

Electronic Information Environment (EIE)

Service Specification Document/Interface Control Document

Navy Part Receipt – 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.

EIE Project

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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 systems to send Part Receipt messages for Canada platforms subject to Performance Based Contracting (PBC) to the ISS Contractor responsible for maintenance of the Platform. To support the Part Receipt message exchange 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.

The Part Receipt service requires a service for ISS Contractor to report acknowledgement messages back to Canada EDE system.

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 3.44 Navy - Exchange Part Receipt 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

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2 Business Information

Business Information is based on the EIE Business Use Case for Part Receipt [Ref. 1].

The business processes for supply of parts from ISS Contractor¹ inventory to a Canada maintainer involves a number of Supply Services to ensure accurate management of inventories and accountability for time elapsed in the Supply processes. The Part Demand service is used by Canada to request parts and Special Tools and Test Equipment (STTE)². The Part Demand Response service is used by ISS Contractor to inform Canada of an estimated date when requested parts will be available. The Part Issue service is used by ISS Contractor to inform Canada the requested parts are available for immediate pick-up by a Canada maintainer.

The goal of the Part Receipt service is to send to ISS Contractor, in a near real-time manner, a receipt for parts once they have been picked up by Canada personnel.

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

The ISS Contractor-owned, managed and delivered Platform spares and consumables required for the platform maintenance activities performed by Canada personnel will be requested on as-needed basis during maintenance activities.

Once an ISS Contractor-owned/managed part is ready for pick-up at agreed Hand-Over Point (HoP) an ISS contractor supply system will send the Part Issue message indicating that the part is ready for pick-up. A Canada technician will pick up the part from a designated location³ and acknowledge the receipt of the part in CSS. CSS will send a part receipt message through Canada EDE to ISS Contractor, completing the transaction cycle for a part (i.e., ISS Contractor does not respond to a part receipt).

2.2 Business Triggers

The following action within CMMS/CSS, the business trigger, will result in Part Receipt data 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.

² Wherever the word “part” is used, this also encompasses STTE’s. The service is designed to support STTE but may or may not be used for STTE.

³ This may be designated as one of Point of Delivery (PoD) / Point of Handover(PoH) / Point of Release (PoR).

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- During corrective and preventive maintenance activities an ISS Contractor-supplied part is recorded in CSS as received.
 - An ISS Contractor-supplied part is recorded as received in CSS when added to inventory.
 - A Pack-up Kit (PUK) is received and recorded in CSS.

The Part Receipt service is always a response to a prior use of the Part Issue service, PUK Issue service, or Inventory Replenishment service. For further information, including cross-references to business processes, please refer to the EIE Business Use Case for Part Receipt [Ref. 1].

2.3 Business Error Processing

In the event the ISS Contractor encounters business errors while attempting to post Part Receipt data to their backend systems, the ISS Contractor will report errors on all line items within a Part Receipt message Purchase Order in one error message.

Resolution of the errors will be a manual process within CSS, since CSS does not support correcting a previously transmitted part-receipt message.

ISS Contractor will have to manually adjust their information as well for the part receipt message that was sent from Canada against which ISS Contractor reported errors.

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3 Business Constraints

Constraints on *Usage* of the Service

- 1) The Industry Part Receipt service shall only be invoked by the Canada EDE System. Canada EDE system will only invoke this service upon receiving a Part Receipt message from CSS.
- 2) Every invocation of a service operation is subject to mutual authentication using secure credentials, such as PKI Certificates.

Constraints on *Behaviour* of the Service

- 3) The Part Receipt service shall operate in near-real time⁴.
- 4) Canada systems shall ensure Part Receipt data set for a Platform is sent only to the Industry system which is properly authenticated and authorized to see maintenance and materiel data for that ship class.
- 5) Industry will authorize invocations of operations of the Part Receipt service.
- 6) Canada does not guarantee that Part Receipt messages will be received at the Industry in the same order they were created.
- 7) Industry will report any business processing errors through the Part Receipt Error operation exposed by Canada using a distinct and separate invocation.
- 8) Canada does not expect Industry to report successful conclusion of business processing of the Part Receipt.
- 9) Part Receipt messages will be signed using digital certificates between Canada EDE and Industry. Please see Service Interaction Model [Ref. 3] for details.
- 10) 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 This will be discussed further in Section 5.4 Message Interaction.

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4 Service Use Case

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

4.1 Service Context⁵

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 error scenarios are discussed in Service Use Case Scenarios.

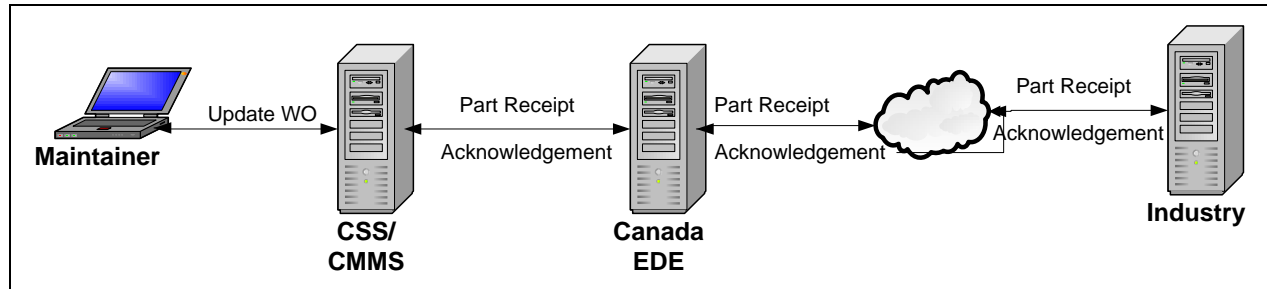


Figure 4-1 Part Receipt Service Context

The following activities occur:

- 1) Maintainer updates WO as parts are received from Industry at a designated location.
- 2) CSS generates a Part Receipt message.
- 3) CSS sends Part Receipt to Canada EDE – Canada EDE accepts the message and returns a ‘technical’ response.
- 4) Canada EDE sends Part Receipt to Industry – Industry accepts the message and returns a ‘technical’ response.
- 5) Industry Supply system performs the required “back-end” processing including checking of business rules.

Once the Part Receipt is sent the maintainer does not have to wait for any response from Industry, he/she may pursue other activities. This mode of interaction is termed *Business Asynchronous*.

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](#).

⁵ The terms Industry and ISS Contractor are used interchangeably in this document.

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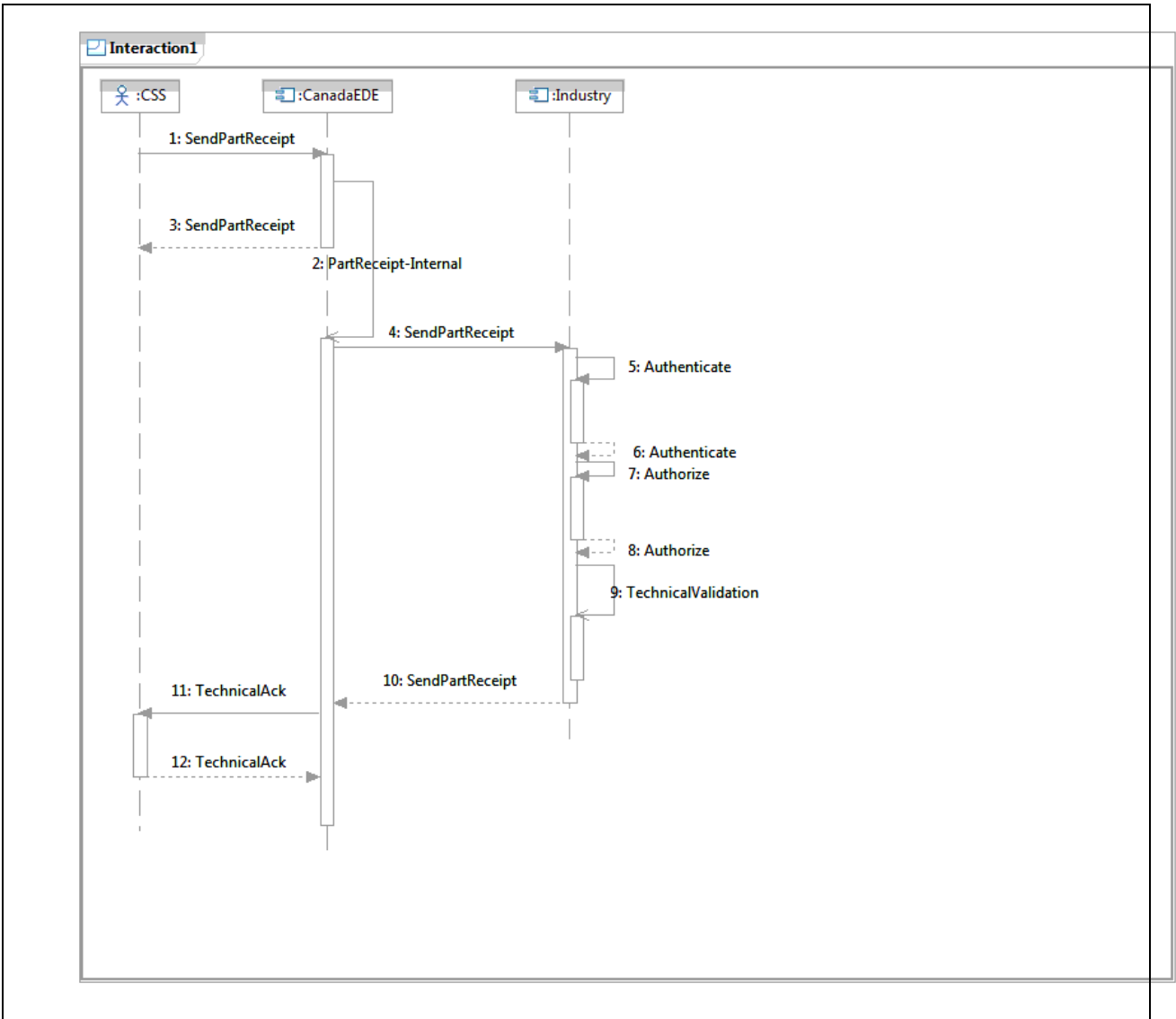


Figure 4-2 Part Receipt Message Flow

Main Flow	
Scenario	“Happy Day:” Canada EDE successfully sends Part Receipt to Industry.
Pre-Condition	Maintainer has obtained a part and recorded this fact in CSS.
Post-Condition	Part Receipt is successfully received by Industry. CSS is advised of successful delivery to Industry.

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Steps	1) CSS sends Part Receipt 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 is accepted. 4) The Canada EDE system invokes the Industry SendPartReceipt 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 <i>Technical Acknowledgement</i> to CSS
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Implicit in the above diagram is that a service Consumer may re-try 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

Canada EDE will have received a Part Receipt message from CSS. The following scenarios apply to all uses of the Part Receipt service.

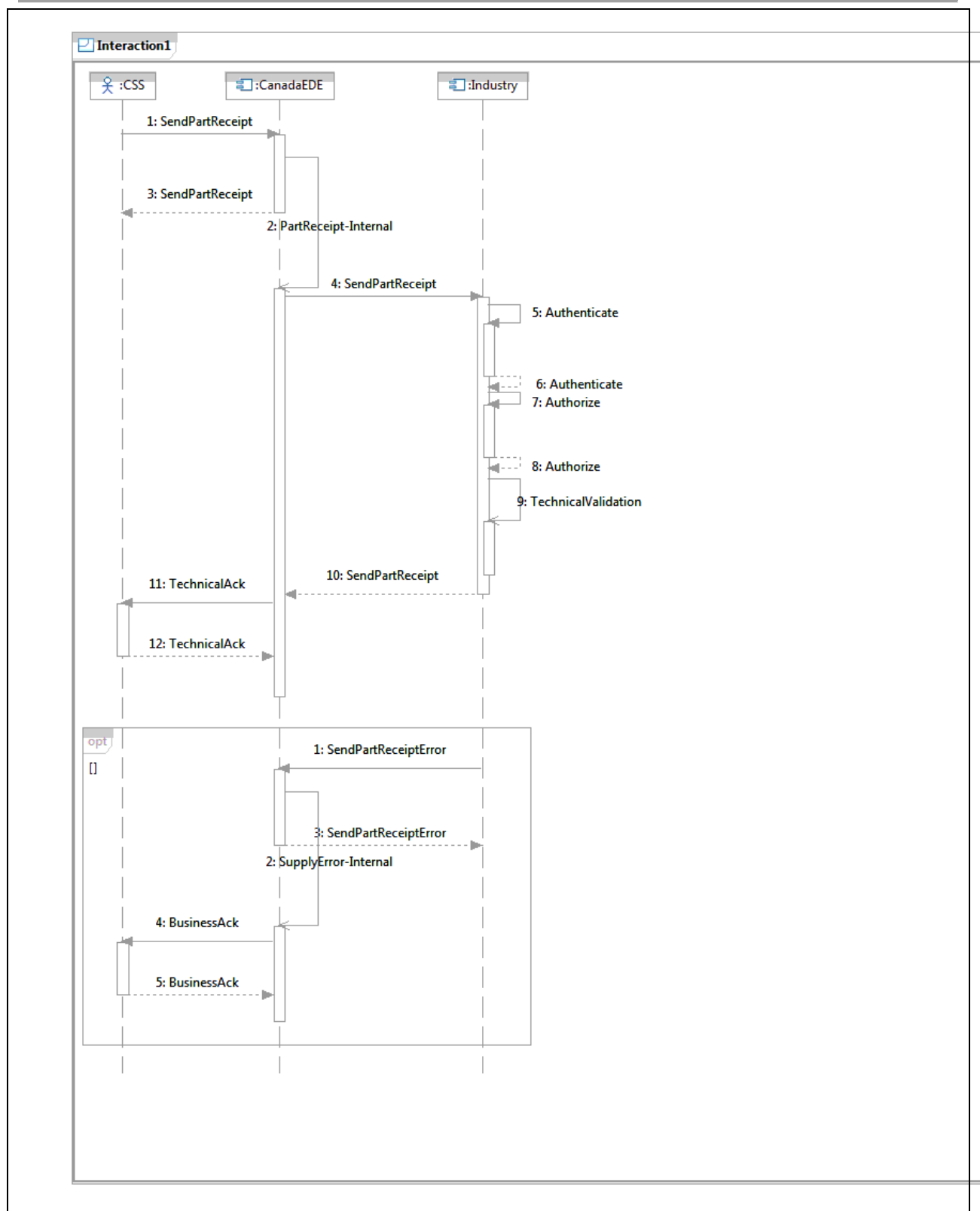
Alternate Flow 1 (Authentication Failure)	
Scenario	Canada EDE does not provide appropriate credentials to Industry.
Pre-Condition	Canada EDE has invoked the Industry Part Receipt Service.
Post-Condition	The Industry sends an Authentication Failure fault response
Steps	1) The authentication credentials 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 Part Receipt Service. Industry has completed Authentication successfully.
Post-Condition	The Industry sends an Unauthorized Request fault as the technical response.

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Steps	<ol style="list-style-type: none"> 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 (Technical Validation Failure)	
Scenario	Canada EDE sends a malformed message to Industry.
Pre-Condition	Canada EDE has invoked the Industry Part Receipt Service. Industry has completed Authentication and Authorization successfully.
Post-Condition	The Industry sends a Malformed Message fault response.
Steps	<ol style="list-style-type: none"> 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 Part Receipt service.
Post-Condition	Canada EDE marks the message as Dead Message.
Steps	<ol style="list-style-type: none"> 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 Part Receipt Business Validation Failure Message Flow is shown in [Figure 4-3](#).

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Figure 4-3 Part Receipt Business Validation Failure Message Flow

Alternate Flow 5 (Business Validation Failure)	
Scenario	Industry business validations fail on one or more Part Receipt data records.
Pre-Condition	Canada EDE has invoked the Industry Part Receipt operation, the message has passed Authentication, Authorization and Schema Validation and a successful technical response has been received by Canada EDE.
Post-Condition	The Industry invokes Canada's Part Receipt Error operation.
Steps	<ol style="list-style-type: none"> 1) The Part Receipt data records failed the Industry's business validation process. 2) Industry sends Business Error information by invoking the Part Receipt Error operation. 3) Canada's business user is notified of the error. 4) Canada initiates internal error handling procedures. 5) Resolution of the errors will be a manual process within CSS, since CSS does not support correcting a previously transmitted part-receipt message.

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5 Service Description – Part Receipt Service

5.1 Service Overview

Part Receipt service requires interacting web services exposed by Canada EDE System and Industry. The Industry will expose a service which Canada EDE System will use to send the Part Receipt message (see Section 7 for message definition). Upon receipt and acceptance of the message, the Industry will return a technical response back to Canada EDE System within the same transport communication session as per the request-response message pattern as defined in the Service Interaction Model [Ref. 3].

Canada EDE will provide a Part Receipt Error operation to be used by Industry to report a Business error if errors are found during Industry processing of the part receipt request by its internal Supply Systems that are within the scope for Canada to rectify.

5.2 Service Properties

Service Property	Description
Enterprise Service Name (Business)	Part Receipt Service
Enterprise Service Name (Technical)	PartReceipt_Industry PartReceipt_Canada
Purpose	<p>This service supports the Canada PBC Maintenance process for scheduled and unscheduled maintenance tasks. On the occurrence of business triggers, this service sends Part Receipt messages to Industry on a near-real time basis.</p> <p>This service also supports reporting of business errors encountered while processing Part Receipt messages within the Industry supply systems.</p>
Business Response Time Interval	N/A. Part Receipt completes the business transaction.
Service Domain	Supply Management
Business Owner	ADM (IM)
Service Grouping	Supply Materiel / Part Receipt
Source Provider	Industry
Target Service Consumers	Canada EDE
Business Process Supported (now)	Perform 1st and 2nd level maintenance Execute Corrective or Preventive Maintenance
Business Process Supported (future)	None currently identified.

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Service Property	Description
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	SendPartReceipt
Canada EDE	Industry	SendPartReceiptError

5.3.1 SendPartReceipt Operation

This operation is used by Canada EDE to send a Part Receipt message to Industry. Industry's implementation of this operation will perform authentication, authorization and schema validation on the Part Receipt 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 SendPartReceiptError Operation

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

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

5.4 Message Interaction

As defined in [Section 4: Service Use Case](#), the Part Receipt 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 Part Receipt web service operation must be defined with an input, output and fault element. This corresponds well to an http transport where the output or fault elements would be in the http response.

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

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6 Information Model

This section describes the **business objects** which are used in the Part Receipt service. The Unified Modeling Language (UML) notation is used. A functional view⁶ of the information model is provided in the EIE Business Use Case for Part Receipt [Ref. 1], Section 3: Functional Data Definition, and an Entity-Relationship diagram (ERD) is provided in Annex 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 Schema⁷.

Note: The only authoritative source for purpose of the information exchange will be the specific XML Schema for the business object.

6.1 Purchase Order

A Part Receipt message contains a Purchase Order business object. The Purchase Order information model is shown in ~~Figure 6-1~~ below.

The Purchase Order (class Purchase Order) is used to manage “goods movement” between Canada and Industry. A Purchase Order contains one or more Line Items (class LineItem).

Supplied parts are transferred to a certain location – the PickupLocation (class PartCustody) – all parts are of a common type (class PartType).

The receipt transaction includes the Received Date and Quantity. Elements populated in the initiating Part Issue, Inventory Replenishment or PUK Issue will be echoed back to Industry in the Part Receipt. Note that not all of these fields are applicable to all initiating transaction types. These may include:

- BatchLot and ExpiryDate, if batch managed
- SerialNumber (class PartDetail), if serialized
- Service Request Number
- Tracking Number
- External Reference Number
- ShipToCode and ShipToCode Description
- Pickup Location

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

⁶ The Functional View details the collection of fields which make up a purchase order and its sub-records.

⁷ The XML Schema may not preserve the exact same generalization and composition associations used in the UML representation.

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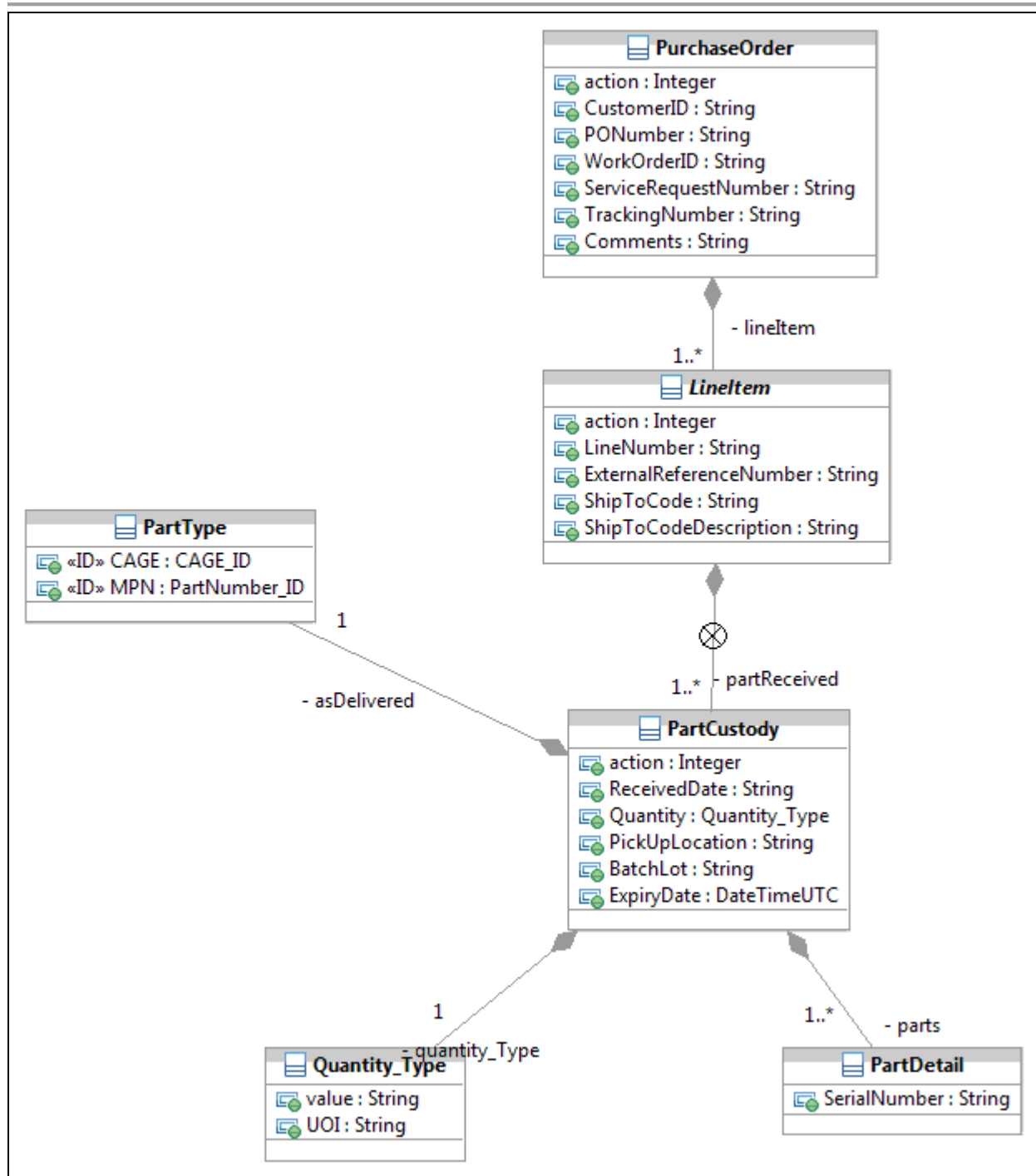


Figure 6-1 Information Model – Purchase Order for Part Receipt

The 'action' attribute is discussed in [Section 7.3 Part Receipt Input Messages](#).

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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.

Since EIE Supply services are request/response, each operation requires input, output and fault message definitions. 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 Part Receipt Message Constructs

7.1.1 Part Receipt Input Body

As shown in [Figure 7-1](#), a Part Receipt input message consists of:

- A Message Header;
- A Security Block;
- A Purchase Order (with contained LinItems, etc.).

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 with associated with the contained business payload.

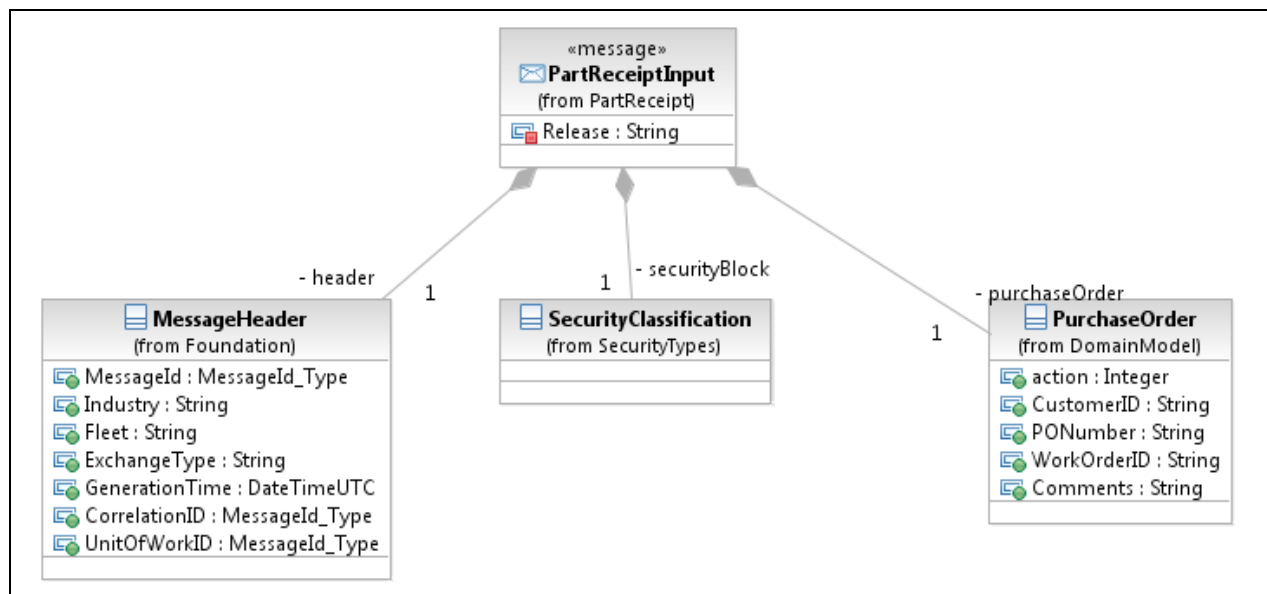


Figure 7-1 Exchange Messages – Part Receipt Input Message

For a PartReceiptInputMessage the MessageHeader Correlation ID and Unit of Work ID are not used.

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Within the PurchaseOrder, Lineltem, and PartCustody business objects (the latter two not shown here) there is an attribute named 'action' which is set by the service consumer as a directive to Industry on handling the business object. Valid values for 'action' are:

- Create a new business object: action = 1;
- Edit an existing business object: action = 2;
- Delete a business object: action = 3.

In the context of a part receipt, action will always equal 1.

7.1.2 Part Receipt Output Body

The output of the SendPartReceipt operation is the PartReceiptOutputBody. As shown in [Figure 7-2](#), the output body consists of:

- A Message Header;
- A PartReceiptOutput indicating acceptance.

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

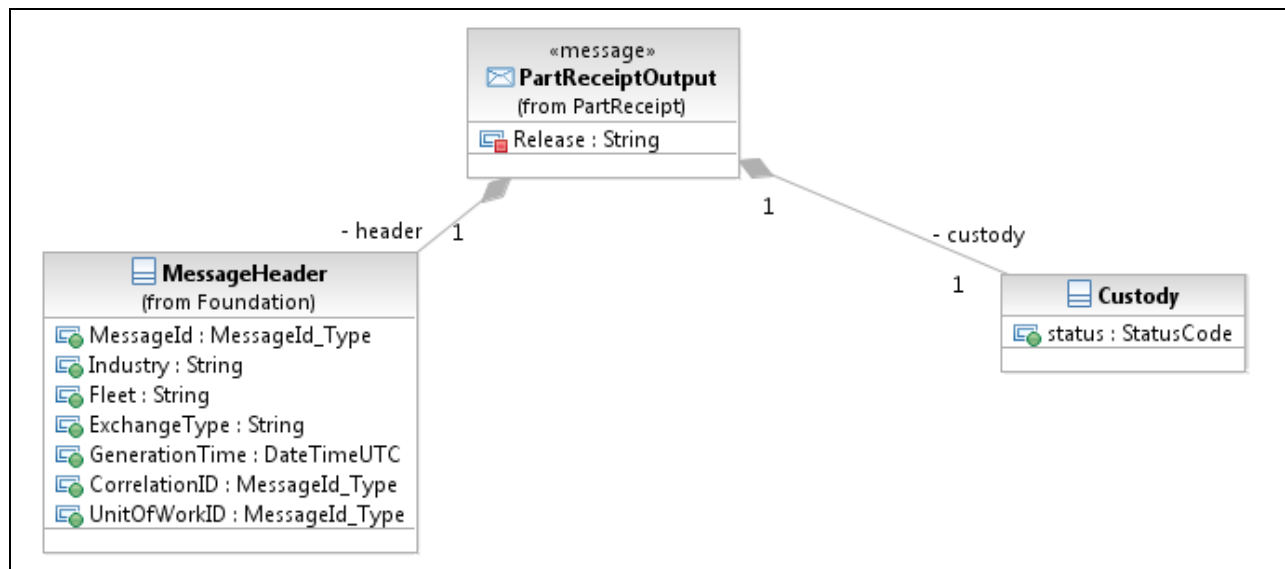


Figure 7-2 Part Receipt Output Message

For a PartReceiptOutputBody:

- The MessageHeader Correlation ID will reflect the Message ID of the originating Part Receipt input message.
- UnitOfWorkID is not used or applicable for this type of message.
- The MessageHeader Exchange Type must be set to the Exchange Type of the PartReceiptInputMessage.

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

7.1.3 Part Receipt Fault Body

A fault returned by the SendPartReceipt operation uses the PartReceiptFaultBody 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 objects, to the level of granularity which the Service Provider can provide. If the system cannot determine a Business Identifier then this is omitted. To report differing faults on more than one business object extra fault blocks can be included in the fault message.

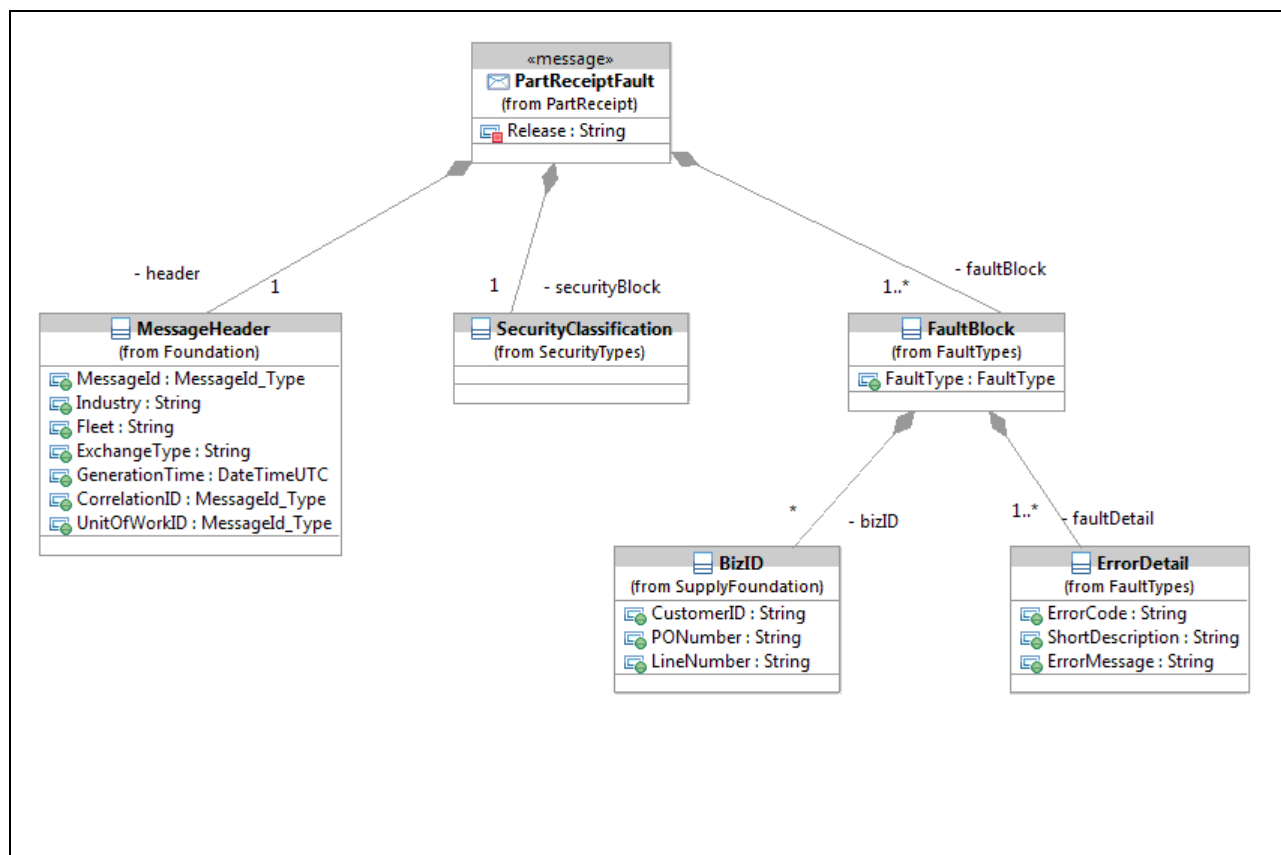


Figure 7-3 Part Receipt Fault Message

For a PartReceiptFaultBody:

- The MessageHeader Correlation ID will reflect the Message ID of the originating Part Receipt input message.
- UnitofWorkID is not used.

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- The MessageHeader Exchange Type must be set to the Exchange Type of the PartReceiptInputBody.

7.2 Part Receipt Error Message Constructs

In the event Industry encounters a business error while processing the purchase order in their backend supply system, Industry will send Canada a Part Receipt Error message through the following constructs.

7.2.1 Part Receipt Error Input Body

As shown in [Figure 7-4](#), a Part Receipt 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 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.

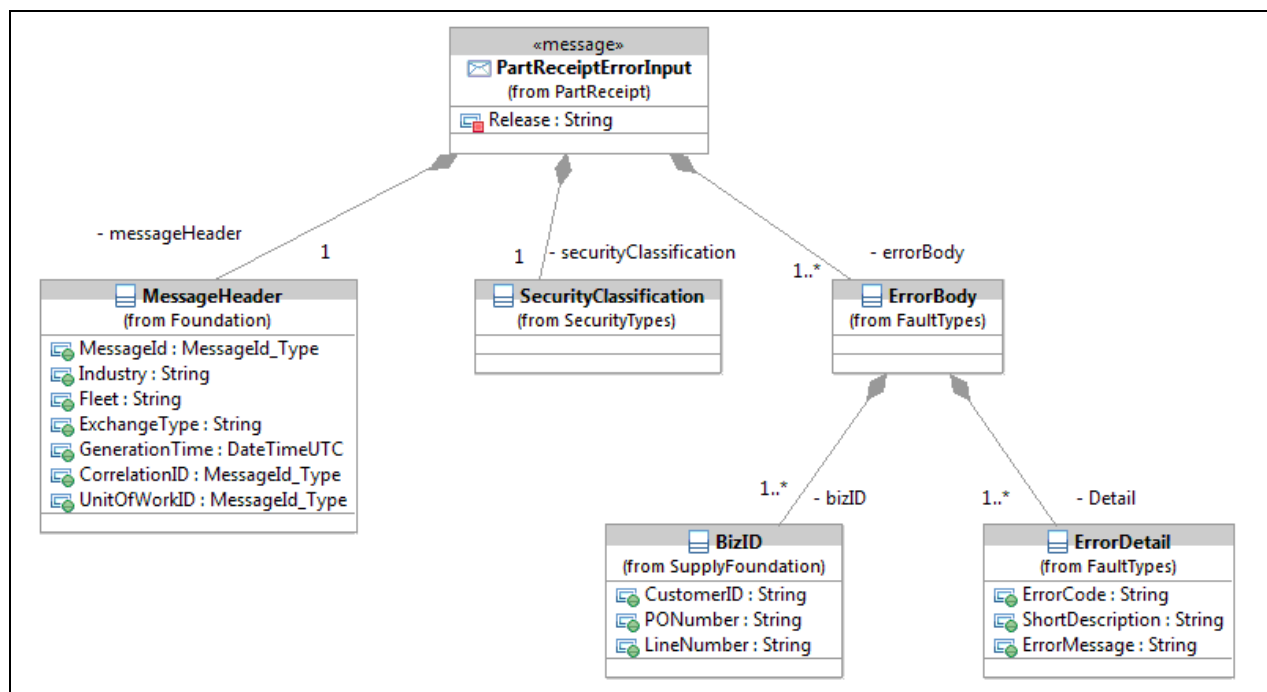


Figure 7-4 Exchange Messages – Part Receipt Error Input Body

For a Part ReceiptError InputBody the MessageHeader CorrelationID and UnitofWorkID are not used.

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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 Part Receipt Error Output Body

The output of the SendPartReceiptError operation is the PartReceiptErrorOutputBody. The output body is similar to the PartReceiptOutputBody.

Please refer to [7.1.2 Part Receipt Output Body](#) for this definition.

7.2.3 Part Receipt Error Fault Body

A fault returned by the SendPartReceiptError operation uses the PartReceiptError FaultBody.

Please refer to [7.1.3 Part Receipt Fault Body](#) for this definition.

8 Service Operation Details

8.1 Detailed Operation Characteristics – SendPartReceipt

Canada EDE system will invoke the exposed Industry Part Receipt service through this operation. A Part Receipt message will be based on a purchase order originally generated by CSS.

Refer to PartReceipt_Industry.wsdl for implementation details.

Detailed Operation Characteristics

Interface Definition	Description
Operation Name	Send Part Receipt
Operation Technical Name	SendPartReceipt
Operation Description	This operation is invoked by Canada to send a Purchase Order record to Industry. The Purchase Order describes parts which Canada is confirming were received.
Target Operation Provider	Industry
Target Operation Consumer	Canada EDE
Properties	<i>Request/Response</i> message exchange pattern.
Input Message Definition	Please refer to Operation Message Model Section 7.1.1 Part Receipt Input for details.
Output Message Definition	Please refer to Operation Message Model Section 7.1.2 Part Receipt Output for details.
Fault Definition	Please refer to Operation Message Model Section 7.1.3 Part Receipt Faults for details. As discussed in Section 4: Service Use Case the following faults may be reported: <ol style="list-style-type: none"> 1) Unauthenticated access 2) Unauthorized request 3) Malformed message 4) Service Unavailable

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.

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Non Functional Requirements/Technical Details	
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 Part Receipt Line Item
Attachments	None
Attachment Size	N/A
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, 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 Canada EDE cannot successfully send Part Receipt message to Industry.

8.2 Detailed Operation Characteristics – SendPartReceiptError

Industry system will invoke the exposed Canada EDE Part Receipt Error service through this operation. A part receipt error message will contain Industry-reported business errors encountered while attempting to process a Part Receipt message generated by CSS.

Refer to PartReceipt_Canada.wsdl for implementation details.

Detailed Operation Characteristics

Interface Definition	Description
Operation Name	Send Part Receipt Error
Operation Technical Name	SendPartReceiptError

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Interface Definition	Description
Operation Description	This operation is invoked by Industry to send a Business Error message to Canada. The Business Error describes errors encountered while processing Canada's Part Receipt message.
Target Operation Provider	Canada EDE
Target Operation Consumer	Industry
Properties	<i>Request-Response</i> message exchange pattern.
Input Message Definition	Please refer to Operation Message Model Section 7.2.1 Part Receipt Error Input for details.
Output Message Definition	Please refer to Operation Message Model Section 7.2.2 Part Receipt Error Output for details.
Fault Definition	Please refer to Operation Message Model Section 7.2.3 Part Receipt Error Fault 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	5
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. The specific period will be defined during later phases of service realization 95% available uptime is the goal of the service

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Non Functional Requirements/Technical Details	
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 Part Receipt 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 elements⁸ are bound to the SOAP Body element. The SOAP Header is used for EIE adopted WS-* standards-based elements (e.g., WS_Security assertions) elements.

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

8.3.2 SOAP Over Java Message Service

Not currently supported for this service.

⁸ See the PartReceipt Service WSDL file for the precise binding.

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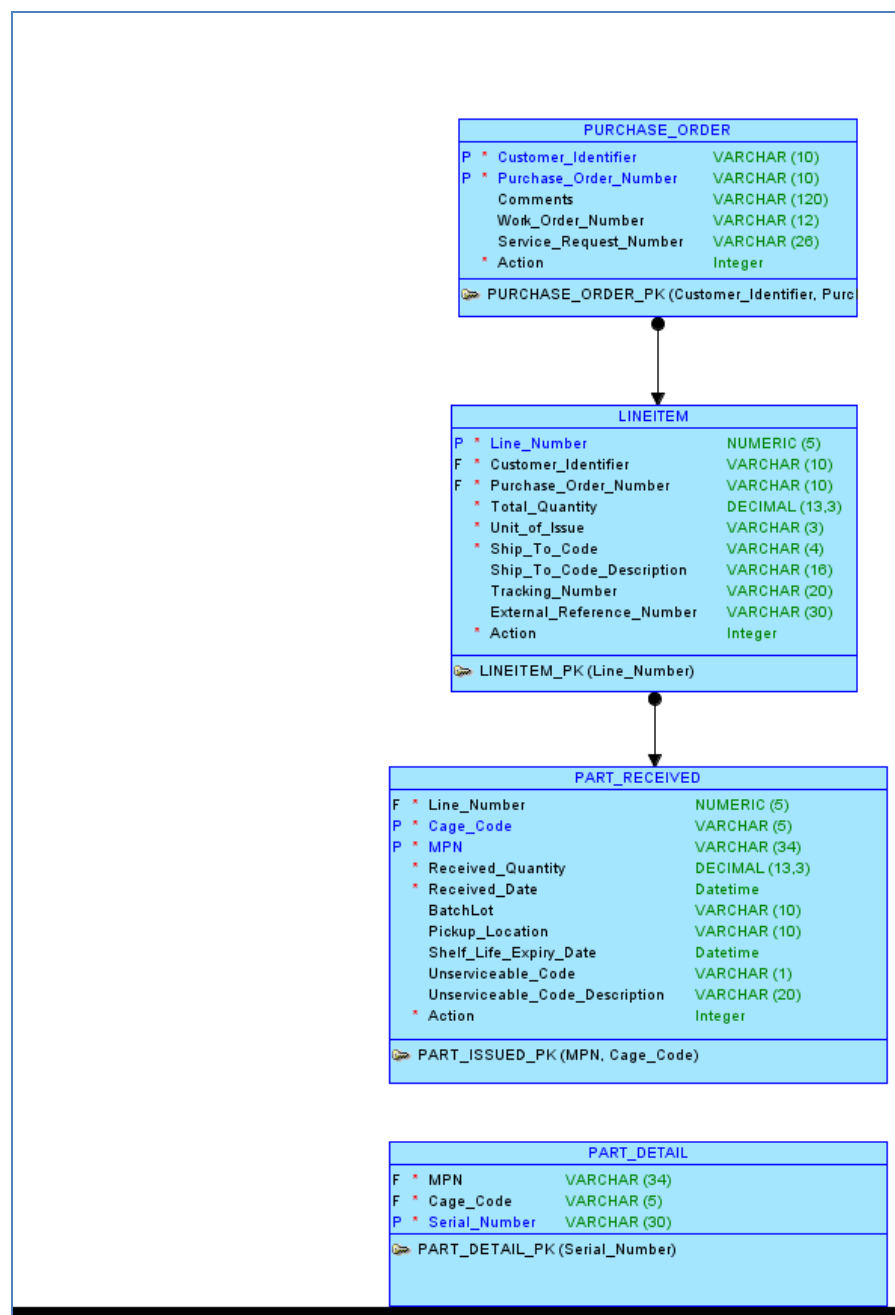
9 Definitions, Acronyms, Abbreviations

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
EMR	Equipment Master Record
HoP	Hand-Over Point
HTTP	Hyper Text Transfer Protocol
HTTPS	Hyper Text Transfer Protocol Secure
ICD	Interface Control Document
ISS	In-Service Support
JMS	Java Message Service
MER	Master Equipment Record
MP	Maintenance Plan
MPN	Manufacturer Part Number
MSN	Manufacturer Serial Number
MSP	Miscellaneous Small Part
PBC	Performance Based Contracting
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

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10 Appendix A – Information Model Entity Relationship View

Information Model – Entity-Relationship View



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11 Document History

Revision Number	Description	Date
1.0	Initial release for Navy RFP.	22 September 2015

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.