Electronic Information Environment (EIE)

EIE Project

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Service Specification Document/Interface Control Document

Navy Inventory Report – External

External – In the above context is intended to reflect that this content is for the In-Service-Support (ISS) Contractors who have been contracted to participate in an ISS phase of a Weapon System or Platform that the Department of National Defence has acquired.

The information being provided is to illustrate the model that exists for business processes and information exchange within the Performance Based Contracting (PBC) solution for the Department of National Defence. The information is provided to facilitate an understanding of the business architecture and the solution architecture that exist for the PBC program. The content is not intended to reflect the end state specifications for all of the PBC EIE related services.

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1 Introduction

This document establishes an interface between Canada Electronic Data Exchange (EDE) system and the In-Service Support (ISS) Contractor responsible for maintenance of a platform subject to Performance Based Contracting (PBC). This interface will be used by Canada to send part Inventory Report messages to ISS Contractor. To support the part Inventory Report transfer between Canada EDE and ISS Contractor, both systems need to support specific Web Service operations as well as request and response Extensible Markup Language (XML) schemas as described in this document.

1.1 Intended Audience

- ISS Contractor System Designers
- Canada EDE Designers
- ISS Contractor Testers
- Canada EDE Testers

1.2 References

[Ref. 1] Electronic Information Exchange Business Use Case - BUC 3.50 Navy - Exchange Inventory Report Data

[Ref. 2] PBC Business Process Catalogue Annex M: Navy Supply Process Model - In the Context of Performance Based Contracting (PBC)

[Ref. 3] Electronic Information Exchange Service Interaction Model

[Ref. 4] Electronic Information Exchange Materiel Management Service Operational Model – External

2 Business Information

Business Information is based on the EIE Business Use Case for Exchange of Inventory Report Data [Ref. 1].

The Inventory Reporting service is used to satisfy two business processes:

1) Reporting of Inventory at Canada ship storage locations.
2) Reporting of Inventory for deployed Pack-Up Kits (PUKs)

Each of these is satisfied through the technical service, Mobility Kit Inventory.

The ISS Contractor[1] will be responsible for monitoring the stock level of the Canada storage locations and PUKs. In order to accurately monitor inventory level, Canada will send Usage and Inventory Reports to the ISS Contractor, via EDE on a scheduled basis.

Within Canada, maintenance business processes are supported by two types of information systems, known generically as:

- Canada Maintenance Management System (CMMS)
- Canada Supply System (CSS)

Currently both functions are supported within Canada by the Defence Resource Management Information System (DRMIS).

2.1 Business Processes

Ship Inventory Monitoring

Sufficient supply of spares will have to be held on the ships to meet the needs of the maintenance activities. In order to accurately monitor inventory level, Canada will send Usage and Inventory Reports to the ISS Contractor, via EDE on a scheduled basis.

PUK Inventory Monitoring

A PUK is requested from ISS Contractor in support of deployed maintenance activities. The type of mission is usually communicated to ISS Contractor outside of EDE, prior to deployment. Sufficient supply of spares will have to meet the needs of the mission. The content of the PUK is usually determined by ISS Contractor as per Canada's deployment needs. In order to accurately monitor inventory level, Canada will send Usage and Inventory Reports to the ISS Contractor, via EDE on a scheduled basis.

2.2 Business Triggers

The following actions within Canada CSS/CMMS systems, the business triggers, will result in changes to Inventory data, which is being sent to ISS Contractor.

[1] In this document the terms Industry and ISS Contractor are synonymous. The term ISS Contractor is used during description of the business process to align with the Business Use Cases. The term Industry is used during description of service interactions and service descriptions.

- On a predetermined schedule, Canada will collect inventory overview data with the most recent inventory information for each relevant storage location. The ISS Contractor can use this information to track inventory levels of ISS Contractor-supplied spares and STTE.

For further information, including cross-references to business processes, please refer to the Business Use Case [Ref. 1].

2.3 Business Error Processing

ISS Contractor will report Business Errors with regards to the data to Canada via the exposed error interfaces, but any resolution may be a manual process.

Note that within Canada, the Ship storage location and PUK Inventory Reporting messages are sent through the Mobility Kit Inventory Report service. All technical sections of this document refer to Mobility Kit Inventory Report messages, but the content of the message represents Inventory reporting for a ship, depot, base(s), unit(s) or a PUK.

Technical sections of this document will refer to the Mobility Kit Inventory Reporting service, and Mobility Kit Inventory Report messages.

3 Business Constraints

Constraints on *Usage* of the Service

1) Canada EDE shall ensure a Mobility Kit Inventory message is only processed for an Industry which is properly authenticated and authorized to see maintenance and materiel data for that ship class.

2) Every invocation of a service operation shall be secured using secure credentials, such as Public Key Infrastructure (PKI) Certificate.

Constraints on *Behaviour* of the Service

3) The Mobility Kit Inventory service shall operate on a predetermined schedule, nominally once a day per Canada storage location or deployed PUK.

4) A Mobility Kit Inventory message will only represent one Canada storage location or deployed PUK construct.

5) A Mobility Kit Inventory message will address either serviceable or unserviceable storage locations, not both.

6) Industry will report any business processing errors through the Mobility Kit Inventory error operation exposed by Canada EDE using a distinct and separate invocation.

7) Mobility Kit Inventory messages will be signed using digital certificates between Canada EDE and Industry. Please see Service Interaction Model [Ref. 3] for details.

8) Canada EDE may attempt to repeat operation invocations in response to technical faults. This behaviour is controlled by parameters for each operation. Please see Service Interaction Model [Ref. 3] for details.

4 Service Use Case

The requirements for the Inventory service are defined by one use case with several scenarios.

4.1 Service Context [2]

A high level view of the context of the service is shown in Figure 4-1 below. For simplicity this view omits error scenarios. These are discussed in Service Use Case Scenarios.

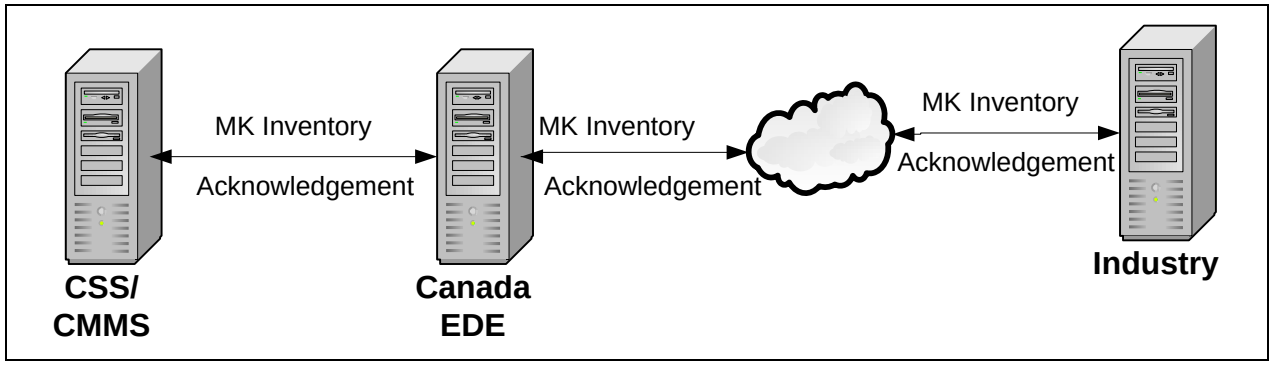


Figure 4-1 Mobility Kit Inventory Service Context

The following steps occur:

- CSS/CMMS will periodically collect Inventory information.
- CSS/CMMS sends Mobility Kit Inventory message to Canada EDE – Canada EDE accepts the message and returns a 'technical' response.
- Canada EDE sends Mobility Kit Inventory message to Industry – Industry accepts the message and returns a 'technical' response.
- Industry backend system performs the required processing including enforcement of pre-established business rules as per agreement with Canada and Industry.

The "technical response" referred to above either (*i*) confirms a party in the exchange has accepted a message for further processing, or (*ii*) contains a fault message. A technical acceptance does not preclude subsequent "business" errors.

4.2 Successful Request and Technical Response

This is the main or "Happy Day" scenario as shown in Figure 4-2.

[2] The terms ISS Contractor and Industry are used interchangeably in this document.

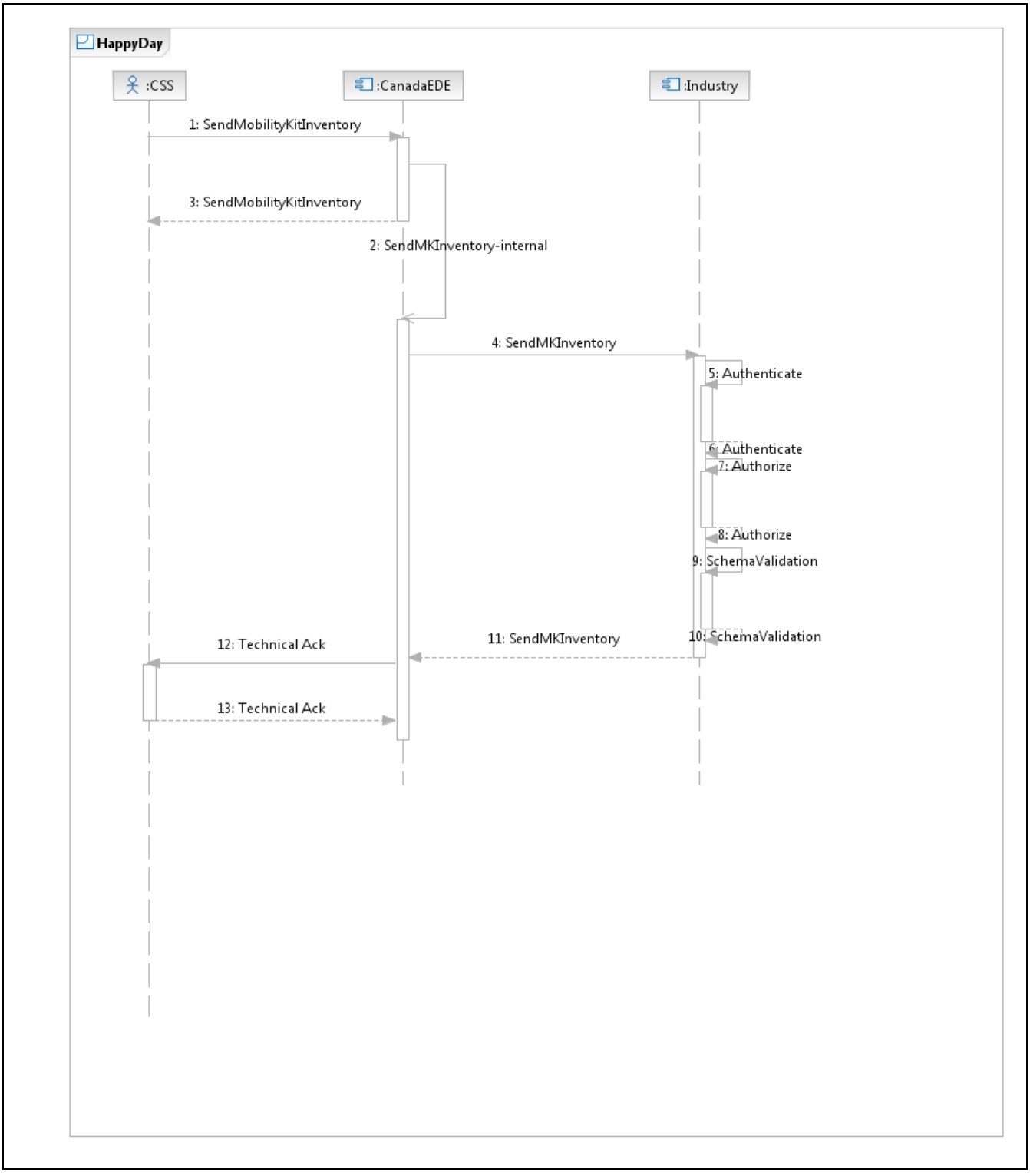


Figure 4-2 Mobility Kit Inventory Message Flow

Main Flow	
Scenario	"Happy Day:" Canada EDE successfully sends Mobility Kit Inventory message to Industry.
Pre-Condition	CSS has collected Inventory data.
Post-Condition	Inventory message is successfully received by Industry. CSS is advised of successful delivery of message to Industry.
Steps	1) CSS sends Inventory message to Canada EDE. 2) Canada EDE successfully Authenticates, Authorizes and Validates the message; then starts an internal process. 3) Canada EDE responds that the message has been accepted. 4) The Canada EDE system invokes the Industry hosted and exposed SendMKInventory operation. 5/6) Industry successfully Authenticates the service consumer. 7/8) Industry successfully Authorizes use of the service/operation. 9/10) Industry conducts the required validations as per Service Interaction Model [Ref. 3]- Section Technical Delivery Phase 11) Industry provides technical response to Canada EDE. The response may indicate a status of Success or contain a fault. 12/13) Canada EDE sends *Technical* Acknowledgement to CSS

Implicit in the above diagram is that a service Consumer may retry to send a message to the service Provider in the event there is no technical response from the Provider or if the Provider response indicates a technical error. Resend behaviour is governed by parameters in the non-functional requirements of each operation.

4.3 Alternate Scenarios

The following scenarios apply to all uses of the Mobility Kit Inventory service.

Alternate Flow 1 (Authentication Failure)	
Scenario	Canada EDE does not provide appropriate credentials to Industry.
Pre-Condition	Canada EDE has invoked the Industry Mobility Kit Inventory Service.
Post-Condition	The Industry sends an Authentication Failure fault response

Steps	1) The authentication credentials are either not provided or are incorrect. 2) The Industry sends an Authentication Failure fault as the technical response. 3) Canada EDE processes the fault.
Alternate Flow 2 (Authorization Failure)	
Scenario	Canada EDE is not authorized to use a service.
Pre-Condition	Canada EDE has invoked the Industry Mobility Kit Inventory Service. Industry has completed Authentication successfully.
Post-Condition	The Industry sends an Unauthorized Request fault as the technical response.
Steps	1) The request message does not pass Industry authorization. 2) The Industry sends an Unauthorized Request fault as the technical response. 3) Canada EDE processes the authorization failure.
Alternate Flow 3 (Message Technical Validation Failure)	
Scenario	Canada EDE sends a malformed message to Industry.
Pre-Condition	Canada EDE has invoked the Industry Mobility Kit Inventory Service. Industry has completed Authentication and Authorization successfully.
Post-Condition	The Industry sends a Malformed Message fault response.
Steps	1) The message does not pass validation as per agreed schema. (Regardless of the number and types of errors). 2) Industry sends schema validation error information as the technical response as the fault message as defined within the exposed interface. 3) Canada EDE processes the schema validation error.
Alternate Flow 4 (Industry Service unresponsive)	
Scenario	Canada EDE does not receive technical response within ACK_TIME_INTERVAL.
Pre-Condition	Canada EDE has invoked the operation but does not receive the technical response within the time specified for the Mobility Kit Inventory service.
Post-Condition	Canada EDE marks the message as Dead Message.

Steps	1) Canada EDE does not receive any technical response from Industry within the allowed ACK_TIME_INTERVAL. 2) Canada EDE will retry sending the message up to the defined maximum retry count, or Time to Live interval, whichever comes first. 3) If there is no response, then Canada EDE marks the request message as Dead and handles it via the DeadMessageHandlerService.

The Mobility Kit Inventory Business Validation Failure Message Flow is shown in Figure 4-3.

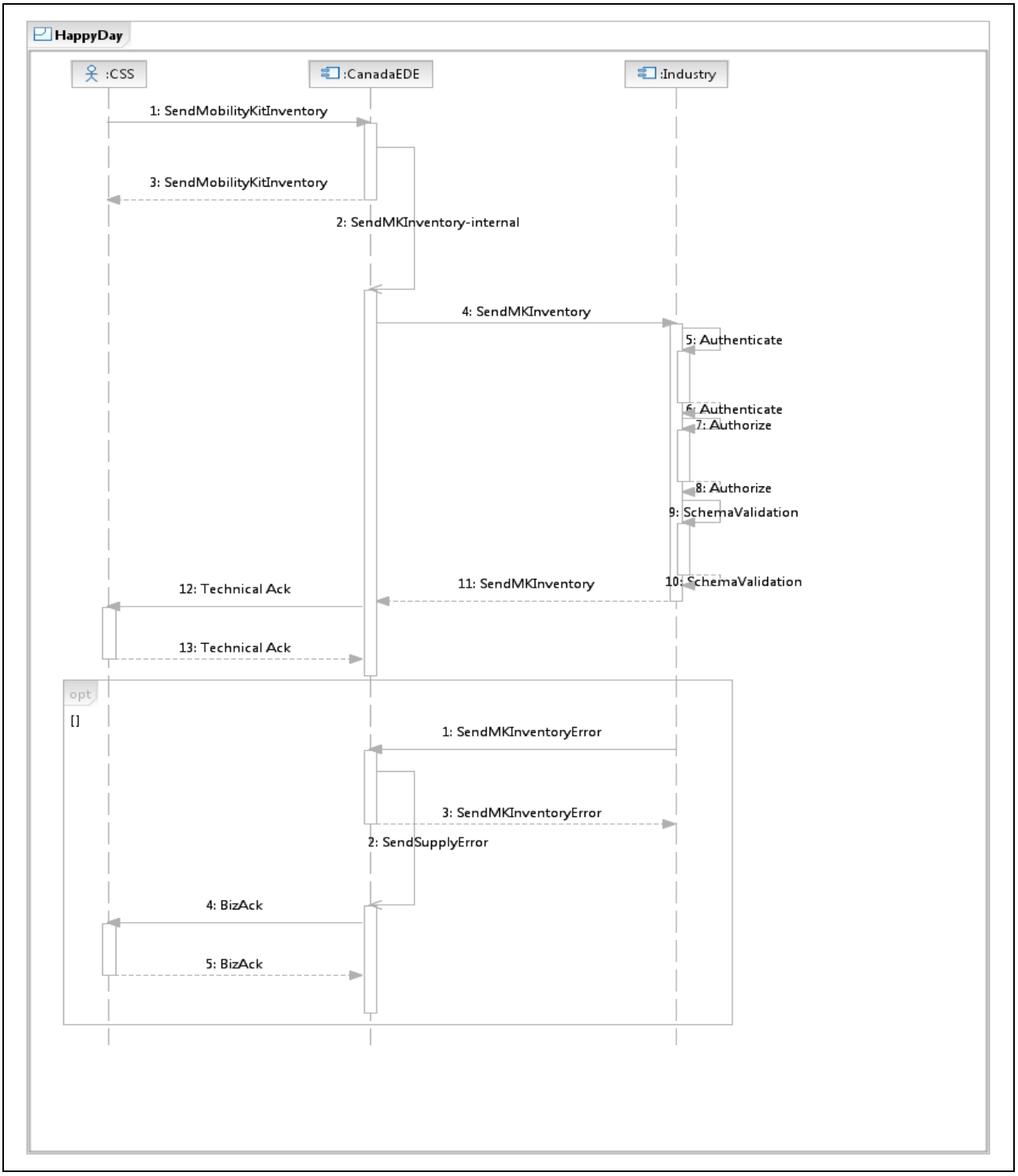


Figure 4-3 Mobility Kit Inventory Business Validation Failure Message Flow

Alternate Flow 5 (Business Validation Failure)	
Scenario	Industry business validations fail on one or more Mobility Kit Inventory data records.
Pre-Condition	Canada EDE has invoked the Industry Mobility Kit Inventory service, the message has passed Authentication, Authorization and Schema Validation and a successful technical response has been received by Canada EDE.
Post-Condition	Industry sends error information to Canada EDE.
Steps	1) The Mobility Kit Inventory data records failed Industry's business validation process. 2) Industry sends business error information to Canada using the Mobility Kit Inventory Error operation.

5 Service Description – Mobility Kit Inventory Service

5.1 Service Overview

Mobility Kit Inventory service requires interacting web services exposed by Canada EDE System and Industry. Industry will expose a service which Canada EDE will use to send the Mobility Kit Inventory message (see Section 7 for message definition). After receipt of the message, Industry will return a technical response back to Canada EDE.

Canada EDE will provide a Mobility Kit Inventory Error operation to be used by Industry to report a Technical or Business Fault if errors are found during Industry processing. See [Ref. 4].

5.2 Service Properties

Service Property	Description
Enterprise Service Name (Business)	Mobility Kit Inventory Service
Enterprise Service Name (Technical)	IndustryMobilityKitInventoryService
Purpose	This service supports the Canada EDE Maintenance process for scheduled and unscheduled maintenance tasks. On a periodic basis, Canada uses this service to send Mobility Kit Inventory messages to Industry representing location or PUK inventories. This service also supports reporting of business errors encountered while processing Mobility Kit Inventory messages within the Industry system.
Business Response Time Interval	N/A
Service Domain	Supply Management
Business Owner	ADM (IM)
Service Grouping	Supply Materiel / Inventory
Source Provider	Industry
Target Service Consumers	Canada EDE
Business Process Supported (now)	Perform 1st and 2nd level maintenance • Execute Corrective or Preventive Maintenance • Storage Location Inventory Reporting • PUK Inventory Reporting

Service Property	Description
Business Process Supported (future)	None currently identified
Business Objective Supported	See Section 2: Business Information.
Expected life time	The full lifecycle of the subject platform using PBC.

5.3 Service Operations

Provider	Consumer	Operation
Industry	Canada EDE	SendMobilityKitInventory
Canada EDE	Industry	SendMobilityKitInventoryError

5.3.1 SendMobilityKitInventory Operation

This operation is used by Canada EDE to send a Mobility Kit Inventory message to Industry. Industry's implementation of this operation will perform authentication, authorization and technical message validation on the Mobility Kit Inventory message. Industry will return a status or fault information to the consumer.

If Industry accepts the message for further processing an output message is returned. The content of the output indicates "success", Industry accepts custody of the message for further processing. If Industry does NOT accept the message, Industry will return one or more fault blocks.

5.3.2 SendMobilityKitInventoryError Operation

This operation is used by Industry to send a Mobility Kit Inventory Error message to Canada EDE in the event a business error is encountered by Industry backend system. Canada EDE's implementation of this operation will perform authentication, authorization and technical message validation on the Mobility Kit Inventory Error message. Canada EDE will return a status or fault information to the consumer.

If Canada EDE accepts the message for further processing an output message is returned. The content of the output indicates "success", Canada EDE accepts custody of the error message for further processing. If Canada EDE does NOT accept the message, Canada EDE will return one or more fault blocks.

5.4 Message Interaction

As defined in Section 4: Service Use Case, the Mobility Kit Inventory service supports a business-asynchronous interaction with a message-passing paradigm. Each Web Service operation must be defined such that the messages required by the system use case (faults in particular, see Section 4.3 Alternate Scenarios) are explicit in the Web Service definition. This implies each Mobility Kit Inventory web service operation must be defined with an input, output and fault element.

Message interaction is further described in Electronic Information Exchange Service Interaction Model [Ref. 3].

6 Information Model

This section describes the **business objects** which are used in the Mobility Kit Inventory service. The Unified Modeling Language (UML) notation is used. A functional view of the information model is provided in the Mobility Kit Inventory Business Use Case [Ref. 1], Section 3: Functional Data Definition and an Entity-Relationship diagram (ERD) is provided in Appendix A of this document.

The purpose of this section is to provide a bridge between the functional view of the information model and the concrete details of the design as expressed in an XML Schema.

Note: In the case of the discrepancy between various representations of the information model, the authoritative definition of the information model will always be the XML schema that is defined for the service.

6.1 Mobility Kit Inventory

A Mobility Kit Inventory diagram is shown in Figure 6-1. A Mobility Kit Inventory message contains a series of transactions identifying remaining parts associated with a Canada storage location or deployed PUK.

The Mobility Kit Inventory Report (class Mobility Kit Report) is used to manage “inventory” within the Canada storage location or PUK. A Mobility Kit Inventory Report contains one or more inventory items (class InventoryItem).

MKInventoryItem is for a particular part (class PartType) in a Canada storage location or PUK.

Information about individual parts is included (class PartDetail). A PartDetail must be contained in a MKInventoryItem.

The field descriptions are elaborated in the Functional view (please see Business Use Case [Ref. 1]).

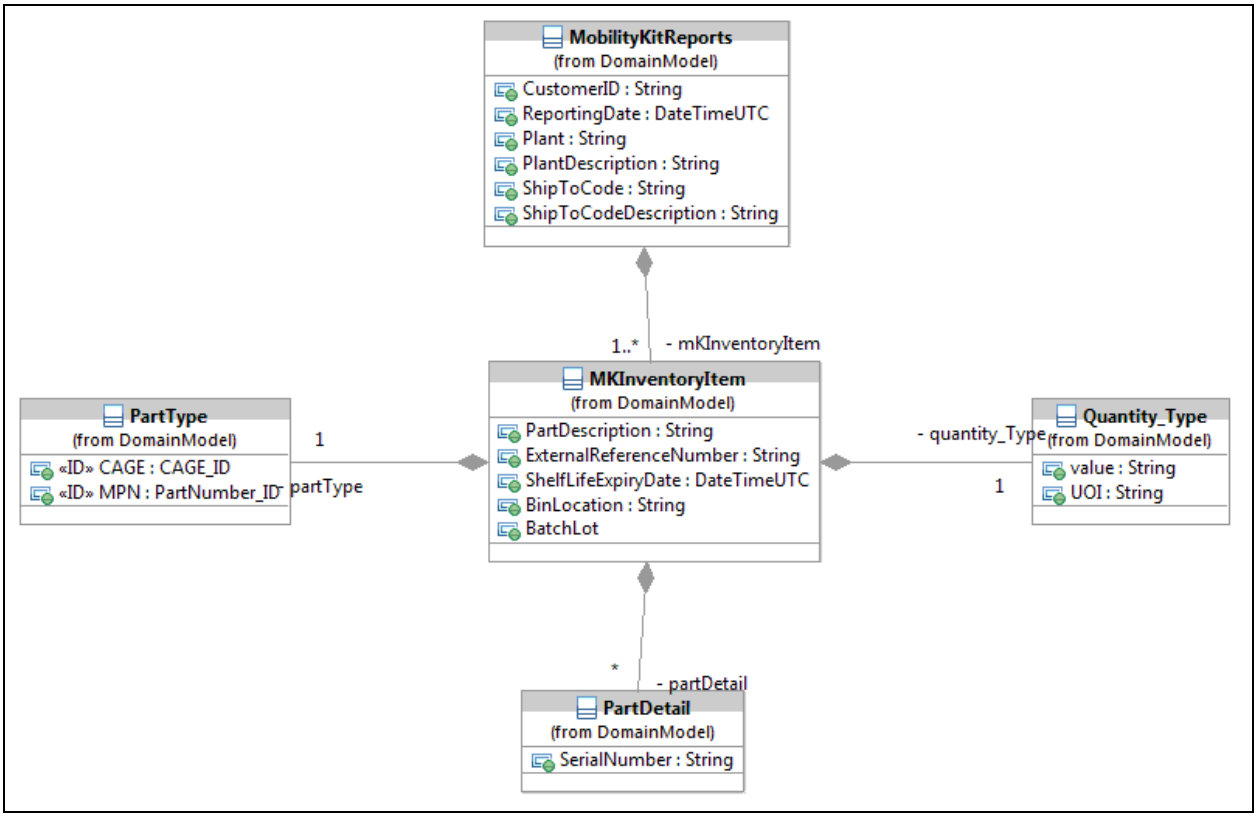


Figure 6-1 Information Model –Mobility Kit Inventory

7 Operation Message Model

This section describes how the business objects described above (Section 6 Information Model) are aggregated for the purpose of reliable information exchange.

All EIE Supply services are request/response and each operation definition includes a distinct input, output and fault message. Message definitions use a common supply message header definition, as well as a common security block definition. Please refer to Electronic Information Exchange Service Interaction Model [Ref. 3] for details on message header and security block definition.

7.1 Mobility Kit Inventory Input Message Constructs

7.1.1 Mobility Kit Inventory Input Body

As shown in Figure 7-1, a Mobility Kit Inventory input message consists of

- A Message Header;
- A Security Block;
- A Mobility Kit Report (with contained InventoryItems and PartDetail).

In order to uniquely identify data from a business payload, certain elements will be identified as elements that can make up the unique Business identifier for each business object that has been transmitted. These elements will then be used by either the consumer or provider to report any errors associated with the contained business payload.

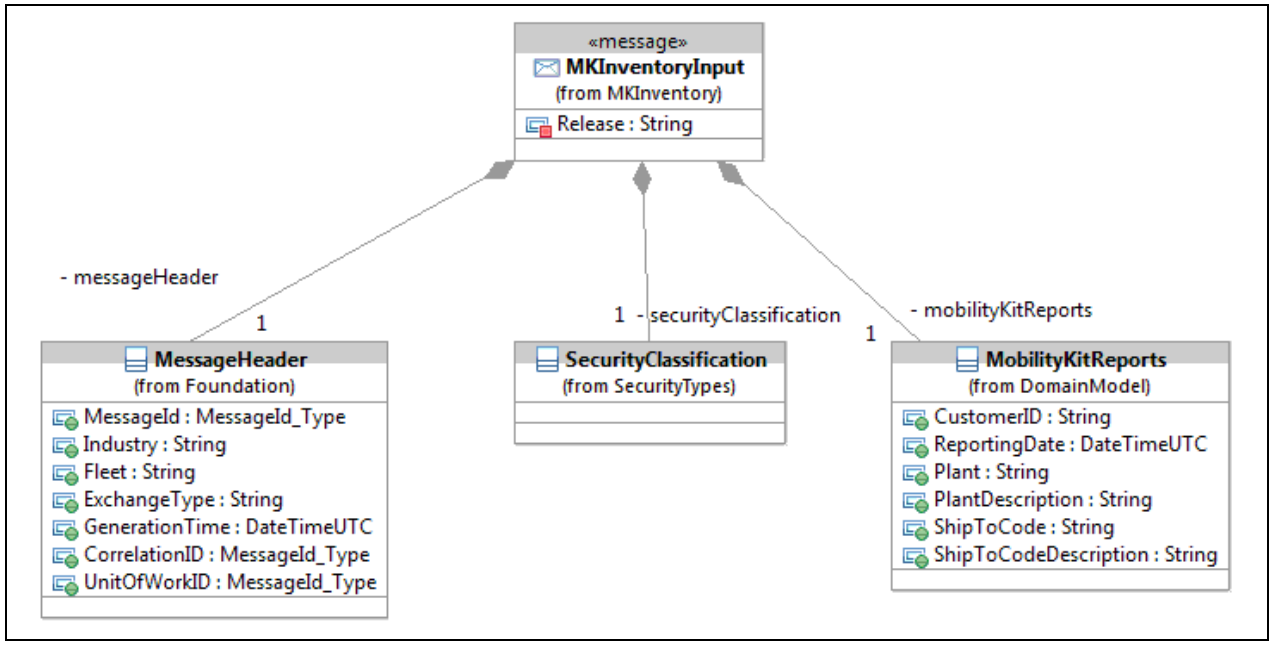


Figure 7-1 Mobility Kit Inventory Input Message

For a MobilityKitInventoryInputMessage the MessageHeader Correlation ID and UnitofWorkID are not used as the MobilityKitInventory message is standalone and not part of a Manifest.

7.1.2 Mobility Kit Inventory Output Body

The output of the SendMobilityKitInventory operation is the MobilityKitInventoryOutputBody. As shown in Figure 7-2, the output body consists of:

- A Message Header;
- An MKInventoryOutput indicating acceptance; the Mobility Kit Inventory message is accepted in its entirety only.

The output message has no security block. The output does not contain any sensitive or protected information.

This output body definition is also used in the Mobility Kit Inventory Error service.

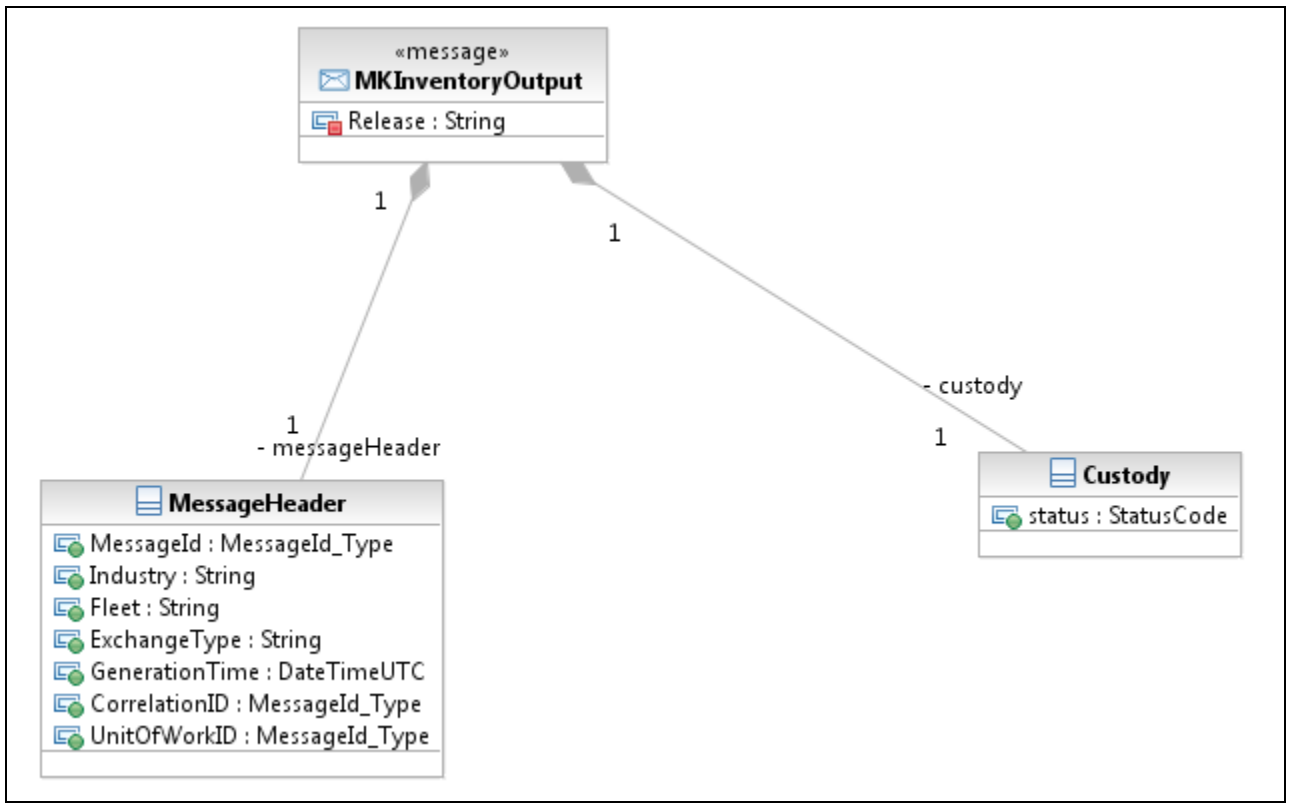


Figure 7-2 Mobility Kit Inventory Output Message

For a MobilityKitInventoryOutputBody:

- The MessageHeader Correlation ID will reflect the Message ID of the originating Inventory input message.
- The MessageHeader Exchange Type must be set to the Exchange Type of the MobilityKitInventoryInputBody.

- The value of the MKInventoryOutput 'Custody' evaluates to "success".

7.1.3 Mobility KitInventory Fault Body

A fault returned by the SendMobilityKitInventory operation uses the MobilityKitInventoryFaultBody element. As shown in Figure 7-3, the fault message consists of:

- A Message Header;
- A Security Block;
- One or more FaultBlocks.

Each fault block pertains to zero to many business object, to the level of granularity which the Service provider can provide. To report differing faults on more than one business object extra fault blocks can be included in the fault message.

This fault body definition is also used in the Mobility Kit Inventory Error service.

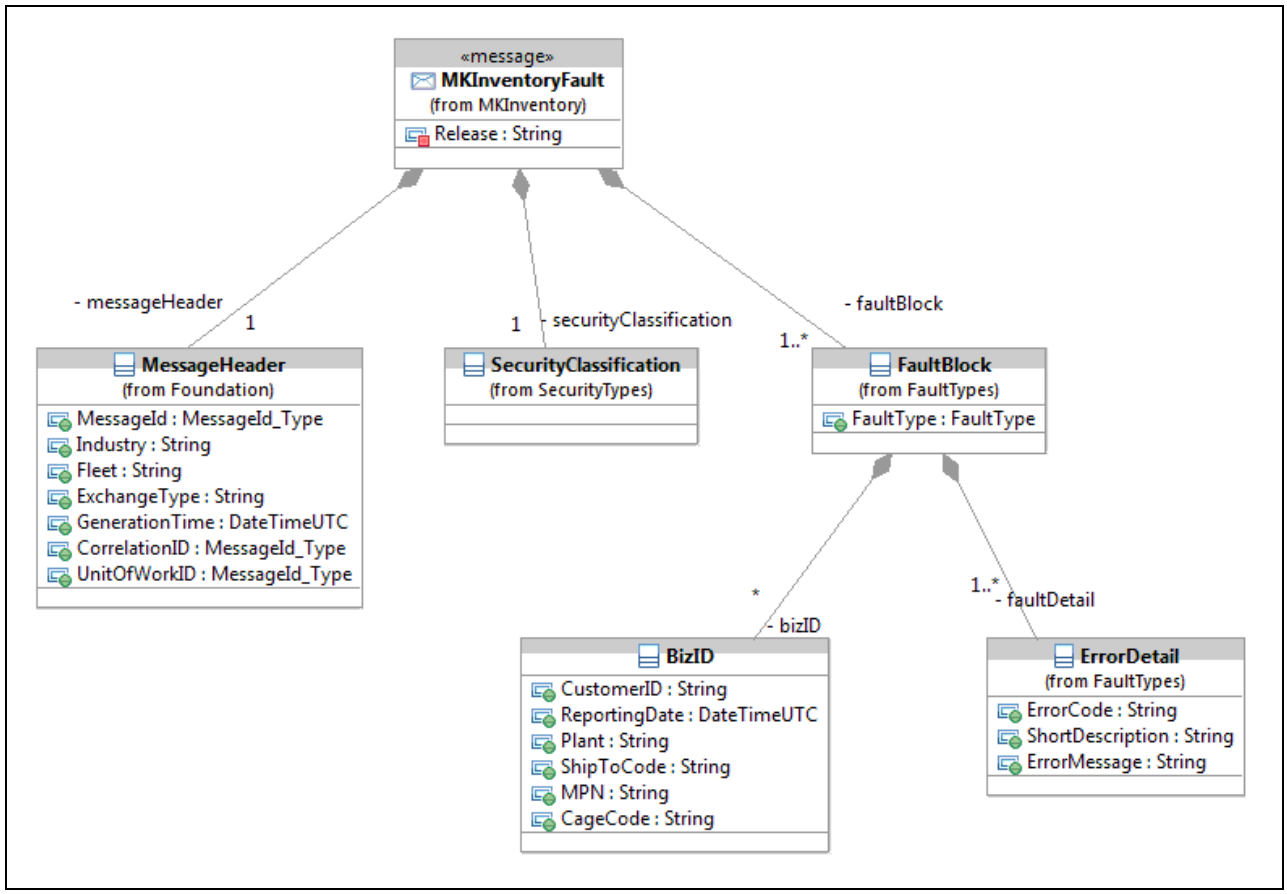


Figure 7-3 Mobility Kit Inventory Fault Message

For a MobilityKitInventoryFaultMessage:

- The MessageHeader Correlation ID will reflect the Message ID of the originating Mobility Kit Inventory input message.
- The MessageHeader Exchange Type must be set to the Exchange Type of the MobilityKitInventoryInputBody.

7.2 Mobility Kit Inventory Error Message Constructs

In the event Industry encounters a business error while processing the Inventory Report message in their backend supply system, Industry will send Canada a Mobility Kit Inventory Error message through the following constructs.

7.2.1 Mobility Kit Inventory Error Input Body

As shown in Figure 7-4, a Mobility Kit Inventory Error input message consists of

- A Message Header;
- A Security Block;
- One or more Error body.

Within the Error Body, at least one BizID must be provided, along with at least one ErrorDetail block.

- If appropriate, multiple BizIDs may be provided referencing a common set error(s).

- If appropriate, multiple errors can be defined within the error body. These errors would apply to all BizIDs defined within the ErrorBody construct.

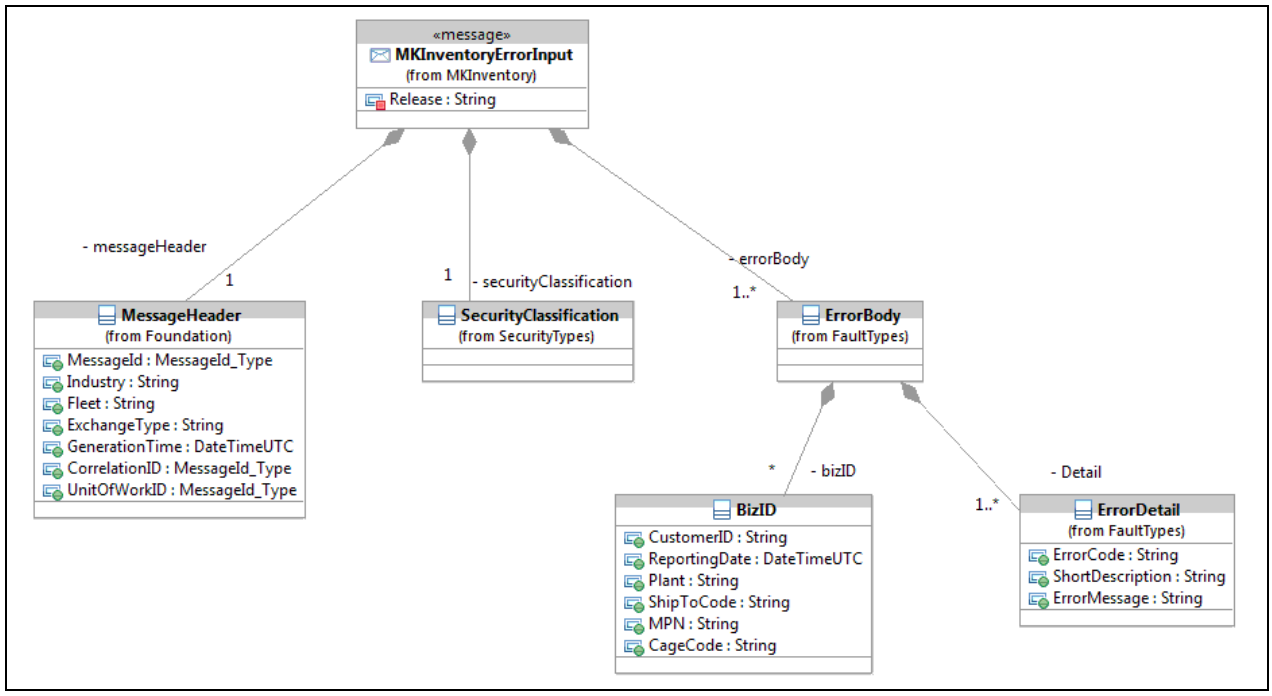


Figure 7-4 Exchange Messages – Mobility Kit Inventory Error Input Body

For a MobilityKitInventoryErrorInputBody the MessageHeader CorrelationID and UnitofWorkID are not applicable.

Each error pertains to one or more business objects, to the level of granularity which the Service Consumer can provide. To report differing errors on more than one business object extra error blocks can be included in the error input message.

7.2.2 Mobility Kit Inventory Error Output Body

The output of the SendMobilityKitInventoryError operation is the MobilityKitInventoryError OutputBody.

Please refer to 7.1.2 Mobility KitInventory Output Body for this definition.

7.2.3 Mobility Kit Inventory Error Fault Body

A fault returned by the SendMobilityKitInventoryError operation uses the MobilityKitInventory ErrorFaultBody element.

Please refer to 7.1.3 Mobility KitInventory Fault Body for this definition.

8 Service Operation Details

8.1 Detailed Operation Characteristics – SendMobilityKitInventory

Canada EDE will invoke the exposed Industry Mobility Kit Inventory service through this operation.

Refer to MobilityKitInventory_Industry.wsdl for implementation details.

Detailed Operation Characteristics

Interface Definition	Description
Operation Name	Send Mobility Kit Inventory
Operation Technical Name	SendMobilityKitInventory
Operation Description	This operation is invoked by Canada to send an Inventory record to Industry. The Inventory describes parts used by Canada from a Canada storage location or PUK.
Target Operation Provider	Industry
Target Operation Consumer	Canada
Properties	*Request/Response* message exchange pattern.
Input Message Definition	Please refer to Operation Message Model Section 7.1.1 Mobility Kit Inventory Input Body for details.
Output Message Definition	Please refer to Operation Message Model Section 7.1.2 Mobility Kit Inventory Output Body for details.
Fault Definition	Please refer to Operation Message Model Section 7.1.3 Mobility Kit Inventory Fault Body for details.

Non Functional Requirements

Non Functional Requirements/Technical Details	
Frequency	Once per day per Canada storage location or deployed PUK
Peak Throughput Time	Based on Service Level Agreements (SLA) to be determined between Canada and Industry on a per ship class basis.
Peak Throughput Volume	Based on Service Level Agreements (SLA) to be determined between Canada and Industry on a per ship class basis.
Payload Size	~ 2KB per Inventory Line Item
Attachments	None
Attachment Size	N / A

Non Functional Requirements/Technical Details	
ACK Time Interval	2 minutes
Retry Time Interval	5 minutes
Number of Retries	5
Biz. Response Time Interval	N/A
Time to Live Span	Nominally 1 hour – if message cannot be delivered within 1 hour, await next delivery period in 24 hours.
Service Op Availability	During core processing hours. 95% available uptime is the goal of the service
Downtime Requirements	The service cannot be used during established maintenance windows, which is currently expected to be for about 2 hours per week. The unavailability window may be accumulated and invoked during major maintenance periods, but ensuring that the overall availability of the service is still maintained.
Dead Message Handling	Alternative communication channel applies for this operation when Canada EDE cannot successfully send Mobility Kit Inventory message to Industry.

8.2 Detailed Operation Characteristics – SendMobilityKitInventoryError

Industry system will invoke the exposed Canada EDE MobilityKitInventoryError service through this operation. An Inventory error message will contain Industry-reported business errors encountered while attempting to process a MobilityKitInventory message generated by Canada.

Refer to MobilityKitInventory_Canada.wsdl for implementation details.

Detailed Operation Characteristics

Interface Definition	Description
Operation Name	Send Mobility Kit Inventory Error
Operation Technical Name	SendMobilityKitInventoryError
Operation Description	This operation is invoked by Industry to send a Business Error message to Canada EDE. The Business Error describes errors encountered while processing Canada's Inventory message.
Target Operation Provider	Canada EDE
Target Operation Consumer	Industry
Properties	*Request-Response* message exchange pattern.

Interface Definition	Description
Input Message Definition	Please refer to Operation Message Model Section 7.2.1 Mobility Kit Inventory Error Input Body for details.
Output Message Definition	Please refer to Operation Message Model Section 7.2.2 Mobility Kit Inventory Error Output Body for details.
Fault Definition	Please refer to Operation Message Model Section 7.2.3 Mobility Kit Inventory Error Fault Body for details.

Non Functional Requirements

Non Functional Requirements/Technical Details	
Frequency	Based on Service Level Agreements (SLA) to be determined between Canada and Industry on a per ship class basis.
Peak Throughput Time	N/A
Peak Throughput Volume	N/A
Payload Size	~ 5KB per Error
Attachments	None
Attachment Size	N/A
ACK Time Interval	2 minutes
Retry Time Interval	5 minutes
Number of Retries	3
Biz. Response Time Interval	N/A
Time to Live Span	Nominally 1 hour – if message cannot be delivered within 1 hour, revert to secondary delivery channel, which may be manual.
Service Op Availability	During core processing hours. 95% available uptime is the goal of the service
Downtime Requirements	The service cannot be used during established maintenance windows, which is currently expected to be for about 2 hours per week. The unavailability window may be accumulated and invoked during major maintenance periods, but ensuring that the overall availability of the service is still maintained.
Dead Message Handling	Alternative communication channel applies for this operation when Industry cannot successfully send Mobility Kit Inventory Error message to Canada.

8.3 Service Bindings

8.3.1 SOAP Over http

The implementation of this service will use a Simple Object Access Protocol (SOAP) binding with document style messages and Hyper Text Transfer Protocol (http) transport.

The business objects (Section 6), MessageHeader and SecurityMarkings elements[3].are bound to the SOAP Body element. The SOAP Header is used for EIE adopted WS-* standards-based elements (e.g., WS_Security assertions).

In this binding the http response is used for operations' output or fault messages.

8.3.2 SOAP Over JMS

Not currently supported for this service.

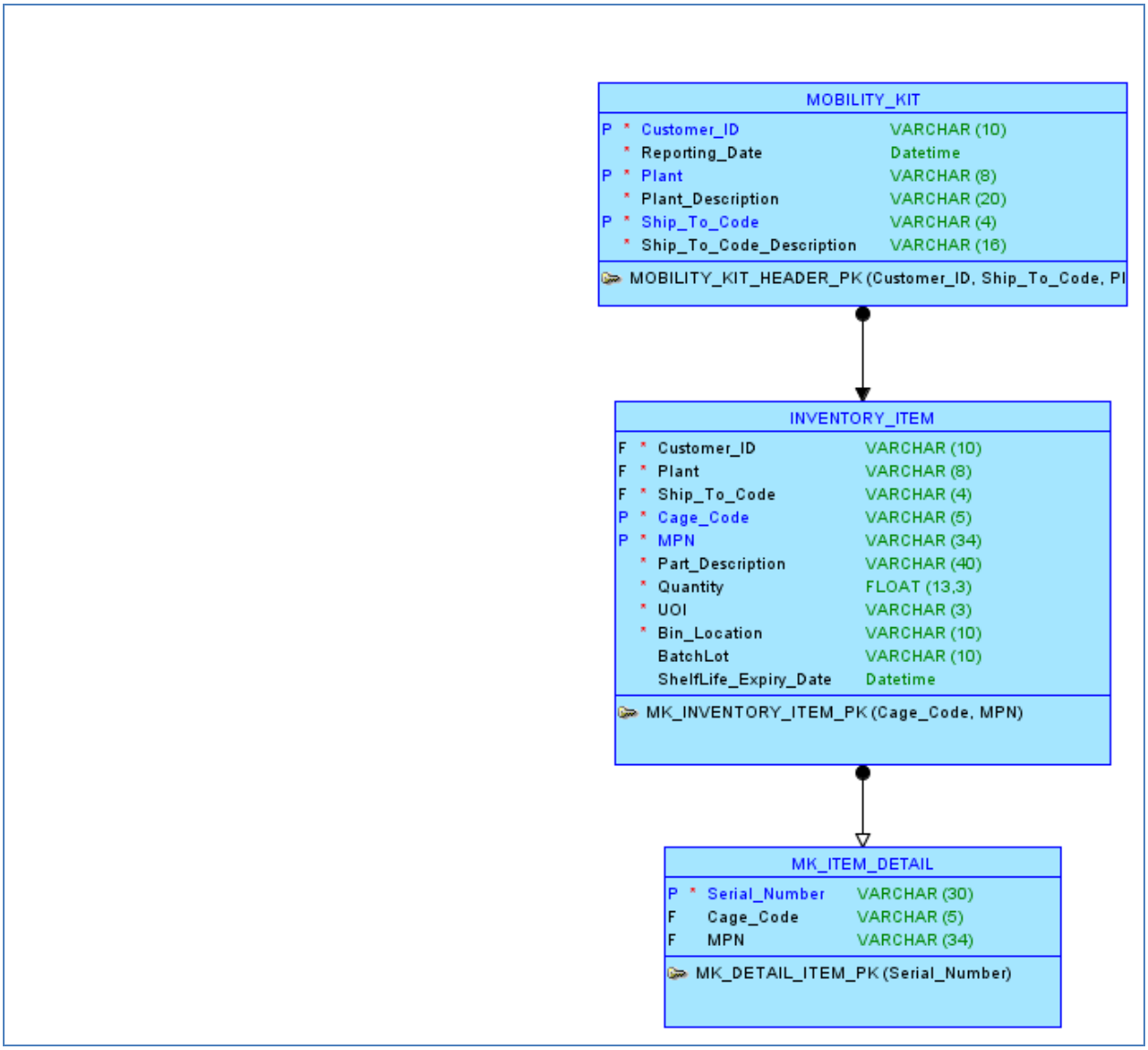
[3] See the Mobility Kit Inventory Service WSDL file for the precise binding

9 Definitions, Acronyms, Abbreviations

Term	Description
ADM (IM)	Assistant Deputy Minister (Information Management)
ADM (Mat)	Assistant Deputy Minister (Materiel)
BUC	Business Use Case
CMMS	Canada Maintenance Management System
CSS	Canada Supply System
DND	Department of National Defence
DRMIS	Defence Resource Management Information System
EDD	Estimated Delivery Date
EDE	Electronic Data Exchange
EIE	Electronic Information Environment
HoP	Hand-Over Point
HTTP	Hyper Text Transfer Protocol
HTTPS	Hyper Text Transfer Protocol Secure
ISS	In-Service Support
JMS	Java Message Service
MP	Maintenance Plan
PO	Purchase Order
SLA	Service Level Agreement
SOAP	Simple Object Access Protocol
STTE	Special Tools and Test Equipment
UML	Unified Modeling Language
URL	Uniform Resource Locator
WO	Work Order
WS	Weapon System
WSDL	Web Service Definition Language
XML	Extensible Markup Language
XSD	XML Schema Definition
XSL	Extensible Stylesheet Language

10 Appendix A – Information Model Entity Relationship View

Information Model – Entity-Relationship View



11 Document History

Revision Number	Description	Date
1.0	Initial release for Navy RFP	23 September 2015