

Republic of the Union of Myanmar
Myanma Port Authority

Preparatory Survey Report on the Project for the
Development of Port EDI system in the
Republic of the Union of Myanmar

March 2015

Japan International Cooperation Agency (JICA)

Mitsubishi Research Institute, Inc.

The Overseas Coastal Area Development Institute of Japan

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PREFACE

Japan International Cooperation Agency (JICA) decided to conduct the preparatory survey and entrust the task to the joint consulting team consisting of Mitsubishi Research Institute, Inc. and The Overseas Coastal Area Development Institute of Japan.

The survey team held a series of discussions with the officials concerned of the Government of the Republic of the Union of Myanmar, and conducted field researches. As a result of further studies in Japan, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Myanmar for their close cooperation extended to the survey team.

March, 2015

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Director General,
Infrastructure and Peacebuilding Department
Japan International Cooperation Agency

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Executive Summary

1. Background of the Project

Yangon Port, a major cargo port of Myanmar, is flourishing with the growth of national economy accelerating owing to the political transition since March 2011. Nowadays over 1,500 ocean-going vessels per year (FY 2012/13) are arriving, and over 12 million tons or more of foreign trade cargos including container cargos are being handled here. In anticipation of the rapid growth of cargo handled in the near future, efficiency improvement and expansion of port facilities are considered urgent issues.

Procedures of port cargo handling in Myanmar are currently handled by the conventional paperwork and rudimentary way of data processing. As a result, containers stay in the port area over 1 week or more on average, and significant economic loss has occurred.

To solve this problem, it is desirable to reduce the processing time of application and notification to be sent to the port authority and harbor master etc. by introducing an electronic data processing system called Port EDI (Port Electronic Data Interchange). Although private operators and port-related departments have introduced the system individually, it is far from being an essential solution for the problem.

Under the circumstances, Myanmar Ministry of Transport requested grant aid for the Port EDI system from Japan in August 2013 in view of the technical superiority of the Japanese system.

2. Outline of the Results of the Preparatory Survey and the Contents of the Project

In August 2014, Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched a survey team to Myanmar to undertake the Project for Port EDI system for Port Modernization (hereinafter referred to as “the Project”). The team conducted a preparatory survey including consultations with government officials in Myanmar, and confirmed the main contents of request for Japan’s Grant Aid as seen in 2.1 and 2.2.

2.1. Software Development

(A) Support Function for Port-related Application Procedure (e-Declaration)

This function will be helpful to Myanmar Port Authority (MPA), other ministries (Department of Marine Administration (DMA), Customs Department, Immigration and National Registration Department, Department of Health) and port users (e.g., terminal operator, shipping line, agent, shipper, freight forwarder etc.) in the application and approval procedures regarding port arrival/leaving.

National Single Window will be realized by 1) time shortening from application of the arrival / leaving port to permission by digitization of procedure and 2) data sharing among an administration including MACCS of the Customs department.

In addition, adoption of the international standard known as IMO FAL1 - 7 style will make it possible to simplify the trade procedure, and contribute to the cooperation with the ASEAN Single Window in the future.

The efforts above are expected to result in the improvement of trade facilitation as well as increase of trade volume in Myanmar.

(B) Support Function for Preparation of Berth Meeting Materials

By utilizing the information of Port-related application and approval procedure, Berth Meeting materials facilitating berth allocation will be more easily prepared. In addition, the

results of allocation will be quickly and accurately transmitted to related bodies by electronic means, and make it possible to get prepared in advance for efficient port arrival /leaving.

(C) Support Function for Billing

This function includes 1) preparation of the estimates that are based on the past bills, and request of the deposit, 2) automatic calculation of billing amount and preparation of the bill based on tariff and port usage record information, 3) management of the deposit.

(D) Support Function for Creation of Port Statistics

This function means creation of the statistics of port usage, etc. for the purpose of facilitating the drafting of Port Development and Operation Plan. In this regard, the system needs to include a management function of the port statistical code corresponding with HS code.

(E) Visualization of Logistics

This function is required for the purpose of improving the logistics around the port terminal. It will provide information such as query and cargo¹⁾ loading and discharging reservation to shippers and land transportation suppliers in conjunction with the port terminal system.

(F) Port Terminal Operation System

This system will be developed for managing operations in a port terminal. It will include functions to support process control of cargo handling, location management of cargo, and management of cargo's carry-in and carry-out.

2.2. Hardware Development

Procurement of hardware, operating system, and middle ware are necessary for properly operating the software mentioned above.

Hardware for the Port EDI system logically consists of 5 pieces of equipment as described in the following table.

¹⁾ Hereinafter "Cargo" includes general cargo as well as container.

Table 1 Hardware Equipment

Name	Number	Outline
Equipment for Production Environment	1 set	Equipment for running the Port EDI system for production environment, which consists of various components, such as servers, storages and backup devices, etc.
Equipment for Testing/Training Environment	1 set	Equipment for running Port EDI system for testing/training environment, which consists of various components, such as servers etc., including appropriate components to execute testing and training, though unnecessary to have the same components as those of production environment
Replacement Equipment	1 set	Replacement equipment, which is necessary on the occurrence of system failure, especially in the case of servers and storages, which have the possibility to degrade over time.
Middleware	1 set	Computer software, such as OS, DB management software and system management software or tool, that provides services to software applications.
Network Equipment	1 set	Network equipment which is necessary for installing the WAN between Data Center and SAD office.

3. Schedule and Cost Estimation of the Project

3.1. Schedule

In the case that the Project is decided to be implemented under Japan's Grant Aid scheme, the procurement of software development service for the Port EDI system from a vendor will be carried out after the completion of the work on implementation design, including finalization of the specifications and services relating to tender, by a consultant.

It will require 6 months for the work on implementation design, 4 months for the work on the 1st release software development and 18 months for the work on the 2nd release software development including the preparation of the manual/guideline for operation and maintenance. Since some parts of the works will be performed simultaneously, the total duration of the Project is expected to be 24 months.

3.2. Cost Estimation

The cost defrayed by the Myanmar side is estimated to be approximately 7 million yen.

In addition, the annual operation and maintenance cost (which are to be borne by the Myanmar side) is estimated to be about 56 million yen, which will be needed after the Project.

4. Project Evaluation

4.1. Relevance

The Project is aimed to establish a Port EDI System utilizing the Japanese Port EDI technology based on international standard so as to simplify and accelerate the port clearance procedures. Furthermore, it is considered a core strategy to modernize port services in Myanmar, and hence to contribute to the country's trade expansion and economic growth. Accordingly, the Project will be beneficial not only to MPA, other government agencies and private companies that are directly engaged in international trade but also to the general public. Therefore, the Project is considered relevant.

4.2. Effectiveness

(1) Quantitative Effectiveness

Table 1 Quantitative Effectiveness (Summary)

Index	Standard Value (2014)	Target Value (2020) [3 years after the end of the Project]
Time Saving of the Port Procedure (arrival / departure)	Half day-1 day	Several minutes to several hours
Computerization Rate of the Procedure in MPA	0%	100%
Data Reuse Rate in MPA	0%	100%

(2) Qualitative Effectiveness

The introduction of the Port EDI system will computerize a procedure which used to deliver original documents by hand and will make it possible to speed up the exchange of information among MPA, other ministries and private companies. In addition to saving manpower, the system will simplify the procedure by adopting the FAL Form², an internationally standardized form specified by IMO.

Furthermore, various kinds of effectiveness will be achieved by acquiring the freight information in detail including HS cord from MACCS and by using the data for billing and statistics system.

For example, expected effectiveness are shown below.

- Proper collection of port-related taxes.
- Creation of relevant statistics in collaboration with other ministries and government

² The form used in port entrance and leaving procedures established in "Treaty about simplification of international marine traffic (FAL Treaty)". By standardizing a procedure about the port entrance and leaving of the ship (Port entrance and leaving, Customs clearance, Immigration, Quarantine inspection, hygiene procedure etc.), it aimed to simplify and accelerate the procedure about international shipping. It limits application documents for the port entrance and leaving of the ship to eight kinds of documents as a general rule. When adopting the procedures that are different from FAL Treaty, it is required to give notice of difference to IMO. Myanmar country does not conclude FAL treaty as of March 2015, but will plan the conclusion in future.

agencies.

- Appropriate plan making such as that of port facility repairing by utilizing statistical analyses.

- Improvement of the port administration through amelioration in service quality.

To sum it up, port service is expected to be modernized by utilizing electronic information.

Location Map

Location Map



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Abbreviations

Abbreviations

ASEAN	Association of Southeast Asian Nations
ASW	ASEAN Single Window
B/L	Bill of Lading
CPU	Central Processing Unit
CY	Container Yard
D/W	Deadweight Tonnage
D/O	Delivery Order
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport
E/N	Exchange of Notes
GDP	Gross Domestic Product
G/T	Gross Tonnage
HS	Harmonized Commodity Description and Coding System
HTTP	Hyper Text Transfer Protocol
ICT	Information and Communication Technology
I/F	Interface
IMO	International Maritime Organization
IT	Information Technology
JICA	Japan International Cooperation Agency
KPI	Key Performance Indicator
LAN	Local Area Network
MACCS	Myanmar Automated Cargo and Port Consolidated System
M/T	Measurement Tonnage
MMK	Myanmar Kyat
N/T	Net Tonnage
NSW	National Single Window
OS	Operating System
TCP/IP	Transmission Control Protocol/Internet Protocol
TO	Terminal Operator
TOS	Terminal Operation System
WAN	Wide Area Network

Survey Report

1. Background of the Project

Port EDI system is an electronic system for Port clearance procedures which mainly involve various application procedures regarding port arrival/leaving by users, and allocation, billing, statistics management by Port Authority.

Currently, most of these procedures are performed by passing documents by hand. In the case of application related to port arrival/ leaving, documents are passing by hand between concerned parties after receiving them on board. Such a way of procedural performing may be one of the reasons for delay because it takes much time to transmit information to the approver. As some information is needed for preparation before the arrival of a vessel at the port, it has to be obtained in advance. The information is transmitted by telephone, FAX and e-mail.

Currently each company inputs data by itself, and data entry work is duplicated. It is difficult to reuse the data because the information is not accumulated and saved in a database. Therefore, by utilizing a DB system in such procedures as arrival/departure application, it is expected to lead to the speed-up of the procedures and reduction of data entry work, etc. In light of the prospect for a rapid growth of foreign trade in Myanmar, it is important to advance the computerization by introducing port procedures based on a global standard. In addition, it is also important to upgrade the efficiency of billing and statistics management in MPA and to realize logistics visualization.

2. Contents of the Project

In August 2014, the Japan International Cooperation Agency (hereinafter referred to as “JICA”) dispatched a survey team to Myanmar for the Project for Port EDI Port EDI for Port Modernization (hereinafter referred to as “the Project”). The team conducted a preparatory survey including consultations with government officials in Myanmar and confirmed the main contents of request for Japan’s Grant Aid as 2.1.1 and 2.1.2.

2.1. Basic Concept of the Project

The basic concept of the Project is summed up in the following table.

Table 2 Overview of Port EDI system Development Project for the Myanmar Port Authority (MPA)

Item	Description
Overall Superior goal	The functions of international logistics performed by ports in Myanmar are strengthened through the computerization, simplification and visualization of information regarding port procedures.
Project Purpose	The operations of Myanmar Port Authority (MPA) and other concerned government agencies are modernized through the establishment of Port EDI system based on Japan’s technology and experience in establishing and operating Port EDI system.
Output of the Project	The Port EDI system based on Japan’s technology and experience in establishing and operating Port EDI system is developed.
Requirement	The following software systems are developed based on Japan’s technology and experience in establishing and

Item	Description
	operating Port EDI system. [a] Port-related Procedures System [b] Berth Allocation System [c] Invoice Issuing System [d] Statistics Management System [e] Logistics Monitoring System [f] Terminal Operation System
Target area	Yangon Port (International Port, Main Port)
Relevant organizations of recipient country	Responsible Agency: Ministry of Transport Implementing Agency: Myanmar Port Authority (MPA)
Beneficiary	MPA, CIQ, DMA, ship companies and the operators who manage terminal and relevant private sector
Undertakings by the Myanmar side	1) Software [a] Any change in technical specification after the definition of system requirements; [b] Development of systems for agencies other than MPA; [c] Modification of the existing systems including those outside MPA to be connected to the new system; [d] Transition from the legacy system to the new system, including transfer of data and information; [e] Any change of the system after the system transfer, due to changes of system environment such as the upgrade of O/S and middle ware; [f] Any change (upgrade and expansion) of the software after the system transfer; [g] System setting changes for enhancing the system function; [h] Software maintenance costs which may be incurred after introducing the system; [i] Update of data such as the user list; 2) Hardware/Facilities, etc. [k] Introduction of WAN, LAN, and a terminal equipment [m] Construction/Upgrading of a datacenter and a backup datacenter; [n] Necessary facilities on premises such as security against theft, fire protection, electricity supply and air conditioning; [o] Technical design for WAN (Wide Area Network) and LAN (Local Area Network); [q] System maintenance and operation after the system transfer; (helpdesk, system monitoring staff, maintenance staff, etc.); [r] Any replacement of the hardware after the system transfer; [s] Changing the setting for enhancing the function of the system after the system transfer;

Item	Description
	[t] Hardware maintenance after the system transfer; [x] Connection fees of the installed communication lines; and; [z] Providing a user training facility in MPA for operation of the new system.
Activities in Soft Component	[a] Support for user trainings; [b] Support for setting up of operation and maintenance structure, and; [c] Support for procurement of operation and maintenance vendor.

2.1.1. Software Development

(A) Support Function for Port-related Application Procedure (e-Declaration)

This function will be helpful to Myanmar Port Authority (MPA), other ministries (Department of Marine Administration (DMA), Customs Department, Immigration and National Registration Department, Department of Health) and port users (e.g., terminal operator, shipping line, agent, shipper, freight forwarder etc.) in the application and approval procedures regarding port arrival/leaving.

National Single Window will be realized by 1) the time shortening from application of the arrival / leaving port to permission by digitization of procedure and 2) data sharing among an administration including MACCS of the Customs department.

In addition, adoption of the international standard known as IMO FAL1 - 7 style will make it possible to simplify the trade procedure, and contribute to the cooperation with the ASEAN Single Window in the future.

The efforts above are expected to result in the improvement of trade facilitation as well as increase of trade volume in Myanmar.

(B) Support Function for Preparation of Berth Meeting Materials

By utilizing the information of Port-related application and approval procedure, Berth Meeting materials facilitating berth allocation will be more easily prepared. In addition, the results of allocation will be quickly and accurately transmitted to related bodies by electronic means, and make it possible to get prepared in advance for efficient port arrival /leaving.

(C) Support Function for Billing

This function includes 1) preparation of the estimates that are based on the past bills, and request of the deposit, 2) automatic calculation of billing amount and preparation of the bill based on tariff and port usage record information, 3) management of the deposit.

(D) Support Function for Creation of Port Statistics

This function means creation of the statistics of port usage, etc. for the purpose of facilitating the drafting of Port Development and Operation Plan. In this regard, the system needs to include a management function of the port statistical code corresponding with HS code.

(E) Visualization of Logistics

This function is required for the purpose of improving the logistics around the port terminal. It will provide information such as query and cargo³⁾ loading and discharging reservation to shippers and land transportation suppliers in conjunction with the port terminal system.

³⁾ Hereinafter "Cargo" includes general cargo as well as container.

(F) Port Terminal Operation System

This system will be developed for managing operations in a port terminal. It will include functions to support process control of cargo handling, location management of cargo, and management of cargo's carry-in and carry-out.

2.1.2. Hardware Development

Procurement of hardware, operating system, and middle ware are necessary for properly operating the software mentioned above.

Hardware for the Port EDI system logically consists of 5 pieces of equipment as described in the following table.

Table 3 Hardware Equipment

Name	Number	Outline
Equipment for Production Environment	1 set	Equipment for running the Port EDI system for production environment, which consists of various components, such as servers, storages and backup devices, etc.
Equipment for Testing/Training Environment	1 set	Equipment for running Port EDI system for testing/training environment, which consists of various components, such as servers etc., including appropriate components to execute testing and training, though unnecessary to have the same components as those of production environment
Replacement Equipment	1 set	Replacement equipment, which is necessary on the occurrence of system failure, especially in the case of servers and storages, which have the possibility to degrade over time.
Middleware	1 set	Computer software, such as OS, DB management software and system management software or tool, that provides services to software applications.
Network Equipment	1 set	Network equipment which is necessary for installing the WAN between Data Center and SAD office.

2.1.3. Purpose of Systemization

Port EDI system is an electronic system for Port clearance procedures which mainly involve various application procedures regarding port arrival/leaving by users, and berth allocation, billing, statistics management by Port Authority.

Such a way of procedural performing may be one of the reasons for delay because it takes much time to transmit information to the approver. As some information is needed for preparation before the arrival of a vessel at the port, it has to be obtained in advance. The information is transmitted by telephone, FAX and e-mail. Currently each company inputs data by itself, and data entry work is duplicated. It is difficult to reuse the data because the information is not accumulated and saved in a database.

Therefore, by utilizing a DB system in such procedures as arrival/departure application, it is expected to lead to the speed-up of the procedures and reduction of data entry work, etc. In light of the prospect for a rapid growth of foreign trade in Myanmar, it is important to advance the computerization by introducing port procedures based on a global standard. It is also important to upgrade the efficiency of billing and statistics management in MPA.

In addition, in order to perform proper management and sharing terminal operation related information, visualization of Logistics and Terminal Operation System through Port EDI system will contribute to improvement of management and sharing of terminal operation related information, and hence to realization of efficient port logistics.

2.2. Outline Design of the Requested Japanese Assistance

2.2.1. Design policy

2.2.1.1. Basic Policy

The Port EDI system in Myanmar to be developed in this project will be designed based on the requirements defined in this preparatory survey. The requirements of the system is defined after thorough survey of the current condition of port related procedure and hence to address the issue of modernization faced by Myanma Port Authority (MPA).

2.2.1.2. Policy on Natural and Environmental Conditions

The Project focuses on the development and introduction of IT systems, and thus natural and environmental conditions are not assumed to possibly affect its design and implementation. It has been confirmed that there were no natural disasters such as large earthquakes or floods in the past in the area around the data center where Port EDI system will be installed. Meanwhile, although the temperature and humidity control is important to a data center, especially in the hot and humid Yangon City, it has also been confirmed that the temperature and humidity in the server room of the Project will be under proper control by the air conditioning at all times.

2.2.1.3. Policy on Social and Economic Conditions

With the continuous growth of Myanmar economy, the amount of cargo including that of container handled in Myanmar port has increased rapidly in recent years, and it is expected to increase at a faster pace than the economic growth in future. Therefore, the requirements and specifications of the Port EDI system should be designed in a way that corresponds sufficiently to the increasing volume of cargo in future.

2.2.1.4. Policy on Procurement

As for the procurement method of the information system in Myanmar, there are the following characteristics.

- There are no rules on the procurement of information system.
- According to the internal regulations of MPA, the Chief of MPA is in a position to approve any procurement plan costing an amount under 5 million kyat. In principle, after the public notice, only those companies with sufficient capability to meet the requirements are qualified to bid for the work.
- For Grant aid, there is a need for the approval of the Ministry of Transportation and Ministry of National Planning and Economic Development / Foreign Economic Relation Department.

Since there are no procurement rules in Myanmar, it is desirable to conduct the procurement work with reference to the Japanese procurement rule etc. MPA hopes to be assisted to select the best operator to ensure a smooth operation of the Port EDI system. This is because, while the Myanmar side is responsible for operation and maintenance, it is often the case that the company chosen to operate and maintain the system turns out to be the same company that developed the system.

2.2.1.5. Policy on the Use of Local Vendors

The Port EDI system will be operated and maintained by the Myanmar side after the introduction of the system. Therefore it is advisable to allow the Myanmar engineers' participation in the work of application software development as a practice of technology transfer. In general, salary of Myanmar engineer is cheaper than that of the Japanese, but there is no significant difference in terms of cost performance when considering the productivity. However, the period of the Project is so limited that to maintain a proper proportion of Japanese engineers for this work is necessary to ensure high productivity.

2.2.1.6. Policy on Operation and Maintenance

(1) Operation and Maintenance Structure

As a general rule, daily system operation and maintenance for the Port EDI system will be taken care of by the IT department of MPA, though MPA will separately commission a local vendor to help with the operation work, in terms of resources and expertise.

As for the maintenance work, since MPA will bear the maintenance cost, it needs to determine the service level with consideration for the cost incurred.

When an error occurs in the Port EDI system, after the measures of first response taken by MPA, the task of error-correction will be escalated to the second stage with the local vendor taking charge of it. This will be followed by a further escalation to the stage of Japanese engineers if the problem still cannot be solved at the second stage.

(2) Design Plan for Replacement Parts and Consumables

As components of computer equipment like hard disk have a tendency to degrade over time, replacement parts for them are required to be always held in stock so that they can be used to accommodate quickly and inexpensively in the event of a fault. As maintenance system for IT equipment in Myanmar at present is still less developed, replacement parts are usually procured from neighboring countries. Therefore, it is assumed that it will take a

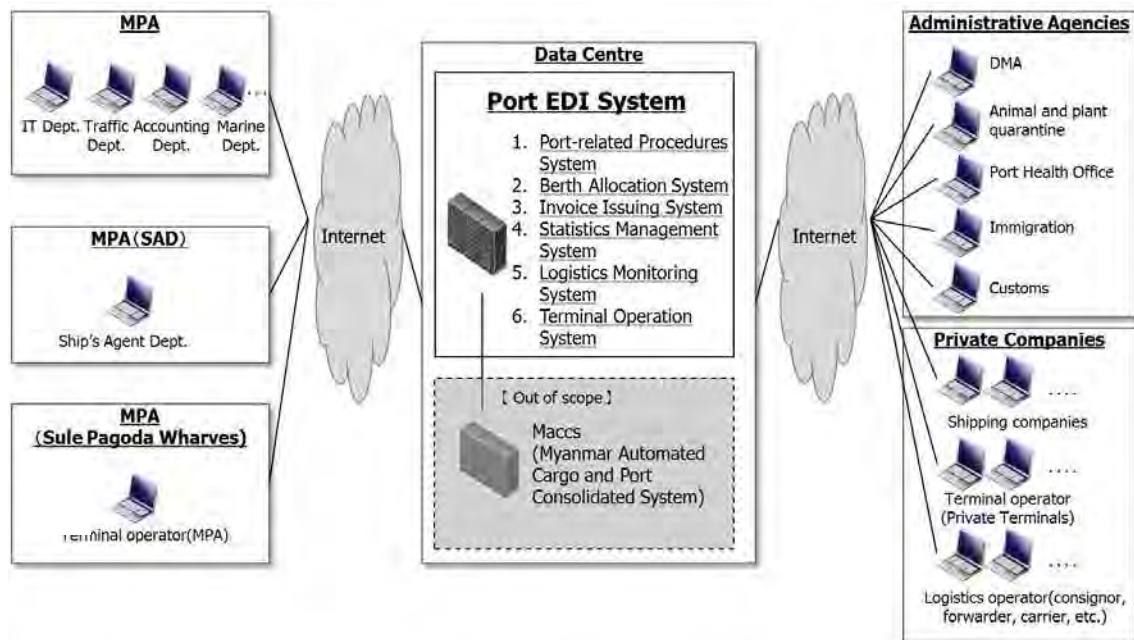
long time to recover from a system failure, and it is advisable to hold more replacement parts in stock in Japan.

- For PC, it is a policy to maintain a reservation rate of approximately 5% as against the total quantity in use.
- For blade server, as it may take time for a vendor to deliver service after the order for technical support is placed, the preparation of a standby machine is an indispensable policy to ensure a normal operating environment even when a failure occurs in one blade server.
- As for the issue of storage, considering the severity of the impact from a data loss, it is necessary to make it a policy to keep in stock 10% of the total quantity of disks as replacements.

2.2.2. Basic Plan(Construction Plan/Equipment Plan)

2.2.2.1. Conceptual Drawings for Systemization

The Port EDI system consists of 6 system functions and its system infrastructure. The 6 system functions it provides are respectively relevant to the Port-related Procedures system, Berth Allocation system, Invoice issuing system, Statistics management system, Logistics Monitoring system and Terminal Operation system. The system infrastructure of Port EDI will be installed in the data center. The users will utilize its system functions with their own computer terminals through internet.



Source: Prepared by the Survey Team

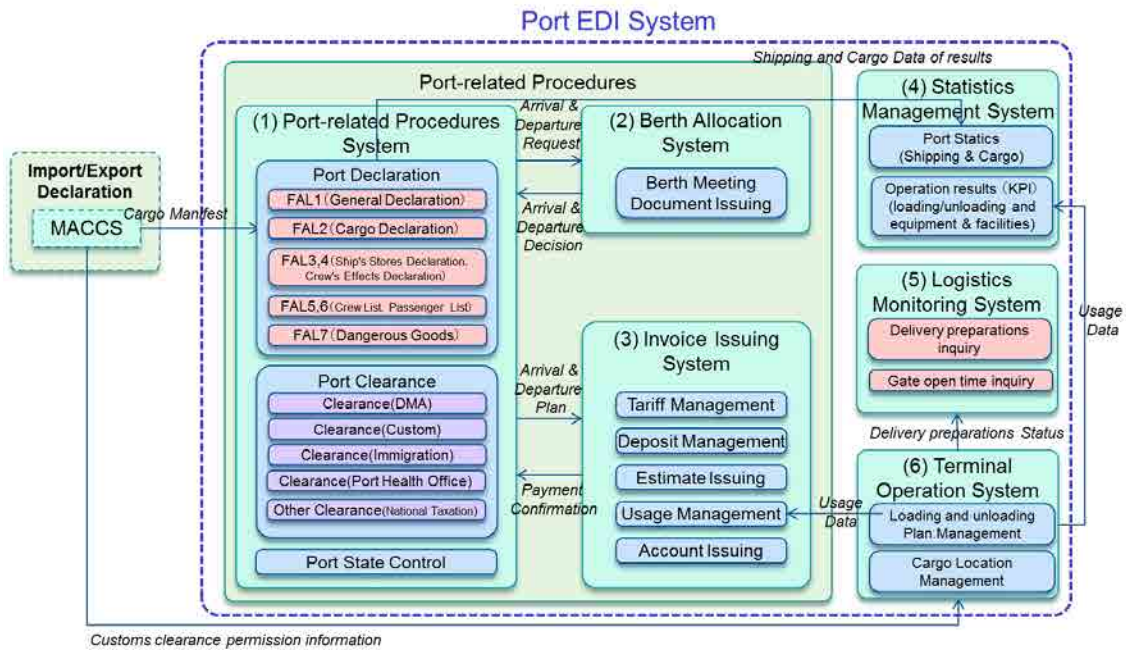
Figure 1 Overview of the New System

2.2.2.2. Coverage of Systemization

(1) Coverage of Systemization (Logical Configuration)

The Port EDI system will cover the following businesses: port-related procedures, berth allocation, invoice issuing, statistical data management, logistics monitoring and master/user

management.

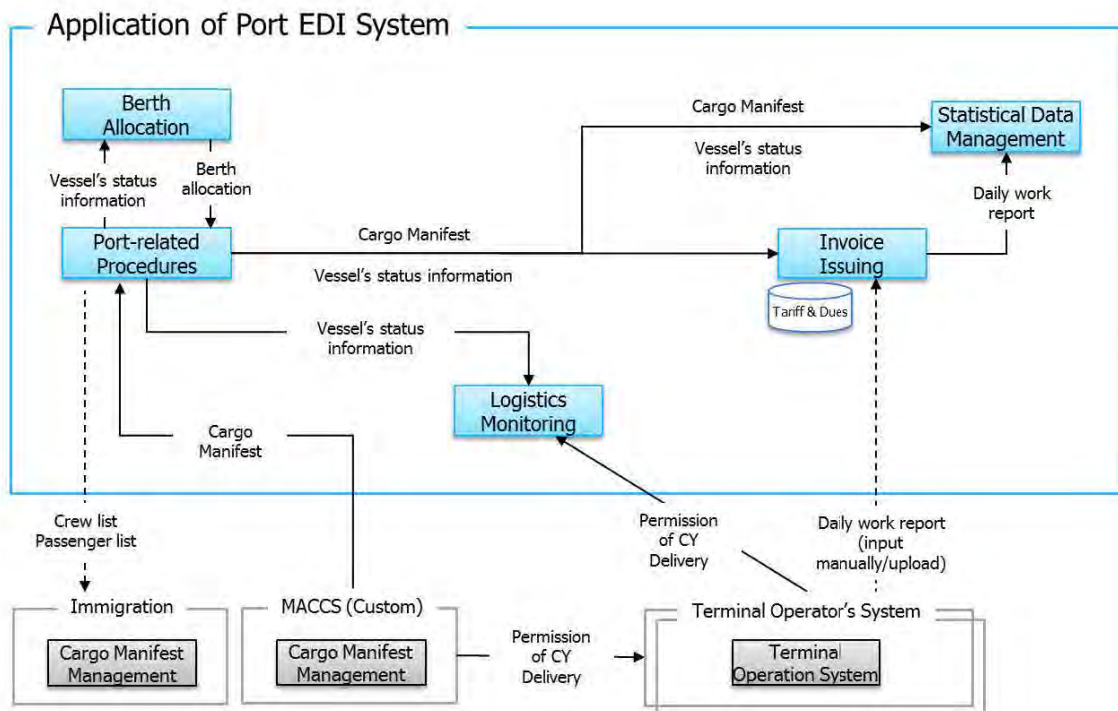


Source: Prepared by the Survey Team

Figure 2 Coverage of the Port EDI System Applications

Although sub-systems will be developed respectively for each of these target businesses, data integration will be achieved through database sharing among sub-systems. In addition, functions such as file exchange are also provided in order to achieve integration with those individual systems operated by other government agencies and private companies involved in port procedures business, such as Terminal Operator etc..

The logical configuration for the range of the Port EDI system is illustrated as follows:

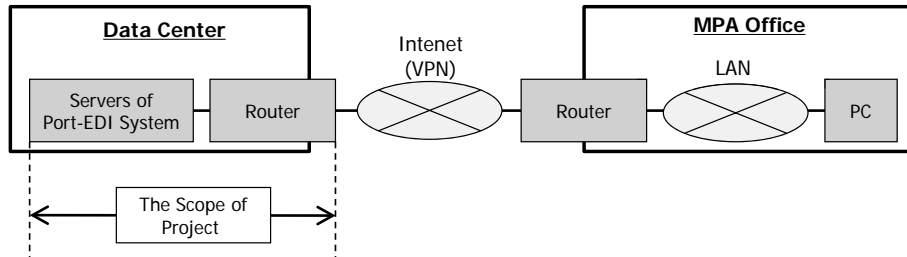


Source: Prepared by the Survey Team

Figure 3 Coverage of Port EDI System Applications

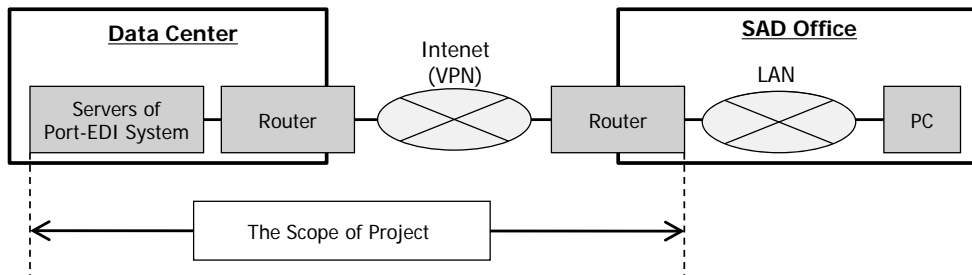
(2) Coverage of Systemization (Physical Configuration)

The physical configuration for the range of the Port EDI system is shown below.



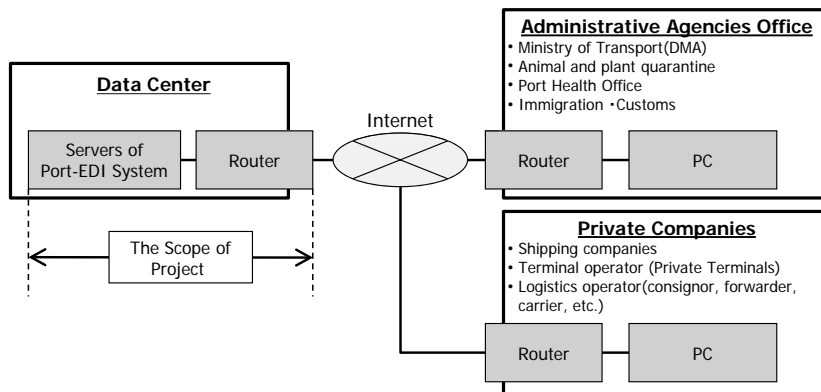
Source: Prepared by the Survey Team

Figure 4 Responsibility Division between the Port EDI System and MPA's Existing Facilities



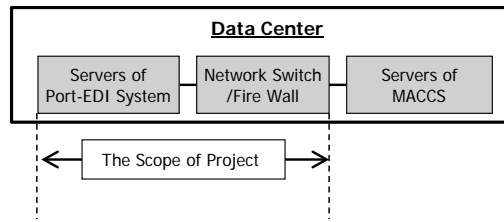
Source: Prepared by the Survey Team

Figure 5 Responsibility Division between the Port EDI System and SAD's Existing Facilities



Source: Prepared by the Survey Team

Figure 6 Responsibility Division between Port EDI System and Other Administrative Agencies and Private Companies

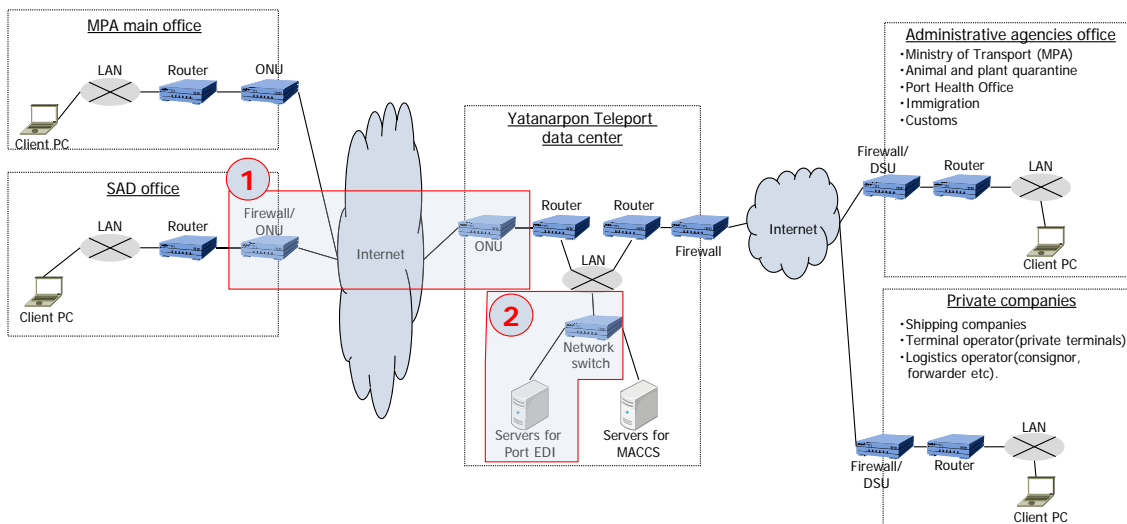


Source: Prepared by the Survey Team

Figure 7 Responsibility Division between Port EDI System and MACCS

2.2.2.3. Network Layout Design

The Port EDI system will be connected to computer terminals for users of MPA, SAD, other administrative agencies and private companies. The network equipment for internet line between SAD office and data center is within the scope of procurement with grant aid. And network equipment used for connection to MACCS system inside the data center is also within this scope.



Source: Prepared by the Survey Team

Figure 8 Network Layout Design

2.2.3. Outline Design Drawing

2.2.3.1. System Functions Requirement (Logical Configuration)

(1) System Functions Requirements (sub-systems)

(A) Port-related Procedures Functions

- 1) Port related procedures will be performed in conformity to the following FAL Forms provided by IMO.

[FAL Forms]

- IMO General Declaration (FAL form 1)
- Cargo Declaration (FAL form 2)
- Ship's Stores Declaration (FAL form 3)
- Crew's Effects Declaration (FAL form 4)
- Crew List (FAL form 5)
- Passenger List (FAL form 6)

- Dangerous Goods (FAL form 7)
- 2) Data exchange based on the FAL Forms will conform to the specifications of the IMO document: "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC"
 - 3) In Port State Control business, with respect to Certificates to be carried on board ships, handling of Certificates listed in FAL.2 / Circ.123 , MEPC.1 / Circ.769 and MSC.1 / Circ.1409 as stipulated by IMO will be possible.
 - 4) Port Clearance operations will be conducted through collaboration with MPA and other administrative agencies.
[Administrative agencies other than MPA]
 - DMA (Clearance)
 - Custom (Clearance)
 - Immigration (Clearance)
 - Port Health Office (Clearance)
 - National Tax Agency (National Taxation)
 - 5) Toward the realization of National Single Window, the following functions will be provided:
 - Data integration with Customs EDI system (MACCS) to be introduced simultaneously will be possible.
 - Interface (I/F) to be used for data integration with Custom, Immigration and Quarantine will be provided so that government agencies other than MPA will be able to utilize the Port EDI system more effectively.

(B) Berth Allocation Functions

- 1) The system will make it possible to manage information regarding the status of vessels' arrival and departure, including location, travelling schedule and progress of procedures.
- 2) It will also make possible the preparation of materials for a conference to determine the allocation of berths (hereinafter referred to as Berth Conference Materials) for arriving vessels.
- 3) Movement Orders will be drawn up based on the berth allocation result and be notified to the concerned parties.
- 4) The Berth Conference Materials will include the following information:
 - Vessels in Wharves
 - Vessels in Stream
 - Expected Vessels (a separate table with such categories as General Cargo Vessels, Container Vessels, Oil Vessels)
 - Tidal Information

(C) Invoice Issuing Functions

- 1) The tariff posted on the following web page is to be managed. In the case of a tariff revision, the management of tariff will be able to respond to the revision starting from the date of enforcement. (It should be noted that the past account will not be changed with the tariff revision.)
 - www.mot.gov.mm/pdf/tariff_dues.pdf
- 2) Actual usage for relevant items of tariff will be registered.
- 3) On the basis of the tariff, an account will be calculated from actual usage.
- 4) The following three types of account is issued.
 - Estimate Disbursement Account (Each time of call)
 - Disbursement Account (Each time of call)
 - General Account (monthly)

- 5) The deposit and account can be reconciled, and the management of reconciliation between deposit and account will be possible.

(D) Statistical Data Management Functions

- 1) The master table for aggregated port statistics is to be managed.
 - The master table will cover different levels of classification (large classification, middle classification, small classification, etc.).
 - The correspondence between the master table for aggregated port statistics and the HS code will be ensured.
 - In the case of revision of the master table for aggregated port statistics or HS code, the management of the master table for aggregated port statistics or HS Code will be able to respond to the revision starting from the date of enforcement.(The past statistics will not be changed with the revision.)
- 2) With regard to the following original data of aggregated port statistics, it will be possible to perform the work of input and output after the target items (including levels of classification) and scope are specified.
 - Information about vessels arriving and departing
 - Information about cargo
 - Information about port facilities, equipment, and the use of cargo handling, etc.
- 3) It will provide the following summary function.
 - The work of aggregation will be performed after the target items (including levels of classification) and scope are specified.
 - With regard to the specifications to be presented by MPA, it will be possible that the work of aggregation be performed in conformity to the specifications and the results be output in ledger sheets. It should be noted that the presentation of specifications from the MPA will be carried out before the start of system development.
 - The data file of aggregate results (CSV format) will be output.

(E) Logistic Monitoring Functions

- 1) The following information will be collected from port parties (Terminal operator (TO), etc.), and provided to shippers and land transportation companies.
 - Gate Open Time
 - Information about permissions for freight to be delivered from Container yard (CY). (Cargo status information including cargo clearance information via Terminal Operation System (TOS).)

(F) Terminal Operation Functions

- 1) The following information will be managed.
 - Information about cargo handling planning
 - Information about cargo location
 - Information about inbound/outbound cargo

(G) Master Management / Operation Management / User Management Functions

- 1) For user management function, the following functions are provided.
 - Application from the use seekers, and notice of application permission
 - Management of user groups including management of the departments concerned and approval authority, etc.
 - Management of the roles of user groups and users in the procedures, and their access authority

(H) Sub-system Integration Function

The Port EDI system covers Port-related Procedures, Berth Allocation, Invoice Issuing, Statistical Data Management, Logistics Monitoring and Master/User Management. Sub-systems will be built to handle these target businesses respectively under the Port EDI system. Data integration will be achieved by data-base sharing among sub-systems. In addition, functions such as file exchange are also provided in order to achieve integration with those individual systems operated by other government agencies and private companies involved in port procedures business, such as Terminal Operator etc.

- 1) The following functions aimed to achieve data integration among sub-systems will be provided.
 - Port-related Procedures Supporting Function
 - Berth Allocation Supporting Function
 - Invoice Issuing Supporting Function
 - Statistical Data Management Function

The Logistic Monitoring Function and the Terminal Operation Function are not included here as the targets for data integration, but when outside I/F is mounted in each sub-system for private TOS, I/F connected to these outside I/F will be mounted for the two functions.

- 2) The following three types of information will be managed while maintaining consistency with each other.
 - Vessel
 - Cargo
 - Usage
- 3) For vessel information, the following items will be managed with regard to each time of call for arrival and departure.
 - Ship's Particular (IMO No., Voyage No. will be included.)
 - Port State Control
 - Status of Port-related Procedures
 - Movement Information (Schedule and performance)
- 4) Based on the Cargo Manifest information and definite information of import and export cargoes under the control of MACCS, the following Cargo information will be managed.
 - Cargo Manifest information (Container ID, B/L No. will be included.)
 - Delivery(D/O, etc.) information (Schedule and performance)
- 5) For Usage information, based on the items of Tariff and Dues and charging unit (Shift number, tonnage, etc.), the following information will be managed.
 - Information about actual usage in terms of port facilities and equipment
 - Information about the performance of cargo handling work, etc.
 - Information about the actual results of cargo handling volume, etc.
- 6) The information about the status of vessels arriving and departing will be shared among sub-systems of Port-related Procedures, Berth Allocations, Invoice Issuing, and Logistic Monitoring.
 - For Berth Conference and Movement Order, the following seven times are set.
 - ETA (Estimated Time of Arrival) : Pilot station arrival time (planned)
 - ATA(Actual Time of Arrival) : Pilot station arrival time (actual)
 - POT (Pilot On board Time) : Pilot embarkation time.
 - ETB (Estimated Time of Berth) : Instructed time of entry into the berth. (Time instructed for the vessel to enter into the berth as the result of Berth Conference)
 - ATB (Actual time of Berth) : Time of entry into the berth (actual)
 - For billing, the following three times are set.
 - Berth arrival time (before mooring)
 - Berthing completion time (when moorage has been finished)

- Time of departure from Berth
- 7) Information of actual usage (cargo handling, actual usage of port facilities, etc.) will be received from the private terminal operators, shipping companies and agents, and the like, and will be utilized for the Invoice Issuing Function and Statistical Data Management Function commonly.

(2) Common Functional Requirements

(A) Requirements for Query Function and Search Function

- As a specific search function commonly used by different businesses, it is required to enable the users to search by corporate name and address, and by combination of the two ways, etc.
- It is required to enable the search for one item by entering multiple search criteria.
- It is required to enable the users to check the search criteria and search results on the same screen.
- If the target data corresponding to the search conditions are more than one, it is required to be able to display the objects in a list, and to enable the users to select one from them for information in more detail.
- If the target data cannot be completely displayed on the screen, it is required to be able to display the part of the rest on the next page.
- It is required to be able to display the total number of data corresponding to the search conditions on the screen.
- It is required to be able to display on the screen that the search is in progress.

(B) Requirements for EUC

- It is required to provide data in consideration of the convenience of users.
- It is required to be able to output the pre-defined Excel and CSV boilerplate data.
- It is required to enable the users to output the data with an operation as simple as possible like one- click, etc.
- It is required to be able to provide a function for extracting the atypical data in Excel and CSV.
- It is required to enable the users to operate by GUI when prescribing the extraction conditions.

(C) Requirements for Original Document Management

- It is required to enable the users to query about the original documents like application including the data in excess of data retention period in the Port EDI system.
- Data retention period will be 10 years. However, for summary data to be used for statistics, it will be 20 years.
- The originals will be stored in storage devices different from the production environment, and a mechanism that the originals can be displayed will be introduced.
- The originals will be saved in PDF format.

(D) Requirements for Character Encoding

- The character encoding system to be used in the Port EDI system will be that of UTF-8 or UTF-16.

(E) Ensuring of Time Accuracy

- A function to synchronize the equipment of Port EDI system with correct time will be provided.

(3) List of System Functions

For the functions that the Port EDI system are equipped with, the users can refer to the attached List of Functions.

(4) Display Requirements

(A) Layout and transition

- The language to be used on the screen displays of Port EDI system will be English in principle.
- A systemized menu display will be conducted as a routine business.
- The contents of menu display can be changed depending on the authority of a user.
- Screen names, form names and items displayed on the screen will be unified within the system.
- Error and warning messages will be unified within the system to avoid misunderstanding on the part of the users, with the contents of error and warning and the solutions expressed in a way easily understood.
- The mandatory and optional fields will be distinguished by labeling, etc.

(B) Ensuring of Visibility

- Information will be displayed with a high value attached to brevity, accessibility and understandability.
- The layout will be designed taking into account the eye movement of users.

(C) Mechanism to Contribute to the Input Load Reduction

- By way of initial display of the appropriate value in the input field, etc., a mechanism enabling the reduction of user's input load will be realized
- The system will be equipped with a calendar input auxiliary function for the date entry item (year, month, and day), but it will also be compatible with direct entry method.
- In the case that the entry of a code is required for an input item, a button will be placed on the screen plays to enable the search for the code from a list. Also, a means will be provided to facilitate the handling of memory transfer on the screen displays.
- In the process of business operation, when information processing across multiple screen displays is needed, as one of the measures to facilitate information reference, the function enabling the taking-over of information between the transition source screen and the destination screen will be provided.

(D) Mechanism to Contribute to the Improvement of Operability

- Through the appropriate use of icons, the operation will be devised in a way that it can be easily handled even by beginners.
- When screen transition is being operated, appropriate messages corresponding to the degree of importance of the processing will be displayed. For operations such as data deletion, etc., the display of confirmation screen, etc. is imperative to avoid the occurrence of erroneous operation.
- In the process of business operation, when repeated screen processing is necessary, it will be possible that the operation can be continued without returning to the menu screen after the completion of one screen processing so as to save unnecessary screen transition.

(E) Screen List

The list of screens to be displayed in the Port EDI system will be determined in the basic design process.

(5) Requirements for Forms

(A) Display Contents

1) Unification of Rules Relating to Form Design

- The language to be used in the form of the Port EDI system will be English in principle.
- The basic settings relating to the layout of forms including setting of the width of the margin and font, etc., will be unified within the system.
- Item names and the like will be unified within the system to avoid occurrence of misconceptions about print item.

2) Ensuring of Visibility

- Fonts easy to read will be adopted.
- Numeric output will be expressed with digit grouping separation, and the number of digits for the same information will be unified among different forms.

(B) Requirements for Form Output

- The kind of paper used for the forms here will basically be A4-size general-purpose paper.
- For the forms of A4 size general-purpose paper, printing by overlay will be the basic method without test printing.
- The printing method will be devised in a way that the data can be output by a general-purpose laser printer.

(C) Requirements for Electric Documents

- The forms to be prepared during various online operations and batch processes will be output in a certain style and file format (PDF or EXCEL) predetermined for respective forms, and will be stored in a predetermined form management server.
- For the electronic forms stored in the form management server, different retention periods will be set for respective types of form, and a form will be automatically deleted by the system after its set retention period.
- The retention period of an electronic form to be stored in the form management server will be easily set and changed by the users of ordering party.
- Retention period of the electronic form to be stored in the form management server will be five years. Those forms having been stored in the form management server for more than five years will be shifted to the original management server.
- Electronic forms to be stored in the form management server will be placed in the folders of logical hierarchy structure arranged and managed by the attribute like author, creation date, etc., and the screen displays will also be provided whereby the users can follow the hierarchy folders to specify the desired electronic form.
- It will be possible to retrieve electronic forms by the attribute information.
- It will be possible to display, print and download the specified electronic form.
- For each form being stored, distinction will be made between the printed and unprinted, and between the downloaded and not yet downloaded, so as to enable the users to easily identify those forms unprinted and not yet downloaded.

- Regarding a created electronic form, only the user who performed the operation, and the user who has been given the authority will be allowed to handle it. As to the other users, even the presence of the created form itself will not be let known.
- Only the administrator who has been given the authority will be possible to access directly by explorer to an electronic form file stored in the form management server, while the other users are prohibited to do so.
- The user's authority over an electronic form will be placed under the master management as part of the user's authority over the entire Port EDI system, and the users of operation and maintenance as the ordering party will be able to easily set and change it.
- When searching, displaying, printing and downloading of the forms are performed, various logs will be adopted as in the case other online operations.

(D) Form List

- The list of forms to be used in the Port EDI system will be shown in "Accompanying Sheet Form List". In addition, the layout of each form will be illustrated in "Accompanying Sheet Form Layout".

(6) Requirements for External Interface

(A) Basic Consideration

1) Custom Clearance System

- As it is assumed that NACCS telegraphic format and UN / EDIFACT format will be adopted for Data integration between the Port EDI system and MACCS, a conversion function will be provided to enable the data of Port EDI system to adapt to the NACCS telegraphic format and UN / EDIFACT format when necessary.

2) Navigation Safety Management System

- An interface function will be developed to facilitate data integration between the Port EDI system and ship Automatic Identification System (AIS). The specifications of interface will be decided after consultation with the ordering party.

3) Shipping Line System

- An interface function in UN / EDIFACT format will be developed to facilitate data integration between the Port EDI system and shipping line system.

(B) External Interface List

The list of the external interface to be used in the Port EDI system will be shown in "Accompanying Sheet External Interface List".

(7) Accessibility Requirements

- Only the contents described in English will be handled in the Port EDI system.
- Through consultation with the ordering party, the contractor will make efforts to construct a system that combines the usability and accessibility to information for the users under a consistent design policy.

2.2.3.2. System Methodology

The Port EDI system will be a WEB system for a user to use through the WEB browser.

2.2.3.3. System Function Requirements (Physical Configuration)

(1) Hardware Requirements

(A) Basic Consideration

- a) Equipment such as hardware will be installed to enable the introduction and utilization of the Port EDI system.
- b) The redundancy of equipment such as a server device will be decided only if the reliability requirements and hardware maintenance requirements are fulfilled and its usefulness in terms of economic rationality is confirmed. Besides, redundancy through mutual service with other servers will also be possible.
- c) The utilization of virtualization technology to improve efficiency of resource, etc., will be required to take into account the economic rationality of hardware and other devices. Also, the functional requirements and performance requirements, etc. will be met in this case.
- d) When a failure or the like occurs, it will be possible to perform replacement of parts, disks and the like without stopping the system.
- e) It is desirable that equipment without single point of failure will be chosen as much as possible to increase the reliability of all the equipment.

(B) List of Hardware

Regarding the procurement of equipment such as hardware, the configuration and number will be determined based on the functional requirements and performance requirements, etc. In addition, a list of equipment is assumed to be as follows.

Table 4 List of Hardware

Device Name	Number	Outline
Production Server Environment	1 set	Server, storage and backup devices, etc., which facilitate the running of Port EDI system.
Verification / Training Server Environment	1 set	Server, etc. for carrying out the verification and training of refurbishment work on the Port EDI system
WAN-related Network Equipment	1 set	Network equipment necessary for laying the WAN connecting to SAD

(2) Software Requirements

- The contractor will propose the specifications for software like OS and middleware, etc. needed to meet the requirements listed in this document.
- It is required that the products of the OS and middleware, etc. will be those with a record of being adopted in the same system and with high reliability. Also, the establishment of a quality control system is required to ensure the reliability of service.

(3) Requirements Regarding User Circumstances

- The terminals intended to utilize the Port EDI system are assumed to be the personal computers and printers possessed respectively by MPA and SAD, etc.. The Port EDI system is assumed to be available from these terminals.
- MPA and SAD are planning to introduce the personal computers in a step-by-step manner beginning before the start of the Port EDI system and lasting till after the start of the system. Measures will be taken to ensure that the personal computers to be introduced at different times will operate without any problem. Also, it is required to make sure that no inconvenience will occur when the EUC function or the like is being used.
- There will be no need for a user to install a new software in a personal computer when trying to utilize the Port EDI system with this PC. However, in the case that installation of the software is needed, verification will be required to confirm that there will be no effect on the use of other systems.
- WEB Browser for this system will be guaranteed limited to 2 browsers. Web browsers are assumed to be shown below;
 - Firefox
 - Internet Explorer

(4) Network Requirements

Basic Requirements

- A firewall will be installed within the network inside MPA to separate the intranet from the internet.
- The network traffic on WAN will be secured by using encryption technology. The network should be equipped with an access filtering function to find out illegal access and to shut down that access.
- The Web/Application Servers will acquire their expandability by load dispersion. It will be desirable for the Load balancer to be equipped with a redundant configuration in preparation for its own failure.
- SAD office and the datacenter will be connected by Internet VPN.
- Internet will be used for access from external users. The speed of data reception for downlink is required to be 10Mbps at the maximum.
- The Port EDI system shall be available from the network to be procured under this contract, as well as the network operated by the user itself.
- The contractor will establish a network segment for the Port EDI system to enable utilization of the system by users from the terminals of respective sites connected via a LAN.
- Measures will be taken to prevent redundant traffic from happening so as to improve the efficiency of network traffic.
- The contractor will be required to consult with the ordering party with an eye to promoting the construction of high-security mechanism such as SSL encryption aiming at preventing the falsification of communication data.
- DMZ will be installed in firewall to filter access from the Internet.
- The system will be equipped with the function of intrusion detection and prevention so as to detect and block unauthorized access.
- Multiple units of load balancer will be installed and redundant configuration will possibly be created. In the case of a load balancer failure,

the standby load balancer will be able to take over the session retained by the one in trouble, thus ensuring the continued access by users.

- Regarding WAN, as the authority to lay of access lines in Myanmar is exclusively given to MPT, redundancy (preparation of standby line in anticipation of a failure) will not be a requirement.

(A) Logical Network Configuration

The logical network configuration of Port EDI system is shown below.

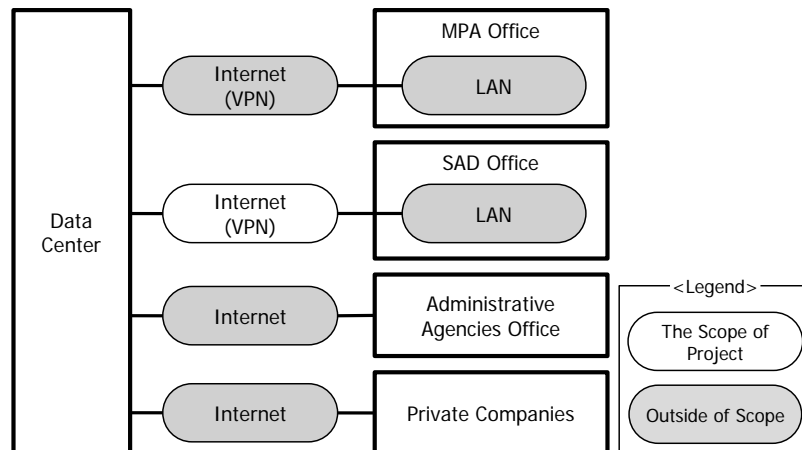


Figure 9 Network Layout (Logical Network Configuration)

(B) Network Specifications

The outline of specifications for the network to be laid within the Port EDI system is shown below.

Table 5 Network Specifications

Name	How to Use	Specifications	
		Type	Band
Internet (VPN)	Utilized in the communication between the SAD Office and Data Center.	Internet	2Mbpsband will be secured
Internet	Utilized for exchanging data between the Data Center and respective users	Internet	Downlink (Data receipt) MAX:100Mbps

(5) Data Centre Requirements

(A) Expected Data Center

- Collaboration with MACCS will be considered. (MACCS, as one of the alliance partners, is to be installed inside the data center in Yangon.)
- An appropriate data center where a WAN connection with MPA and SAD without any trouble can be ensured will be selected based on the situation as of the introduction.

(B) Machine Room

- The doors, frames and locks of machine room or the like are required to be excellent in fire resistance with sufficient strength.
- The windows and doors of the machine room will not face directly the outside.

(C) Rack Equipment

- Seismic isolation measures or earthquake resistant measures will be taken for the racks where physical hardware will be placed.
- It will be possible to lock the rack equipment. The key will be in the custody of the data center, and permission for unlocking and locking will be given only after the identity verification procedure.

(D) Machine Room Entry and Exit Management

- Facilities for entry and exit management will be installed at respective doorways of the machine room so that it will be possible to grasp the status of entry and exit constantly.
- The facilities for entry and exit management will be equipped with a function of entry and exit recording and a function of automatic locking and unlocking for doors.
- Surveillance cameras will be installed to monitor the status of entry and exit.

2.2.3.4. System Configurations Requirements

(1) Application

- a) The Port EDI system will be a WEB system that the users can use through WEB browser. The system will be able to control and show screens, and print reports according to the authority of respective users.
- b) The language to be used on the screen and in the report within the system will be English.

(2) Operating Environment for the System

- a) Track records of application in similar systems will be required for software equipment such as OS and middleware to be adopted in this system so as to ensure high reliability.
- b) The technique such as virtualization will be adopted for the hardware in order to streamline the resource of the system.

(3) Scalability Requirements

(A) Business Volume

Business volume will be based on the number of arrival/departure of vessels and containers.

- The number of shipcalls is assumed to be 5,000 ships per year.
- The cargo handling amount is assumed to be 60,000,000 tons per year.
- The container handling amount is assumed to be 50,000 TEU per year.

(B) Number of Users

- The number of users to utilize the system for data input/deletion/update is assumed to be 200.
- The number of users to refer to the system is assumed to be 2,000.

The assumed number of users by organization as of the start of the Port EDI system is indicated below.

Table 6 Number of Users

#	System	IT	SAD	Terminal Operator	Shipping Lines/Agents	Traffic	Marine	Account	Internal Audit	Mechanical Engineering	Customs	Immigration	Quarantine	DMA	
1	Port EDI	16	7		10	3	3				3	2	2	2	
2	Berth Allocation		5			3	3								
3	Revenue Management		7	20		3	3	7	3	3					
4	Statistical Data Management		2			2	2	3							
6	Logistics Monitoring			20		3						3			
Total		16	21	40	10	59	11	10	3	3	6	2	2	2	
														185	

(C) Hardware Resources

- Hardware resources will be provided based on the application transaction requirement forecast for the coming five years.
- System capacity will be decided in the design phase.

(4) Performance Requirements

(A) On-line Response

- The target value for online response will be within 3 seconds. The compliance rate of on-line response will be over 99%. However, the target value for online response will exclude the time of aggregate calculation handling and network connection with external system.

(B) Batch Response

- The performance of batch processing will not result in remarkable degradation of that of online processing.

(5) Reliability Requirements

(A) Integrity of Data

- Necessary measures will be taken to ensure that no important data will be easily erased by erroneous operation, etc..
- Data replication is required to ensure reliability, accuracy and maintainability of data to be used in business.
- Data will be checked sufficiently during an update process to ensure data integrity. Further, when the process is interrupted due to an error or the like, the data will be able to return to the state of the stage prior to the execution of the process.
- Backup of data with an external medium such as tape and the like will be done to ensure maintainability of the data.

(B) Data Confidentiality

- The functions and data of the Port EDI system will be available only to the users with access authority.
- Regarding unauthorized access and system operation failure or the like, it will be possible to record and output the relevant trail (access log, event log, etc.) necessary for the cause elucidation.

(6) Availability Requirements

(A) Operating Time

The System will operate for 24 hours except for the planned downtime.

(B) Operating Rate

- Operating rate of the Port EDI system will be 99.9%.

(C) The average Failure Recovery Time

- The average failure recovery time of the Port EDI system will be within 24 hours except for the planned downtime.

(D) System Failure Recovery Point

- Target duration of the system recovery will be one business day. Recovery will be done by restoring the daily back-up data.
- The back-up data will be kept in remote location for restarting the system.

(7) Scalability Requirements

- a) The system configuration will be able to facilitate addition and change of business functions in response to institutional reform and organizational change and the like.
- b) For CPU such as server, memory, for a hard disk, etc., the average utilization rate every 1 hour will be less than 80%. After the starting of operation, the system will continue running for up to 5 years.
- c) The scalability and flexibility required for the system configuration will be

ensured to enable the enhancement of servers and hard disks and load dispersion so as to accommodate the increase in utilization and access during the period of utilization of the Port EDI system.

(8) System Compatibility Requirements

- a) In the selection of OS, middleware and the like, it is required to adopt the products with high compatibility in later years.
- b) When using OS, middleware and package products, appropriate measures will be taken in response to the assumed need of version upgrade during the period of development and the five years after the starting of operation.
- c) The System will be constructed in a way that it will be able to correspond to the renewal of network specifications.
- d) With regard to version up, in the case that there is a technical problem, etc., the work will be conducted on the basis of consultation with the ordering party.
- e) Regarding version up, design and implementation will be conducted in a way that the need for refurbishment of business applications can be avoided as much as possible.

(9) Use of Open Technique

- a) The System will not adopt the specific technique to make the equipment unique.
- b) With regard to the equipment, OS, middleware and the like for this system, instead of depending on a particular technology or product, any technology conforming to industry standards or international standards will likely be adopted to ensure a continuous and stable guarantee of quality.
- c) In the procurement of equipment and software at the time of expansion and updating of the Port EDI system, any product or technology likely to stifle competition needed for a procurement will not be adopted as much as possible.
- d) The System configuration will ensure a smooth data migration at the time of system renewal.

(10) Security Requirements

(A) Requirements for Access Control

- a) Password confirmation will be applied to the login method. Users will be able to change password by themselves. The System will have a function to initialize the password and delete the user account. The System will be able to control access authorization for users.
- b) The network will be divided by firewall for the purpose of securing MPA inside the network. The network traffic on WAN will be secured by using encryption technology.
- c) The System will be able to output application log, access log for Web server, DB access log and error log.
- d) Transactions through client terminals (PCs), DB and files will be encrypted.

(B) Requirements for the Information Security Measures

- In addition to the implementation of the required functions at the time of system start-up, a mechanism will be realized to allow for continuous updates throughout the operational period.
- Consideration will be given to the need to avoid the occurrence of any inconvenience to the business caused by excessive information security measures. Any restriction on the function and operation of the Port EDI system resulting from the information security measures will be avoided as much as possible.
- The necessary measures as stipulated in the "how to make a secure website" compiled by IPA (Information-Technology Promotion Agency, Japan) will be taken, and the scope of application of these measures will be the part of access via internet.

(C) Requirements for the Selection of Operating Environment

- Regarding the software, etc. to be selected, it will be confirmable that the vulnerability patch (hereinafter referred to as "patch".) will be developed and provided to the ordering party by the manufacturer of the software during the life cycle of the Port EDI system. In the case where there is the possibility that the development and provision of the patch may not be done during the life cycle of the System, a written material regarding the alternatives will be created and submitted to the ordering party.
- The required state of patch application at the time of delivery will be determined through consultation with the ordering party at an appropriate time before the delivery. All the patches are required to be delivered in a state of being applied.
- Regarding the software, etc. to be selected, those with information of newly discovered vulnerabilities and patch release information (hereinafter referred to as "patch information".) having been published without delay on the Internet will be selected. In the case that the patch information is not published on the Internet, a written material regarding the alternative way to provide the ordering party with the patch information will be created and submitted to the ordering party.
- In order to be prepared for the threat of malware (viruses, worms, bots, etc.), the System will be equipped with a function to prevent the infection by malware, and it will be possible to update the function to accommodate malware newly discovered.

2.2.4. Implementation Plan

2.2.4.1. Implementation Policy

The overall policy below relating to the selection of procurement equipment that make up the Port EDI system is shown as follows.

- Regarding the procurement equipment, the priority will be given to the adoption of Japanese products, but a third-country procurement will not be inhibited provided that it is significantly less expensive.
- The procurement of equipment will be arranged to enable the system to be constructed in a cheap and safe way.
- As the work of introduction regarding the Port EDI system needs to be implemented efficiently within a limited period of time, the procurement of equipment will not be divided into different lots, and the work loss arising from the paperwork and the like will be minimized.

2.2.4.2. Implementation Conditions

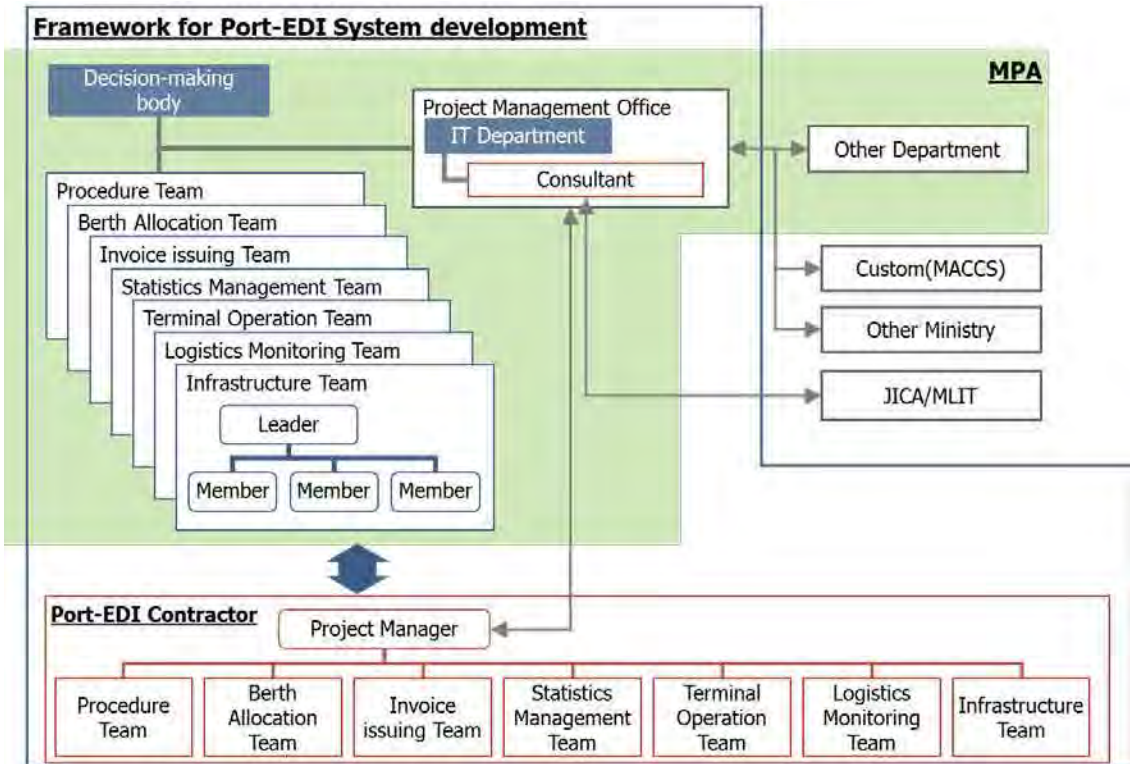
In the Project, it is very important to ensure timely and proper maintenance services from official vendors for hardware, OS, and middleware, including their local agents in Myanmar, after the Port EDI system has started its operation. Accordingly, as a policy on procurement of hardware, OS, and middleware, timely and proper maintenance services from the said official vendors, including their local agents, are to be ensured.

As for the Japanese Grant Aid project, the Recipient is to enter into a contract with a Japanese consultant for consulting services with regard to the design, tendering, cost estimation, and supervision of the procurement works for the Project. The contract with the consultant is to be made by the single-source method on a basis of a recommendations letter issued from JICA in accordance with the Procurement Guidelines.

As a principle of the Grant Aid project, the prime contractors of the products and services mentioned above and the prime consulting firms are limited to “Japanese nationals.”

2.2.4.3. Scope of Works

MPA will restructure its organization for system development so as to become capable of implementing the Port EDI system. The organization will be structured in line with the example as shown in the following figure.



Source: Prepared by the Survey Team

Figure 1 Proposed Organogram of Port EDI system

2.2.4.4. Consultant Supervision

Once the Project has been officially approved under the conclusion of Exchange of Notes (E/N) and Grant Agreement (G/A), MPA, will proceed to the procurement of developers and vendors. As such procedure requires specialized skills, MPA will be requested by JICA to hire management consultant(s) who will support MPA in detailed designs and development supervision.

The following are the tasks assumed to be undertaken by the management consultant(s):

(1) Detailed Design:

- Support for confirmation of the project plan
- Support for procurement of suppliers / vendors

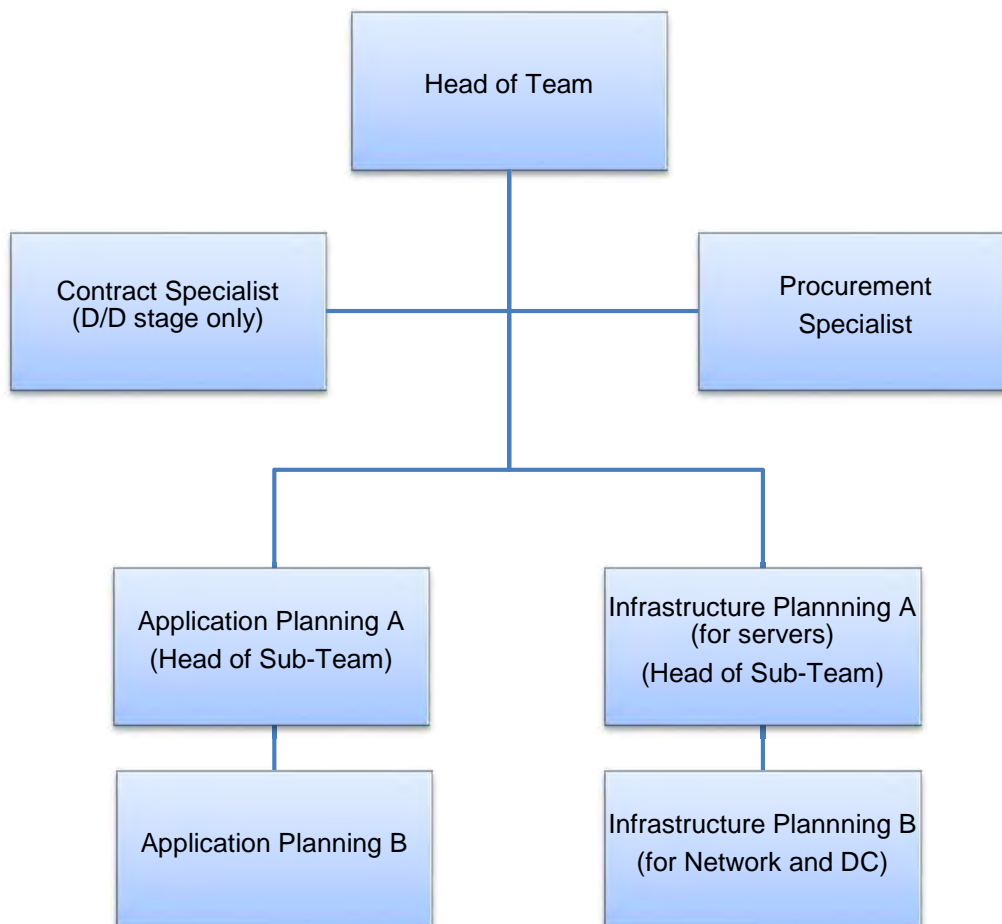
(2) Supervision of Development:

- Support for logistics;
- Support for confirmation of specification;
- Support for running test;
- Support for system development process management;
- Support for acceptance;
- Support for operation rehearsal;
- Support for decision making on service commencement;

(3) Supervision of Development (Soft Component):

- Support for drafting of business manuals;
- Support for user trainings;
- Support for communications with the users in private companies;
- Support for setting up of operation and maintenance structure;
- Support for procurement of operation and maintenance vendor;

The consultants will be supporting MPA on the items mentioned above throughout the procurement and development period of the System. Such tasks will be conducted by a team of seven members as illustrated in the following execution structure.



Source: Prepared by the Survey Team

Figure 2 Team Structure of Management Consultants

As will be mentioned in the following procurement batches and methodologies section, the management consultant(s) will be appointed by MPA based on the JICA recommendation. This is the standard procedure for JICA Grant Aid. Contract between MPA and the management consultant(s) will be concluded by means of a standard contract format offered by JICA.

JICA expects MPA to appoint and hire the management consultant(s), so that procurement and detailed design procedures can be started in a smooth manner. The consultants, on the other hand, are expected to start negotiating the contract with MPA soon after the conclusion of Grant Agreement.

2.2.4.5. Quality Control Plan

In order to realize smooth introduction of the Port EDI system in Myanmar, test operations are to be conducted for about 3 months for users of the system in order to provide them with service learning training. Such test operations are to be hosted and conducted in the production environment by the MPA.

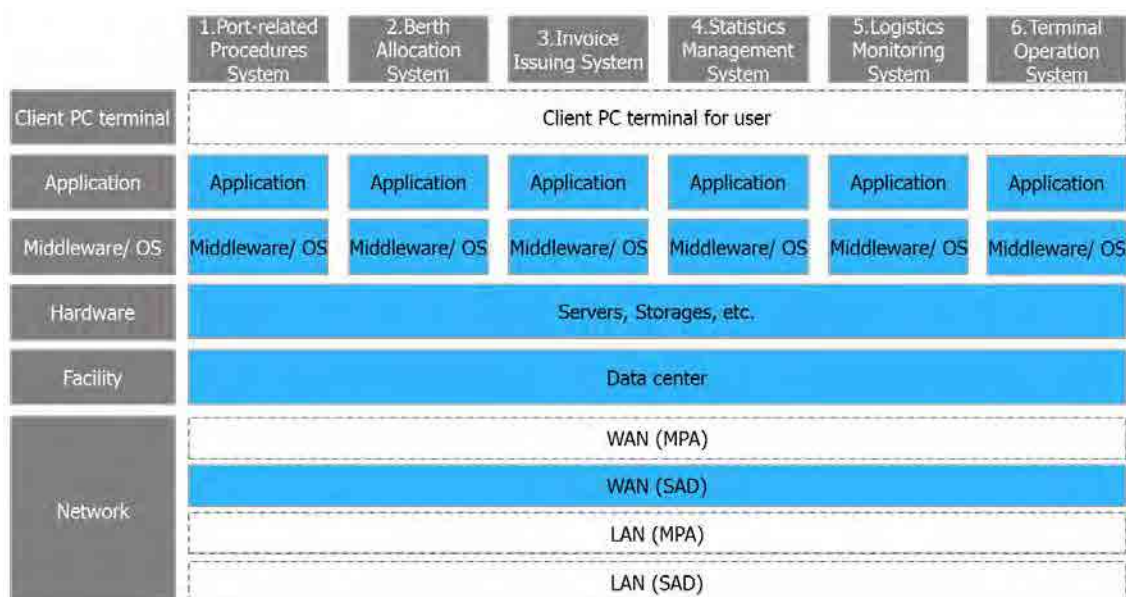
As part of supervision activities for software development, a consultant is to carry out quantitative quality control by using quality control indicators; i.e., test density and bug density.

2.2.4.6. Procurement Plan

(1) Procurement Batches and Methods

The basic policy for procurement in the project aims for competitive pricing, reliability of the integrated systems, and minimizing the total cost of ownership. As such, the survey team has set the following approaches: The first approach is the competitive pricing approach. The second approach is bundling the procurement items so as to ensure reliability of the integrated system. The third approach is to procure, wherever possible, the systems including operation and maintenance service with an aim to minimize the total cost of ownership.

The overall configuration diagram of the port EDI system we are shown below.



Source: Prepared by the Survey Team

Figure 3 Procurement Batches and procurement methods

Hardware and software and the like constituting the Port EDI system have a close mutual relationship. Therefore, if the procurement is separated inappropriately, the complexity of the system linkage and the risk of leading to incomplete construction will increase.

Therefore, the elements which make up the Port EDI system will be collectively procured.

2.2.4.7. Operational Guidance Plan

As stipulated in the B/D, the software development vendor is to provide the designated officials of MPA with training so that they can fulfill their responsibility of providing other officials and private users with the training on how to use the Port EDI system as stipulated in the B/D.

2.2.4.8. Soft Component Plan

Other than the trainings which the applications and equipment suppliers will provide, technical support for ensuring smooth operation of the Port EDI system will be required. Soft component of the project will therefore be included in the terms of reference for the project management consultants. Three topics of technical supports are:

- Support for review of system operation manuals;
- Support for user trainings;
- Support for operation and maintenance.

2.2.4.9. Implementation Schedule

When the Project is implemented under Japan's Grant Aid scheme, the procurement of a software development vendor for Port EDI system will be carried out after the work on the implementation design, which includes finalization of the specifications and services relating to tender, by a consultant.

It will require 6 months for the work on the implementation design, 4 months for the work on the 1st release software development and 18 months for the work on the 2nd release software development including the preparation of the manual/guideline for operation and maintenance. Since part of the work will be performed simultaneously, the total duration of the Project is expected to be 24 months.

2.3. Obligations of recipient country

2.3.1. Arrangement by the Recipient Country

Further to the undertakings mentioned in 1.1 of this draft summary report, MPA is requested to make arrangements on the following points. All of the items listed below are based on the undertakings initially listed in the Minutes of Discussion signed in September 2014.

Institutional preparations by MPA:

- a) Take responsibility for system operation and management by making institutional arrangements (staff assignment) for system operation of the Port EDI system.
- b) Secure the work space for the management consultant
- c) Budget for the maintenance cost of the Port EDI system
- d) Make necessary arrangement to transport backup tapes for disaster recovery to remote location to be stored.
- e) Secure a space for reserve stocks of equipment.

2.3.2. Procedural Undertakings

Procedural undertakings to be taken by the Myanmar side in the Project are as below:

- a) To ensure tax exemption and Port clearance of the products purchased from Japan or third countries at the port of disembarkation in Myanmar;
- b) To ensure exemption of customs duties, internal taxes and other fiscal levies which may be imposed in Myanmar with respect to the purchase of the products and the services;
- c) To accord Japanese nationals whose services may be required in connection with the supply of the products and services, such facilitation and arrangements as may be necessary for their entry into Myanmar and stay therein for the performance of their work;
- d) To ensure that the facilities and equipment be maintained and used properly and effectively under the Project;
- e) To bear the expenses, other than those covered by Japan's Grant Aid, necessary for the implementation of the Project such as preparation of infrastructures;
- f) To bear advising commissions of authorization to pay and payment commissions paid to the Japanese bank for banking services based upon the banking arrangement, and the necessary amount is estimated at about MMK 25 million (about JPY 2.8 million).

2.3.3. Work to Be Conducted by the Myanmar Side

The Basic Design (B/D) summarizes the work to be conducted by the Myanmar side during the period of system development for smooth introduction and operation of the Port EDI system, and deadlines for such work.

However, taking into account the importance of introducing Port EDI system smoothly, the following items are to be partially borne by the Japanese side.

(A) Procurement and Construction of WAN between MPA bases

- Procurement of WAN at datacenter and SAD is to be borne by the Japanese side.
- Procurement of WAN at the other places is to be borne by the MPA.

Table 7 Work to Be Conducted by MPA

#	Category	Work to Be Conducted	Deadline
1	Procurement	Usage contract with the data center	By 3 months prior to commencement of product test
2		Procurement and construction of WAN between MPA bases	By 3 months prior to commencement of product test
3		Procurement and construction of LAN within each location	By 3 months prior to commencement of product test
4		Procurement and construction of Network for private users	By 3 months prior to commencement of system integration test
5		Determination and procurement of operation (System Supervision and Operation) vendor	By 4 months prior to commencement of test operation
6		Procurement and determination of software maintenance (Technical Support for Software) vendor	By 3 months prior to commencement of test operation
7		Procurement and determination of hardware maintenance (Technical Support for Hardware) vendor	By 3 months prior to commencement of test operation
8		Procurement of the terminal of the recommended specification for the Port EDI system users	By 3 months prior to commencement of test operation
9		Procurement of media, supplies such as toner, etc.	Prior to commencement of test operation
10	Coordination and communication	Communication and coordination with other government agencies	As needed during development period
11		Communication, coordination, and arrangement among vendors (Arrangement among software development vendor, hardware vendor, network vendor and data center)	As needed during development period
12		Communication and coordination with each section of MPA, other government agencies, and private users (MPA, SAD, DMA, Immigration, Custom, Port Health Office, Quarantine Bureau, terminal operators, forwarder, shipping	As needed during development period

#	Category	Work to Be Conducted	Deadline
		companies & agents, importer/exporter, consignees, land transporter, etc.)	
13	Organization and environment arrangement	Establishment or procurement of an organization (Help desk) within MPA serving as the contact for inquiries from the system operators or the users	By 3 months prior to commencement of test operation
14		Maintenance undertaken by the IT section which is to perform the maintenance operation management of the Port EDI system within MPA. Also, maintenance undertaken by the operation/maintenance organization including the vendor.	By 3 months prior to commencement of test operation
15		Establishment of an organization which determines the risk analysis and screening criterion within MPA.	By 3 months prior to commencement of test operation
16	Items related to creation of Master Table, including user information and HS	Determination of code scheme such as the user code, item code (for taxation, Port Statistics, etc.). Tariff code, voucher number, etc.	Promptly after commencement of detail design
17		Definition of the user authority, type of business (group, organization scheme)	Promptly after commencement of detail design
18		Receipt and summarization of the applications for the usage from users (provision of ID, password) *	By 3 months prior to commencement of test operation
19		Creation of the Master Table, such as the user, item (for taxation, Port Statistics, including correspondence of HS code, etc.), *	Prior to commencement of product test, test operation, system start
20		Determination of an organization and procedure for managing information on the private users and users in MPA and other government agencies.	By 3 months prior to completion of detail design
21	Briefing sessions Distribution of	Activities for making private users and users in MPA and other government agencies aware of briefing sessions	As needed during development period

#	Category	Work to Be Conducted	Deadline
22	terminal	Holding of briefing sessions for private users Preparation *, printing, and distribution of documents for briefing sessions (About service specification and EDI connection specification)	Promptly after fixing detail design
23		Holding of briefing sessions for private users and users in MPA and other government agencies Preparation*, printing, and distribution of documents for briefing sessions (About procedure for conducting connecting tests)	By 3 months prior to commencement of product test
24		Holding of briefing sessions for private users and users in MPA and other government agencies Preparation*, printing, and distribution of documents for briefing sessions (About procedure for conducting test operations)	By 3 months prior to commencement of test operation
25		Distribution of user's ID and password to private users and users in MPA and other government agencies	By 1 months prior to commencement of test operation
26		Serving as contact for inquiries from private users and users in MPA and other government agencies during test operation operation (This is not necessary in case Help Desk is procured)	As needed during test operation operation
27	Business processing procedure	Preparation of business processing procedure * (Document describing the interrelation between services achieved by the system and legal systems)	By 2 months prior to commencement of test operation
28	Data migration	MPA prepares the migration data (if necessary)	Migration period to be considered according to the contents of migration data
29	Revision of the legal system	Revision of the legal system which is needed for the introduction of Port EDI system (if necessary)	Prior to commencement of test operation

* Software development vendor / Management consultant will support.

2.4. Project Operation and Maintenance Plan

2.4.1. Roles and Responsibilities of Operation /Maintenance

Cost for operation and maintenance of the ICT system will be incurred from the time of handing over of the system to MPA. Under the current timetable, operation and maintenance cost will be payable from the 1st release software development.

The operation and maintenance cost consists of four categories. They are operation cost, application maintenance cost, hardware maintenance cost and usage costs for network and facility.

Table 2 Categories of Operation and Maintenance Cost

	Category	Description
1	Operation cost	<ul style="list-style-type: none"> • Operation of the Port EDI system to be conducted by MPA IT administrators. • Helpdesk which responds to inquiries from the users to be set up by MPA. • Work including helpdesk, system monitoring work, operation on the system, running scheduled operational works, etc.
2	Application maintenance cost	<ul style="list-style-type: none"> • Cost for the application technical support and solution work provided by IT vendor. • Service including providing fixed module and update module.
3	Hardware maintenance cost	<ul style="list-style-type: none"> • Cost for maintenance support from hardware product vendors. • Cost for maintenance support from software product vendors. • Service including providing parts and call center support, etc. • Hardware including equipment such as servers, storages, network equipment etc. • Software product including equipment such as middleware, operation system etc.
4	Usage costs for network and facility	<ul style="list-style-type: none"> • Usage costs for internet line to be borne by MPA. • Usage costs for datacenter collocation service to be borne by MPA.

Source: Prepared by the Survey Team

Annual operation and maintenance cost, including all of the above-mentioned categories, is expected to reach MMK 500million. Among this figure, operating and application maintenance comprises approximately 47%, while hardware maintenance comprises approximately 49% of the total O&M cost.

JICA, therefore, requests MPA to start preparing for securing a budget for the expense of the O&M cost for Port EDI system. JICA recommends MPA to charge usage cost for the Port EDI system.

The ICT Section of MPA is to be responsible for the maintenance of the Port EDI system introduced by the Project. The Section will maintain the Port EDI system in collaboration with vendors concerned. As such, it is expected that MPA will establish such structures for operation/maintenance and ensure common recognition of the burden-sharing among parties concerned expeditiously.

Table 8 Roles and Responsibilities of Operation /Maintenance

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
1	Service Operation	Event Management	Maintenance of Event Monitoring Mechanisms and Rules	To set up and maintain the mechanisms for generating meaningful Events and effective rules for their filtering and correlating.		○
2			Event Filtering and 1st Level Correlation	To filter out Events which are merely informational and can be ignored, and to communicate any Warning and Exception Events.	○	
3			2nd Level Correlation and Response Selection	To interpret the meaning of an Event and select a suitable response if required.		○
4			Event Review and Closure	To check if Events have been handled appropriately and may be closed. This process also makes sure that Event logs are analyzed in order to identify trends or patterns which suggest that corrective action must be taken.	○	
5	Incident Management	Incident Management	Incident Management Support	To provide and maintain the tools, processes, skills and rules for an effective and efficient handling of Incidents.		○
6			Incident Logging and Categorization	To record and prioritize the Incident with appropriate diligence, in order to facilitate a swift and effective resolution.	○	

#	Activity Items			Roles		
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
7			Immediate Incident Resolution by 1st Level Support	To solve an Incident (service interruption) within the agreed time schedule. The aim is the fast recovery of the IT service, where necessary with the aid of a Workaround. As soon as it becomes clear that 1st Level Support is not able to resolve the Incident itself or when target times for 1st level resolution are exceeded, the Incident will be transferred to a suitable group within 2nd Level Support.	○	
8			Incident Resolution by 2nd Level Support	To solve an Incident (service interruption) within the agreed time schedule. The aim is the fast recovery of the service where necessary by means of a Workaround. If required, specialist support groups or third-party suppliers (3rd Level Support) will be involved. If the correction of the root cause is not possible, a Problem Record will be created and the error-correction transferred to Problem Management.		○
9			Handling of Major Incidents	To resolve a Major Incident. Major Incidents cause serious interruptions of business activities and must be resolved with greater urgency. The aim is the fast recovery of the service where necessary by means of a Workaround. If required, specialist support groups or third-party suppliers (3rd Level	○	

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
				Support) will be involved. If the correction of the root cause is not possible, a Problem Record will be created and the error-correction transferred to Problem Management.		
10			Incident Monitoring and Escalation	To continuously monitor the processing status of outstanding Incidents, so that counter-measures may be introduced as soon as possible if service levels are likely to be breached.	○	
11			Incident Closure and Evaluation	To submit the Incident Record to a final quality control before the end of the processing. The aim is to make sure that the Incident is actually resolved and that all information required to describe the Incident's life-cycle is supplied in sufficient detail. In addition to this, findings from the resolution of the Incident are to be recorded for future use.	○	
12			Pro-Active User Information	To inform users of service failures as soon as these are known to the Service Desk, so that users are in a position to adjust themselves to interruptions. Proactive user information also aims to reduce the number of inquiries by users. This process is also aimed for distributing other information to users, e.g. security alerts.	○	
13			Incident Management Reporting	To supply Incident-related information to the other Service Management	○	

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
				processes, and to make sure of potential issues to be improved derived from past Incidents.		
14		Request Fulfillment	Request Fulfilment Support	To create and provide the tools, processes, skills and rules for an effective and efficient handling of Service Requests.		○
15			Request Logging and Categorization	To record and categorize the Service Request in an appropriate way and check the requester's authority to submit the request in order to facilitate a swift and effective processing.	○	
16			Request Model Execution	To process a Service Request within the specified time frame.	○	
17			Request Monitoring and Escalation	To continuously monitor the processing status of outstanding Service Requests, so that counter-measures may be introduced as soon as possible if service levels are likely to be breached.	○	
18			Request Closure and Evaluation	To submit the Request Record to the quality manager before the end of the processing. The aim is to make sure that the Service Request is actually processed and that all information required to describe the request's life-cycle is supplied in sufficient detail. In addition to this, findings from the processing of the request are to be recorded for future use.	○	
19		Man	Proactive Problem Identification	To improve overall availability of services by proactively identifying	○	Δ support

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
				Proactive Problem Management aims to identify and solve Problems and/or provide suitable Workarounds before (further) Incidents recur.		
20			Problem Categorization and Prioritization	To record and prioritize the Problems in an appropriate way in order to facilitate a swift and effective resolution.	○	
21			Problem Diagnosis and Resolution	To identify the underlying root cause of a Problem and initiate the most appropriate and economical Problem solution. If possible, a temporary Workaround will be applied.	Δ support	○
22			Problem and Error Control	To constantly monitor outstanding Problems with regards to their processing status, so that where necessary corrective measures may be introduced.	○	
23			Problem Closure and Evaluation	To ensure that - after a successful Problem solution, the Problem Record contains a full historical description, and that related Known Error Records are updated.	○	
24			Major Problem Review	To review the resolution of a Problem in order to prevent recurrence and learn any lessons for the future. Furthermore, it is to be verified whether the Problems marked as closed have actually been eliminated.	○	

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
25			Problem Management Reporting	Process Objective: ITIL Problem Management Reporting aims to ensure that the other Service Management processes as well as IT Management are informed of outstanding Problems, their processing-status and existing Workarounds (see "Problem Management Report").	○	
26		Access Management	Maintenance of Catalogue of User Roles and Access Profiles	To make sure that the catalogue of User Roles and Access Profiles is still appropriate for the services offered to customers, and to prevent unwanted accumulation of access rights.		○
27			Processing of User Access Requests	To process requests to add, change or revoke access rights, and to make sure that only authorized users are granted the right to use a service.	○	
28		IT Operations Control	IT Operations Control	A process to be carried out depending on the specific applications and infrastructure components in use, including the followings: <ul style="list-style-type: none"> • Starting a system • Batch Job Management • Input/Output Management • Media asset Management • BackUp Management • Security Management 	○	
29	Service Transition	Change Management	Change Management	To control the lifecycle of all Changes. The primary objective of Change Management is to enable beneficial Changes to be made, with minimum		○

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
				disruption to IT services.		
30		Change Evaluation		To assess major Changes, like the introduction of a new service or a substantial change to an existing service, before those Changes are allowed to proceed to the next phase in their lifecycle.		○
31		Project Management (Transition Planning and Support)	and	To plan and coordinate the resources to deploy a major Release within the predicted cost, time and quality estimates.	○	△ support
32		Application Development		To make available applications and systems which provide the required functionality for IT services. This process includes the development and maintenance of custom applications as well as the customization of products from software vendors.	△ support	○
33		Release and Deployment Management	and	To plan, schedule and control the movement of releases to test and production environments. The primary goal of Release Management is to ensure that the integrity of the production environment is protected and that the correct components are released.	△ support	○
34		Service Validation and Testing		To ensure that deployed Releases and the resulting services meet customer expectations, and to verify that IT operations is able to support the new service.	△ support	○
35		Service Asset and Configuration Management	and	To manage information about Configuration Items required to deliver an IT	○	△ support

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
				service, including their relationships.		
36		Knowledge Management		To gather, analyze, store and share knowledge and information within an organization. The primary purpose of Knowledge Management is to improve efficiency by reducing the need to rediscover knowledge.	○	Δ support
37	Continual Service Improvement	Service Review		To review business services and infrastructure services on a regular basis. The aim of this process is to improve service quality where necessary, and to identify more economical ways of providing a service where possible.	○	
38		Process Evaluation		To evaluate processes on a regular basis. This includes identifying areas where the targeted process metrics are not reached, and holding regular benchmarkings, audits, maturity assessments and reviews.	○	
39		Definition of CSI Initiatives		To define specific initiatives aimed at improving services and processes, based on the results of service reviews and process evaluations. The resulting initiatives are either internal initiatives pursued by the service provider on his own behalf, or initiatives which require the customer's cooperation.	○	
40		Monitoring of CSI Initiatives		Process Objective: To verify if improvement initiatives are proceeding according to plan, and to introduce corrective measures where	○	

#	Activity Items				Roles	
	Stage	Process	Sub-Process	Definition	MPA	Operation Vendor
				necessary.		

Conceptual Drawings for Operation /Maintenancewo are shown below.

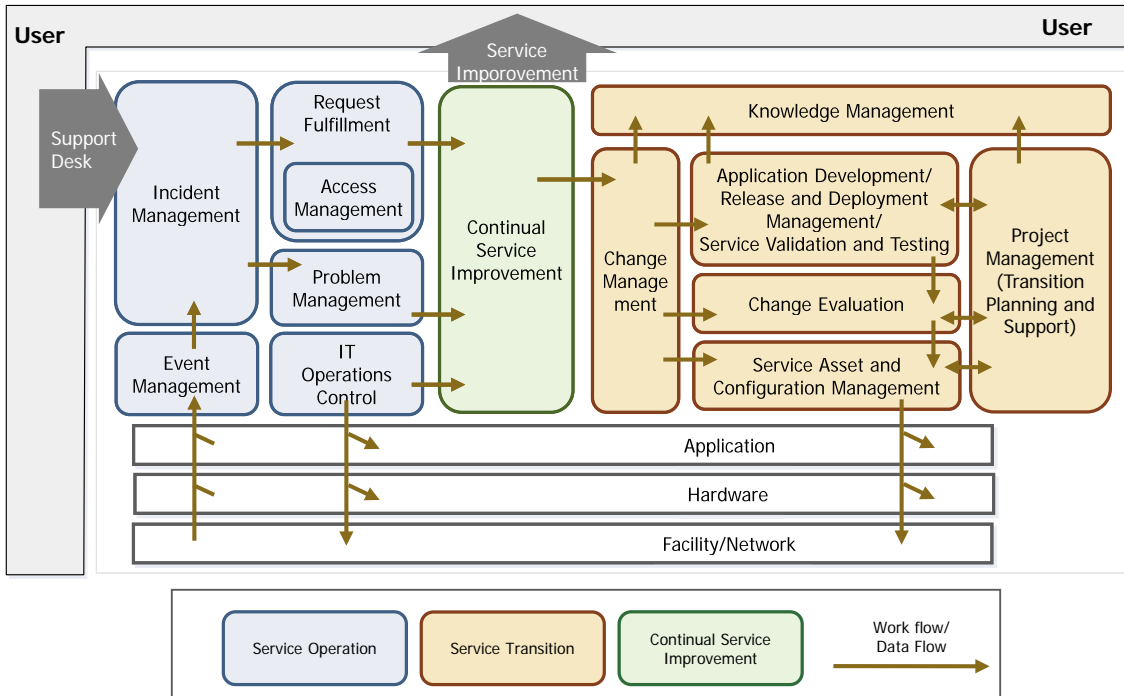


Figure 10 Conceptual Drawings for Operation /Maintenance

2.4.2. Service Level of Operation /Maintenance

Service Level Agreement of Operation /Maintenancewo are shown below.

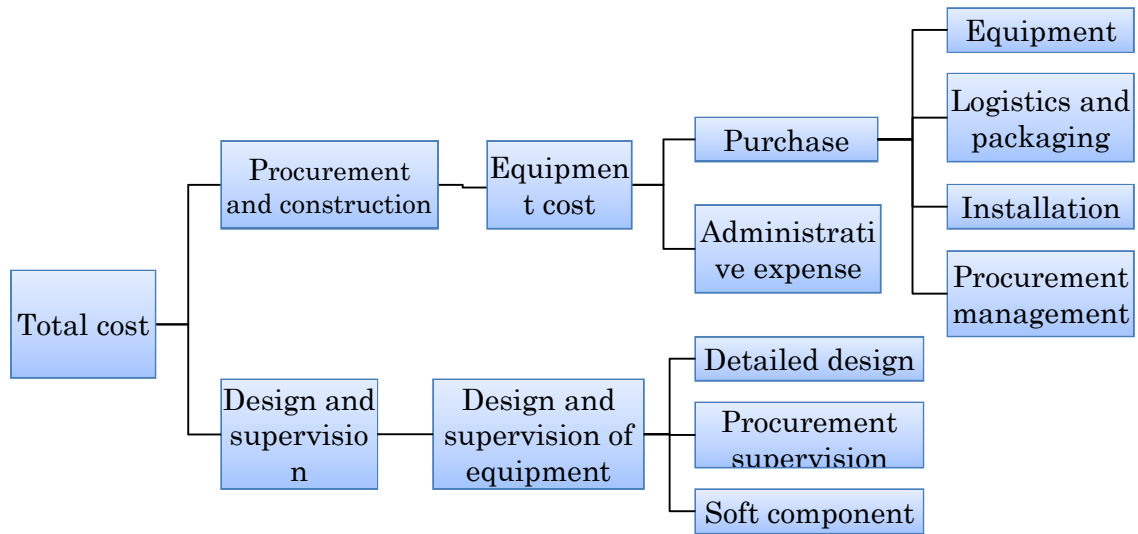
Table 9 Service Level agreement

Classification	indicator	Service level
Escalation	Availability	Over 99%
	Backlog ratio	Under 5%
Security	Reporting time for Virus Pattern file	within 24 hours from official announcement
	Reporting time for Security Patch of OS/ MW	within 24 hours from official announcement
On-Site Support	Arrival time	within 4 hours from Inquiry

2.4.3. Composition of the Project Cost

The project cost consists of the procurement cost and the project supervision cost. The

procurement cost includes purchase cost and indirect cost. The project supervision cost includes planning, procurement management, and soft component.



Source: Prepared by the Survey Team based on JICA Cost Estimation Manual
Figure 4 Composition of Project Cost

The annual cost of operating/maintaining Port EDI System, which shall be borne by the Myanmar side, is estimated at about MMK 500million (about JPY 56 million).

3. Project Evaluation

3.1. Preconditions

The procedures and work, which must be done by the Myanmar side as prerequisites for implementing the Project, are as shown in the above section “2.3 Obligations of recipient country”. In particular, it is important that work set out in the above “Table 7 Work to Be Conducted by MPA” be conducted within the respective time-periods.

3.2. Necessary Inputs by Recipient Country

For the Project, it is essential for the Myanmar side to properly implement its undertakings set out in the above section “2.3 Obligations of recipient country” as agreed.

Also, as mentioned in the above section “2.2.4.8 Soft Component Plan”, the Port-EDI System to be realized by the Project will be jointly used by both the public and private sectors, and is intended to assist users’ administrative procedures and improve the efficiency and speed of the international flow of goods. This is a system to be developed on the basis of a concept which is completely new to Myanmar. Accordingly, for Port-EDI System to be used continuously in Myanmar and achieve the expected objectives, it is important to ensure the following: (i) the legal system and business process, which are the bases of services provided by the system, are reviewed and properly implemented after the review; (ii) operation and maintenance structures are established and smoothly managed; and (iii) both MPA, other government agencies and private users fully understand how to use Port-EDI System. It is expected that these matters will be properly implemented, since the Myanmar side has fully recognized their importance.

3.3. Important Assumptions

Important assumptions for the realization and continuation of the Project are shown below:

- Recognition of the importance of MPA modernization, including automation of Port procedures, shall be maintained within the Government of Myanmar;
- The use of IT in the business process of private users of Port procedures shall progress; and
- The automation of port-related procedures other than Port procedures shall progress and the number of data cooperated external systems to Port-EDI System shall increase.

3.4. Project Evaluation

3.4.1. Relevance

The Project shall establish Port EDI System on the basis of Japanese Port EDI technology which is based on international standard, so that simplification and the acceleration of the port clearance procedures will be realized. This is considered as a core strategy modernizing MPA. It

is expected to enhance port procedures and contribute to playing important role in expanding trade and economic growth. The Project is beneficial, not only to MPA, other government agencies and private companies that are directly engaged in international trade but also to the general public. Therefore, the Project is considered relevant.

3.4.2. Effectiveness

Implementation of the Project means that Port EDI System, which is highly convenient and efficient IT system for port clearance procedures based on Port EDI technology in Japan, will be introduced in Myanmar. Thus, the simplification of port procedure is realized by international standardization based on the IMO standard of FAL such as speed and procedures by EDI to, further, sharing of data, including MPA and other agencies is underway. It is believed to also contribute to the realization of the National Single Window in Myanmar.

3.4.2.1. Quantitative Effects

Implementation of the Project means that Port EDI System, which is a convenient and efficient IT system for port clearance procedures based on Port EDI technology in Japan, will be introduced in Myanmar. This system is not only simplifying the procedures based on IMO global standard, but also share data between MPA and other government agencies. The time required for port clearance procedures shall be shortened in Myanmar. It's expected that Simplification of port clearance procedure and time shortening contribute to improvement of availability of Myanmar port and increase of the port user, and also achieve to increase of the volume of trading

Table 10 Quantitative Effects

Index	Current state (2014)	Target (5 years after introduction of the system)
(1) Shorten of the required time for port related procedure, especially port arrival time		
(1-1) Transfer documents between shipping company and related ministries ⁴	For half day ~ a day	For few minutes or few hours (including the work to make an electronic file, such as scanning)
(1-2) Preparation of the documents and approval in Myanmar Customs ⁵	For few hours ~ two days	For few hours ~ a day
(1-3) Confirmation of the various certificated documents ⁶	For 3~8 hours	For few minutes
(2) The number of vessels that Port Clearance are issued in a day ⁷	5 or 6 ships per day	About 10 ships per day

⁴ This data is based on the interview with SAD. This task is mainly responsible for SAD.

⁵ This data is based on the interview with SAD. This task is mainly responsible for DMA.

⁶ This data is based on the interview with SAD.

⁷ This data is based on the interview with SAD.

Index	Current state (2014)	Target (5 years after introduction of the system)
(3) The rate of System utilization ⁸	0%	100%
(4) Simplification rate of the procedure ⁹	0%	100%
(5) Ratio of reusing the data		
(5-1) Inside MPA departments	0%	100%
(5-2) Between related other ministries	0%	100%

(1) Shorten of the required time for port related procedure

As for the application and notification of port-related procedures, SAD gets hard copy of application from each shipping company and distributes to related departments of MPA and related ministries by hand. SAD does also the same procedures also for the certificated documents. As Thilawa Port is located from Yangon area at the point of 20km from Yangon port, it takes time to move to submit application

These circumstances, in Yangon port, although it may take three dates in dock procedure by the EDI to this, it is expected to be reduced to about one day.

It should be noted that the business currently being digitized in port-related procedures, are as follows.

- Expected Arrivals notification from the ship company received by e-mail
- Predefined form is received, it is utilized to statistics.

Also, business procedure manually using a paper medium after the EDI to remain is as follows.

- The takeover documents to the next ports (Customs of Port clearance certificate)
- The evidence documents in billing (attachment of Combined bill to be examined in the Audit department, etc.)
- Boarding inspection paperwork.

(2) Simplification of port-related procedures

By conforming the style of input and Port apply to the FAL style of international standard, application data creation business requested from the ship company is simplified and unified. In particular, in the global company, it has large benefits since the procedure is the International Organization for Standardization.

3.4.2.2. Qualitative Effects

Main qualitative effects by the introduction of Port EDI System include the following.

⁸ In the case that SAD makes application for port-related procedures as agency of all foreign shipping companies.

⁹ The port-related procedures in accordance with global standard are considered simplified. As Port EDI system will adopt global standard procedures, Simplification rate of the procedure is same value of the rate of System utilization.

- a) Labor-saving and acceleration of procedures By digitization of input and Port application and licensing procedures
 - Circulated time of application data of Port entry and departure within MPA, and between relevant ministries and agencies will be greatly reduced.
 - By automation of documents matching confirmation by visual observation, and various manual document production, the operation time is to be reduced and improved accuracy. (Example: by digitization of cargo specification data, automation of D / O issue, automation of cross-check of the cargo delivery during D / O and cargo specification (B / L))
 - Reduction of huge documents storage amount
- b) Raise of convenience of the proceedings of the in and out port application and licensing procedures, by introduction of single-window between MPA and other relevant agencies (Customs Department, Immigration and people registration authority, Department of Health, etc)
 - Centralized application destination window
 - Reuse in other ministries system of in and out of Port application data
- c) Simplification of port-related procedures that conform to the FAL Convention (International Maritime Traffic simplification Convention) of the International Maritime Organization (IMO)
- d) Improved accuracy by computerization of billing such as port usage fees, tax revenues of the Port Authority
- e) Improvement planning support of port operations and port facilities and equipment, based on the port statistics and various KPI analysis
- f) By the introduction of Colins (port logistics visualization system developed by Ministry of Land, Infrastructure, Transport and Tourism), transportation will be improved around Yangon port adjacent to the city
- g) Enhancing safety of navigation by the implementation of port state control based on the safety regulations set by the International Maritime Organization, etc. (IMO)

Appendices

1. Member List of the Study Team

No	Name	Task	Organization
1	Masahiro YOSHIMI	Leader	Executive Technical Advisor to the Director General Infrastructure and Peacebuilding Japan International Cooperation Agency
2	Ken IMAI	Project Coordination	Advisor Transportation and ICT Group Infrastructure and Peacebuilding Japan International Cooperation Agency
3	Go NAKOSHI	Jurisdiction government office	Deputy Director for Intelligent Port Policy Promotion Port Management and Operation Division Port and Harbours Bureau
4	Youichi SAKURADA	Chief Consultant /System Planning	International Policy and Business Center International Business Planning & Development Group Mitsubishi Research Institute, Inc.
5	Kiyoshi NAKASHIMA	Port Management System1	The Overseas Coastal Area Development Institute of Japan
6	Yoko SATODA	Port Management System1/ System Outline design	Social ICT Solutions Division Social ICT Solutions Division Group-2 Mitsubishi Research Institute, Inc.
7	Kazuhiro HACHIYA	Operation Planning	International Policy and Business Center International Project Management and Operation Group Mitsubishi Research Institute, Inc.
8	Gen KINOSHITA	Procurement Plan/Cost Estimation1	Social ICT Solutions Division Social ICT Solutions Division Group-2 Mitsubishi Research Institute, Inc.
9	Toshiyuki HIROE	Procurement Plan/Cost Estimation2	The Overseas Coastal Area Development Institute of Japan
10	Takayuki HIMENO	IT Equipment Design and Planning	Social ICT Solutions Division Social ICT Solutions Division Group-2 Mitsubishi Research Institute, Inc.

2. Study Schedule

Holiday (Japan)
 Holiday (Myanmar)
 Assignment in Myanmar

August	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SAKURADA																															
NAKAJIMA																															
SATODA																															
HACHIYA																															
HIMENO																															
KINOSHITA																															
HIROE																															
September	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
SAKURADA																															
NAKAJIMA																															
SATODA																															
HACHIYA																															
HIMENO																															
KINOSHITA																															
HIROE																															
October	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SAKURADA																															
NAKAJIMA																															
SATODA																															
HACHIYA																															
HIMENO																															
KINOSHITA																															
HIROE																															
November	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
SAKURADA																															
NAKAJIMA																															
SATODA																															
HACHIYA																															
HIMENO																															
KINOSHITA																															
HIROE																															
December	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SAKURADA																															
NAKAJIMA																															
SATODA																															
HACHIYA																															
HIMENO																															
KINOSHITA																															
HIROE																															

2.1. The First On-Site Survey

Date		Chief /System Planning	Port Management System1	Port Management System2/System Outline Design	Operation Planning	IT Equipment Design and Planning	Procurement Plan/Cost Estimation1	Procurement Plan/Cost Estimation2
4-Aug-14	Mon	Moving Day(→Yangon)						
5-Aug-14	Tue	Meeting with JICA Myanmar office						
6-Aug-14	Wed	Interview with MIFFA						
7-Aug-14	Thu	Meeting with MPA(Sule pagoda Wharves)						

Date		Chief /System Planning	Port Management System1	Port Management System2/System Outline Design	Operation Planning	IT Equipment Design and Planning	Procurement Plan/Cost Estimation1	Procurement Plan/Cost Estimation2
8-Aug-14	Fri	Interview with MIFFA						
9-Aug-14	Sat	Internal Meeting/ Organize provided materials						
10-Aug-14	Sun			Moving Day(→Yangon)				
11-Aug-14	Mon	Internal Meeting/Organize provided materials						
12-Aug-14	Tue	Explanation of IC/R to MPA						
13-Aug-14	Wed	Discussion about M/D						
14-Aug-14	Thu							
15-Aug-14	Fri							
16-Aug-14	Sat	Internal Meeting/ Organize provided materials						
17-Aug-14	Sun			Moving Day (→Yangon)				
18-Aug-14	Mon	Kick off Meeting for preparatory survey with MPA						
19-Aug-14	Tue	Interview of current business for invoice issuing and port-statistics with MPA						
20-Aug-14	Wed	Interview of current business for port-statistics and TOS with MPA						
21-Aug-14	Thu	Interview of current business for berth allocation and TOS with MPA						
22-Aug-14	Fri	Interview of current business for TOS and port related procedure with MPA, SAD						
23-Aug-14	Sat	Moving Day (→TYO)	Internal Meeting/ Organize provided materials		Moving Day (→TYO)		Moving Day (→Yangon)	
24-Aug-14	Sun						Internal Meeting/Organize provided materials	
25-Aug-14	Mon		Introduction of Clollins to MPA	Moving Day (→TYO)			Introduction of clollins to MPA	
26-Aug-14	Tue		Interview of survey items with MPA, MPT and Yatanarpon teleport			Interview of survey items with MPA, MPT and Yatanarpon teleport		
27-Aug-14	Wed		Organize provided materials			Interview of survey items with MPA and IT vendors		
28-Aug-14	Thu						Interview of survey items with MPA and IT vendors	
29-Aug-14	Fri						Organize provided materials	
30-Aug-14	Sat		Internal Meeting/ Organize provided materials			Internal Meeting/ Organize provided materials		
31-Aug-14	Sun							
1-Sep-14	Mon		Interview of survey items with MPA			Interview of survey items with MPA		
2-Sep-14	Tue		Moving Day (→TYO)			Moving Day (→TYO)	Discussion about survey items	

Date		Chief /System Planning	Port Management System1	Port Management System2/System Outline Design	Operation Planning	IT Equipment Design and Planning	Procurement Plan/Cost Estimation1	Procurement Plan/Cost Estimation2
3-Sep-14	Wed						Interview of survey items with MPA and the IT supplier	
4-Sep-14	Thu						Interview of survey items with MPA and the IT supplier	
5-Sep-14	Fri						Organaize first survey result	
6-Sep-14	Sat						Moving Day (→TYO)	Moving Day (→TYO)

2.2. The Second On-Site Survey

Date		Chief /System Planning	Port Management System1	Port Management System2/System Outline Design	IT Equipment Design and Planning	Procurement Plan/Cost Estimation2
5-Oct-14	Sun	Moving Day(→Yangon)				Moving Day(→Yangon)
6-Oct-14	Mon	Internal Meeting/Organize provided materials			Moving Day(→Yangon)	Internal Meeting/Organize provided materials
7-Oct-14	Tue	Meeting for billing system with MPA				
8-Oct-14	Wed	Internal Meeting/Organize provided materials				
9-Oct-14	Thu	Meeting for billing system and TOS with MPA				
10-Oct-14	Fri	Meeting for billing system with MPA	Moving Day(→TYO)	Meeting for billing system with MPA		
11-Oct-14	Sat	Internal Meeting/Organize provided materials		Internal Meeting/Organize provided materials		
12-Oct-14	Sun					
13-Oct-14	Mon	Meeting for billing system with MPA		Meeting for billing system with MPA		
14-Oct-14	Tue	Meeting for port-statistics system with MPA		Meeting for port-statistics system with MPA		
15-Oct-14	Wed	Meeting for billing system with MPA		Meeting for billing system with MPA		
16-Oct-14	Thu	Meeting for Port-related procedures with SAD, Meeting with Myanmar Customs		Meeting for Port-related procedures with SAD, Meeting with Myanmar Customs		
17-Oct-14	Fri	Organize provided materials		Moving Day(→TYO)	Organize provided materials	Moving Day(→TYO)
18-Oct-14	Sat	Organize			Organize	

Date		Chief /System Planning	Port Management System1	Port Management System2/System Outline Design	IT Equipment Design and Planning	Procurement Plan/Cost Estimation2
19-Oct-14	Sun	provided materials			provided materials	
20-Oct-14	Mon	Meeting for billing system and TOS with MPA			Meeting for billing system and TOS with MPA	
21-Oct-14	Tue	Meeting for Port related procedures with DMA			Meeting for Port related procedures with DMA	
22-Oct-14	Wed	Organaize second on-site survey result			Organaize second on-site survey result	
23-Oct-14	Thu					
24-Oct-14	Fri	Moving Day (→TYO)				

2.3. The Third On-Site Survey

Date		Port Management System2/System Outline Design	Operation Planning	IT Equipment Design and Planning	Procurement Plan/Cost Estimation1
9-Nov-14	Sun		Moving Day(→Yangon)		Moving Day(→Yangon)
10-Nov-14	Mon		Meeting with MPA		Meeting with MPA
11-Nov-14	Tue		Meeting for procurement method with MPA		Meeting for procurement method with MPA
12-Nov-14	Wed		Meeting for Implementation plan with MPA		Meeting for Implementation plan with MPA
13-Nov-14	Thu		Meeting for data center and network with Yatanarpon teleport and KDDI myanmar		Meeting for data center and network with Yatanarpon teleport and KDDI myanmar
14-Nov-14	Fri		Meeting for procurement method with MPA		Meeting for procurement method with MPA
15-Nov-14	Sat		Organize provided materials		Moving Day(→TYO)
16-Nov-14	Sun	Moving Day(→Yangon)		Organize provided materials	
17-Nov-14	Mon	Meeting for billing system with MPA			
18-Nov-14	Tue	Meeting for billing system with MPA and meeting with Immigration and MPA			
19-Nov-14	Wed	Meeting for port-related procedure with SAD			
20-Nov-14	Thu	Meeting for port-related procedure with SAD and meeting with Myanmar Customs			
21-Nov-14	Fri	Moving Day(→TYO)	Meeting for Port-related procedures with SAD	Moving Day(→TYO)	

Date		Port Management System2/System Outline Design	Operation Planning	IT Equipment Design and Planning	Procurement Plan/Cost Estimation1
22-Nov-14	Sat		Moving Day(→TYO)		

2.4. The Fourth On-Site Survey

Date		Chief /System Planning	Port Management System1	Port Management System2/System Outline Design	IT Equipment Design and Planning
13-Dec-14	Sat				Organize provided materials
14-Dec-14	Sun	Moving Day(→Yangon)			
15-Dec-14	Mon	Meeting with MPA and SAD			Meeting with MPA and SAD
16-Dec-14	Tue	Meeting with Myanmar Customs			Meeting with Myanmar Customs
17-Dec-14	Wed	Meeting with JICA myanmar office and MPA			Meeting with JICA myanmar office and MPA
18-Dec-14	Thu	Meeting with SAD	Moving Day(→TYO)	Meeting with SAD	Meeting with SAD
19-Dec-14	Fri	Moving Day(→TYO)		Moving Day(→TYO)	Moving Day(→TYO)

3. List of Parties Concerned in the Recipient Country

3.1. Administrative organizations

3.1.1. Myanmar Port Authority (MPA)

(1) International Relation and Human Resource Development

Name	Position and Title
Myo Nyein Aye	Deputy General Manager
Ar kar	Assistant General Manager
Win Win Hlaing	Manager
Khin Mya Win	Junior Operator
Swe Zin Htun	Supervisor
Wah Wah Lwin	Junior Programmer
Tin Nilar Lin	Junior Programmer

(2) Ships Agency Department (SAD)

Name	Position and Title
Zaw Tun Lwin	General Manager
Kaung Htet	Assistant General Manager
Aung Soe	Deputy Chief Accountant
Seing Wing	Manager
Phone Myint Oo	Assistant Manager

(3) Traffic Department

Name	Position and Title
Aung Thein Win	Manager, Sule Pagoda Wharves
Soe Myant	Manager, Sule Pagoda Wharves
Kyaw Wanna	Assistant Manager, Sule Pagoda Wharves
San San Htay	Assistant Manager
Khin Myat Oo	Third Grade

(4) Account Department

Name	Position and Title
Bi Bi	Deputy General Manager
Aung Thein Oo	Senior Accounts Officer
Kyi Kyi Htay	Assistant Account Officer
Ei Zar Phyoe	Upper Division Clerk-UDC
San San Aye	Branch Clerk-BC

(5) Marine Department

Name	Position and Title
Kyaw Htay Win	Supervisor
Cho Cho	

(6) Stores Department

Name	Position and Title
Ko Ko Tun	Controller of Stores

(7) SPW Terminal

Name	Position and Title
Kyaw Wanna	Area Manager

3.1.2. Myanmar Customs

Name	Position and Title
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Moe Kyaw Aye	Deputy Director, Administration Division
Zaw Myo Aung	Assistant Director, Preventive Division
May Su Aung	Staff Officer
Naw Myint Myint Khin	Staff Officer
Hsu Wai Hnin	

3.1.3. Immigration

Name	Position and Title
Kyi Lin	Director
Ko Ko Tun	Assistant immigration officer

3.1.4. Department of Marine Department (DMA)

Name	Position and Title
Aung Moe	Deputy Director
Aung Kyaw Zan	Deputy Director, Nautical department
Maung Maung Tin	Assistant Director

3.2. Industry organizations

(1) Myanmar International Freight Forwarders Association (MIFFA)

Name	Position and Title
Aung Khin Myint	Chairman
Hla Hla Yee	Secretary, Founder

3.3. Terminal Operators

(1) Asia World Port Management Co.Ltd

Name	Position and Title
Tin Maung Win	Manager
Nay Lin OO	Assistant Manager (Control Section)

(2) Myanmar International Terminals Thilawa Limited

Name	Position and Title
Phyo Way	Operations Manager

3.4. System and network vendors

(1) Myanma posts and telecommunications

Name	Position and Title
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U Bo Aung	Assistant Engineer, Information and Technology Department
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(2) KDDI Myanmar Co.Ltd

Name	Position and Title
Masahiko Masuda	Managing Director

(3) Yatanarpon Teleport

Name	Position and Title
Chan Mya Oo	Head of Business Development Department
Su Yee Nandar Aung	Deputy Team Leader, Business Development Department

(4) ACE Japan

Name	Position and Title
Toshiharu Yokono	Technical Advisor

(5) ACE Data Systems

Name	Position and Title
Htun Tauk Zaw	Manager, Business Development Department

(6) INFORMATION MATRIX

Name	Position and Title
Kyaw Soe Min	Assistant General Manager
Pyae Phoye Shein	Senior Manager

(7) Myanmar Information Technology

Name	Position and Title
Chaw Su Hlaing	Assistant General Manager
Ni Ni Tun	Director

(8) Access Spectrum

Name	Position and Title
Tin Htoo Khaing	Managing Director

(9) Inya Land

Name	Position and Title
Aung Zayar Lwin	CEO
Thurayne Lwin	Vice President

3.5. JICA

(1) JICA Expert

Name	Position and Title
Koichi Miyake	Transport Policy Advisor, Ministry of Transport
Shuhei Ueno	Chief Advisor, Project for Modernization of Myanmar Customs

(2) JICA MYANMAR Office

Name	Position and Title
Nobuo Yamasaki	Representative
Ayumi Kiko	Representative
Masaki Morikawa	Representative
Win Ko Ko	

4. Minutes of Discussion (M/D)

MINUTES OF DISCUSSIONS ON THE PREPARATORY SURVEY FOR THE PROJECT FOR PORT EDI FOR PORT MODERNIZATION

In response to a request from the Government of the Republic of the Union of Myanmar (hereinafter referred to as "Myanmar"), the Government of Japan decided to conduct a Preparatory Survey on "The Project for Port EDI for Port Modernization" (hereinafter referred to as "the Project"). In accordance with this decision, Japan International Cooperation Agency (hereinafter referred to as "JICA") decided to commence the survey.

JICA sent the Preparatory Survey Team for the Field Survey (hereinafter referred to as "the Team"), which is headed by Mr. Masahiro Yoshimi, Executive Technical Advisor to Director General, Infrastructure and Peace building Department, JICA, and is scheduled to stay in the country from August 10th to September 2nd, 2014.

The Team held discussions with the officials concerned of Myanmar side, and conducted a field survey at the Project site.

In the course of discussions and field survey, the both sides confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare a Draft Report of the Preparatory Survey.

Yangon, September 13, 2014

Mr. Masahiro Yoshimi
Leader
Preparatory Survey Team
Japan International Cooperation Agency

Dr. Myo Nyein Aye
Deputy General Manager
Myanma Port Authority
Ministry of Transport
The Republic of the Union of Myanmar

ATTACHMENT

1. Objective of the Project

The objective of the Project is to contribute to the modernization of the port system in Myanmar

2. Project Site

The Project site is ports in Myanmar where Port EDI system will be utilized. The Survey site is Yangon Port.

3. Responsible and Implementing Authority

3-1. The responsible and implementing agency is Myanmar Port Authority (MPA) under the Ministry of Transport (MOT).

3-2. The organization charts are shown in Annex-1.

4. Scope of the Survey agreed by the both sides

The both side agreed the scope of the Survey is as follows;

- Port-related Procedures
- Berth Allocation
- Invoice Issuing
- Statistics Management
- Terminal Operation
- Logistics Monitoring

The Myanmar side informed the priority of those 6 as follows;

- 1 Port-related Procedures
- 2 Berth Allocation
- 3 Invoice Issuing
- 4 Statistics Management
- 5 Logistics Monitoring
- 6 Terminal Operation

5. Japan's grant Aid Scheme

5-1. The Myanmar side understood the Japan's Grant Aid scheme explained by the Team as described in Annex-2 and Annex-3.

5-2. The Myanmar side understood the necessary measures, as described in Annex-4 for the smooth implementation of the Project, as a condition for the Japan's Grant Aid to be implemented. The Myanmar side mentioned



that the bearing of the necessary commission for Banking Arrangement and Authorization to Pay would need the permission from the higher authority. The Team requested the Myanmar side to discuss to get the permission from the higher authority by around mid-December, 2014 when JICA's next mission will be dispatched.

- 5-3. The Myanmar side understood that they should cover the cost for the maintenance as well as the operation after the completion of the Project.

6. Schedule of the Study

- 6-1. The Team will proceed with further field survey intermittently until the end of November, 2014.
- 6-2. JICA will prepare the draft report and dispatch a mission in order to explain its contents around mid-December, 2014.
- 6-3. If the contents of the report are accepted in principle by the Government of Myanmar, JICA will complete the final report and send it to the Myanmar side around March, 2015.

7. Environmental and Social Considerations

The Myanmar side agreed to give due environmental and social considerations during implementation of the Project, and after completion of the Project, in accordance with the JICA Guidelines for Environment and Social Considerations (April, 2010).

8. Others

- 8-1. The Team explained that MPA, as an implementing agency, should prepare the necessary budget for operation and maintenance in the future after introducing of new port system by this Project, and the Team will study the expected amount of the budget and provide the information on it during the Survey. The Myanmar side understood this point and both side agreed that this issue will be reconfirmed in the minutes of meeting on the explanation of the draft final report.
- 8-2. The Team requested MPA to support the Team in the implementation of the Survey smoothly, especially on the discussion with other Myanmar organizations such as Customs Department. The Myanmar side agreed to support the Team on the implementation of the Survey.
- 8-3. The Team explained the undertakings by the Myanmar side in details, in addition to the items mentioned at Annex-4, as follows;
 - 1) Software



- Any change in technical specification after the definition of system requirements;
- Development of systems of agencies other than MPA;
- Modification of the existing systems including those outside MPA to be connected to the new system;
- Transition from the legacy system to the new system, including transfer of data and information;
- Any change of the system after the system transfer, due to changes of system environment such as the upgrade of O/S and middle ware;
- Any change (upgrade and expansion) of the software after the system transfer;
- System setting changes for enhancing the system function;
- Software maintenance costs which may incur after introducing the system;
- Update of data such as the user list;

2) Hardware/Facilities, etc.

- Introduction of WAN (Wide Area Network), LAN (Local Area Network) and terminal equipment;
- Construction/Upgrading of a datacenter and a backup datacenter;
- Necessary facilities on premises such as security against theft, fire protection, electricity supply and air conditioning;
- Technical design for WAN and LAN;
- System maintenance and operation after the system transfer; (helpdesk, system monitoring staff, maintenance staff, etc.);
- Any replacement of the hardware after the system transfer;
- Changing the setting for enhancing the function of the system;
- Hardware maintenance after the introduction of the system;
- Connection fees of the installed communication lines; and;
- Providing a user training facility in MPA for operation of the new system.

The Myanmar side requested that the cost for the installation of optical fiber cable between the Project sites in Yangon and MPT (Myanma Post and Telecommunication) exchange station, and configuration will be covered by the Grant Aid. The Team mentioned that this request should be studied in Japan, and would reply to MPA when concluded. The Myanmar side understood it.

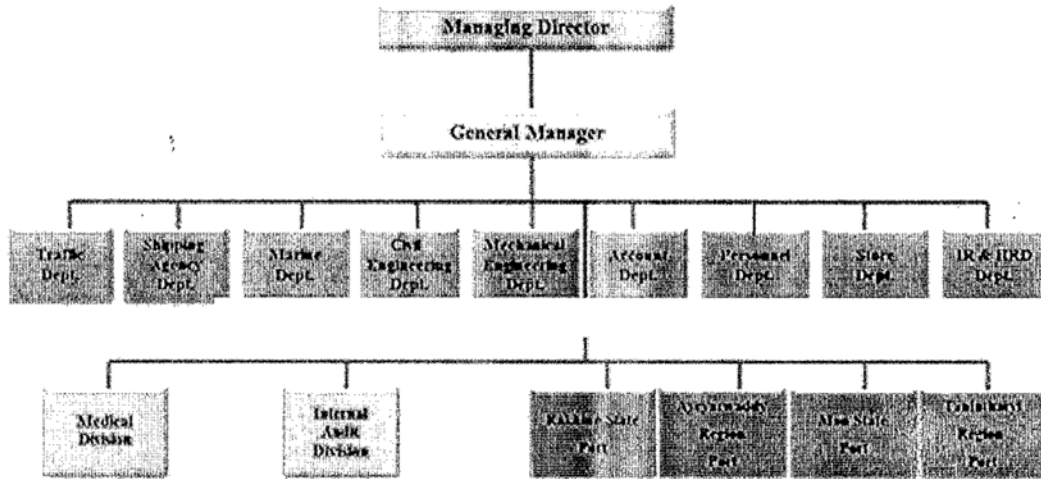
8-4. The Myanmar side mentioned that Japanese vendor(s) will be the primary contractor for designing and development, but it is desirable to engage Myanmar's human resources and system vendors in design and development phases under the primary contractor guidance and supervision, considering the sustainable System operation and maintenance. In this regard, the Team emphasized that the Japanese side recognizes the need for the reduction of operation and maintenance cost as well as initial cost, and, for that need, the Japanese side would conduct training courses for MPA staff in Japan. The Team added that the reduction of operation and maintenance cost as well as initial cost will be considered and studied during this Survey.

8-5. MPA mentioned that MPA, as an implementing agency, is responsible for this Survey as well as the Project, but MPA does not have authority of some procedures by itself such as financial, customs and trade matters. In this regard, MPA shall cooperate with other authorities/organizations in order to implement this Survey and the Project smoothly.

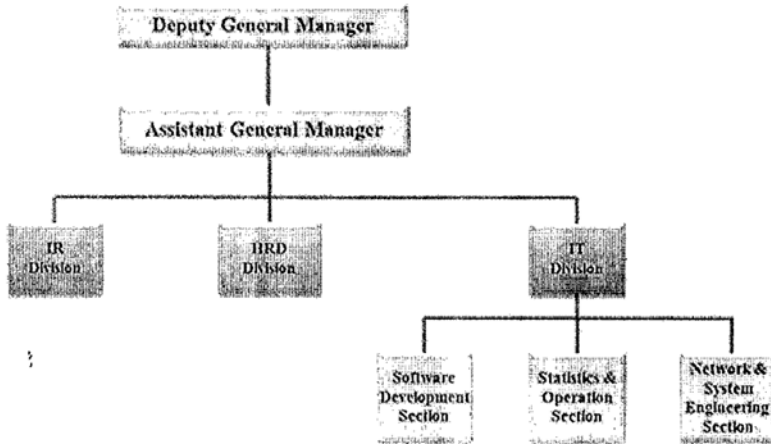
- Annex-1 Organization Charts
- Annex-2 Japan's Grant Aid
- Annex-3 Flow Chart of Japan's Grant Aid Procedures
- Annex-4 Major Undertakings to be taken by Each Government



Myanma Port Authority's Organization Chart



IR & HRD Department



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JAPAN'S GRANT AID

The Government of Japan (hereinafter referred to as "the GOJ") is implementing the organizational reforms to improve the quality of ODA operations, and as a part of this realignment, a new JICA law was entered into effect on October 1, 2008. Based on this law and the decision of the GOJ, JICA has become the executing agency of the Grant Aid for General Projects, for Fisheries and for Cultural Cooperation, etc.

The Grant Aid is non-reimbursable fund provided to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials as such.

1. Grant Aid Procedures

The Japanese Grant Aid is supplied through following procedures :

- Preparatory Survey
 - The Survey conducted by JICA
- Appraisal & Approval
 - Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
 - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
 - Agreement concluded between JICA and a recipient country
- Implementation
 - Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.



The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant Aid project. The Outline Design of the Project is confirmed based on the guidelines of the Japan's Grant Aid scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) registered consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japan's Grant Aid Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

(2) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

Under the Japanese Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. When JICA and the Government of the recipient country or its designated authority deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals".

(4) Necessity of "Verification"

- 7 -



The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to fulfill accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country
In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as Annex.

(6) "Proper Use"

The Government of the recipient country is required to maintain and use properly and effectively the facilities constructed and the equipment purchased under the Grant Aid, to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Grant Aid.

(7) "Export and Re-export"

The products purchased under the Grant Aid should not be exported or re-exported from the recipient country.

(8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). JICA will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

A recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.



FLOW CHART OF JAPAN'S GRANT AID PROCEDURES

Stage	Flow & Works	Recipient Government	Japanese Government	JICA	Consultant	Contract or	Others
Application	Request (TR: Terms of Reference)	✓					
	Screening of Project → Evaluation of TR → Project Identification Survey*		✓	✓			
Project Formulation & Preparation	Preparatory Survey	Preliminary Survey* → Field Survey Home Office Work Reporting	✓	✓	✓		
		Outline Design Study → Selection & Contracting of Consultant by Proposal → Field Survey Home Office Work Reporting	✓	✓	✓	✓	
		Explanation of Draft Final Report → Final Report	✓	✓	✓	✓	
Appraisal & Approval	Appraisal of Project		✓	✓			
	Inter Ministerial Consultation		✓				
	Presentation of Draft Notes	✓	✓				
	Approval by the Cabinet		✓				
Implementation	E/N and G/A (E/N: Exchange of Notes, G/A: Grant Agreement)	✓	✓	✓			
	Banking Arrangement (A/P: Authorization to Pay)	✓					✓
	Consultant Contract → Verification → Issuance of A/P	✓		✓	✓		
	Detailed Design & Tender Documents → Approval by Recipient Government → Preparation for Tendering	✓		✓	✓		
	Tendering & Evaluation	✓		✓	✓	✓	
	Procurement/Construction Contract → Verification → A/P	✓		✓	✓	✓	
	Construction → Completion Certificate Recipient Government → A/P	✓		✓	✓	✓	
	Operation → Post Evaluation Study	✓		✓			
	Ex-post Evaluation → Follow up	✓	✓	✓			

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Major Undertakings to be taken by Each Government

No	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land and water area (project site, temporary yard and etc.)		•
2	To clear, level and reclaim the site when needed		•
3	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in recipient country and to assist internal transportation of the products		
	1) Marine (Air) transportation of the products from Japan to the recipient country	•	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		•
4	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted / be borne by the Authority without using the Grant		•
5	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
6	To ensure that the facilities and equipment be maintained and used properly and effectively for the implementation of the Project		•
7	To give due environmental and social consideration in the implementation of the Project		•
8	To bear all the expenses, other than those covered by the Grant, necessary for implementation of the Project		•
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•

(B/A : Banking Arrangement, A/P : Authorization to Pay)

5. Soft Component Plan

5.1. Background to plan Soft Component

5.1.1. Outline of Main Project

“Myanmar Port EDI Development Plan” (hereinafter "The Project") aims to build a Port EDI System. Japanese government is expected to support to develop responsible software, hardware and network of Port-EDI System, in order to plan cargo handling the volume of which is rapidly increasing at Yangon port and to plan the simplification of port procedures that is associated with it.

5.1.2. Necessity of Soft Component

Upon the introduction of Port EDI System, MPA considers the operation and maintenance structure which aims to reduce operation and maintenance cost by using their staffs.

Table 11 Tentative plan of operation maintenance structure of MPA

#	System	Help Desk		System Operation/ Software Maintenance		Hardware Maintenance	
		In- House	Out source	In- House	Out source	In- House	Out source
1	Port EDI	4	0	4	8 (for Software Maintenance)	8	4
2	Berth Allocation	4	0	4			
	Revenue Management		0				
	Statistical Data Management		0				
3	Terminal Operation	4	0	4			
4	Logistics Monitoring	4	0	4			
Total		16	0	16	8	8	4
							52

MPA will employ about 20 people as their staffs for Port EDI System. But in view of the quality of Myanmar ICT human resources, these staffs may have no experience for system development and they may not familiar with port related procedures.

Furthermore, the current system that is held by MPA is Microsoft Excel and Microsoft Access as a main, so it is difficult for MPA to train for its own staffs, because MPA has no experience of development and operation of large-scale Web system.

Considering the current situation of MPA mentioned above, in order to utilize Port EDI System efficiently, organize system operation structure, improve the skill of the staffs, create manual for system operation, conduct guidance to many users, answer on inquiry from the users response by MPA itself, it is necessary to support by Soft Component .

5.2. Target of Soft Component

Target of Soft Component is that MPA will be able to sustainably operate Port EDI System that will be introduced through the Project by themselves. And Port EDI System will be mandatory and efficient infrastructure that will contribute to development of port administration in Myanmar in future through the expansion of the system.

5.3. Outcome of Soft Component

The situation that should be achieved at the completion of the Soft Component is shown as below.

MPA staffs can conduct properly operation and maintenance of hardware and software that are introduced through the Project.

5.4. The means of confirmation of outcome achievement level of Soft Component

5.4.1. Questionnaire survey

Managing consultants implement questionnaire for MPA staffs, and confirm whether Port EDI System is appropriately operated and monitored by MPA staff or not. And then, will advice to MPA after confirmation according to these contents.

5.4.2. On-site investigation

Through onsite investigation, managing consultants will check whether operation maintenance management system for port EDI system is organized properly or not. And then, they will give the appropriate advice to MPA .

5.5. Action of Soft Component (Using Plan)

5.5.1. Implementation structure

Implementation structure of the Soft Component is shown as following diagram. 3 staffs will assign for the Soft Component.

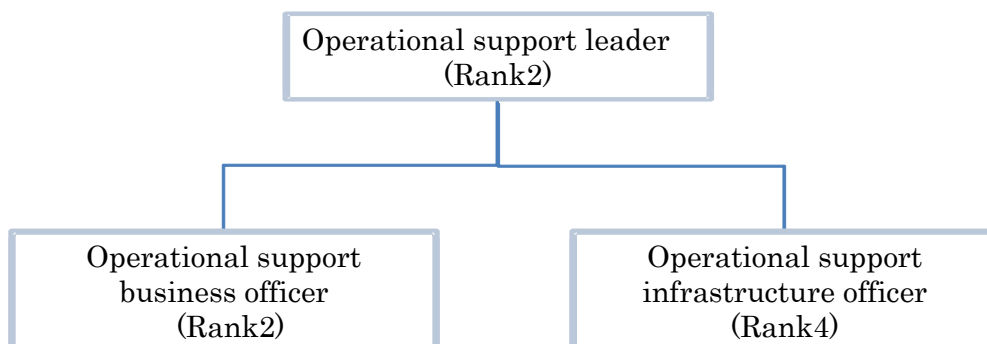


Figure 11 Implementation structure of Soft Component

By assigning the staffs who was engaged with preparatory survey, the assignment to the staffs that is engaged with cooperation preparatory survey on the Project for Port EDI System for Port Modernization, the efficient implementation structure will be organized to perform Soft Component tasks in a smooth manner. Corresponding to the activities, the role of staffs will be divided into business application system and infrastructure of the system including network.

5.5.2. Task-definition and Role-definition of the staff in charge

5.5.2.1. System operation manual review

(1) Task-definition

System operation manual that is limited in operation of system will be provided by the vendor for Port-EDI system. However, it is intended to mainly use by system operation manager and the content of description show general usage for the system. For the purpose of efficient utilization of the System, users need to update to the manual depending on the usage conditions and skill level. And also they have to add the contents regarding to the rules for their organization.

Considering the current condition of MPA, it is difficult for MPA to make system operation manual by themselves because MPA has never been developed such a large-scale system and their knowledges regarding to the system development is not enough.

Therefore, managing consultants need to support for making system operation manual. Specifically, they will give some guidance to MPA by using various examples of Japan and will review the document and give advice to MPA.

(2) Man-hour estimation

With a view to preparing for necessary guidance, man-hour of each staff is estimated 10 days (0.50 man-month).

In order to advise and review on the system operation manual which will be drafted by MPA, man-hour of operational support business officer and operational support infrastructure officer is expected 12 days (2 times of 0.40 man-months).

5.5.2.2. User training

(1) Task-definition

MPA staffs should make training plan for system users, but MPA staffs do not have knowledge to organize those plans under current situation. Managing consultants will provide the template of training plan and also review on the training plan which will be drafted by MPA staffs.

Moreover, they will support making user training documents. Managing consultants basically will collaborate with MPA. Considering the situation which MPA has no practice of making documents beforehand, managing consultants will have to support their activities totally. Nevertheless MPA should make training plan as much as possible by themselves in view of the continuity of business. Therefore managing consultants will take care of transferring the knowledge to MPA in their activity. Same as support for training plan, managing consultants will provide the template of training plan and also review on the user training documents which will be drafted by MPA staffs.

(2) Man-hour estimation

Man-hour of each staff is estimated 10 days (0.50 man-month) for necessary preparation such as template creation of training plan. In addition, man-hour of the operational business

officer and the operational support infrastructure officer is estimated 12 days (0.40 man-months) to conduct the review and advice on training plan which MPA will be drafted.

Moreover, man-hour of the operational business officer and the operational support infrastructure officer is estimated about 12 days (2 times of 0.40 man-month) to conduct the review and advice on training documents which will be drafted by MPA.

5.5.2.3. Operation and Maintenance support

(1) Task-definition

MPA should make plan and maintenance procurement regarding to the maintenance item after system operation, maintenance structure, service content, roles and contract with maintenance vendor by themselves. As mentioned above, it is difficult for MPA to prepare them in a smooth manner in accordance with starting to use Port EDI system. Therefore, managing consultants will support the development of the operation maintenance plan towards the implementation of the operation and maintenance work that should be implemented by MPA.

After Port EDI system launch, it is assumed that various troubles such as initial failure will occur. Managing consultants will clarify and manage the actualized problems and take over the management knowledge to MPA staff simultaneously by monitoring operation of the System in collaboration with MPA.

(2) Man-hour estimation

Man-hour of each staff is estimated 10 days (0.50 man-months) for necessary preparation for guidance of operation and maintenance planning.

And Man-hour of each staff is estimated 12 days (2 times of 0.50 man-months) in order to review and give advice on operation and maintenance plan which will be drafted by MPA. Moreover, it needs 2 weeks to support MPA as follow-up after Port EDI system operation by managing consultants. For this matter, man-hour of each staff is estimated 14 days (0.47man-months).

5.6. The means of procurement of implementation human resource

It is effective and reasonable that the staffs who conduct outline design for Port EDI System introduce directly to MPA for operation and maintenance of the System. Therefore, managing consultants should directly support without using local resources.

5.7. Implementation schedule for Soft Component

This implementation schedule for Soft Component is shown as attachment * with project schedule.

5.8. Deliverables of Soft Component

The deliverables of this Soft Component are shown as below.

- Soft Component completion report
- System operation manual (to create in collaboration with MPA)

- Training program (to create in collaboration with MPA)
- Training data (to create in collaboration with MPA)
- Maintenance and operation plan (to create in collaboration with MPA)

5.9. Arrangement by the Recipient country

5.9.1. Contribution to adjustment matters

MPA have the responsibility for instruction to the vendors of operation and maintenance and stakeholders of the Project.

5.9.2. Building the organization

In accordance with Soft Component activities, institution of recipient country will have to make organization and keep necessary human resources.

6. Other Relevant Data

N/A

7. References

The materials related to system software requirement (logical configuration) are as follows.

- 1) Business flow
 - a) Business flow list
 - b) Port related procedure business flow
 - c) Berth meeting business flow
 - d) Invoice issuing business flow
- 2) Document list
- 3) Function list

7.1. Business flow

7.1.1. Business flow list

classification of business				Business Flow ID	Summary of Business	
Lv1	Lv2	Lv3	Lv4			
1 Port clearance Procedures	1 Arrival	1 Letter of appointment		WF-1-1-1-1	(Not EDI)	
		2 Inward Application	1 FAL1	WF-1-1-2-1	Notification and acceptance of General Declaration which affects arriving in port are performed based on IMO FAL1 style.	
			2 FAL2	WF-1-1-2-2	Notification of Cargo Declaration and acceptance are performed based on IMO FAL2 style.	
			3 FAL3/4	WF-1-1-2-3	Notification of Ship's Stores Declaration and Crew's Effects Declaration and acceptance are performed based on IMO FAL3/4 style.	
			4 FAL5/6	WF-1-1-2-4	Notification of Crew List and Passenger List and acceptance are performed based on IMO FAL5/6 style.	
			5 FAL7	WF-1-1-2-5	Notification of Dangerous Goods and acceptance are performed based on IMO FAL7 style.	
		3 Ship's particular and PSC	1 Ship's particular	WF-1-1-3-1	Ship's particular information is managed every Vessel.	
			2 Port State Control (Registration)	WF-1-1-3-2	The original information is managed every vessel about the certificate, etc. with which all vessel should be equipped with decision of IMO.	
			3 Port State Control (Confirmation)	WF-1-1-3-3	The expiration date information is managed every certificate, etc. with which all vessel should be equipped with decision of IMO.	
		4 Inward Port Clearance	1 Freight rate	WF-1-1-4-1	(Not EDI)	
			2 Security	WF-1-1-4-2	The procedure for the Security relation is managed when arriving at a port.	
			3 Custom	WF-1-1-4-3	Custom approves and accepts all kinds' application and notification when arriving at a port, and issues Port Clearance.	
			4 Immigration	WF-1-1-4-4	Immigration approves and accepts all kinds' application and notification when arriving at a port, and issues Port Clearance.	
			5 Port Health Office	WF-1-1-4-5	Quarantine approves and accepts all kinds' application and notification when arriving at a port, and issues Port Clearance.	
		5 Cargo Information	1 Stowage Information	WF-1-1-5-1	Stowage information are informed.	
			2 Break bulk order etc.	WF-1-1-5-2	The permission to carry stowage out is applied for, and approved.	
			3 Cargo List	WF-1-1-5-3	Detail information on cargo is collected and managed. The following information is transmitted and received in the specified format of PortEDI. •Manifest information •Definite import and export cargo information	
			4 Delivery Order	WF-1-1-5-4	D/O is issued.	
		2 Departure	1 Outward Application	1 FAL1	WF-1-2-1-1	Notification and acceptance of General Declaration which affects departure are performed based on IMO FAL1 style.
				2 FAL5/6	WF-1-2-1-2	Notification and acceptance of Crew List and Passenger List are performed based on IMO FAL5/6 style.
	3 Ship's Departure Report			WF-1-2-1-3	Crew List and Passenger List of difference between arrival and departure is issued, signed by captain and submitted to Immigration.	
	2 Port State Control		1 Port State Control (Registration)	WF-1-2-2-1	The original information is managed every vessel about the certificate, etc. with which all vessel should be equipped with decision of IMO.	
			2 Port State Control (Confirmation)	WF-1-2-3-1	The expiration date information is managed every certificate, etc. with which all vessel should be equipped with decision of IMO.	
	3 Outward Port Clearance		1 MPA(DMA)	WF-1-2-3-1	MPA approves and accepts all kinds' application and notification when departing from a port, and issues Port Clearance.	
			2 Custom	WF-1-2-3-2	Custom approves and accepts all kinds' application and notification when departing from a port, and issues Port Clearance.	
			3 Immigration	WF-1-2-3-3	Immigration approves and accepts all kinds' application and notification when departing from a port, and issues Port Clearance.	
	3 Periodical reports					Periodical reports (daily, monthly, and annually, etc.) will be automatically prepared.
	2 Berth Allocation		1 Berth Meeting	1 BERTHING INFORMATION	WF-2-1-1	After receiving Movement application, material of berth meeting is made based on status information on vessel. The assigned berthes are registered and they are published as a result of the berth meeting.

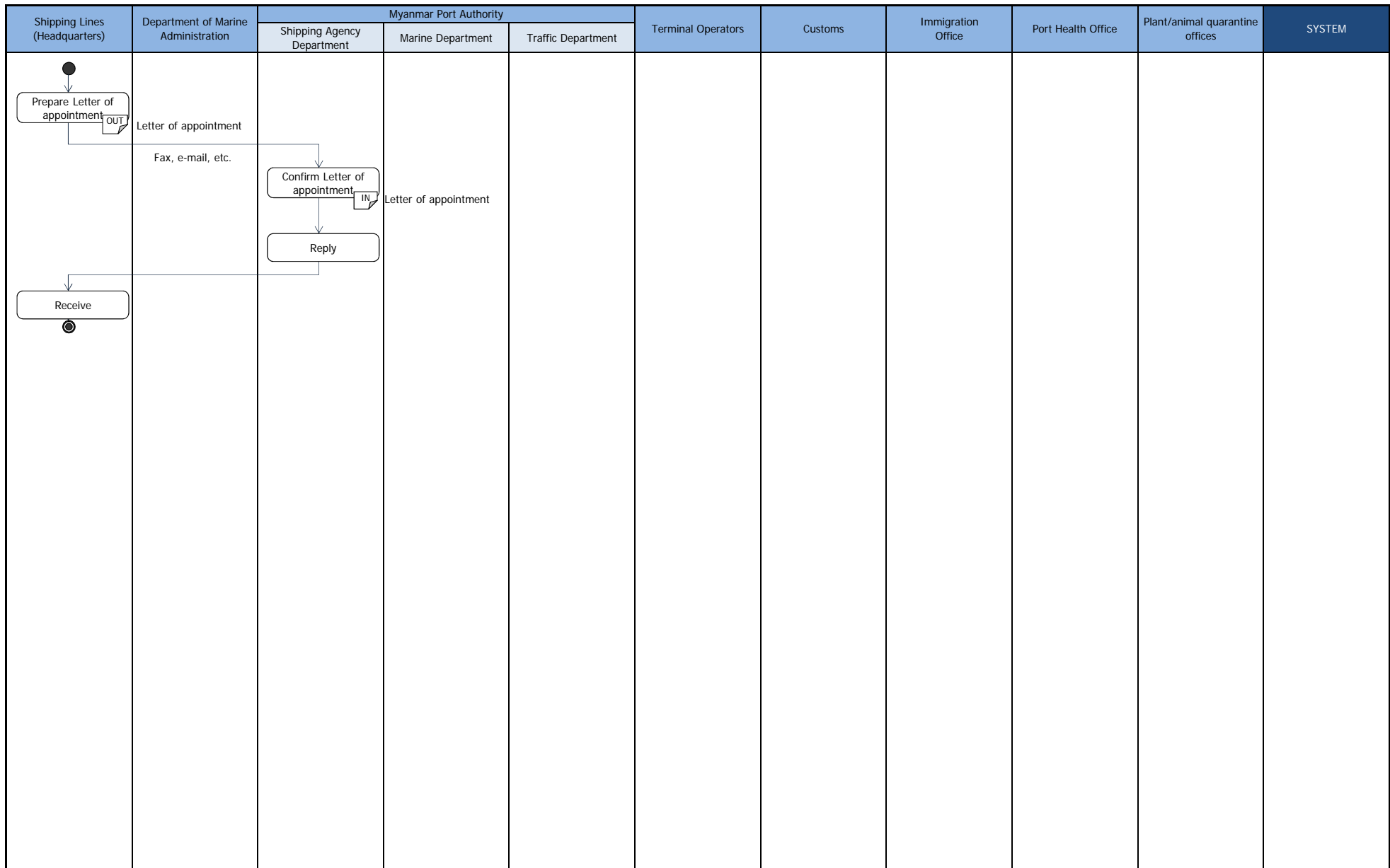
classification of business				Business Flow ID	Summary of Business
Lv1	Lv2	Lv3	Lv4		
		2 Tidal Information		WF-2-1-2	The time and the tide level of the high & low tide are registered.
	2 Movement order	1 Movement Order		WF-2-2-1	Pilot's assignment information is registered based on the pilot's particular information and the berth information assigned at the berth meeting.
		2 Pilotage Certificate		WF-2-2-2	Pilot's operation result is registered.
	3 Periodical reports				Periodical reports (daily, monthly, and annually, etc.) will be automatically prepared.
3 Invoice Issuing	1 Tariff			WF-3-1	The charge items and the unit price of the each charge item of expense is registered.
	2 Balance	1 Deposit		WF-3-2-1	Payment of a deposit is registered.
		2 Reconciliation		WF-3-2-2	The difference between the deposit and the amount charged is managed.
	3 Estimate	1 Estimate Disbursement		WF-3-3	The Estimate Disbursement for each call is issued.
	4 Usage Record	1 Tariff base		WF-3-4-1	The actual achievement value which becomes a calculation basis of the amount charged is registered based on the charge item of expense.
		2 Daily report		WF-3-4-2	A daily report of results is registered. The daily report of results for operation, etc. will be a calculation basis of the amount charged and also evidence.
		3 Other Charges (Each time of call)		WF-3-4-3	Every other charge for each call is registered.
		4 Other Charges (Monthly)		WF-3-4-4	Every other monthly charge is registered.
	5 Account	1 Bill of MPA(Marine Dept.)		WF-3-5-2	Bill of fee charged by MPA(Marine Dept.) is issued. ("Pilotage Certificate" is appropriate bill in current business.)
		2 Bill of TO		WF-3-5-2	Bill of fee charged by terminal operator (MPA(Traffic Dept.) in case of SPW) is issued. ("Wharfage Slip" is appropriate bill in current business.)
		3 Bill of MPA(Marine Dept.&TD)		WF-3-5-2	In case of SPW, 2 Bills of MPA(Marine Dept.) and MPA(Traffic Dept.) are merged and issued. ("Combined Bill" is appropriate bill in current business.)
		4 Disbursement Account		WF-3-5-2	Bill of each call is issued by SAD. (SAD→Shipping Company, charterer, consignee, etc.)
		5 General Account		WF-3-5-3	A monthly bill is issued.
	3 Periodical reports				Periodical reports (daily, monthly, and annually, etc.) will be automatically prepared.
4 Statistical Data Management	1 Master Maintenance	1 Port Statistical code			A classification code for port statistics is managed.
		2 HS code			A conversion table of HS code and port statistical code is managed.
	2 state and results data	1 Vessel			Information of results about vessel is collected and managed.
		2 Cargo			Information of results about cargo is collected and managed.
		3 Operation Record			Information of results about pilotage, loading and discharging, use of harbor facilities and equipment, etc. is collected and managed.
	3 Statistical data extraction	1 free format			Statistical data is extracted by designating data items and bounds arbitrary.
		2 pre-defined format			Statistical tables and graphs are created in pre-defined format.
5 Logistic Monitoring	1 Gate Working Time				Registration, edit and inquire the gate open hour information.
	2 Permission of CY Delivery				Registration and inquiry of the CY carrying out pros and consent from a terminal management system.
	3 Vessel Schedule				Registration and inquiry of the shipping state information sent from AIS, a port management-body system and a terminal management system.
	4 Others	1 User ID/password			Application, reception, registration, edit, inquire and answer for user ID and password.
		2 News information, FAQs and comment			News information, FAQs and comment are managed and referred.

classification of business				Business Flow ID	Summary of Business
Lv1	Lv2	Lv3	Lv4		
		3 Mail delivery			(1)A mail delivery setting is managed and referred. (2)Read the data sent from an outside system.
		4 Contact information of the enterprise / ad banner / URL link			A contact information of the enterprise,an advertisement banner and URL link are managed and referred.
		5 Service outline / term of service / the operational explanation / common question			The service outline, a term of service, the operational explanation and common question are managed and referred.
		6 Master Management			The master data of ports, terminals, shipping companies and vesseles, etc are managed.
6 Terminal Operation	1 basic information Management	1 Export and Import Information Management	1 Import Information Management		Manage the manifest data.
			2 Export Information Management		Manage the booking data.
		2 Vessel Information Management			Manage the vessel status data.
			3 Container Information Management	1 Container's Attribute data Management	
		2 Container Status Information Management			Manage the the container status information for inspection or bond status of the containers.
		4 Account Management	1 Tariff Management		Manage the billing items and tariff information.
			2 Operation record Management		Manage the operation record data.
			3 Account Management		Billing amount based on the tariff and operations performance information (loading & dischrnging, port dues, etc.) is calculated, the invoices are issued.
		5 EDI with outside system	1 EDI with MACCS		Register the following data in the offline. •manifest data •fixed data of import and export cargo list •the status of customs clearing (Note:If the information of the data specifications are not presented by the MACCS at the right time, this function may not be implemented.)
				2 EDI with PortEDI	
	2 Yard Planning	1 Yard Layout Setting		Register the layout data of the yard.	
			2 Yard Monitoring		Manage the location data of the containers in the yard.
			3 Yard Allocation / Stacking Planning		Make allocation and stacking plan of containers in the yard. (Note:Although yard bay plan of shipping containers are the subject , yard bay plan of landed container is optional.)
			4 Marshaling (Shift) Planning		Make the marshaling (shift) plan of containers in the yard.
			5 Loading and Discharging Sequence Planning		Make the sequence of loading and discharging the containers.
	3 Yard Operation	1 Yard Operation Planning		Make the yard operation plan based on yard planning and vessel planning.	
			2 Yard Operation Record Management		Manage the yard operation record data.

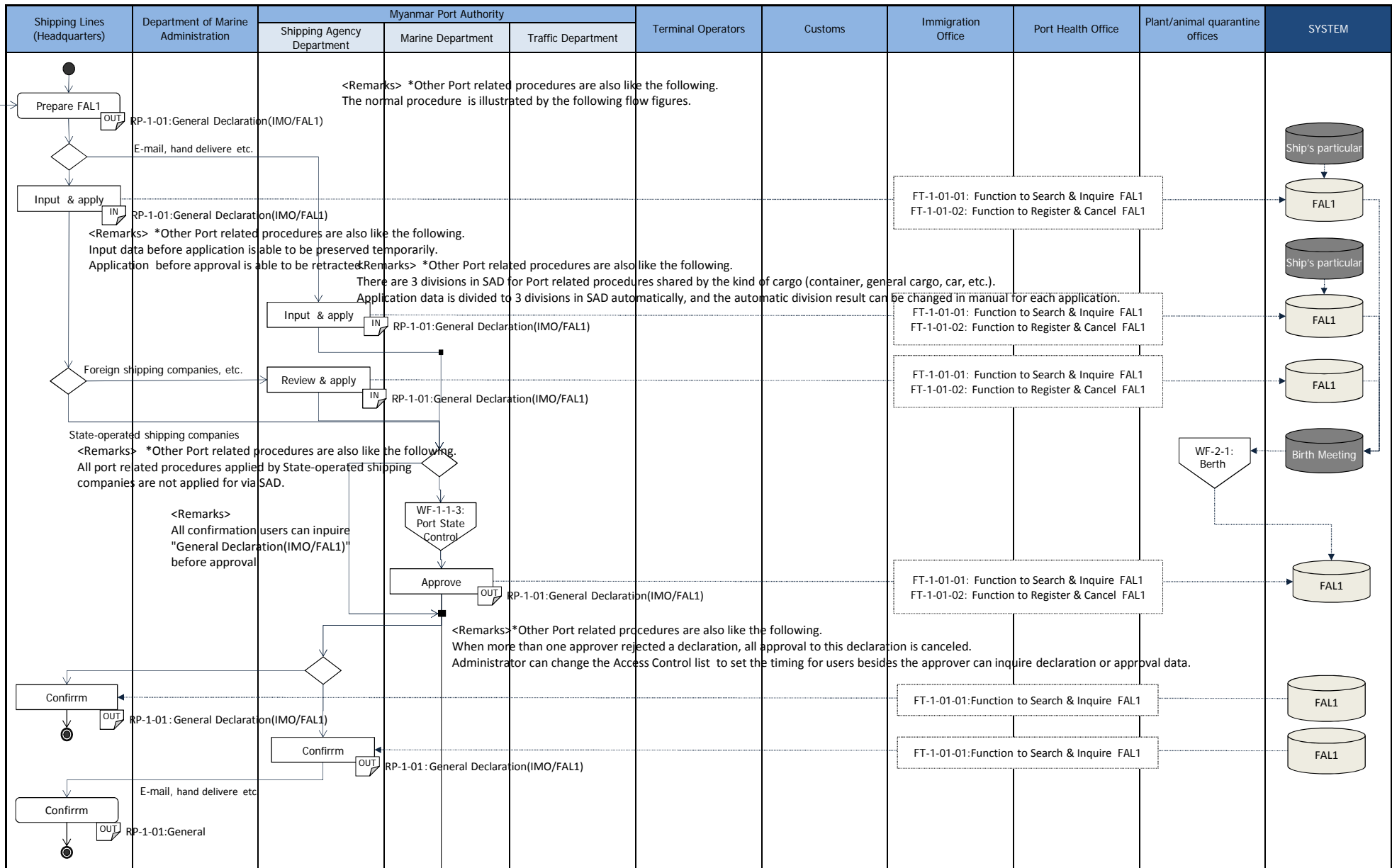
classification of business				Business Flow ID	Summary of Business
Lv1	Lv2	Lv3	Lv4		
	4 Gate Operation	1 Gate Check (carry-in)			Accept the containers (including empty containers) to be carried in at the gate. (Note: Containers and general cargoes are integrally managed at the gate.)
		2 Gate Check (carry-out)			Accept the containers (including empty containers) to be carried out at the gate. Carry-out reservation form(Token) is issued on the basis of the information of the D/O, and from the QR code on the token, D/O and location information of the cargo is read. Clearing process by matching the D/O is performed at the time of carry out. Based on the carry-out cargo information, Challan is created.
		3 EIR Issuing			Issue the EIR and placard.
		4 Register Damage data			Register the container damage confirmation result.
	5 Vessel Planning	1 Vessel Layout Setting			Register the layout data of the vessel.
		2 Stowage Planning			Make stowage plan.
		3 Vessel Operation Planning			Make the vessel operation schedule.
		4 Vessel Operation Record Management			Manage the vessel operation record data.
	6 General Cargo Management	1 General Cargo Registration			Register the following cargo specification data. •Discharging cargo from the ship •Loading cargo to the ship
		2 Location Management			The location information of General Cargo in CY is managed. In case of discharging cargo, manage location and the quantity (the number, the capacity and the weight, etc.) of general cargo after cargo is lowered in a quay.
		3 Status Management			Status information of General Cargo in CY is managed. In case of discharging cargo, status information (D/O issued, carrying out reservation, already carried out, etc.) are managed from the point of discharging the cargo to the quay. If the cargo in one of the B / L are carried out by dividing, it is managed by the branch number.
		4 Gate Check (carry-in, carry-out)			General Cargo of carry-in and carry-out application is accepted. (Note: Containers and general cargoes are integrally managed at the gate.) In case of carry-out cargo, Carry-out reservation form is issued on the basis of the information of the D/O. Clearing process by matching the D/O is performed at the time of carry out. Based on the carry-out cargo information, Challan including the specification of the Conservancy charges, is created.
	7 Common	1 User Maintenance			(1) Belonging organization and an executive group are set and managed to a user ID. (2) Allocation of a right group is managed for Every procedure to belonging organization and a role group. (3) The role on the access authority and the approval flow(apply, approve, confirm, etc.) is set and managed to a right group. ※ Like prototype system.
		2 Master Maintenance			Manage the master data.

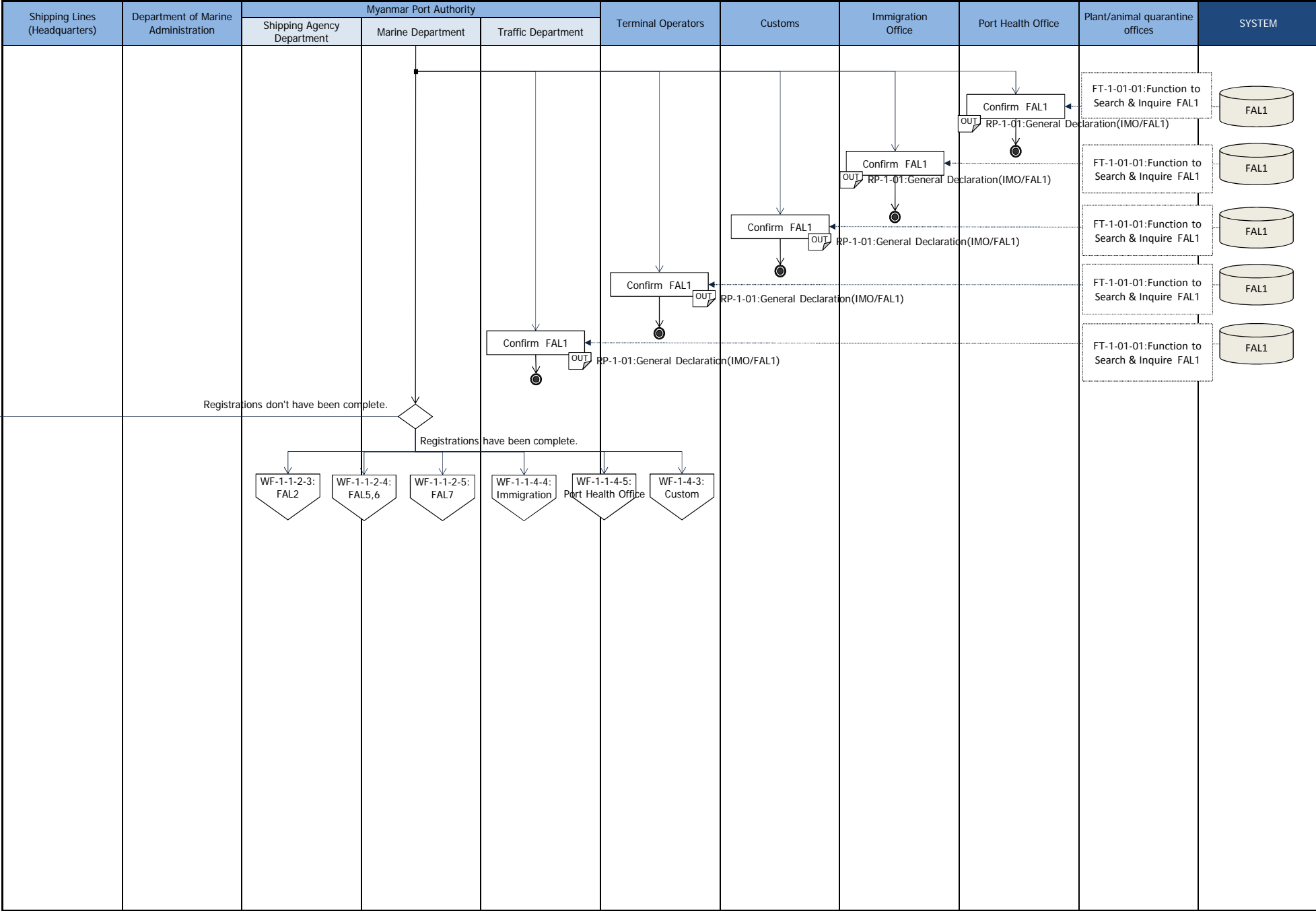
7.1.2. Port related procedure business flow

Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-1	2014/10/23	—	Before Arrival (Not EDI)
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Letter of appointment		

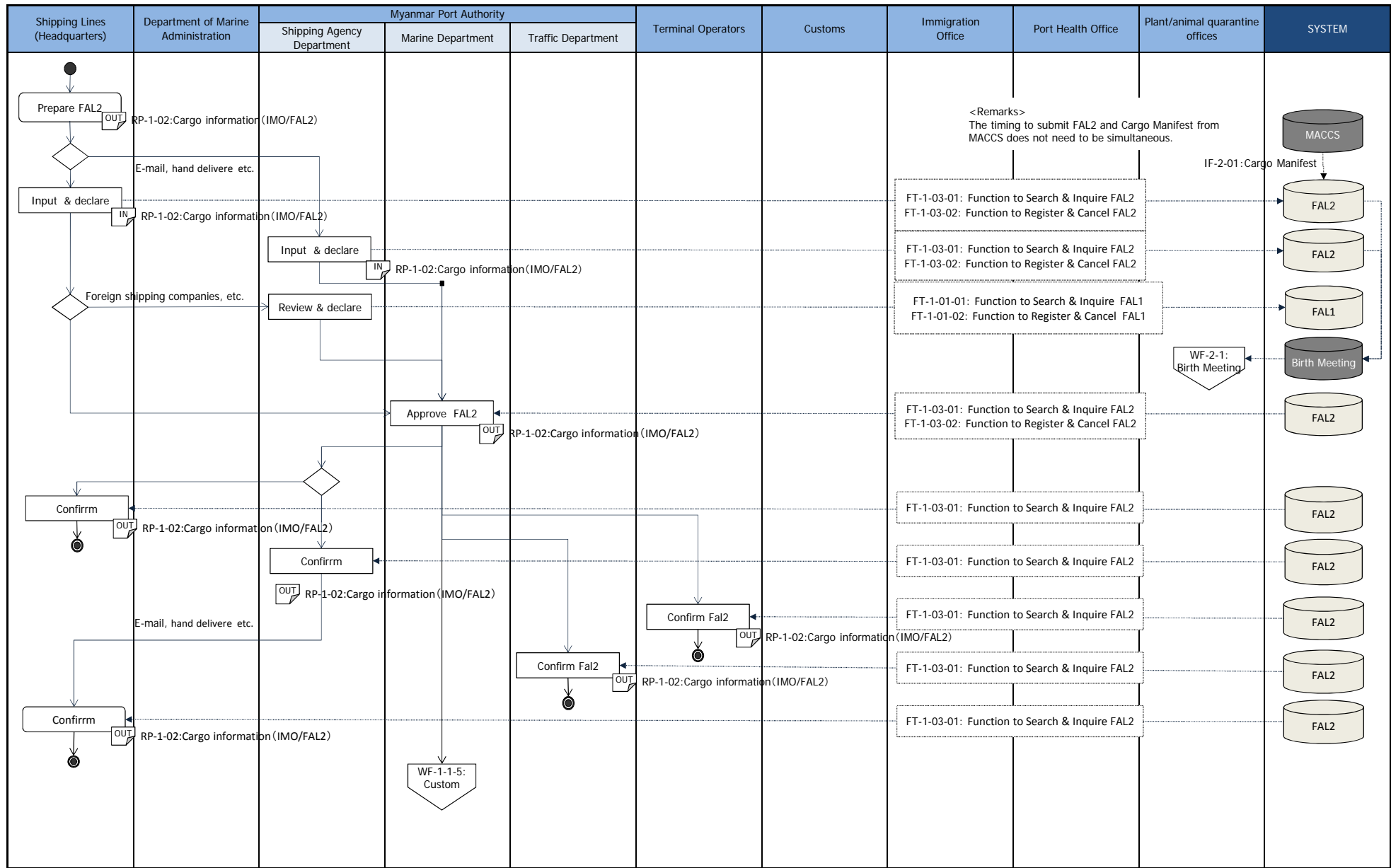


Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-2-1	2014/10/23	2015/2/18	Before arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Application	FAL1(General Declaration)	





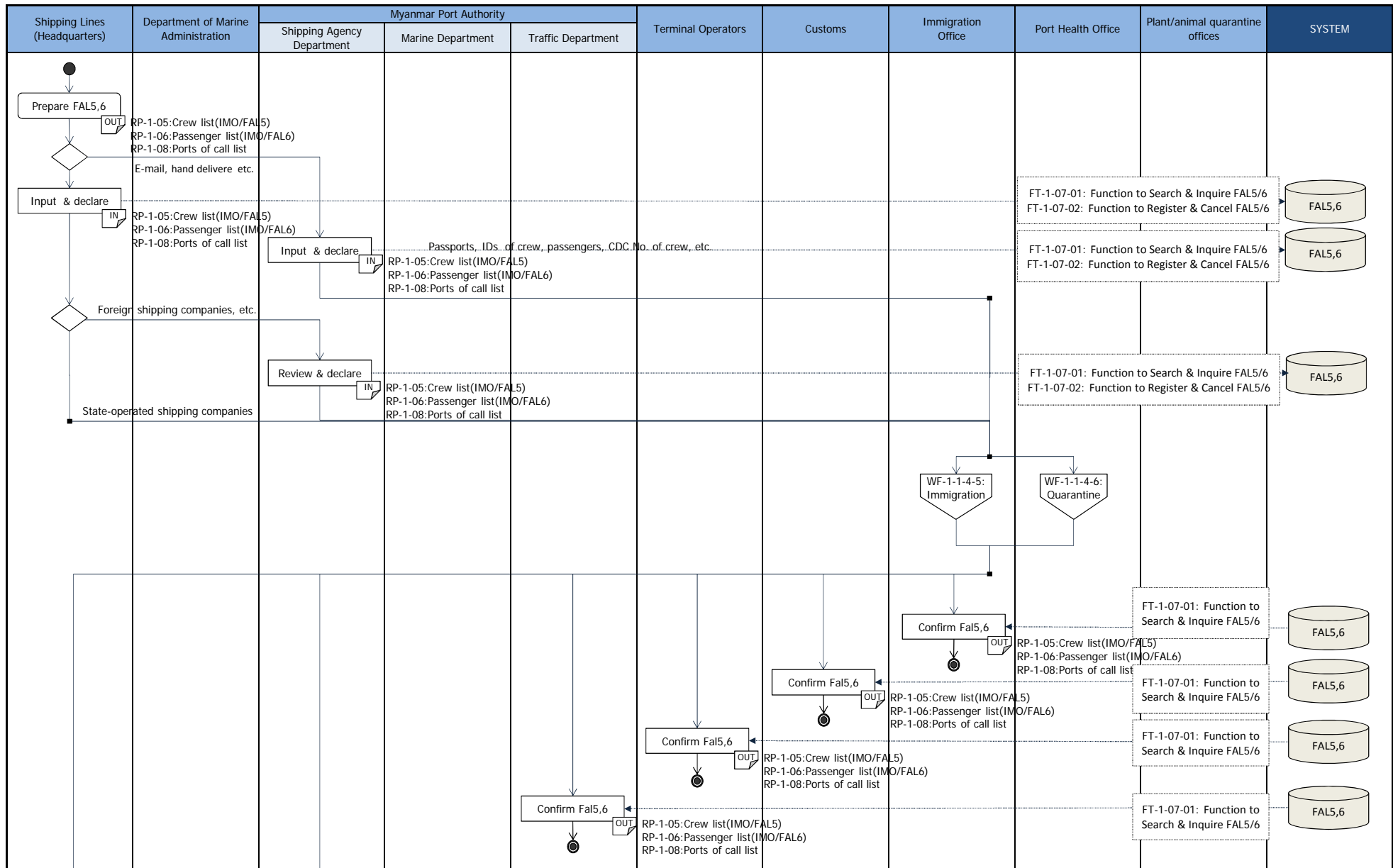
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-2-2	2014/10/23	2015/2/18	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Application	FAL2	

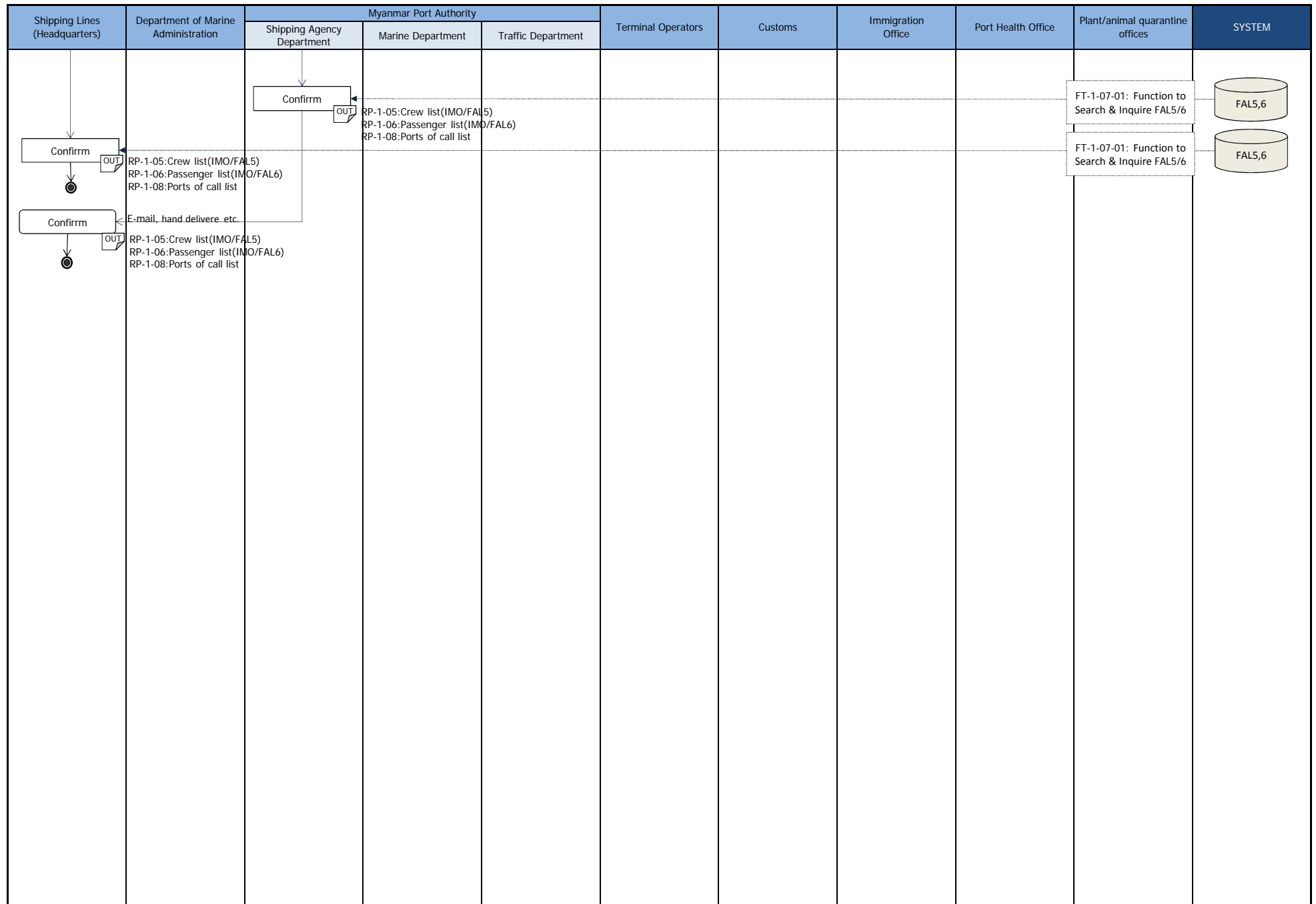


Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-2-3	2014/12/8	—	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Application	FAL3/4	

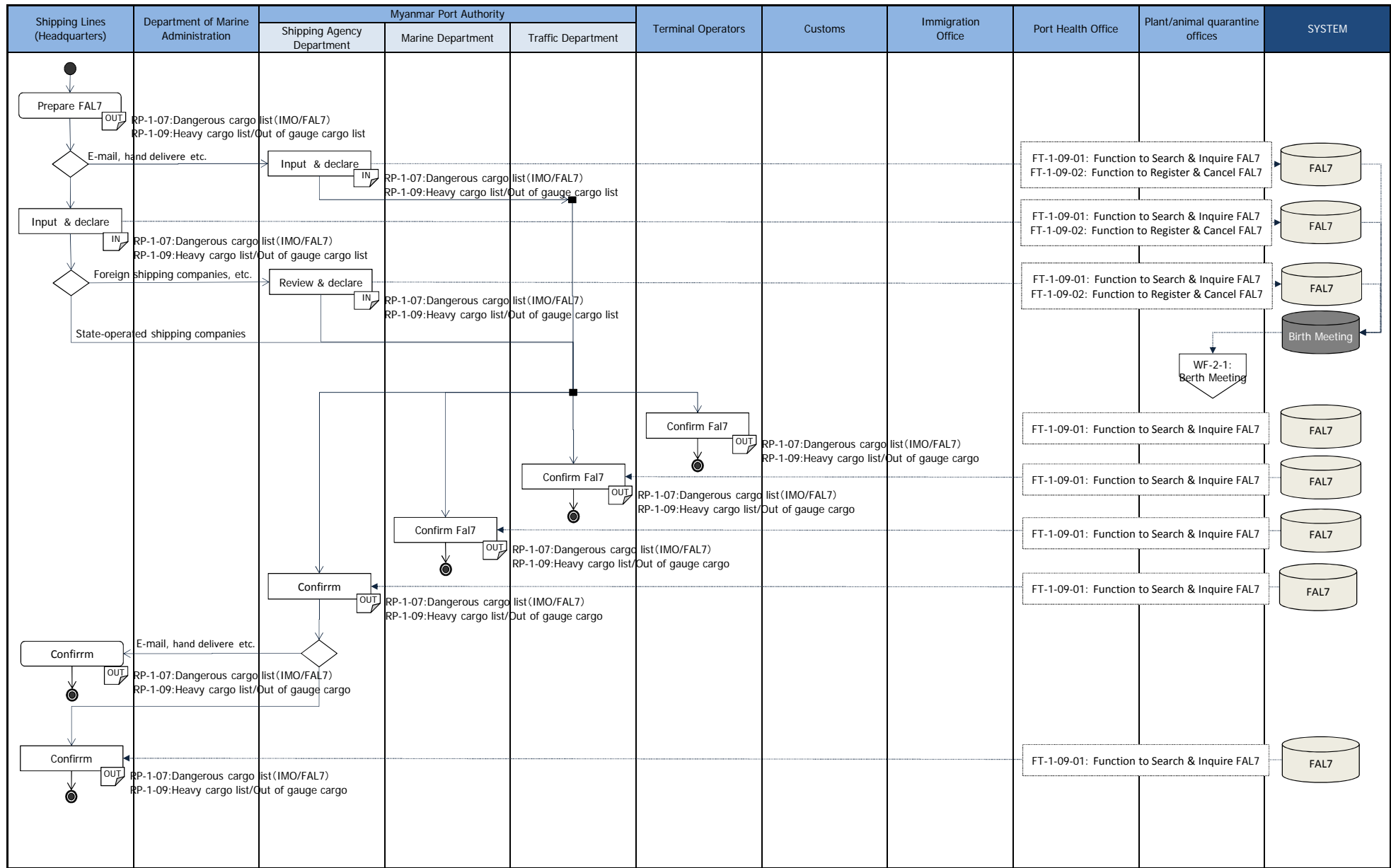
Shipping Lines (Headquarters)	Department of Marine Administration	Myanmar Port Authority			Terminal Operators	Customs	Immigration Office	Port Health Office	Plant/animal quarantine offices	SYSTEM
		Shipping Agency Department	Marine Department	Traffic Department						
Refer to WF-1-1-4-3										

Name of System	Work Flow	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-1-1-2-4	2014/10/23	2015/2/18	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Application	FAL5/6	

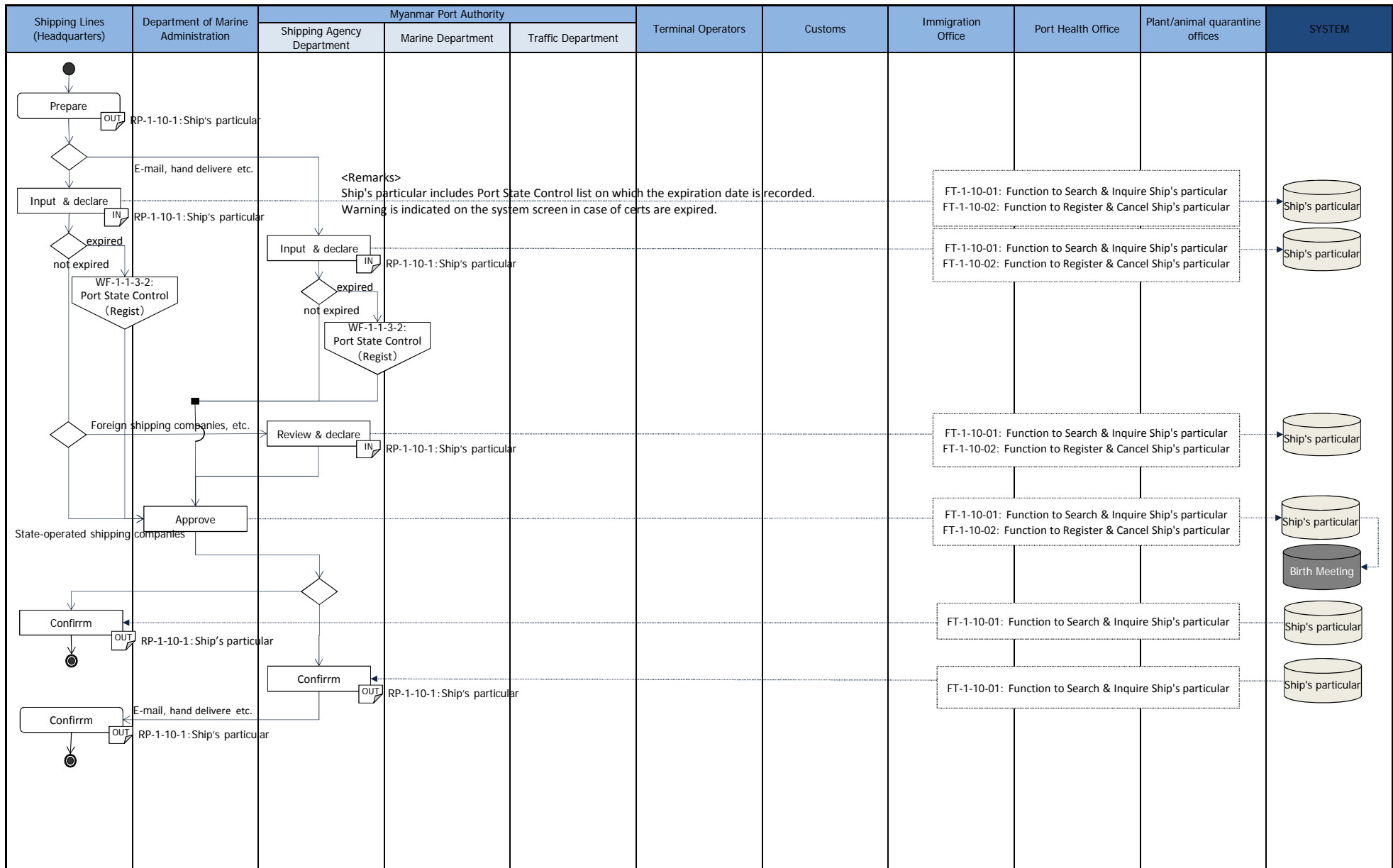




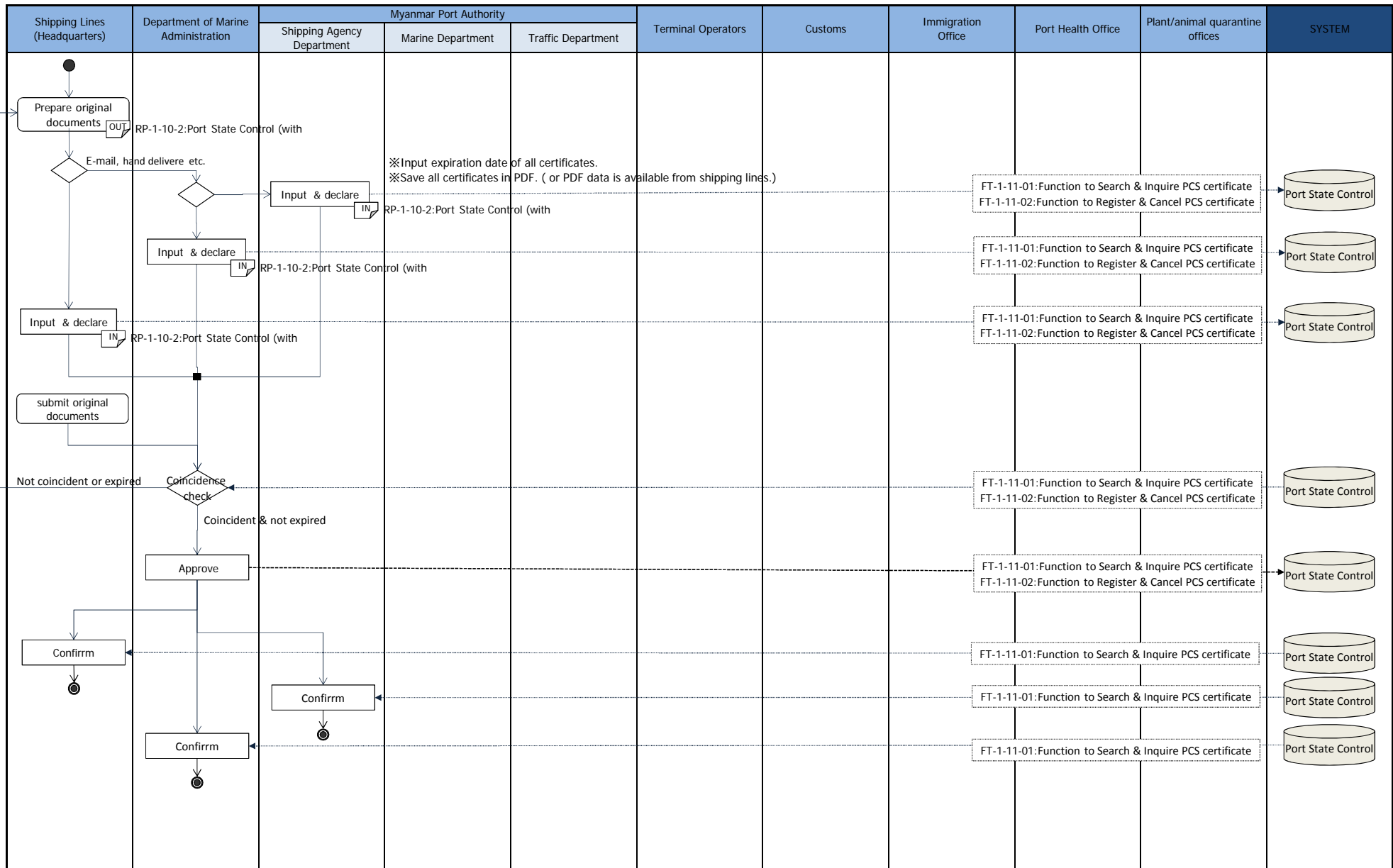
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-2-5	2014/10/23	2015/2/18	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Application	FAL7	



Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-3-1	2014/10/23	2015/2/18	at the time of port of call for the first time or when the registration data is changed
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Ship's particular	Ship's particular(Regist)	



Name of System	Work Flow	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-1-1-3-2	2014/10/23	2015/2/18	at the time of first time entry into port, at each time of renewal of a certificate
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Ship's particular	Port State Control (Regist)	



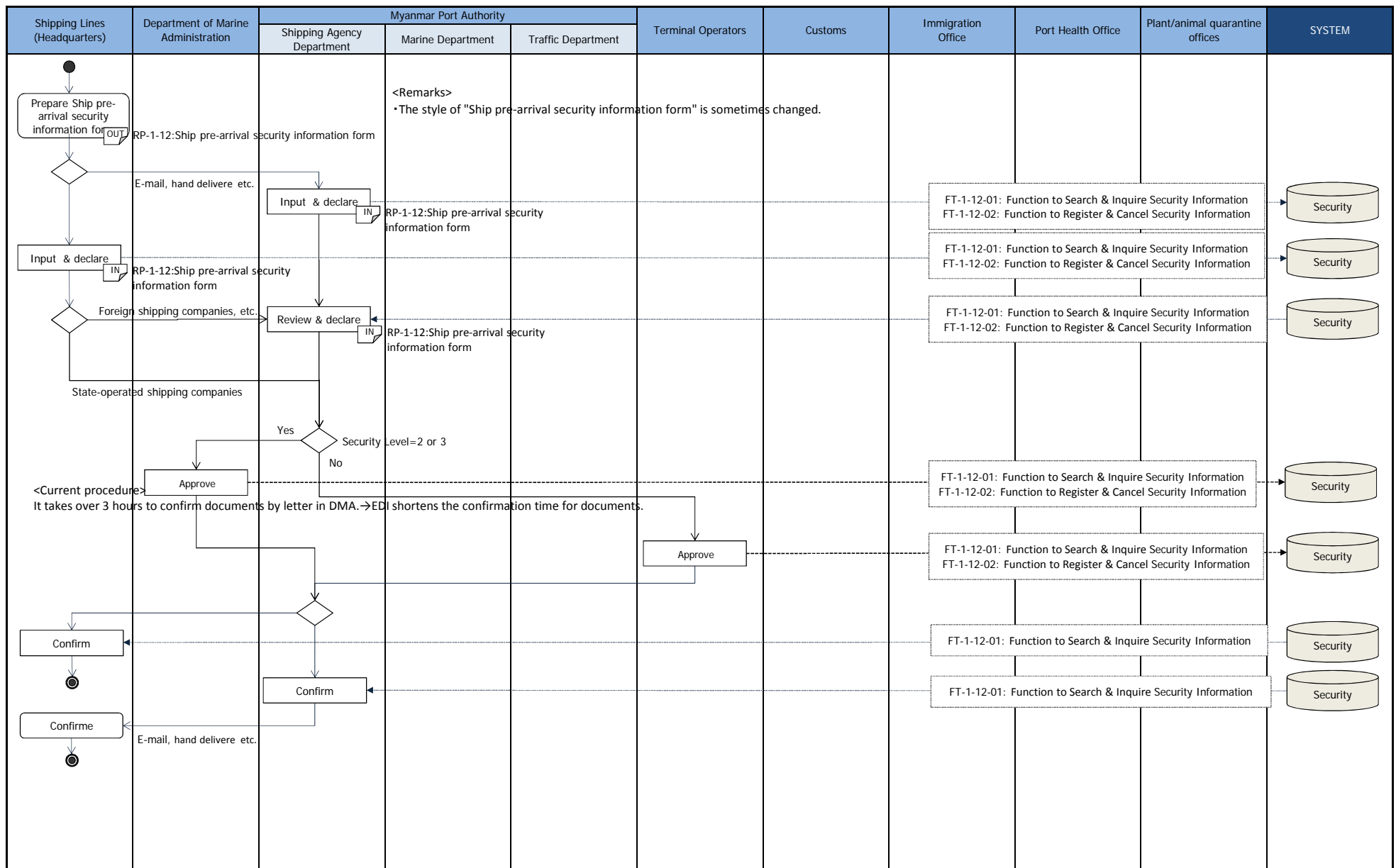
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-3-3	2014/10/23	2015/2/18	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Ship's particular	Port State Control (Check)	

Shipping Lines (Headquarters)	Department of Marine Administration	Myanmar Port Authority			Terminal Operators	Customs	Immigration Office	Port Health Office	Plant/animal quarantine offices	SYSTEM
		Shipping Agency Department	Marine Department	Traffic Department						
			<p><Remarks> Ship's particular includes Port State Control list on which the expiration date is recorded. Warning is indicated on the system screen in case of certs are expired. Even if expired warning on certs is indicated, it's possible to proceed procedure on the Port EDI system.</p>							

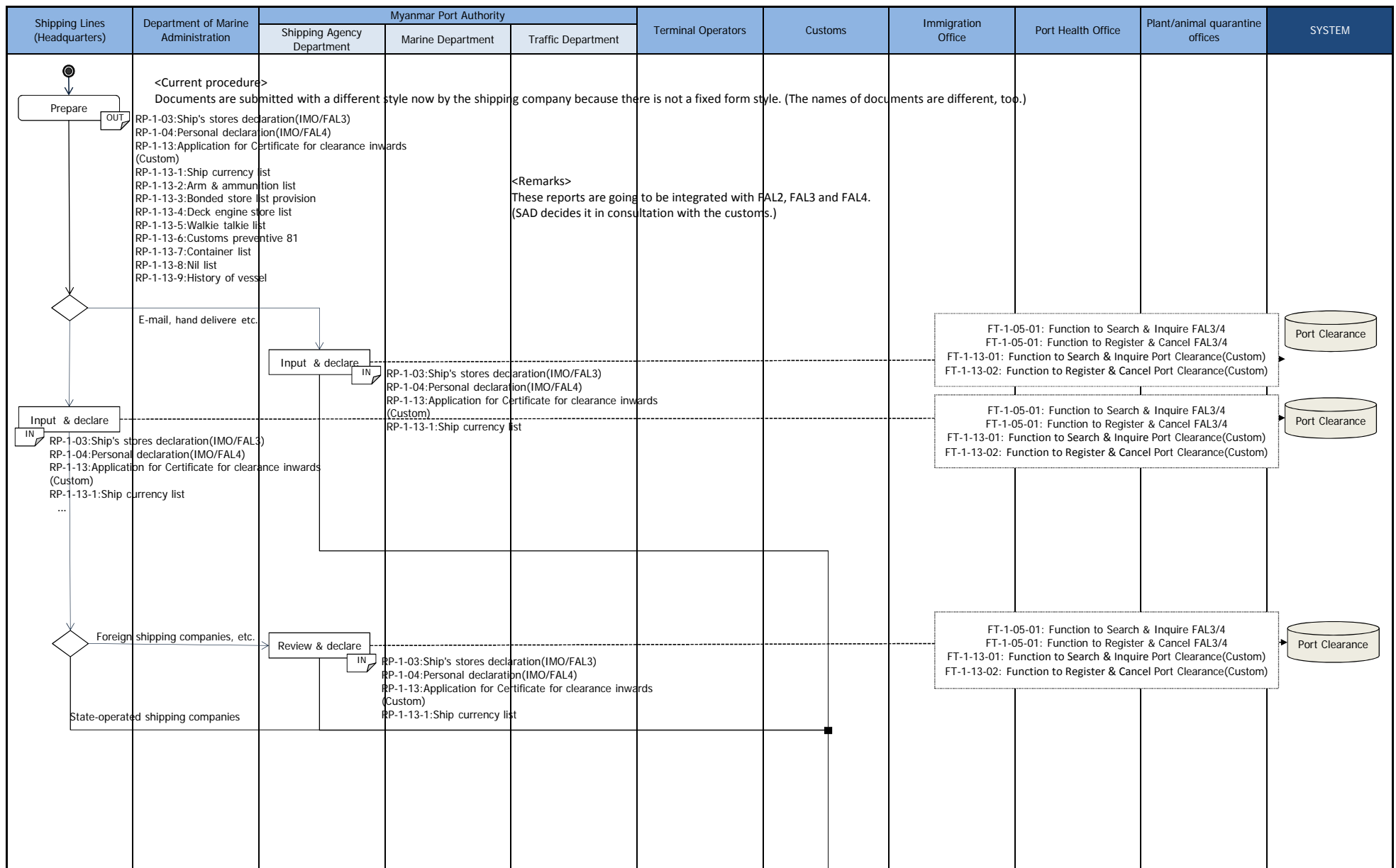
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-4-1	2014/10/23	2015/2/18	Before Arrival (Not EDI)
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Port Clearance	Freight rate	

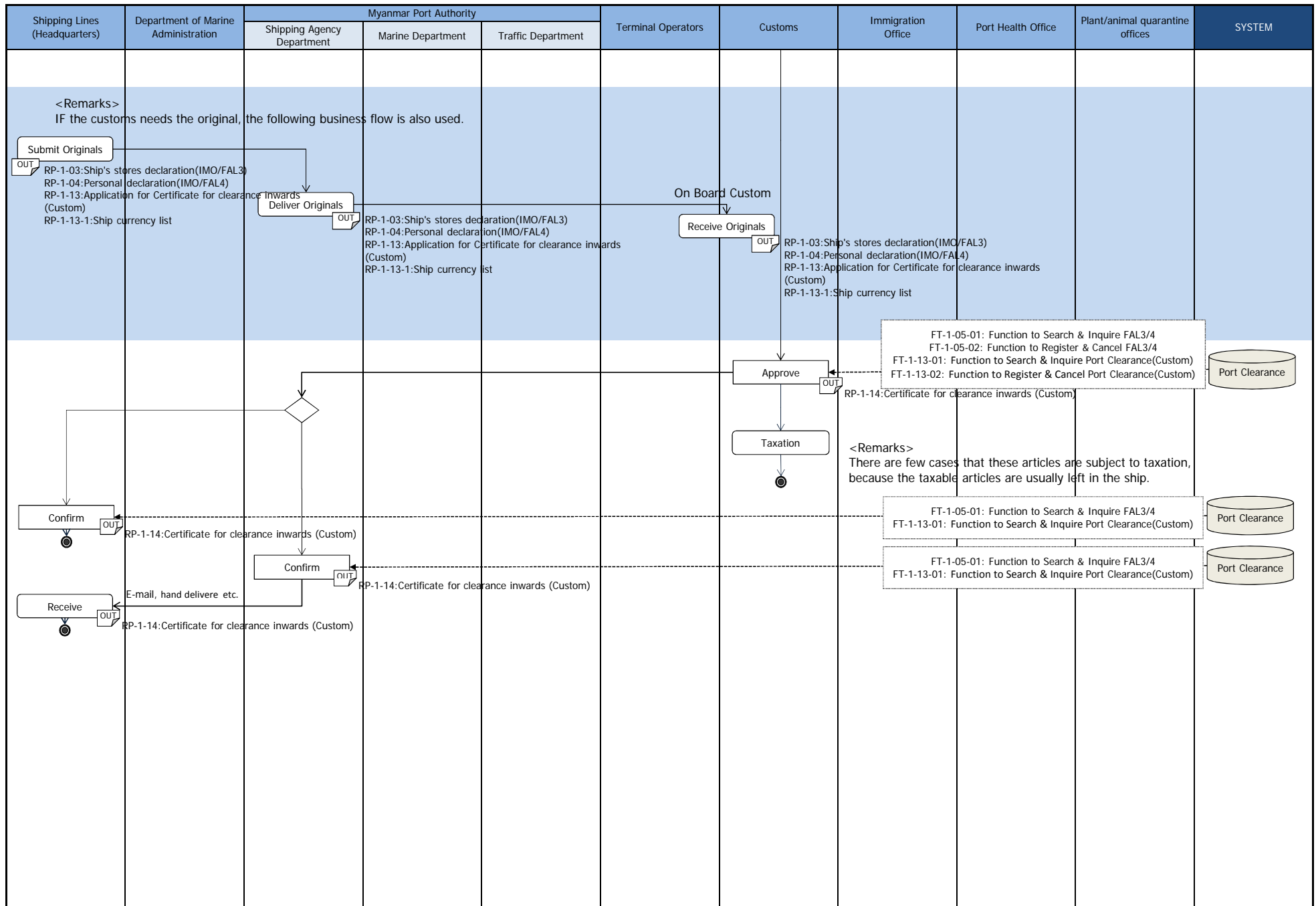
Shipping Lines (Headquarters)	Department of Marine Administration	Myanmar Port Authority			Terminal Operators	Customs	Immigration Office	Port Health Office	Plant/animal quarantine offices	SYSTEM
		Shipping Agency Department	Marine Department	Traffic Department						
	<p>RP-1-33:Freight rate, total freight earning</p> <p>Fax, e-mail, etc.</p>		<p>RP-1-33:Freight rate, total freight</p>		<p><Remarks></p> <ul style="list-style-type: none"> •The bills are made after inquiring about "RP-1-33:Freight rate, total freight earning" with manifest . •From this report, fees of SAD are calculated. •This report is used for the taxation by Internal Revenue Department. 		<p>RP-1-33:Freight rate, total freight</p>			

Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-4-2	2014/10/23	2015/2/18	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Port Clearance	Security	

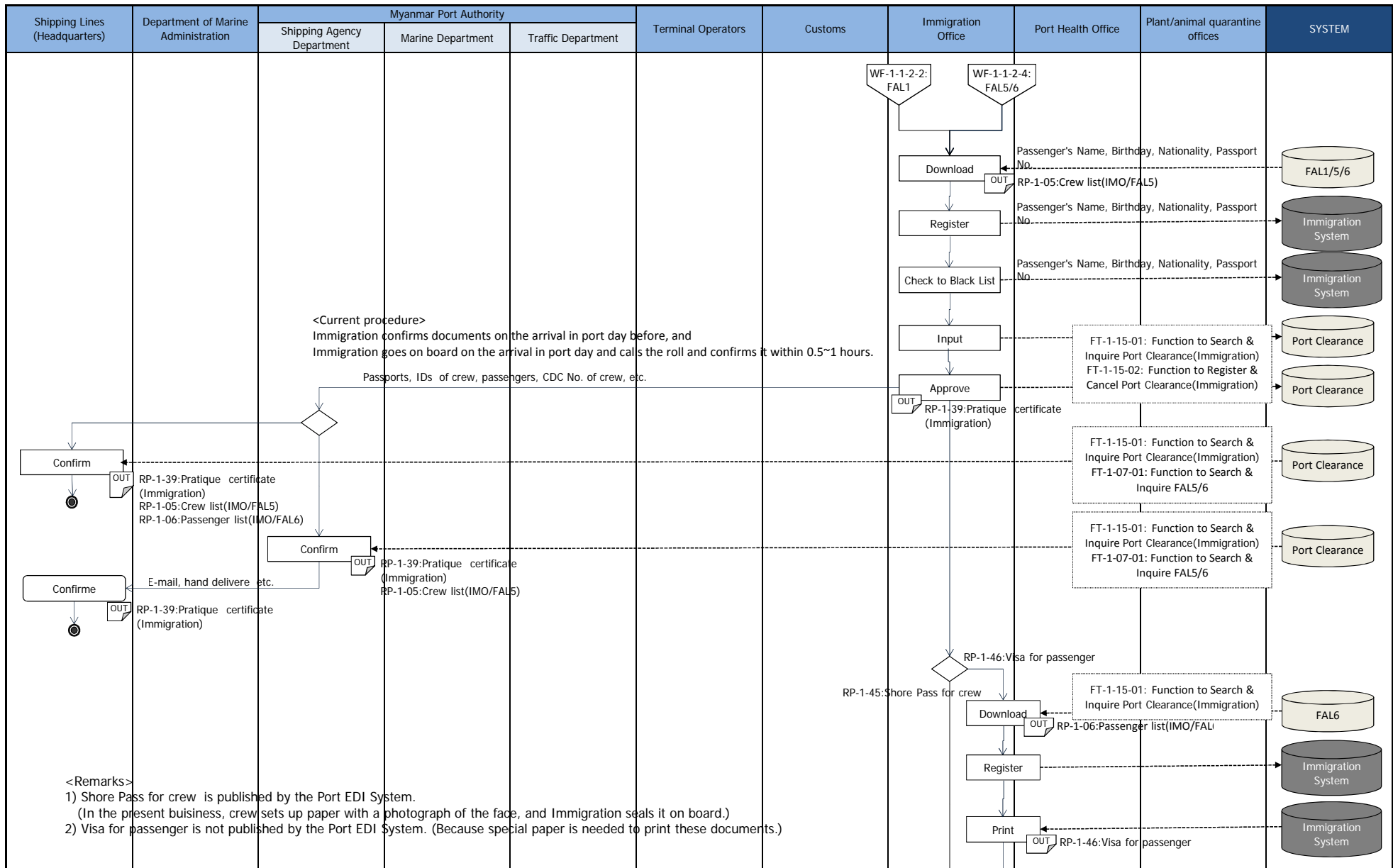


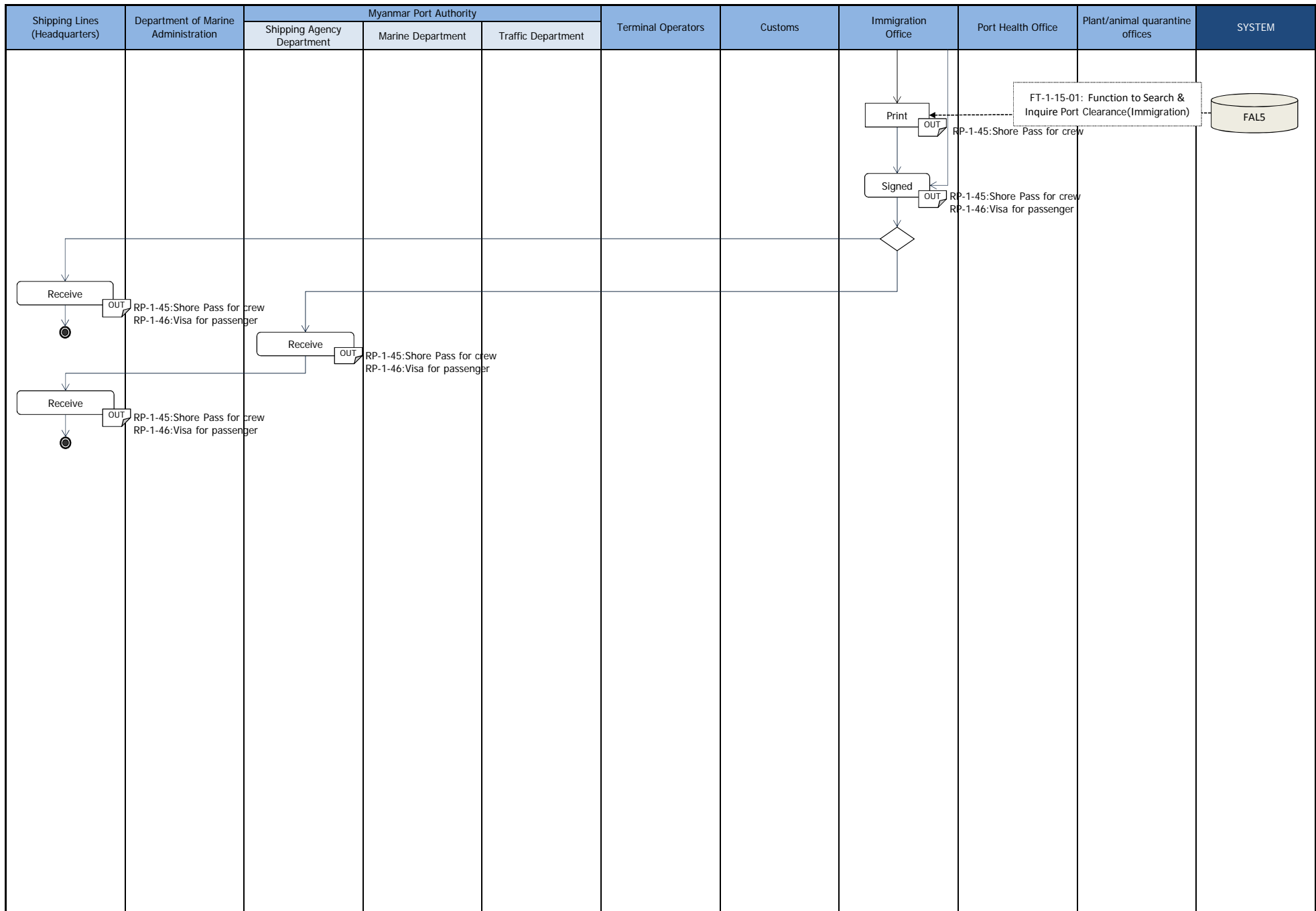
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-4-3	2014/10/23	2015/2/18	On Arrival (Customs declaration of a ship chandlery and a carrying article)
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Port Clearance	Custom	





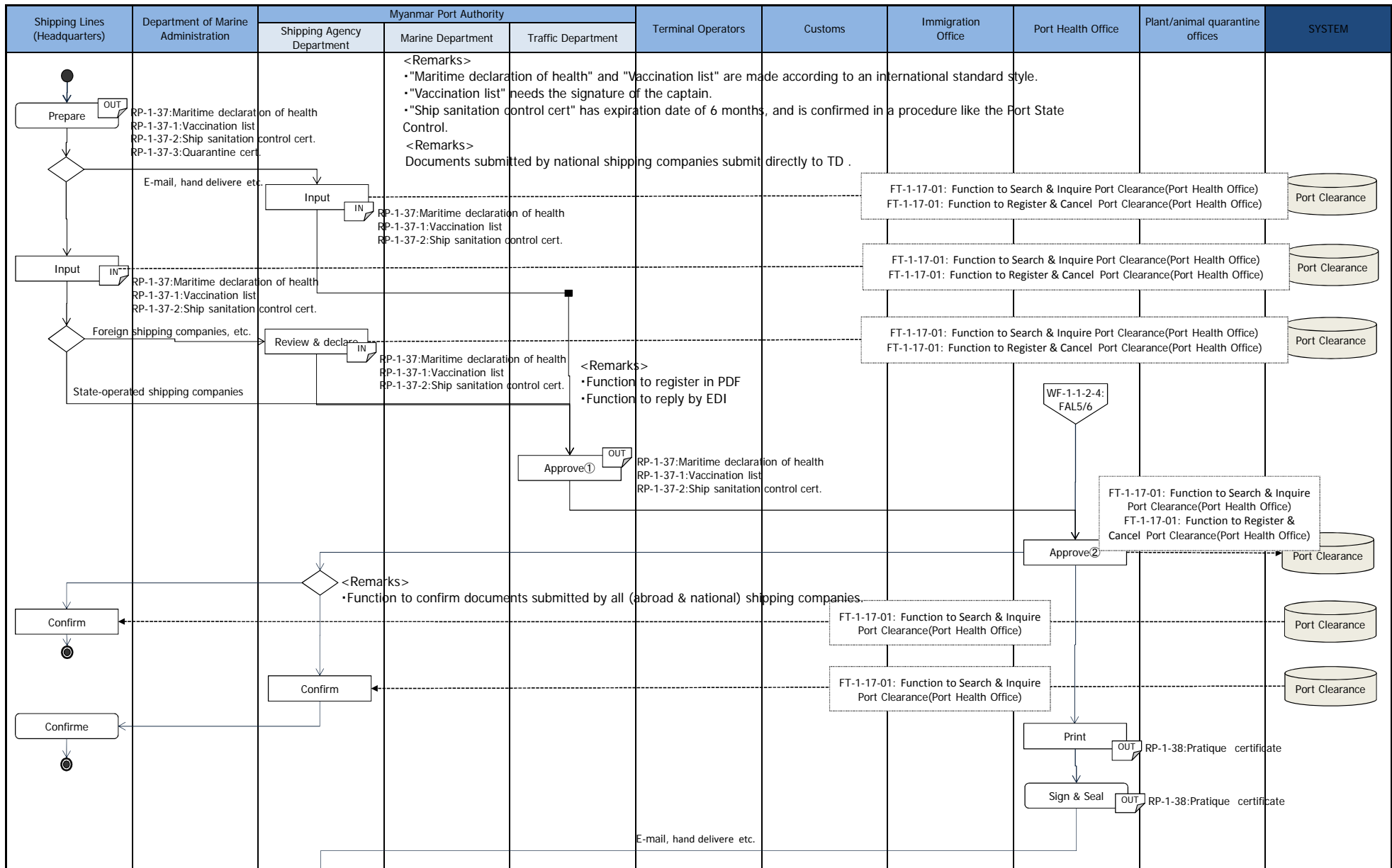
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-4-4	2014/10/23	2015/2/18	On Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Port Clearance	Immigration	





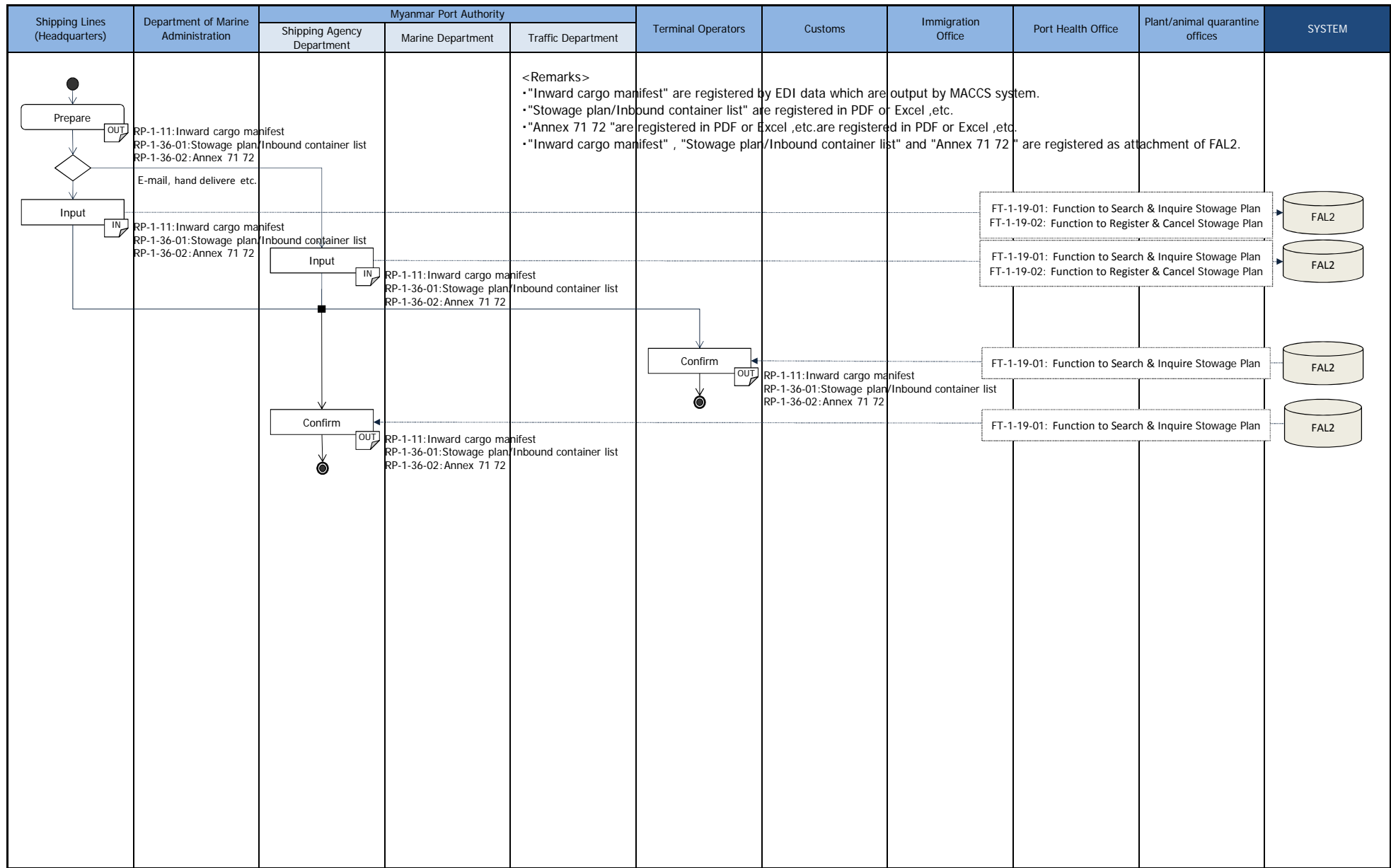
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-4-5	2014/10/23	2015/2/18	On Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Port Clearance	Port Health Office	

<Remarks>
There is no need that this procedure is performed by EDI, but Prepare the function to register document:

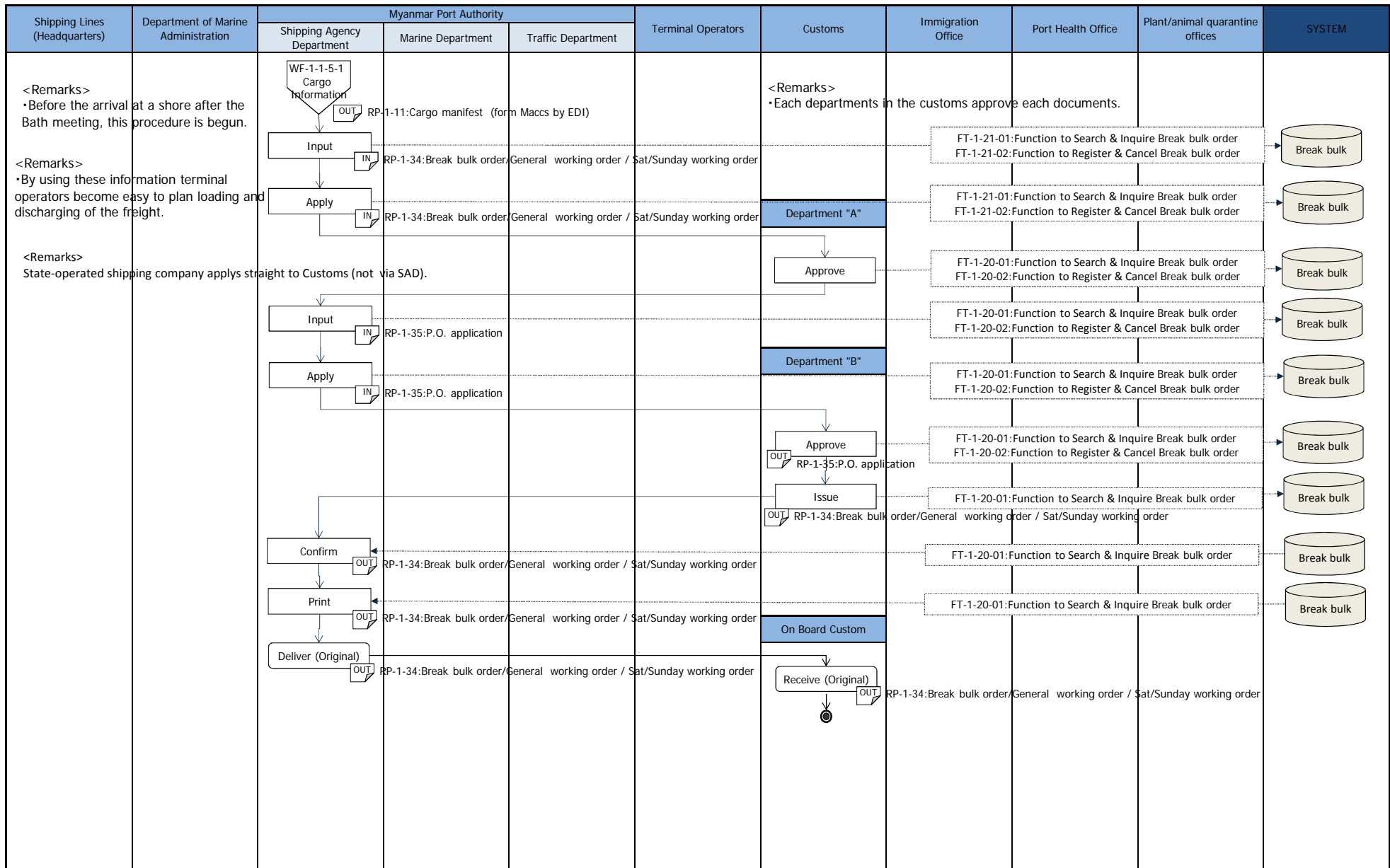


Shipping Lines (Headquarters)	Department of Marine Administration	Myanmar Port Authority			Terminal Operators	Customs	Immigration Office	Port Health Office	Plant/animal quarantine offices	SYSTEM
		Shipping Agency Department	Marine Department	Traffic Department						
		<pre> graph TD Start(()) --> D{ } D --> SA1[Receive] SA1 --> SA1_OUT[RP-1-38:Pratique certificate] D --> MD[Receive] MD --> MD_OUT[RP-1-38:Pratique certificate] D --> SA2[Receive] SA2 --> SA2_OUT[RP-1-38:Pratique certificate] </pre>								
				<p><Confirm the demand of MPA & Other ministries></p> <ul style="list-style-type: none"> •Function to issue "Pratique certificate (Port clearance certificate)" admitted by Custom, Immigration, Port Health Office or Quarantine. •Pratique certificate (Port clearance certificate)" are directly handed to Shipping company by other ministries. 						

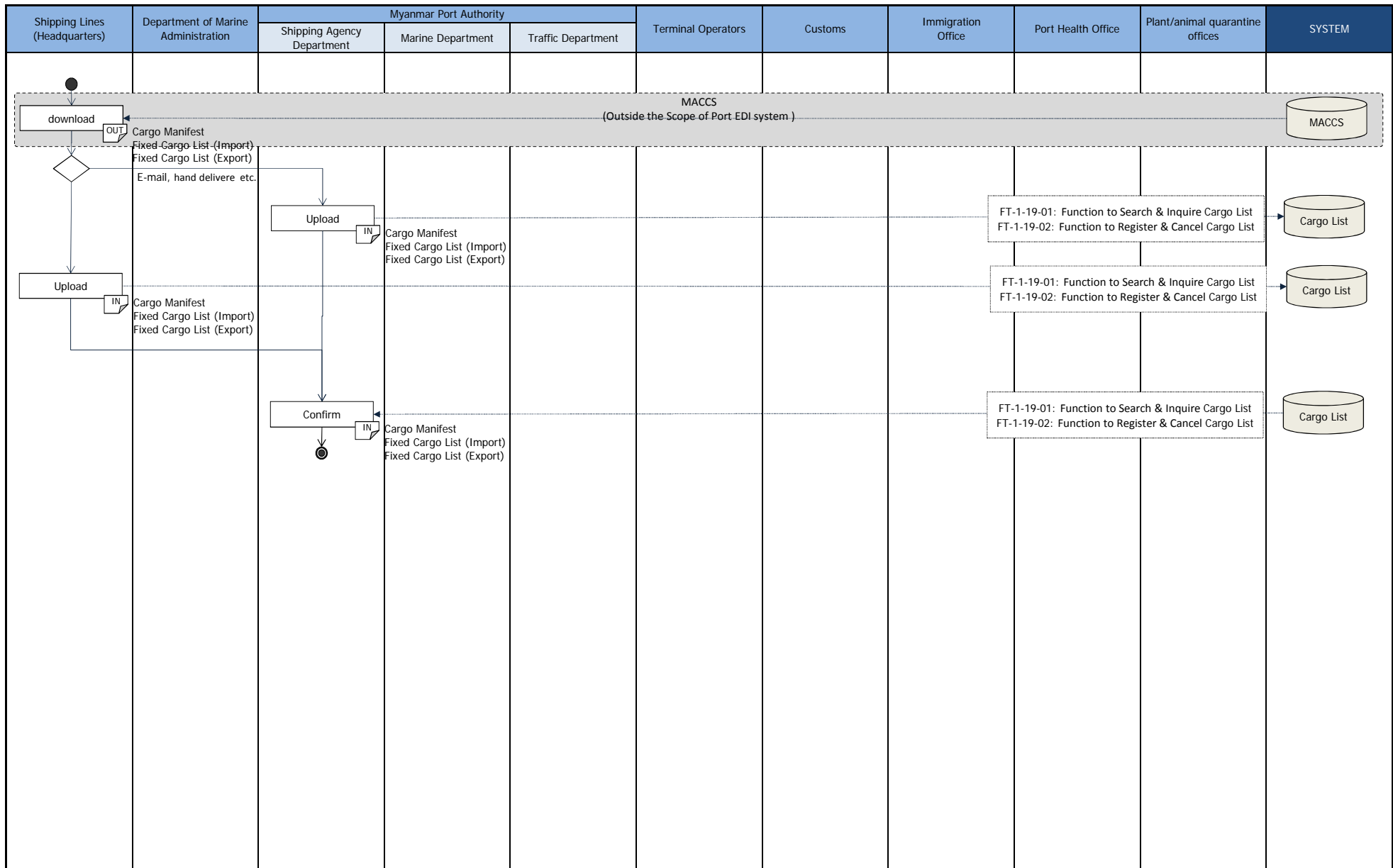
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-5-1	2014/10/23	2015/2/18	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Cargo Information	Stowage Information	



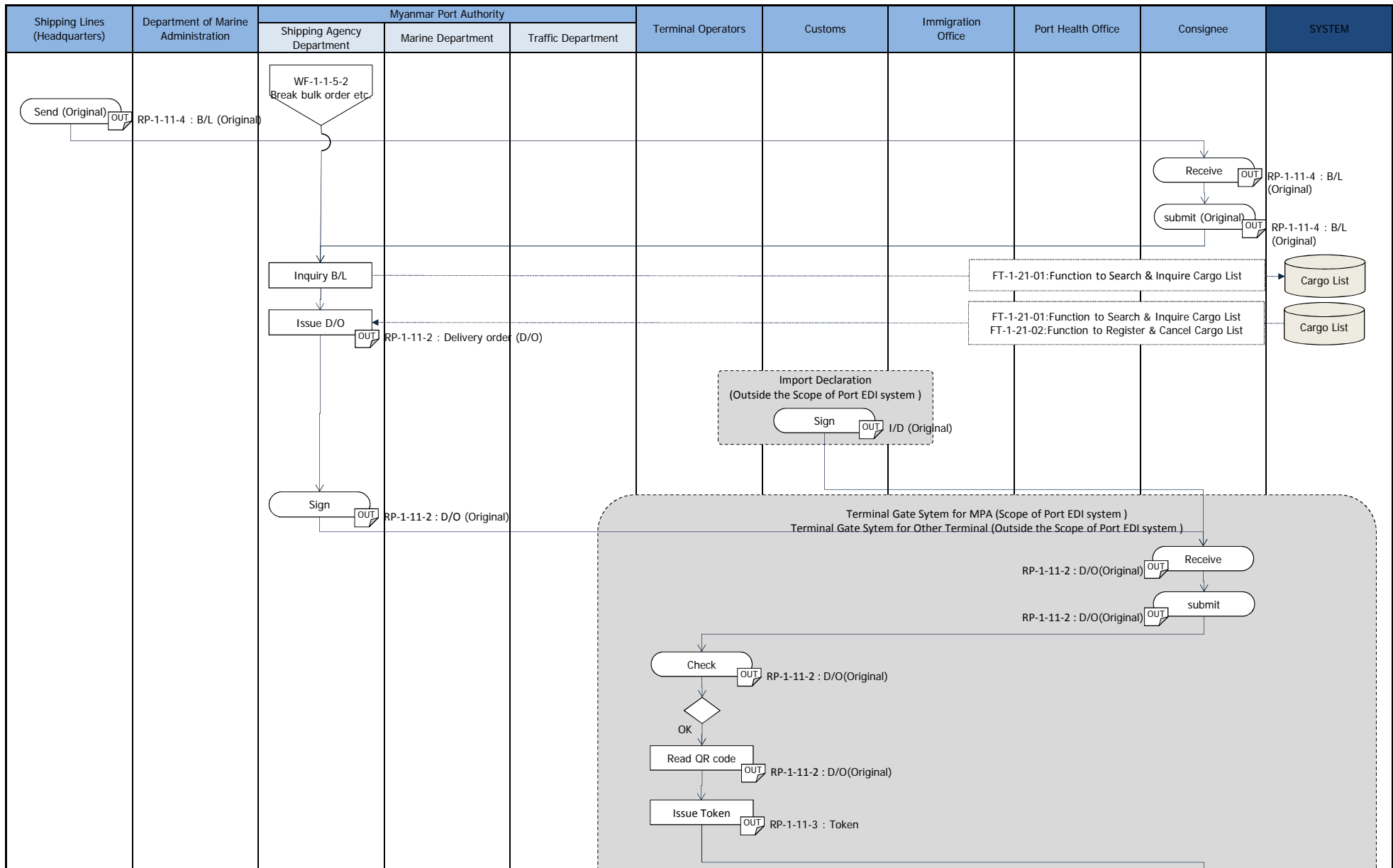
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-5-2	2014/10/23	2014/12/8	On Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Cargo Information	Break bulk order etc.	

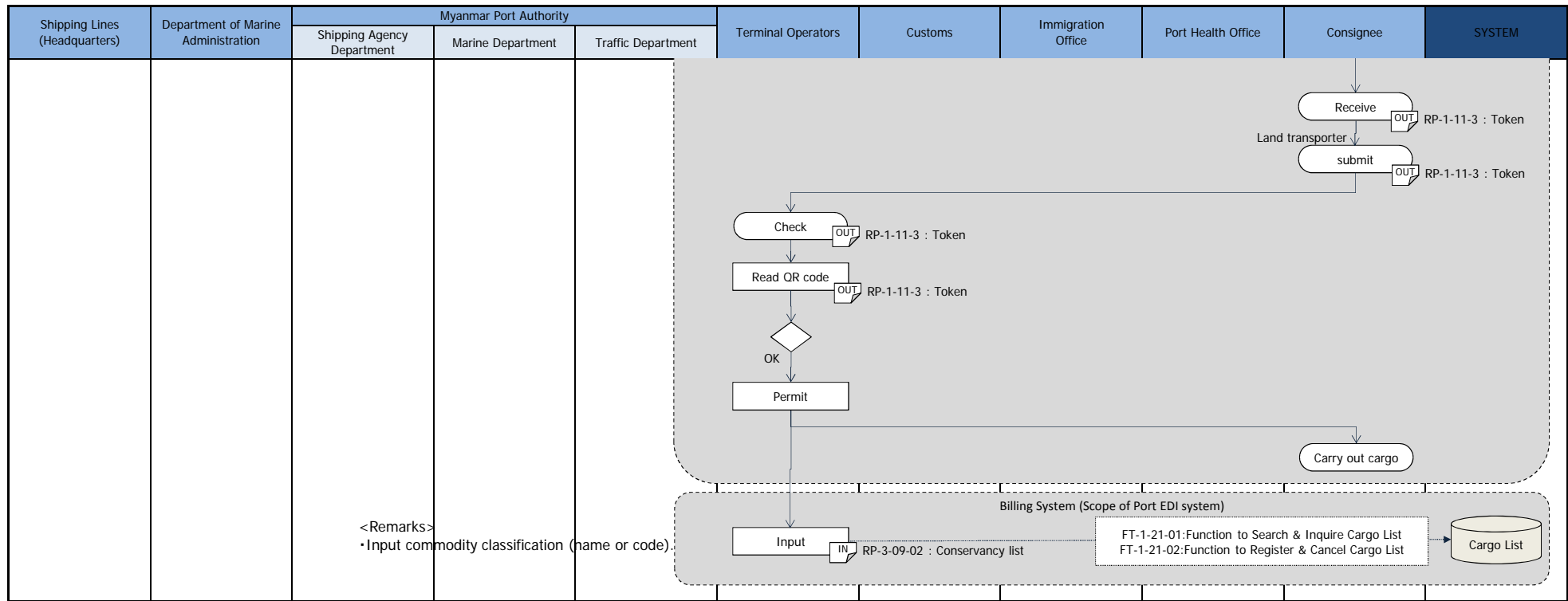


Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-5-3	2015/3/1	—	cargo manifest : Before arrival ~ 24hs after arrival other information : Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Cargo Information	Cargo List	

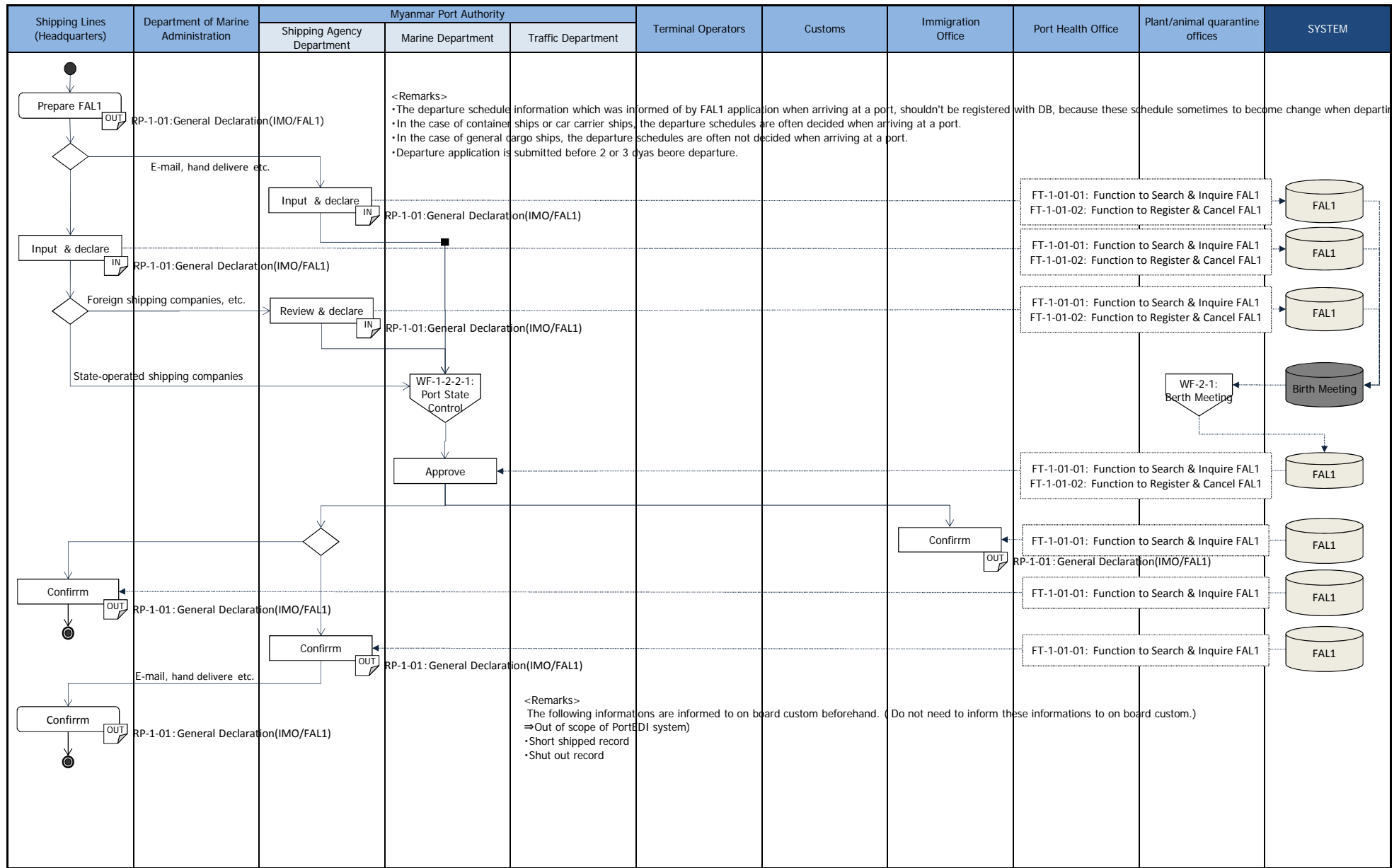


Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-1-5-4	2015/3/1	2015/6/12	After Arrival
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Arrival	Cargo Information	Delivery Order	

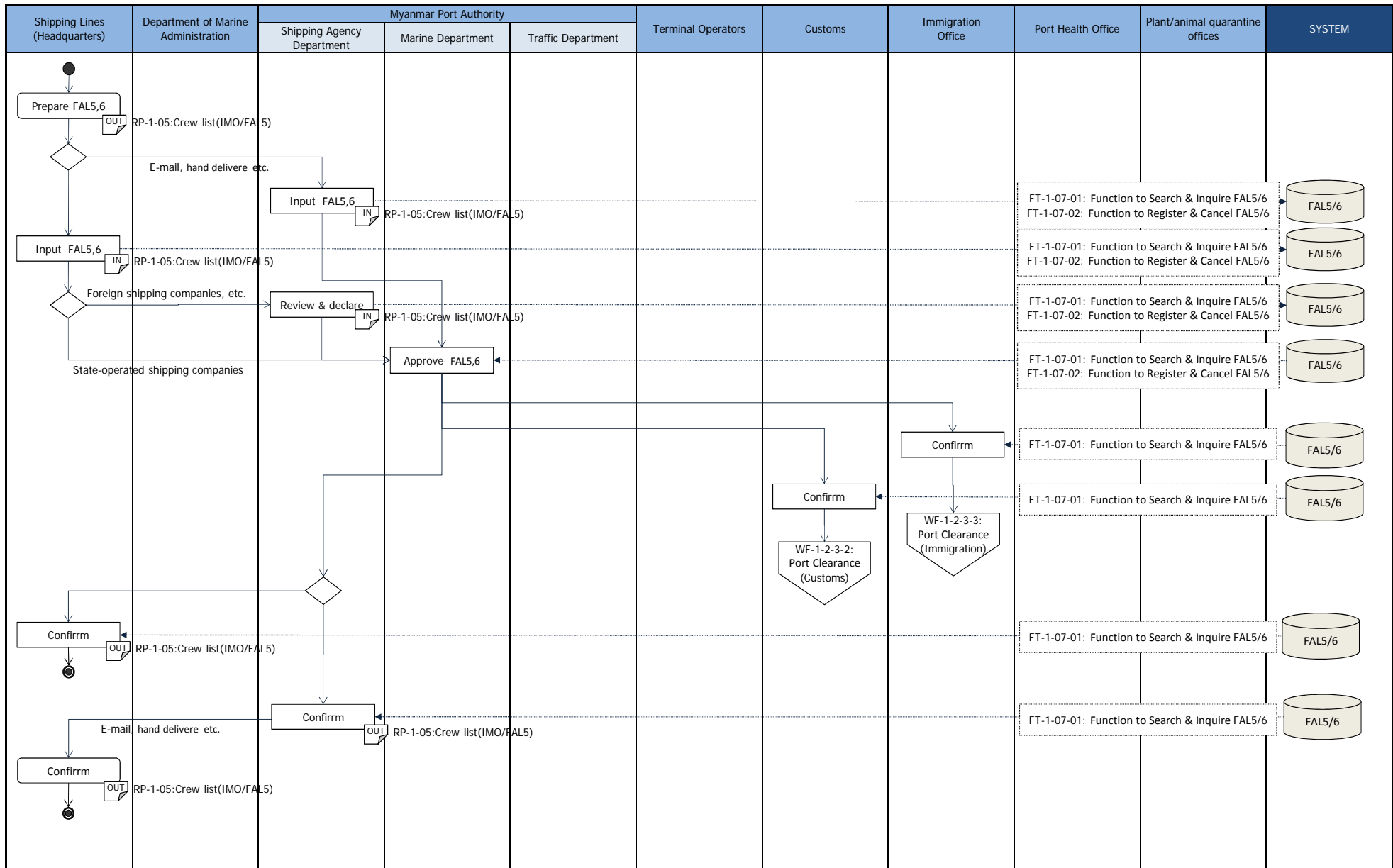




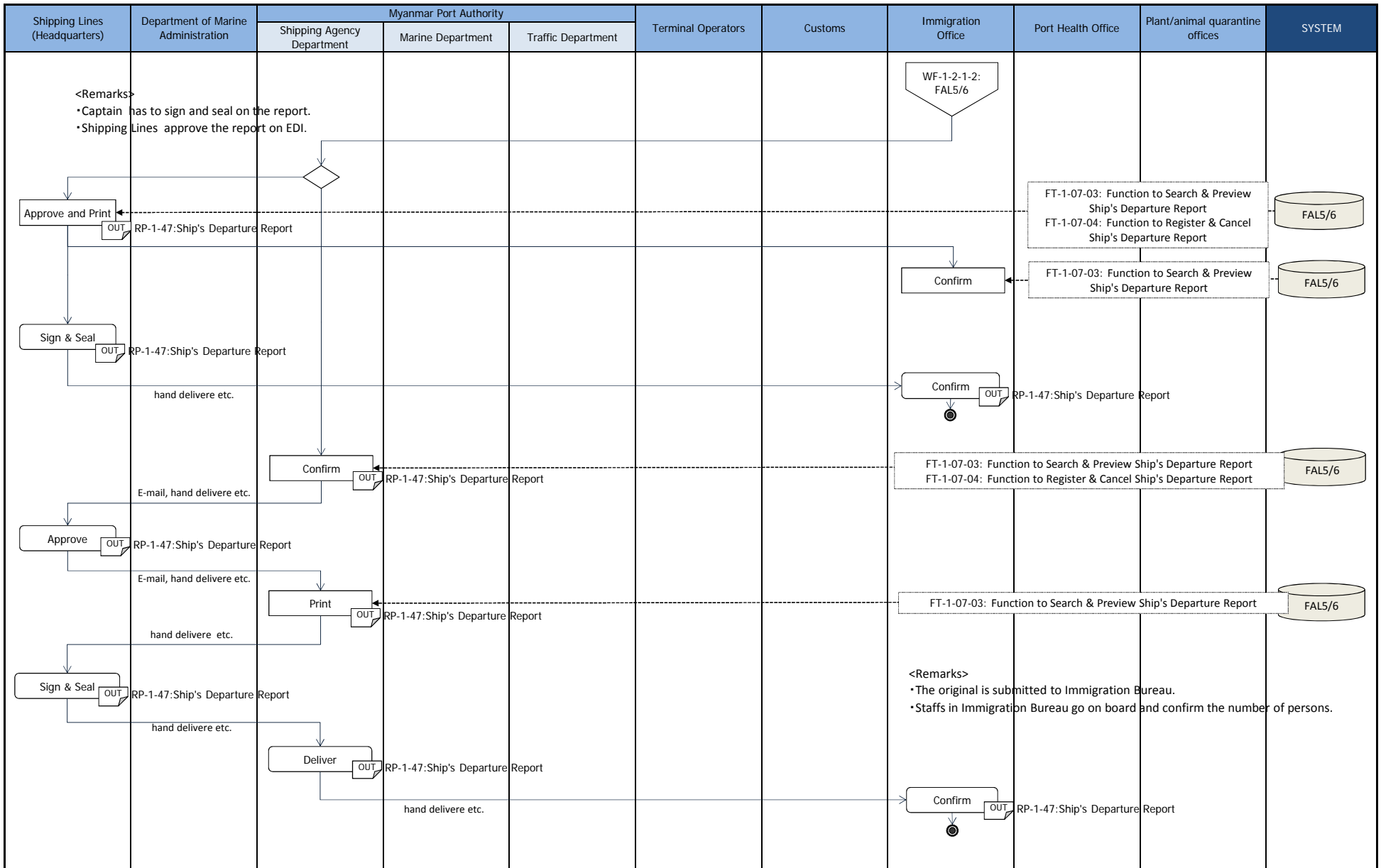
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-1-2-1-1	2014/10/23	—	Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Application	FAL1	



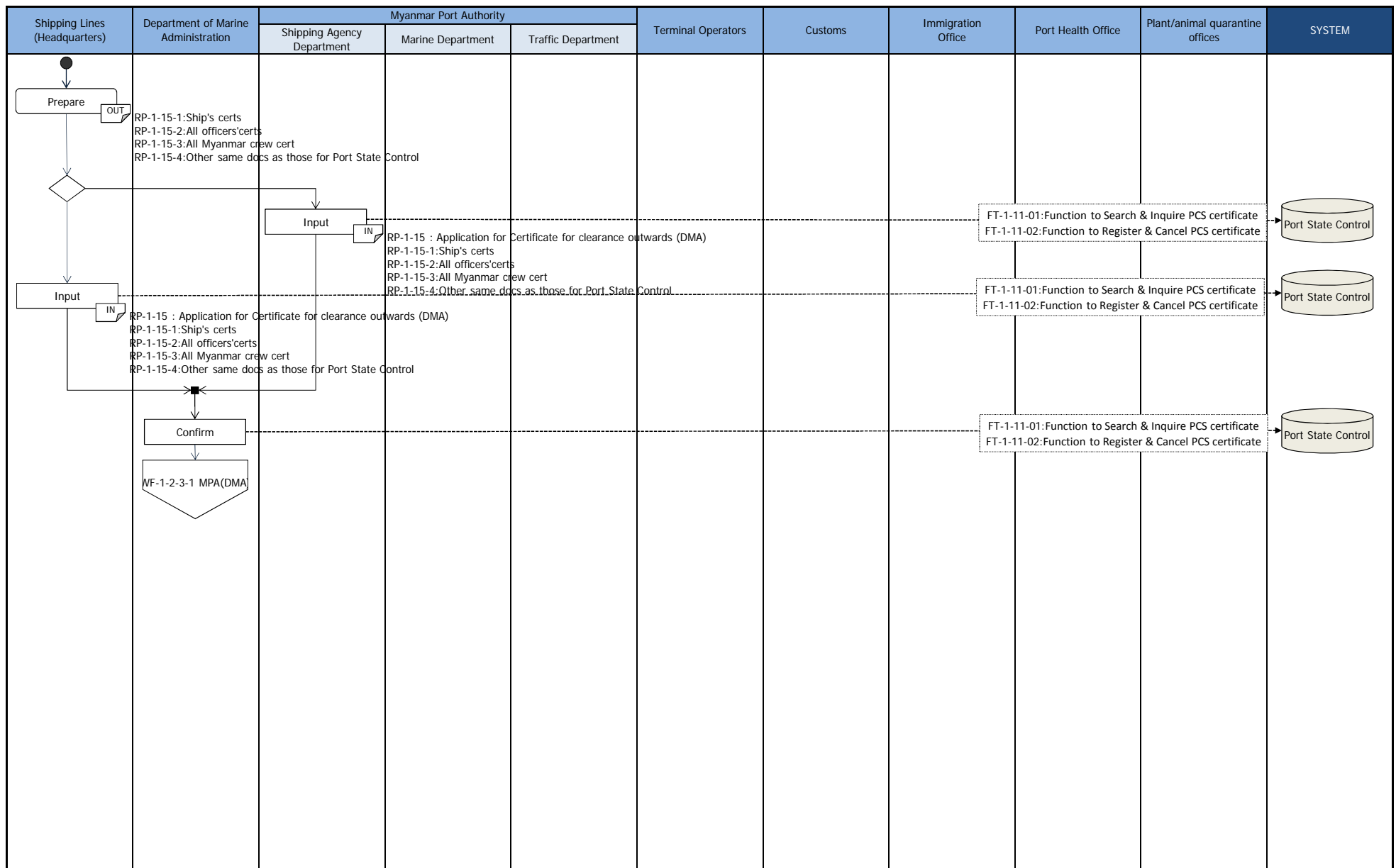
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-2-1-2	2014/10/23	—	Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Application	FAL5/6	



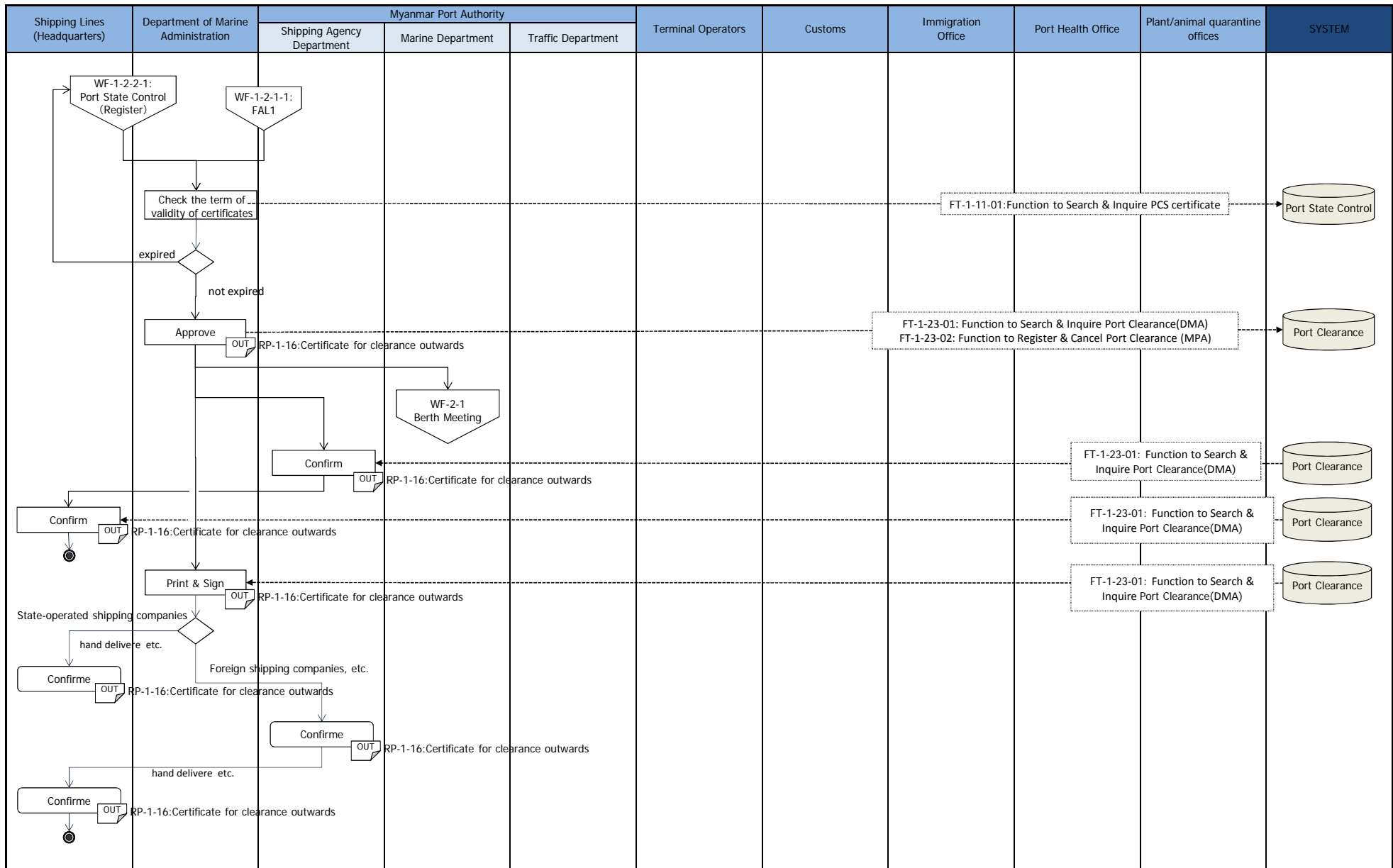
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-1-2-1-3	2014/12/1	—	Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Application	Ship's Departure Report	



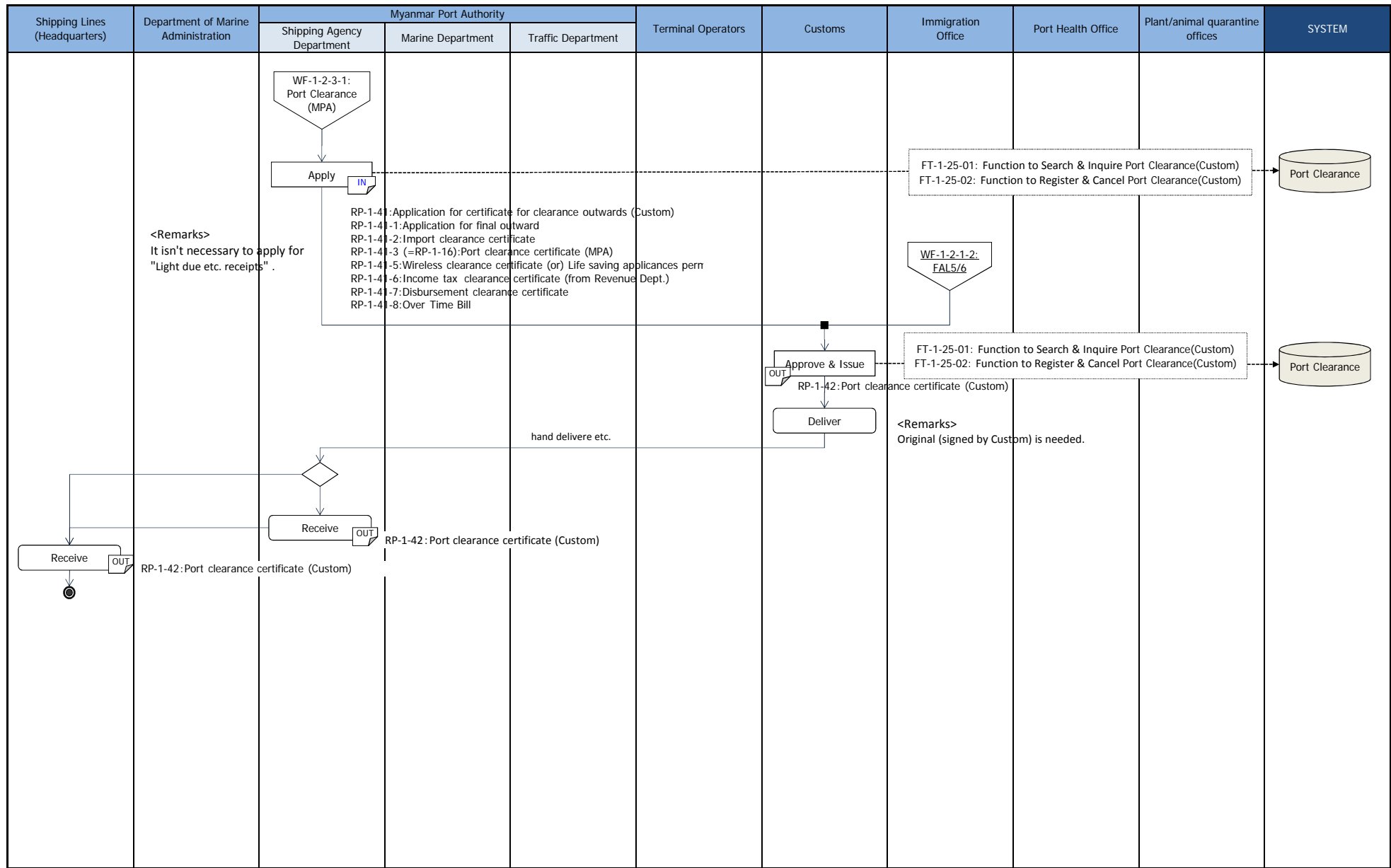
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-2-2-1	2014/10/23	—	Any time Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Port State Control	Port State Control (regist)	



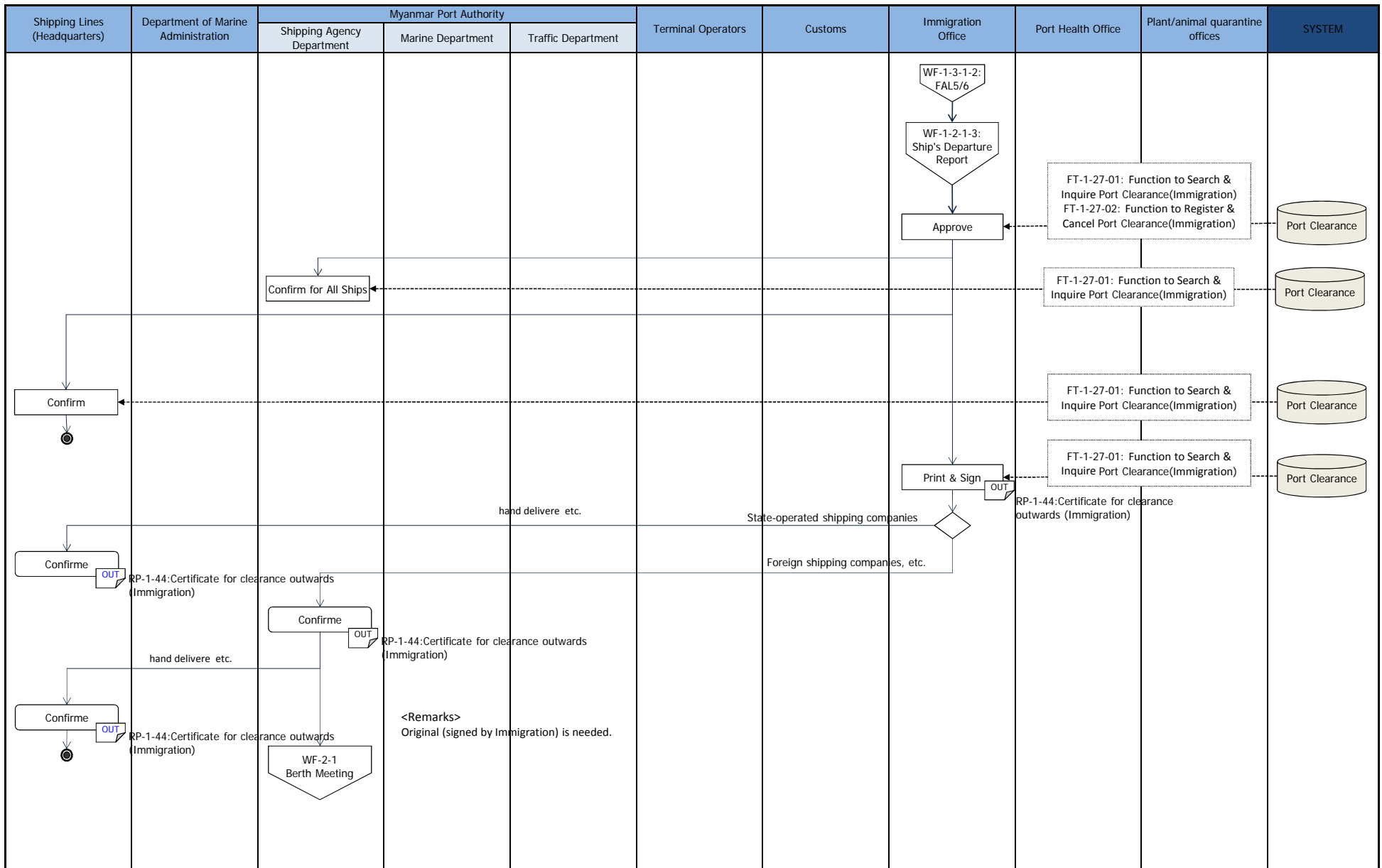
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-2-3-1	2014/10/23	2015/3/2	Before Departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Port Clearance	MPA(DMA)	



Name of System	Work Flow	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-1-2-3-2	2014/10/23	—	Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Port Clearance	Custom	

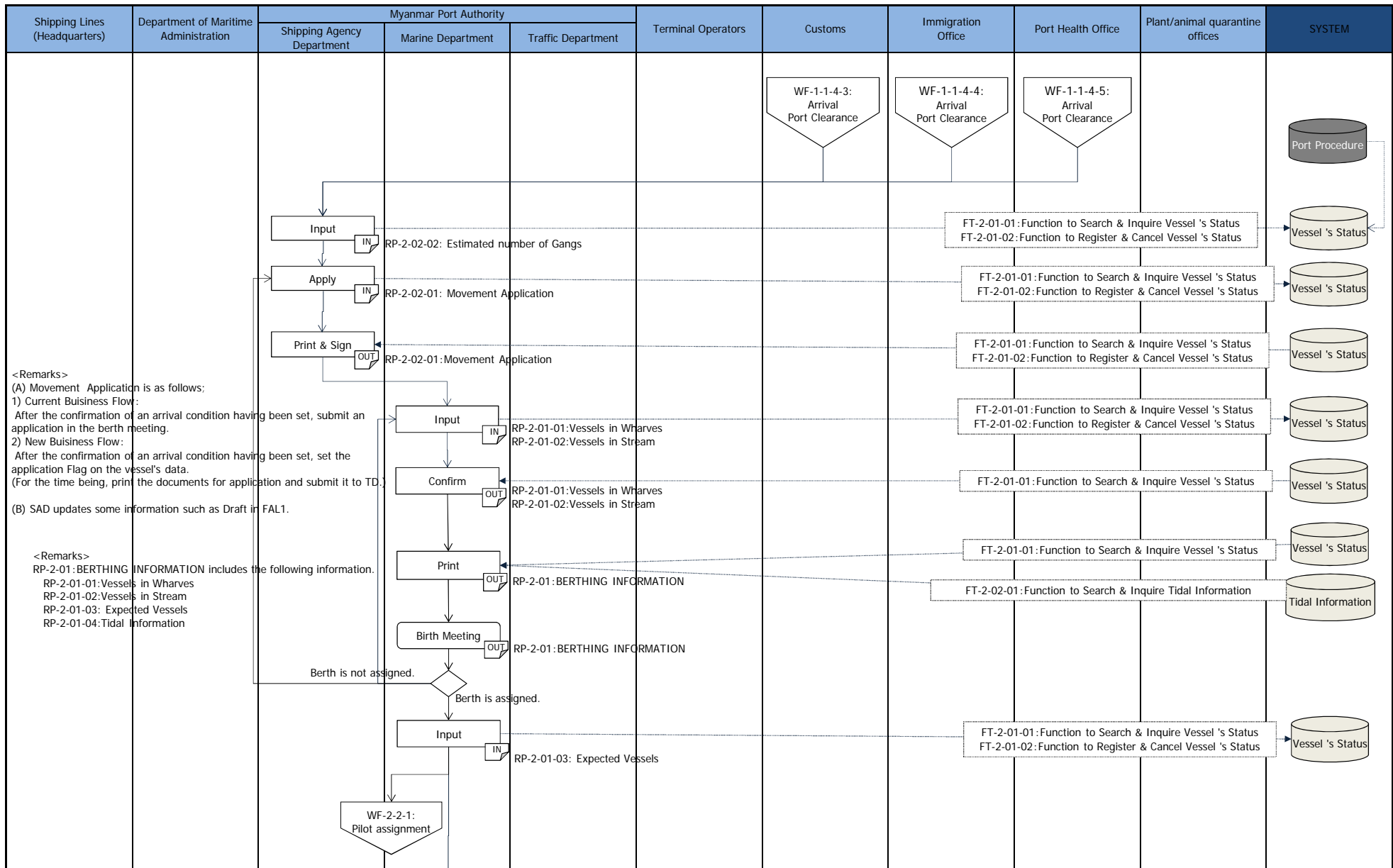


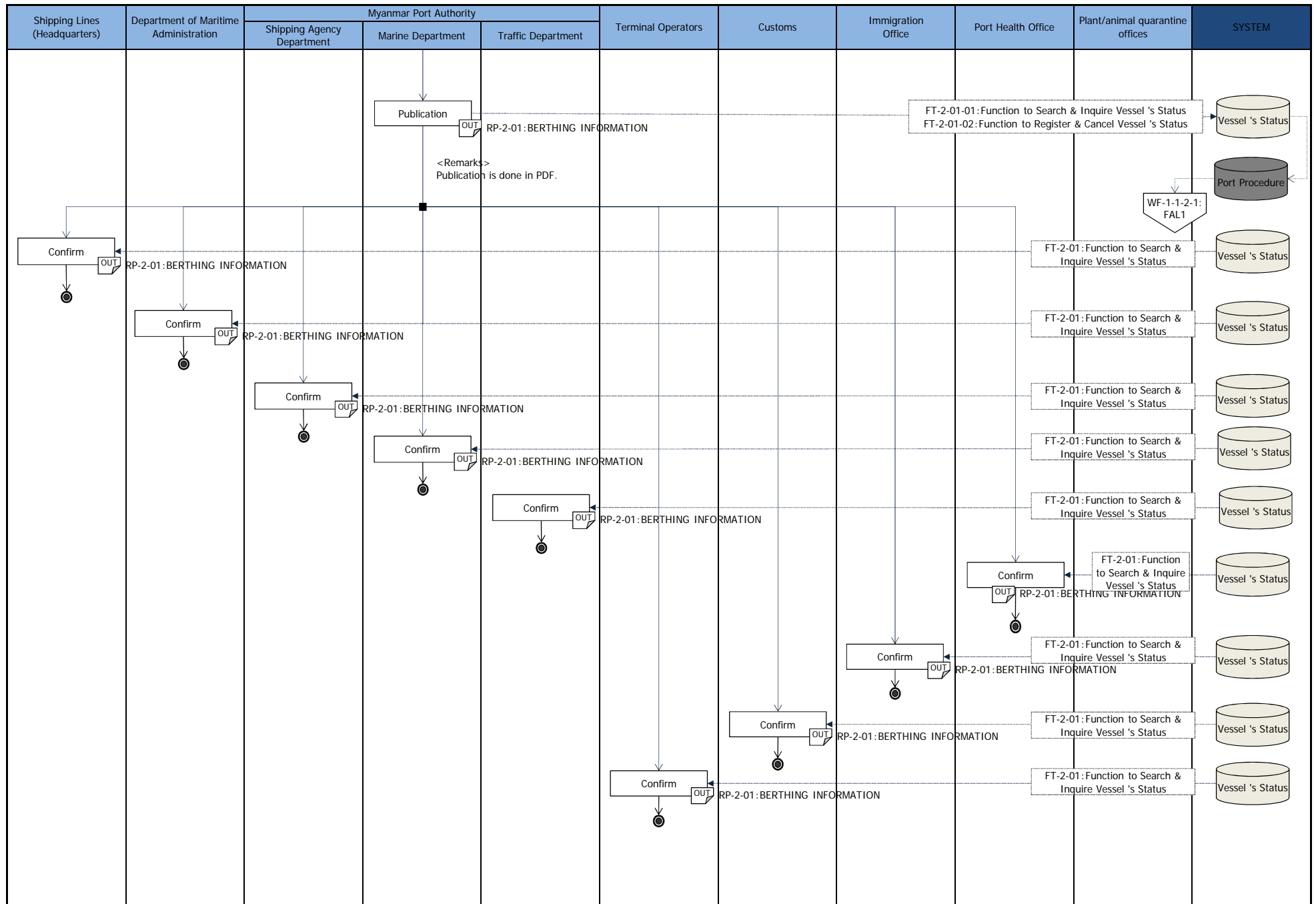
Name of System	Work Flow	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-1-2-3-3	2014/10/23	2014/12/1	Before departure
Lv1	Lv2	Lv3	Lv4	
Port Clearance Procedures	Departure	Port Clearance	Immigration	



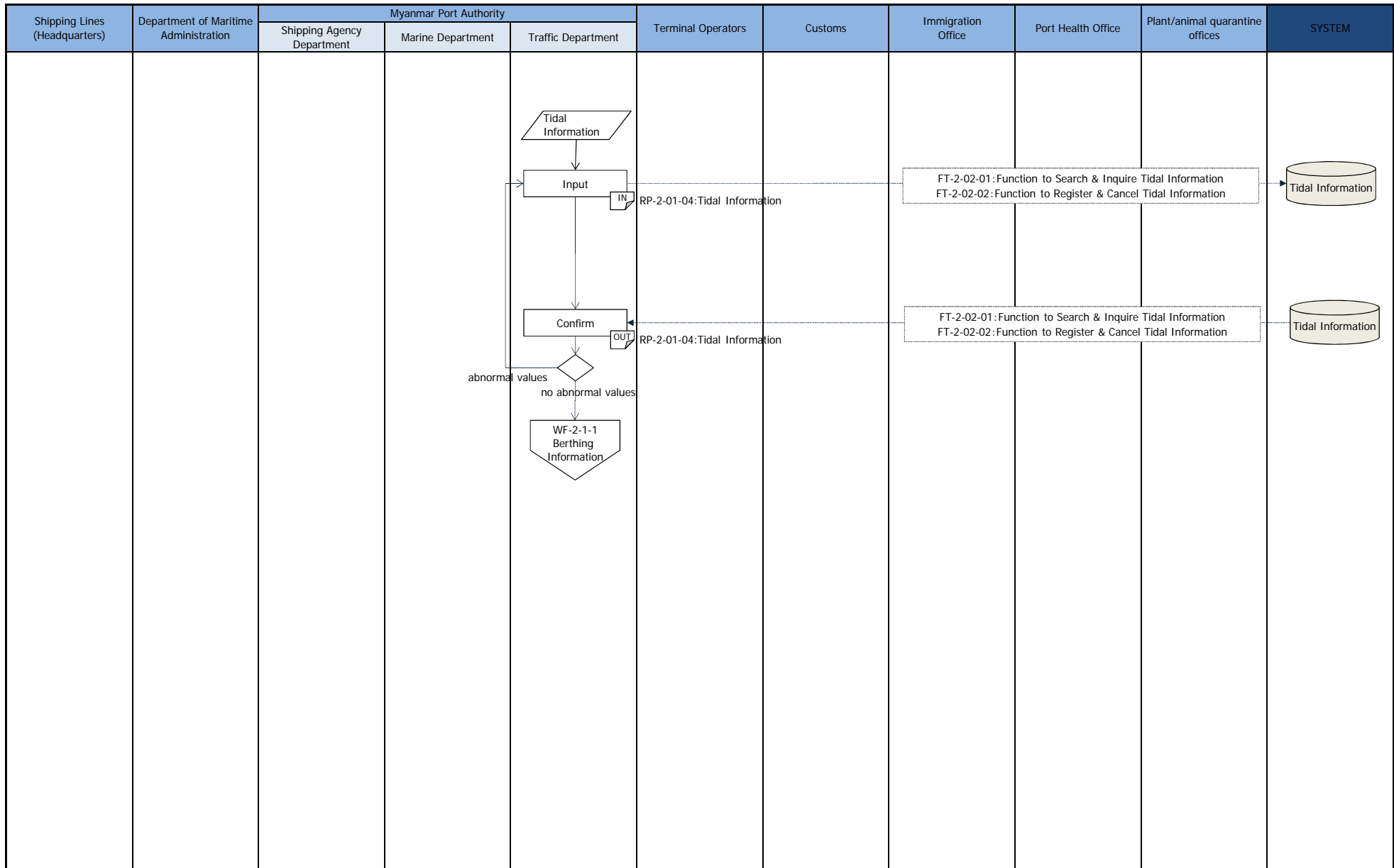
7.1.3. Berth meeting business flow

Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-2-1-1	2014/10/28	2015/2/27	Daily
Lv1	Lv2	Lv3	Lv4	
Berth Allocation	Berth Meeting	Berthing Information	—	

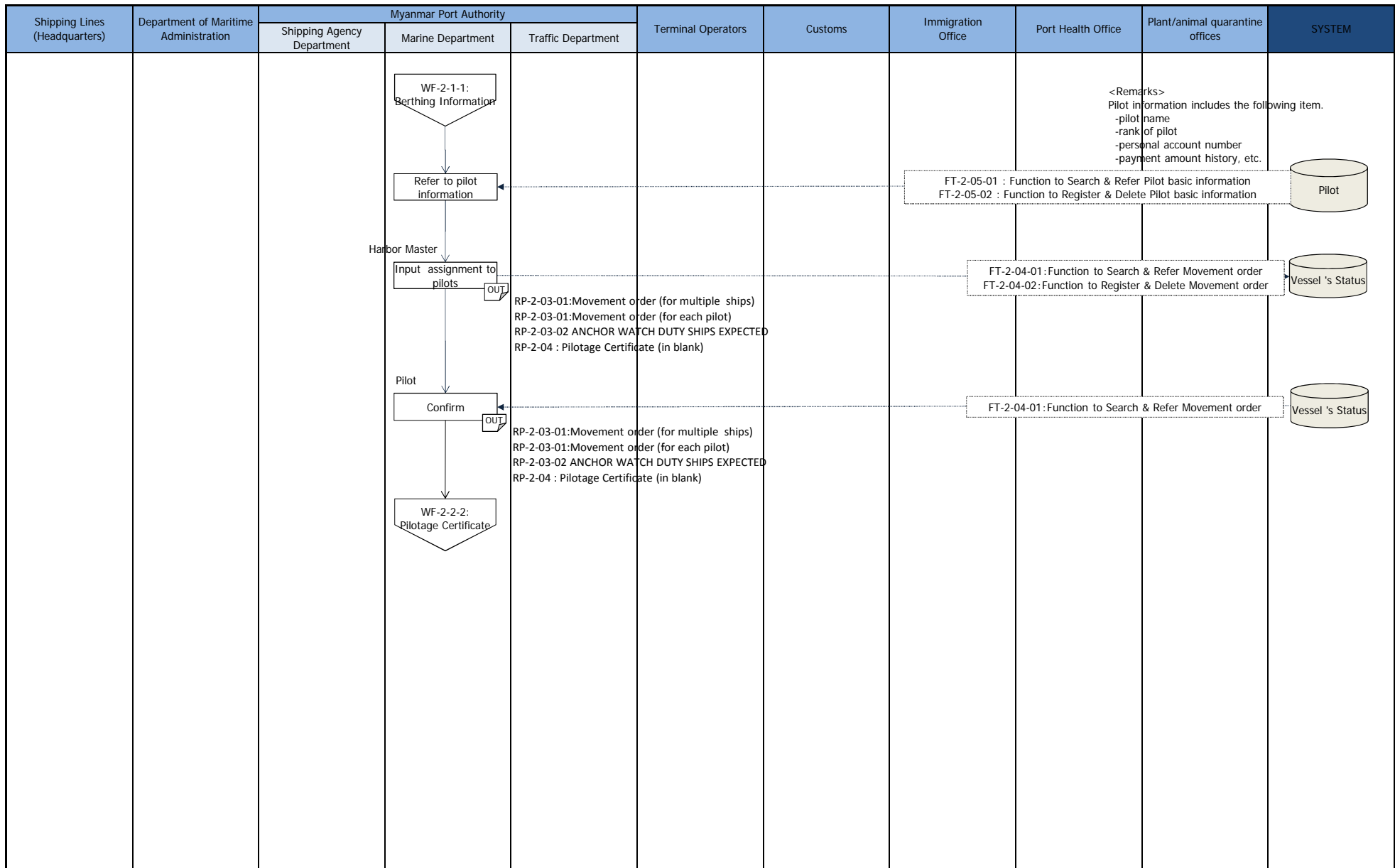




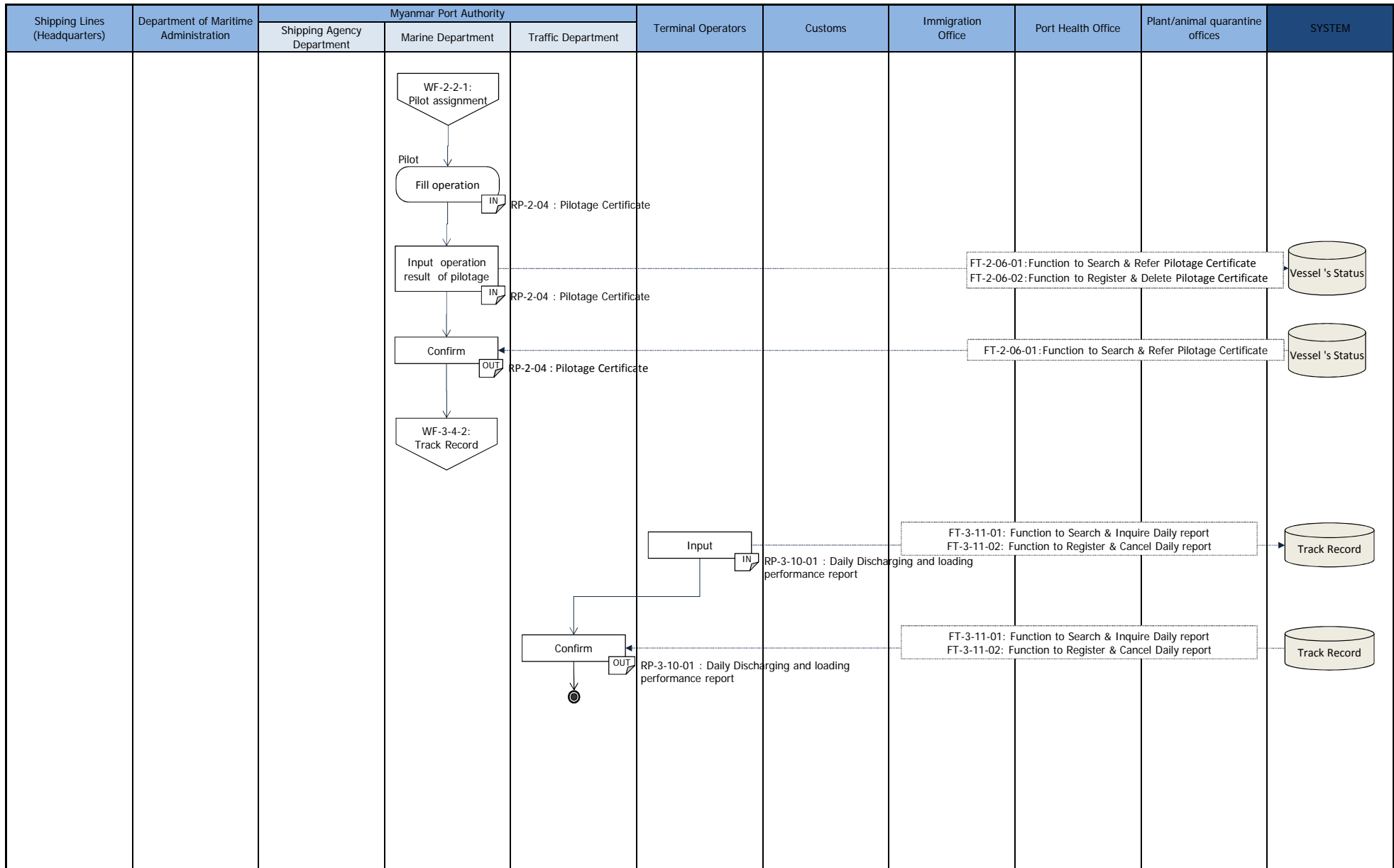
Name of System	Document ID	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-2-1-2	2014/11/12	—	Monthly
Lv1	Lv2	Lv3	Lv4	
Berth Allocation	Berth Meeting	Tidal Information	—	



Name of System	Document ID	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-2-2-1	2015/4/22	2015/2/27	Daily
Lv1	Lv2	Lv3	Lv4	
Berth Allocation	Movement Order	Pilot assignment	—	

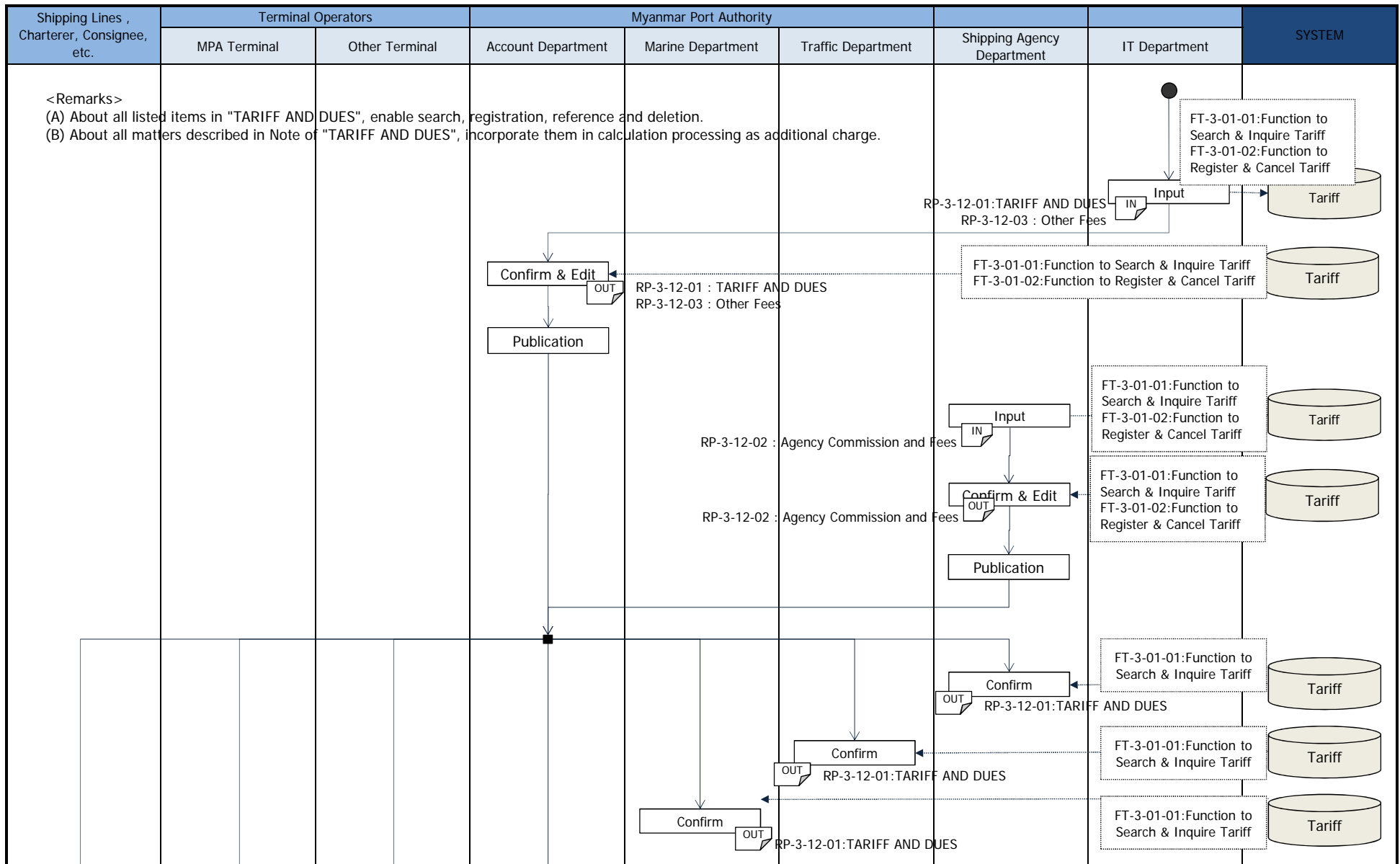


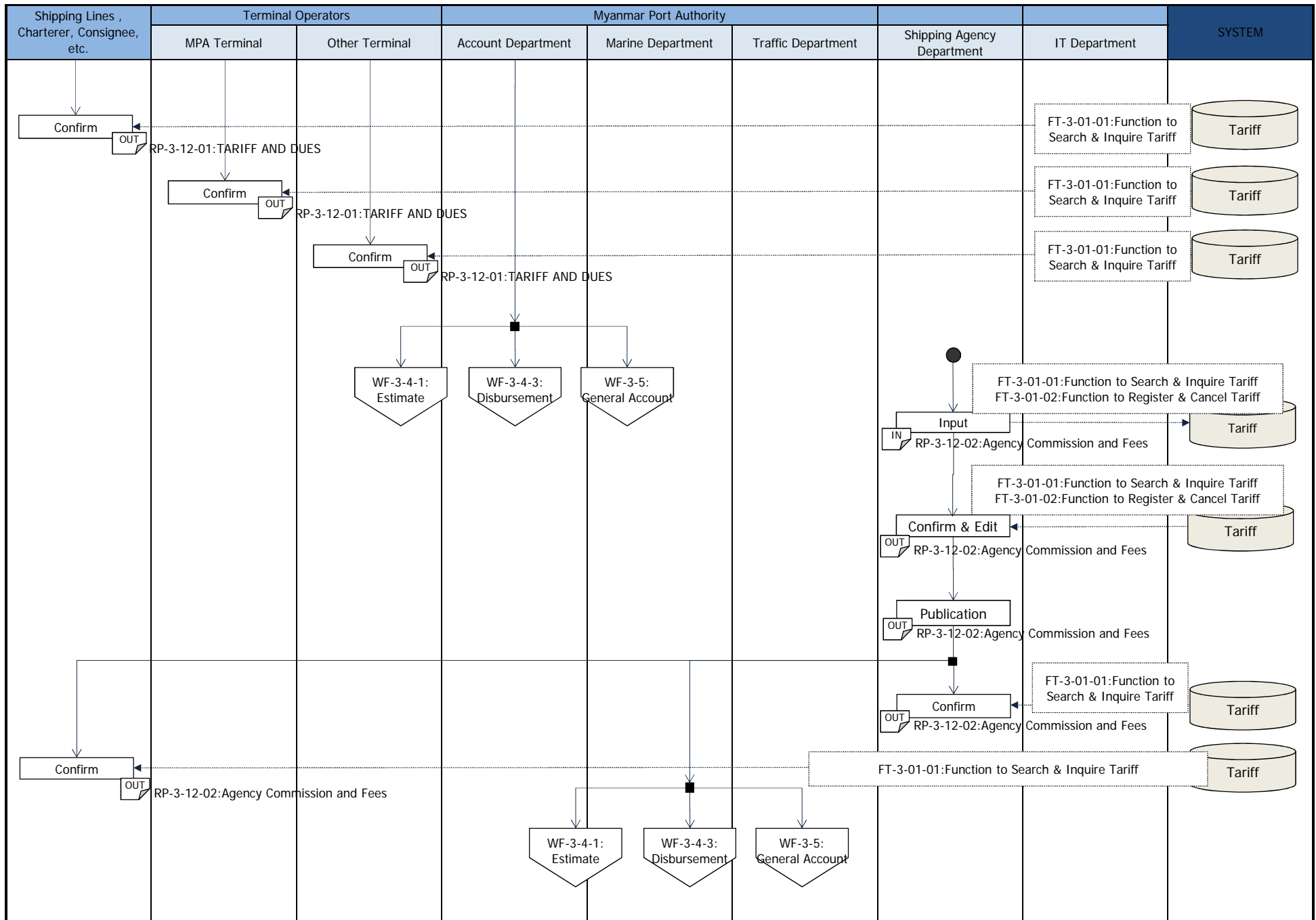
Name of System	Document ID	First edition	Last modified	Frequency and timing of Buisness Process
Port EDI System	WF-2-2-2	2014/10/28	2015/2/22	Daily
Lv1	Lv2	Lv3	Lv4	
Berth Allocation	Movement Order	Pilotage Certificate	—	



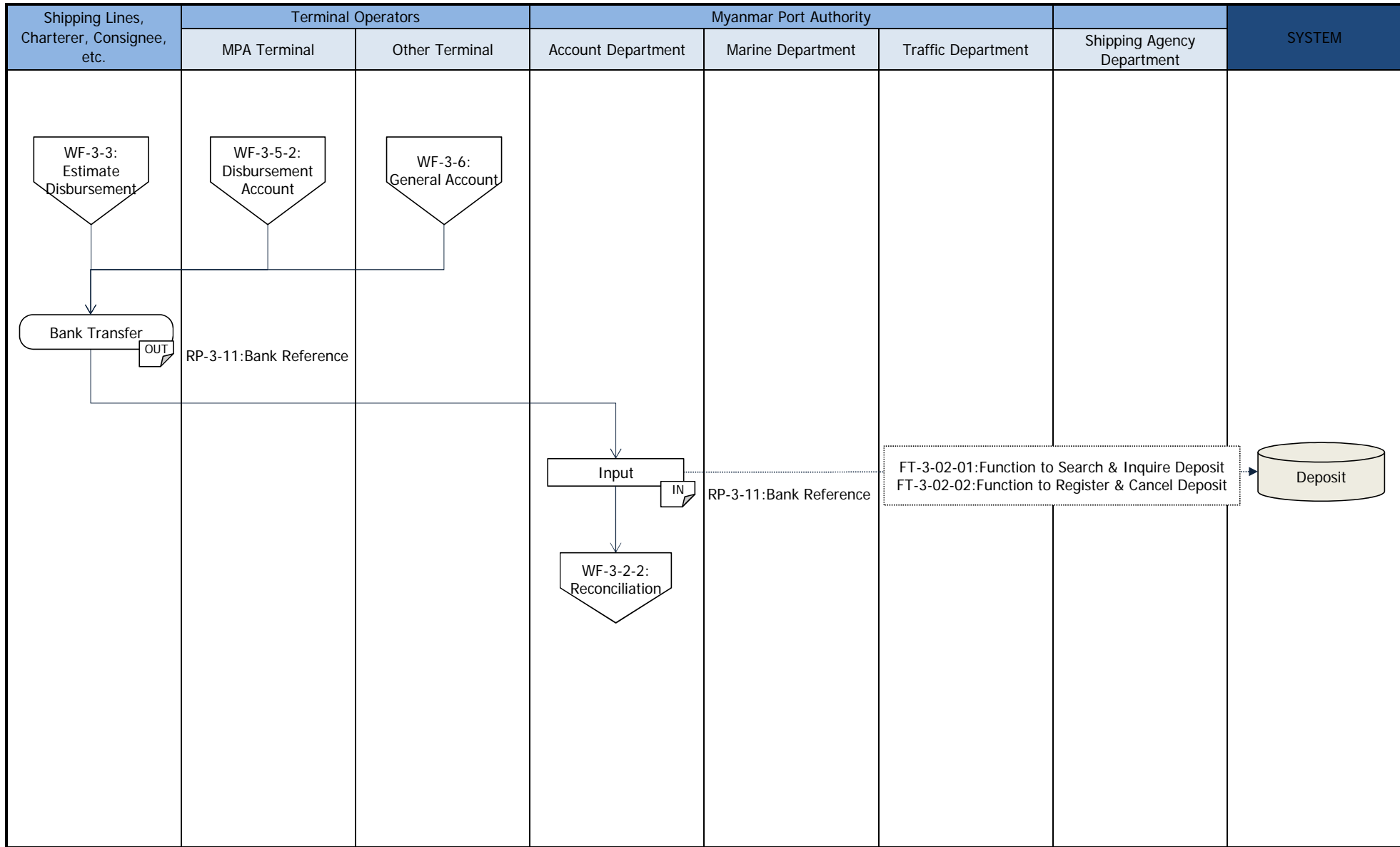
7.1.4. Invoice issuing business flow

Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-1	2014/10/23	2014/12/2	When Tariff is revised
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Tariff	—	—	

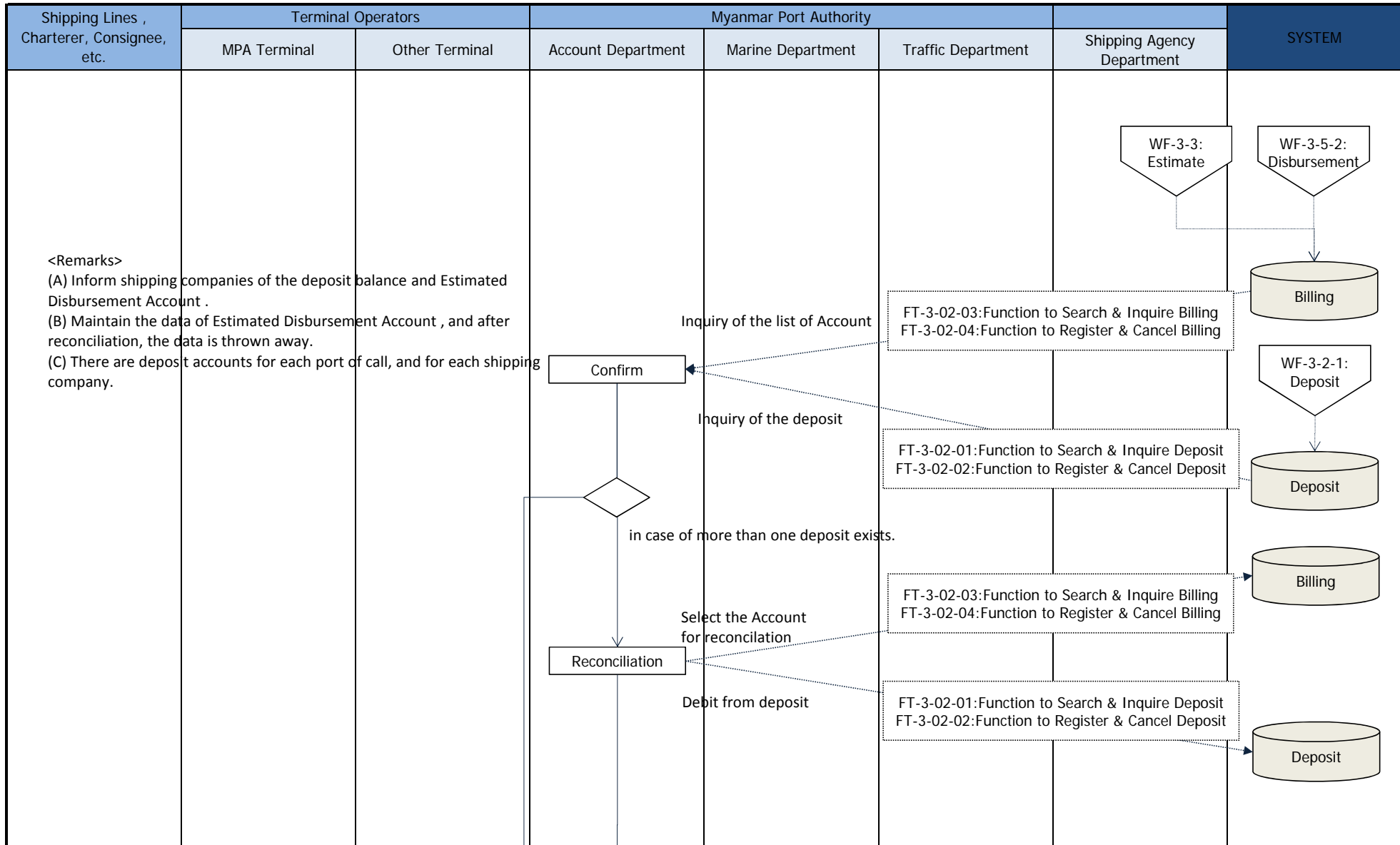


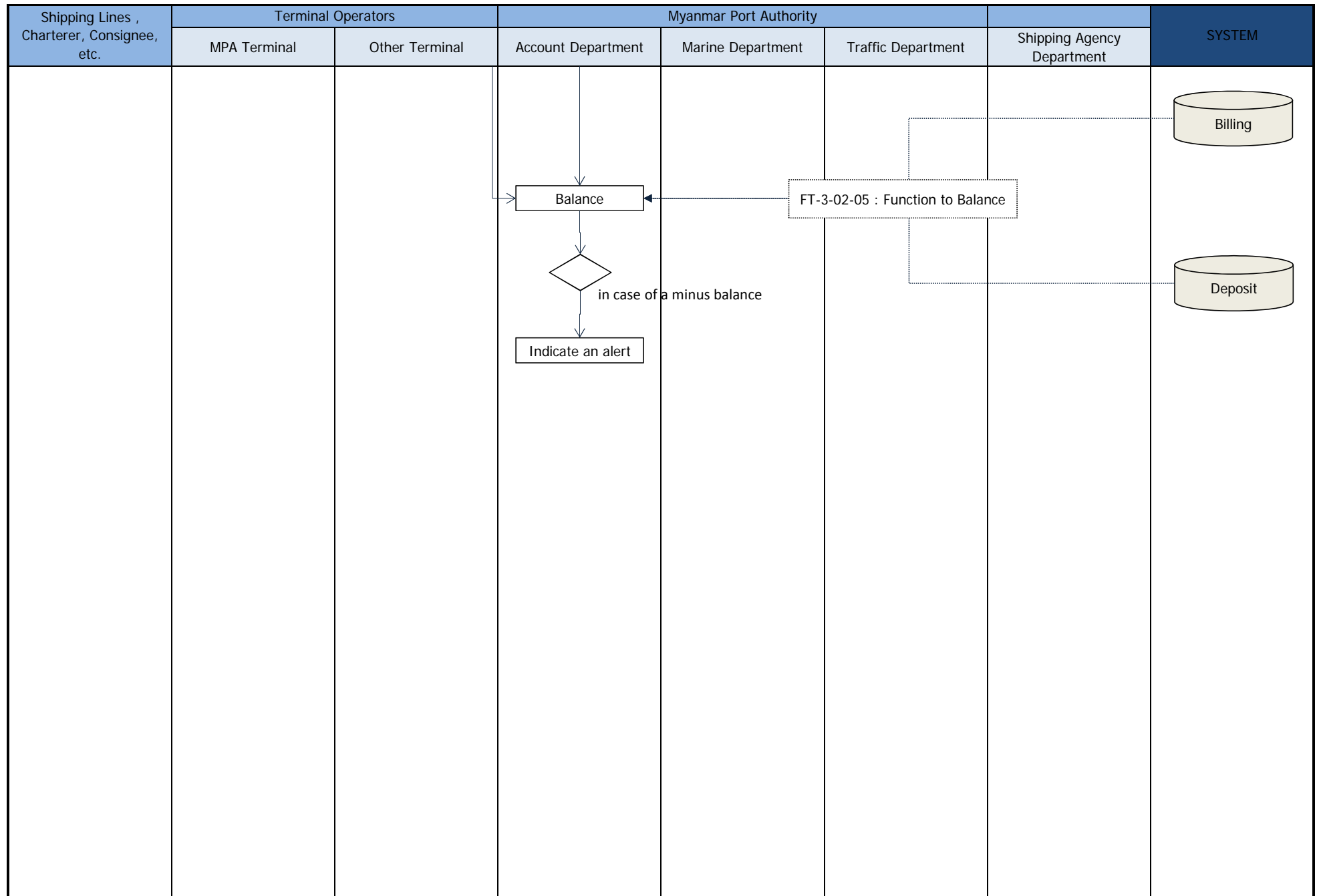


Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-2-1	2014/10/23	2014/12/2	any time
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Balance	Deposit	—	

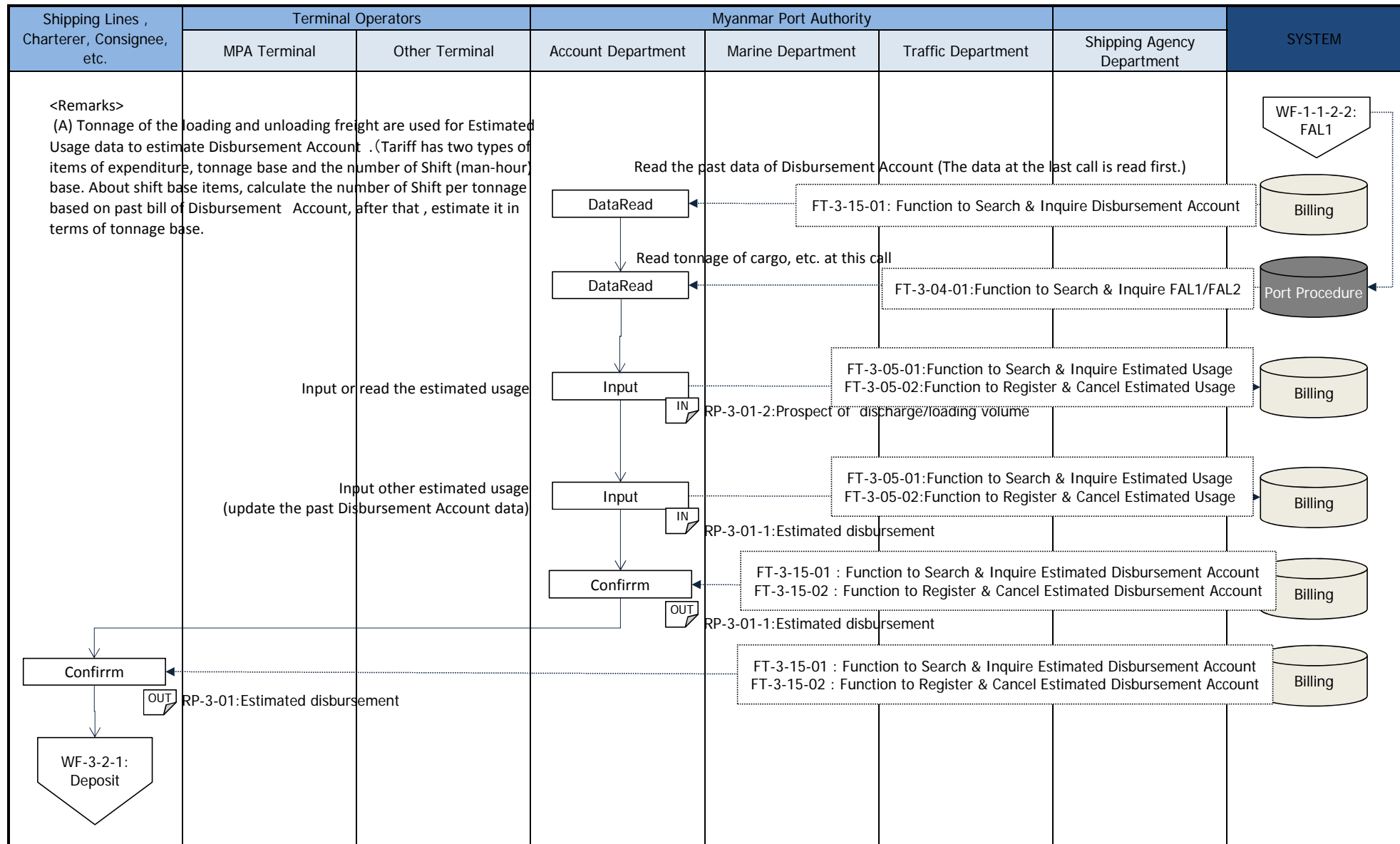


Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-2-2	2014/10/23	2014/12/2	Before Departure
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Balance	Reconciliation	—	

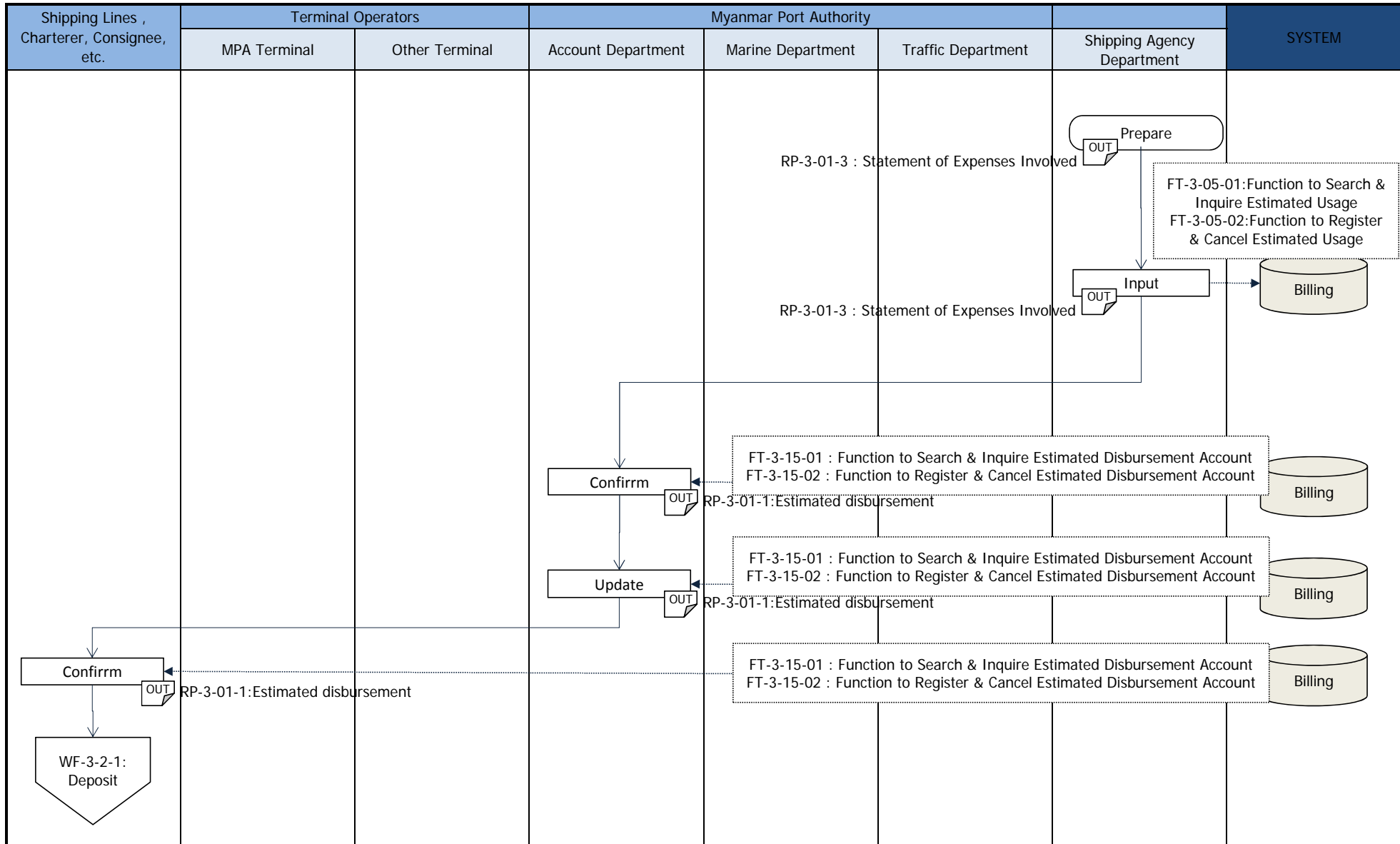




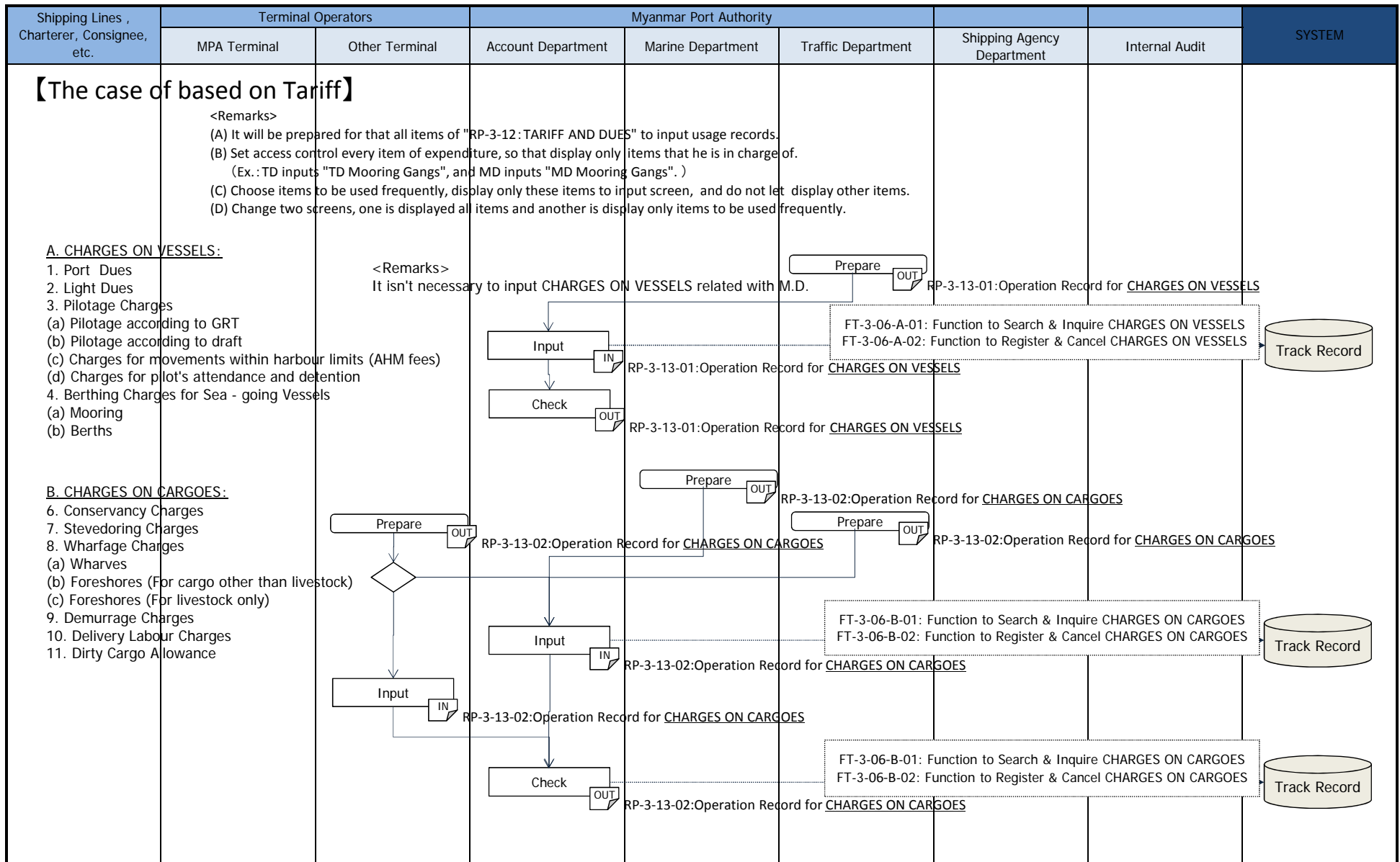
Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-3-1	2014/10/23	2014/12/2	Before Arrival
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Estimate	Estimate Disbursement	—	

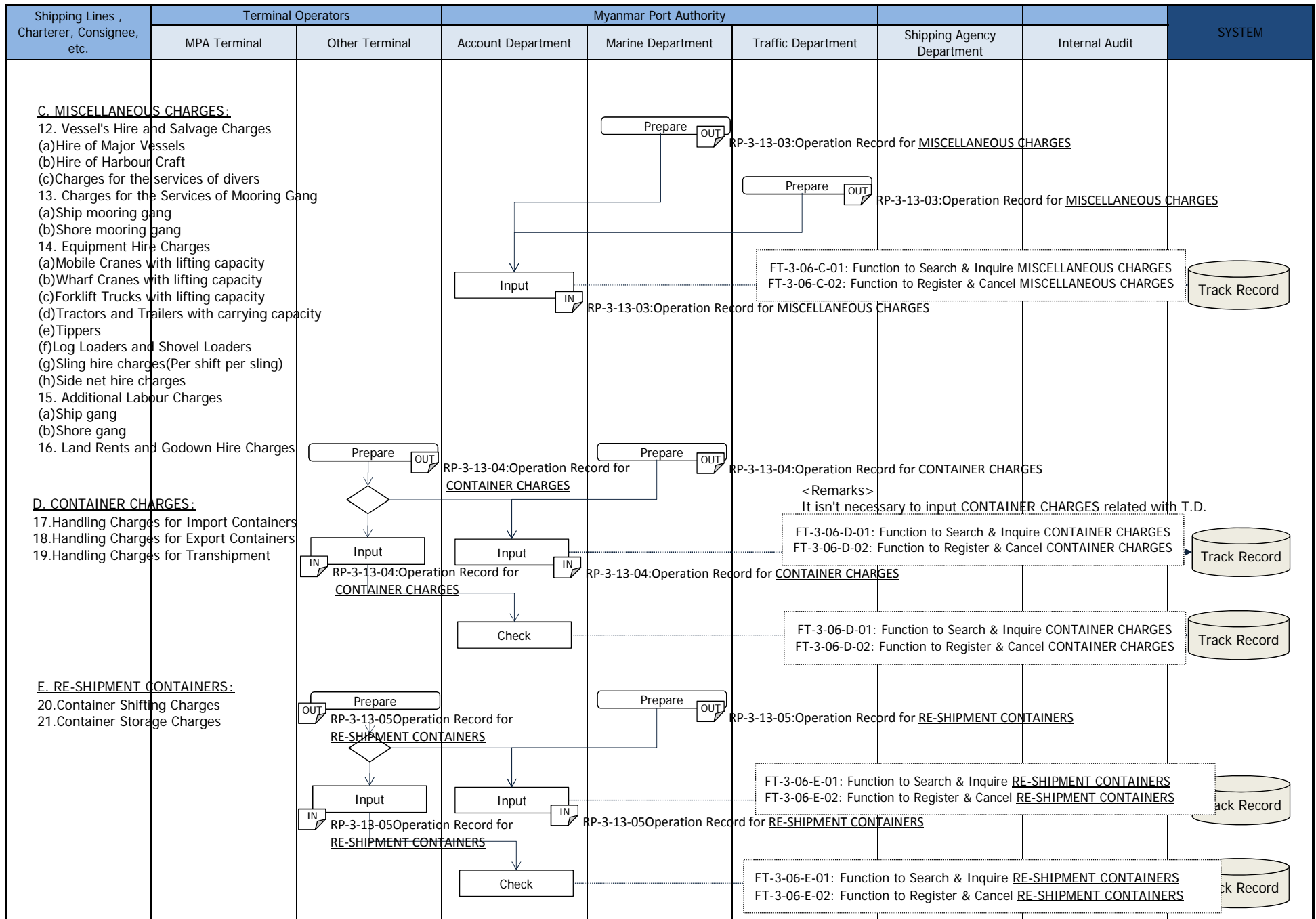


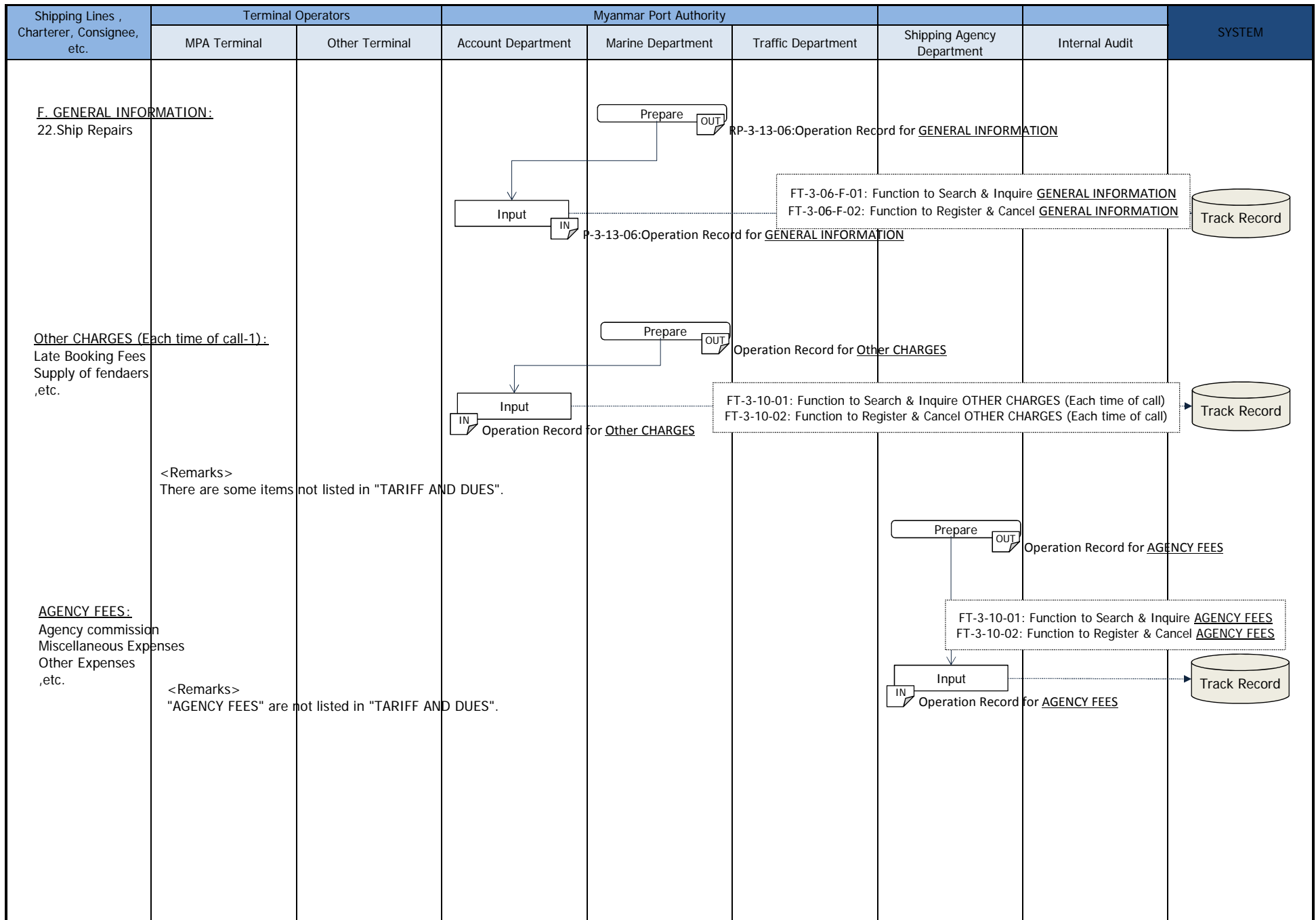
Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-3-2	2015/6/12	—	Within 4 days after departure
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Estimate	Estimate Disbursement	—	



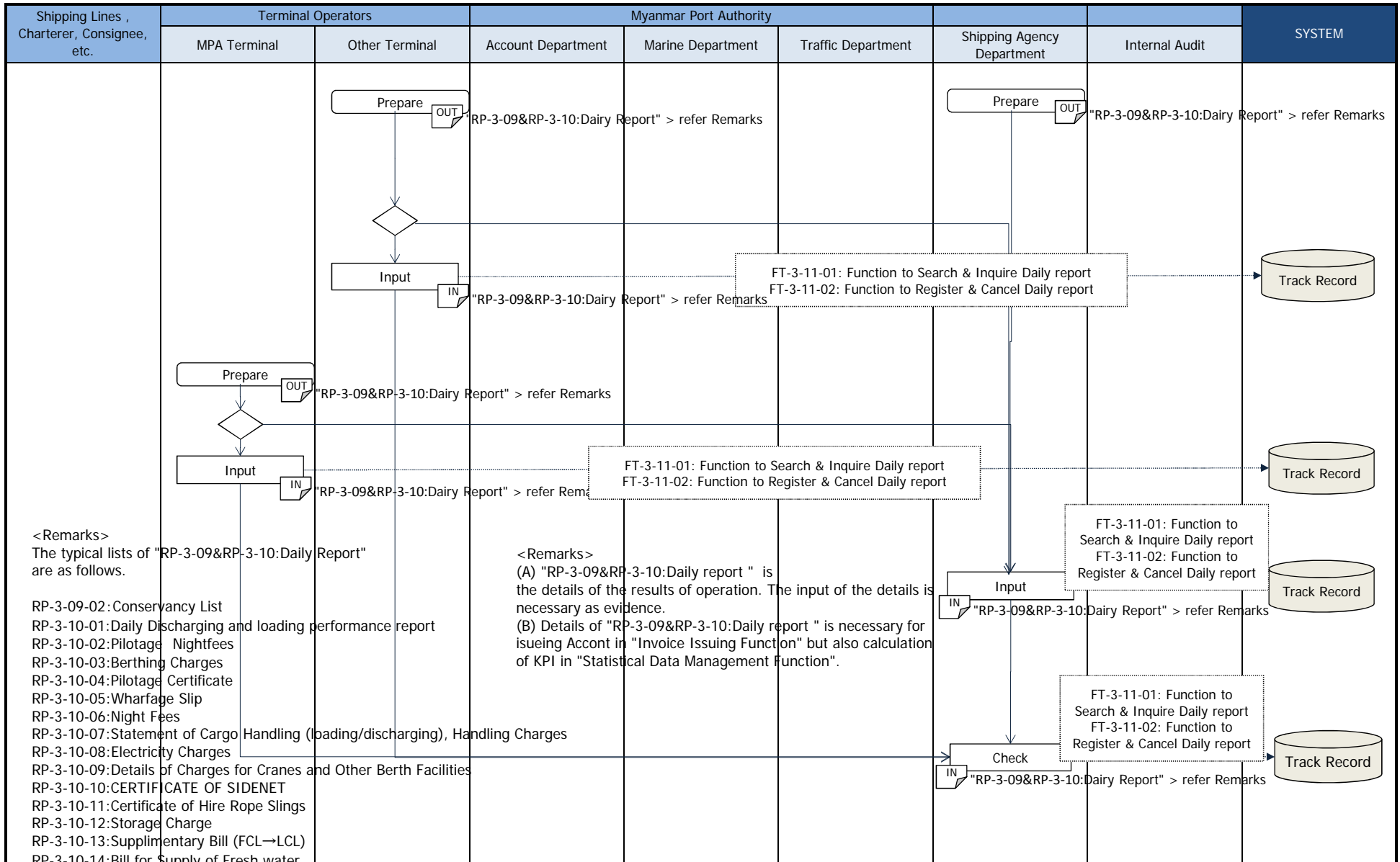
Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-4-1	2014/10/23	2015/2/25	Arrival~2 days before Departure
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Track Record	Tariff base	—	



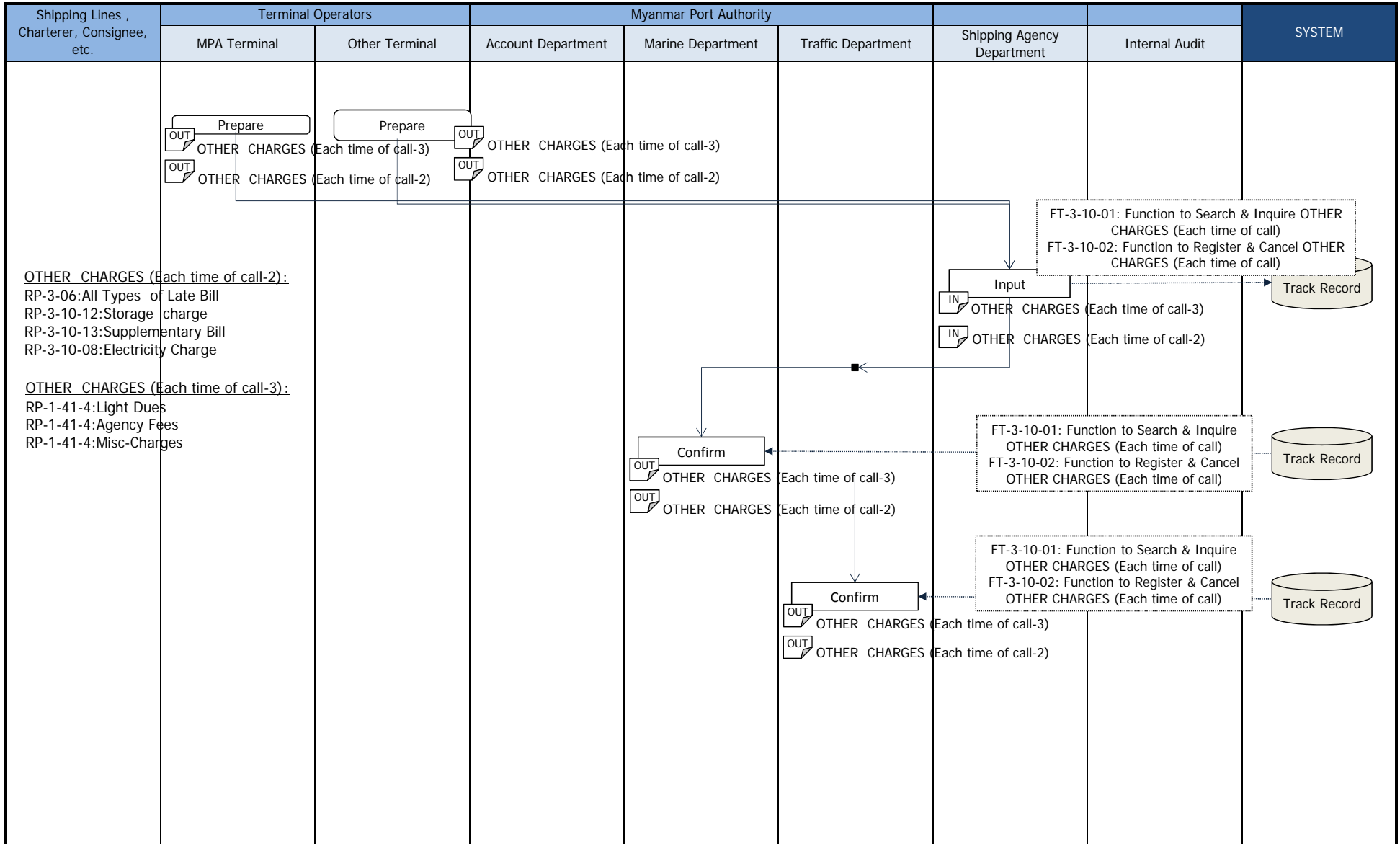




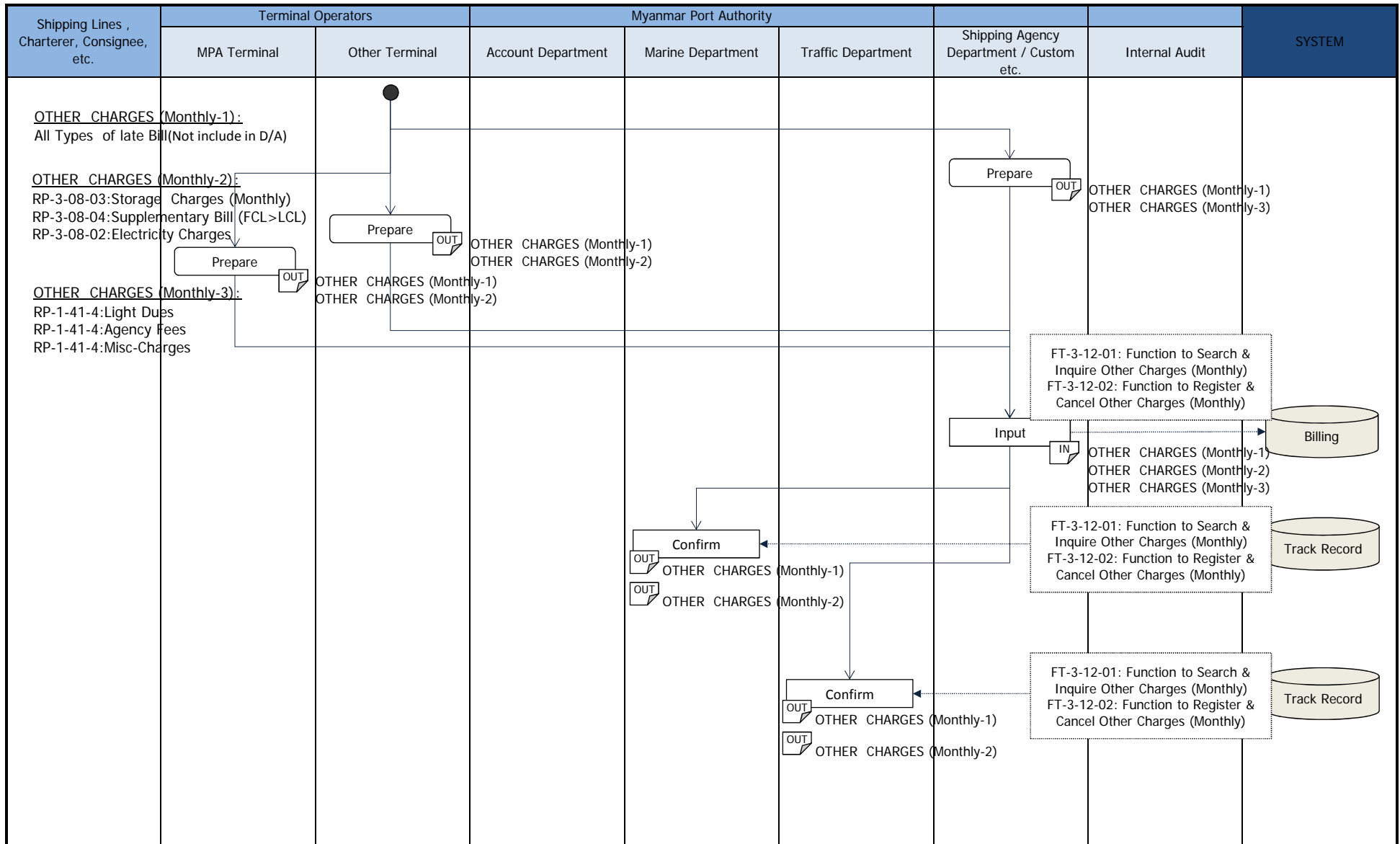
Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-4-2	2014/10/23	2015/3/1	Arrival~2 days before Departure
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Track Record	Daily report	—	



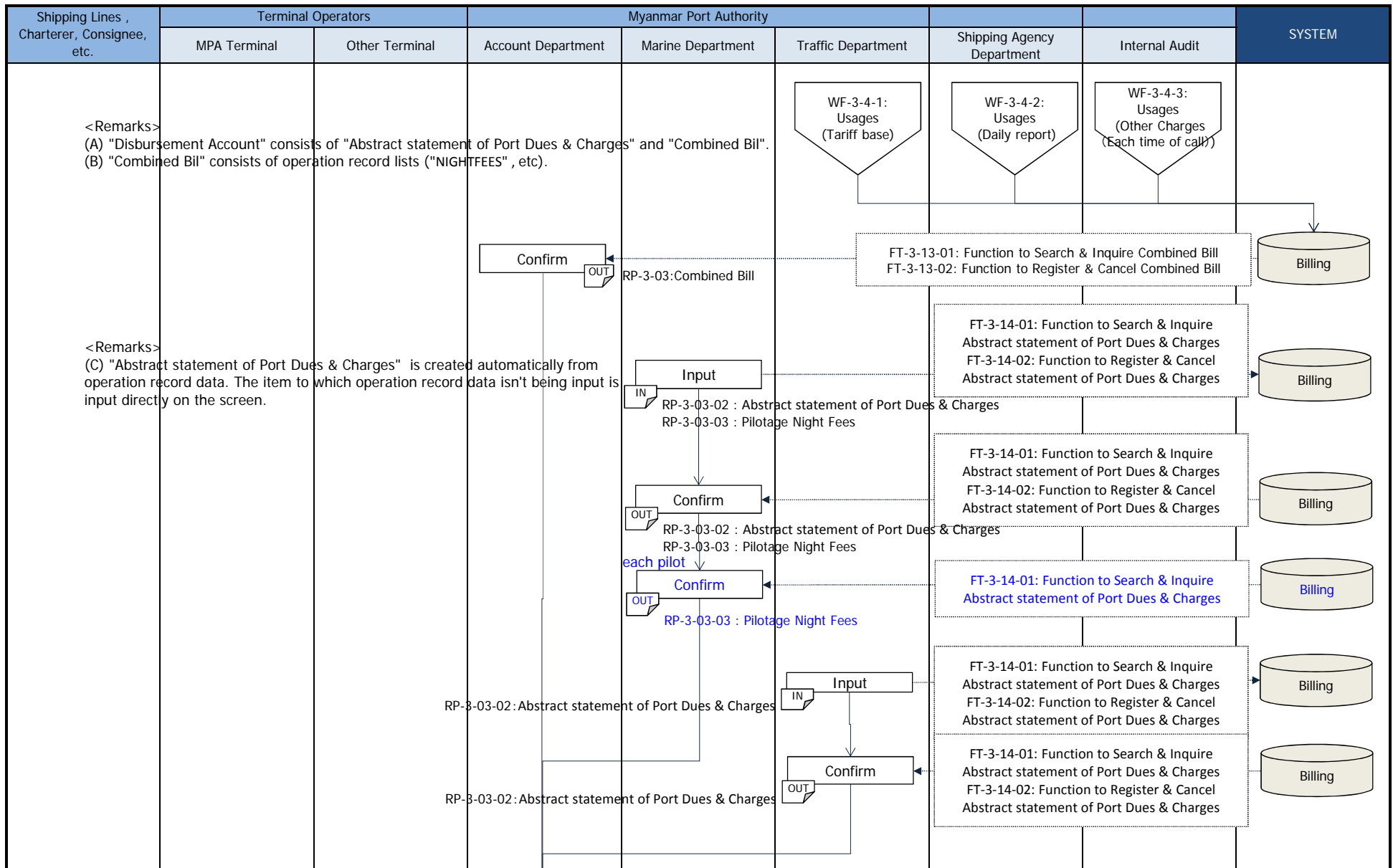
Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-4-3	2014/10/23	2015/2/25	2 days before Departure
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Track Record	Other Charges (Each time of call)	—	

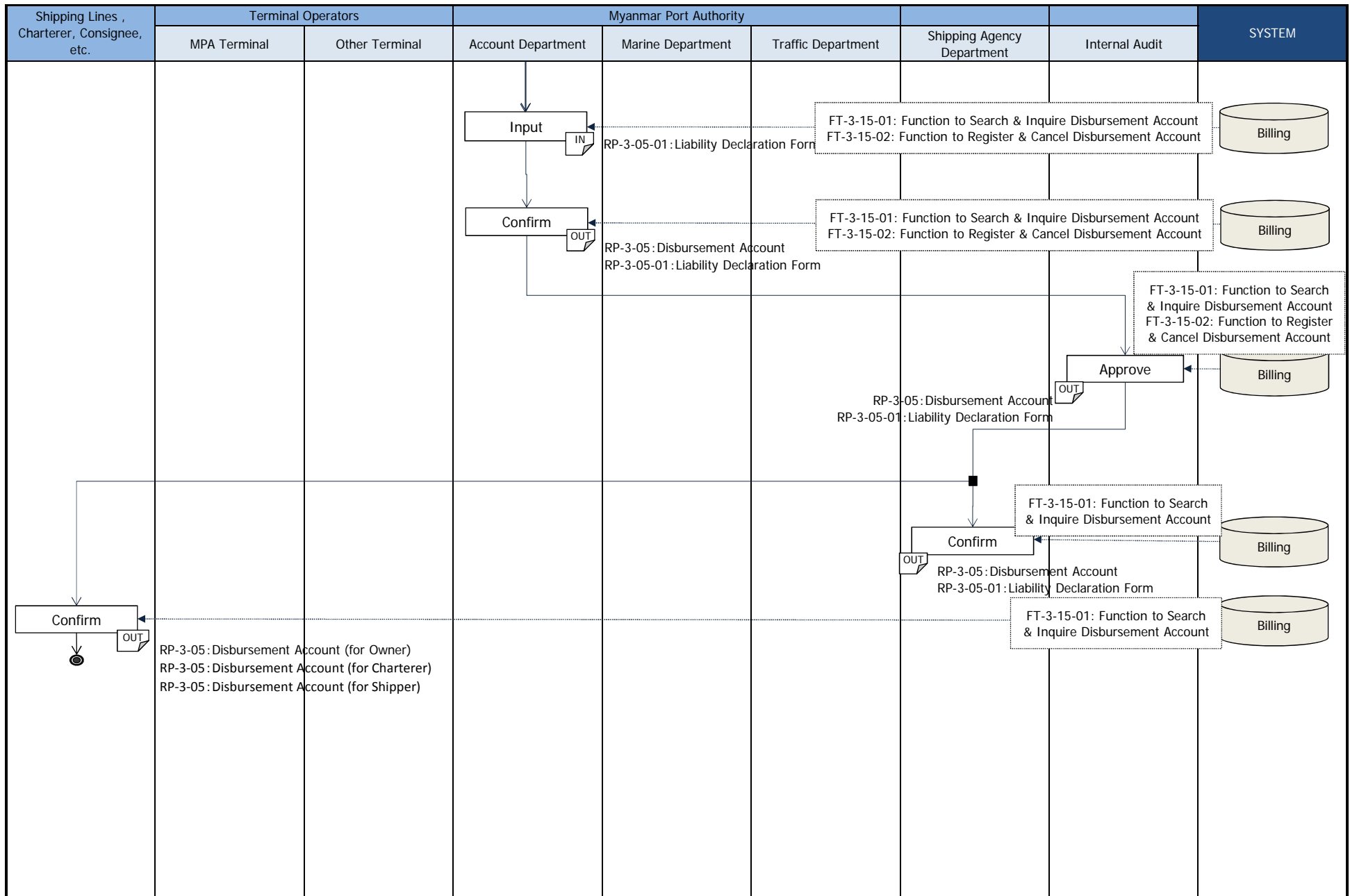


Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-4-4	2014/10/23	2015/2/25	Monthly
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Track Record	Other Charges (Monthly)	—	

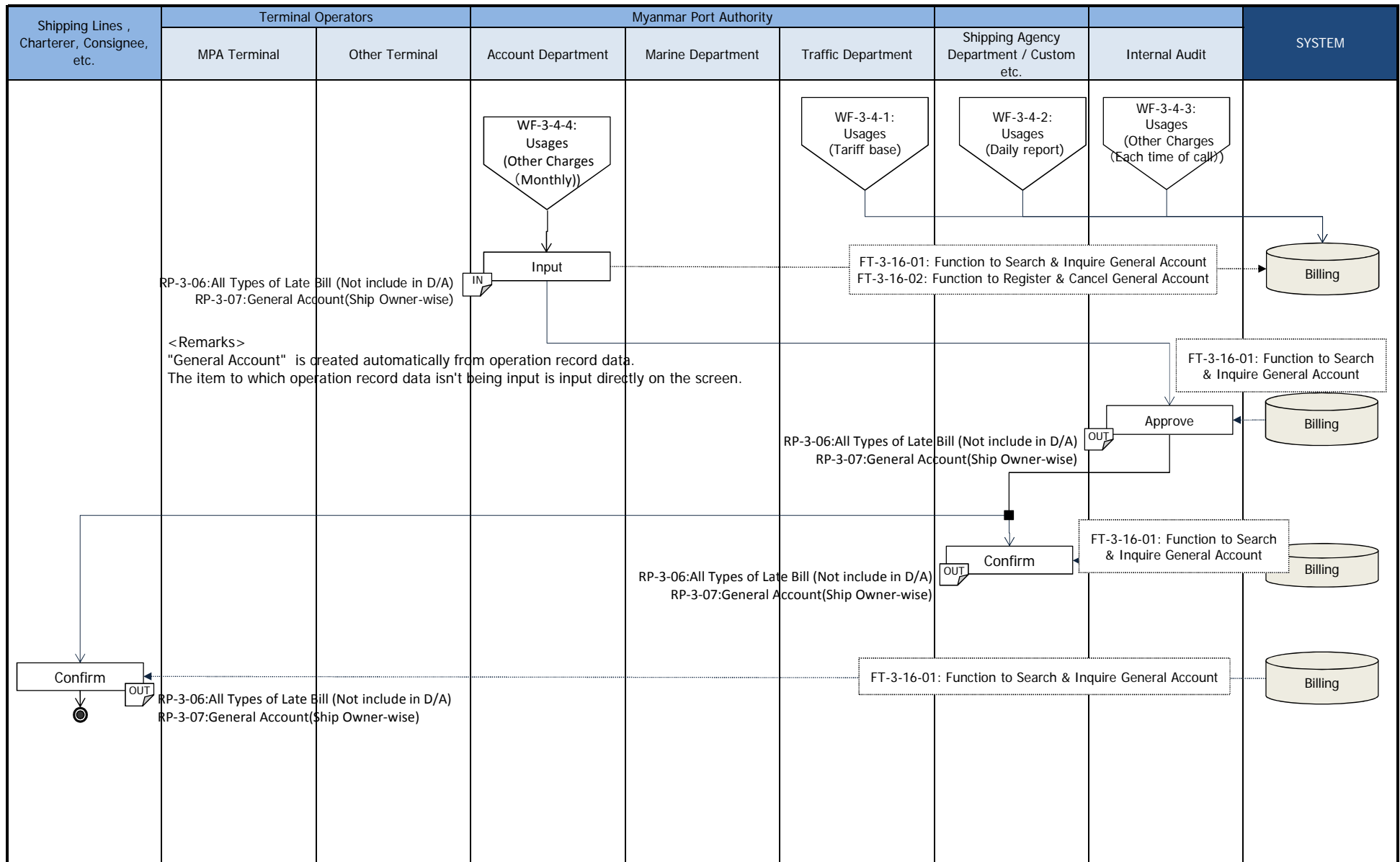


Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-5-2	2014/10/23	2015/2/25	2 days before Departure (Each time of call)
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Account	Disbursement Account	—	





Name of System	Document ID	First edition	Last modified	Frequency and timing of Business Process
Port EDI System	WF-3-5-3	2014/10/23	2015/2/25	Monthly
Lv1	Lv2	Lv3	Lv4	
Invoice Issuing	Account	General Account	—	



7.2. Document list

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○ :with sample ● :without sample	
1	Port Clearance Procedures (Sub-system No.1)	RP-1-01	General Declaration(IMO/FAL1)		WF-1-1-2-1 WF-1-2-1-1	<p>In FAL form, it is defined as "General declaration to submit to MPA, Customs, Immigration at the time of the arrival in port and the departure from a port".</p> <p>There are 6 kinds of documents to submit at present in Myanmar.</p> <ul style="list-style-type: none"> ·Application before arrival in port ·Application 72 hours before arrival in port ·Application 48 hours before arrival in port ·Application 24 hours before arrival in port ·Ship's entrance notice ·Ship's clearance notice <p>Data form in Port-EDI system will be based on FAL form and timing of submission can be the same as the current operation in Myanmar.</p>	<p>This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"</p> <p>FAL Form1 defines five kinds of Time below.</p> <p>1) ETA (Estimated Time of Arrival): Estimated time of arrival at the pilot station. Shipping agent (including SAD) input the data.</p> <p>2) ATA (Actual Time of Arrival): Arrival time at the pilot station. Harbor master of Marine Dept. input the data.</p> <p>3) POT (Pilot On board Time): Boarding time at the pilot station. Pilot contact Harbor master over the phone etc. , and Harbor master input the data.</p> <p>4) TB (Time of Berth): Port entry instruction time to Berth. As a result of Berth mtg, TB is defined. After Harbor master input the data , each terminal and shipping agent check the data.</p> <p>5) ATB (Actual time of Berth): Actual time of Berth. Terminal Operator input the data.</p>	○	N/A			○	6	○	
2		RP-1-02	Cargo Declaration (IMO/FAL2)		WF-1-1-2-2	<p>In FAL form, it is defined as "Cargo Declaration to submit to Customs, Terminal Operator at the time of the arrival in port and the departure from a port".</p> <p>It is called by the following document names at present in Myanmar.</p> <ul style="list-style-type: none"> ·Cargo information ·Inward cargo manifest <p>It is submitted only at the time of the arrival in the current operation in Myanmar.</p> <p>Data form in Port-EDI system will be based on FAL form and timing of submission can be not only at the time of the arrival in port but also the departure from a port.</p>	<p>This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"</p>	○	○	○	○	○	○	7	○
3		RP-1-03	Ship's Stores Declaration (IMO/FAL3)		WF-1-1-2-3	<p>In FAL form, it is defined as "Ship's Stores Declaration to submit to Customs at the time of the arrival in port and the departure from a port".</p> <p>It is submitted only at the time of the arrival in the current operation in Myanmar.</p> <p>Data form in Port-EDI system will be based on FAL form and timing of submission can be not only at the time of the arrival in port but also the departure from a port.</p>	<p>This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"</p>	○	○	○	○	○	○	8	○

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○ :with sample ● :without sample
4		RP-1-04	Crew's Effects Declaration (IMO/FAL4)		WF-1-1-2-3	In FAL form, it is defined as "Crew's Effects Declaration to submit to Customs at the time of the arrival in port and the departure from a port". It is submitted only at the time of the arrival in the current operation in Myanmar. Data form in Port-EDI system will be based on FAL form and timing of submission can be not only at the time of the arrival in port but also the departure from a port.	This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"	○	○	○	○	○	9	○
5		RP-1-05	Crew List (IMO/FAL5)		WF-1-1-2-4 WF-1-2-1-2	In FAL form, it is defined as "Crew List to submit to Immigration at the time of the arrival in port and the departure from a port". It includes Passport ID. Data form in Port-EDI system will be based on FAL form.	This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"	○	○	○	○	○	10	○
6		RP-1-06	Passenger List (IMO/FAL6)		WF-1-1-2-4 WF-1-2-1-2	In FAL form, it is defined as "Passenger List to submit to Immigration at the time of the arrival in port and the departure from a port". It includes Passport ID. Data form in Port-EDI system will be based on FAL form.	This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"	○	○	○	○	○	11	○
7		RP-1-07	Dangerous Goods Manifest (IMO/FAL7)		WF-1-1-2-5	In FAL form, it is defined as "Dangerous Goods Manifest to submit to MPA etc. at the time of the arrival in port". [Note] From the point of view of port management, it is considered to be necessary even when departure from a port. But in FAL form, it is defined to submit only at the time of the arrival in port.	This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"	○	○	○	○	○	12	○
8		RP-1-08	Ports of call list		WF-1-1-2-4 WF-1-2-1-2	Ports of call track list of the ship. MPA receives an application from the applicant at the time of the arrival in port, and contact to Terminal Operator, Customs, and Immigration.		○	○	not required	○	○	21	○
9		RP-1-09	Heavy cargo list Out of gauge cargo list		WF-1-1-2-5	Heavy cargo list and out of gauge cargo list to be submitted to the MPA, etc. with FAL7 at the time of the arrival in port.		○	not required		○	○	13	○
10		RP-1-10-1	Ship's particular		WF-1-1-3-1	Basic information about the ship. It's registered at the time of the first arrival in port, and it's referred at the time of FAL1 application, making documents of berth meeting and estimate etc.	GRT , NRT, DWT Flag LOA Speed Arrival draft Nos of hatches, cranes & derricks, lifting capacity	○	○ RP-1-10-2			○	5	○

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○:with sample ●:without sample
11		RP-1-10-2	Port State Control		WF-1-1-3-1 WF-1-1-3-2	<p>IMO defines CERTIFICATES. (Certificates to be carried on board ships are listed in FAL.2/Circ.123; MEPC.1/Circ.769 and MSC.1/Circ.1409.)</p> <p>After MPA check whether each ship has these documents and CERTIFICATES has not expired, MPA registers the results.</p> <p>These documents will be linked with Ship's particular.</p> <p>These documents will be referred at the time of FAL1 application and issues an alert if CERTIFICATES has expired.</p> <p>In the current operation, MPA submit the various CERTIFICATES of the Port State Control to DMA at the time of arrivals and departures.</p> <p>Port EDI system will make it possible to refer the soft copy of original of various CERTIFICATES in PDF style etc..</p> <p>The original CERTIFICATES will be checked only at the time of a update.</p>	<p>All the certificates and documents defined in IMO document "REVISED LIST OF CERTIFICATES AND DOCUMENTS REQUIRED TO BE CARRIED ON BOARD SHIPS " is in the scope.</p> <p>The following certificates and documents are samples.These names of the forms and expiration dates are relevant to detail line of PCS. To be able to add and change these certificates and documents .</p> <ul style="list-style-type: none"> - International tonnage cert. - Ship registry - Safety construction cert. - Safety radio telegraphy cert. - Safety equipment cert. - International load line cert. - IOPP cert & supplement - Shipboard oil pollution emergency plan - Minimum safe manning cert. - Competency cert. Of officer crew - CDC passport & competency cert (if Myanmar crew onboard) - Others <p>The image data of original and expiration date for each certificates or documents are registered as DB (Detail).</p>	○	○		○		4	○
12		RP-1-10-2-1	International tonnage cert.		WF-1-1-3-1 WF-1-1-3-2	Application attachment documents which is submitted to the DMA to receive "Port State Control" at the time of the arrival in port.	Attached certificates or documents to "RP-1-10-2:Port State Control".	○			○		4	
13		RP-1-10-2-2	Ship registry		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
14		RP-1-10-2-3	Safety construction cert.		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
15		RP-1-10-2-4	Safety radio telegraphy cert.		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
16		RP-1-10-2-5	Safety equipment cert.		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
17		RP-1-10-2-6	International load line cert.		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
18		RP-1-10-2-7	IOPP cert & supplement		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
19		RP-1-10-2-8	Shipboard oil pollution emergency plan		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
20		RP-1-10-2-9	Minimum safe manning cert.		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
21		RP-1-10-2-10	Competency cert. Of officer crew		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
22		RP-1-10-2-11	CDC passport & Competency cert (if Myanmar crew onboard)		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	
23		RP-1-10-2-12	Others		WF-1-1-3-1 WF-1-1-3-2	~Same as above~	~Same as above~	○			○		4	

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○ :with sample ● :without sample
24		RP-1-11-1	Cargo List		WF-1-1-5-1	Cargo List is submitted by the shipping company or agent to the MPA. Cargo List refers to the following. •Cargo manifest (Inward cargo manifest (from Maccs by EDI) / Retention cargo manifest) •Imports confirm information •Export confirm information Cargo manifest is received from MACCS to Port-EDI System. Cargo List, which might be registered separately from the application for FAL2, performs association between FAL2 during registration, then the B / L No., etc. on the key, to enable verification of the IMO No, etc.		○	○	○	○	○	16	●
25		RP-1-11-2	Delivery order (D/O)		WF-1-1-5-4	D/O is issued based on Cargo List according to the presentation of the B/L original.		○	○		○	○	41	●
26		RP-1-11-3	Token		WF-1-1-5-4			○	○		○	○	42	●
27		RP-1-11-4	B/L		WF-1-1-5-4	Consignee shows B/L to the agent (SAD) and receives D/O.		○			○		43	●
28		RP-1-12	Ship pre-arrival security information form		WF-1-1-4-2	MPA contacts a terminal operator when they receive application at the time of the arrival in port. MPA contacts an applicant when they get the answer from a terminal operator.		○			○		20	●
29		RP-1-13	Application for Certificate for clearance inwards (Custom)		WF-1-1-4-3	Application which is submitted to the customs to receive "Certificate for clearance inwards" at the time of the arrival in port.		○	○ RP-1-13-1 ...RP-1-13-11		○ RP-1-13-1... RP-1-13-11	○		●
30		RP-1-13-1	Ship currency list		WF-1-1-4-3	Application attachment documents which is submitted to the customs to receive "Certificate for clearance outwards" at the time of the arrival in port. It is submitted to the customs via MPA.		○			○		24-01	○
31		RP-1-13-2	Arm & ammunition list		WF-1-1-4-3	Same as above.		○			○		24-02	●
32		RP-1-13-3	Bonded store list provision		WF-1-1-4-3	Same as above.		○			○		24-03	○
33		RP-1-13-4	Deck engine store list		WF-1-1-4-3	Same as above.		○			○		24-04	○
34		RP-1-13-5	Walkie talkie list		WF-1-1-4-3	Same as above.		○			○		24-05	●
35		RP-1-13-6	Customs preventive 81		WF-1-1-4-3	Same as above.		○			○		24-06	●
36		RP-1-13-7	Container list		WF-1-1-4-3	Same as above.		○			○		24-07	○
37		RP-1-13-8	Nil list		WF-1-1-4-3	Same as above.		○			○		24-08	○
38		RP-1-13-9	History of vessel		WF-1-1-4-3	Same as above.		○			○		24-09	○
39		RP-1-13-10	Last port clearance		WF-1-1-4-3	Same as above.		○			○		24-10	●
40		RP-1-13-11	Myanmar address list		WF-1-1-4-3	Same as above.		○			○		24-11	●
41		RP-1-14	Certificate for clearance inwards (Custom)		WF-1-1-4-3	The authorization which the customs publish in response to application of RP-1-13-1 - RP-1-13-11 mentioned above.		○	N/A		○	○		●

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42		RP-1-15	Application for Certificate for clearance outwards (DMA)		WF-1-2-2-1	Application which is submitted to MPA to receive "Certificate for clearance outwards" which is issued by DMA at the time of the departure from port.		○	○ RP-1-15-1 ...RP-1-15-4		○ RP-1-15-1... RP-1-15-4	○		●
43		RP-1-15-1	Ship's certs		WF-1-2-2-1	Application attachment documents which is submitted to receive "Certificate for clearance outwards" which is issued by DMA at the time of the departure from port.		○			○		25-01	○
44		RP-1-15-2	All officers' certs		WF-1-2-2-1	Same as above.		○			○		25-02	●
45		RP-1-15-3	All Myanmar crew cert		WF-1-2-2-1	Same as above.		○			○		25-03	●
46		RP-1-15-4	Other same docs as those for Port State Control		WF-1-2-2-1	Same as above.		○			○		25-04	●
47		RP-1-16	Certificate of clearance outwards (DMA)		WF-1-2-2-1	Certificate which DMA issues after receiving application of RP-1-24 - 1-27 above-mentioned at the time of departure. This certificate is necessary to acquire of "Certificate for clearance outwards" Customs issues.		○	N/A		○	○	26	○
48		RP-1-33	Freight rate total freight earning	△ (Only registration of a procedure result)	WF-1-1-4-2	Record of freight rate and total freight profit. It's submitted to MPA from applicants when arriving at a port.	→Billing system	○			○		15	● * not EDI
49		RP-1-34	Application for •Break bulk order •General working order •Sat/Sunday working order		WF-1-1-5-2	Application which Customs issues on the occasion of loading and unloading freight of shipping. It's submitted to Customs from MPA when arriving at a port.	And under consideration as to whether or not to the EDI target in customs and MPA.	○			○	○	17	○
50		RP-1-35	P.O. application		WF-1-1-5-2	Application which requests Customs an embarkation check . It's submitted to Customs from applicants VIA MPA when arriving at a port.		○			○		18	○
51		RP-1-36-01	Stowage plan Inbound container list		WF-1-1-5-1	Stowage plan is an accumulation bill plan document of the freight in the ship. Inbound container list is an import container list. They are submitted with FAL2 at the time of arriving in port, and MPA give information to Terminal Operator.		○			○		19	○

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52		RP-1-36-02	Annex 71 72 (only for container ships)		WF-1-1-5-1	Annex.72__Import Status Summary Annex.73__Terminal Departure Report When container ship arrives in port, they are submitted with FAL2 at the time of arriving in port, and MPA give information to Terminal Operator.		○			○		14	○
53		RP-1-37	Maritime declaration of health	△ (Only registration of a procedure result)	WF-1-1-4-5	Documents of health condition of crew and passengers. Captain receives the documents from last Port Health Office by paper form, and submits to Port Health Office via MPA when arriving at a port, and receives approval. They are issued by paper form to Captain for arriving in next port at the time of departure.	Captain receives the documents from Last Port by paper form and submit it in PDF form.	○			○ RP-1-37-1... RP-1-37-3		22	○ * not EDI
54		RP-1-37-1	Vaccination list		WF-1-1-4-5	RP-1-37 is a list of vaccination, which is attached to the Maritime declaration of health.		○			○			●
55		RP-1-37-2	Ship sanitation control cert.	△ (Only registration of a procedure result)	WF-1-1-4-5	RP-1-37 is a ship sanitation control cert, which is attached to the Maritime declaration of health.		○			○		23	○ * not EDI
56		RP-1-37-3	Quarantine cert.		WF-1-1-4-5	RP-1-37 is a Quarantine cert, which is attached to the Maritime declaration of health.		○			○			●
57		RP-1-38	Pratique certificate (Port Health Office)		WF-1-1-4-5	Permission of arriving in port issued by Port Health Office to the application of RP-1-37.		○			○	○	35-1	○
58		RP-1-39	Certificate of clearance(Immigration)		WF-1-1-4-4	Permission of arrival from port issued by Immigration at the time of the arrival in port.	Same as #35	○			○	○	35-2	○
59		RP-1-41	Application for certificate for clearance outwards (Custom)		WF-1-2-3-2	Application which is submitted to the customs VIA MPA to receive "Certificate for clearance outwards" at the time of the departure from port.		○	○ RP-1-41-1... RP-1-41-8		○ RP-1-41-1... RP-1-41-8	○	28-1	○
60		RP-1-41-1	Application for final outward(Custom)		WF-1-2-3-2	Application for final outward. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○	○	28-2	○
61		RP-1-41-2	Import clearance certificate(Custom)		WF-1-2-3-2	Import clearance certificate issued by Customs. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○		28-3	○
62		RP-1-41-3 (=RP-1-16)	Port clearance certificate (DMA)		WF-1-2-3-2	Port clearance certificate issued by MPA after checking deposit to Disbursement Account and payment. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○	○	26, 28-4	○

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63		RP-1-41-4	Light due etc. receipts •Light due •Agency Fees •Misc-Charges		WF-1-2-3-2 WF-3-4-3 WF-3-4-4 WF-3-5-2	Receipts of Light due etc. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○	○	29, 28-5	•Light due○ •Agency Fees● •Misc-Charges●
64		RP-1-41-5	Wireless clearance certificate (or) Life saving appliances permit		WF-1-2-3-2	Application to receive "Application for Wireless Clearance Certificate". Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○	○	28-6	○
65		RP-1-41-6	Income tax clearance certificate (from Revenue Dept.)		WF-1-2-3-2	Income tax clearance certificate Issued by Revenue Dept. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○	○	30, 28-7	○
66		RP-1-41-7	Disbursement clearance certificate		WF-1-2-3-2	Certificate of payment to the bills (Disbursement Account) for shipping companies at the time of departure issued by MPA. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○	○	27, 28-8	●
67		RP-1-41-8	Over Time Bill		WF-1-2-3-2	Over Time Bill. Application attachment documents which is submitted to the Customs to receive "Certificate for clearance outwards" at the time of the departure from port.		○			○		28-9	●
68		RP-1-42	Port clearance certificate (Custom)		WF-1-2-3-2	Port clearance certificate issued by Customs after checking RP-1-42~RP-1-45 at the time of departure from port.		○			○	○	31, 28-0	○
69		RP-1-43	Application for Certificate of clearance outwards (Immigration)		WF-1-2-3-3	Application documents which is submitted to the Immigration to receive "Certificate for clearance outwards" at the time of the departure from port.		○	N/A		○	○	35	○
70		RP-1-44	Certificate of clearance outwards (Immigration)		WF-1-2-3-3	Permission of departure from port issued by Immigration at the time of the departure from port.		○			○	○	35	○
71		RP-1-45	Shore Pass for crew		WF-1-1-4-4	Shore Pass for crew issued by Immigration at the time of the arrival in port.		○	○	○	○	○	33	●
72		RP-1-46	Visa for passenger	×	WF-1-1-4-4	Visa for passenger issued by Immigration at the time of the arrival in port.							34	●
73		RP-1-47	Ship's Departure Report		WF-1-2-1-3	The difference list between at the time of arrival in port and at the time of departure from port for FAL5 and FAL6. Captain submit to Immigration after signing.		○			○	○	36	○

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74		RP-1-50	Short shipped record	×		Cargo list of planned change by shippers convenience. It is submitted to Terminal Operator VIA MPA at the time of departure. It is no need to contact to Customs for On-board custom because they have known in advance.							32	● * not EDI
75		RP-1-51	Shut out record	×		Cargo list of planned change by shipping companies convenience. It is submitted to Terminal Operator VIA MPA at the time of departure. It is no need to contact to Customs for On-board custom because they have known in advance.								● * not EDI
76		RP-1-52	Pre-arrival notices (⇒FAL1)	×		The information is similar to FAL1 and is given to MPA before arriving in port / departure from port.	→Integrate to FAL1						1	* No documents (reported by tel. or e-mail etc.)
77	Berth Allocation (Sub-system No.2)	RP-2-01	BERTHING INFORMATION		WF-2-1-1	Make a document for Berth Meeting by using "Vessels in Wharves", "Vessels in Stream", "Expected Vessels", and "Tidal Information" (RP-2-01-01 ~ RP-2-01-04). Expected Vessels is classified by "General Cargo Vessels", "Container Vessels", and "Oil Vessels".	1) FAL Form1 defines five kinds of Time below. ①ETA (Estimated Time of Arrival): Estimated time of arrival at the pilot station. Shipping agent (including SAD) input the data. ②ATA (Actual Time of Arrival): Arrival time at the pilot station. Harbor master of Marine Dept. input the data. ③POT (Pilot On board Time): Boarding time at the pilot station. Pilot contact Harbor master over the phone etc. , and Harbor master input the data. ④TB (Time of Berth): Port entry instruction time to Berth. As a result of Berth mtg, TB is defined. After Harbor master input the data , each terminal and shipping agent check the data. ⑤ATB (Actual time of Berth): Actual time of Berth. Terminal Operator input the data. 2) the status information of all vessel is registered with identical DB. To be able to search by vessels classification, the main specification of the vessels, berthing time (above-mentioned 1 to 5.) and berth classification, etc.	○	○			○	201	○
78		RP-2-01-01	Vessels in Wharves		WF-2-1-1	Traffic Dept. registers the Berth allocation information that has been determined by Berth Meeting. Berth information that has been registered will be reflected in the approved of FAL1.	This document is based on IMO document "REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS"	○	○				201	* a part of RP-2-01
79		RP-2-01-02	Vessels in Stream		WF-2-1-1	Traffic Dept. registers the location information of the ship that are retained in the river including other vessels that are submitted in FAL1.	Only display and editing in screen.	○	○				201	* a part of RP-2-01
80		RP-2-01-03	Expected Vessels		WF-2-1-1	List of planned vessels arriving in port which is based on FAL1 application. Traffic Dept. register the vessels and berths which was determined in Berth Meeting. The status is changed to "Vessels in Wharves". Data is reflected to FAL1 approval answer.	Only display and editing in screen.	○	○				201	* a part of RP-2-01

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81		RP-2-01-04	Tidal Information		WF-2-1-2	Traffic Dept. registers the information of the time and the water level of the daily high tide and low tide on a monthly basis.	Data registration is done by monthly basis. Document includes data for 3 days from Berth conference.	○	○	○	削除		201	* a part of RP-2-01
82		RP-2-02-01	Movement Application		WF-2-1-1	Application for the berth allocation. This application is submitted after all preparation for arrival/departure have been completed. The captain signs the application, and submits it to a berth meeting.		○	N/A		○	○	202	○
83		RP-2-02-02	Estimated number of Gangs		WF-2-1-1	Before Bath meeting, to the MPA from the agent, gang expected number, etc. for each vessel is declared.	Berth days is indexed according to the Gang number.	○				○	203	●
84		RP-2-03-01	Movement order		WF-2-2-1	Movement order for multiple ships which is created after Harbormaster made arrangements of pilots. Arrangements by harbormaster is based on the berth allocation that was determined by the berth meeting based on the application of FAL1 Multiple vessels of the same expected arrivals in port are listed. Movement order (for multiple ships) is also published in the MPA's website and newspapers, etc..	Data item of Movement order (for multiple ships) 1) Name of ship 2) ETA on Berth * 1 3) ETB * 2 4) Voyage No. * 1: 2) ETA on Berth is the time before berthing but closing to the berth after leaving the pilot station. * 2: 3) ETB is the estimated time to berthing. It takes about two hours from the time 2) to the time 3).	○	○			○	204	○
85		RP-2-03-02	ANCHOR WATCH DUTY SHIPS EXPECTED		WF-2-2-1	The back of the "Movement order". In the case of the ship is anchored in the river, there is a risk that the ship is flowed, this document is issued by Marine Dept. to ask pilot to wait on the river.		○	○			○	204-2	○
86		RP-2-04	Pilotage Certificate		WF-2-2-2	A captain signs on the form operation results of Pilot were recorded, and it's submitted to MPA(Account Dept.) from pilot. Work performance will be input by the Marin Dept..	The following functions are implemented. -print the blank sheets for handwriting that was printed vessel name, the operating schedule, etc.. -input screen is the same layout as the sheet. - input data is reflected as the actual value at the time of billing integration.	○	○		○	○	205	○
87	Invoice Issuing (Sub-system No.3)	RP-3-12-01	TARIFF AND DUES		WF-3-1	Unit price relating to the port usage fees. Expense items by Marine Dept. and Traffic Dept. are described.	Claim expense item and unit price are posted on "www.mot.gov.mm/pdf/tariff_dues.pdf", but there are some expense item undescribed in this document.	○	○				301-1	○

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88		RP-3-12-02	Agency Commission and Fees		WF-3-1	Unit price table for agent fees.	<p><Examples of claims expense items> Agency commission Agency Fees Postage/Fax/Oversea call Stationery Sign on/off Clearing charges Dunnage(MPA/other) Sludge disposal service Court fees stamps Travelling Expenses Sat/Sunday working Garbage charges Ship provision Advertisement Bunker Master cash</p> <p>There are some expense item not listed in above.</p>	○	○				301-2		
89		RP-3-12-03	Other Fees		WF-3-1	Unit price table of port usage fees, charged by such as other ministries and departments.	<p><Examples of claims expense items> Custom overtime Immigration overtime</p> <p>There are some expense item undescribed in this document.</p>	○	○					301-3	
90		RP-3-11	Bank Reference		WF-3-2-1	Bank Reference issued by bank.	<p>1) Ship Register No. (Vessel Name, Shipping Company, They correspond to the port entry date, etc.) 2) Deposit Receipt No. (= Bank Slip No.) 3) Payment date 4) Amount (①Payment: payment of Shipper (including bank charges, etc.), ②Receipt: 2 items of receipts of MPA)</p> <p>* 1) Ship Register No. of code layout (11 digits) 1-4 digit: Annual serial number. Numbering at the time of application of FAL1. In the case of cancel, missing number. Write down the fact of cancellation in Remarks of FAL1. 5-7 digit: Annual serial number within the department. 8 digit: Representing the department of SAD. Described with 0 . 1: Container, 2: G / C, 3: Car Because some direct applications from private Agent In the future, it is better to identificate private Agent. 9-11 digit: Fiscal year</p>	○			○			302	○

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91		RP-3-01-1	Estimated disbursement		WF-3-3-1 WF-3-3-2	<p>Estimate bill that calculated on the basis of the "Prospect of discharge / loading volume" by MPA in billing business.</p> <p>Disbursement quotation of Account that is created in the purpose of deposit before arriving in port. It is created for each ship by one arrival or departure.</p> <p>It is estimated from two information. -The actual value of the Estimated disbursement or Disbursement Account in previous time -Some informations including FAL1 which is submitted by the ship company regarding Arrivals and Departures</p> <p>Tariff, formula and Order of expense items are the same as in case of the Disbursement Account. (Note: In the sample order of expense items are different, but it will be changed so that it is in the same way.)</p>	<p>All items listed in "TARIFF AND DUES". The style of the documents is the same as "Disbursement Account". Following are items of example of current style. <Items> Port Dues, Pilotage (In-Out), Wharfage, A.M.H. Fees, Mooring/Unmooring Launch/Tug Light Dues Freight Tax Import/Export Agency Commission Agency Fees, Stevedoring Charges(Discharging/Loading) Supervisory/Tally Charges Watchman Immigration Overtime Custom Overtime Fresh Water Motor Launch Dunnage/Mats Laundry Photo/stationery Medical Cable/Telex/Tele/Fax Provisions Repairs Wire Sling Charges Master cash advance Survey Fees Phone Call by Master Crew Hotel Charges Miscellaneous Charges Conservency Fees</p>	○	○		○	○	304	○
92		RP-3-01-2	Prospect of discharge/loading volume		WF-3-3-1	MPA refer Prospect of discharge/loading volume to create an estimate bill in billing business.		○	○		○	○	303	●
		RP-3-01-3	Statement of Expenses Involved		WF-3-3-2								310	●
93		RP-3-02-01	Bill of Marine Dept.		N/A	List of billings by Marine Dept. of MPA. In conjunction with other departments of the bill of MPA, it can be summarized as Combined Bill.	This bill is not issued in the current business, but in preparation for organizational changes MPA, it is possible to issue a departmental bill. As evidence, the performance tables are attached.	○	○		○	○	311	N/A
94		RP-3-02-02	Bill of Traffic Dept.		N/A	List of billings by Traffic Dept. of MPA. In conjunction with other departments of the bill of MPA, it can be summarized as Combined Bill. Private terminal operators can also use the function to create this bill.	This bill is not issued in the current business, but in preparation for organizational changes MPA, it is possible to issue a departmental bill. As evidence, the performance tables are attached.	○	○		○	○	312	N/A

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95		RP-3-02-03	Bill of Shipping Agent Dept.		N/A	List of billings by Shipping Agent Dept. of MPA. In conjunction with other departments of the bill of MPA, it can be summarized as Combined Bill. Private shipping agents can also use the function to create this bill.	This bill is not issued in the current business, but in preparation for organizational changes MPA, it is possible to issue a departmental bill. As evidence, the performance tables are attached.	○	○		○	○	313	N/A
96		RP-3-03	Combined Bill		WF-3-5-1	The middle summary sheet to make Disbursement Account and detailed statement of results.	As evidence, the following performance tables are attached. 1) Pilotage certificate 2) Night Fees 3) Wharfage slip 4) Cargo Handling charges 5) Electricity supply charges 6) Certificate of usage of equipments (sidenet, rope sling, etc.) ,etc.						305	○
97		RP-3-03-01	Combined Bill		WF-3-5-1	Face sheet of Combined Bill. This Form shows a subtotal for each expense item that has been described in the Tariff. It is created for each call of each ship. Detail records document is attached.	<Items for example> PORT DUES AND OTHER CHARGES LOADING UNLOADING CHARGES SLING HIRE CHARGES SIDE NET HIRE CHARGES	○	○		○	○	305-1	○
98		RP-3-03-02	Abstract Statement of Port Dues & Other Charges		WF-3-5-1	This document is created by adding the results and unit price of items to the subtotal of expense items that are listed in the "TARIFF AND DUES". In order to confirm to the TO, each document should be created for each TO. Tariff, formula and Order of expense items are the same as in case of the Disbursement Account. (Note: In the sample order of expense items are different, but it will be changed so that it is in the same way.)	<Items for example> PORT DUE A. H. M. FEES(Assistant Harbor Master Fees) (Charges for pilot's) ATTENDANCE/DETENTION MOORING BERTHING CHARGES PILOTAGE (INWARD) PILOTAGE (MOVEMENT) ※New Item PILOTAGE (OUTWARD) CRANAGE FRESH WATER SUPPLY T.D. MOORING GANGS LABOUR SUPPLY SUPPLY OF LAUNCHES SUPPLY OF TUGS (SMALL) MAJOR VESSEL (LARGE) SUPPLY OF JOLLY BOAT SUPPLY OF HEAVE UP BOAT LATE BOOKING FEES CANCELLATION FEES PILOTAGE NIGHT FEES (IN) PILOTAGE NIGHT FEES (MOVEMENT) PILOTAGE NIGHT FEES (OUT) SPECIAL PROVISION OF PILOT MOORING GANGS (M.A.) HIRE OF CHAIN & SHACKLES SUPPLY OF FENDERS	○	○		○	○	305-2	○
		RP-3-03-03	Pilotage Night Fees		WF-3-5-1	The payment specification of Pilotage Night Fees will be issued for each pilot, since the Pilotage Night Fees to be credited to the personal account of the pilot.		○	○		○	○	305-3	●

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99		RP-3-05	Disbursement Account		WF-3-5-1	Invoice to the shipping Line from the MPA that are created for one Arrival or Departure of 1 ship. (Private Terminal → MPA (substitutional) → Shipping Line.) - Disbursement Account is issued two days before departure. (In the rule, Disbursement Account should be issued to up to 16 days after departure. IF the deposit is credited to the Estimated Disbursement by the time of departure, departure will be allowed.) - Although private terminal submit specification to MPA, MPA input total value only. -MPA claim payment to Shipping Line in the General Account for the expenses of unclaimed in Disbursement Account by collectively one month.	All items listed in "TARIFF AND DUES".	○	○		○	○	306	○
100		RP-3-05-01	Liability Declaration Form			Liability Declaration Form state the payer for each expense item that is described in the "TARIFF AND DUES". Segments of payer are Owner, Charterer, and Shipper.	<Header> Name of Vessel Arrival Date Departure Date Owner's Address & Tel. Charterer's Address & Tel. <Detail> Source of Funds (Items are based on "TARIFF AND DUES") Payer (Owner/Charterer/Shipper)	○	○		○	○	307	○
101		RP-3-06	All Types of Late Bill (Not include in D/A)		WF-3-5-2	Bill of additional expenses that are not included in the Disbursement Account. 1 form for each ship company.	Late Bill (=Monthly) includes the following items listed in General Account. •Supplimentary Expense (for each terminal) •Custom Overtime •Storage Charges (for each terminal)	○	○		○	○	308	●
102		RP-3-07	General Account (Ship Owner-wise)		WF-3-5-2	Monthly bill. MPA claim payment to Shipping Line in the General Account for the expenses of unclaimed in Disbursement Account by collectively one month. A operation record lists are attached. In the case of charter vessels, no charging to shipping companies but charging to Vessel Operator or Vessel Charterer. MPA create the Allocation of payment and submit to SAD. - Owner (shipping line) - Chaterer (in the case of each one ship arrangements) - Shipper (Export only) - Consignee Shipping companies manage deposit balance (Credit) and shortfall (Debit) by each vessel and by the all vessels. In some cases additional payment is claimed after a few months later.	Closed Voyage Account (DEBIT/CREDIT) Supplementary Expenses (Supplementary for AW, Supplementary for SNW, Custom Overtime, Storage Charge for AW, Storage Charge for SNW)	○	○		○	○	309	●
103		Daily Reports (Cargo)				The form used on present business.							(320)	

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104		RP-3-09	Conservancy Charges			The declaration documents of Conservancy Charges.	* Taxation by MPA to the freight Conservancy Fee loaded and unloaded at a harbor. (Accounting caused by loading and unloading isn't included.) * When TO (terminal operator) delivers freight to a shipper, TO collect a tax from shippers. TO will pay a collected tax to MPA. *There are 8 items in the form, but only "Conservancy Charges" is collected via TO. * Additionally, TO?/SPW? is collecting "Landing Charges".						321	
105		RP-3-09-01	Challan			Face sheet of the declaration of Conservancy Charges.	D/O, B/L, P/L, Cargo Declaration(FAL2), Import licence, Invoice, etc. are attached.	○	N/A	N/A	○	○	321-01	○
106		RP-3-09-02	Conservancy List		WF-1-1-5-4	List of Conservancy Fee (toll). List of Multiple billing. 1 shipper 1 line. Terminal operator input data at the time of picking up cargoes. MPA claim payment of Conservancy Fee to TO according to the reports of TO. Challan No. is not duplicated.	<Detail> Date Challan No. Wharf Import/Export shipper Vessel Name Arrival Date Country Country Code Goods TEU FEU Mton Conservancy	○	○	○	○	○	321-02	○
107		Daily Reports (Work)				The form used on present business.							(330)	
108		RP-3-10-04	Pilotage Certificate		WF-3-5-1	List of the itemized net totals for the accounting items managed by Marine Dept. The related operation record lists are attached. The related operation record lists are submitted from TO to MPA.	<Items for example> Port Dues A.H.M.Fees Attendance/Detention Mooring Pilotage(in) Pilotage(out) Supply of Launches Supply of Tugs (large) Supply of Tugs (small) Jolly Boat Heave up Boat Late Booking Fees Cancellation Fees Pilotage Night Fees(in/out) Special Provision of Pilot M.A.Mooring Gangs Hire of Chain & Shackles Supply of Fenders	○	○		○		331	○

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109		RP-3-10-05	Wharfage Slip (front side)		WF-3-5-1	List of the itemized net totals for the accounting items managed by Traffic Dept.The related operation record lists are attached. The related operation record lists are submitted from TO to MPA. Rate and calculation method is common to all terminals. All TO not only MPA is available.	< Items for example> Berthing Charges Crannage Flesh Water Supply T.D.Mooring Gangs Labour Supply	○	○		○		332	●
110		RP-3-10-02	Pilotage Nightfees		WF-3-4-2	Pilotage Nightfees will be paid directly to the Pilot individuals from MPA. Document are created for pilot separately. Pilot name, personal account number, and the like are printed on the slip.		○	○		○	○	333	○
111		RP-3-10-06	Night Fees		WF-3-4-2	Night Fees of the loading and unloading other than Pilotage Night Fees.		○	○		○		334	●
112		RP-3-10-07	Statement of Cargo Handling (loading/discharging), Handling Charges		WF-3-4-2	Statement of Cargo Handling loading to the ship. Detail records of handling charges.	< Items for example> Pulse/Rice GC (Loading/Discharge) Hard Wood /Log /Timber Container Hiring Equipment (Rope/Wire/Side Net/Sling) No of Gangs Night Fee's Labour	○	○		○		335	○
113		RP-3-10-01	Daily Discharging and loading performance report		WF-3-4-2	Performance report submitted to MPA from Terminal Operator which include daily discharging and loading.	Towards the introduction of Port-EDI, we plan to create a common form of actual record data. (Revised version of conventional document)	○	○	○	○	○	336 331	○
114			Daily Reports (Facilities and equipment)										340	
115		RP-3-10-05	Wharfage Slip (back side)		WF-3-4-2	Details of charges for cranes and other berth facilities are described.							341	○
116		RP-3-10-03	Berthing Charges		WF-3-4-2	In order to confirm to the TO, each document should be created for each TO.		○	○		○	○	342	●
117		RP-3-10-09	Details of Charges for Cranes and Other Berth Facilities		WF-3-4-2	Berth Facilities usage records.		○	○		○		343	○
118		RP-3-10-10	CERTIFICATE OF SIDENET		WF-3-4-2	Cargo handling records related to SideNet. Because it is necessary to adjust the SideNet to fit the frequent fluctuations of the river level, Side Net dedicated worker is placed at all times while cargo loading and unloading, .	<Detail> Loading/Discharging Name of Terminal Operator Date Shift(D/N) Number of gangs Number of sidenet Over Time Remarks	○	○		○		344	○

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119		RP-3-10-11	Certificate of Hire Rope Slings		WF-3-4-2								345	○
120		RP-3-10-08	Electricity Charges		WF-3-4-2	Electricity usage records of reefer container. 1 line item by each container No..	<Header> Vessel Name Voyage No. Berthing Date <Detail> serial No. container No. Chargable period (From/To) Duration 6 hours period Rate per 6 hours Amount (US\$)	○	○		○		346	○
121		RP-3-10-12	Storage Charge		WF-3-4-2	Details of Storage Charge. TO claim payment to shipping company via General Account of MPA for one month.	<Detail> serial No. Vessel Name Voyage No. Berthing Date Amount (US\$) Remarks	○	○		○		347	○
122		RP-3-10-13	Supplimentary Bill (FCL→LCL)		WF-3-4-2	Handling Charges(FCL→LCL) Supplimentary Bill (FCL → LCL) is a document to claim the difference worth in the case of claimed as FCL in the Disbursement Account but it was LCL actually. See tariff table of page 39 which shows Handling Charges of FCL and LCL .	<Header> Vessel Name Voyage No. Berthing Date <Detail> serial No. container No. TEU Rate Amount (US\$) Remarks	○	○		○		348	○
123		RP-3-10-14	Bill for Supply of Fresh Water		WF-3-4-2	Bill for supply of fresh water.		○	○		○		349	○
124			Operation Record Lists (Tariff form)			The form which is planning to be designed newly. The new forms (RP-3-13-01-RP-3-13-06) are to be designed so that they include all present forms (RP-3-14-01-RP-3-14-13).								
125		RP-3-13-01	Operation Record for CHARGES ON VESSELS		WF-3-4-1	The form will be prepared for all items of "RP-3-12: TARIFF AND DUES" to input Operation Record of "CHARGES ON VESSELS".		○	○		○	○	N/A	N/A

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○ :with sample ● :without sample
126		RP-3-13-02	Operation Record for CHARGES ON CARGOES		WF-3-4-1	The form will be prepared for all items of "RP-3-12: TARIFF AND DUES" to input Operation Record of "CHARGES ON CARGOES".		○	○		○	○	N/A	N/A
127		RP-3-13-03	Operation Record for MISCELLANEOUS CHARGES		WF-3-4-1	The form will be prepared for all items of "RP-3-12: TARIFF AND DUES" to input Operation Record of "MISCELLANEOUS CHARGES".		○	○		○	○	N/A	N/A
128		RP-3-13-04	Operation Record for CONTAINER CHARGES		WF-3-4-1	The form will be prepared for all items of "RP-3-12: TARIFF AND DUES" to input Operation Record of "CONTAINER CHARGES".		○	○		○	○	N/A	N/A
129		RP-3-13-05	Operation Record for RE-SHIPMENT CONTAINERS		WF-3-4-1	The form will be prepared for all items of "RP-3-12: TARIFF AND DUES" to input Operation Record of " RE-SHIPMENT CONTAINERS".		○	○		○	○	N/A	N/A
130		RP-3-13-06	Operation Record for GENERAL INFORMATION		WF-3-4-1	The form will be prepared for all items of "RP-3-12: TARIFF AND DUES" to input Operation Record of "GENERAL INFORMATION".		○	○		○	○	N/A	N/A
131		RP-3-13-07	Operation Record for Service Fee of Agent		WF-3-4-1			○	○		○	○	N/A	N/A
132	Statistical Data Management		Predefined Statistical graphic chart		N/A								400	
133	(Sub-system No.4)	RP-4-4-1-01	Predefined Statistical graphic table (Monthly, Annual, Decade)		N/A	Tables that target the following items. <u>A. aggregate target data item</u> •Vessel calling (Total) •Cargo Handling (including GC and container) (Import/Export/Total) •Container Handling (Import/Export/Total) •Commodity •Regional	Monthes are set as row name, and years are set as column name. 442-01:Sample for monthly report 443-01:Sample for annual report 444-01:Sample for decade report	○		○		○	442-01 443-01 444-01	●
134		RP-4-4-1-02	Predefined Statistical graphic chart (Monthly, Annual, Decade)		N/A	Charts that target the following items. <u>A. aggregate target data item</u> •Vessel calling (Total) •Cargo Handling (including GC and container) (Import/Export/Total) •Container Handling (Import/Export/Total) •Commodity •Regional <u>B. style</u> •line •bar •pie	For two dimensions, months or years is set in the X-axis. 442-01:Sample for monthly report 443-01:Sample for annual report 444-01:Sample for decade report	○		○		○	442-02 443-02 444-02	○
135		RP-4-4-1-03	Key Performance Indicator		N/A	Final Calculation for Key Performance Indicator		○		○		○	443-03	○
136			Predefined Periodic Report		N/A		Here, post the part of the report sample of interest on a regular reporting function of the sub-system No.1 ~ 3 of Port EDI system.							
137		RP-4-3-1-01	Monthly Report for Charges Daily Summary List Foreign Adbance List		N/A	Monthly Report for Charges Daily Summary List Foreign Adbance List/Inbound/Outbound		○		○		○	432-01	○

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○:with sample ●:without sample
138		RP-4-3-1-02	Monthly Report for Pilot Nightfee		N/A	Monthly report of Night Fees of each Pilot and each Vessel. As for all of the pilot, the list of pilot night fees for a certain period of time (two months, etc.) have been aggregated for each pilot.		○		○		○	432-03	○
139		RP-4-3-1-03	Monthly Report for each item of expenditure and each vessel (for Account Dept.)		N/A	Billings specification history table of ; •each item of expenditure •each vessel for Account Dept.		○		○		○	432-04	○
140		RP-4-3-1-04	Monthly Report for each item of expenditure and each vessel (for SAD)		N/A	Billings specification history table of ; •each item of expenditure •each vessel for SAD.		○		○		○	432-05	○
141		RP-4-3-1-05	Monthly Report for Income		N/A	Monthly Report of Income that is created on the basis of the Conservancy List. The following four types are created. A. Deposit •Foreign (Import/Export) •Account code •Dairy (for month) B. Cash •Foreign (Import/Export)	The column of "Coastal" described in the sample cases will not be implemented.	○		○		○	442-01	○
142		RP-4-3-1-06	Monthly Report for Commodity		N/A	Monthly Report of Commodity that is created on the basis of the Conservancy List. The following four types are created. A. Cash (以下はすべてForeign (Import/Export)) •Berth •Country •Dairy (for month) •Commodity		○		○		○	442-02	○
143		RP-4-3-1-07	Monthly Report for Conserbancy Charges from Email data by Berth		N/A	Monthly Report for Conserbancy Charges from Email data by Berth		○		○		○	442-03	○
144		RP-4-1-1-01	Monthly Report for Cargo Productivity		N/A	Monthly Report for Cargo Productivity	Calculation formula of Berth occupancy rate is appended to the sample form.	○		○		○	442-04	○
145		RP-4-1-1-02	Monthly Report for Calling Vessel and Cargo Handling Data		N/A	Monthly Report for Calling Vessel and Cargo Handling Data		○		○		○	442-05	○
146		RP-4-1-1-03	Monthly Report for Cargo Handling Statement		N/A	Monthly Report for Cargo Handling Statement	Calculation formula is appended to the sample form.	○		○		○	442-06	○
147		RP-4-1-1-04	Monthly Report for Inward /Outward Conventional Statement		N/A	Monthly Report for Inward /Outward Conventional Statement		○		○		○	442-07	○
148		RP-4-1-1-05	Monthly Report for Container Boxes & tonnage showing vessels wise		N/A	Monthly Report for Container Boxes & tonnage showing vessels wise		○		○		○	442-09	○
149		RP-4-1-1-06	Monthly Report for Ship's Moving Data		N/A	Monthly Report for Ship's Moving Data		○		○		○	442-10	○

Seq. No.	Sub-system	Document ID	Document Name	Out of scope of PortEDI	Business Flow No.	Summary of Document	Remarks (Items of data information, etc.)	DB (Header) *1	DB (Detail) *2-1	DB (Detail) *2-2	Attached File *3	Print Form *4	Sample ID	Sample ○ :with sample ● :without sample
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Remarks

- *1 Function to register, search and inquire each data items in header part of documents(For example,IMO No. or ETA etc. in FAL2.) on screen.
- *2-1 Function to register, search and inquire each data items in detail part of documents(For example,B/L No. or name of cargo etc. in FAL2.) on screen.
- *2-2 Function to register and inquire each data items in detail part of documents(For example,B/L No. or name of cargo etc. in FAL2) by uploading and downloading files (Excel or CSV.).
- *3 Function to register, search, inquire and print files (PDF, Excel, Word, PNG, JPG, etc.) .
The registered file is searched for by being linked with header information.
These files are used by the following use.
(A) For DB input : It means that it would be enables to register by uploading files (Excel or CSV.)
(B) For reuse Excel, etc. by TO, etc. :It means that it would be reused by TO for their internal system use.
(C) For evidence : It means that it would be used as evidence for the original confirmation, etc.
- *4 Function to print documents in pre-defined format. The formats are basically based on the style of current business.

7.3. Function list

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
1	Port Clearance Procedure (Sub-system No.1)	FT-1-01-01	WF-1-1-2-1 WF-1-2-1-1	Function to Search & Preview FAL1	1) Search & Preview registered FAL1. 2) Display FAL1 on screen. 3) Output FAL1 on paper. 4) Search & Preview the status of approval of registered FAL1. 5) Preview the comment in case of non-approval. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified FAL1. 7) Display the list "Progress of the Procedures"*2 for the applied or notified FAL1 of relevant user.	○	RP-1-01:General Declaration(IMO/FAL1)
2		FT-1-01-02	WF-1-1-2-1 WF-1-2-1-1	Function to Register & Cancel FAL1	1) Register FAL1 2) Select from "application of arriving in port" and "application of departure from port". 3) Refer the data of the ship from ship basic information. 4) Read data of the ship corresponding to FAL1 from ships basic information. 5) Register a new FAL1 based on the registered FAL1. 6) Correct or delete the data of registered FAL1. 7) Apply, notify, or cancel the registered FAL1. 8) Register a division of SAD in charge for each application. (Note : It should be selected that the ON / OFF of the distribution function of SAD department responsible for each application.) 9) Approve/disapprove the applied or notified FAL1. 10) Register a comment of the reason of non-approval. 11) Display the list of unprocessed FAL1 application or notification of relevant user. 12) Mail notification to the applicant for approval or non-approval result of FAL1.	○	
3		FT-1-03-01	WF-1-1-2-2	Function to Search & Preview FAL2	1) Search & Preview registered FAL2. 2) Display FAL2 on screen. 3) Display Cargo Manifest corresponding to FAL2 on screen. 4) Output FAL2 on paper. 5) Search & Preview the status of approval of registered FAL2. 6) Preview the comment in case of non-approval. 7) Search & Preview "Progress of the Procedures"*2 for the applied or notified FAL2. 8) Display the list "Progress of the Procedures"*2 for the applied or notified FAL1 of relevant user.	○	RP-1-02:Cargo Declaration (IMO/FAL2)

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
4		FT-1-03-02	WF-1-1-2-2	Function to Register & Cancel FAL2	1) Register FAL2 2) Select from "application of arriving in port" and "application of departure from port". 3) Read data of the voyage of the ship from FAL1. 4) Register a new FAL2 based on the registered FAL2. 5) Correct or delete the data of registered FAL2. 6) Apply, notify, or cancel the registered FAL2. 7) Approve/disapprove the applied or notified FAL2. 8) Register a comment of the reason of non-approval. 9) Display the list of unprocessed FAL2 application or notification of relevant user. 10) Mail notification to the applicant for approval or non-approval result of FAL2. 11) File of cargo specification information(Cargo Manifest, etc.) corresponding to the FAL2 is attached, and the data records are read.	○	
5		FT-1-05-01	WF-1-1-2-3	Function to Search & Inquire FAL3/4	1) Search & Preview registered FAL3/4. 2) Display FAL3/4 on screen. 3) Output FAL3/4 on paper. 4) Search & Preview the status of approval of registered FAL3/4. 5) Preview the comment in case of non-approval. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified FAL3/4. 7) Display the list "Progress of the Procedures"*2 for the applied or notified FAL3/4 of relevant user.	○	RP-1-03:Ship's stores declaration(IMO/FAL3) RP-1-04:Crew's Effects Declaration(IMO/FAL4)
6		FT-1-05-02	WF-1-1-2-3	Function to Register & Cancel FAL3/4	1) Register FAL3/4 2) Select from "application of arriving in port" and "application of departure from port". 3) Read data of the voyage of the ship from FAL1. 4) Register a new FAL3/4 based on the registered FAL3/4. 5) Correct or delete the data of registered FAL3/4. 6) Apply, notify, or cancel the registered FAL3/4. 7) Approve/disapprove the applied or notified FAL3/4. 8) Register a comment of the reason of non-approval. 9) Display the list of unprocessed FAL3/4 application or notification of relevant user. 10) Mail notification to the applicant for approval or non-approval result of FAL3/4.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
7		FT-1-07-01	WF-1-1-2-4 WF-1-2-1-2	Function to Search & Preview FAL5/6	<ol style="list-style-type: none"> 1) Search & Preview registered FAL5/6. 2) Display FAL5/6 on screen. 3) Display Ports of call list corresponding to FAL5/6 on screen. 4) Output FAL5/6 on paper. 5) Search & Preview the status of approval of registered FAL5/6. 6) Preview the comment in case of non-approval. 7) Search & Preview "Progress of the Procedures"*2 for the applied or notified FAL5/6. 8) Display the list "Progress of the Procedures"*2 of the applied or notified FAL5/6 of relevant user. 	○	RP-1-05:Crew List (IMO/FAL5) RP-1-06:Passenger List (IMO/FAL6) RP-1-08:Ports of call list
8		FT-1-07-02	WF-1-1-2-4 WF-1-2-1-2	Function to Register & Cancel FAL5/6	<ol style="list-style-type: none"> 1) Register FAL5/6. 2) Select from "application of arriving in port" and "application of departure from port". 3) Read data of the voyage of the ship from FAL1. 4) Register a new FAL5/6 based on the registered FAL5/6. 5) Correct or delete the data of registered FAL5/6. 6) Apply, notify, or cancel the registered FAL5/6. 7) Approve/disapprove the applied or notified FAL5/6. 8) Register a comment of the reason of non-approval. 9) Display the list of unprocessed FAL5/6 application or notification of relevant user. 10) Mail notification to the applicant for approval or non-approval result of FAL5/6. 	○	
9		FT-1-09-01	WF-1-1-2-5	Function to Search & Preview FAL7	<ol style="list-style-type: none"> 1) Search & Preview registered FAL7. 2) Display FAL7 on screen. 3) Display Heavy cargo list/Out of gauge cargo list corresponding to FAL7 on screen. 4) Output FAL7 on paper. 5) Search & Preview the status of approval of registered FAL7. 6) Preview the comment in case of non-approval. 7) Search & Preview "Progress of the Procedures"*2 for the applied or notified FAL7. 8) Display the list "Progress of the Procedures"*2 for the applied or notified FAL7 of relevant user. 	○	RP-1-07: Dangerous cargo list (IMO/FAL7) RP-1-09: Heavy cargo list/Out of gauge cargo list

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
10		FT-1-09-02	WF-1-1-2-5	Function to Register & Cancel FAL7	<ol style="list-style-type: none"> 1) Register FAL7. 2) Select from "application of arriving in port" and "application of departure from port". 3) Read data of the voyage of the ship from FAL7. 4) Register a new FAL7 based on the registered FAL7. 5) Correct or delete the data of registered FAL7. 6) Apply, notify, or cancel the registered FAL7. 7) Approve/disapprove the applied or notified FAL7. 8) Register a comment of the reason of non-approval. 9) Display the list of unprocessed FAL7 application or notification of relevant user. 10) Mail notification to the applicant for approval or non-approval result of FAL7. 	○	
11		FT-1-10-01	WF-1-1-3-1	Function to Search & Preview Ship's particular information	<ol style="list-style-type: none"> 1) Search & Preview registered ship's basic information. 2) Display ship's basic information on screen. 3) Output ship's basic information on paper. Search & Preview the status of approval of registered ship's basic information. <ol style="list-style-type: none"> 5) Preview the comment in case of non-approval. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified ship's basic information. 7) Display the list "Progress of the Procedures"*2 for the applied or notified ship's basic information of relevant user. 	○	RP-1-10-1:Ship's particular
12		FT-1-10-02	WF-1-1-3-1	Function to Register & Cancel Ship's particular information	<ol style="list-style-type: none"> 1) Register ship basic information. 2) Select from "application of arriving in port" and "application of departure from port". 3) Register a new ship basic information based on the registered ship basic information. 4) Correct or delete the data of registered ship basic information. 5) Apply, notify, or cancel the registered ship basic information. 6) Approve/disapprove the applied or notified ship basic information. 7) Register a comment of the reason of non-approval. 8) Display the list of unprocessed application or notification for ship basic information of relevant user. 	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
13		FT-1-11-01	WF-1-1-3-2 WF-1-1-3-3 WF-1-2-2-1	Function to Search & Preview PSC certificate	<ol style="list-style-type: none"> 1) Search & Preview registered certificate for PCS(Port State Control), etc. 2) Display & Print certificate on screen. 3) Alert in case of the expired certificate which date is before arriving day in port / departure day from port. The certificate are for the application or notification of FAL1 of the ship. 4) Search & Preview the status of approval of certificate. 5) Preview the comment in case of non-approval by each certificate. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified certificate. 7) Display the list "Progress of the Procedures"*2 for the applied or notified certificate of relevant user. 	○	RP-1-10-2-1:International tonnage cert. RP-1-10-2-2:Ship registry RP-1-10-2-3:Safety construction cert. RP-1-10-2-4:Safety radio telegraphy cert. RP-1-10-2-5:Safety equipment cert. RP-1-10-2-6:International load line cert. RP-1-10-2-7:IOPP cert & supplement RP-1-10-2-8:Shipboard oil pollution emergency plan RP-1-10-2-9:Minimum safe manning cert. RP-1-10-2-10:Competency cert. Of officer crew RP-1-10-2-11:CDC passport & competency cert (if Myanmar crew onboard) RP-1-10-2-12:Others
14		FT-1-11-02	WF-1-1-3-2 WF-1-1-3-3 WF-1-2-2-1	Function to Register & Cancel PCS certificate	<ol style="list-style-type: none"> 1) Register name of certificate for PCS(Port State Control), etc., copy of certificate (in Image data such as PDF etc.), expired date, and other attribute information corresponding to ship. 2) Select from "application of arriving in port" and "application of departure from port". 3) Correct or delete the data of registered certificate. 4) Apply, notify, or cancel the registered certificate. 5) Approve/disapprove the applied or notified certificate. 6) Register a comment of the reason of non-approval for each certificate. 7) Display the list of unprocessed application or notification for certificate of relevant user. 8) Mail notification to the applicant for approval or non-approval result of certificate. 	○	
15		FT-1-12-01	WF-1-1-4-2	Function to Search & Preview Security Information	<ol style="list-style-type: none"> 1) Search & Preview registered Security Information etc.. 2) Display Security Information on screen. 3) Output Security Information on paper. 4) Search & Preview the status of approval of Security Information. 5) Preview the comment in case of non-approval. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Security Information. 7) List "Progress of the Procedures"*2 for the applied or notified Security Information of relevant user. 	○	RP-1-12:Ship re-arrival security information form

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
16		FT-1-12-02	WF-1-1-4-2	Function to Register & Cancel Security Information	1) Register Security Information. 2) Read data of the voyage of the ship from FAL1. 3) Replace the data of registered Security Information. 4) Apply, notify, or cancel the registered Security Information. 5) Approve/disapprove the applied or notified Security Information. 6) Register a comment of the reason of non-approval. 7) Display the list of unprocessed application or notification on Security Information of relevant user. 8) Mail notification to the applicant for approval or non-approval result of Security Information.	○	
17		FT-1-13-01	WF-1-1-4-3	Function to Search & Preview Port Clearance (Custom)	1) Search & Preview registered Port Clearance (Custom). 2) Display Port Clearance (Custom) on screen. 3) Output Port Clearance (Custom) on paper. 4) Search & Preview the status of approval of Port Clearance (Custom). 5) Preview the reasons and comment in case of non-approval by each attached document of application. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Port Clearance (Custom).. 7) Display the list "Progress of the Procedures"*2 for the applied or notified Port Clearance (Custom) of relevant user.	○	RP-1-13:Application for Certificate for clearance inwards (Custom) RP-1-13-1:Ship currency list RP-1-13-2:Arm & ammunition list RP-1-13-3:Bonded store list provision RP-1-13-4:Deck engine store list RP-1-13-5:Walkie talkie list RP-1-13-6:Customs preventive 81 RP-1-13-7:Container list RP-1-13-8:Nil list RP-1-13-9:History of vessel RP-1-13-10>Last port clearance RP-1-13-11:Myanmar address list RP-1-14:Certificate for clearance inwards (Custom)

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
18		FT-1-13-02	WF-1-1-4-3	Function to Register & Cancel Port Clearance(Custom)	1) Register Port Clearance (Custom). 2) Read data of the voyage of the ship from FAL1. 3) Register a new Port Clearance (Custom) based on the registered Port Clearance (Custom). 4) Correct or delete the data of registered Port Clearance (Custom). 5) Apply, notify, or cancel the registered Port Clearance (Custom). 6) Approve/disapprove the applied or notified Port Clearance (Custom). 7) Register the reasons and comment in case of non-approval by each attached document of application. 8) Display the list of unprocessed application or notification on Port Clearance (Custom) of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Port Clearance (Custom).	○	
19		FT-1-15-01	WF-1-1-4-4	Function to Search & Preview Port Clearance (Immigration)	1) Search & Preview registered Port Clearance (Immigration).. 2) Display Port Clearance (Immigration) on screen. 3) Output Port Clearance (Immigration) on paper. 4) Output Shore pass for crew on paper. (Visa for Passenger is out of scope of Port EDI system) 5) Search & Preview the status of approval of Port Clearance (Immigration). 6) Preview the reasons and comment in case of non-approval by each attached document of application. 7) Search & Preview "Progress of the Procedures"*2 for the applied or notified Port Clearance (Immigration). 8) Display the list "Progress of the Procedures"*2 for the applied or notified Port Clearance (Immigration) of relevant user.	○	RP-1-39:Pratique certificate (Immigration) RP-1-45:Shore pass for crew

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
20		FT-1-15-02	WF-1-1-4-4	Function to Register & Cancel Port Clearance (Immigration)	1) Register Port Clearance (Immigration). 2) Read data of the voyage of the ship from FAL1. 3) Register a new Port Clearance(Immigration) based on the registered Port Clearance (Immigration). 4) Correct or delete the data of registered Port Clearance (Immigration). 5) Apply, notify, or cancel the registered Port Clearance (Immigration). 6) Approve/disapprove the applied or notified Port Clearance (Immigration). 7) Register the reasons and comment in case of non-approval by each attached document of application. 8) Display the list of unprocessed application or notification on Port Clearance (Immigration) of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Port Clearance (Immigration).	○	There is no "Pratique certificate" issued by the Immigration, but the acknowledgment of the notification is necessary.
21		FT-1-17-01	WF-1-1-4-5	Function to Search & Preview Port Clearance (Port Health Office)	1) Search & Preview registered Port Clearance (Port Health Office). 2) Display Port Clearance (Port Health Office) on screen. 3) Output Port Clearance (Port Health Office) on paper. 4) Search & Preview the status of approval of Port Clearance (Port Health Office). 5) Preview the reasons and comment in case of non-approval by each attached document of application. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Port Clearance (Port Health Office). 7) Display the list "Progress of the Procedures"*2 for the applied or notified Port Clearance (Port Health Office) of relevant user.	○	RP-1-38:Pratique certificate (free/restricted)

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
22		FT-1-17-02	WF-1-1-4-5	Function to Register & Cancel Port Clearance (Port Health Office)	1) Register Port Clearance (Port Health Office). 2) Read data of the voyage of the ship from FAL1. 3) Register a new Port Clearance (Port Health Office) based on the registered Port Clearance (Port Health Office). 4) Correct or delete the data of registered Port Clearance (Port Health Office). 5) Apply, notify, or cancel the registered Port Clearance (Port Health Office). 6) Approve/disapprove the applied or notified Port Clearance (Port Health Office). 7) Register the reasons and comment in case of non-approval by each attached document of application. 8) Display the list of unprocessed application or notification on Port Clearance (Port Health Office) of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Port Clearance (Port Health Office).	○	
23		FT-1-19-01	WF-1-1-5-1	Function to Search & Preview Stowage Information	1) Search & Preview registered Stowage Information (Stowage Plan, Annex 71&72, etc.). 2) Display Stowage Information (Stowage Plan, Annex 71&72, etc.) on screen.	○	RP-1-36-01:Stowage plan (by PDF)/Inbound container list (by PDF) RP-1-36-02: Annex 71 72 (only for container ships)
24		FT-1-19-02	WF-1-1-5-1	Function to Register & Cancel Stowage Information	1) Register Stowage Information (Stowage Plan, Annex 71&72, etc.) to be correlated to FAL2 as an attached file. <Remarks:Annex 71&72 is only for container ships.>	○	
25		FT-1-20-01	WF-1-1-5-2	Function to Search & Preview Break bulk order	1) Search & Preview registered Break bulk order (including "P.O. application", "General working order", "Sat/Sunday working order", "Break bulk order"). 2) Display Break bulk order on screen. 3) Output Break bulk order on paper. 4) Search & Preview the status of approval of Break bulk order. 5) Preview the reasons and comment in case of non-approval by each attached document of application. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Break bulk order. 7) Display the list "Progress of the Procedures"*2 for the applied or notified Break bulk order of relevant user.	○	RP-1-34:Break bulk order / General working order / Sat/Sunday working order RP-1-35:P.O. application

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
26		FT-1-20-02	WF-1-1-5-2	Function to Register & Cancel Break bulk order	1) Register Break bulk order. 2) Read data of the voyage of the ship from FAL1. 3) Register a new Break bulk order based on the registered Break bulk order. 4) Correct or delete the data of registered Break bulk order. 5) Apply, notify, or cancel the registered Break bulk order. 6) Approve/disapprove the applied or notified Break bulk order. 7) Register the reasons and comment in case of non-approval by each attached document of application. 8) Display the list of unprocessed application or notification on Break bulk order of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Break bulk order.	○	
27		FT-1-21-01	WF-1-1-5-3	Function to Search & Inquire Cargo List	1) Search(by B/L No., D/O No., etc.) & Preview registered Cargo List. 2) Read a retrieval key(by B/L No., D/O No., etc.) from QR code (Quick Response Code). 3) Display Cargo List on screen. 4) Output D/O on paper. Output a retrieval key(by B/L No., D/O No., etc.) by QR Code on paper. 5) Search & Preview the status of Examination result of B/L, issue history of the D/O and the carrying out history of the cargo.	○	RP-1-11-1: Cargo List
28		FT-1-21-02	WF-1-1-5-3	Function to Register & Cancel Cargo List	1) Register Cargo List based on Cargo Manifest, confirmed import & export freight information submitted by the shipping company or agent to the MPA. 2) Receive Cargo Manifest from MACCS. 3) Correlate Cargo List to FAL1 and FAL2. 4) Read the relevant data item in Cargo List from FAL1 and FAL2. 5) Register a new detail record of Cargo List based on the registered detail record of Cargo List. 6) Correct or delete the data of registered Cargo List. 7) Register & Cancel examination history of the B/L. 8) Register & Cancel issue history of the D/O. 9) Register & Cancel the carrying out history of the cargo.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
29		FT-1-22-01	WF-1-1-5-4	Function to Search & Inquire Delivery order(D/O)	1) Search(by B/L No., D/O No., etc.) & Preview registered Delivery order(D/O). 2) Search & Preview the status of Examination result of B/L. 3) Display D/O on screen. 4) Output D/O on paper. 5) Output main item (B/L No., D/O No., name of cargo and consignee, location of cargo, etc.) of Cargo List by QR Code (Quick Response Code) on paper.	○	RP-1-11-2 :Delivery order (D/O) RP-1-11-4 :B/L
30		FT-1-22-02	WF-1-1-5-4	Function to Register & Cancel Delivery order(D/O)	1) D/O relevant to B/L No.,etc. is created automatically based on Cargo List. (Remarks:Consider the case which divides 1 details of Cargo List into more than one D/O and the case which makes 1 of D/O from more than one Cargo List details.) 2) Correct or delete the data of registered D/O. (Remarks:Cargo Manifest received from MACCS isn't defined data, so it's assumed that correction is sometimes needed.) 3) Reflect correction of D/O to Cargo List. 4) Register & Cancel examination result of B/L. 5) Register & Cancel issue result on D/O. 6) Register & Cancel the carrying out result of the cargo.	○	
31		FT-1-07-03	WF-1-2-1-3	Function to Search & Preview Ship's Departure Report	1) Search & Preview registered Ship's Departure Report. 2) Display Ship's Departure Report on screen. 3) Display Ports of call list corresponding to Ship's Departure Report on screen. 4) Output Ship's Departure Report on paper. 5) Search & Preview the status of approval of Ship's Departure Report. 6) Preview the comment in case of non-approval. 7) Search & Preview "Progress of the Procedures"*2 for the applied or notified Ship's Departure Report. 8) Display the list "Progress of the Procedures"*2 for the applied or notified Ship's Departure Report of relevant user.	○	RP-1-47:Ship's Departure Report

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
32		FT-1-07-04	WF-1-2-1-3	Function to Register & Cancel Ship's Departure Report	1) List the difference between FAL5 / 6 at the time of Arrivals in Port and FAL5 / 6 at the time of departure automatically. (Ship's Departure Report) 2) Register Ship's Departure Report. 3) Read data of the voyage of the ship from FAL1. 4) Apply, notify, or cancel the registered Ship's Departure Report. 5) Approve/disapprove the applied or notified Ship's Departure Report. 6) Register the reasons and comment in case of non-approval by each attached document of application. 7) Display the list of unprocessed application or notification on Ship's Departure Report of relevant user.	○	
33		FT-1-23-01	WF-1-2-3-1	Function to Search & Preview Port Clearance (DMA)	1) Search & Preview registered Application and Certificate for Application and Certificate for Port Clearance (DMA). 2) Display Application and Certificate for Port Clearance (DMA) on screen. 3) Output Application and Certificate for Port Clearance (DMA) on paper. 4) Search & Preview the status of approval of Port Clearance (DMA). 5) Preview a comment of the reason of non-approval for each Port Clearance (DMA). 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Port Clearance (DMA). 7) Display the list "Progress of the Procedures"*2 for the applied or notified Port Clearance (DMA) of relevant user.	○	RP-1-15 : Application for Certificate for clearance outwards (DMA) RP-1-15-1 : Ship's certs RP-1-15-2 : All officers' certs RP-1-15-3 : All Myanmar crew cert RP-1-15-4 : Other same docs as those for Port State Control RP-1-16, RP-1-41-3 : Certificate for clearance outwards (DMA)

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
34		FT-1-23-02	WF-1-2-3-1	Function to Register & Cancel Port Clearance (DMA)	1) Register Application and Certificate for Application and Certificate for Port Clearance (DMA). 2) Read data of the voyage of the ship from FAL1. 3) Register a new Application and Certificate for Port Clearance (DMA) based on the registered Application and Certificate for Port Clearance (DMA). 4) Correct or delete the data of registered Application and Certificate for Port Clearance (DMA). 5) Apply, notify, or cancel the registered Application and Certificate for Port Clearance (DMA). 6) Approve/disapprove the applied or notified Port Clearance (DMA). 7) Register a comment of the reason of non-approval for each Port Clearance (DMA). 8) Display the list of unprocessed application or notification on Port Clearance (DMA) of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Port Clearance (DMA).	○	
35		FT-1-25-01	WF-1-2-3-2	Function to Search & Preview Port Clearance (Custom)	1) Search & Preview registered Application and Certificate for Application and Certificate for Port Clearance (Custom). 2) Display Application and Certificate for Port Clearance (Custom) on screen. 3) Output Application and Certificate for Port Clearance (Custom) on paper. 4) Search & Preview the status of approval of Port Clearance (Custom). 5) Preview the reasons and comment in case of non-approval by each attached document of application. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Port Clearance (Custom). 7) Display the list "Progress of the Procedures"*2 for the applied or notified Port Clearance (Custom) of relevant user.	○	RP-1-41:Application for certificate for clearance outwards (Custom) RP-1-41-1:Application for final outward RP-1-41-2:Import clearance certificate RP-1-41-3 (=RP-1-16):Port clearance certificate (MPA) RP-1-41-5:Wireless clearance certificate RP-1-41-6:Income tax clearance certificate (from Revenue Dept.) RP-1-41-7:Disbursement clearance certificate RP-1-41-8:Over Time Bill RP-1-42:Port clearance certificate (Custom) ,etc.

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
36		FT-1-25-02	WF-1-2-3-2	Function to Register & Cancel Port Clearance (Custom)	1) Register Application and Certificate for Application and Certificate for Port Clearance (Custom). 2) Read data of the voyage of the ship from FAL1. 3) Register a new Application and Certificate for Port Clearance (Custom) based on the registered Application and Certificate for Port Clearance (Custom). 4) Correct or delete the data of registered Application and Certificate for Port Clearance (Custom). 5) Apply, notify, or cancel the registered Application and Certificate for Port Clearance (Custom). 6) Approve/disapprove the applied or notified Port Clearance (Custom). 7) Register a comment of the reason of non-approval for each Port Clearance (Custom). 8) Display the list of unprocessed application or notification on Port Clearance (Custom) of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Port Clearance (Custom).	○	
37		FT-1-27-01	WF-1-2-3-3	Function to Search & Preview Port Clearance (Immigration)	1) Search & Preview registered Port Clearance (Immigration). 2) Display Port Clearance (Immigration) on screen. 3) Output Port Clearance (Immigration) on paper. 4) Search & Preview the status of approval of Port Clearance (Immigration). 5) Preview the reasons and comment in case of non-approval by each attached document of application. 6) Search & Preview "Progress of the Procedures"*2 for the applied or notified Port Clearance (Immigration). 7) Display the list "Progress of the Procedures"*2 for the applied or notified Port Clearance (Immigration) of relevant user.	○	RP-1-44:Certificate for clearance outwards (Immigration)

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
38		FT-1-27-02	WF-1-2-3-3	Function to Register & Cancel Port Clearance (Immigration)	1) Register Port Clearance (Immigration). 2) Read data of the voyage of the ship from FAL1. 3) Register a new Port Clearance (Immigration) based on the registered Port Clearance (Immigration). 4) Correct or delete the data of registered Port Clearance (Immigration). 5) Apply, notify, or cancel the registered Port Clearance (Immigration). 6) Approve/disapprove the applied or notified Port Clearance (Immigration). 7) Register a comment of the reason of non-approval for each Port Clearance (Immigration). 8) Display the list of unprocessed application or notification on Port Clearance (Immigration) of relevant user. 9) Mail notification to the applicant for approval or non-approval result of Port Clearance (Immigration).	○	
39		FT-1-28-01	N/A	Function to Search & Refer Regular report	1) Search & preview registered regular reports (pre-defined periodic reports (daily, monthly, annual, etc.)) by selecting type of report, target period, etc. 2) Display regular reports on screen. 3) Output regular reports on paper. <Example of style> Quantity (tons, TEU) of the vessel information / cargo information / handling information, etc. is aggregated for each commodity classification / each berth / each country or region, etc.	○	RP-4-1-1-01 Monthly Report for Cargo Productivity RP-4-1-1-02 Monthly Report for Calling Vessel and Cargo Handling Data RP-4-1-1-03 Monthly Report for Cargo Handling Statement RP-4-1-1-04 Monthly Report for Inward/Outward Conventional Statement RP-4-1-1-05 Monthly Report for Container Boxes & tonnage showing vessels wise RP-4-1-1-06 Monthly Report for Ship's Moving Data, etc.
40		FT-1-28-02	N/A	Function to Search & Refer Regular report	1) Create regular reports (pre-defined periodic reports (daily, monthly, annual, etc.)) automatically according to a preset schedule. 2) Create regular reports at an arbitrary timing designated by the user. 3) Delete the regular reports.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
41	Berth Allocation (Sub-system No.2)	FT-2-01-01	WF-2-1-1	Function to Search, Refer, Register & Delete Berthing Information	<p>1) Search and refer the ship location information (Vessels in Wharves, Vessels in Stream, Expected Vessels) in specified by selecting date, time, vessel name or berth name, etc.</p> <p>2) Select and sort data by status of location information.</p> <p>3) List and output the location information of a ship of specified date and time for Berth Meeting on paper in one document.</p> <p>4) Expected Vessels data will be listed as a separate table in one document in classification such as General Cargo Vessels, Container Vessels, Oil Vessels.</p> <p>5) Expected Vessels data will be listed automatically based on the FAL1 application data.</p> <p>6) Once vessels and berths is determined in Berth Meeting, the status will be changed from "Expected Vessels" to "Vessels in Wharves". Data is reflected to FAL1 approval answer.</p> <p>7) Search and refer the location information of vessels waiting in the river including other vessel which is not applied for FAL1.</p>	○	
42		FT-2-01-02	WF-2-1-1	Function to Search, Refer, Register & Delete Berthing Information	<p>1) Register and delete the ship location information (Vessels in Wharves, Vessels in Stream, Expected Vessels) in specified by selecting date, time, vessel name or berth name, etc.</p> <p>2) Select and sort data by status of location information.</p> <p>3) List and output the location information of a ship of specified date and time for Berth Meeting on paper in one document.</p> <p>4) Expected Vessels data will be listed as a separate table in one document in classification such as General Cargo Vessels, Container Vessels, Oil Vessels.</p> <p>5) Expected Vessels data will be listed automatically based on the FAL1 application data.</p> <p>6) Once vessels and berths is determined in Berth Meeting, the status will be changed from "Expected Vessels" to "Vessels in Wharves". Data is reflected to FAL1 approval answer.</p> <p>7) Register and delete the location information of vessels waiting in the river including other vessel which is not applied for FAL1.</p>	○	RP-2-01 BERTHING INFORMATION RP-2-01-01 Vessels in Wharves RP-2-01-02 Vessels in Stream RP-2-01-03 Expected Vessels RP-2-01-04 Tidal Information
43		FT-2-02-01	WF-2-1-2	Function to Search & Refer Tidal Information	<p>1) Search and refer the information of the time and the water level of the daily high tide and low tide.</p>	○	
44		FT-2-02-02	WF-2-1-2	Function to Register & Delete Tidal Information	<p>1) Register and delete the information of the time and the water level of the daily high tide and low tide on a monthly basis.</p> <p>2) Register and cancel the data in the means of two types of Screen Input and File Reading.</p>	○	RP-2-01-04 Tidal Information

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
45		FT-2-03-01	WF-2-1-1	Function to Search & Refer Movement Application	1) Search & Preview registered "Movement Application". 2) Display "Movement Application" on screen. 3) Display Heavy cargo list/Out of gauge cargo list corresponding to "Movement Application" screen. 4) Output "Movement Application" on paper. 5) Search & Preview the status of approval of registered "Movement Application". 6) Preview the comment in case of non-approval. 7) Search & Preview "Progress of the Procedures"*2 for the applied or notified "Movement Application". 8) Display the list "Progress of the Procedures"*2 for the applied or notified "Movement Application" of relevant user.	○	
46		FT-2-03-02	WF-2-1-1	Function to Register & Delete Movement Application	1) Register "Movement Application" in case all application or notification have been approved or accepted. 2) Select from "application of arriving in port" and "application of departure from port". 3) Read data of the voyage of the ship from "Movement Application". 4) Register a new FAL7 based on the registered "Movement Application". 5) Correct or delete the data of registered "Movement Application". 6) Apply, notify, or cancel the registered "Movement Application". 7) Approve/disapprove the applied or notified "Movement Application". 8) Register a comment of the reason of non-approval. 9) Display the list of unprocessed "Movement Application" application or notification of relevant user. 10) Mail notification to the applicant for approval or non-approval result of "Movement Application".	○	RP-2-02 INWARD OUTWARD SHIFTING MOVEMENT APPLICATION
47		FT-2-04-01	WF-2-2-1	Function to Search & Refer Movement Order (Pilot Assignment)	1) Search and refer the information of the pilot etc. based on the information of berth allocation by berth meeting.	○	RP-2-03-01 Movement order (for multiple ships) RP-2-03-01 Movement order (for each pilot) RP-2-03-02 ANCHOR WATCH DUTY SHIPS EXPECTED
48		FT-2-04-02	WF-2-2-1	Function to Register & Delete Movement Order (Pilot Assignment)	1) Register and delete the information of the pilot etc. based on the information of berth allocation by berth meeting.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
49		FT-2-05-01	WF-2-2-1	Function to Search & Refer Pilot basic information	1) Search and refer the basic information of the Pilot. 2) The basic information of the Pilot includes the name, classification of active duty person / retired person, rank, bank account number of the Pilot as the basic information of the Pilot.	○	
50		FT-2-05-02	WF-2-2-1	Function to Register & Delete Pilot basic information	1) Register and delete the basic information of the Pilot. 2) The basic information of the Pilot includes the name, classification of active duty person / retired person, rank, bank account number of the Pilot as the basic information of the Pilot.	○	
51		FT-2-06-01	WF-2-2-2	Function to Search & Refer Pilotage Certificate	1) Search and refer the actual work result of the pilotage etc. based on Movement Order.	○	RP-2-04 Pilotage Certificate
52		FT-2-06-02	WF-2-2-2	Function to Register & Delete Pilotage Certificate	1) Register and delete the actual work result of the pilotage etc. based on Movement Order.	○	
53		FT-2-07-01	N/A	Function to Search & Refer Regular report	1) Search & preview registered regular reports (pre-defined periodic reports (daily, monthly, annual, etc.)) by selecting type of report, target period, etc. 2) Display regular reports on screen. 3) Output regular reports on paper.	○	Performance summary table (for each berth, each type of vessel, each pilot, etc.)
54		FT-2-07-02	N/A	Function to Search & Refer Regular report	1) Create regular reports (pre-defined periodic reports (daily, monthly, annual, etc.)) automatically according to a preset schedule. 2) Create regular reports at an arbitrary timing designated by the user. 3) Delete the regular reports.	○	
55	Invoice Issuing (Sub-system No.3)	FT-3-01-01	WF-3-1	Function to Search & Inquire Tariff	1) Search & Preview registered Tariff . 2) Display Tariff on screen. 3) Output Tariff on paper.	○	RP-3-12-01:TARIFF AND DUES RP-3-12-02:Agency Commission and Fees
56		FT-3-01-02	WF-3-1	Function to Register & Cancel Tariff	1) Register Tariff 2) Correct and Cancel the data of registered Tariff .	○	
57		FT-3-02-01	WF-3-2-1 WF-3-2-2	Function to Search & Inquire Deposit	1) Search & Preview registered Deposit . 2) Display Deposit on screen. 3) Output Deposit on paper.	○	RP-3-11:Bank Reference

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
58		FT-3-02-02	WF-3-2-1 WF-3-2-2	Function to Register & Cancel Deposit	1) Register Deposit 2) Correct and Cancel the data of registered Deposit . 3) Check and delete the data of registered bill by comparing it with deposit.	○	
59		FT-3-02-03	WF-3-2-2	Function to Search & Inquire Billing	1) Search & Preview registerd Billing . 2) Display Billing on screen. 3) Output Billing on paper.	○	
60		FT-3-02-04	WF-3-2-2	Function to Register & Cancel Billing	1) Register Billing 2) Correct and Cancel the data of registered Billing . 3) Check and delete the data of registered bill by comparing it with deposit.	○	
61		FT-3-02-05	WF-3-2-2	Function to Balance	1) Calculate the balance amount between deposit amount and billing amount registered, automatically. 2) Select the deposit in case of more than one deposit exists. 3) Display the deposit amount, the billing amount and the balance amount on the the screen. 4) Output the deposit amount, the billing amount and the balance amount on the paper. 5) Indicate an alert in case of a minus balance.	○	
62		FT-3-15-01	WF-3-3	Function to Search & Inquire Estimated Disbursement Account	1) Search & Preview registerd Estimated Disbursement . 2) Preview "Estimated Usage" and "Tariff" which is calculation basis by each item of Estimated Disbursement. 3) Display Estimated Disbursement on screen. 4) Output Estimated Disbursement on paper.	○	RP-3-01-1:Estimated disbursement
63		FT-3-15-02	WF-3-3	Function to Register & Cancel Estimated Disbursement Account	1) Register Estimated Disbursement 2) Caluculate Estimated Disbursement on the basis of registered "Estimated Usage" and "Tariff" automatically. 3) Correct and Cancel the data of registered Estimated Disbursement . 4) Register, correct and delete "Estimated Usage" which is calculation basis of each item in Estimated Disbursement.	○	
64		FT-3-04-01	WF-3-3	Function to Search & Inquire FAL1/FAL2	1) Select the data of registered FAL1/FAL2 information corresponding to the voyage targeted in the Estimated Disbursement. 2) Read the usage presumption from FAL1/FAL2, and display them as the usage presumption of Estimated Disbursement.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
65		FT-3-05-01	WF-3-3	Function to Search & Inquire Estimated Usage	1) Select registered Estimated Usage including estimated amount of usage, estimated usage fee. 2) Display the Estimated Usage on screen. 3) Output the list on paper.	○	RP-3-01-2 :Prospect of discharge/loading volume RP-3-01-3 : Statement of Expenses Involved
66		FT-3-05-02	WF-3-3	Function to Register & Cancel Estimated Usage	1) Register Estimated Usage. 2) Correct or delete registered Estimated Usage. 3) Capture the Estimated Usage from FAL1/FAL2 information corresponding to the voyage concerned to Estimated Disbursement.	○	
67		FT-3-06-A-01	WF-3-4-1	Function to Search & Inquire CHARGES ON VESSELS	1) Search & Preview registerd operation records (CHARGES ON VESSELS) 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-13-01:Operation Record for CHARGES ON VESSELS
68		FT-3-06-A-02	WF-3-4-1	Function to Register & Cancel CHARGES ON VESSELS	1) Register operation records (CHARGES ON VESSELS). 2) Correct and Cancel the data of registered operation records .	○	
69		FT-3-06-B-01	WF-3-4-1	Function to Search & Inquire CHARGES ON CARGOS	1) Search & Preview registerd operation records (CHARGES ON CARGOS) . 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-13-02:Operation Record for CHARGES ON CARGOES
70		FT-3-06-B-02	WF-3-4-1	Function to Register & Cancel CHARGES ON CARGOS	1) Register operation records (CHARGES ON CARGOS). 2) Correct and Cancel the data of registered operation records .	○	
71		FT-3-06-C-01	WF-3-4-1	Function to Search & Inquire MISCELLANEOUS CHARGES	1) Search & Preview registerd operation records (MISCELLANEOUS CHARGES) . 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-13-03:Operation Record for MISCELLANEOUS CHARGES
72		FT-3-06-C-02	WF-3-4-1	Function to Register & Cancel MISCELLANEOUS CHARGES	1) Register operation records (MISCELLANEOUS CHARGES). 2) Correct and Cancel the data of registered operation records .	○	
73		FT-3-06-D-01	WF-3-4-1	Function to Search & Inquire CONTAINER CHARGES	1) Search & Preview registerd operation records (CONTAINER CHARGES) . 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-13-04:Operation Record for CONTAINER CHARGES

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
74		FT-3-06-D-02	WF-3-4-1	Function to Register & Cancel CONTAINER CHARGES	1) Register operation records (CONTAINER CHARGES). 2) Correct and Cancel the data of registered operation records .	○	
75		FT-3-06-E-01	WF-3-4-1	Function to Search & Inquire Re-shipment Containers	1) Search & Preview registerd operation records (Re-shipment Containers) . 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-13-05:Operation Record for RE-SHIPMENT CONTAINERS
76		FT-3-06-E-02	WF-3-4-1	Function to Register & Cancel Re-shipment Containers	1) Register operation records (Re-shipment Containers). 2) Correct and Cancel the data of registered operation records .	○	
77		FT-3-06-F-01	WF-3-4-1	Function to Search & Inquire General Information	1) Search & Preview registerd operation records (General Information) . 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-13-06:Operation Record for GENERAL INFORMATION
78		FT-3-06-F-02	WF-3-4-1	Function to Register & Cancel General Information	1) Register operation records (General Information) . 2) Correct and Cancel the data of registered operation records .	○	
79		FT-3-07-01	WF-3-4-1	Function to Search & Inquire Agency Fees	1) Search & Preview registerd operation records (Agency Fees, etc.). 2) Display operation records on screen. 3) Output operation records on paper.	○	RP-3-12-02:Agency Commission and Fees
80		FT-3-07-02	WF-3-4-1	Function to Register & Cancel Agency Fees	1) Register operation records (Agency Fees, etc.). 2) Correct and Cancel the data of registered operation records .	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
81		FT-3-11-01	WF-3-4-2	Function to Search & Inquire Daily report	<p>1) Search & Preview registered operation records. (The typical lists of "Daily Report" are as follows.)</p> <p><Vessel></p> <ul style="list-style-type: none"> •Cargo Manifest •Movement Order (Pilot Assignment) •Pilot Certificate <p><Cargo></p> <ul style="list-style-type: none"> •Conservancy List •Statement of Storage Charges (summary) •Supplimentary Bill •Detail of Charges for Cranes and other Berth Facilities (Wharfage Slip-p.2) •Bill of Supply of Fresh water •L-6 and L-7 <p><Work></p> <ul style="list-style-type: none"> •Cargo Handling Loading/Discharging •Daily Discharging and loading performance report •LOADING REPORT •Certificate of Hire Rope Sling <p>2) Display operation records on screen.</p> <p>3) Output operation records on paper.</p>	○	<p>The typical lists of "RP-3-09&RP-3-10:Daily Report" are as follows.</p> <p>RP-3-09-01:Conservancy Charges</p> <p>RP-3-09-02:Conservancy List</p> <p>RP-3-09-03:Challan List</p> <p>RP-3-09-04:Conservancy Charges per Consignee</p> <p>RP-3-09-05:Conservancy voucher (BL List)</p> <p>RP-3-09-06:Conservancy Charges by Berth</p> <p>RP-3-10-01:Daily Discharging and loading performance report</p> <p>RP-3-10-02:Pilotage Nightfees</p> <p>RP-3-10-03:Berthing Charges</p> <p>RP-3-10-04:Pilotage Certificate</p> <p>RP-3-10-05:Wharfage Slip</p> <p>RP-3-10-06:Night Fees</p> <p>RP-3-10-07:Statement of Cargo Handling (loading/discharging), Handling Charges</p> <p>RP-3-10-08:Electricity Charges</p> <p>RP-3-10-09:Details of Charges for Cranes and Other Berth Facilities</p> <p>RP-3-10-10:CERTIFICATE OF SIDENET</p> <p>RP-3-10-11:Certificate of Hire Rope Slings</p> <p>RP-3-10-12:Storage Charge</p> <p>RP-3-10-13:Supplimentary Bill (FCL→LCL)</p>

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
82		FT-3-11-02	WF-3-4-2	Function to Register & Cancel Daily report	<p>1) Register operation records (The typical lists of "Daily Report" are as follows.) .</p> <p><Vessel></p> <ul style="list-style-type: none"> •Cargo Manifest •Movement Order (Pilot Assignment) •Pilot Certificate <p><Cargo></p> <ul style="list-style-type: none"> •Conservancy List •Statement of Storage Charges (summary) •Supplimentary Bill •Detail of Charges for Cranes and other Berth Facilities (Wharfage Slip-p.2) •Bill of Supply of Fresh water •L-6 and L-7 <p><Work></p> <ul style="list-style-type: none"> •Cargo Handling Loading/Discharging •Daily Discharging and loading performance report •LOADING REPORT •Certificate of Hire Rope Sling <p>2) Correct and Cancel the data of registered operation records .</p> <p>3) Output operation records on paper.</p>	○	
83		FT-3-10-01	WF-3-4-3	Function to Search & Inquire Other Charges (Each time of call)	<p>1) Search & Preview registerd operation records (Other Charges (Each time of call)).</p> <p>2) Display operation records on screen.</p> <p>3) Output operation records on paper.</p>	○	<p>【TARIFF AND DUES】</p> <p>OTHER CHARGES (Each time of call) for Example:</p> <p>All Types of Late Bill</p> <p>RP-3-08-03:Storage charge</p> <p>RP-3-08-04:Supplementary Bill</p> <p>RP-3-08-02:Electricity Charge</p> <p>RP-1-41-4:Light Dues</p> <p>Agency Fees</p> <p>Misc-Charges</p>
84		FT-3-10-02	WF-3-4-3	Function to Register & Cancel Other Charges (Each time of call)	<p>1) Register operation records (Other Charges (Each time of call)).</p> <p>2) Correct and Cancel the data of registered operation records .</p>	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
85		FT-3-12-01	WF-3-4-4	Function to Search & Inquire Other Charges (Monthly)	1) Search & Preview registered operation records (Other Charges (Monthly)) . 2) Display operation records on screen. 3) Output operation records on paper.	○	[TARIFF AND DUES] (Other Charges (Monthly)) for Example: All Types of late Bill(Not include in D/A) RP-3-08-03:Storage Charges (Monthly) RP-3-08-04:Supplementary Bill (FCL>LCL) RP-3-08-02:Electricity Charges RP-1-41-4:Light Dues Agency Fees Misc-Charges
86		FT-3-12-02	WF-3-4-4	Function to Register & Cancel Other Charges (Monthly)	1) Register operation records (Other Charges (Monthly)) 2) Correct and Cancel the data of registered operation records .	○	
87		FT-3-08-01	N/A	Function to Search & Inquire Bill of MPA(Marine Dept.)	1) Search & Preview registered bill of fee charged by MPA(Marine Dept.,etc.) . 2) Display bill of fee charged by MPA(Marine Dept.,etc.) on screen. 3) Output bill of fee charged by MPA(Marine Dept.,etc.) on paper.	○	PR-3-10-04:Pilotage Certificate
88		FT-3-08-02	N/A	Function to Register & Cancel Bill of MPA(Marine Dept.)	1) Register bill of fee charged by MPA(Marine Dept.,etc.) 2) Correct and Cancel the data of registered bill of fee charged by MPA(Marine Dept.,etc.)	○	
89		FT-3-09-01	N/A	Function to Search & Inquire Bill of TO	1) Search & Preview registered bill of fee charged by terminal operator. 2) Display bill of fee charged by terminal operator on screen. 3) Output bill of fee charged by terminal operator on paper.	○	PR-3-10-05:Wharfage Slip
90		FT-3-09-02	N/A	Function to Register & Cancel Bill of TO	1) Register bill of fee charged by terminal operator. 2) Correct and Cancel the data of registered bill of fee charged by terminal operator.	○	
91		FT-3-13-01	WF-3-5-2	Function to Search & Inquire Combined Bill	1) Search & Preview the registered billing amount in each expense item. 2) Preview "Usage" and "Tariff" in each expense item. 3) Display the billing amount, "Usage" and "Tariff" in each expense item on screen. 4) Output the billing amount, "Usage" and "Tariff" in each expense item on paper.	○	RP-3-03:Combined Bill RP-3-03-01:Combined Bill

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
92		FT-3-13-02	WF-3-5-2	Function to Register & Cancel Combined Bill	1) Register the billing amount in each expense item. 2) Correct and Cancel the billing amount in each expense item. 3) Calculate the billing amount in each expense item on the basis of registered "Usage" and "Tariff" automatically. 4) Register, correct and delete "Usage" in each expense item.	○	
93		FT-3-14-01	WF-3-5-2	Function to Search & Inquire Abstract statement of Port Dues & Charges	1) Search & Preview the registered billing amount in each expense item. 2) Preview "Usage" and "Tariff" in each expense item. 3) Display the billing amount, "Usage" and "Tariff" in each expense item on screen. 4) Output the billing amount, "Usage" and "Tariff" in each expense item on paper.	○	RP-3-03-02: Abstract statement of Port Dues & Charges
94		FT-3-14-02	WF-3-5-2	Function to Register & Cancel Abstract statement of Port Dues & Charges	1) Register the billing amount in each expense item. 2) Correct and Cancel the billing amount in each expense item. 3) Calculate the billing amount in each expense item on the basis of registered "Usage" and "Tariff" automatically. 4) Register, correct and delete "Usage" in each expense item.	○	
95		FT-3-15-01	WF-3-5-2	Function to Search & Inquire Disbursement Account	1) Search & Preview the registered billing amount in each expense item. 2) Preview "Usage" and "Tariff" in each expense item. 3) Display the billing amount, "Usage" and "Tariff" in each expense item on screen. 4) Output the billing amount, "Usage" and "Tariff" in each expense item on paper.	○	RP-3-05: Disbursement Account
96		FT-3-15-02	WF-3-5-2	Function to Register & Cancel Disbursement Account	1) Register the billing amount in each expense item. 2) Correct and Cancel the billing amount in each expense item. 3) Calculate the billing amount in each expense item on the basis of registered "Usage" and "Tariff" automatically. 4) Register, correct and delete "Usage" in each expense item.	○	
97		FT-3-16-01	WF-3-5-3	Function to Search & Inquire General Account	1) Search & Preview the registered billing amount in each expense item. 2) Preview "Usage" and "Tariff" in each expense item. 3) Display the billing amount, "Usage" and "Tariff" in each expense item on screen. 4) Output the billing amount, "Usage" and "Tariff" in each expense item on paper.	○	RP-3-07: General Account

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
98		FT-3-16-02	WF-3-5-3	Function to Register & Cancel General Account	1) Register the billing amount in each expense item. 2) Correct and Cancel the billing amount in each expense item. 3) Calculate the billing amount in each expense item on the basis of registered "Usage" and "Tariff" automatically. 4) Register, correct and delete "Usage" in each expense item.	○	
99		FT-3-17-01	N/A	Function to Search & Refer Regular report	1) Search & preview registered regular reports (pre-defined periodic reports (daily, monthly, annual, etc.)) by selecting type of report, target period, etc. 2) Display regular reports on screen. 3) Output regular reports on paper. <Example of style> •Monthly summary table of revenue performance of each terminal. •Monthly summary table of DA billing and deposit. •The balance table of payments in MPA (for each terminal, other ministries and agencies, pilot) on monthly, half a year, annual).	○	RP-4-3-1-01 Monthly Report for Charges Daily Summary List Foreign Advance List/ Inbound/Outbound RP-4-3-1-02 Monthly Report for Pilot Nightfee RP-4-3-1-03 Monthly Report for each item of expenditure and each vessel (for Account Dept.) RP-4-3-1-04 Monthly Report for each item of expenditure and each vessel (for SAD) RP-4-3-1-05 Monthly Report for Income RP-4-3-1-06 Monthly Report for Commodity RP-4-3-1-07 Monthly Report for Conserbancy Charges from Email data by Berth , etc.
100		FT-3-17-02	N/A	Function to Search & Refer Regular report	1) Create regular reports (pre-defined periodic reports (daily, monthly, annual, etc.)) automatically according to a preset schedule. 2) Create regular reports at an arbitrary timing designated by the user. 3) Delete the regular reports.	○	
101	Statistical Data Management	FT-4-01	N/A	Function to Search & Inquire EUC View	1) Search & Preview registered EUC View. 2) Display EUC View on screen.	○	
102	(Sub-system No.4)	FT-4-02	N/A	Function to Register & Cancel EUC View	1) Register EUC View. 2) Correct and Cancel the data of registered EUC View.	○	
103		FT-4-04	N/A	Function to Output Statistical Data from EUC View in CSV format	1) Set the extract condition and extract data from EUC View in CSV format. •Set the extract multiple items arbitrarily. •Set the extract range to every extract item. •Register the extract item and the extract range as the predefined extract condition. 2) Correct and Cancel the data of registered extract condition.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
104		FT-4-05	N/A	Function to Output Predefined Statistical graphic chart	<p>1) Allow to enter, change, or delete the schedule of executing the tabulation by name of statistical chart as prescribed in tabulation specification. (Note: The aggregate specification is undecided. About 100 style is assumed to include a style that is created by the Sub system No.1 ~ 4.)</p> <p>2) Execute the tabulation processing based on tabulation specification and output the tabulation data result, in accordance with the tabulation schedule.</p> <p>3) Execute the tabulation processing based on tabulation specification and output the tabulation data result, at the voluntary timing.</p> <p>4) General users can use the functions described above. And general users can view the data result output by the functions of the above. (Note: For general users of drawing function, Ext JS 4.2 or function in conformity with this should be implemented.)</p>	○	<p>RP-4-4-1-01_Predefined Statistical graphic table (Monthly, Annual, Decade)</p> <p>RP-4-4-1-02_Predefined Statistical graphic chart (Monthly, Annual, Decade)</p> <p>RP-4-4-1-03_Key Performance Indicator , etc.</p>
105		FT-4-06	N/A	Function to Coordinate with external data	<p>1) Automatically enter into database, change, or delete the file of original statistical data output(operation records) from Sub-system No.1 to No.3, MACCS (Cargo Manifest), TOS of each company, etc. •DB is shared between 4 Sub-systems automatically. If DB of 4 sub-systems aren't cooperated, they should be automatically shared by DB linkage function. •Output file from MACCS is acquired by on-line and off-line, and data is taken in DB by the file unit manually. •Output file from TOS of each company are automatically is taken in DB by server linkage function.</p> <p>2) Detect an error value based on the tabulation specification (to be created by MPA) and indicate the place and reason of error.</p> <p>3) Indicate the line subject to be revised by searching with condition, and allow to revise and enter with GUI.</p> <p>4) Confirm the duplication when retrieving data (no duplication for Challan No.).</p>	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
106		FT-4-07	N/A	Function to Manage statistical classification	<p>1) Set multiple statistical classification according to the the purpose of statistics. (For example, hierarchical structure like "agricultural produce" - "fruit" - "mango" as a name of product, and "Asia" - "Japan" as an area name.) Each tier of the statistical classification system is the subject of counting.</p> <p>2) Register and edit correlating of the HS code (first 6 digits of the 10-digits are revised every 5 years by WCO) and the statistical classification(about 5-tier).</p> <p>3) Register and edit correlating of old and new cord of the statistical classification and the HS code.</p> <p>4) Manage version of the statistical classification system and HS code.</p>	○	
107	Logistics Monitoring System (Sub-system No.5)	FT-5-01-01	N/A	GT01: Function to Register gate opening hours	Allow a trucking association or a terminal to register the gate opening hours and emergency contact of each terminal.	○	
108		FT-5-01-02	N/A	GT02: Function to Search & Preview gate opening hours	Allow users to search and refer to the gate opening hours and emergency contact of each terminal, that are registered in advance by a trucking association or a terminal.	○	
109		FT-5-02-01	N/A	IM01: Function to Search information on availability of carrying out CY	<p>(1) Search and display the relevant container's current status of the availability of carrying out and attribute information by a container number or BL number.</p> <p>(2) Only when agreeing with the designated container number or BL number about search condition perfectly, a search result is indicated.</p>	○	
110		FT-5-03-01	N/A	VS02: Function to Search & Display information on ship movement	Search and display the information on ship movement.	○	
111		FT-5-03-02	N/A	VS04: Function to Enter information on ship movement	Enter the information on ship movement.	○	
112		FT-5-04-01-02-3	N/A	ID03: Make inquiry for membership ID	<p>(1) Allow a general user with the registered membership ID to inquire the system when forgetting one's own membership ID required to enter to log into the system.</p> <p>(2) By inquiry, automatically notify the membership ID by e-mail.</p>	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
113		FT-5-04-01-1	N/A	ID01: Application screen for ID registration	(1) A term of service is indicated to the use request user, and the use request user is asked to agree to the terms of service. (2) The use request user inputs personal information necessary to user registration and the ID he wishes, and applies. (3) Notify of application to the use request user by mail. (4) Notify of application to the system administrator by mail. (5) Code personal information by SSL and communicate. (6) Opening to the public/closure is designated every item about the application information item by the use request user.	○	
114		FT-5-04-01-2	N/A	ID02: Screen for changing membership information	Allow a member of the portal site of the port to edit one's own password and membership information.	○	
115		FT-5-04-01-4	N/A	MT01: Edit user ID	(1) An user identification is registered, approved and edited. (2) Available function and data are set each user. (3) Code by SSL and communicate.	○	
116		FT-5-04-01-5	N/A	PW01: Make inquiry for password	(1)Allow a general user with the registered membership ID to inquire the system when forgetting one's own password required to enter to log into the system. (2)By inquiry, automatically notify the password by e-mail.	○	
117		FT-5-04-01-5	N/A	MN03:Menus for system administrators	The menus for system administrators are indicated.	○	
118				LG02:Acquire access historical information	(1) The number of access and users are totaled in each, indicated and outputed by a CSV format. (2) The total target items are time, the date, a day of the week, the business category, an area, the function and a banner advertisement.	×	
119		FT-5-04-01-6	N/A	LG02:Acquire access historical information	(1) Output access log by a CSV format. (2) The output target items are time, the date, a day of the week, the business category, an area, the function and a banner advertisement.	○	
120		FT-5-04-02-1	N/A	IF02 Edit News information	(1)Register/edit the News information. (2)Opening to the public/closure is designated News information. (3)Set the publication period for each News information.	○	
121		FT-5-04-02-2	N/A	IF01:News information	(1) A news information list is indicated. (2) The detailed information of a news is indicated.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
122		FT-5-04-02-3	N/A	QA01: Make inquiry	Allow general users of the portal site of the port to make inquiries to the administrative user.	○	
123		FT-5-04-02-4	N/A	QA02: Respond to inquiry	Allow the administrative user respond to the inquiries from a general user of the portal site of the port.	○	
124		FT-5-04-02-5	N/A	RQ01: Send comment	Allow general users of the portal site of the port to send comments to the portal site manager.	○	
125		FT-5-04-02-6	N/A	RQ02: Confirm comment	Allow the portal site manager confirm the comment received from a general user of the portal site of the port.	○	
126		FT-5-04-03-1	N/A	Function to Register e-mail delivery address	Register the e-mail address for delivering e-mails when any of the information on gate opening, availability of carrying out the CY, or ship movement is changed.	○	
127		FT-5-04-03-2	N/A	4-MT10 Edit master data of administrator's mail address	Register/edit the master data of administrator's mail address.	○	
128		FT-5-04-03-3	N/A	CN10: Process e-mailing	Execute the process of sending e-mails related to the portal system.	○	
129		FT-5-04-03-4	N/A	CN01001: Process of reflecting external data (AIS)	(1) Enter the following files of AIS system, which is uploaded in the external connection server, into the receiving table. •AIS ship movement information (hourly) (2) Enter the receiving table into the portal site table.	○	
130		FT-5-04-03-5	N/A	CN02001: Process of reflecting external data (Port Management)	(1) Obtain the following file from port manager's site through "http". (2) Enter the following file of port manager's site, which is uploaded in the external connection server, into the receiving table. •port manager's information on ship movement. (hourly) (3) Enter the receiving table into the portal site table.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
131		FT-5-04-03-6	N/A	CNO3001: Process of reflecting external data (Terminal)	(1) Enter the following files of each company's terminal operation system (TOS), which is uploaded in the external connection server, into the receiving table. <ul style="list-style-type: none"> •CY's information on ship movements (hourly) •CY's information on availability of carrying out CY (every 10 minutes) •CY's information on export containers (every 10 minutes) (2) Enter the receiving table into the portal site table.	○	
132		FT-5-04-04-1	N/A	CS01: List of company's contact information	Search and display the relevant company's contact information by a company name.	○	
133		FT-5-04-04-2	N/A	4-MT06 Edit master data of banner advertisement	Register/edit the master data of Banner advertisement.	○	
134		FT-5-04-04-3	N/A	4-MT07 Edit master data of Link to other site	Register/edit the master data of Link to other site.	○	
135		FT-5-04-05-1	N/A	DS01: brief description of the portal site of the port	Present a brief description of the portal site of the port to a general user of the site.	○	
136		FT-5-04-05-2	N/A	DP02: Terms of use	(1)Explain the terms and conditions of service to a general user of the portal site of the port. (2)Mention the privacy policy as well.	○	
137		FT-5-04-05-3	N/A	DP01: Display the operating instructions	Display the operating instructions for the portal site of the port to a general user of the site.	○	
138		FT-5-04-05-4	N/A	FQ01: FAQs	Present FAQs to general users of the portal site of the port.	○	
139				4-TM03: Edit terminal information pattern	Opening to the public/closed pattern setting is registered and edited every data item to offer information from a terminal.	×	
140		FT-5-04-06-1	N/A	MT02: Edit master data of port	Register/edit the master data of port.	○	
141		FT-5-04-06-2	N/A	MT04: Edit master data of terminal	Register/edit the master data of terminal.	○	
142		FT-5-04-06-3	N/A	MT05: Edit master data of ship company	Register/edit the master data of ship company.	○	
143		FT-5-04-06-4	N/A	MT08: Edit master data of ships	Register/edit the master data of ship.	○	
144		FT-5-04-06-5	N/A	4-MT09 Edit master data of latitude longitude of the port	Register/edit the master data of latitude longitude of the port.	○	

#	System Name	Function ID	Business Flow ID	Function Name	Functional requirements	Scope	Output Forms
145		FT-5-04-06-6	N/A	TM01:Terminal information setting	Each terminal sets the offered information item.	○	
146				IM04:Function to Refer from mobile phones	Search and refer to the information on containers in the CY from a mobile phone.	×	

EOF

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It will be possible to verify the progress status in the ways mentioned below:

- A list of unapproved applications and a list of approved applications submitted by the relevant user
- A list of procedures where the relevant user's applications have been submitted and a list of procedures where its applications are in interim storage before submission.
- A flow of approvals for respective procedures (A list of approvers by order of approvals)
- A list of applications with information indicating their respective status of "Approved" and "Unapproved" by procedure and by approver