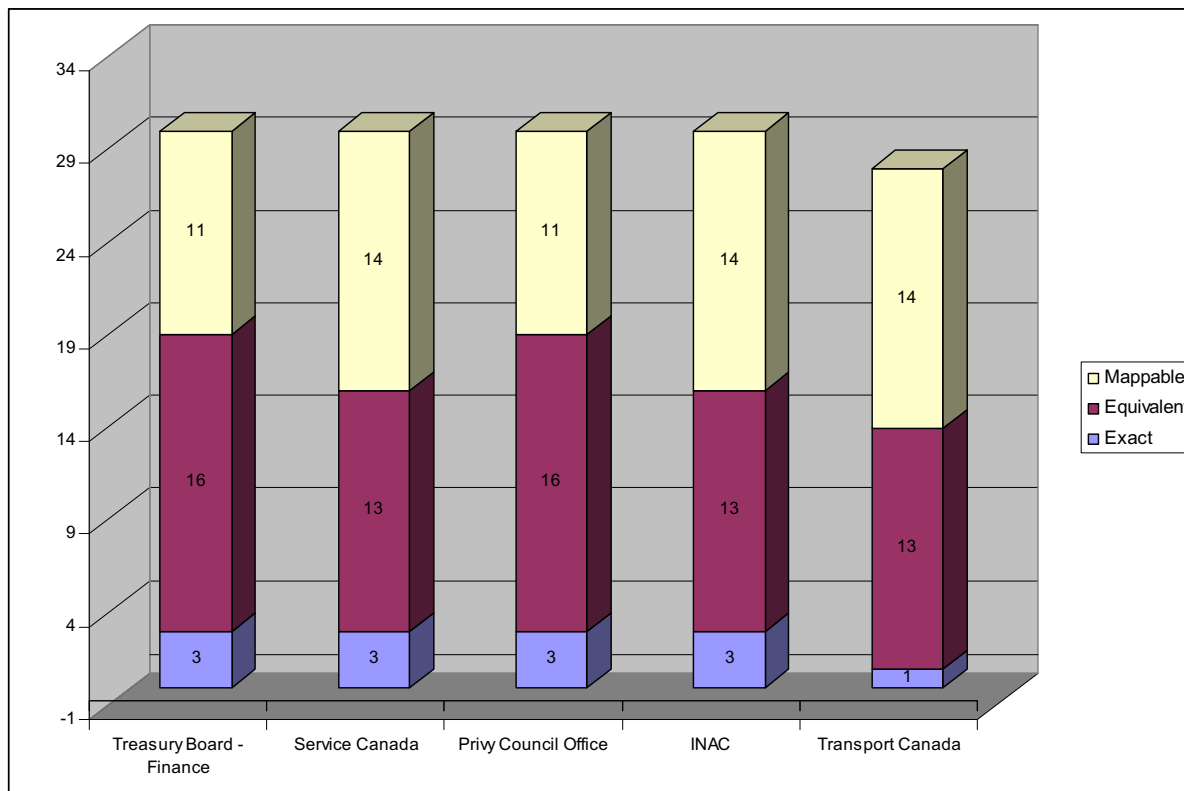


Table #1. Total Compliance by Department

Table #1 presents compliance by department in order to show the extent to which the departmental metadata matches that of the “standard”. Each bar is further broken down to show that, of the compliant data elements, what **number** was exact, equivalent or mappable.

#### Findings

Table #1 reveals that compliance by department is high and very consistent across the partner organizations when looking at the entire metadata set; that is, both mandatory and optional elements. It also shows that very few of the compliant elements have the exact name as defined in the standard. Instead, most compliant elements are either equivalent or mappable.

Overall, this level of compliance is a very positive reflection of the appropriateness of the metadata set. It shows that the elements included match what the departments are already capturing.

### 3.2 Mandatory Compliance by Department

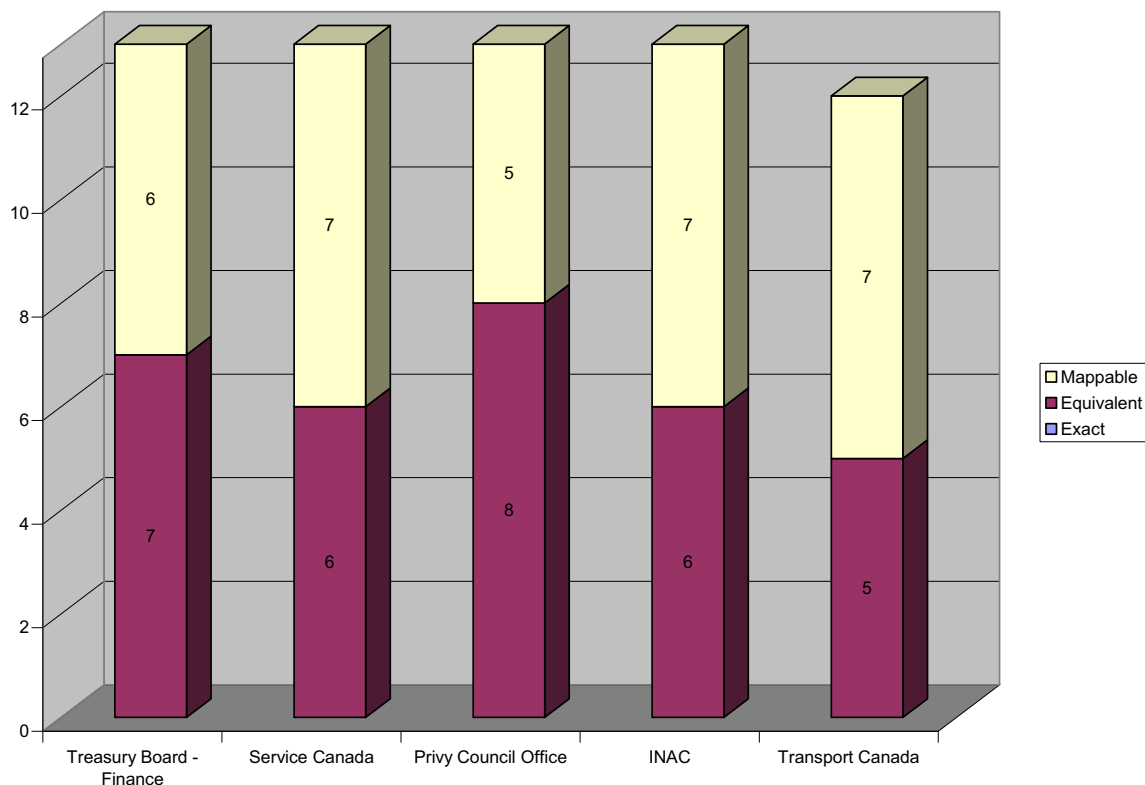


Table #2. Mandatory Compliance by Department

Table #2 presents mandatory compliance by department in order to show the extent to which the departmental metadata matches the mandatory elements included in the “standard”. Each bar is further broken down to show that, of the mandatory data elements, what **number** was exact, equivalent or mappable.

#### Findings

Table #2 reveals that compliance by department is consistently high across the partner organizations when looking at only the mandatory and mandatory if applicable elements of the metadata set. It also shows that **none** of the compliant elements has the exact name as defined in the standard. Instead, all of the compliant elements are either equivalent or mappable.

### 3.3 Compliance across Departments

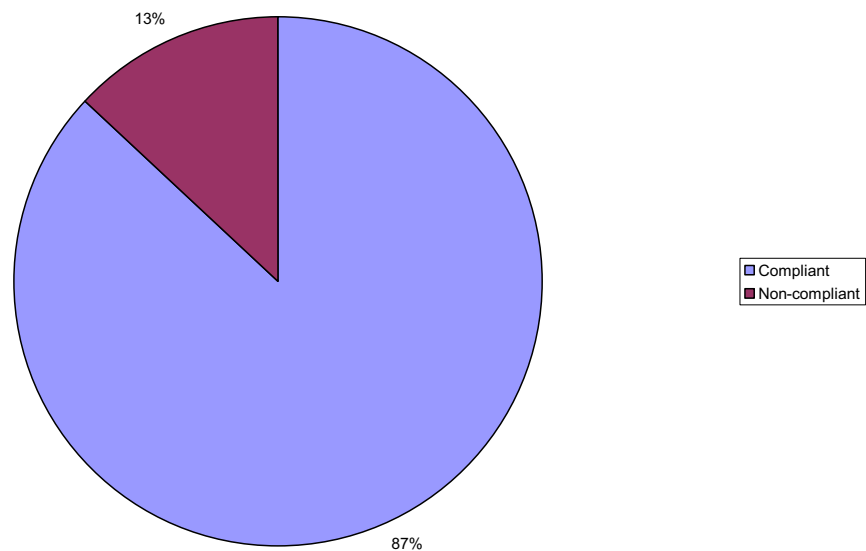


Table #3. Total Compliance Across Departments

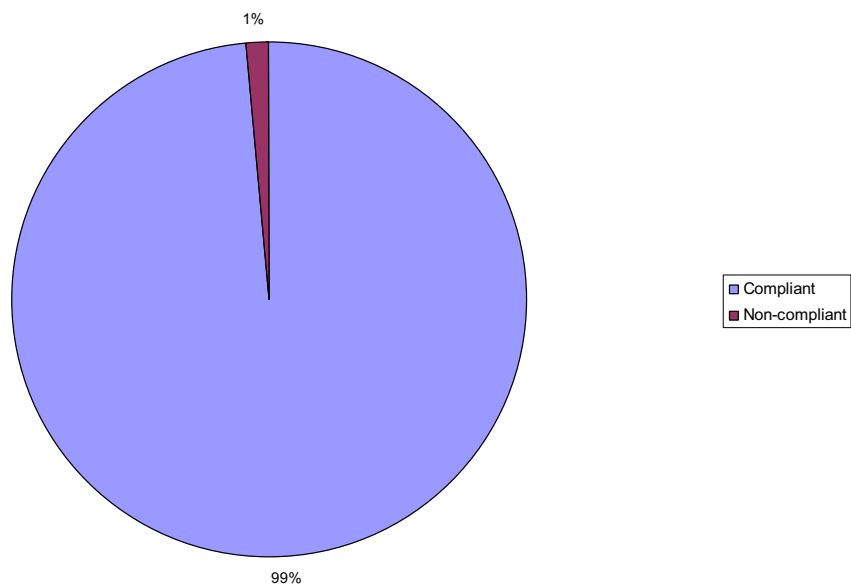


Table #4. Total Mandatory Compliance Across Departments



Table #3 presents total compliance across partner departments in order to show the extent to which this population complies with the metadata standard. This information is presented as a **percentage**, grouping the results for exact, equivalent or mappable into the “compliant” category, as opposed to those that are non-compliant.

Table #4 presents total mandatory compliance across partner departments in order to show the extent to which this population complies with the mandatory elements within the metadata standard.

## Findings

Table #3 reveals that compliance *across* departments as a percentage is very high for the entire metadata set; that is, both mandatory and optional. Table #4 shows that, as a percentage, compliance to the mandatory and mandatory if applicable elements is virtually 100%. This compliance is a very positive reflection of the appropriateness of the metadata set, particularly in regards to the mandatory elements.

## 3.4 Element Usage by Department

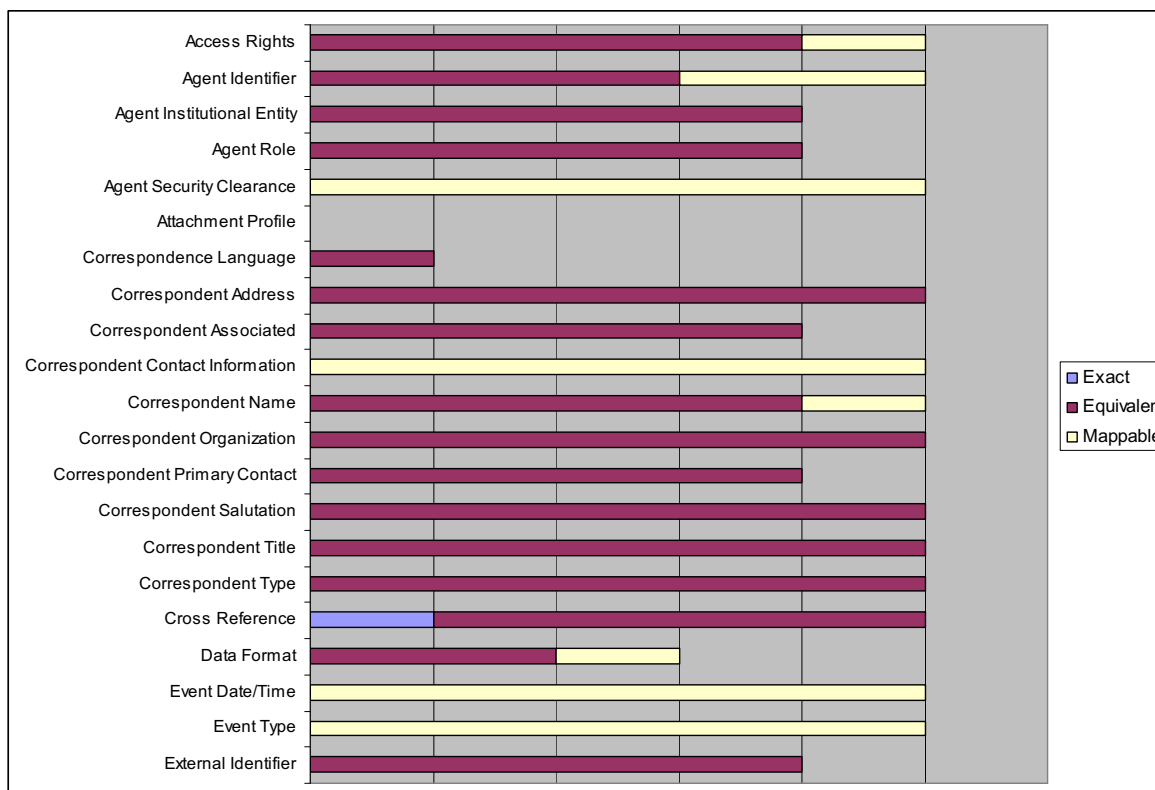


Table #5. Departmental Usage by Element

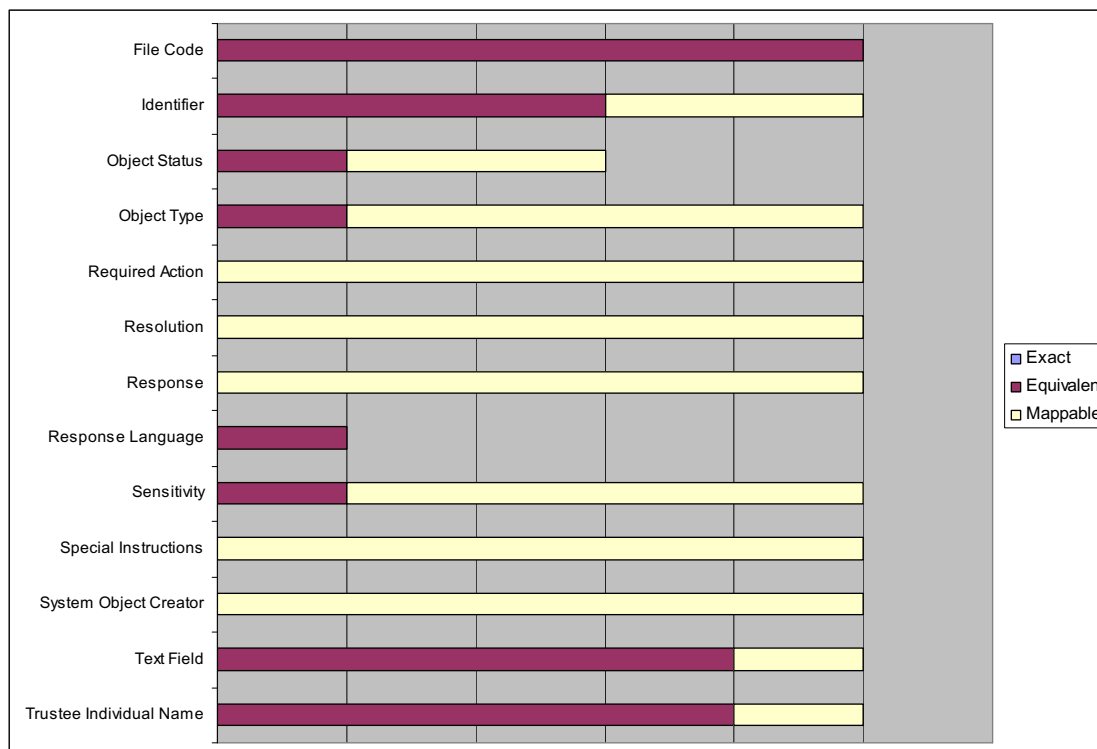


Table #6. Departmental Usage by Element (con't)

Tables #5 and #6 capture the entire ECM metadata set (all thirty-four elements). The data is presented whether or not a partner institution *uses* an element, either mandatory or optional. The data also illustrates *how* each element is used (exact, equivalent or mapped). This level of compliance presents some inconsistencies and anomalies that can be further analysed.

## Findings

Tables #5 and #6 reveal that some elements in the metadata set are not used while others are highly used but rarely with an exact match in element name. Instead, compliancy is attained by through the use of equivalent or mappable elements. This could illustrate that some elements are unnecessary while others can only be met in “spirit” using processes rather than exact or equivalent names. In other cases, an equivalent name is used so frequently and consistently that it may be advisable to change the element name to match a fully-compliant and equivalent element name that is already widely used.

## **4 OBSERVATIONS**

Through the consultation phase, the following observations were made:

- There was a low level of awareness of the ECMMS and ECMAP
- the number of mandatory and mandatory if applicable elements in the standard were low and thus, it was easier to reflect a high level of compliance
- Implementations were much less complex because the applications used for executive correspondence deal with a very specific business problem; that is, the tracking of executive correspondence.
- Compliance was very closely tied to the use of technical solutions that were designed specifically for executive correspondence
- Exact element names were rarely used, likely because the ECMMS and ECMAP were developed to align with the RMMS and RMAP.

## **5 RECOMMENDATIONS**

Based on the analysis and the consultations, the following recommendations are being made regarding the need to increase compliance with the metadata standard within the GC.

### **5.1 Awareness of the ECMMS and ECMAP**

1. Post ECMMS and ECMAP on the IM Forum along with the RMMS and RMAP;
2. Include the ECMMS and ECMAP in the GC IM Certification Program, available through the Canada School of the Public Service;
3. Develop and implement a communication plan which includes:
  - An on-line information package
  - A “canned” information session to be available to receptive departments
  - Regular presentations and updates at both IM and ECM forums

### **5.2 Benchmarking**

1. The output of this report should be considered as the benchmark for governmental compliancy.
2. Regular (bi-annual) tests should be performed to measure on-going adoption of the standard.

### **5.3 Continuous Improvement**

Based on this analysis, an Executive Correspondence Management Application Profile Working Group should be established in order to review the following elements to determine if changes are required.



Element Usage	Elements to be Reviewed
<b>Not/Rarely Used</b> <i>*used by 0 – 1 of the partner institutions</i>	Attachment Profile Correspondence Language Response Language
<b>Mostly/entirely equivalent</b> <i>*equivalent element name used by 3 or more partner institutions</i>	Access Rights Agent Identifier Agent Institutional Entity Agent Role Correspondent Address Correspondent Associated Correspondent Name Correspondent Organization Correspondent Primary Contact Correspondent Salutation Correspondent Title Correspondent Type Cross Reference External Identifier File Code Identifier Text Field Trustee Individual Name
<b>Mostly/entirely mappable</b> <i>*mappable elements or processes used by 3 or more partner institutions</i>	Agent Security Clearance Correspondent Contact Information Event Date/Time Event Type Object Type Required Action Resolution Response Sensitivity Special Instructions System Object Creator

## APPENDIX A – TEST DATA

### ECM Metadata Application Profile Testing Worksheet

Treasury Board – Finance

WebCIMS 4.1 SP3

Mandatory Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Identifier		X			Equivalent to User ID
Correspondent Address		X			Equivalent to county, state, city, street address number, street address 1, street address 2, zip code
Correspondent Name		x			Equivalent to first name, last name, middle initial, salutation
Event Date/Time			x		Mappable to added at, last modified at, added to system, unused (actual time closed), assigned, closed, received, sent
Event Type			x		Mappable to all of the event date/time elements
File Code		x			Equivalent to folder number
Identifier		x			Equivalent to system ID
Required Action			x		Mappable to Requested Activity

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Access Rights		x			Equivalent to Security Matrix
Agent Security Clearance			x		Mappable to Classification Related to
Correspondent Primary Contact		x			Equivalent to primary or secondary flag
Sensitivity			x		Mappable to classification of the attachment, security function key,

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
					unused (classification)
Trustee Individual Name		x			Equivalent to Staff Member Designated Responsible for this Item

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Institutional Entity		x			Equivalent to Department
Agent Role		x			Equivalent to Title
Attachment Profile				x	
Correspondence Language				x	*Identify the language of keywords
Correspondent Associated		x			Equivalent to Correspondent Key
Correspondent Contact Information			x		Mappable to Fax Number, Home Number, Work Phone, Work Phone Extension
Correspondent Organization	x				
Correspondent Salutation	x				
Correspondent Title	x				
Correspondent Type		x			Equivalent to Correspondent Type Key
Cross Reference		x			Equivalent to Folder the Attachment Is Related To
Data Format		x			Equivalent to Coded Type (*specified application to run)
External Identifier		x			Equivalent to Tracking Number for Folder
Object Status				x	
Object Type			x		Mappable to Folder Type
Resolution			x		Mappable to Response Notes

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Response					Mappable to Requested Activity
Response Language				x	
Special Instructions			x		Mappable to Response Notes
System Object Creator			x		Mappable to Owner of Assignment, Folder Added By
Text Field		x			Equivalent to Description

## ECM Metadata Application Profile Testing Worksheet

Service Canada

WebCIMS 4.1

Mandatory Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Identifier			x		Maps to User ID
Correspondent Address		x			Equivalent to county, state or province, city, street address number, street address 1, street address 2, zip code
Correspondent Name		x			Equivalent to first name, last name, middle initial, salutation
Event Date/Time			x		Mappable to Added At, Last Modified At, Added To System, Assigned, Closed, Received, Sent
Event Type			x		Mappable to all of the event date/time elements
File Code		x			Equivalent to Folder Number
Identifier			x		Mappable to IMG Key, Task Num., Tick Num.
Required Action			x		Mappable to Requested Activity

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Access Rights		x			Equivalent to Security Matrix
Agent Security Clearance			x		Mappable to Classification Related to
Correspondent Primary Contact		x			Equivalent to Primary or Secondary Flag
Sensitivity			x		Mappable to Classification of the



Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
					Attachment, Security Function Key
Trustee Individual Name		x			Equivalent to Staff Member Designated Responsible for this Item

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Institutional Entity		x			Equivalent to Department
Agent Role		x			Equivalent to Title
Attachment Profile				x	
Correspondence Language				x	
Correspondent Associated		x			Equivalent to Correspondent Key
Correspondent Contact Information			x		Mappable to Fax Number, Home Number, Work Phone, Work Phone Extension
Correspondent Organization	x				
Correspondent Salutation	x				
Correspondent Title	x				
Correspondent Type		x			Equivalent to Correspondent Type Key
Cross Reference		x			Equivalent to Number of the Folder to which the Attachment Belongs
Data Format				x	
External Identifier		x			Equivalent to Tracking Number for Folder
Object Status			x		Mappable to Status of the Document in a Process, Attachment Status Table
Object Type			x		Mappable to Type of the Attachment
Resolution			x		Mappable to Response Notes

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Response					Mappable to Requested Activity
Response Language				x	
Special Instructions			x		Mappable to Response Notes
System Object Creator			x		Mappable to Owner of the Current Task
Text Field		x			Equivalent to Description

## ECM Metadata Application Profile Testing Worksheet

Privy Council Office

WebCIMS 4.1 SP4

Mandatory Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Identifier		X			Equivalent to User ID
Correspondent Address		X			Equivalent to county, state, city, street address number, street address 1, street address 2, zip code
Correspondent Name		x			Equivalent to first name, last name, middle initial, salutation
Event Date/Time			x		Mappable to added at, last modified at, added to system, unused (actual time closed), assigned, closed, received, sent
Event Type			x		Mappable to all of the event date/time elements
File Code		x			Equivalent to folder number
Identifier		x			Equivalent to system ID
Required Action			x		Mappable to Requested Activity

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Access Rights		x			Equivalent to Security Matrix
Agent Security Clearance			x		Mappable to Classification Related to
Correspondent Primary Contact		x			Equivalent to primary or secondary flag
Sensitivity			x		Mappable to classification of the attachment, security function key, unused (classification)

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Trustee Individual Name		x			Equivalent to Staff Member Designated Responsible for this Item

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Institutional Entity		x			Equivalent to Department
Agent Role		x			Equivalent to Title
Attachment Profile				x	
Correspondence Language				x	*Identify the Language of Keywords
Correspondent Associated		x			Equivalent to Correspondent Key
Correspondent Contact Information			x		Mappable to Fax Number, Home Number, Work Phone, Work Phone Extension
Correspondent Organization	x				
Correspondent Salutation	x				
Correspondent Title	x				
Correspondent Type		x			Equivalent to Correspondent Type Key
Cross Reference		x			Equivalent to Folder the Attachment Is Related To
Data Format		x			Equivalent to Coded Type (*specified application to run)
External Identifier		x			Equivalent to Tracking Number for Folder
Object Status				x	
Object Type			x		Mappable to Folder Type
Resolution			x		Mappable to Response Notes
Response					Mappable to Requested Activity

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Response Language				x	
Special Instructions			x		Mappable to Response Notes
System Object Creator			x		Mappable to Owner of Assignment, Folder Added By
Text Field		x			Equivalent to Description

## ECM Metadata Application Profile Testing Worksheet

Indian and Northern Affairs

WebCIMS 4.1 integrated with RDIMS

Mandatory Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Identifier			x		Maps to User ID
Correspondent Address		x			Equivalent to county, state or province, city, street address number, street address 1, street address 2, zip code
Correspondent Name		x			Equivalent to first name, last name, middle initial, salutation
Event Date/Time			x		Mappable to Added At, Last Modified At, Added To System, Assigned, Closed, Received, Sent
Event Type			x		Mappable to all of the event date/time elements
File Code		x			Equivalent to Folder Number
Identifier			x		Mappable to IMG Key, Task Num., Tick Num.
Required Action			x		Mappable to Requested Activity

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Access Rights		x			Equivalent to Security Matrix
Agent Security Clearance			x		Mappable to Classification Related to
Correspondent Primary Contact		x			Equivalent to Primary or Secondary Flag
Sensitivity			x		Mappable to Classification of the Attachment, Security Function Key

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Trustee Individual Name		x			Equivalent to Staff Member Designated Responsible for this Item

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Institutional Entity		x			Equivalent to Department
Agent Role		x			Equivalent to Title
Attachment Profile			x	x	
Correspondence Language				x	
Correspondent Associated		x			Equivalent to Correspondent Key
Correspondent Contact Information			x		Mappable to Fax Number, Home Number, Work Phone, Work Phone Extension
Correspondent Organization	x				
Correspondent Salutation	x				
Correspondent Title	x				
Correspondent Type		x			Equivalent to Correspondent Type Key
Cross Reference		x			Equivalent to Number of the Folder to which the Attachment Belongs
Data Format				x	
External Identifier		x			Equivalent to Tracking Number for Folder
Object Status			x		Mappable to Status of the Document in a Process, Attachment Status Table
Object Type			x		Mappable to Type of the Attachment
Resolution			x		Mappable to Response Notes
Response					Mappable to Requested Activity

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Response Language				x	
Special Instructions			x		Mappable to Response Notes
System Object Creator			x		Mappable to Owner of the Current Task
Text Field		x			Equivalent to Description



## ECM Metadata Application Profile Testing Worksheet

Transport Canada

CCM 3.2.1 and RDIMS v3 (DocsOpen 3.9.5)

Mandatory Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Identifier		x			Equivalent to User ID
Correspondent Address		x			Equivalent to county, province, city, postal code, address
Correspondent Name			x		Mappable to First Name, Last Name, Initial, Salutation
Event Date/Time			x		Mappable to Time, Disposition Date, Archived Date, Modified Date, Closed Date, Interim Date, PC Date, etc.
Event Type			x		Mappable to all of the event date/time elements
File Code		x			Equivalent to File Classification Number
Identifier		x			Equivalent to Docket Number
Required Action					Mappable to Docket Task and Explanation

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Access Rights			x		Mappable to Assigned To Group, Assigned To Person
Agent Security Clearance			x		Mappable to Security Level
Correspondent Primary Contact				x	
Sensitivity		x			Equivalent to Attachment Security Level

Mandatory if applicable Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Trustee Individual Name			x		Mappable to OPI

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Agent Institutional Entity				x	
Agent Role				x	
Attachment Profile				x	
Correspondence Language		x			Equivalent to Language
Correspondent Associated				x	
Correspondent Contact Information			x		Mappable to Fax Number, Telephone Number, Telephone Number 2, Email Address
Correspondent Organization		x			Equivalent to Organization
Correspondent Salutation		x			Equivalent to Salutation
Correspondent Title		x			Equivalent to Title
Correspondent Type		x			Equivalent to Type
Cross Reference	x				
Data Format			x		Mappable to Extension
External Identifier				x	
Object Status		x			Equivalent to Status
Object Type		x			Equivalent to Doc Type
Resolution			x		Mappable to Summary

Optional Metadata Element	Compliant	Equivalent	Mappable	Non-compliant	Comments
Response			x		Mappable to Docket Task
Response Language		x			Equivalent to Language
Special Instructions					Mappable to Explanation
System Object Creator			x		Mappable to Added By, Owner
Text Field			x		Mappable to Comment, Explanation