Performance Based Contracting (PBC)

Annex O: Navy Configuration Management Process Model

Note: This process model document should be read in conjunction with the associated process models that depict how DND conducts and execute maintenance. The focus of this document is centered on the Performance Based Contracting perspective and Electronic Information Exchange enablement.

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1 CONFIGURATION MANAGEMENT PROCESS DETAILS

Scope

The configuration management process described here is supported by the Electronic Information Environment (EIE) architectural infrastructure. In this model the In-Service Support (ISS) Contractor is responsible for managing the Royal Canadian Navy fleet's configuration (allowed and actual) in accordance with contractually agreed requirements. Canada will ultimately approve the new or changed platform configuration and maintain current configuration through maintenance activities in the Canada Maintenance Management System (CMMS).

The configuration management and technical problem management processes are closely related. A technical problem (TP) has to be raised, evaluated, and its resolution approved in the ISS Contractor Technical Problem Management System (TPMS) before an Engineering Change (EC) is raised. As a result of a TP resolution, a change request may be raised for some or all of the following:

1. Maintenance elements:
    - Platform configuration (allowed and actual);
    - Maintenance program;
    - Maintenance task list.
2. Supply materiel elements:
    - Material Master Equipment List;
    - Parts list.
3. Training material and courseware; and
4. Technical Publications including engineering drawings.

ISS Contractor Responsibilities

The ISS Contractor will provide a system in support of the configuration management and change control process, ensuring that products, equipment, software, publications, and training material are modified in line with Canada established and approved change control processes and procedures. However, since the CMMS will be storing the allowable Ship Class configuration and maintaining the actual Ship Class configuration, an EC process will occur in the CMMS to track implementation of the EC required by an EC request.

1.1 EC Options Analysis

Scope

EC Options Analysis is an engineering activity conducted to determine the best course of action to meet a new Engineering Requirement (either a deficiency or an enhancement). This activity can be performed by the ISS Contractor or Canada.

Description

The ISS Contractor will send to Canada the EC request identifying the information required to implement changes in the maintenance and/or supply elements. The exchange of this information will occur outside

the EDE. An authorized user will create [N1.4.3.1.1] [N1.4.3.1.2] a corresponding EC notification (type NC) in the CMMS, and related transactions will be sent to the ISS Contractor via the EDE.

Canada will review the EC proposal and inform the ISS Contractor via the EDE whether the EC is approved [N1.4.3.1.4] or cancelled [N1.4.3.1.1] [N1.4.3.1.2]. Refer to **Navy - Perform Maintenance - Cross Functional: Cancel** for details of the Cancel process.

The organization(s) performing the options analysis will be reflected in the EC notification within CMMS with the information being sent to the ISS Contractor. In either case the user status [N1.4.3.1.4] of the EC notification will be updated to reflect the organization performing the EC options analysis, and an updated user status will be sent to the ISS Contractor via the EDE. The disposition of EC will be detailed in the Annual Operating Plan (AOP) provided by the ISS Contractor.

1.1.1 Canada to Perform Options Analysis

If Canada is to perform the EC options analysis, an authorized user will create [N1.4.3.1.1] [N1.4.3.1.2] a separate maintenance notification (N2) in the CMMS for the EC options analysis and the associated transactions will be sent to the ISS Contractor via the EDE.

The EC options will be documented in a package and provided to the Class Program Manager (CPM) for review and impact assessment. The options package will be made available to Canada via mutually agreed means. If rework by Canada is required, the package will be returned to the originator, the user status [N1.4.3.1.4] of the EC notification will be updated to 'Rework', and the related transaction will be sent to the ISS Contractor via EDE. Based on the CPM decision, the package may be completely cancelled (Reference: **Navy - Perform Maintenance - Cross Functional: Cancel**), or approved for developing the change package with the user status change set to 'Develop change package' [N1.4.3.1.4].

Upon completion and approval of the EC options analysis package, the work order for options analysis will be set to Technically Complete [N1.4.3.2.1] [N1.4.3.2.2] [N1.4.3.2.6], then the work order and corresponding notification will be closed [N1.4.3.1.1] [N1.4.3.1.2] [N1.4.3.2.1] [N1.4.3.2.2] and related transactions sent to the ISS Contractor via the EDE.

1.1.2 ISS Contractor to Perform Options Analysis

If the ISS Contractor is to perform the EC options analysis, the ISS Contractor will use its own Configuration Management System (CMS) to manage the EC options analysis. The ISS Contractor may request additional information from Canada via Collaboration Environment (CE). The ISS Contractor will report the results of the analysis to Canada via the CE. Upon completion of the options analysis, the ISS Contractor will send the EC options analysis package to Canada via the CE, and send the EC notification with updated user status 'Ready for Review' [N1.4.3.1.6] via the EDE.

If rework by the ISS Contractor is required, the package will be returned to the ISS Contractor via the CE, the user status [N1.4.3.1.4] of the EC notification will be updated to 'Rework', and the related transaction will be sent to the ISS Contractor via the EDE.

Based on the CPM decision, the package may be completely cancelled (Reference: Cancel), or approved for developing the change package with the user status set to 'Develop change package' [N1.4.3.1.4].

Configuration Management notifications will be sent to the ISS Contractor through the EDE via the Maintenance History notification interfaces on a periodic basis. The ISS Contractor will need to identify Configuration Management notifications within the Maintenance Notification dataset, and react accordingly to CM notifications assigned to the ISS Contractor through the setting of appropriate user status.

Reference: Navy - Configuration Management - Cross Functional: EC Options Analysis

Reference: Navy - Perform Maintenance - Cross Functional: Cancel

Reference: Navy - Configuration Management - Cross Functional: FMF Tasking

1.2 EC Package Development

EC package development may be conducted by Canada or the ISS Contractor. In either case, the user status [N1.4.3.1.4] of the EC notification will be updated to reflect the organization performing the EC package development, and the updated user status will be sent to the ISS Contractor via the EDE.

1.2.1 Canada to Perform EC Package Development

If Canada is to perform the development of an EC package, an authorized user will create [N1.4.3.1.1] [N1.4.3.1.2] a separate maintenance notification (N2) in the CMMS for development of the EC package and related transactions will be sent to the ISS Contractor via the EDE.

FMF personnel are typically tasked with the development of an EC package. Refer to FMF Tasking section of this document for details of approval process.

The EC package will be developed, documented and provided to the Class Program Manager for review and impact assessment. The EC package will be available through the Collaboration Environment. If rework by Canada is required, the package will be returned to the originator and the user status [N1.4.3.1.4] of the EC notification will be updated to 'Rework', and related transactions sent to the ISS Contractor via the EDE.

Based on the CPM decision, the package may be completely cancelled (Reference: **Navy - Perform Maintenance - Cross Functional: Cancel**), or approved for implementation with the user status set to 'Ready for Implementation' [N1.4.3.1.4].

Upon completion and approval of the EC package, the WO for the development of the EC package will be set to Technically Complete [N1.4.3.2.1] [N1.4.3.2.2] [N1.4.3.2.6]. The WO and corresponding notification will then be closed [N1.4.3.1.1] [N1.4.3.1.2] [N1.4.3.2.1] [N1.4.3.2.2] and related transactions sent to the ISS Contractor via the EDE.

1.2.2 ISS Contractor to Perform EC Package Development

If the ISS Contractor is to perform the development of the EC package, the ISS Contractor will use its own CMS to manage the development of the EC package. The ISS Contractor may request additional information from Canada via the CE. The ISS Contractor will develop and document the EC package, send the package to Canada via the CE and send the EC notification with updated user status [N1.4.3.1.6] via the EDE. If rework by the ISS Contractor is required, the package will be returned to the ISS

Contractor via the CE, the user status [N1.4.3.1.4] of the EC notification will be updated to 'Rework', and related transactions sent to the ISS Contractor via the EDE.

Based on the CPM decision, the package may be completely cancelled (Reference: **Cancel**), or approved for implementation with the user status set to 'Ready for Implementation' [N1.4.3.1.4].

Configuration Management notifications will be sent to the ISS Contractor through the EDE via the Maintenance History notification interfaces on a periodic basis. The ISS Contractor will need to identify Configuration Management notifications within the Maintenance Notification dataset, and react accordingly to CM notifications assigned to the ISS Contractor through the setting of appropriate user status.

Reference: Navy - Configuration Management - Cross Functional: EC Package Development

Reference: Navy - Perform Maintenance - Cross Functional: Cancel

Reference: Navy - Configuration Management - Cross Functional: FMF Tasking

1.3 EC Implementation

Scope

An EC implementation may be conducted by Canada or the ISS Contractor. In either case the user status [N1.4.3.1.4] of the EC notification will be updated to reflect the organization performing the EC implementation, and updated user status will be sent to the ISS Contractor via EDE.

1.3.1 Canada to Perform EC Implementation

If Canada is to perform the maintenance for the EC implementation, an authorized user will create [N1.4.3.1.1] [N1.4.3.1.2] the maintenance notification (N2) for the EC implementation and related transactions will be sent to the ISS Contractor via the EDE. The OSMT will decide which of Canada's organizations is going to perform the implementation of the EC (Reference: **Navy - Perform Maintenance - Cross Functional: Plan OSMT)**.

Upon completion of the EC implementation on all applicable platforms, Canada will conduct the validation/verification, produce the Certificate of Compliance (CoC) and close the EC notification [1.4.3.1.1] [N1.4.3.1.2]. The related transaction will be sent to the ISS Contractor via the EDE and the CoC will be forwarded to the ISS Contractor via the CE.

1.3.2 ISS Contractor to Perform EC Implementation

If the ISS Contractor is to implement the EC, the ISS Contractor will use its own CMS to manage the implementation of the EC package. The ISS Contractor will send the master data to Canada via the EDE. Changes to the technical publications, training material and courseware will be sent by the ISS Contractor to Canada by the CE or other means mutually agreed upon.

If the ISS Contractor is to perform the maintenance for the EC implementation, Canada authorized user will create [N1.4.3.1.1] [N1.4.3.1.2] the maintenance notification (N2) for the EC implementation and

related transactions will be sent to the ISS Contractor via the EDE. The OSMT will assign the ISS Contractor to perform the maintenance for EC implementation (Reference: Navy - Perform Maintenance - Cross Functional: Plan OSMT).

Upon completion of the EC implementation the ISS Contractor will conduct the configuration validation/ verification in its own CMS and send the CoC to Canada via the CE. Canada will close the EC notification [1.4.3.1.1] [N1.4.3.1.2].

Configuration Management notifications will be sent to the ISS Contractor through the EDE via the Maintenance History notification interfaces on a periodic basis. The ISS Contractor will need to identify Configuration Management notifications within the Maintenance Notification dataset, and react accordingly to CM notifications assigned to the ISS Contractor through the setting of appropriate user statuses.

Reference: Navy - Perform Maintenance - Cross Functional: Plan OSMT

Reference: Navy - Configuration Management - Cross Functional: EC Implementation

1.3.3 Master Data

Any updates due to an EC may include a new master data load to the CMMS. If the ISS Contractor is performing the EC implementation, Canada will request master data from the ISS Contractor via the EDE. If Canada is conducting the EC implementation, Canada will be required to provide master data to the ISS Contractor through the CE. The ISS Contractor will respond with master data load via the EDE. CPMs and System Authorities will receive and validate the master data. If the validation is successful, the data will be loaded into the CMMS and the acknowledgement of master data acceptance will be sent to the ISS Contractor via the EDE. Otherwise, Canada will terminate processing the master data and inform the ISS Contractor by means outside the EDE. (Reference: **Navy Master Data - Cross Functional**).

1.4 FMF Taskings

FMF personnel may be tasked by Canada with the development of an EC package through a N2 notification. However, the FMF may reject the request due to unavailability of resources or other constraints. The user status of the notification will be set to 'Rejected' and sent to the OSMT for review and re-assignment.

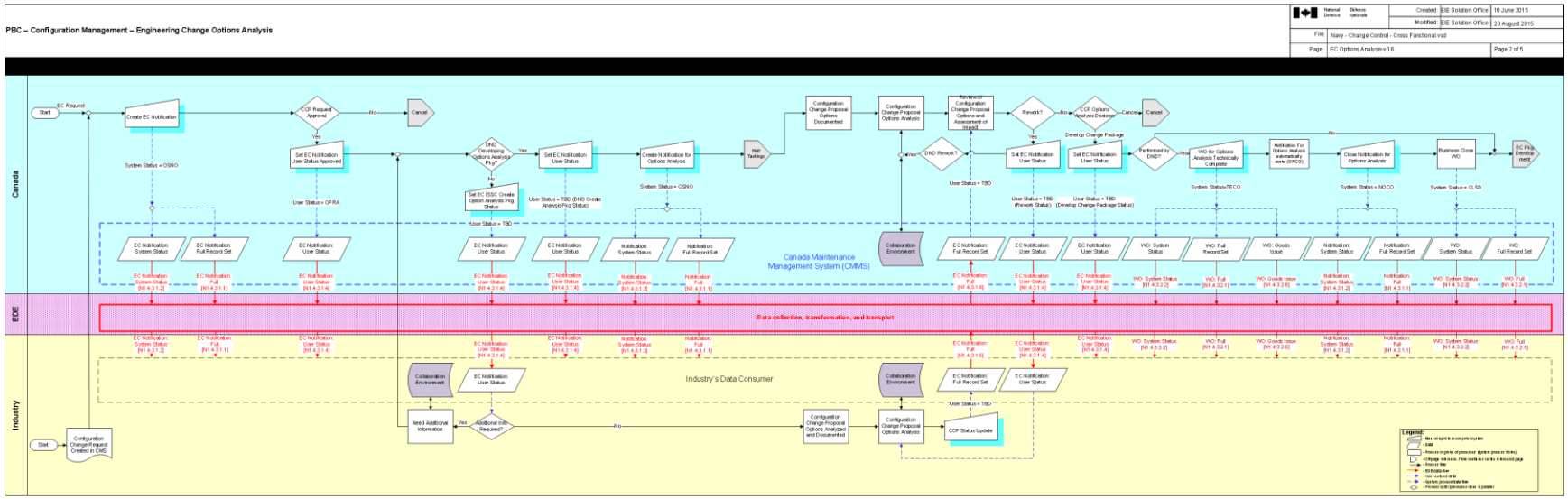
If the FMF accepts the task of developing the EC package, the authorized FMF personnel will update the user status of the notification to 'Accepted by Repair Facility' [N1.4.3.1.4], which will also send a snapshot of the notification [N1.4.3.1.1] to the ISS Contractor via the EDE. The FMF will create a Work Order for the change package development [N1.4.3.2.1] [N1.4.3.2.2] and release the notification [N1.4.3.1.2] and WO [N1.4.3.2.2]. All related transactions will be sent to the ISS Contractor via the EDE.

2 EDE TRANSACTIONS

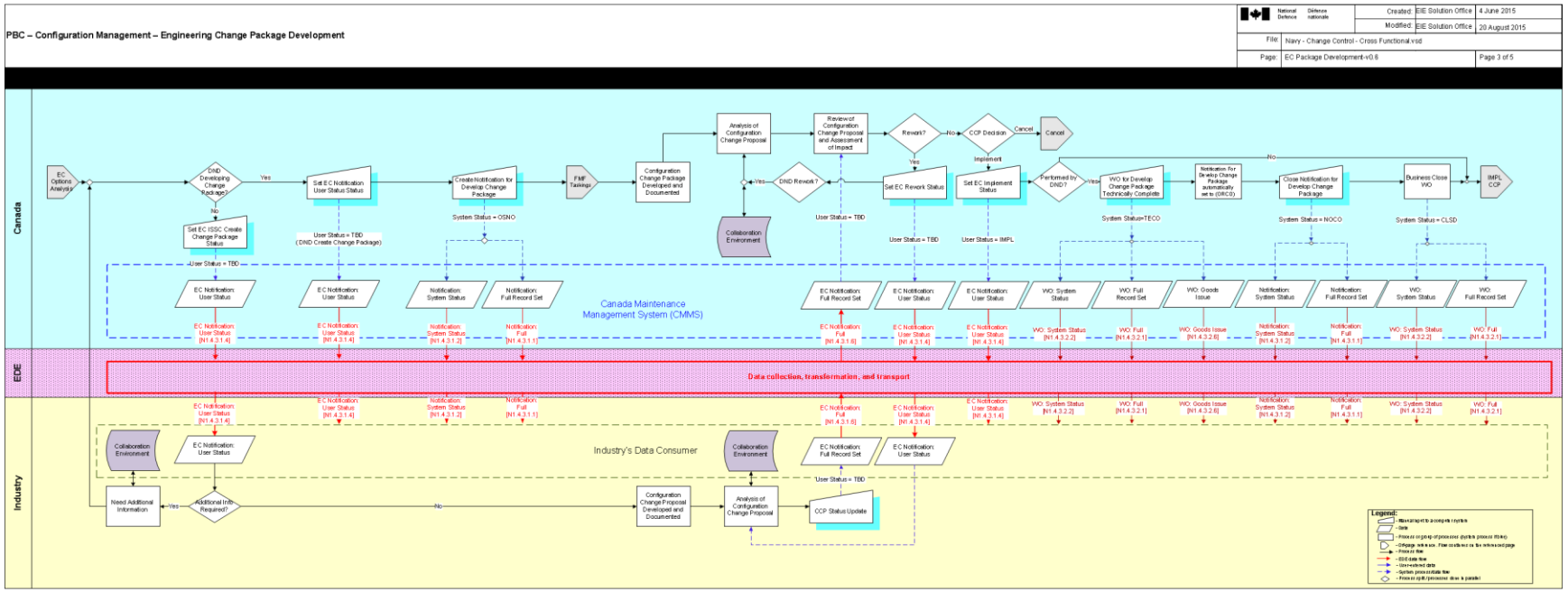
EDE Transaction	Source	Destination
Records Data Transactions		
Notification: Full Record Set	Canada	ISS Contractor
Notification: User Status	Canada	ISS Contractor
Notification: System Status	Canada	ISS Contractor
Notification: Full Record Set/ISSC	ISS Contractor	Canada
Work Order: Full Record Set	Canada	ISS Contractor
Work Order: Goods Issue	Canada	ISS Contractor
Work Order: System Status	Canada	ISS Contractor
Master Data Load (see Master Data BPC)	ISS Contractor	Canada
Technical Publications Data Exchange Transactions		
Technical Publications	ISS Contractor	Canada
Training Material Data Exchange Transactions		
Training Data	ISS Contractor	Canada

3 CONFIGURATION/EC - CROSS FUNCTIONAL PROCESS FLOWS

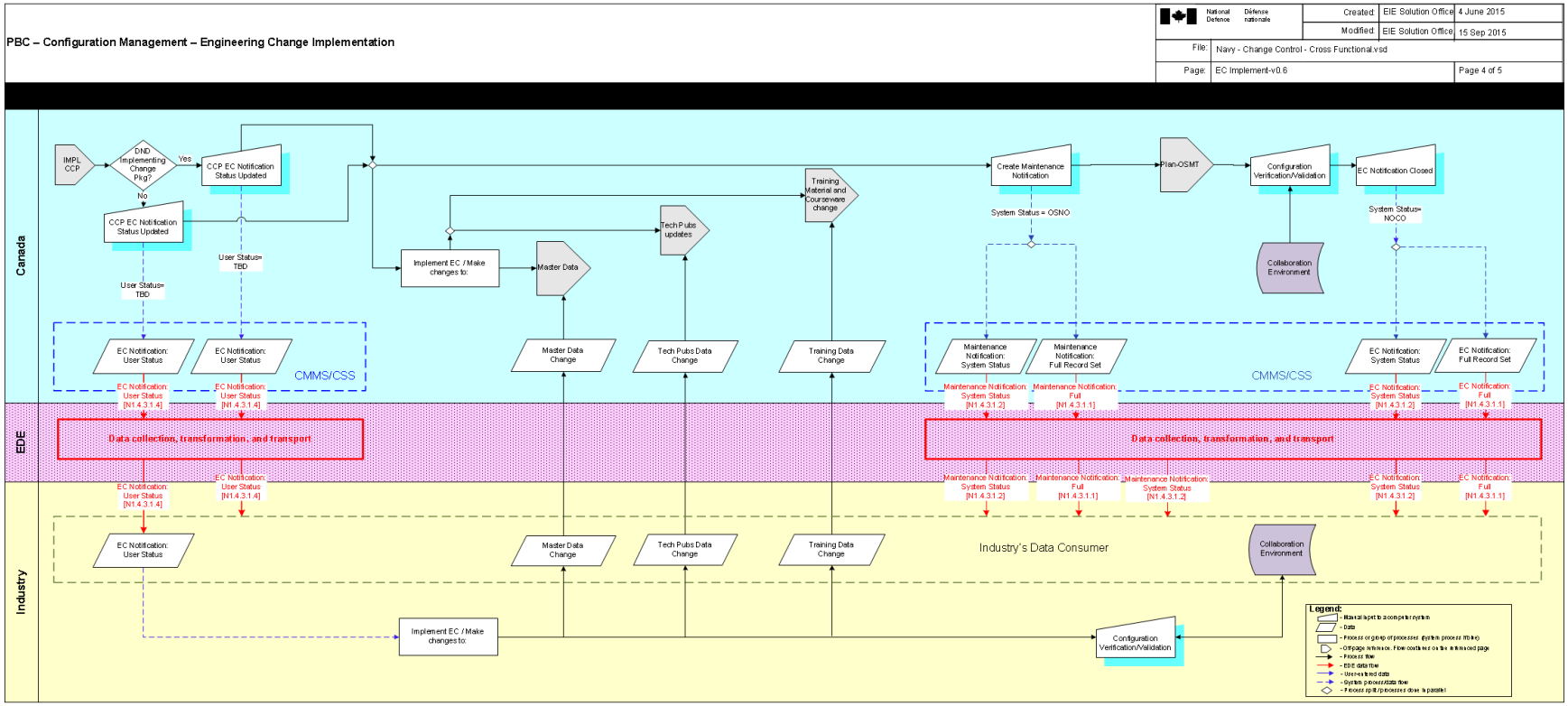
3.1 EC Options Analysis



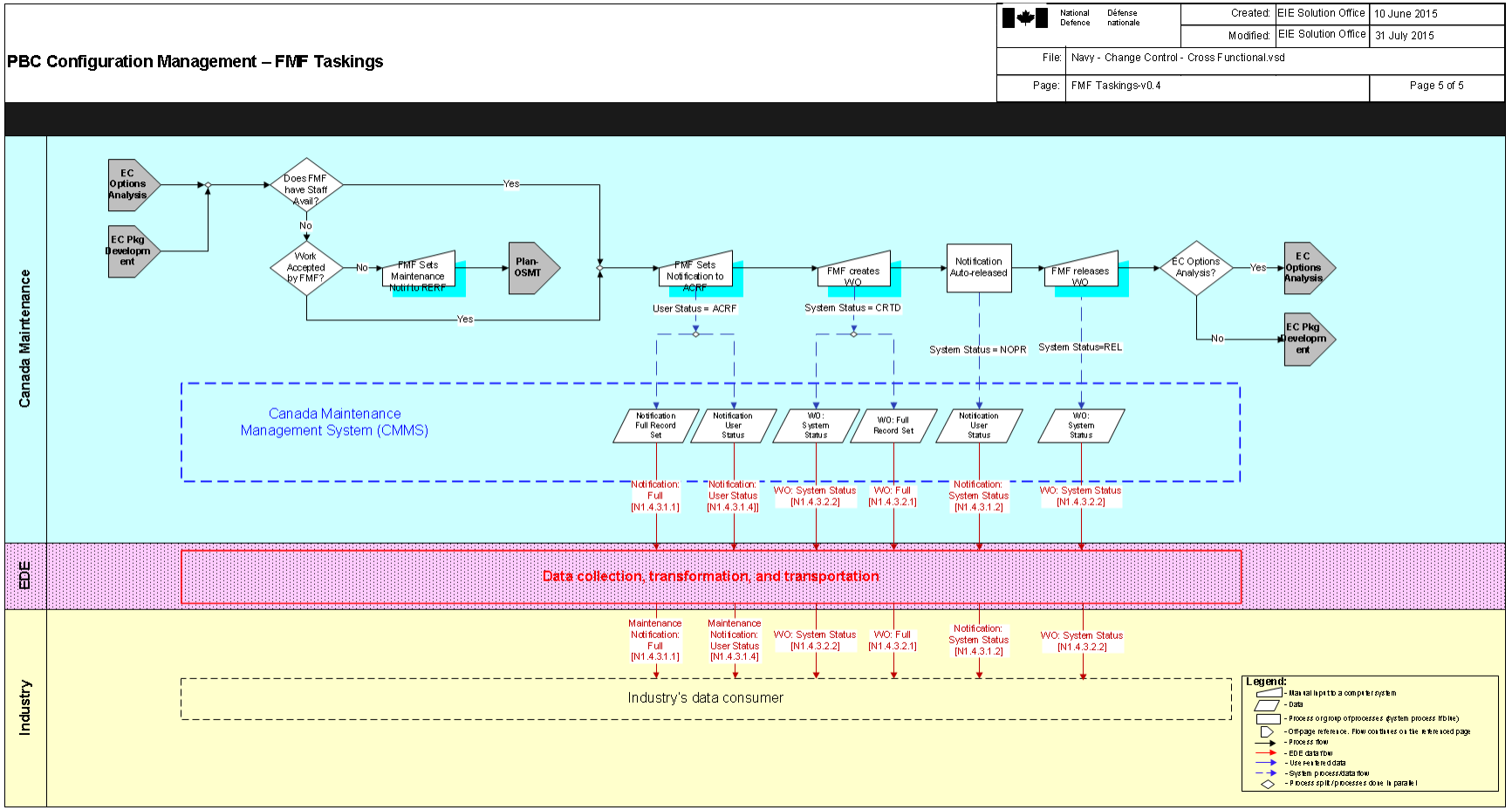
3.2 EC Package Development



3.3 EC Implementation



3.4 FMF Taskings



4 TOUCH POINT REFERENCE TABLE

Reference numbers below are used for touch points in the Functional Decomposition, Business Process Catalogue and Business Use Case documents.

Reference #	The ISS Contractor / Canada Touch-point
N1.4.3.1	**Notification**
N1.4.3.1.1	Notification: Full
N1.4.3.1.2	Notification: System Status
N1.4.3.1.4	Notification: User Status
N1.4.3.1.6	Notification: Full/ISSC
N1.4.3.2	**WO**
N1.4.3.2.1	WO: Full
N1.4.3.2.2	WO: System Status
N1.4.3.2.6	WO: Goods Issue

5 DOCUMENT HISTORY

Revision No.	Description	Date
0.1	Initial Draft based on the Master data and Configuration Control workshops with Navy	June 2015
0.3	Release to Navy for review	16 July 2015
1.0	Ready for RFP	16 September 2015