

# Electronic Information Environment (EIE) Project

## Business Use Case (BUC) BUC 4.25 Navy Exchange Maintenance Service Request

### EIE Project

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## 1 EIE Business Use Case<sup>1</sup> Overview

### 1.1 Introduction

Performance Based Contracting (PBC) is a set of guidelines to Canada DND 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 corrective and/or preventive maintenance activities on the Platform. In order for Canada and an ISS Contractor partner to fulfill their obligations under PBC specific datasets must be exchanged between Canada and ISS Contractor.

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

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

### 1.2 Purpose

DND maintenance activities are tracked in the Canada Maintenance Management System (CMMS). Exchange of maintenance-related data involves new exchange business processes between CMMS and ISS Contractor data consumers which complement already documented maintenance business processes.

This Business Use Case (BUC) describes the exchange of maintenance Service Request records between Canada and the ISS Contractor for a platform managed according to the PBC.

### 1.3 Intended Audience

The intended audience for this business use case includes:

- The ISS Contractor(s) who require detail of their business service-level interactions, benefits and obligations under PBC.
- Canada Program Management Offices implementing PBC.
- Solution Architects who will define a Business Service Model for the business service(s) described here.
- Functional Testers who will use the business use case to define test scenarios for Integration testing.

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<sup>1</sup> "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/>.

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- Designers who will perform detailed design and unit test.

## 1.4 References and Traceability

### Business Process documents

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

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

Reference	Section
[Ref. 1] PBC Business Process Catalogue: Annex L	Annex L - Navy Maintenance Process Model

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## 2 BUC 4.25 Navy - Exchange Maintenance Service Request Data

This Business Use Case will identify processes and activities and define scenarios which apply to Maintenance Service Requests. Maintenance Service Requests have several distinct parts (See [Functional Data Definition](#)). “**Service Request datasets**” will be used to refer to a set of Service Requests, including respective parts, prepared for exchange.

### 2.1 Overview

<b>Identifier</b>	BUC 4.25
<b>Name</b>	Navy - Exchange Maintenance Service Request Data
<b>Business goal</b>	Receive Maintenance Service Request dataset from the ISS Contractor to Canada
<b>Stakeholders</b>	Canada and the ISS Contractor(s)
<b>Workflow/interaction</b>	Exchange of Maintenance Service Request dataset from the ISS Contractor to Canada as defined in business process, reference [Ref. 1].
<b>Processes</b>	Information exchange is automated (system to system). The frequency of exchange is determined by Canada and each ISS Contractor. Some error scenarios may require manual intervention.
<b>Context</b>	Business Domain: Maintain Platform Functional Areas: <ul style="list-style-type: none"> <li>Backshop Maintenance</li> </ul>
<b>Period of Time</b>	The full lifecycle of the subject platform.
<b>Description</b>	DND backshop work can be requested by the ISS Contractor. To request backshop work the ISS Contractor will send a Service Request transaction to CMMS via EIE EDE. The Service Request will create a maintenance notification to initiate the backshop work.

### 2.2 Sub Processes and Activities Supported

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

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### 2.3 Business Rules and Assumptions

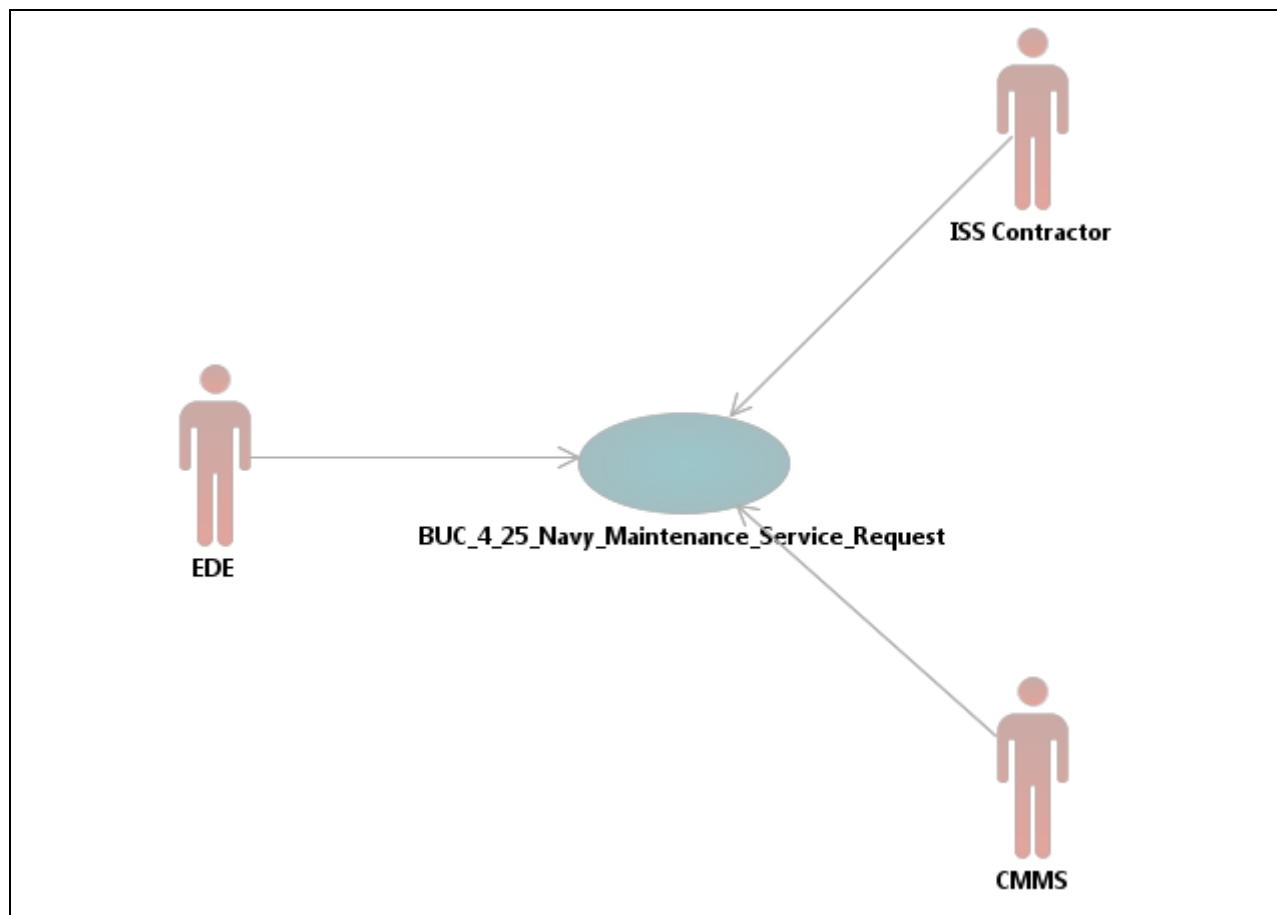
1. The CMMS and EDE systems shall ensure Maintenance Service Request dataset for a platform is received from the ISS Contractor system which is properly authenticated and authorized to send the maintenance and/or materiel data for that ship class.
2. A Service Request shall only be initiated for parts used to support the Canada Platform.
3. The part referenced in the Service Request must be previously known in the CMMS.
4. If a maintenance task list is referenced in the service request, it must be previously defined in the CMMS.

### 2.4 Actors

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

Role Name	Role Description / Responsibilities
ISS Contractor	<ul style="list-style-type: none"><li>• Provides a system that will have the ability to:<ul style="list-style-type: none"><li>– Process and transmit the Service Request data to Canada, and</li><li>– Acceptance of the Acknowledgement of data from Canada</li></ul></li></ul>
EDE	<ul style="list-style-type: none"><li>• Transports and transforms the Service Request data.</li></ul>
CMMS	<ul style="list-style-type: none"><li>• Receives and processes Service Request data.</li></ul>

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**Figure 2-1 Navy Exchange Maintenance Service Request Data**

## 2.5 Common Pre-Conditions

These apply to every scenario unless explicitly stated otherwise.

1. As per PBC, maintenance service request datasets be sent to Canada CMMS;
2. Canada and the ISS Contractor have agreed upon maintenance service request dataset format (see [Functional Data Definition](#));
3. Canada and the ISS Contractor have agreed upon maintenance service request data exchange mechanism;
4. Maintenance Task List (MTL), if specified, Manufacturer Part Number (MPN), Commercial And Government Entity (CAGE) and Serial number if applicable, must already exist in CMMS.

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## 2.6 Common Post-Condition(s)

The following applies to every scenario unless explicitly stated otherwise.

1. Maintenance Service Request dataset has been received by Canada.

## 2.7 Common BUC Steps

Each scenario defined below includes the following common steps:

Common Steps	Step Description	Actor
Determine which Service Request datasets are to be sent to Canada	The ISS Contractor determines which business event will release service request data to Canada.	ISS Contractor
Prepare and send maintenance Service Request data	The ISS Contractor creates and sends maintenance Service Request records as per input parameters provided.	ISS Contractor
Convert maintenance Service Request data to CMMS format	EDE converts data to a format acceptable by CMMS.	EDE
Send maintenance Service Request data to CMMS	EDE sends maintenance Service Request datasets to CMMS, in accordance with transmission definition agreed to with CMMS.	EDE

## 2.8 Scenarios

In the following scenarios the pre-condition and trigger serve to uniquely identify the Maintenance Service Request exchange in the context of a maintenance business process. This supports direct traceability between maintenance business processes and exchange use case scenarios.

Note: The numeric identifier that appears in square brackets besides each scenario name is an identifier that can be used to locate the event in the business process flow as per [Ref. 1].

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## 2.8.1 4.25.1 Maintenance Service Request [N1.4.3.6.1]

<b>Scenario Name</b>	<b>4.25.1 Maintenance Service Request [N1.4.3.6.1]</b>		
<b>Business Process</b>	This scenario occurs in the following business processes: <ul style="list-style-type: none"> <li>Backshop Maintenance</li> </ul>		
<b>Business Context</b>	Backshop Maintenance <ul style="list-style-type: none"> <li>The ISS Contractor may request FMF to perform backshop work. To request backshop work, the ISS Contractor sends a service request transaction to CMMS via the EIE EDE.</li> </ul>		
<b>Precondition(s)</b>	See <a href="#">Common Pre-Conditions</a> .		
<b>Trigger event</b>	<ul style="list-style-type: none"> <li>The ISS Contractor creates a new maintenance Service Request.</li> </ul>		
<b>Steps</b>	<b>Step Name</b>	<b>Step Description</b>	<b>Actor</b>
	Continue with Common BUC Steps		
<b>Postcondition(s)</b>	See <a href="#">Common Post-Conditions</a> .		
<b>Notes</b>			

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## 2.9 Information Requirements

Details on the data elements of a Maintenance Service Request are provided in Section 3.

## 2.10 Special Requirements

None identified.

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### 3 Functional Data Definition

The data elements which make up a Maintenance Service Request 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 Data Entities Definition

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

**Table 3-1 Data Entities Definition**

Name	Description	Type	Length
Customer Identifier	CMMS generated unique identifier of the ISS Contractor.	Char	10
Service Request Number	Industry generated number for unserviceable back-shop repair to be performed by Canada.	Char	26
Cage Code	Cage code of the manufacturer associated to the equipment to be repaired.	Char	5
Manufacturer Part Number (MPN)	Manufacturer part number for the equipment to be repaired. Note: DND-supplied parts may have an MPN up to 34 characters in length. Industry-supplied parts must have an MPN of 31 characters or less.	Char	34
Serial Number	Manufacturer's Serial number of the part to be repaired.	Char	30
Quantity	The quantity of parts to be repaired. Quantity must be 1 for serialized parts.	Integer	
Comments	Short description of the service request.	Char	40
Unit of Issue	The Unit of Issue of the quantity to be repaired.	Char	3
Requested Start Date	Requested start date for the back-shop repair process	Date	
Requested End Date	Requested completion date for the back-shop repair process	Date	
Long Description	Long text of the Service Request.	Char	2000

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Name	Description	Type	Length
External Maintenance Task List Identifier	The ISS Contractor defined identifier of a maintenance task list to be performed as part of the service request. Note: External Maintenance Task List Identifier is also known as Orig_MTL_No, terminology used by CMMS.	Char	40
Priority	A code defining the priority given to the service request for processing. <b>Values: <i>Priority Code</i></b> Note: The values for Priority vary by notification type and work order type. A complete listing of values for Priority will be provided as part of Reference Data.	Char	1
Priority Description	Priority text given to the service request for processing.	Char	20
Main Work Centre	A unique identifier of a work centre that has overall responsibility for all the work performed on a work order. This resides in the notification header. (Example, FMF-CS, FMF-CB)	Char	8
Main Work Centre Description	The description of the main work centre	Char	40

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#### 4 Issues and Exceptions

None identified at this time.

#### 5 Business Process Flows

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

#### 6 Definitions, Acronyms, Abbreviations

Term	Description
BUC	Business Use Case
CAGE	Commercial And Government Entity
CMMS	Canada Maintenance Management System
DND	Department of National Defence
DRMIS	Defence Resource Management Information System
EDE	Electronic Data Exchange
EIE	Electronic Information Exchange
EMR	Equipment Master Record
FMF	Fleet Maintenance Facility
ISS	In-Service Support
MCP	Major Capital Project
MER	Master Equipment Record
MPN	Manufacturer Part Number
MTL	Maintenance Task List
PBC	Performance Based Contracting
WO	Work Order

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## 7 Document Control

### 7.1 Document History

Revision No	Description	Date
1.0	Final version ready for Navy RFP	17 August 2015

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