



Electronic Information Environment (EIE)

Business Use Case (BUC) BUC 3.46 Navy - Exchange Part Return Receipt Data

EIE Project

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1. EIE Business Use Case (BUC¹) Overview

1.1 Introduction

Performance Based Contracting (PBC) is a set of guidelines to Canada Major Capital Projects (MCPs) on how to model a Platform acquisition and in-service support (ISS) processes. Under these guidelines Canada is responsible to perform some corrective and/or preventive maintenance activities on the Platform. The ISS Contractor will own, manage and deliver to the specified Hand-Over Point (HoP) all materiel required to support the Platform, with the exception of excluded systems. In order for Canada and the ISS Contractor to fulfill their obligations under PBC, specific datasets must be exchanged between Canada and ISS Contractor.

The collection of information systems provided by Canada and ISS Contractor, used to maintain the Platform and the various information exchange mechanism, is collectively known as the Electronic Information Environment (EIE).

The web services and supporting infrastructure which enable the exchange of data between ISS Contractor and Canada's operational systems in support of PBC between Canada and the ISS Contractor(s) is collectively known as Electronic Data Exchange (EDE). The EDE components span application nodes, network zones and the Internet.

Given the significance of materiel demand and supply in the overall success of contracted performance objectives of PBC and platform operational availability, all data exchange between Canada Supply System (CSS) and the ISS Contractor systems will have to occur in near real-time via EDE.

1.2 Purpose

Parts that are ISS Contractor-owned will be demanded and fulfilled through Canada Maintenance Management System (CMMS)/CSS and ISS Contractor supply management system via EDE. Part Return Issue dataset will precede/accompany the physical return of the part to the ISS Contractor, in accordance with the transmission definition agreed to with the ISS Contractor.

The part return process is not complete until the physical part reaches an agreed HoP and the change of custody is acknowledged by the respective ISS Contractor systems and Canada receives an acknowledgement receipt. The ISS Contractor will respond by issuing a Part Return Receipt transaction as an acknowledgment of receiving the physical part, which will be recorded in CMMS.

¹ "Business Use Case: A business process, representing a specific workflow in the business; an interaction that a stakeholder has with the business that achieves a business goal. It may involve both manual and automated processes and may take place over an extended period of time."
<http://www.ibm.com/developerworks/rational/library/apr07/english/>. Also defined as such in EIE Solution Architecture.

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This BUC (BUC) describes the exchange of Part Return Receipt data between Canada and the ISS Contractor for a platform managed according to PBC.

1.3 Intended Audience

The intended audience for this BUC includes:

- ISS Contractors who require detail of their business service-level interactions, benefits and obligations under PBC.
- All Canada personnel implementing the PBC.
- Solution Architects who will define a Business Service Model for the business service(s) that are described.
- Functional Testers who will use the BUC to define test scenarios for Integration testing.
- Designers who will perform detailed design and unit test.

1.4 References and Traceability

Business Process documents

- [Ref. 1] PBC Business Process Catalogue Annex M: Navy Supply Process Model - In the Context of Performance Based Contracting (PBC)
- [Ref. 2] PBC Business Process Catalogue Annex L: Navy Maintenance Process Model - In the Context of Performance Based Contracting (PBC)

With respect to the referenced documents this BUC addresses the following sections:

Reference	Section
[Ref. 1] PBC Business Process Catalogue Annex M	Annex M – Navy Supply Process Model
[Ref. 2] PBC Business Process Catalogue Annex L	Annex L – Navy Maintenance Process Model

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2. BUC 3.46 Navy - Exchange Part Return Receipt Data

This BUC will identify processes and activities and define scenarios which apply to Part Return Receipt data.

2.1 Overview

Identifier	BUC 3.46
Name	Navy - Exchange Part Return Receipt Data
Business goal	To support the timely confirmation to indicate that the returned parts have been received by the ISS Contractor. The receipt of the returned part is required to be exchanged between Canada and the ISS Contractor so that both parties have the required timestamps in order to track the supply performance and calculate performance metrics.
Stakeholders	Canada and ISS Contractor(s)
Workflow/interaction	Exchange of Part Return Receipt dataset between Canada and ISS Contractor occurs every time an ISS Contractor-owned part is returned to the ISS Contractor. The Part Return Receipt is sent from the ISS Contractor to Canada in response to a Part Return Issue transaction and as the returned part is physically received by the ISS Contractor. Refer to the corrective and preventive maintenance business process flows that identify supply materiel touch points. Reference [Ref. 2].
Processes	Supply Materiel – Part Return and Receipt
Context	Business Domain: Supply materiel Functional Area: <ul style="list-style-type: none"> • Part Return • PUK Return • Return of STTE
Period of Time	The full lifecycle of the subject platform.
Description	Part Return Issue dataset will precede or accompany the physical return of the part to the ISS Contractor, in accordance with transmission definition agreed to with the ISS Contractor. The part return process is not complete until the physical part reaches an agreed HoP and the change of custody is acknowledged by the respective ISS Contractor systems and Canada receives an acknowledgement of receipt. The ISS Contractor shall respond by issuing a Part Return Receipt message as an acknowledgment of receiving the physical part.

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2.2 Sub-Processes and Activities Supported

Refer to EIE Business Process document, [Ref. 1] for diagrams that capture business process flow supported by this BUC.

2.3 Business Rules and Assumptions

1. A Part Return Receipt is received for a specific ISS Contractor-owned part for which a Part Return Issue transaction has been sent from the CSS.
2. The CMMS/CSS and EDE systems shall ensure Part Return Receipt dataset for the materiel is received only from the ISS Contractor system which is properly authenticated and authorized to send maintenance and materiel data for that ship class.

2.4 Actors

The following actors have been identified as performing the documented business activities:

Role Name	Role Description / Responsibilities
ISS Contractor (ISS Contractor's Supply Chain Management System (SCMS))	Provides a system that will have capabilities to send a Part Return Receipt to Canada.
EDE	Transforms and transfers the Part Return Receipt data to CMMS/CSS
CMMS/CSS	Receives Part Return Receipt data

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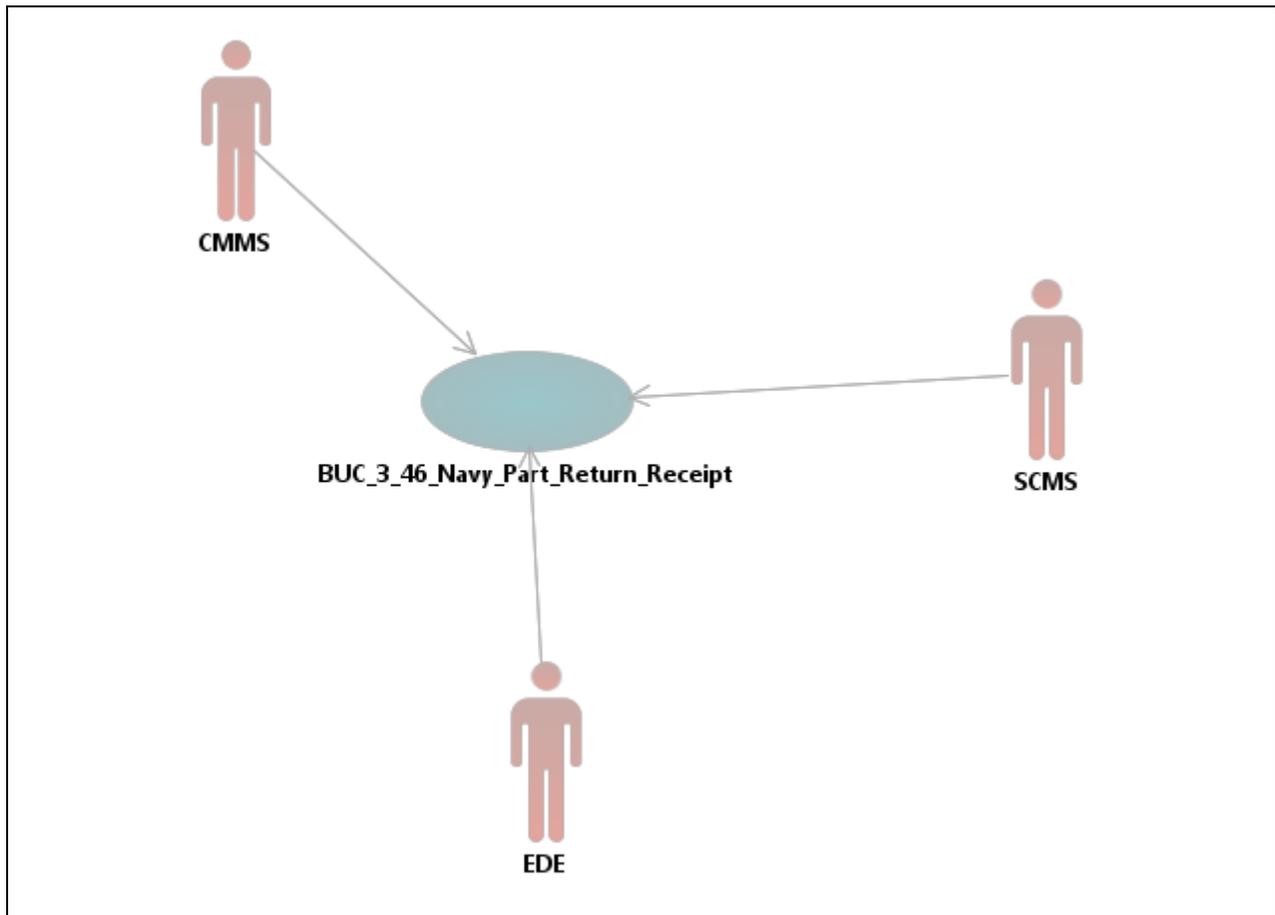


Figure 2-1 Navy - Exchange Part Return Receipt Data

2.5 Common Pre-Conditions

These apply to every scenario unless explicitly stated otherwise.

1. Canada and the ISS Contractor have agreed upon Part Return Receipt dataset format (see [Functional Data Definition](#))
2. Canada and the ISS Contractor have agreed upon near real-time data exchange mechanism for Part Return Receipt dataset.

2.6 Common Post-Condition(s)

The following applies to every scenario unless explicitly stated otherwise.

1. Part Return Receipt dataset has been sent by the ISS Contractor and an acknowledgement has been received by Canada.

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2.7 Common BUC Steps

Each scenario defined below includes the following common steps:

Common Steps	Step Description	Actor
Convert Part Return Receipt dataset to common format	EDE converts data to XML-based format that has been adopted by Canada and ISS Contractor.	EDE
Send Part Return Receipt dataset to CMMS/CSS	EDE sends Part Return Receipt dataset to CMMS/CSS.	EDE
Record Part Return dataset in CMMS/CSS	CMMS/CSS records the time stamp of receipt in the SCMS.	CMMS/CSS

2.8 Scenarios²

In the following scenarios the pre-condition and trigger serve to uniquely identify the Part Return Receipt exchange in the context of a maintenance and supply materiel business processes. This supports direct traceability between business processes and exchange use case scenarios.

² A scenario corresponds to a specific activity in the maintenance or supply materiel business processes when a triggering event occurs which causes a Part Return Receipt dataset exchange. Picture the maintenance or supply business process as proceeding horizontally through recognition of a corrective or preventive maintenance situation, through fault isolation, and maintenance activities. Each exchange use case scenario corresponds to a vertical slice from a maintenance or supply business process which results in a Part Return Receipt dataset being transferred to Canada.

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2.8.1 3.46.1 Part Return Receipt [N1.5.3.1.7]

Scenario Name	3.46.1 Part Return Receipt [N1.5.3.1.7]
Business Process	<p>This scenario occurs in the following Supply Materiel business processes:</p> <ul style="list-style-type: none"> • Part Return • PUK Return • Return of STTE
Business Context	<p>Part Return and Receipt</p> <ul style="list-style-type: none"> • The ISS Contractor-owned Part Return is tracked by Canada until the parts reach the agreed HoP and the change of custody is acknowledged in both the CSS and the ISS Contractor system. When the returned parts are removed from the CSS inventory, a Part Return Issue transaction is sent to the ISS Contractor via the EDE. The ISS Contractor shall acknowledge the receipt by issuing a Part Return Receipt. <p>PUK Return</p> <ul style="list-style-type: none"> • The contents of the PUK will be verified prior to return to the ISS Contractor. A Part Return Issue will be generated in the CSS for all parts from the PUK (remaining repairable and unused parts) as well as the STTE from the PUK and sent to the ISS Contractor via the EDE. The ISS Contractor will respond by acknowledging the receipt and sending the corresponding Part Return Receipt. <p>Return of STTE</p> <ul style="list-style-type: none"> • When ISS Contractor-owned STTE is due for calibration or repair, a request for return will be communicated to Canada via a mechanism outside the scope of the EDE, and the physical STTE will be delivered to the HoP for return to the ISS Contractor. As a result, the Canada supply technician will initiate a return of STTE from the CSS to the ISS Contractor. The CSS will generate and send a Part Return Issue to the ISS Contractor via the EDE to accompany the physical return of the STTE. The Part Return Receipt is then sent from the ISS Contractor to the CSS via the EDE confirming the receipt of the STTE.
Precondition(s)	See Common Pre-Conditions .
Trigger event	ISS Contractor receives the part associated with the Part Return Issue transaction sent from CMMS/CSS.

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Steps	Step Name	Step Description	Actor
	Create Part Return Receipt	ISS Contractor creates the Part Return Receipt dataset indicating all of the parts that were received in the transmission.	ISS Contractor's SCMS
	Send Part Return Receipt	ISS Contractor sends Part Return Receipt dataset to CMMS/CSS.	ISS Contractor's SCMS
	Continue with Common BUC Steps		
Postcondition(s)	See Common Post-Conditions .		
Notes			

2.9 Information Requirements³

Each record has a primary key consisting of:

- CMMS Customer Identifier
- Unique Canada Part Demand Identifier, i.e. Purchase Order Number;
- Returned Part Identification Data (Line number)

In addition, each record consists of:

- Returned quantity and unit of issue of returned quantity;
- Returned Part identification data (MPN, CAGE)
- Serial Number, if serialized part
- Returned location.

2.10 Special Requirements

None identified.

³ Action codes and record timestamps are defined in the service specification.

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3. Functional Data Definition⁴

The data elements which make up a Part Return Receipt dataset are enumerated in this section. A detailed technical message schema for exchange of datasets will be provided following the awarding of the ISS contract.

3.1 Business Entity Definition - Part Return Receipt

The Data Entities Definition Table 3-1 below contains examples of the reference data. Specific and accurate reference data should be obtained from Canada through official channels prior to using the reference data in downstream design and implementation activities.

Table 3-1 Data Entities Definition

Name	Definition	Type	Length
Customer Identifier	CMMS generated a unique identifier of the ISS Contractor.	Char	10
Purchase Order Number	CMMS internally generated Purchasing document item number identification per Purchase Order (PO)/return.	Char	10
Comments	Open text field from the Delivery text segment of the Purchase Order header. (Additional instructions or notes for the Item Manager).	Char	120
Line Number	This number corresponds to CMMS originating PO line item number. (Unique Identifier for a specific return quantity by part within a PO).	Num	5
Work Order Number	CMMS internally generated unique identifier of a Work Order against which the removed part is being returned from. (Not applicable to Navy)	Char	12
Manufacturer Part Number (MPN)	Designated Manufacturer's Part Number (MPN). <i>Note:</i> Canada-supplied parts may have an MPN up to 34 characters in length ISS Contractor-supplied parts must have an MPN of 31 characters or less.	Char	34

⁴ This is a *functional* view of the data. A detailed schema including fields for parent/child structure, metadata to manage exchange with Industry, more specific types, etc. will be designed in a subsequent activity.

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BUC 3.46 Navy - Exchange
Part Return Receipt Data

Name	Definition	Type	Length
CAGE Code	Commercial And Government Entity (CAGE) code number that uniquely identifies the manufacturer of the part or product, sometimes produced under government contract.	Char	5
Unit of Issue	The Unit of Issue of the returned quantity.	Char	3
Ship To Code	Location where the materiel was returned and picked up by the ISS Contractor. In the case of a PUK return, Ship-to-Code identifies from which the PUK part is being returned. It is an enumerated field that shall be defined jointly by Canada and ISS Contractor. Each ship class/ISS Contractor may have differently agreed values for this attribute.	Char	4
Ship To Code Description	English description of the Ship To Code value.	Char	16
Serial Number	The Serial Number for the materiel returned	Char	30
Batch Lot	The batch lot identifier for the materiel returned	Char	10
Shelf Life Expire Date	The expiration date for life limited parts returned	Datetime	
Received Quantity	The quantity of returned parts received	Float	13,3
Received Date	The date the returned part was received by the ISS Contractor.	Datetime	
Tracking Number	Tracking Number from the shipper.	Char	20
Unserviceable Code	Indicates whether the part returned is in a serviceable or unserviceable state.	Char	1
Unserviceable Code Description	English description of the Unserviceable Code value.	Char	20
Service Request Number	ISS Contractor generated number for unserviceable backshop repair to be performed by Canada.	Char	26

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4. Issues and Exceptions

None identified.

5. Business Process Flows

Refer to EIE Supply Materiel Business Process document, [Ref. 1] for diagrams that capture business process flow supported by this BUC.

6. Definitions, Acronyms, Abbreviations

Term	Description
BUC	BUC
CAGE	Commercial And Government Entity
CMMS	Canada Maintenance Management System
CSS	Canada Supply System
DND	Department of National Defence
EDD	Estimated Delivery Date
EDE	Electronic Data Exchange
EIE	Electronic Information Exchange
HoP	Hand-Over Point
ISS	In Service Support
MCP	Major Capital Project
MPN	Manufacturer's Part Number
PBC	Performance Based Contracting
PO	Purchase Order
PUK	Pack-Up Kit
SCMS	Supply Chain Management System
STTE	Special Tools and Test Equipment
WO	Work Order

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7. Document Control

7.1 Document History

Version Number	Description	Date
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