CUSTOMS DEPARTMENT
THE REPUBLIC OF THE UNION OF MYANMAR

PREPARATORY SURVEY REPORT
FOR
THE PROJECT FOR NATIONAL SINGLE WINDOW AND CUSTOMS MODERNIZATION BY INTRODUCING AUTOMATED CARGO CLEARANCE SYSTEM
IN
THE REPUBLIC OF THE UNION OF MYANMAR

MARCH 2014

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

NIPPON AUTOMATED CARGO AND PORT CONSOLIDATED SYSTEM, INC.

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PREFACE

Japan International Cooperation Agency (JICA) decided to conduct the preparatory survey and entrust the survey to Nippon Automated Cargo and Port Consolidated System, Inc.

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 research. 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, 2014

Takumi Ueshima
Director General,
Industrial Development and
Public Policy Department
Japan International Cooperation Agency

Summary of Grant Aid Project

SUMMARY

1. Country Overview

The GDP of The Republic of the Union of Myanmar (hereinafter referred to as "Myanmar") was MMK 53,501,000 million, the growth rate of GDP is 6.8%, and its GDP per capita was US$ 915 (source: IMF World Economic Outlook (WEO)).

Its major industries are agriculture, commerce, manufacturing, and transportation. With regard to the composition of GDP by sector, primary, secondary and tertiary sectors account for about 38%, 24% and 38%, respectively (source: World Bank World Development Indicator 2010).

Its trade volume for both imports and exports has been increasing, and annual growth rates of export and import are 13% and 25%, respectively. Its trade volume in 2012 was US$ 8.9 billion for exports and US$ 9.2 billion for imports (source: WTO). The main traded items are natural gas, pulses and beans, garment, rice, etc. for export, and petroleum products, base metals and manufactures, etc. for import. With regard to bilateral trade relations between Myanmar and Japan, the ASEAN-Japan Comprehensive Economic Partnership Agreement (AJCEP) came into effect.

2. Background of the Project

Myanmar has been working on reforms towards market economy from its past centralized economy. As an overview of Myanmar's economic growth in recent years, Myanmar achieved a growth rate of 5.9% in 2011 and 6.4% in 2012, and is forecast to achieve 6.8% in 2013 (source: IMF World Economic Outlook (WEO)).

There are investment bottlenecks in Myanmar involving cumbersome bureaucratic procedures, including Customs procedures and unofficial business costs such as corruption. Development of institutions of Customs clearance, including a Customs clearance system, lags behind other ASEAN (Association of Southeast Asian Nations) countries. According to "The Logistics Performance Index" of World Bank survey (hereinafter referred to as "LPI"), Myanmar ranks the lowest in the ASEAN region at 122 out of 155 countries.

The percentage of Customs duties in the tax revenue is at a very low level of 3.2%[1], even though there has been an increase in the number of Customs declarations and in the amount of import by 25% per year from 2005 to 2012. Therefore, a high-priority issue is to promote efficiency of Customs procedures, which will simultaneously achieve enhancement of the revenue base and facilitation of trade.

An urgent task is for the Myanmar government to accomplish National Single Window (hereinafter referred to as "NSW") aimed at simplification and international harmonization of export and import procedures including Customs clearance procedures, and to establish a future ASEAN Single Window.

Against this background, the Customs Department under the Ministry of Finance of the Government of Myanmar (hereinafter referred to as "MCD") appreciates technical advantages of the Nippon Automated Cargo and Port Consolidated System (hereinafter referred to as "NACCS") and the Customs Intelligence Database System (hereinafter referred to as "CIS"), which have been used in the Customs and Tariff Bureau of the Ministry of Finance, and other relevant governmental agencies in Japan, and has requested for Japan's Grant Aid regarding the establishment of an IT system for Customs clearance, with NACCS/CIS technology, in Myanmar (hereinafter referred to as "MACCS/MCIS") and for Japan's technical assistance regarding the capacity building of personnel and organization for the appropriate operation, management, and maintenance of that system (hereinafter referred to as "the TC-Project").

1 In terms of the percentage of customs duties in tax revenue, the figures for other ASEAN countries are as follows: Cambodia:16.9%, Lao People's Democratic Republic: 9.6%, Vietnam: 9.6%. (source: the World Customs Organization (WCO))

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

In October 2013, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a survey team to Myanmar for the Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System in Myanmar (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 below:

(1)	Software Development
1)	e-Declaration: This module will allow Myanmar Customs and traders (e.g., importers, exporters, Customs brokers, transit transport operators, etc.) to electrically proceed customs procedures, such as import/export, bond in/out, bonded transportation, or entry/exit of means of transport under the paperless environment;
2)	Single Window: This module will equip a portal function of the single window system with MACCS and assists Myanmar Customs to fulfill the mandate from the leaders of the ASEAN Member States to establish the National Single Window (NSW) which improves the efficiency of coordinating border management between Myanmar Customs and other government agencies (OGAs);
3)	e-Manifest: This module will help Myanmar Customs and the trade to smoothly proceed the Customs clearance procedures by allowing them to easily match cargo information and goods declarations; (It includes the service of cargo control which enables to share trade-related information among users such as cargo status, declaration, permission, etc.)
4)	Selectivity: This module will help Myanmar Customs to effectively implement modern Customs technique, namely risk management which decides an appropriate level of Customs intervention (e.g., green channel/immediate release without human intervention, yellow channel/document check, or red channel/physical examination) based on risk profile/risk criteria;
5)	e-Payment: This module will greatly contribute to reducing customs clearance time period by allowing the trade to utilize electronic payment of the relevant taxes, duties and fees;
6)	Risk profile/risk criteria management (within MCIS): This module will help Myanmar Customs to manage risk profile/risk criteria for Customs clearance

	especially valuation assessment as well as for compliance management of the stakeholders;
7)	Database of past records (within MCIS): This module will help a customs officer to make the right decisions about the degree of the customs intervention by referring to the past record of the declarant concerned; and
8)	Any other preparatory works for the proper installation: This component includes technical coordination of the appropriate design and specification of the datacenter and the appropriate structure and specification of network, and drafting of Center Setup File (CSF) and operational manuals for both the customs and private users.
(2)	Hardware Development
	Procurement of hardware, operating system, and middle ware which are necessary for properly operating software mentioned above.

In the Project, the MCD has prepared a Brief Design of the Project (version 2.0 dated December 26, 2013) (hereinafter referred to as "B/D") with the support of Working Group (hereinafter referred to as "W/G") of the Japan side which consists of the Customs and Tariff Bureau of the Ministry of Finance, Japan (hereinafter referred to as "J-W/G") within the context of this preparatory survey. In preparing the B/D, the MCD has received from the J-W/G detailed guidance/advice, which reflects features and design structure of NACCS/CIS in Japan and accommodates the current state of Customs administration in Myanmar. As a result, the B/D clearly states that the introduction of MACCS/MCIS aims at modernizing the Customs administration in Myanmar by adopting not only Japanese IT systems for Customs clearance procedures consisting of NACCS and CIS but also the legal system in Japan, where appropriate. The B/D also defines requirements for system development (procedures to identify functions to be incorporated in software) and system design (including the design of services with their lists and flows), as well as design of online and batch processing methods, reliability design, and performance design. In conclusion, the B/D covers the basic design of MACCS/MCIS, which is considered appropriate.

Therefore, in view of its appropriateness, as a policy of designing the Project, the contents of the B/D are to be utilized to the extent applicable within the limits of the budget.

Due to the budgetary limitation, the MCD and the J-W/G discussed and agreed to the change of scope and specifications as the outline design of the Project, although the outline design is to be made based on the B/D. The items to be changed from the B/D were specified as mentioned in the Appendix at W/G meetings in February 2014 (hereinafter referred to as "the

Appendix"). Therefore, the contents of the Appendix are also to be utilized in the outline design of the Project.

4. Schedule and Cost Estimation of the Project

(1) Schedule

When the Project is implemented under the Japan's Grant Aid scheme, the procurement of equipment for MACCS/MCIS is carried out by a supplier after work on the implementation design, which includes finalization of the specifications and services relating to tender, by a consultant. Also, partly alongside such implementation design work, a software development vendor develops MACCS/MCIS software after procurement by single-source method with the vendor.

It will require 5 months for the work on the implementation design and 8 months for the procurement of equipment, including their installation and test run. Since part of the work will be performed simultaneously, the total duration of the Project is expected to be 30 months.

(2) Cost Estimation

The annual cost of operating/maintaining MACCS/MCIS, which shall be borne by the Myanmar side, is estimated at about MMK 1.953billion (about JPY 195.3 million). The MCD has been well aware of the importance and necessity to secure necessary budget for proper operation and maintenance of MACCS/MCIS. In addition, the technical cooperation project includes activities to consider introducing tariff structure for using MACCS/MCIS based on the experience of NACCS/CIS. It is expected that by properly designing the structure of tariff for the use of MACCS/MCIS, MCD can cover substantial amount of operation and maintenance cost. Therefore, such cost can be financed by the MCD.

5. Project Evaluation

(1) Relevance

The Project shall establish MACCS/MCIS on the basis of Japanese NACCS/CIS technology, which is highly convenient and efficient IT system for Customs clearance procedures. This is considered as a core strategy inmodernizing Customs Administration in Myanmar. It is expected to enhance Customs procedures and contribute to playing a key role in expanding trade and economic growth. The Project is beneficial, not only to Customs and private companies that are directly engaged in international trade but also to the general public, including the poor. Therefore, the Project is considered relevant.

(2) Effectiveness

Implementation of the Project means that MACCS/MCIS, which is highly convenient and efficient IT system for Customs clearance procedures based on NACCS/CIS technology in Japan, will be introduced in Myanmar. Accordingly, the time for Customs clearance procedures shall be shortened in Myanmar, as the use of automated Customs clearance procedures is promoted. The number of Customs declarations in electronic form and the amount of electronically declared Customs value will increase as the use of automated Customs clearance procedures is promoted. Also, together with a decrease in the scope for arbitrary treatment by individual Customs officials, the efficiency of Customs clearance procedures in general shall be improved in Myanmar.

The effect of expediting Customs clearance procedures can be quantitatively measured by surveying the time required for Customs clearance procedures.

LPI is an index regarding the efficiency of the clearance process by border control agencies, including Customs. The improvement of efficiency of Customs clearance procedures may be measured by using such an index, since it is expected to show improvement by 2019, which is 3 years after completion of the Project. (The figure of Myanmar's LPI in 2012 is rated at 2.24 point (source: the World Bank Group)).

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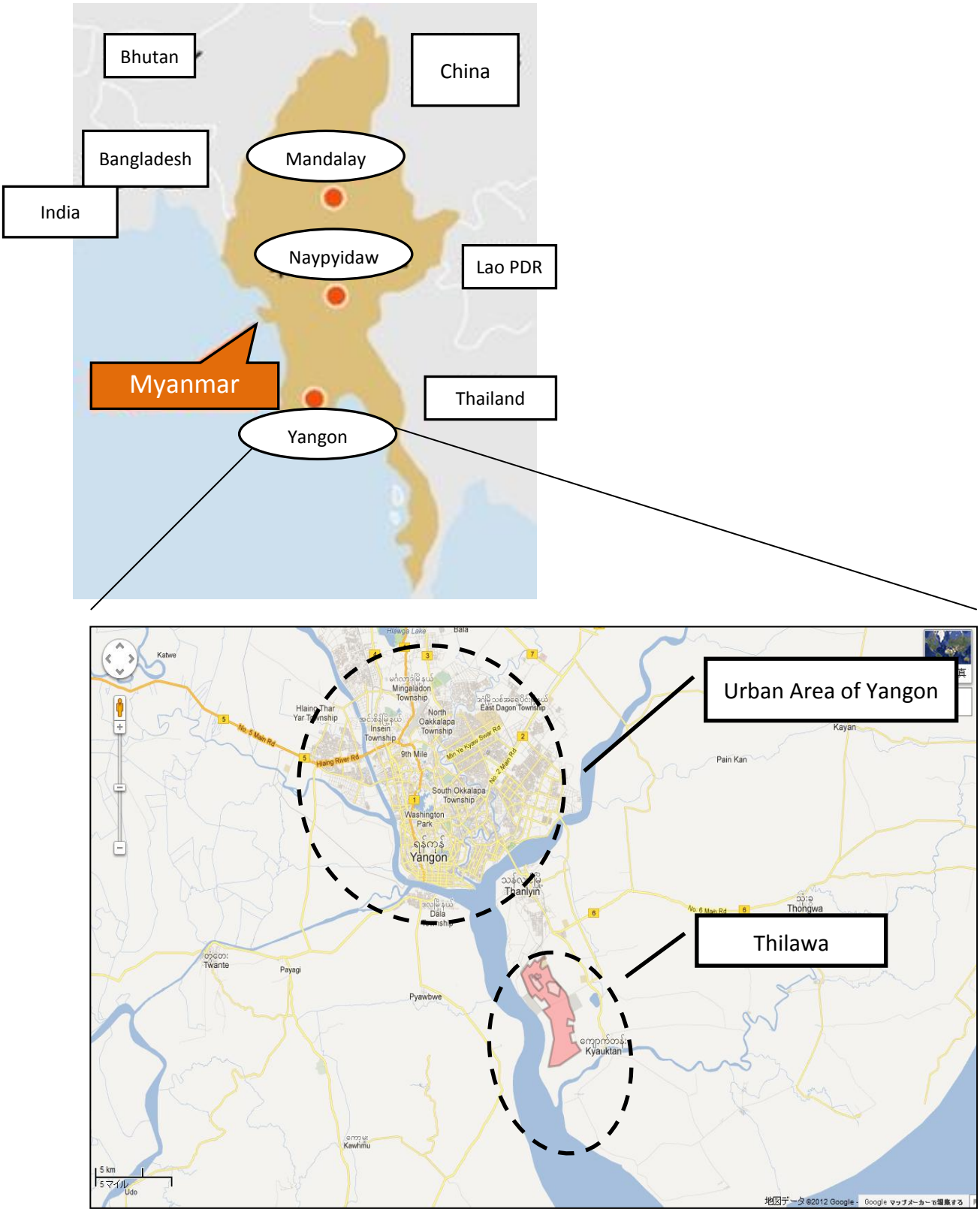
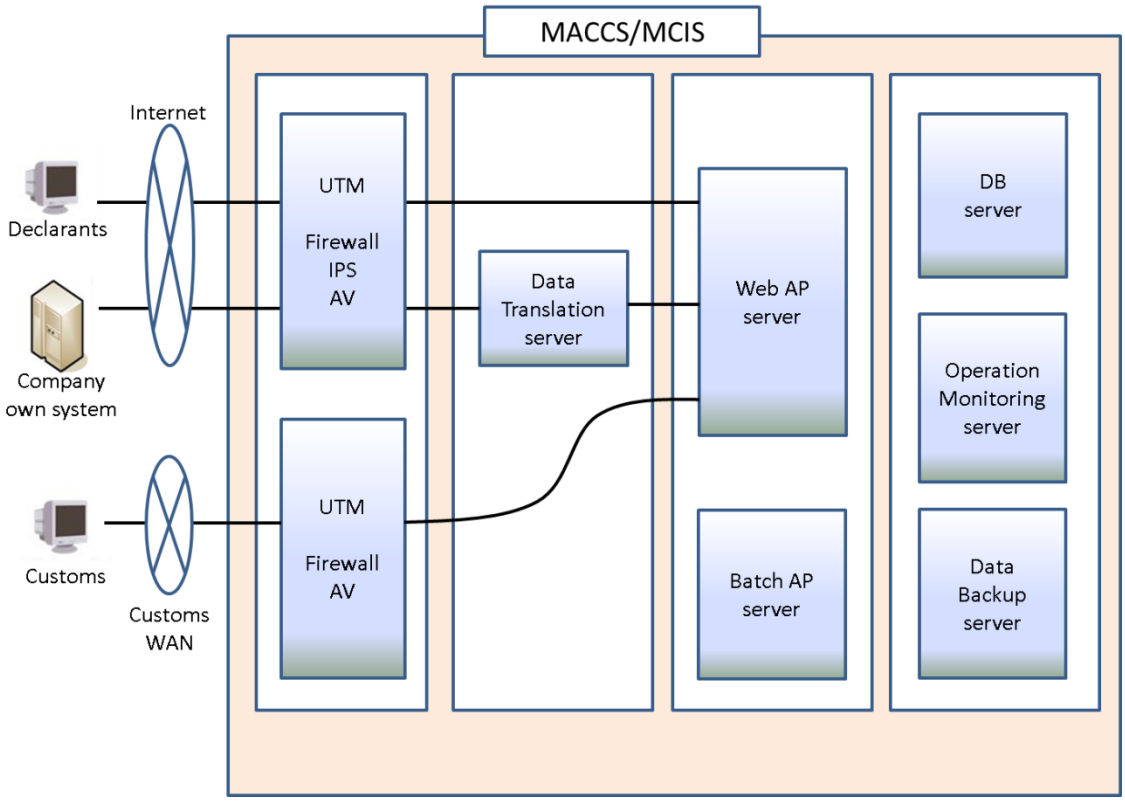


PERSPECTIVE



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ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
AJCEP	ASEAN-Japan Comprehensive Economic Partnership Agreement
AWB	Air Way Bill
B/D	Brief Design of the Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System in Myanmar (version 2.0 dated December 26, 2013)
B/L	Bill Of Lading
CIS	Customs Intelligence Database System
CPU	Central Processing Unit
CY	Container Yard
DAT	Digital Audio Tape
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport
E/N	Exchange of Notes
e-C/O	Electronic Certificate of Origin
FC	Fiber Channel
GDP	Gross Domestic Product
HS	Harmonized Commodity Description and Coding System
HTTP	HyperText Transfer Protocol
ICT	Information and Communication Technology
IMF	International Monetary Fund
IT	Information Technology
JICA	Japan International Cooperation Agency
LAN	Local Area Network
LPI	Logistics Performance Index
LTO	Linear Tape-Open
MACCS	Myanmar NACCS
MCD	Myanmar Customs Department
MCIS	Myanmar CIS
MMK	Myanmar Kyat
NACCS	Nippon Automated Cargo and Port Consolidated System
NAS	Network Attached Storage
NSW	National Single Window
OS	Operating System

RAID	Redundant Array of Inexpensive Disks
SE	Systems Engineer
S/I	Shipping Instructions
TCP/IP	Transmission Control Protocol/Internet Protocol
UPS	Uninterruptible Power Supply
US$	US dollar
UTM	Unified Threat Management
WAN	Wide Area Network
WCO	World Customs Organization
WEO	World Economic Outlook
WTO	World Trade Organization
XML	eXtensible Markup Language

Chapter 1 Background of the Project

Chapter 1 Background of the Project

1-1 Background of Japan's Grant Aid

The Republic of the Union of Myanmar (hereinafter referred to as "Myanmar") has been working on reforms towards market economy from its past centralized economy. As an overview of Myanmar's economic growth in recent years, Myanmar achieved a growth rate of 5.9% in 2011 and 6.4% in 2012, and is forecast to achieve 6.8% in 2013 (source: IMF World Economic Outlook (WEO)).

There are investment bottlenecks in Myanmar involving cumbersome bureaucratic procedures, including Customs procedures and unofficial business costs such as bribery or corruption. Development of institutions of Customs clearance, including a Customs clearance system, lags behind other ASEAN (Association of Southeast Asian Nations) countries. According to "The Logistics Performance Index" of World Bank survey (hereinafter referred to as "LPI"), Myanmar ranks 122 out of 155 countries at the bottom within the ASEAN region.

The percentage of Customs duties in the tax revenue is at a very low level of 3.2%[1], even though there has been an increase in the number of Customs declarations and in the amount of import by 25% per year from 2005 to 2012. Therefore, a high-priority issue is promoting efficiency of Customs procedures, which will simultaneously achieve enhancement of the revenue base and facilitation of trade.

An urgent task is for the Myanmar government to accomplish National Single Window (hereinafter referred to as "NSW") aimed at simplification and international harmonization of export and import procedures including Customs clearance procedures, and to establish a future ASEAN Single Window.

Against this background, the Customs Department, Ministry of Finance, the Government of Myanmar (hereinafter referred to as "MCD") appreciates technical advantages of the Nippon Automated Cargo and Port Consolidated System (hereinafter referred to as "NACCS") and the Customs Intelligence Database System (hereinafter referred to as "CIS"), which have been used in the Customs and Tariff Bureau, Ministry of Finance, and other relevant governmental agencies in Japan, and has requested for Japan's Grant Aid regarding the establishment of an IT system for Customs clearance, with NACCS/CIS technology, in Myanmar (hereinafter referred

1 In terms of the percentage of customs duties in tax revenue, the figures for other ASEAN countries are as follows: Cambodia:16.9%, Lao People's Democratic Republic: 9.6%, Vietnam: 9.6% (source: the World Customs Organization (WCO)) .

to as “MACCS/MCIS”) and for Japan’s technical assistance regarding the capacity building of personnel and organization for the appropriate operation, management, and maintenance of that system (hereinafter referred to as “the TC-Project”).

1-2 Natural Conditions

The Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System (hereinafter referred to as “the Project”) is for the development and introduction of an IT system. As such, no natural conditions, which may affect the design and implementation of the Project, are envisaged.

With regard to a data center, which is to be prepared by the recipient country, it has been reported that its located site has not suffered from any severe natural disasters, such as earthquake and flood, in the past. While control of temperature and humidity in the data center is important in Yangon, where the climate is hot and humid, there will be stable supply of electricity and an air-conditioning system which operates 24 hours/365 days and can maintain the temperature and humidity at appropriate levels in the data center.

1-3 Environmental and Social Considerations

The Project is to develop and introduce an IT system, which has minimal adverse impact on the environment and society. It is classified as Category C under Guidelines for Environmental and Social Considerations of Japan International Cooperation Agency (hereinafter referred to as “JICA”) (April 2010).

Chapter 2　Contents of the Project

Chapter 2　Contents of the project

【Project of Grant Aid】

2-1 Basic Concept of the Project

2-1-1 Overall Goal of and Purpose of the Project

The Project contributes Customs reform and modernization, including the introduction of national single window, through the establishment of an IT system for Customs clearance, with NACCS/CIS technology, MACCS/MCIS, in Myanmar.

2-1-2 Outline of the Project

The Project intends to develop software for electronic Customs clearance procedures and single window with NACCS technology, and software for Customs intelligence system with CIS technology in order to achieve the above-mentioned goal and purpose. Expected effects of the Project are establishment of an IT system for Customs clearance procedures with NACCS/CIS technology, preparation of an equipment environment for the operation of MACCS/MCIS, arrangement of appropriate personnel and organization for operation, management, and maintenance, and accomplishment of capacity building in Myanmar. Main features of the Project are items listed in the Minutes of Discussions signed on November 22, 2013 (hereinafter referred to as "M/D"). (Please refer to the M/D, Part1 : Outline Design for the requested Grant Aid, Article 6: Items requested by the Myanmar side as a scope of the Grant Aid project.) Those features are shown in Table 2-1.

Table 2-1 Main Features of the Project

(1)	Software Development
1)	e-Declaration: This module will allow Myanmar Customs and traders (e.g., importers, exporters, Customs brokers, transit transport operators, etc.) to electrically proceed customs procedures, such as import/export, bond in/out, bonded transportation, or entry/exit of means of transport under the paperless environment;
2)	Single Window: This module will equip a portal function of the single window system with MACCS and assists Myanmar Customs to fulfill the mandate from the leaders of the ASEAN Member States to establish the National Single Window (NSW) which improves the efficiency of coordinating border management between Myanmar Customs and other government agencies (OGAs);
3)	e-Manifest: This module will help Myanmar Customs and the trade to smoothly proceed the Customs clearance procedures by allowing them to easily match

	cargo information and goods declarations; (It includes the service of cargo control which enables to share trade-related information among users such as cargo status, declaration, permission, etc.)
4)	Selectivity: This module will help Myanmar Customs to effectively implement modern Customs technique, namely risk management which decides an appropriate level of Customs intervention (e.g., green channel/immediate release without human intervention, yellow channel/document check, or red channel/physical examination) based on risk profile/risk criteria;
5)	e-Payment: This module will greatly contribute to reducing customs clearance time period by allowing the trade to utilize electronic payment of the relevant taxes, duties and fees;
6)	Risk profile/risk criteria management (within MCIS): This module will help Myanmar Customs to manage risk profile/risk criteria for Customs clearance especially valuation assessment as well as for compliance management of the stakeholders;
7)	Database of past records (within MCIS): This module will help a customs officer to make the right decisions about the degree of the customs intervention by referring to the past record of the declarant concerned; and
8)	Any other preparatory works for the proper installation: This component includes technical coordination of the appropriate design and specification of the datacenter and the appropriate structure and specification of network, and drafting of Center Setup File (CSF) and operational manuals for both the customs and private users.
(2)	Hardware Development
	Procurement of hardware, operating system, and middle ware which are necessary for properly operating software mentioned above.

2-2 Outline Design of the Requested Japanese Assistance

2-2-1 Design Policy

(1) Basic Policy

In the Project, the MCD has prepared a Brief Design of the Project for National Single Window and Customs Modernization by Introducing the Automated Cargo Clearance System in Myanmar (version 2.0 dated December 26, 2013) (hereinafter referred to as "B/D") with the support of Working Group (hereinafter referred to as "W/G") of the Japan side which consists of the Customs and Tariff Bureau of Ministry of Finance, Japan (hereinafter referred to as "J-W/G") within the context of this preparatory survey. In preparing the B/D, the MCD has

received from the J-W/G detailed guidance/advice, which reflects features and design structure of NACCS/CIS in Japan as well as the current state of Customs administration in Myanmar. As a result, the B/D clearly states that the introduction of MACCS/MCIS aims at modernizing the Customs administration in Myanmar by adopting not only Japanese IT systems for Customs clearance procedures consisting of NACCS and CIS but also bases of such IT systems, including the legal system in Japan, where appropriate. The B/D also defines requirements for system development, clarifying functions to be incorporated in software, and shows system design, including the design of services with their lists and flow, design of online and batch processing methods, reliability design, and performance design, based on such definition of requirements. In short, the B/D covers a basic design of MACCS/MCIS, which is considered appropriate.

Functions and flows of services performed by MACCS/MCIS, as proposed in the B/D, are generally based on NACCS/CIS which have systematized institution and working process of Customs clearance procedures in Japan, while some of them are specific to Myanmar. Some revisions of institutions and working processes may be brought to the MCD. It has been confirmed that the MCD, with their deep knowledge on the development concept of the B/D, is ready to revise related organizational structure and working process corresponding to functions and flows of services performed by MACCS/MCIS in accordance with the B/D.

Therefore, in view of its appropriateness, as a policy of designing the Project, the contents of the B/D are to be utilized to the extent applicable within the limits of the budget.

Due to budgetary limitation, the MCD and the J-W/G discussed and agreed to the change of scope and specifications as the outline design of the Project, although the outline design is to be made based on the B/D. The items to be changed from the B/D were specified as in the Appendix at their W/G meetings in February 2014 (hereinafter referred to as “the Appendix”). Therefore, the contents of the Appendix are also to be utilized in the outline design of the Project.

(2) Policy on Natural and Environmental Conditions

As shown in the above section 1-3, the Project is for the development and introduction of an IT system, which is likely to have minimal or little adverse impact on the environment and society. It is classified as Category C under JICA’s Guidelines for Environmental and Social Considerations (April 2010).

With regard to a data center, which is to be prepared by the recipient country, it has been reported that its located site has not suffered from any severe natural disasters, such as

earthquake and flood, in the past. While control of temperature and humidity in the data center is important in Yangon, where the climate is hot and humid, there will be stable supply of electricity and an air-conditioning system which operates 24 hours/365 days and can maintain the temperature and humidity at appropriate levels in the data center.

(3) Policy on Social and Economic Conditions

As shown in the above section 1-1-1, Myanmar's economy has been continuously growing. The number of Customs declarations has been significantly increasing both for export and import in recent years and is expected to increase at a pace exceeding GDP growth rate in the future.

It is to be ensured that requirements and specifications for MACCS/MCIS are determined in order to be able to deal with future increase of the number of Customs declarations for both export and import.

(4) Policy on Procurement

With regard to software development, procurement from the vendor who developed the current version of NACCS/CIS is considered indispensable on a basis of conclusions of technical considerations. Single-source method with such vendor is regarded as an appropriate method of procurement regarding the followings: peculiarity of output of the Project, MACCS/MCIS, which is a new IT system for Customs clearance procedures in Myanmar to be developed with Japanese NACCS/CIS technology; limited time frame for the completion of the output; and economic rationality from a viewpoint of total cost for the implementation of this Project. In the above considerations, a request from Myanmar for single-source method, and the existence of only one vendor who has developed NACCS/CIS in Japan, were also taken into account.

Also, since it is considered that the following provisions of the Procurement Guidelines of the Japanese Grant Aid (Type I-G) (hereinafter referred to as "the Procurement Guidelines") are applicable to this case, the single-source method is regarded as an appropriate method of procurement

The Procurement Guidelines [excerpt]

*** ***

PART III Guidelines for Procurement of the Products and Services

*** ***

III-2 Procurement Procedures

III-2-1 Procurement

*** ***

(2) Procurement Procedures other than Competitive Tendering

Alternative procedures can be used with the prior consent of JICA, when particular circumstances render competitive tendering inappropriate. These alternatives can be used under the following circumstances:

*** ***

3) where the number of qualified suppliers or contractors is extremely limited;

*** ***

In the above-mentioned cases, the following procurement procedures may, as appropriate, be used provided that such use is in a manner that complies with the Competitive Tendering procedures to the fullest possible extent:

*** ***

2) Direct Contracting

With regard to time period for the development of the software, it will generally take about 38 months at least until the operation of MACCS/MCIS, considering the number of services set out in the B/D and required man-months estimated from the number of steps envisaged. However, as mentioned above, where the vendor who has developed the current NACCS/CIS is to develop the software through direct contracting, it is considered that MACCS/MCIS can start its operation within 28 months after the contract, since such vendor can shorten the time period required for each process of development, benefitting from its experience and expertise. While the MCD has requested for the development of the system in 2015 and the start of system operation in 2016, it is considered that such request can be satisfied if the software development is contracted with the vendor of the current NACCS/CIS by direct contracting, omitting the time period necessary for open competitive tendering procedures.

Hardware, OS and middleware are to be procured, separately from software, through open competitive tendering under the conditions of the Procurement Guidelines.

Hardware, OS, and middleware for the Project are not produced in Myanmar and their country of origin is either Japan or third countries. In the Project, it is quite important to ensure timely and proper maintenance services from official vendors for hardware, OS, and middleware, including their local agents in Myanmar, after MACCS/MCIS has started its operation. Accordingly, as a policy on procurement of hardware, OS, and middleware, timely and proper maintenance services from 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."

(5) Policy on the Use of Local Vendors

With regard to software development, the prime contractor of software development is recommended to use local IT vendors, including local systems engineers, in Myanmar as much as possible with a view to enhancing local vendors' organizational structures and capability for maintenance and renewal of MACCS/MCIS after its introduction.

(6) Policy on Operation and Maintenance

The Operation and Maintenance structures for MACCS/MCIS in Chapter 10 of the B/D reflect such structures for NACCS/CIS in Japan. Specifically, this is considered appropriate since those Operation and Maintenance structures are of equivalent level with those of NACCS/CIS in Japan in the points of policy, framework, roles and responsibilities, requirements, system operation design, operation monitoring design, and work at the time of planned stop for maintenance. Therefore, the Operation and Maintenance structures for MACCS/MCIS are to be established as envisaged in the B/D.

2-2-2 Basic Plan

As mentioned in 2-2-1 (1), the outline design of the Project is to be made based on the B/D and the Appendix. Items in the B/D which are not stipulated in the Appendix remain applicable.

(1) Outline of the System

The preconditions of MACCS/MCIS are basically as shown in Chapter 1 of the B/D.

The covered area of the Project based on Chapter 1 of the B/D and the Appendix is as follows:

-Myanmar Customs head quarter;

-Yangon ports (8 locations): Asia World Port Terminal, Myanmar Industrial Port Terminal, Sule Port Terminal, Bo Aung Kyaw Port Terminal, Inland Container Deport-2, Htee Dan, Myanmar International Terminals Thilawa, and Myanmar Integrated Port Ltd.;

-Yangon airports (2 locations): Import warehouse and Export warehouse.

<Summary of Chapter 1 of the B/D >

Figure 2-1 shows the design concept of the service function of MACCS/MCIS, and is the same as Table 1-1 in Chapter 1 of the B/D.

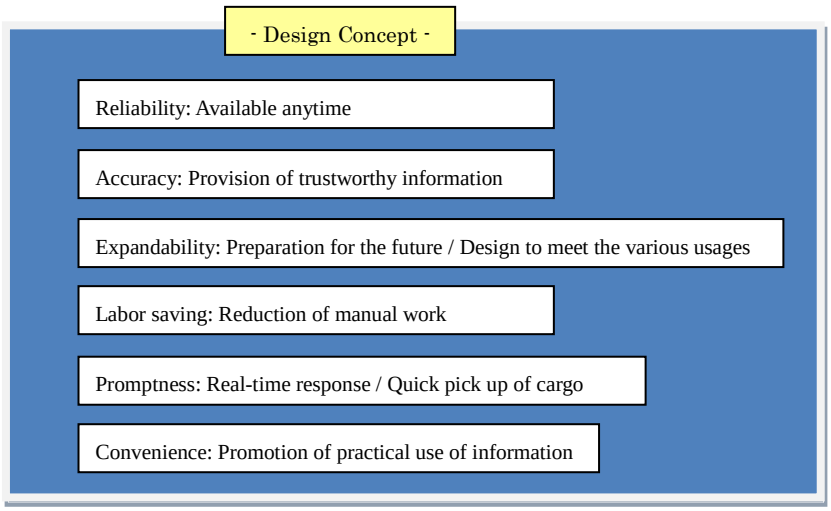


Figure 2-1 Design Concept of Service Function

Preconditions shown in Chapter 1 of the B/D are as follows.

- The data processing by the system covers such custom procedures regarding international cargos that range from arrival of aircraft or vessel through submission of cargo manifest, import declaration, permission (release order), and release of cargos in case of import, and export declaration, permission (allowed shipment), and departure in case of export.
- The online services and batch services that are covered by MACCS/MCIS are described in "Chapter 2 Design of Service".
- The users of MACCS/MCIS are deemed to be Customs, carriers, Customs brokers, Forwarders, CY, Airport Warehouse, Importers/Exporters, and other government agencies.
- Interface with other systems is under confirmation on working.
- The MCD is deemed to be making transition data for MACCS/MCIS as necessary.

(2) Design of Services

Online/batch services described in Chapter 2 of the B/D are based on the services performed by Japanese NACCS/CIS (Import Declaration, Export Declaration, Cargo Control, Declaration of Transportation subject to Withholding Tax, Management of Screening Criteria, etc.). They also deal with Customs clearance procedures, taking into account circumstances specific to Myanmar. Accordingly, such design of services is considered generally appropriate

since it satisfies the purpose of MACCS/MCIS, which is to correspond to Customs clearance process in Myanmar on a basis of Japanese NACCS/CIS technology and functions.

Therefore, online/batch services of MACCS/MCIS are basically to be as set out in Chapter 2 of the B/D. Specifically, Tables 2-3, 2-4, and 2-5 of the List of MACCS/MCIS Online/Batch Services show those services. In addition, the items shown in Table 2-2 are to be excluded from the outline design of the Project, based on budgetary limitation.

Table2-2 Excluded Items from the List of MACCS/MCIS Online Services

No.	Service code	Name of service
13	RIR	Registration of arrival notification C
14	RIR11	Correction of arrival notification C (Call up)
15	ROR	Registration of departure notification C
16	ROR11	Correction of departure notification C (Call up)
17	IRD	Reference of arrival/departure notification C
45	RMR	Manifest registration C
46	CRM	Manifest correction C
47	CRM11	Manifest correction C (Call up)
48	DRM	Manifest submission C
49	IRM	Manifest reference C
50	HRM	House manifest registration C
51	HRM11	House manifest registration C (Call up)
52	IHR	House manifest reference C

Table 2-3 MACCS Online Services and Batch Services

No.	Service code	Name of service	Function	Outline of service	Sea	Air	Rail	Vehicle	Upper: Input by ... Lower: Output to … Customs	OGA	Carrier	Importer/Exporter	Customs Broker	Freight Forwarder	Bank	Container Yard	Warehouse
[Arrival/Departure notification (single window)]																	
1	VBX	Registration of vessel basic information	Registration Alteration Cancellation	This service (VBX) is provided to register, alter and delete the basic information on foreign trade vessels.	○						○						
											○						
2	VBX11	Alteration of vessel basic information (Call up)	Calling up	This service (VBX11) provides a function to call up information registered by "Registration of vessel basic information (VBX)" service before altering the information by VBX.	○						○						
											○						
3	VIT	Registration of arrival notification A	Registration Correction Cancellation	This service (VIT) is provided to register, correct and cancel arrival notification of a foreign trade vessel. The registered arrival notification is submitted to both a customs office and the other governmental agencies.	○						○						
									○	○	○						
4	VIT11	Correction of arrival notification A (Call up)	Calling up	This service (VIT11) provides a function to call up information registered by "Registration of arrival notification A (VIT)" service before correcting the information by VIT.	○						○						
											○						
5	VOT	Registration of departure notification A	Registration Correction Cancellation	This service (VOT) is provided to register, correct and cancel departure notification of a foreign trade vessel. The registered departure notification is submitted to both a customs office and the other governmental agencies.	○						○						
									○	○	○						
6	VOT11	Correction of departure notification A (Call up)	Calling up	This service (VOT11) provides a function to call up information registered by "Registration of departure notification A (VOT)" service before correcting the information by VOT.	○						○						
											○						
7	IVS	Reference of arrival/departure notification A	Reference	This service (IVS) is available for reference of the vessel basic information and arrival or departure notification regarding foreign trade vessel.	○				○	○	○						
									○	○	○						
8	GIR	Registration of arrival notification B	Registration Correction Cancellation	This service (GIR) is provided to register, correct and cancel notification on arrival of aircrafts. The registered arrival notification is submitted to both a customs office and the other government agencies.		○					○						
									○	○	○						
9	GIR11	Correction of arrival notification B (Call up)	Calling up	This service (GIR11) provides a function to call up information registered by "Registration of arrival notification B (GIR)" service before correcting the information by GIR.		○					○						
											○						
10	GOR	Registration of departure notification B	Registration Correction Cancellation	This service (GOR) is provided to register, correct and cancel notification on departure of aircrafts. The registered departure notification is submitted to both a customs office and the other government agencies.		○					○						
									○	○	○						
11	GOR11	Correction of departure notification B (Call up)	Calling up	This service (GOR11) provides a function to call up information registered by "Registration of departure notification B (GOR)" service before correcting the information by GOR.		○					○						
											○						

12	IGD	Reference of arrival/departure notification B	Reference	This service (IGD) is available for reference of the notification on arrival or departure of aircrafts.		○			○	○	○						
									○	○	○						
13	RIR	Registration of arrival notification C	RegistrationCorrectionCancellation	This service (RIR) is provided to register, correct and cancel notification on arrival of trains.The registered arrival notification is submitted to both a customs office and the other governmental agencies.			○				○						
									○	○	○						
14	RIR11	Correction of arrival notification C (Call up)	Calling up	This service (RIR11) provides a function to call up information registered by "Registration of arrival notification C (RIR)" service before correcting the information by RIR.			○				○						
											○						
15	ROR	Registration of departure notification C	Registration Correction Cancellation	This service (ROR) is provided to register, correct and cancel notification on departure of trains. The registered departure notification is submitted to both a customs office and the other governmental agencies.			○				○						
									○	○	○						
16	ROR11	Correction of departure notification C (Call up)	Calling up	This service (ROR11) provides a function to call up information registered by "Registration of departure notification C (ROR)" service before correcting the information by ROR.			○				○						
											○						
17	IRD	Reference of arrival/departure notification C	Reference	This service (IRD) is available for reference of the notification on arrival or departure of trains.			○		○	○	○						
									○	○	○						
18	TIR	Registration of arrival notification D	Registration Correction Cancellation	This service (TIR) is provided to register, correct and cancel notification on arrival of vehicles. The registered arrival notification is submitted to both a customs office and the other governmental agencies.				○			○						
									○	○	○						
19	TIR11	Correction of arrival notification D (Call up)	Calling up	This service (TIR11) provides a function to call up information registered by "Registration of arrival notification D (TIR)" service before correcting the information by TIR.				○			○						
											○						
20	TOR	Registration of departure notification D	Registration Correction Cancellation	This service (TOR) is provided to register, correct and cancel notification on departure of vehicles. The registered departure notification is submitted to both a customs office and the other governmental agencies.				○			○						
									○	○	○						
21	TOR11	Correction of departure notification D (Call up)	Calling up	This service (TOR11) provides a function to call up information registered by "Registration of departure notification D (TOR)" service before correcting the information by TOR.				○			○						
											○						
22	ILD	Arrival and departure notifications related information reference D	Reference	This service (ILD) is available for reference of the notification on arrival or departure of vehicles.				○	○	○	○						
									○	○	○						

23	CPC	Registration of completion of port clearance	Registration	This service (CPC) is provided to register the information on completion of port clearance.	○			○	○									
									○	○	○							
24	PLR	Report of passenger list	Registration Correction Cancellation	This service (PLR) is provided to register, correct and cancel a passenger list for arrival and departure. The registered passenger list is submitted to both a customs office and the other governmental agencies.	○	○	○	○			○							
									○	○	○							
25	PLR11	Report of passenger list (Call up)	Calling up	This service (PLR11) provides a function to call up information registered by "Report of passenger list (PLR)" service before correcting the information by PLR.	○	○	○	○			○							
											○							
26	NLR	Report of crew list	Registration Correction Cancellation	This service (NLR) is provided to register, correct and cancel a crew list for arrival and departure. The registered crew list is submitted to both a customs office and the other governmental agencies. It is also available to declare the personal effects of crews.	○	○	○	○			○							
									○	○	○							
27	NLR11	Report of crew list (Call up)	Calling up	This service (NLR11) provides a function to call up information registered by "Report of crew list (PLR)" service before correcting the information by NLR.	○	○	○	○			○							
											○							
28	INP	Reference of passengers/crew information	Reference	This service (INP) is available for reference of the passenger list and the crew list.	○	○	○	○	○	○	○							
									○	○	○							
[Cargo Control]																		
29	MFR	Manifest registration A	Registration	This service (MFR) provides a function to register manifest information by each of all the shipping companies of operating a vessel. In case of joint operation, each of all the shipping companies is responsible for registering information of manifest of the cargos it undertakes. MFR is available before the execution of "Manifest submission A(DMF)" service.	○						○							
									○		○							
30	CMF	Manifest correction A	Alteration Correction Cancellation Addition	This service (CMF) provides following functions; (1) Before the execution of "Manifest submission A(DMF)" service It is available for alteration and cancellation of the information. (2)After the execution of DMF It is available for addition, correction and cancellation of the information.	○						○							
									○	○	○							
31	CMF11	Manifest correction A (Call up)	Calling up	This service (CMF11) provides a function to call up manifest information before altering the information by "Manifest correction A (CMF)" service.	○						○							
											○							

32	DMF	Manifest submission A	Registration	This service (DMF) provides a function to submit the manifest information registered by "Manifest registration A(MFR)" service per shipping companies.	○						○							
									○	○	○							
33	IMI	Manifest reference A	Reference	This service (IMI) is available for reference of the manifest information per vessel. (Note: The manifest information per vessel includes vessel code, port of discharging or the sorting number of the port of discharging)	○				○	○	○					○		
									○	○	○					○		
34	NVC	House manifest registration A	Registration Alteration Cancellation	This service (NVC) provides a function to register, alter and cancel the House manifest information per master B/L.	○							-	○	○		-	○	
									○			-	○	○		-	○	
35	NVC11	House manifest registration A (Call up)	Calling up	This service (NVC11) provides a function to call up House manifest information before altering the information by "House manifest registration A (NVC)" service.	○							-	○	○		-	○	
												-	○	○		-	○	
36	INV	House manifest reference A	Reference	This service (INV) is available for reference of the House manifest information per master B/L.	○				○			-	○	○		-	○	
									○			-	○	○		-	○	
37	ACH	Manifest registration B	Registration	This service (ACH) provides a function to register AWB information regarding the foreign cargo unloaded from a foreign trading aircraft.ACH is available before the execution of "Manifest submission B (EAW)" service.		○					○							
									○		○							
38	CAW	Manifest correction B	Alteration Correction Cancellation Addition	This service (CAW) provides following functions; (1) Before the execution of "Manifest submission B(EAW)" service It is available for alteration and cancellation of the information. (2)After the execution of EAW It is available for addition, correction and cancellation of the information.		○					○							
									○	○	○							
39	CAW11	Manifest correction B (Call up)	Calling up	This service (CAW11) provides a function to call up AWB information before altering the information by "Manifest correction B (CAW)" service.		○					○							
											○							
40	EAW	Manifest submission B	Registration	This service (EAW) provides a function to submit the AWB information registered by "Manifest registration B (ACH)" service per arrival.		○					○							
									○	○	○							
41	IMF11	Manifest reference B	Reference	This service (IMF11) is available for reference of the AWB information per arrival.		○			○	○	○							○
									○	○	○							○
42	HCH	House manifest registration B	Registration Alteration Cancellation	This service (HCH) provides a function to register, alter and cancel the House AWB information per AWB.		○							○	○				○
									○				○	○				○

43	HCH11	House manifest registration B (Call up)	Calling up	This service (HCH11) provides a function to call up House AWB information before altering the information by "House manifest registration B (HCH)" service.		○							○	○			○
									–				○	○			○
44	IMF12	House manifest reference B	Reference	This service (IMF12) is available for reference of the House AWB information per AWB.		○			○				○	○			○
									○				○	○			○
45	RMR	Manifest registration C	Registration	This service (RMR) provides a function to register manifest information regarding the foreign cargo unloaded from a foreign trade train. RMR is available before the execution of "Manifest submission C (DRM)" service.			○				○						
									○		○						
46	CRM	Manifest correction C	Alteration Correction Cancellation Addition	This service (CRM) provides following functions; (1) Before the execution of "Manifest submission C(DRM)" service It is available for alteration and cancellation of the information. (2)After the execution of DRM It is available for addition, correction and cancellation of the information.			○				○						
									○	○	○						
47	CRM11	Manifest correction C (Call up)	Calling up	This service (CRM11) provides a function to call up manifest information before altering the information by "Manifest correction C (CRM)" service.			○				○						
											○						
48	DRM	Manifest submission C	Registration	This service (DRM) provides a function to submit the manifest information registered by "Manifest registration C (RMR)" service.			○				○						
									○	○	○						
49	IRM	Manifest reference C	Reference	This service (IRM) is available for the reference of the manifest information.			○		○	○	○						
									○	○	○						
50	HRM	House manifest registration C	Registration Alteration Cancellation	This service (HRM) provides a function to register, alter and cancel the House manifest information. The data produced in this service allows for screening.			○						○	○			
									○				○	○			
51	HRM11	House manifest registration C (Call up)	Calling up	This service (HRM11) provides a function to call up House manifest information before altering the information by "House manifest registration C (HRM)" service.			○						○	○			
													○	○			
52	IHR	House manifest reference C	Reference	This service (IHR) is available for reference of the house manifest information per master B/L.			○		○				○	○			
									○				○	○			
53	TMR	Manifest registration D	Registration	This service (TMR) provides a function to register manifest information regarding the foreign cargo unloaded from a foreign trade vehicle. RMR is available before the execution of "Manifest submission D (DTM)" service.				○			○						
									○		○						

54	CTM	Manifest correction D	Alteration Correction Cancellation Addition	This service (CTM) provides following functions; (1) Before the execution of "Manifest submission D(DTM)" service It is available for alteration and cancellation of the information. (2)After the execution of DTM It is available for addition, correction and cancellation of the information.				○			○							
									○	○	○							
55	CTM11	Manifest correction D (Call up)	Calling up	This service (CTM11) provides a function to call up manifest information before altering the information by "Manifest correction D(CTM)" service.				○			○							
											○							
56	DTM	Manifest submission D	Registration	This service (DTM) provides a function to submit the manifest information registered by "Manifest registration D (TMR)" service.				○			○							
									○	○	○							
57	ITM	Manifest reference D	Reference	This service (ITM) is available for the reference of the manifest information.				○	○	○	○							
									○	○	○							
58	HTM	House manifest registration D	Registration Alteration Cancellation	This service (HTM) provides a function to register, alter and cancel the House manifest information.				○					○	○				
									○				○	○				
59	HTM11	House manifest registration D (Call up)	Calling up	This service (HTM11) provides a function to call up House manifest information before altering the information by "House manifest registration D (HTM)" service.				○					○	○				
													○	○				
60	IHT	House manifest reference D	Reference	This service (IHT) is available for reference of the house manifest information per master B/L.				○	○				○	○				
									○				○	○				
61	ZHA	Management of screening criteria for manifest screening	RegistrationAlterationCancellation	This service (ZHA) provides to set the selectivity criteria regarding manifest screening.	○	○	○	○	○									
									○									
62	ISM	Reference of cargo information for screened manifest	Reference	This service (ISM) is available for the reference of the screened manifest information.	○	○	○	○	○									
									○									
63	PKI	Sea cargo discharge check registration (Altogether)	Registration	This service (PKI) provides to register the information altogether that all cargoes of a ship has been discharged and carried in CY. In the case of in-bulk cargo, register the information altogether that all cargoes of a ship has been discharged.	○												○	
									○		-						○	
64	PKK	Sea cargo discharge check registration (Individual)	Registration	This service (PKK) provides to register the information per container that has been discharged and carried in CY. In the case of in-bulk cargo, register the information per B/L that has been discharged.	○												○	
											-						○	
65	CYB	Registration of manual processed carried-in import container (Per container)	Registration	This service (CYB) provides to register the information per container that manual processed import cargo (container stuffed) has been carried in CY.	○												○	
																	○	
66	CYD	Registration of manual processed carried-in import container (Per B/L)	Registration	This service (CYD) provides to register the information per B/L that manual processed import cargo (container stuffed) has been carried in CY.	○												○	
																	○	

67	BIA	Registration of carried-in import sea cargo (Bonded transportation etc.)	Registration	This service (BIA) provides to register the information that cargo regarding bonded transportation, etc. has been carried in.	○											○	○
									○							○	○
68	BIA11	Registration of carried-in import sea cargo (Bonded transportation etc.) (Call up)	Calling up	This service (BIA11) provides a function to call up bonded transportation, etc. information before registering the information by "Registration of carried-in import sea cargo (Bonded transportation etc.) (BIA)" service.	○											○	○
																○	○
69	BIB	Registration of manual processed carried-in import sea cargo	Registration	This service (BIB) provides to register the information that manual processed import cargo (in-bulk) has been carried in.	○											○	○
																○	○
70	CTS	Consolidated sea cargo check registration	Registration	This service (CTS) provides to register the result of confirmation that consolidated cargo carried in CY/CFS has broken-bulk.	○											○	○
																○	○
71	CYO	Registration of carried-out container	Registration Cancellation	This service (CYO) provides to register the information of container carried out. This service is also available for cancelation when registered information was invalid.	○											○	
									○							○	
72	BOA	Registration of carried-out import sea cargo (Bonded transportation etc.)	Registration Cancellation	This service (BOA) provides to register the information of import cargo carried out for bonded transportation, etc. This service is also available for cancelation when registered information was invalid.	○											○	○
									○							○	○
73	BOB	Registration of carried-out import sea cargo (Release)	RegistrationCancellation	This service (BOB) provides to register the information of import cargo carried out for release.This service is also available for cancelation when registered information was invalid.	○											○	○
																○	○
74	SAI	Import sea cargo correction	Correction	This service (SAI) provides to correct the information of import cargo which is warehoused in bonded area.	○				○			-	○	○		○	○
									○			-	○	○		○	○
75	SAI11	Import sea cargo correction (Call up)	Calling up	This service (SAI11) provides a function to call up import cargo information before altering the information by "Import sea cargo correction (SAI)" service.	○				○			-	○	○		○	○
									○			-	○	○		○	○
76	SHS	Import sea cargo dealing registration (Division)	Registration	This service (SHS) provides to register the information on division to warehoused imported cargo.	○								○	○		○	○
													○	○		○	○
77	SHC	Import sea cargo dealing cancellation	Cancellation	This service (SHC) provides to cancel the information registered by "Import sea cargo dealing registration (Division) (SHS)".	○								○	○		○	○
													○	○		○	○
78	SFS	Import sea cargo dealing check registration (Division)	Registration	This service (SFS) provides to register the confirmation information to divided cargo information which is registered by "Import sea cargo dealing registration (Division) (SHS)" service.	○											○	○
																○	○
79	SFS11	Import sea cargo dealing check registration (Division) (Call up)	Calling up	This service (SFS11) provides a function to call up division information before registering the information by "Import sea cargo dealing check registration (Division) (SFS)" service.	○											○	○
																○	○

80	SIR	Shipping instruction(S/I) registration	Registration Alteration Cancellation	This service (SIR) provides to register Shipping Instruction information before registration of export cargo information, and to designate cargo export transportation.	○							○	○				
												○	○				
81	SIR11	Shipping instruction(S/I) registration (Call up)	Calling up	This service (SIR11) provides a function to call up information registered by "Shipping instruction(S/I) registration (SIR)" service.	○							○	○				
												○	○				
82	ISI	Reference of shipping instruction(S/I) information	Reference	This service (ISI) is available for reference of the Shipping Instruction (S/I) information and progress status of cargo information associated with N-S/I number.	○							○	○				
												○	○				
83	ECR	Export sea cargo registration	Registration Alteration Cancellation	This service (ECR) provides to register information of export cargo on the basis of S/I, then distributes export control number automatically. This service is also available for alteration and cancelation.	○							○	○				
												○	○				
84	ECR11	Export sea cargo registration (Call up)	Calling up	This service (ECR11) provides a function to call up information registered by "Export sea cargo registration (ECR)" service or "Shipping instruction(S/I) registration (SIR)"service.	○							○	○				
												○	○				
85	VAN	Vanning registration (Per container)	Registration	This service (VAN) provides to register information on implementation of vanning per container.	○							○	○	○		-	○
											○	○	○	○		○	○
86	VAE	Vanning registration (Per export control number)	Registration	This service (VAE) provides to register information on implementation of vanning per export control number.	○							○	○	○		-	○
											○	○	○	○		○	○
87	VAA	Vanning addition	Registration	This service (VAA) provides a function to add export control number, etc. to the information registered by "Vanning registration (Per container) (VAN)" service or "Vanning registration (Per export control number) (VAE)"service.	○							○	○	○		-	○
											○	○	○	○		○	○
88	VAC	Vanning cancellation	Cancellation	This service (VAC) provides a function to cancel following information registered by "Vanning registration (Per container) (VAN)" service or "Vanning registration (Per export control number) (VAE)"service. 1. Export control number, etc. related with container number. 2. Container number related with export control number, etc.	○							○	○	○		-	○
									○		○	○	○	○		○	○
89	VAD	Vanning correction	Alteration Correction	This service (VAD) provides to alter and correct information of vanning units, weight, amount of container and cargo information registered by "Vanning registration (Per container) (VAN)" service or "Vanning registration (Per export control number) (VAE)"service.	○							○	○	○		-	○
									○		○	○	○	○		○	○
90	VAD11	Vanning correction (Call up)	Calling up	This service (VAD11) provides a function to call up container and cargo information registered by "Vanning registration (Per container) (VAN)" service or "Vanning registration (Per export control number) (VAE)"service.	○							○	○	○		-	○
												○	○	○		-	○
91	CYA	Registration of carried-in container	Registration	This service (CYA) provides to register the information that container has been carried in CY.	○											○	
									○							○	

92	CYC	Correction of carried-in container information	Alteration Correction Cancellation	This service (CYC) provides to correct the information registered by "Registration of carried-in container (CYA)" service, etc. and cancel export container number in the case of error.	○											○	
									○							○	
93	CYC11	Correction of carried-in container information (Call up)	Calling up	This service (CYC11) provides a function to call up information registered by "Registration of carried-in container (CYA)" service.	○											○	
																○	
94	BIC	Registration of carried-in export sea cargo (Before allowed shipment)	Registration	This service (BIC) provides to register the information that export cargo has been carried in.	○											○	○
																○	○
95	BID	Registration of carried-in export sea cargo (After allowed shipment)	Registration	This service (BID) provides to register the information that export cargo (after allowed shipment) has been carried in.	○											○	○
																○	○
96	BIE	Registration of manual processed carried-in export sea cargo (After allowed shipment)	Registration	This service (BIE) provides to register the information that manual processed export cargo (after allowed shipment) has been carried in.	○											○	○
																○	○
97	BOC	Registration of carried-out export sea cargo (After allowed shipment)	RegistrationCancellation	This service (BOC) provides to register the information of non container stuffed export cargo (after allowed shipment) carried out.This service is also available for cancelation when registered information was invalid.	○											○	○
																○	○
98	BIF	Export sea cargo correction	Alteration Correction	This service (BIF) provides to alter and correct the information of export cargo which is warehoused in bonded area.	○				○			-	○	○		○	○
									○			-	○	○		○	○
99	BIF11	Export sea cargo correction (Call up)	Calling up	This service (BIF11) provides a function to call up Export cargo information before altering the information by "Export sea cargo correction (BIF)" service.	○				○			-	○	○		○	○
									○			-	○	○		○	○
100	CLR	Sea cargo loaded registration	Registration	This service (CLR) provides to register information that cargo has been loaded on a vessel.	○						○					○	
									○		○	○	○			○	
101	CLR11	Sea cargo loaded registration (Call up)	Calling up	This service (CLR11) provides a function to call up container information before registering the information by "Sea cargo loaded registration (CLR)" service.	○						○					○	
											○					○	
102	ICG	Sea cargo reference	Reference	This service (ICG) is available for reference of the information on status of customs clearance and cargo information per cargo control number such as B/L number.	○				○		○	○	○	○		○	○
									○		○	○	○	○		○	○
103	ICN	Container reference	Reference	This service (ICN) is available for reference of the container information per container number.	○				○		○	○	○	○		○	○
									○		○	○	○	○		○	○
104	IWS	Reference of sea cargo stock state	Reference	This service (IWS) is available for reference of cargo or container stock state in warehouse.	○				○							○	○
									○							○	○
105	PSH	Registration of transition to manual procedure etc. (Sea cargo)	Registration Cancellation	This service (PSH) provides to register the cargo information regarding transition to manual procedure, etc.	○				○								
									○								

106	PKG	Air cargo discharge check registration	Registration	This service (PKG) provides to register validation result of the number and weight of cargo per AWB regarding foreign cargo discharged from foreign trade aircraft at the first warehoused bonded area.		○												○
																		○
107	HPK	Consolidated air cargo check registration	Registration	This service (HPK) provides to register the result of confirmation that consolidated cargo carried in warehouse has broken-bulk.		○												○
																		○
108	OIN	Registration of manual processed carried-in import air cargo	Registration	This service (OIN) provides to register the information that manual processed import cargo has been carried in.		○												○
																		○
109	BIN	Registration of carried-in import air cargo (Bonded transportation etc.)	Registration	This service (BIN) provides to register the information that cargo regarding bonded transportation, etc. has been carried in.		○												○
									○									○
110	BIN11	Registration of carried-in import air cargo (Bonded transportation etc.) (Call up)	Calling up	This service (BIN11) provides a function to call up bonded transportation, etc. information before registering the information by "Registration of carried-in import air cargo (Bonded transportation etc.) (BIN)" service.		○												○
																		○
111	OUT	Registration of carried-out import air cargo	Registration Cancellation	This service (OUT) provides to register the information of import cargo carried out. This service is also available for cancelation when registered information was invalid.		○												○
									○									○
112	CAI	Import air cargo correction	Correction	This service (CAI) provides to correct the information of import cargo which is warehoused in bonded area.		○			○				○	○				○
									○				○	○				○
113	CAI11	Import air cargo correction (Call up)	Calling up	This service (CAI11) provides a function to call up import cargo information before altering the information by "Import air cargo correction (CAI)" service.		○			○				○	○				○
									○				○	○				○
114	CHS	Import air cargo dealing registration (Division)	Registration	This service (CHS) provides to register the information on division to warehoused imported cargo.		○							○	○				○
													○	○				○
115	CHC	Import air cargo dealing cancellation	Cancellation	This service (CHC) provides to cancel the information registered by "Import air cargo dealing registration (Division) (CHS)".		○							○	○				○
													○	○				○
116	CFS	Import air cargo dealing check registration (Division)	Registration	This service (CFS) provides to register the confirmation information to divided cargo information which is registered by "Import air cargo dealing registration (Division) (CHS)" service.		○												○
																		○
117	CFS11	Import air cargo dealing check registration (Division) (Call up)	Calling up	This service (CFS11) provides a function to call up division information before registering the information by "Import air cargo dealing check registration (Division) (CFS)" service.		○												○
																		○

118	IAW	Import air cargo reference	Reference	This service (IAW) is available for reference of the cargo information (such as units, weight, and description of goods) and status of customs clearance procedures per import cargo control number (AWB number, etc.).		○			○		○	○	○	○			○
									○		○	○	○	○			○
119	IWI	Reference of import air cargo stock state	Reference	This service (IWI) is available for reference of import cargo stock state in warehouse.		○			○								○
									○								○
120	PCH	Registration of transition to manual procedure etc. (Import air cargo)	Registration Cancellation	This service (PCH) provides to register the import cargo information regarding transition to manual procedure, etc.		○			○								
									○								
121	CDB	Export air cargo registration	Registration	This service (CDB) provides to register cargo information and carried-in list information before the cargo is carried in.		○							○	○			
													○	○			
122	CDD	Export air cargo correction	Alteration	This service (CDD) provides to alter information registered by "Export air cargo registration (CDB)" service.		○							○	○			
													○	○			
123	CDD1 1	Export air cargo correction (Call up & Cancellation)	Calling up Cancellation	This service (CDD11) provides two functions. 1. Cancellation cancel the information registered by "Export air cargo registration (CDB)" service. 2. Call up call up the information before altering the information by "Export air cargo correction (CDD)" service.		○							○	○			
													○	○			
124	HDF	Consolidation registration (Export air cargo)	Registration Alteration Cancellation	This service (HDF) provides to register, alter, and cancel the information on consolidation to MAWB from HAWB.		○							○	○			
													○	○			
125	HDF11	Consolidation registration (Export air cargo) (Call up)	Calling up	This service (HDF11) provides a function to call up consolidation information before altering the information by "Consolidation registration (Export air cargo) (HDF)" service.		○							○	○			
													○	○			
126	BIL	Registration of carried-in export air cargo (Altogether)	Registration	This service (BIL) provides to register the information that export cargo has been carried in per carried-in list and AWB number.		○											○
																	○
127	BIL11	Registration of carried-in export air cargo (Altogether) (Call up)	Calling up	This service (BIL11) provides a function to call up cargo information before registering the information by "Registration of carried-in export air cargo (Altogether) (BIL)" service.		○											○
																	○
128	BII	Registration of carried-in export air cargo (Individually)	Registration	This service (BII) provides to register the information that export cargo has been carried in per AWB number.		○											○
																	○

129	BII11	Registration of carried-in export air cargo (Individually) (Call up)	Calling up	This service (BII11) provides a function to call up cargo information before registering the information by "Registration of carried-in export air cargo (Individually) (BII)" service.		○											○
																	○
130	EXA	Registration of carried-out export air cargo (AWB/HAWB)	Registration	This service (EXA) provides to register the information of export cargo carried out per AWB or HAWB.		○											○
																	○
131	EXA11	Registration of carried-out export air cargo (AWB/HAWB) (Call up)	Calling up	This service (EXA11) provides a function to call up cargo information before registering the information by "Registration of carried-out export air cargo (AWB/HAWB) (EXA)" service.		○											○
																	○
132	EXM	Registration of carried-out export air cargo (MAWB)	Registration	This service (EXM) provides to register the information of export cargo carried out per MAWB.		○											○
																	○
133	EXM11	Registration of carried-out export air cargo (MAWB) (Call up)	Calling up	This service (EXM11) provides a function to call up cargo information before registering the information by "Registration of carried-out export air cargo (MAWB) (EXM)" service.		○											○
																	○
134	EXC	Cancellation of carried-out export air cargo information	Cancellation	This service (EXC) provides to cancel the information of export cargo carried out.		○											○
																	○
135	EXC11	Cancellation of carried-out export air cargo information (Call up)	Calling up	This service (EXC11) provides a function to call up cargo information before altering the information by "Cancellation of carried-out export air cargo information (EXC)" service.		○											○
																	○
136	AIB	Export air cargo correction	Alteration Correction	This service (AIB) provides to alter and correct the information of export cargo which is warehoused in bonded area.		○			○				○	○			○
									○				○	○			○
137	AIB11	Export air cargo correction (Call up)	Calling up	This service (AIB11) provides a function to call up Export cargo information before altering the information by "Export air cargo correction (AIB)" service.		○			○				○	○			○
									○				○	○			○
138	CLB	Air cargo loaded registration	Registration	This service (CLB) provides to register information that cargo has been loaded on an aircraft.		○					○						○
									○		○	○	○				○
139	CLB11	Air cargo loaded registration (Call up)	Calling up	This service (CLB11) provides a function to call up the cargo information before registering the information by "Air cargo loaded registration (CLB)" service.		○					○						○
											○						○
140	IGS	Export air cargo reference	Reference	This service (IGS) is available for reference of the cargo information (such as units, weight, and description of goods) and status of customs clearance procedures per export cargo control number (AWB number, etc.).		○			○		○	○	○	○			○
									○		○	○	○	○			○
141	IWH	Reference of export air cargo stock state	Reference	This service (IWH) is available for reference of export cargo stock state in warehouse.		○			○								○
									○								○
142	IMA	Reference of consolidated export air cargo state	Reference	This service (IMA) is available for reference of consolidated cargo state.		○			○		○		○	○			○
									○		○		○	○			○

143	PAH	Registration of transition to manual procedure etc. (Export air cargo)	Registration Cancellation	This service (PAH) provides to register the export cargo information regarding transition to manual procedure, etc.		○			○									
									○									
[e-Declaration]																		
144	IDA	Pre-registration of import declaration	Pre-registration Alteration	This service (IDA) provides a function to register and alter the information required for import declaration and valuation declaration before execution of "Import declaration (IDC)" service. When executing IDA, the system automatically calculates the amount of taxes including customs duty.	○	○	○	○				○	○					
												○	○					
145	IDB	Pre-registration of import declaration (Call up)	Calling up	This service (IDB) provides a function to call up information registered by "Pre-registration of import declaration (IDA)" service before altering the information by IDA. It is also available to call up manifest information and (or) invoice/packing list information registered in system.	○	○	○	○				○	○					
												○	○					
146	IDC	Import declaration	Registration	This service (IDC) provides a function to declare the import declaration information and valuation declaration information registered by "Pre-registration of import declaration (IDA)" service.	○	○	○	○				○	○					
									○			○	○			○	○	
147	IDA01	Correction of Pre-registration of import declaration	Correction	This service (IDA01) is provided to correct the declared information before the release order and after the execution of the "import declaration (IDC)" service	○	○	○	○	○	-		○	○					
									○	-		○	○					
148	IDD	Correction of Pre-registration of import declaration (Call up)	Calling up	This service (IDD) provides a function to call up information before correcting the information by "Correction of Pre-registration of import declaration (IDA01)" service.	○	○	○	○	○	-		○	○					
									○	-		○	○					
149	IDE	Correction of import declaration	Correction	This service (IDE) provides a function to re-declare the import declaration information corrected by "Correction of Pre-registration of import declaration (IDA01)" service.	○	○	○	○	○	-		○	○					
									○			○	○					
150	MIC	Import declaration (tax exempted small amount clearance)	Registration	This service (MIC) provides a function to declare the import declaration in case of tax exempted small amount air cargo such as express cargos.		○						○	○					
									○			○	○					○
151	MID	Correction of import declaration (tax exempted small amount clearance) (Call up)	Calling up	This service (MID) provides a function to call up information registered by "Import declaration (tax exempted small amount clearance) (MIC)" service before correcting the information by "Correction of import declaration (tax exempted small amount clearance) (MIE)" service.		○						○	○					
												○	○					
152	MIE	Correction of import declaration (tax exempted small amount clearance)	Correction	This service (MIE) provides a function to correct and re-declare the import declaration information registered by "Import declaration (tax exempted small amount clearance) (MIC)" service.		○						○	○					
									○			○	○					
153	CEA	Registration of completion of examination (import declaration)	Registration	This service (CEA) provides a function to register the information on completion of examination regarding import declaration.	○	○	○	○	○									
									○			○	○			○	○	

154	PAI	Registration of import declaration cancellation	Cancellation	This service (PAI) provides a function to register the information regarding cancellation or transition to manual procedure in case of terminating customs procedures executed by the system for any reason at import declaration.	○	○	○	○	○									
									○									
155	IID	Reference of import declaration	Reference	This service (IID) is available for reference of the declared information and current procedure status of import declaration.	○	○	○	○	○			○	○					
									○			○	○					
156	IDI	Reference of list related with import declaration	Reference	This service (IDI) is available for reference of the list related with import declaration.	○	○	○	○	○			○	○					
									○			○	○					
157	EDA	Pre-registration of export declaration	Pre-registration Alteration	This service (EDA) provides a function to register and alter the information required for export declaration before execution of "Export declaration (EDC)" service. When executing EDA, the system automatically calculates the amount of taxes including customs duty.	○	○	○	○				○	○					
												○	○					
158	EDB	Pre-registration of export declaration (Call up)	Calling up	This service (EDB) provides a function to call up information registered by "Pre-registration of export declaration (EDA)" service from retrieval before altering the information by EDA. It is also available to call up invoice/packing list information registered in system.	○	○	○	○				○	○					
												○	○					
159	EDC	Export declaration	Registration	This service (EDC) provides a function to declare the export declaration information registered by "Pre-registration of export declaration (EDA)" service.	○	○	○	○				○	○					
									○			○	○			○	○	
160	EDA01	Correction of Pre-registration of export declaration	Correction	This service (EDA01) provides a function to correct the declared information before the allowed shipment and after the execution of the "export declaration (EDC)" service	○	○	○	○	○	-		○	○					
									○	-		○	○					
161	EDD	Correction of Pre-registration of export declaration (Call up)	Calling up	This service (EDD) provides a function to call up information from retrieval before correcting the information by "Correction of Pre-registration of export declaration (EDA01)" service.	○	○	○	○	○	-		○	○					
									○	-		○	○					
162	EDE	Correction of export declaration	Correction	This service (EDE) provides a function to re-declare the export declaration information corrected by "Correction of Pre-registration of export declaration (EDA01)" service.	○	○	○	○	○	-		○	○					
									○			○	○					
163	MEC	Export declaration (tax exempted small amount clearance)	Registration	This service (MEC) provides a function to declare the Export declaration in case of tax exempted small amount air cargo such as express cargos.		○						○	○					
									○			○	○					○
164	MED	Correction of Export declaration (tax exempted small amount clearance) (Call up)	Calling up	This service (MED) provides a function to call up information registered by "Export declaration (tax exempted small amount clearance) (MEC)" service before correcting the information by "Correction of Export declaration (tax exempted small amount clearance) (MEE)" service.		○						○	○					
												○	○					

165	MEE	Correction of Export declaration (tax exempted small amount clearance)	Correction	This service (MEE) provides a function to correct and re-declare the Export declaration information registered by "Export declaration (tax exempted small amount clearance) (MEC)" service.		○						○	○					
									○			○	○					
166	EAA	Pre-registration for application of allowed export declaration correction	Pre-registration Alternation	This service (EAA) provides a function to register and alter the information for correction of allowed export declaration before execution of "Application of allowed export declaration correction (EAC)" service.	○	○	○	○			○	○	○					
											○	○	○					
167	EAB	Pre-registration for application of allowed export declaration correction(Call up)	Calling up	This service (EAB) provides a function to call up export declaration information before execution of "Pre-registration for application of allowed export declaration correction (EAA)" in case to correct allowed export declaration information.	○	○	○	○			○	○	○					
											○	○	○					
168	EAC	Application of allowed export declaration correction	Registration	This service (EAC) provides a function to apply the correction of allowed export declaration information registered by "Pre-registration for application of allowed export declaration correction (EAA)" service.	○	○	○	○			○	○	○					
									○		○	○	○			○	○	
169	MAF	Application of allowed export declaration correction (tax exempted small amount clearance)	Registration Correction	This service (MAF) provides a function to apply the correction of allowed export declaration information in case of tax exempted small amount air cargo such as express cargos..		○					○	○	○					
									○		○	○	○					○
170	CEE	Registration of completion of examination (export declaration)	Registration	This service (CEE) provides a function to register the information on completion of exanimation regarding export declaration.	○	○	○	○	○									
									○			○	○			○	○	
171	PAE	Registration of export declaration cancellation	Cancellation	This service (PAE) provides a function to register the information regarding cancellation or transition to manual procedure in case of terminating customs procedures executed by the system for any reason at export declaration.	○	○	○	○	○									
									○									
172	IEX	Reference of export declaration	Reference	This service (IEX) is available for reference of the declared information and current procedure status of export declaration.	○	○	○	○	○			○	○					
									○			○	○					
173	IES	Reference of list related with export declaration	Reference	This service (IES) is available for reference of the list related with export declaration.	○	○	○	○	○			○	○					
									○			○	○					
174	CKO	Modification of examination classification and specification of examination category	Registration Modification	This service (CKO) provides a function to modify the examination classification after screening or designate the physical examination category when import/export/transit declaration is selected as Yellow (documentary examination) or Red (physical examination).	○	○	○	○	○									
									○			○	○			○	○	
175	COW	Cancellation of suspended declaration	Registration	This service (COW) provides a function to cancel the suspension of import/export/transit procedure due to the insufficient amount of deposit or security for import/export/transit declaration.	○	○	○	○	○									
									○			○	○					
176	AMA	Pre-registration of amended declaration	Registration Alteration	The service (AMA) provides a function to register and alter the information required for amended declaration before declaring by "Amended declaration (AMC)" service.	○	○	○	○				○	○					
												○	○					

177	AMB	Pre-registration of amended declaration (Call up)	Calling up	This service (AMB) provides a function to call up information registered by "Pre-registration of amended declaration (AMA)" service before altering the information by AMA.	○	○	○	○				○	○				
												○	○				
178	AMC	Amended declaration	Registration	This service (AMC) provides a function to declare the amended declaration registered by "pre-registration of amended declaration (AMA)" service	○	○	○	○				○	○				
									○			○	○				
179	CAM	Registration of completion of examination(amended declaration)	Registration	This service (CAM) provides a function to register the information on completion of examination or cancellation of declaration regarding amended declaration.	○	○	○	○	○								
									○			○	○				
180	IAD	Reference of amended declaration	Reference	This service (IAD) is available for reference of the amended declaration.	○	○	○	○	○			○	○				
									○			○	○				
181	DLI01	Calling up of initial declaration (warehousing application)	Calling up	This service (DLI01) provides a function to register, alter, call up and delete information for execution of process which calls up initial warehouse application data saved in the system. This is used for import declaration about warehousing cargo in advance.	○	○	○	○				○	○				
												○	○				
182	DLI02	Calling up of initial declaration (amended declaration)	Calling up	This service (DLI02) provides a function to register, alter, call up and delete information for execution of process which calls up initial declaration data saved in the system. This is used for amended declaration in advance.	○	○	○	○				○	○				
												○	○				
183	HFB	Application of direct delivery (Call up)	Calling up	This service (HFB) provides a function to call up cargo information or application information before execution of "Application of direct delivery (HFC)" service.	○							○	○				
												○	○				
184	HFC	Application of direct delivery	Registration	This service (HFC) provides a function to apply direct delivery.	○							○	○				
									○			○	○				
185	HFE	Application of direct delivery (Alteration)	Correction	This service (HFE) provides a function to correct the information registered by "Application of direct delivery (HFC)" service.	○							○	○				
									○			○	○				
186	HFX	Application of direct delivery (examination completion)	Registration	This service (HFX) provides a function to register the information on completion of examination regarding application of direct delivery.	○				○								
									○			○	○				
187	IHF	Application of direct delivery (Reference)	Reference	This service (IHF) is available for reference the information registered by "Application of direct delivery (HFC)"	○				○			○	○				
									○			○	○				
188	MSX	Declaration documents attachment registration	Registration	This service (MSX) provides a function to send attached documents as attached files required for import/export/transit declaration, etc.	○	○	○	○				○	○				
												○	○				
189	MSY	Declaration documents attachment correction	Addition Correction Cancellation	This service (MSY) provides a function to add, correct, cancel attached file required for import/export/transit declaration, etc.	○	○	○	○				○	○				
												○	○				
190	MSY11	Declaration documents attachmentcorrection(Call Up)	Calling up	This service (MSY11) provides a function to call up attachment information before correction by MSY.	○	○	○	○				○	○				
												○	○				
191	MSZ	Declaration documents attachment acquisition	acquisition	This service (MSZ) provides a function to acquire attached file registered by "Declaration documents attachment registration (MSX)" service.	○	○	○	○	○								
									○								
192	IMS	Reference of declaration documents attachment list	Reference	This service (IMS) is available for reference of the attachment list information registered by MSX.	○	○	○	○	○			○	○				
									○			○	○				

193	ZBU	Setup of selectivity criteria for customs clearance	Registration Alteration Cancellation	This service (ZBU) provides a function to set the selectivity criteria except for memory table regarding customs clearance.	○	○	○	○	○									
									○									
194	ZBX	Setup of selectivity criteria for customs clearance (for memory table)	Registration Alteration Cancellation	This service (ZBX) provides a function to set the selectivity criteria for memory table regarding customs clearance.	○	○	○	○	○									
									○									
195	IVA	Registration of invoice/packing list information	Registration Alteration	This service (IVA) provides a function to register and alter the invoice and packing list information required for import/export/transit declaration.	○	○	○	○				○	○					
												○	○					
196	IVA01	Alteration of invoice/packing list information (Call up)	Calling up	This service (IVA01) provides a function to call up information registered by "Registration of invoice/packing list information (IVA)" service before altering the information by IVA.	○	○	○	○				○	○					
												○	○					
197	IIV	Reference of invoice/packing list information	Reference	This service (IIV) is available for reference of the invoice and packing list information.	○	○	○	○	○			○	○					
									○			○	○					
198	OVA	Registration of received certificate of origin information	Registration	This service (OVA) provides a function to automatically register the information on the certificate of origin as "C/O information" to the system when the information on the certificate of origin is received from the overseas system.	○	○	○	○										
199	OVB	Sending of certificate of origin information	Sending	This service (OVB) provides a function to send the information on the certificate of origin to overseas systems.	○	○	○	○		○		-	-					
										○		-	-					
200	IOV	Reference of certificate of origin information	Reference	This service (IOV) is available for reference of the certificate of origin registered by "Registration of received certificate of origin information (OVA)" service.	○	○	○	○	○			○	○					
									○			○	○					
201	IIE	Reference of importer/exporter information	Reference	This service (IIE) is available for reference importer/exporter name and residence information based on importer/exporter code that is input by user. It is also available to reference importer/exporter name and code and residence information based on importer/exporter name that is input by user.	○	○	○	○	○		○	○	○	○			○	○
									○		○	○	○	○			○	○
202	TDA	Pre-registration of transit declaration	Pre-registrationAlteration	This service (TDA) provides a function to register and alter the information required for transit declaration before execution of "Transit declaration (TDC)" service. When executing TDA, the system automatically calculates the amount of taxes including transit duty.	○	-	-	○					○					
													○					
203	TDB	Pre-registration of transit declaration (Call up)	Calling up	This service (TDB) provides a function to call up information registered by "Pre-registration of transit declaration (TDA)" service before altering the information by TDA. It is also available to call up invoice/packing list information before registering the information by TDA.	○	-	-	○					○					
													○					
204	TDC	Transit declaration	Registration	This service (TDC) provides a function to declare the transit declaration information registered by "Pre-registration of export declaration (TDA)" service.	○	-	-	○					○					
									○				○			○	○	
205	TDA01	Correction of Pre-registration of transit declaration	Correction	This service (TDA01) provides a function to correct the declared information before the transit permission and after the execution of the "transit declaration (TDC)" service	○	-	-	○	○	-			○					
									○	-			○					

206	TDD	Correction of Pre-registration of transit declaration (Call up)	Calling up	This service (TDD) provides a function to call up information before correcting the information by "Correction of Pre-registration of transit declaration (TDA01)" service.	○	-	-	○	○	-			○				
									○	-			○				
207	TDE	Correction of transit declaration	Correction	This service (TDE) provides a function to re-declare the transit declaration information corrected by "Correction of Pre-registration of transit declaration (TDA01)" service.	○	-	-	○	○	-			○				
									○				○				
208	CET	Registration of completion of examination (transit declaration)	Registration	This service (CET) provides a function to register the information on completion of exanimation regarding transit declaration.	○	-	-	○	○								
									○				○			○	○
209	PAT	Registration of transit declaration cancellation	Cancellation	This service (PAT) provides a function to register the information regarding cancellation or transition to manual procedure in case of terminating customs procedures executed by the system for any reason at transit declaration.	○	-	-	○	○								
									○								
210	ITX	Reference of transit declaration	Reference	This service (ITX) is available for reference of the declared information and current procedure status of transit declaration.	○	-	-	○	○				○				
									○				○				
211	ITI	Reference of list related with transit declaration	Reference	This service (ITI) is available for reference of the list related with transit declaration.	○	-	-	○	○				○				
									○				○				
212	CCP	Registration of checkpoint passage information	Registration	This service (CCP) provides a function to register the information about departure, pass, transshipment, arrival and loss of the transit cargos.	○	-	-	○	○								
									○				○				
213	CCP11	Registration of checkpoint passage information (Call up)	Calling up	This service (CCP11) provides a function to call up information about passing checkpoints, etc. before registering the information by CCP.	○	-	-	○	○								
									○								
[e-Payment]																		
214	RCC	Registration of information on receipt confirmation of tax payment	Registration	This service (RCC) provides a function to register the information on receipt confirmation of amount of tax payment regarding import/export/transit declaration based on payment order, etc. by the declarant.	○	○	○	○	○								
									○			○	○			○	○
215	IAS	Reference of security information	Reference	This service (IAS) is available for reference of the security registration information such as balance of security.	○	○	○	○	○		○	○	○				
									○		○	○	○				
216	IBA	Reference of account information	Reference	This service (IBA) is available for reference of the deposit information.	○	○	○	○	○			○	○				
									○			○	○				
217	RZC	Registration of receipt notification	Registration Correction Cancellation	This service (RZC) provides a function to register receipted amount of tax as national revenue regarding import/export/transit declaration, etc. by the Myanmar Economic Bank or Customs officer.	○	○	○	○	○						○		
									○						○		
218	IER	Reference of currency exchange rate	Reference	This service (IFR) is available for reference of the information on currency exchange rate for tax calculations and reference.	○	○	○	○	○		○	○	○	○	○	○	○
									○		○	○	○	○	○	○	○
219	RNF	Re-output of payment statement	Output	This service (RNF) provides a function to re-output the payment statement, etc.	○	○	○	○	○		○	○	○				
									○		○	○	○				
220	BAA	Registration of certified balance of deposit	Registration Correction Reference Cancellation	This service (BAA) provides a function to register deposit information and correct the certified amount of balance of the deposit.	○	○	○	○	○								
									○								

221	BAA11	Registration of certified balance of deposit (Call up)	Calling up	This service (BAA11) provides a function to call up the deposit information before execution of "Registration of certified balance of deposit (BAA)" service.	○	○	○	○	○									
									○									
222	IKO	Reference of payment status	Reference	This service (IKO) is available for reference of the payment status of the amount of payment/Arrears concerning an import declaration	○	○	○	○	○									
									○									
223	IPO	Reference of payment order	Registration Reference	This service (IPO) provides following functions. 1.Myanmar economic bank (MEB) can refer to the information of payment order, and can register the result of receipt confirmation. 2.Customs officer can refer to the result of receipt confirmation that is registered by MEB.	○	○	○	○	○						○			
									○						○			
224	GCC	Correction of summary tax collection report	Correction	This service (GCC) provides a function to correct the contents of summary tax collection report after output, when there is mistake in the report and it isn't possible to correct it per declaration.	○	○	○	○	○									
									○									
225	GFG	Registration of reducing amount arbitration / deficit by uncollectible account	Registration Correction Cancellation	This service (GFG) provides a function to register the information on the determined amount of collection in case of 1. It is reduced by appropriation. 2. It is confirmed to be deficit by uncollectible account.	○	○	○	○	○									
									○									
226	IAS01	Reference of security list for customs	Reference	This service (IAS01) provides a function to refer the list of security information of providers from registered security information.	○	○	○	○	○									
									○									
227	SEA	Security debit / recovery	Alteration	This service (SEA) provides following functions. 1. Debit the necessary amount of security on the basis of submission by a customs broker, in the case of manual-processed import declaration. 2. Recover security in the case it can't be automatically recovered.	○	○	○	○	○									
									○									
228	SEC	Security Cancellation	Cancellation	This service (SEC) provides a function to cancel registered security information.	○	○	○	○	○									
									○									
229	SER	Security Registration	Registration	This service (SER) provides a function to register security information based on submitted warranty, etc.	○	○	○	○	○									
									○									
230	SER11	Security Registration (Call up)	Calling up	This service (SER11) provides a function to call up security information registered by "Security Registration (SER)" service.	○	○	○	○	○									
									○									
231	SER01	Security Correction	Correction	This service (SER01) provides a function to correct the called up security information.	○	○	○	○	○									
									○									

232	SIK	Tax collection Registration	Registration Correction Cancellation	This service (SIK) provides a function to register determined tax collection information (the amount of tax payment, etc.) in case of manual-processed import/export declaration. SIK is also available to cancel the registered information.	○	○	○	○	○									
									○									
233	DLS01	Security record list Registration/Alteration	Registration Alteration Calling up Cancellation	This service (DLS01) provides following functions. 1.About the security history list, registration of output information, change, call, and deletion are performed. 2.The security history list output process is started automatically.	○	○	○	○	○									
									○									
234	DLS02	Summery tax collection report Registration/Alteration	Registration Alteration Calling up Cancellation	This service (DLS02) provides following functions. 1. About the Summery tax collection report, registration of output information, change, call, and deletion are performed. 2. The Summery tax collection report output process is started automatically.	○	○	○	○	○									
									○									
[National single window]																			
235	IAA	Pre-registration of import animal and plant application	Registration Alteration	This service (IAA) is provided to register and alter the information required for import animal and plant application before execution of "Import animal and plant application (IAC)" service.	○	○	○	○				○	○					
												○	○					
236	IAB	Pre-registration of import animal and plant application (Call up)	Calling up	This service (IAB) provides a function to call up information registered by "Pre-registration of import animal and plant application (IAA)" service before altering the information by IAA.	○	○	○	○				○	○					
												○	○					
237	IAC	import animal and plant application	Registration	This service (IAC) provides a function to apply the import animal and plant application information registered by "Pre-registration of import animal and plant application (IAA)" service.	○	○	○	○				○	○					
										○		○	○					
238	ACE	Registration of completion of examination (animal and plant application)	Registration	This service (ACE) provides following functions.1. Register the information on completion of examination regarding import animal and plant application.2. Issue notifications to the applicant according to the result of examination.	○	○	○	○		○								
										○		○	○					
239	IFA	Pre-registration of import food and drug application	Registration Alteration	This service (IFA) is provided to register and alter the information required for import food and drug application before execution of "Import food and drug application (IFC)" service.	○	○	○	○				○	○					
												○	○					
240	IFB	Pre-registration of import food and drug application (Call up)	Calling up	This service (IFB) provides a function to call up information registered by "Pre-registration of import food and drug application (IFA)" service before altering the information by IFA.	○	○	○	○				○	○					
												○	○					

241	IFC	Import food and drug application	Registration	This service (IFC) provides a function to apply the import food and drug application information registered by "Pre-registration of import food and drug application (IFA)" service.	○	○	○	○				○	○				
										○		○	○				
242	FCE	Registration of completion of examination (food and drug application)	Registration	This service (FCE) provides following functions. 1. Register the information on completion of examination regarding import food and drug application. 2. Issue notifications to the applicant according to the result of examination.	○	○	○	○		○							
										○		○	○				
243	ICA	Pre-registration of import/export license issuance application	Registration Alteration	This service (ICA) is provided to register and alter the information required for import/export license issuance application before execution of "Import/export license issuance application (ICC)" service.	○	○	○	○				○	○				
												○	○				
244	ICB	Pre-registration of import/export license issuance application (Call up)	Calling up	This service (ICB) provides a function to call up information registered by "Pre-registration of import/export license issuance application (ICA)" service before altering the information by ICA.	○	○	○	○				○	○				
												○	○				
245	ICC	Import/export license issuance application	Registration	This service (ICC) provides a function to declare the import/export license issuance application information to Ministry of Commerce registered by "Pre-registration of import/export license issuance application (ICA)" service.	○	○	○	○				○	○				
										○		○	○				
246	CCE	Registration of completion of examination(import/export license issuance application)	Registration	This service (CCE) provides following functions. 1. Register the information on completion of examination regarding import/export license issuance application. 2. Issue notifications to the applicant according to the result of examination.	○	○	○	○		○							
										○		○	○				
247	ESA	Pre-registration of export seafood application	Registration Alteration	This service (ESA) is provided to register and alter the information required for export seafood application before execution of "Export seafood application (ESC)" service.	○	○	○	○				○	○				
												○	○				
248	ESB	Pre-registration of export seafood application (Call up)	Calling up	This service (ESB) provides a function to call up information registered by "Pre-registration of export seafood application (ESA)" service before altering the information by ESC.	○	○	○	○				○	○				
												○	○				
249	ESC	Export seafood application	Registration	This service (ESC) provides a function to declare the export seafood application information to Ministry of Commerce registered by "Pre-registration of export seafood application (ESA)" service.	○	○	○	○				○	○				
										○		○	○				
250	SCE	Registration of completion of examination(export seafood application)	Registration	This service (SCE) provides following functions. 1. Register the information on completion of examination regarding export seafood application. 2. Issue notifications to the applicant according to the result of examination.	○	○	○	○		○							
										○		○	○				
251	IXX	Reference of application in concerned OGAs	Reference	This service (IXX) is available for reference of the current procedure status of the other governmental agencies regarding import application.	○	○	○	○	○	○		○	○				
									○	○		○	○				

[Bonded Transportation]																			
252	OLA	Pre-registration of declaration on bonded transportation	Registration Alteration	This service (OLA) provides to register and alter the information required for declaration on bonded transportation before declaring by "Declaration on bonded transportation (OLC)" service.	○	○	○	○			○	○	○	○		○	○
											○	○	○	○		○	○
253	OLB	Pre-registration of declaration on bonded transportation (Call up)	Calling up	This service (OLB) provides a function to call up information registered by "Pre-registration of declaration on bonded transportation (OLA)" service before altering the information by OLA. It is also available to call up manifest information registered in system.	○	○	○	○			○	○	○	○		○	○
											○	○	○	○		○	○
254	OLC	Declaration on bonded transportation	Registration	This service (OLC) provides a function to declare the information on the bonded transportation registered by "Pre-registration of declaration on bonded transportation (OLA)" service.	○	○	○	○			○	○	○	○		○	○
									○		○	○	○	○		○	○
255	COT	Correction of declared information on bonded transportation	Correction	This service (COT) provides to correct or cancel the approved information on bonded transportation. It is also available to correct or cancel the declared information on bonded transportation.	○	○	○	○			○	○	○	○		○	○
									○		○	○	○	○		○	○
256	COT11	Correction of declared information on bonded transportation (Call up)	Calling up	This service (COT11) provides a function to call up the declared information on bonded transportation before altering the information by "Correction of declared information on bonded transportation (COT)" service.	○	○	○	○			○	○	○	○		○	○
											○	○	○	○		○	○
257	CEO	Registration of completion of examination (Declaration on bonded transportation)	Registration	This service (CEO) provides to register the information on completion of examination regarding declaration on bonded transportation. It is also available to register the approval regarding correction and cancellation of the information registered by "Correction of declared information on bonded transportation (COT)" service after the declaration on bonded transportation has been approved.	○	○	○	○	○								
									○		○	○	○	○		○	○
258	ITF	Reference of declared information on bonded transportation	Reference	This service (ITF) is available for reference of the information regarding declaration and approval of bonded transportation.	○	○	○	○	○		○	○	○	○		○	○
									○		○	○	○	○		○	○
259	BOT	Registration of information of departure regarding bonded transportation etc.	Registration	This service (BOT) provides to register the information of departure regarding bonded transportation without cargo information.	○	○	○	○	○								
									○		○	○	○	○		○	○
260	CAT	Registration of information of arrival regarding bonded transportation etc.	Registration	This service (CAT) provides to register the information of arrival regarding bonded transportation without cargo information.	○	○	○	○	○								
									○		○	○	○	○		○	○
261	ZHB	Management of screening criteria for declaration on bonded transportation	Registration Alteration Cancellation	This service (ZHB) provides to set the selectivity criteria regarding declared information on bonded transportation	○	○	○	○	○								
									○								

262	ZZH	Reference of declared information on bonded transportation (Recorder)	Reference	This service (ZZH) is available for reference of the information of declaration on transportation (recorder).	○	○	○	○	○								
									○								
[Online Others]																		
263	TCC	Establishment of communication channel check	Reference	This service checks establishment of communication channel by sending and receiving messages.	○	○	○	○	○	○	○	○	○	○	○	○	○
									○	○	○	○	○	○	○	○	○
264	ROT	Re-output	Registration	This service outputs the output information again.	○	○	○	○	○	○	○	○	○	○	○	○	○
									○	○	○	○	○	○	○	○	○
265	MSA	Information Transmission	Registration	This service (MSA) is provided to transmit information between users.	○	○	○	○	○	○	○	○	○	○	○	○	○
									○	○	○	○	○	○	○	○	○
266	MSB	Attached document files registration	Registration	This service (MSB) is provided to register the attached files which are requested by customs and OGAs.	○	○	○	○			○	○	○	○	○	○	○
									○	○	○	○	○	○	○	○	○
267	MSC	Attached document files retrieval	acquisition	This service (MSC) is provided to acquire the attached document files registered by "Attached document registration (MSB)" service.	○	○	○	○	○	○							
									○	○							
268	HYS	Registration of application attached by electronic file	Registration	This service (HYS) conducts applying for the customs procedures by attaching electronic files containing the information on application and other information such as the type of application procedure.	○	○	○	○			○	○	○	○	○	○	○
									○		○	○	○	○	○	○	○
269	HYE	Modification of application attached by electronic file	Correction	This service (HYE) modifies the information on the application attached by electronic file registered in the system in the "Registration of application attached by electronic file (HYS)" service.	○	○	○	○			○	○	○	○	○	○	○
									○		○	○	○	○	○	○	○
270	CHY	Completion of examination of application attached by electronic file	Registration	This service (CHY) registers completion of examination of application attached by the electronic file.	○	○	○	○	○								
									○		○	○	○	○	○	○	○
271	IHY	Reference of application attached by electronic file	Reference	This service (IHY) references details of application attached by the electronic file	○	○	○	○	○		○	○	○	○	○	○	○
									○		○	○	○	○	○	○	○
272	URY	Registration of user data	Registration	This service provides to alter MACCS user password.	○	○	○	○		○	○	○	○	○	○	○	○
										○	○	○	○	○	○	○	○
[Original Data]																		
273	DLG01	Searching of original data related to Customs procedures	Searching	This service (DLG01) searches original data related to Customs procedures.	○	○	○	○	○								
									○								
274	DLG11	Searching of original data related to HYS	Searching	This service (DLG11) searches original data related to HYS(application attached by electronic file)	○	○	○	○	○								
									○								
275	DLG21	Searching of original data related to cargo	Searching	This service (DLG21) searches original data related to various cargos.	○	○			○								
									○								
276	DLG22	Searching of original data related to manifest	Searching	This service (DLG22) searches original data related to manifest.	○	○	○	○	○								
									○								
277	DLT01	Searching of original data related to attached file	Searching	This service (DLT01) searches original data related to attached files.	○	○	○	○	○								
									○								
278	CNO	Registration of correction of original data	Registration Correction	This service (CNO) registers correction of original data.	○	○	○	○	○								
									○								
279	CNO11	Calling up of original data for correction	Calling up	This service (CNO11) provides a function to call up original data for correction.	○	○	○	○	○								
									○								

280	-	Batch processing to save original data related to customs procedure	Daily	Within the information which is outputted by online customs clearance procedure, this service provides to acquire the information which is subjected to original data saving by each saving period and type of saving.	○	○	○	○	○								
281	-	Batch processing to search original data related to customs procedure	Any time	Within the information which is outputted by online customs clearance procedure, this service provides to extract and output the information which is subjected to Original data saving, by designating Declaration number.	○	○	○	○	○								
282	-	Batch processing to save original data related to HYS	Daily	Within the information which is outputted by the digital file(designated form) registered in Attached file DB by the service HYS/HYE, this service provides to acquire the information which is subjected to original data saving daily, then save this information to Original Master.	○	○	○	○	○								
283	-	Batch processing to search original data related to HYS	Any time	Within the information which is outputted by the digital file(designated form) registered in Attached file DB by the service HYS/HYE, this service provides to acquire the information which is subjected to original data saving daily, then output this information to Original Master by designating Receipt number of HYS/HYE, etc.	○	○	○	○	○								
284	-	Batch processing to save Manifest original data	Daily	This service provides to acquire the submitted manifest data, and save this data to Original Master.	○	○	○	○	○								
285	-	Batch processing to search Manifest original data	Any time	this service provides to acquire and output the information from Original Master by designating Manifest information such as Vessel code, Port of discharge, and Estimated date of arrival.	○	○	○	○	○								
286	-	Batch processing to save Cargo original data	Daily	Within the cargo information which is able to be cancelled by online service, this service provides to acquire the information which is subjected to original data saving, then save this information to Original Master.	○	○			○								
287	-	Batch processing to search Cargo original data	Any time	This service provides to acquire and output the information from various Original Master by designating cargo information.	○	○			○								
288	-	Batch processing to save Attached file original data	Daily	This service provides to acquire the attached file data, and save this data to Original Master.	○	○	○	○	○								
289	-	Batch processing to search Attached file original data	Any time	This service provides to acquire and output the information from attached file Original Master by designating attached file information.	○	○	○	○	○								
[Statistical Data and Delayed process]																	
290	-	List of system statistics (daily)	Daily	The number of services conducted in the previous day is output after compiling it according to the user, service and user's service.	○	○	○	○	○								
291	-	List of system statistics (monthly)	Monthly	The number of services conducted in the previous month is output after compiling it according to the user, service and user's service.	○	○	○	○	○								
292	-	List of system traffic (daily)	Daily	The number of services conducted in the previous day is output after compiling it according to the input method (SMTP, HTTP, etc.) and ending code (normal or error).	○	○	○	○	○								
293	-	List of system traffic (monthly)	Monthly	The number of services conducted in the previous month is output after compiling it according to the input method (SMTP, HTTP, etc.) and ending code (normal or error).	○	○	○	○	○								
294	-	List of the import customs clearance report (number of cases) (daily)	Daily	The number of import customs clearance services related to the import declaration, etc. conducted in the previous day is output.	○	○	○	○	○								

295	-	List of the import customs clearance report (number of cases)(monthly)	Monthly	The number of import customs clearance services related to the import declaration, etc. conducted in the previous month is output.	○	○	○	○	○								
296	-	List of the export customs clearance report (number of cases) (daily)	Daily	The number of export customs clearance services related to the export declaration, etc. conducted in the previous day is output.	○	○	○	○	○								
297	-	List of the export customs clearance report (number of cases)(monthly)	Monthly	The number of export customs clearance services related to the export declaration, etc. conducted in the previous month is output.	○	○	○	○	○								
298	-	List of the transit customs clearance report (number of cases) (daily)	Daily	The number of transit customs clearance services related to the transit declaration, etc. conducted in the previous day is output.	○			○	○								
299	-	List of the transit customs clearance report (number of cases)(monthly)	Monthly	The number of transit customs clearance services related to the transit declaration, etc. conducted in the previous month is output.	○			○	○								
300	-	List of the non-completed import declarations	Monthly	This service outputs the list of non-completed import declarations which passed for a certain period of time after declaration.	○	○	○	○	○								
301	-	List of the green channel import declarations	Daily	This service outputs the list of import declarations that is selected as green channel from declarations whose cargo's release was ordered in the previous day.	○	○	○	○	○								
302	-	List of the non-completed export declarations	Monthly	This service outputs the list of non-completed export declarations which passed for a certain period of time after declaration.	○	○	○	○	○								
303	-	List of the green channel export declarations	Daily	This service outputs the list of export declarations that is selected as green channel from declarations whose cargo's shipment was allowed in the previous day.	○	○	○	○	○								
304	-	List of the non-completed transit declarations	Monthly	This service outputs the list of non-completed transit declarations which passed for a certain period of time after declaration.	○			○	○								
305	-	List of the green channel transit declarations	Daily	This service outputs the list of transit declarations that is selected as green channel from declarations whose cargo's transit was allowed in the previous day.	○			○	○								
306	-	List of the non-completed amended declarations	Monthly	This service outputs the list of non-completed amended declarations which passed for a certain period of time after declaration.	○	○	○	○	○								
307	-	List of IB / IBP declarations	Daily	This service outputs the declaration number, etc. about the following declaration and application that is permitted in the previous day -import permission -release before import permission(BP) -permission of import declaration about release before import permission(IBP).	○	○	○	○	○								
308	-	List of the non-completed declarations about special order	Daily	This service outputs the list of import declarations about special order that payment declaration or payment of customs duty, etc. has not been carried out yet.	○	○	○	○	○								

309	-	List of the non-completed warehousing applications	Daily	This service outputs the list of warehousing applications that cargos has not been carried into warehouse yet in permitted applications.	○	○	○	○	○								
310	-	List of the non-completed transit declarations	Daily	This service outputs the list of transit declarations that arrival to border has not been confirmed yet in permitted declarations.	○			○	○								
311	-	List of the selectivity criteria for customs clearance	Daily	This service outputs the list of the selectivity criteria for customs clearance.	○	○	○	○	○								
312	-	Tax collection report	Daily	This service sums up The amount of tax collection and Collected account which elapsed defined period from investigation date by each investigation date and acceptance item.	○	○	○	○	○								
313	-	Summery tax collection report	Monthly Anytime	This service sums up The amount of tax, etc. regarding import declaration by each customs office, acceptance item, and investigation date.	○	○	○	○	○								
314	-	Fiscal year Transfer report	yearly	This service outputs the record list of import declaration information on an arrears state at the end of the fiscal year.	○	○	○	○	○								
315	-	Paymentarrangement table	DailyMonthly	This service outputs the record list of the amount of tax, etc. regarding import declaration.	○	○	○	○	○								
316	-	Payment List	Daily Monthly	This service outputs the record list of tax collection and reducing amount or deficit by uncollectible account regarding import declaration, etc.	○	○	○	○	○								
317	-	List of import declarations that release orders have not been issued	Monthly	This service outputs the record list of information that a permission is not granted inside of the import declaration etc. into which the end of examination was made.	○	○	○	○	○								
318	-	List of export declarations that allowed shipments have not been issued	Monthly	This service outputs the record list of information that a permission is not granted inside of the import declaration etc. into which the end of examination was made.	○	○	○	○	○								
319	-	List of transit declarations that have not been permitted	Monthly	This service outputs the record list of information that a permission is not granted inside of the import declaration etc. into which the end of examination was made.	○	○	○	○	○								
320	-	List of unpaid deferred payment	Weekly	This service outputs the list of unpaid deferred payment which is expiration of a term.	○	○	○	○	○								
321	-	Revenue deposit(RD)/Post valuation revenue deposit (PVRD)object report unsettled list (For customhouses)	Daily	In the case of the report which paid RD and obtained import permit, This service outputs the list of information to which the certain fixed period passed while not having arrived required documents. In the case of the report which paid PVRD and obtained import permit, This service outputs the list of information to which the certain fixed period passed while report change was not made by it.	○	○	○	○	○								
322	-	Revenue deposit(RD)/Post valuation revenue deposit(PVRD) object report unsettled list (For Private sector)	Daily	In the case of the report which paid RD and obtained import permit, This service outputs the list of information to which the certain fixed period passed while not having arrived required documents. In the case of the report which paid PVRD and obtained import permit, This service outputs the list of information to which the certain fixed period passed while report change was not made by it.	○	○	○	○				○	○				

323	-	Security record list	Any time	This service outputs the list of a total amount of security, a balance of security, a debit date for each import declaration, and an amount of debit in units of registered customs office, security registry number.	○	○	○	○	○								
324	-	List of valid security	Monthly	This service outputs as of the every first day the valid security information and invalid security information which elapsed the debit period by each security type to each customs office.	○	○	○	○	○								
325	-	PaymentBusinessProcessingWritten confirmation	Daily	This service outputs the track record carried out during the previous day (SIK)	○	○	○	○	○								
326	-	Deposit usage detail data	Daily	This service outputs the information on debit record debited the day before and balance, etc. by each deposit holder, and deposit number to deposit users.	○	○	○	○			○	○	○				
327	-	List of the port clearance report (number of cases) (daily)	Daily	The number of port clearance services related to the arrival notification, etc. conducted in the previous day is outputted.	○	○	○	○	○								
328	-	List of the port clearance report (number of cases) (Monthly)	Monthly	The number of port clearance services related to the arrival notification, etc. conducted in the previous month is outputted.	○	○	○	○	○								
329	-	List of the bond procedure report (number of cases) (daily)	Daily	The number of bond procedure services related to the bonded transportation, etc. conducted in the previous day is outputted.	○	○	○	○	○								
330	-	List of the bond procedure report (number of cases) (Monthly)	Monthly	The number of bond procedure services related to the bonded transportation, etc. conducted in the previous month is outputted.	○	○	○	○	○								
331	-	Non-arrival bonded transportation data	Monthly	Within bonded transportation cargo, this service outputs the information which is not done arrival check procedure after a fixed period.	○	○	○	○	○								
332	-	Long-term stay data	Monthly	Within registered cargo, this service outputs the information which is staying at MACCS system after a fixed period.	○	○			○								
333	-	Long-term warehoused cargo data (for customs)	Monthly	Within carried-in cargo, this service outputs the information, which is not done carried-out check procedure after a fixed period, for customs.	○	○			○								
334	-	List of loading uncompleted cargo data	Monthly	Within allowed shipment cargo, this service outputs the information which is not done loading check procedure after a fixed period.	○	○			○								
335	-	Long-term warehoused cargo data (for private company)	Monthly	Within carried-in cargo, this service outputs the information, which is not done carried-out check procedure after a fixed period, for private company.	○	○			–							○	○
336	-	Carry-in/Carry-out record about import cargo	Daily	This service outputs the list of carry-in/carry-out record about import cargo.	○	○			–							○	○
337	-	Carry-in/Carry-out record about export cargo	Daily	This service outputs the list of carry-in/carry-out record about export cargo.	○	○			–							○	○
[Others Batch]																		
338	-	Master table maintenance function	Daily	This service provides a function to register, alter and delete the master table data based on data registered beforehand.	○	○	○	○	○								
339	-	Import declaration information for MCIS system	Daily	This service outputs import declaration information for MCIS system.	○	○	○	○	○								
340	-	Export declaration information for MCIS system	Daily	This service outputs export declaration information for MCIS system.	○	○	○	○	○								

341	-	Import declaration (for express cargos) information for MCIS system	Daily	This service outputs import declaration (for express cargos) information for MCIS system.	○	○	○	○	○									
342	-	Export declaration (for express cargos) information for MCIS system	Daily	This service outputs export declaration (for express cargos) information for MCIS system.	○	○	○	○	○									
343	-	Transit declaration information for MCIS system	Daily	This service outputs transit declaration information for MCIS system.	○	○	○	○	○									
344	-	Amended declaration information for MCIS system	Daily	This service outputs amended declaration information for MCIS system.	○	○	○	○	○									
[Others]																		
345	-	User registration website	Registration	This website is available for private users to apply MACCS user registration.	○	○	○	○	-	-	○	○	○	○	○	○	○	○

Table2-4 List of MCIS Online Services

No.	Category	Number of Services
1	Customs Clearance	12
2	Examination for Customs Clearance	2
3	Import/Export Profile	3
4	Alert Information	3
5	EUC	1
6	Common	2

Table2-5 List of MCIS Batch Services

No.	Category	Number of Services
1	Customs Clearance	12
2	Examination for Customs Clearance	8
3	Import/Export Profile	3
4	EUC	1
5	Common	7

(3) Design of Online Processing Method

The online processing method shown in Chapter 3 of the B/D has various features including: (i) adoption of the open system platform; (ii) 24-hour operation; (iii) message length of about 100 Kbytes; (iv) file storage period; (v) original data management; (vi) transmission function of data on attached document file; (vii) handling XML and EDIFACT message; (viii) adoption of rich client method; (ix) a system consisting of front-end servers, service process servers and backend servers, and the arrangement of servers by function; (x) incorporation of a mechanism for distribution and reduction of system load; and (xi) use of English and ASCII code. As for system processing method, interactive processing methods (HTTPS) are adopted. The above-mentioned online processing methods, such as the use of the open platform, 24-hour operation per day, adoption of original data management, and adoption of rich client method are common to NACCS/CIS in Japan and thus are considered generally appropriate, since this is in line with the policy that MACCS/MCIS is to be developed on a basis of Japanese NACCS/CIS technology and functions. Accordingly, the online processing methods of MACCS/MCIS are basically to be as shown in Chapter 3 of the B/D.

<Summary of Chapter 3 of the B/D >

Table 2-6 shows the online processing method, and is the same as Table 3-1 in Chapter 3 of the B/D.

Table 2-6 System Processing Methods List

No	Processing Methods		Connection Destination		Used Network	Message Type	Used Protocol
			MACCS	MCIS			
1	Interactive Processing Methods	HTTPS (Private user /OGA USER Terminal connection)	○		Internet	MACCS-EDI format Attached file format	HTTPS, MIME
2	Delayed Processing Methods	HTTPS (Private user EDI connection)	○		Internet	XML format EDIFACT format	HTTPS, MIME
3	Interactive Processing Methods	HTTPS (Customs user terminal connection)	○		Customs network	MACCS-EDI format Attached file format	HTTPS, MIME
4				○		MCIS-EDI format	HTTPS

(4) Design of Batch Processing Method

The batch processing method shown in Chapter 4 of the B/D realizes various functions, including creation and distribution of the managerial document, and original data storage service. This batch processing method also realizes the implementation of batch maintenance during operation of the online services. Accordingly, the method is considered generally appropriate, since such functions as creation and distribution of the managerial document and original data storage service are fundamental ones for the batch processing method of NACCS in Japan and are indispensable for the full utilization of NACCS technology and functions in Myanmar. Therefore, the batch processing method of MACCS/MCIS is basically to be as shown in Chapter 4 of the B/D.

<Summary of Chapter 4 of the B/D >

Figure 2-2 shows the creation of the managerial document, and is the same as Figure 4-1 in Chapter 4 of the B/D.

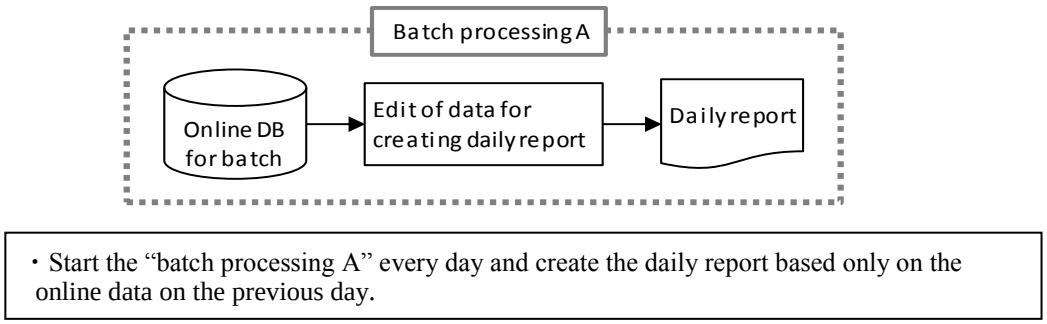


Figure 2-2 Example of Creation of the Information on the Managerial Document

Figure 2-3 shows the operational flow of the information on the managerial document extraction, and is the same as Figure 4-2 in Chapter 4 of the B/D.

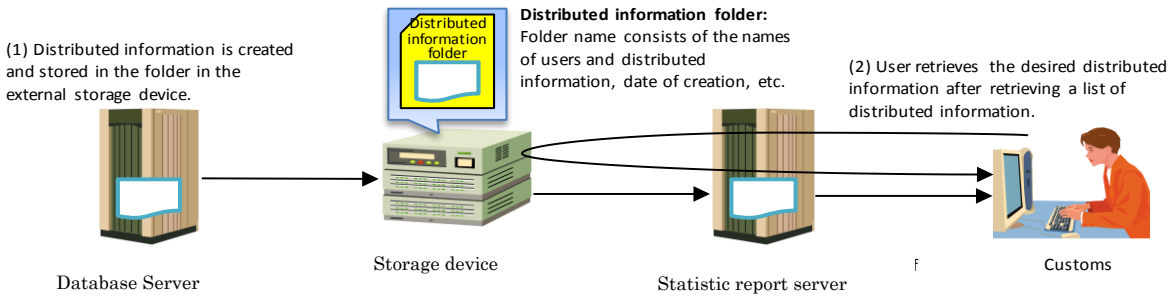


Figure 2-3 Operational Flow of the Information on the Managerial Document Extraction in MACCS

Table 2-7 shows the storage period of the information of the original data, and is the same as Table 4-1 in Chapter 4 of the B/D.

Table 2-7 Storage Period of the Information of the Original Data

No	Name of the information of the original data	Storage period
1	Import declaration information	7 years
2	Export declaration information	7 years
3	Information of declaration on transportation	7 years
4	Arrival/departure notification for harbor master information	7 years
5	Manifest information	7 years
6	Invoice information	7 years
7	Amendment declaration information	7 years
8	Transit declaration information	7 years

(5) External Interface

Chapter 5 of the B/D shows requirements for connection to external systems, including that of e-C/O sending/receiving, which is to be realized during the time period of the Project. The design shown in Chapter 5 of the B/D is considered generally appropriate for a design of MACCS/MCIS's external interface since requirements for online processing method design shown in Chapter 3 of the B/D are satisfied. Accordingly, the method of and requirements for connection between MACCS/MCIS and external systems are basically to be as shown in Chapter 5.

<Summary of Chapter 5 of the B/D >

The function for sending /receiving C/O electrically to/from the other country's system is provided. Preconditions for realizing e-C/O (electronic Certificate of Origin) are as follows.

- Connection protocol is ebMS
- Message format is ASEAN regulated format

In addition, in Chapter 5 of the B/D, SITA[3] connection, which is specified as one of the

[3] Nonprofit institution which has contributed to the safety and reliability of the punctuality of the air through the indispensable data transmission technology for the airplane's operation by establishing the deployment system and technical standard of the exclusive packet communication network 'TypeB' for the aviation data communication and also by connecting the airports in the

functions of External Interface Design, is to be excluded from the outline design of the Project as specified in the Appendix. The description in 5-1-2 of the B/D is outside the scope.

(6) Reliability Design

It is considered that reliability design shown in Chapter 6 of the B/D, which includes reliability requirements (target values of operation rate for MACCS (99.9%) and MCIS (99.4%)), method to ensure reliability (server architecture, storage configuration and network device configuration) and response against failure (server node failure, network failure and software failure), adopts measures for improvement of reliability equivalent to NACCS/CIS in Japan, including redundant configuration. Also, specific target values are set, such as operation rate of 99.9% for MACCS and 99.4% for MCIS. The design is generally considered to satisfy reliability standards required for MACCS/MCIS as mission critical system. Accordingly, for MACCS/MCIS, reliability requirements, the method to ensure the reliability and response against failure are basically to be as shown in Chapter 6 of the B/D.

<Summary of Chapter 6 of the B/D >

Table 2-8 shows the reliability requirements to be secured in the system, and is the same as Table 6-1 in Chapter 6 of the B/D.

Table 2-8 Reliability Requirements to Be Secured in the System

Item	Evaluation cycle	Target value	
Operating ratio (Note 1)	Annual	MACCS	99.9%
		MCIS	99.4%

(Note 1) Operating ratio

The calculation method of the operating ratio is the following. However, the operating ratio of MACCS/MCIS is defined as the operating ratio of the whole system instead of the operating ratio limited to the server of the service node. Moreover, the failures for the operating ratio of MACCS/MCIS do not contain the natural disasters, such as the power failure, network failure, company system, private system, system of other ministries, etc. Moreover, it also does not include the failures resulted from the operational mistakes in MACCS/MCIS.

Operating ratio = (Operating time [4] - Stopped time [5]) / Operating time

areas/countries/world and the control organizations and the airline companies.

[4]The operating time does not include the maintenance time and planed suspended time.
[5]This does not apply in the case of the large-scale disaster.

Table 2-9 shows the each server redundant configuration, and is the same as Table 6-2 in Chapter 6 of the B/D.

Table 2-9 Each Server Redundant Configuration

No.	Server name	configuration
1	VMware server	All active configuration
2	Dispatch server (MACCS)	All active configuration
3	AP server (MACCS)	All active configuration
4	Statistics report server (MACCS)	All active configuration
5	Private report server (MACCS)	All active configuration
6	Batch AP server (MACCS)	Duplex configuration
7	Dispatch server (MCIS)	All active configuration
8	AP server (MCIS)	All active configuration
9	Authorization server (MCIS)	All active configuration
10	Customs report server (MCIS)	All active configuration
11	Batch AP server (MCIS)	Duplex configuration
12	VM management server	Duplex configuration
13	Data translation server (MACCS)	All active configuration
14	Database server (MACCS)	Duplex configuration
15	Database server (MCIS)	Duplex configuration
16	Backup server (MACCS/MCIS)	Duplex configuration
17	Operation monitoring server (MACCS/MCIS)	Duplex configuration
19	Windows patch / Virus pattern collection device (MACCS)	—
20	Linux patch collection device (MACCS)	—

Figure 2-4 shows the redundancy of network path each server redundant configuration, and is the same as Figure 6-1 in Chapter 6 of the B/D.

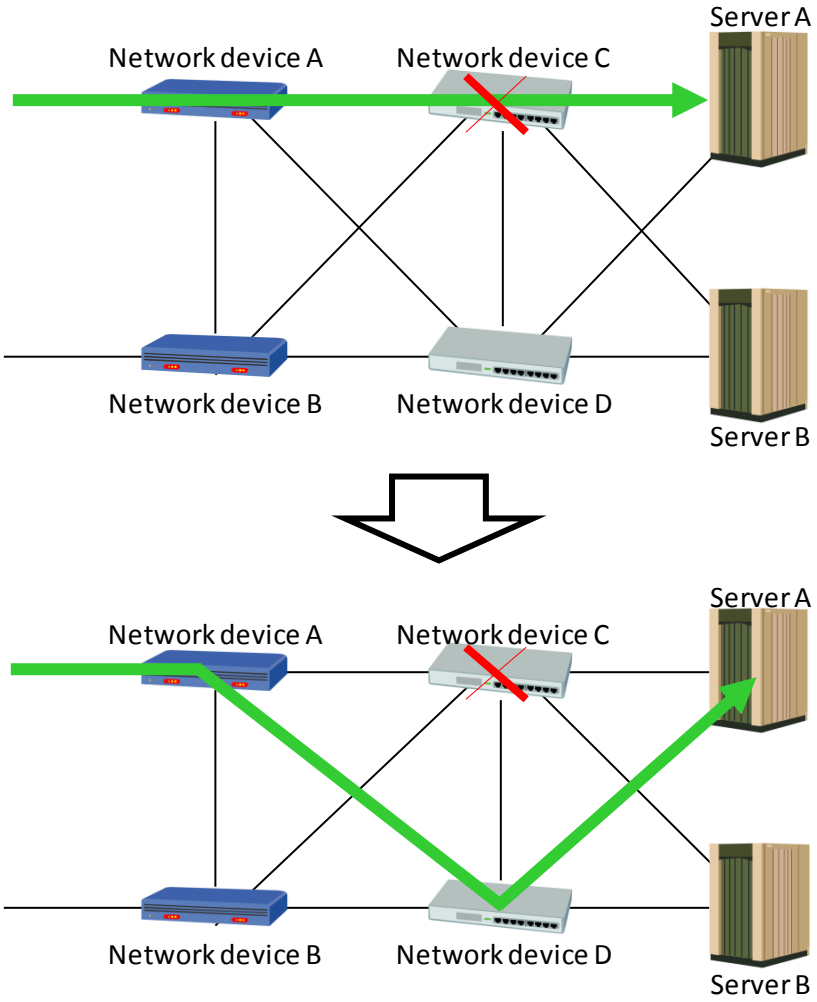


Figure 2-4 Redundancy of Network Path

(7) Performance Design

It is considered that performance requirements (1 second or less on average for throughput time of online services), performance specifications (anticipated volume of annual traffic, anticipated volumeof traffic at peak and logical size of data to be stored) and service model (envisaged service model per one transaction is to be the same as that of NACCS/CIS) shown in Chapter 7 of the B/D are generally appropriate for MACCS/MCIS since traffic at peak in Myanmar is taken into account and target values for throughput time of online services are set at the level equivalent to NACCS/CIS in Japan. Accordingly, the performance requirements, performance specifications and service model of MACCS/MCIS are basically to be as shown in Chapter 7 of the B/D.

<Summary of Chapter 7 of the B/D >

Table 2-10 shows the performance requirement to be secured, and is the same as Table 7-1 in Chapter 7 of the B/D.

Table 2-10 Performance Requirement to be Secured

No	Item	Goal
1	Traffic processing time （MACCS online）	Within one sec on average
2	Traffic processing time （MCIS online）	Within one sec on average

The traffic processing time implies the time from the reception of the message at the AP server to the end of the transaction after executing the service processing and sending the result.

Table 2-11 shows the assumed annual traffic, and is the same as Table 7-2 in Chapter 7 of the B/D.

Table 2-11 Assumed Annual Traffic

	MACCS	MCIS
2012	13,328,354	5,378,318
2016	26,727,872	10,785,353
2017	31,806,167	12,834,570
2018	37,849,339	15,273,138
2019	45,040,714	18,175,034
2020	53,598,449	21,628,291
2021	63,782,154	25,737,666

（Unit：case）

(Formula for calculation)
Traffic＝Declaration number * Implemented service number per declaration

Table 2-12 shows the assumed peak traffic, and is the same as Table 7-3 in Chapter 7 of the B/D.

Table2-12 Assumed Peak Traffic

	MACCS	MCIS
2016	5.9	2.4
2017	7.1	2.9
2018	8.4	3.4
2019	10.0	4.0
2020	11.9	4.8
2021	14.2	5.7

（Unit：case/second）

Table 2-13 shows the data capacity, and is the same as Table 7-4 in Chapter 7 of the B/D.

Table 2-13 Data Capacity

	Storage device					
	Online data（MACCS）	Attach file（MACCS）	Online data（MCIS）	Original mater（MACCS）	Original mater（Attach file）	Required capacity for each year
2016	8.4	29.4	155.1	130.7	716.5	2,350.3
2017	10.0	35.0	184.5	155.5	852.6	3,395.1
2018	11.9	41.7	219.6	185.1	1,014.6	4,638.4
2019	14.1	49.6	261.3	220.3	1,207.4	6,118.0
2020	16.8	59.0	310.9	262.1	1,436.8	7,878.7
2021	20.0	70.3	370.0	311.9	1,709.8	9,973.9

（Unit：GB）

(Formula for calculation)
Online data : Registrations per day× Record length ×Retention days
Attached file : Registrations per day×Average of attached file size×Retention days
Original master : Registrations per day×Record length×Retention days
※Refer to Chapter 4 for the storage period.

(8) Network Design

Chapter 8 of the B/D shows design policy of network within the data center ((i) realization of faster/simpler network, (ii) adoption of TCP/IP for communication protocol, (iii) adoption of redundant configuration in principle, (iv) ensuring of communication bandwidth of 1 Gbps for the path of the online communication, (v) ensuring security by UTM), main features

implemented in the network ((i) load balancing feature, (ii) virus checking feature, (iii) security monitoring feature, (iv) packet filtering feature, (v) Internet connecting feature, (vi) routing feature, (vii) redundancy feature, (viii) monitoring feature for server/network appliance in data center), and communication protocol design, etc. The network is considered to satisfy features necessary for establishing MACCS/MCIS based on NACCS/CIS technology since its main features to be implemented are almost the same as those of NACCS/CIS in Japan. Also, the ensured bandwidth for communications, which is 1 Gbps, is considered sufficient, taking into account the current level of network technology. Accordingly, the network design is considered to be generally appropriate since it satisfies the design level required for MACCS/MCIS developed on a basis of NACCS/CIS technology. Accordingly, the network design of MACCS/MCIS is basically to be as shown in Chapter 8 of the B/D.

<Summary of Chapter 8 of the B/D >

Table 2-14 shows the main features implemented for the data center network, and is the same as Table 8-1 in Chapter 8 of the B/D.

Table 2-14 Main Features Implemented for the Data Center Network

Item number	Feature overview	Description	Target equipment
1	Load balancing feature	To balance sessions from clients to front end server /AP server in "all active configuration" such as HTTP Interactive server, Interface server (MACCS).	Load balancer
2	Virus checking feature	To monitor the infection by virus on the message exchanged between private/customs users and the data center. Basically, attached files are targeted for virus checking.	Virus checking equipment
3	Security monitoring feature	Firewall shall be installed at the connection with the external network by TCP/IP and keep monitoring constantly based on a filtering rule.	Firewall
4	Packet filtering feature	Firewall shall be installed at the connection with the external network by TCP/IP and control the go/no-go on packet to pass based on the filtering rule.	Firewall (Router、L3SW)
5	Internet connecting feature	It has a feature to connect to the internet to get virus pattern files and server patches. The firewall controls that only the server and the equipment in the DMZ can be accessed directly to the internet. In addition, IDS is installed to detect unauthorized access at the segment that is connected to the internet. Download the security patch for each server from the Internet.	Firewall, UTM Patch/virus pattern collecting equipment
6	Routing feature	Properly deliver the communication packets to the server and the equipment at the destination address.	Router, Firewall, others
7	Redundancy feature	Ensure the connection path using alternate communication path in case of a single failure of equipment in the redundant portion.	―
8	Monitoring feature for server/network appliance in data center	When the communication to the specific server, node or segment is cut off, it displays an alert on the system operation monitoring screen.	System operation monitoring terminal

Table 2-15 shows the list of major communication protocol to be used, and is the same as Table 8-2 in Chapter 8 of the B/D.

Table 2-15 List of Major Communication Protocol to Be Used

No	Communication protocol name	Main usage and location
1	HTTP(S)	Interactive processing method (terminal connections)
		Delayed processing method (private user system)
		Downloading documents on statistical record
		Receiving virus pattern file
		Receiving patch file etc.
2	FTP	Transfer for system internal file
3	SNMP	Between nodes, between NW equipment – system operation monitoring server (MACCS)
4	ICMP	Between nodes, between NW equipment – system operation monitoring server (MCIS)
5	NTP	Time synchronization communication

(9) Security Design

Security design shown in Chapter 9 of the B/D intends to ensure, in principle, limitation of access to data, data backup, monitoring of access log, access control to system, training of users, management of service log, OS/P.P. security patch, server fortification, concealment of control information, and limitation of access to electronic documents. The design also ensures the same levels of measures against threat, information asset analysis and measures, and basic policy of security measures as NACCS/CIS in Japan. The security design is generally considered appropriate for MACCS/MCIS, which aims at ensuring efficiency and stability equivalent to NACCS/CIS. Accordingly, security design of MACCS/MCIS is basically to be as shown in Chapter 9 of the B/D.

<Summary of Chapter 9 of the B/D >

Table 2-16 shows the basic security policies, and is the same as Table 9-1 in Chapter 9 of the B/D.

Table 2-16 Basic Security Policies

Number	Measure proposal	Difficulty level of measure	Effectiveness that takes frequency of threat occurrence into consideration	Summary of policies
1	Access limitation to data	Middle	High	Access control to the data stored within the center by the ID password authentication etc.
2	Encryption of data preserved in terminal.	Middle	Middle	Encryption of transmitting data with encryption algorithm.
3	Data backup	Middle	Middle	Backing up the data stored within the data center, related documents etc.
4	Access log monitoring	Middle	High	Access log monitoring to the device in the data center
5	Access control to system	Middle	High	Access control to the device in the data center by ID password authentication etc.
6	User education	Middle	High	Security education for the customs/private users
7	Service log management	Middle	Middle	Store, monitor, and management of the service application log.
8	Patch applying	Middle	High	Applying patch and version up for the OS and P.P.
9	Packet monitoring	Middle	High	Store and monitor of the communication packet information at firewall.
10	Secure programing	High	High	Make things secured in the control and service application program development
11	Virus check	Middle	High	Virus check of the communication message (binary attached file)
12	Pattern file updates	Middle	High	Regular updating of the pattern file for virus check
13	Server fortification	Middle	High	Blocking of unnecessary service and communication port
14	Concealment of control information	Middle	High	Masking important information such as input password etc. on the display
15	Access limitation of electronic documents	Low	Middle	Limited access to the electronic document by ID password authentication

[Reference]

1	Encryption of transmitting data ※1	Middle	Middle	Encryption of the transmitting data with SSL, VPN, etc.
2	Management of entering and leaving a machine room ※2	Low	Middle	Management of entering/leaving the machine room and implementation of authentication system
3	Monitoring by camera ※2	Low	Middle	Continuous monitoring and video recording of the machine room and its margin with monitoring camera etc.

※1 Needed to be realized in the network. ※2 Needed to be realized in the housing (data center)

(10) Safety Design

Chapter 11 of the B/D shows safety design policy (ensuring of system security and implementation of data backup operation), data backup design (full backup and system volume backup), and main control functions of the backup server (data backup function, backup operation control function, and log output function), which are equivalent to those of NACCS/CIS in Japan. The design is considered generally appropriate for MACCS/MCIS since it is compatible with objectives of MACCS/MCIS to ensure the same levels of safety as NACCS/CIS in Japan. Accordingly, safety design of MACCS/MCIS is basically to be as shown in Chapter 11 of the B/D.

<Summary of Chapter 11 of the B/D >

The subjects for backup are as follows:

-Data backup

When a failure occurs, it may be necessary to restore the data or to rebuild the environment. For such cases, acquire the backup of the service data (master data, transaction data, etc.) and the service program, both of which are to be stored in the DB. Since it becomes possible to restore the data up to the time it is acquired from the backup data when the data lost in the failure (etc.) is needed, the reduction of the recovery work is expected. In addition, the service data shall be periodically acquired (about 1 time per day) and the service program shall be acquired irregularly;

-System backup

Acquire the system backup of each server. When it is necessary to return the environment, the reduction of the recovery work is expected by executing the restoration using the system backup. The system backup shall be acquired irregularly.

(11) Terminal Design

Terminal design shown in Chapter 12 of the B/D adopts a rich client system for terminal software so as not to put a heavy burden on the network and also in consideration of ease of access. NACCS/CIS in Japan also adopts a rich client system for terminal software, and the design is considered generally appropriate for MACCS/MCIS, since it is compatible with the policy to establish a system based on NACCS/CIS technology. Accordingly, terminal design of MACCS/MCIS is basically to be as shown in Chapter 12 of the B/D.

(12) Hardware

Software for MACCS/MCIS is developed on the basis of NACCS/CIS software in Japan.

Accordingly, in principle, hardware for MACCS/MCIS is to be at least equivalent to those products used in NACCS/CIS; i.e., those proved of normal operation of NACCS/CIS software, in order to ensure quality of the system including performance, security and safety. Items to be procured for MACCS/MCIS are specified in Table 2-17.

Table 2-17 List of Hardware

Machine No	Name	Structure and Specification	
1-1	Virtual Server		
		Construction	
		1.Server	: 8 pcs.
		2.DVD-RW device	: 8 pcs.
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: TWO-WAY system or above
		CPU	: Intel Xeon E5-2609v2 4C/8T 2.5GHz 10MB * 2 UNIT or above
		DDR Memory	: 64GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×2 cards or above (Dual port)
		FC Interface	: 2 cards or above (Dual port)
		FC cable	: 2 cables or above (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 2 cables (3m or above)
		Remote monitoring board	: 1 card or above
		Rack Mount Kit	: 1 set or above
		2.DVD-RW device	: 1 device or above
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: Red Hat Enterprise Linux Server Premium (Maximum number of guest OS:infinity)

		6.Middleware	: Sophos Anti-Virus Server License
			: VMware vSphere5　Enterprise
1-2	MNAC DB Sever		
		Construction	
		1.Server	: 2 pcs.
		2.DVD-RW device	: 2 pcs.
		3.DAT device	: 2 pcs.
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: FOUR-WAY system or above
		CPU	: Intel Xeon E7-4830 8C/16T 2.13GHz 24MB * 2 UNIT or above
		DDR Memory	: 64GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×2 card or above (Dual port)
		FC Interface	: 2 card or above (Dual port)
		FC cable	: 2 cables (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 2 cables (3m or above)
		Remote monitoring board	: 1 card or above
		Rack Mount Kit	: 1 set or above
		2.DVD-RW device	: 1 device or above
		3.DAT device	: 1 device or above
		4.LTO Library device	: Not required
		5.Operating System	: Red Hat Enterprise Linux Server Standard (Maximum number of guest OS:1 user)
		6.Middleware	: Cluster Software

1-3	MCIS DB Sever		
		Construction	
		1.Server	: 2 pcs.
		2.DVD-RW device	: 2 pcs.
		3.DAT device	: 2 pcs.
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: FOUR-WAY system or above
		CPU	: Intel Xeon E7-4830 8C/16T 2.13GHz 24MB * 2 UNIT or above
		DDR Memory	: 64GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×2 card or above (Dual port)
		FC Interface	: 2 cards or above (Dual port)
		FC cable	: 2 cables (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 2 cables (3m or above)
		Remote monitoring board	: 1 card or above
		Rack Mount Kit	: 1 set or above
		2.DVD-RW device	: 1 device or above
		3.DAT device	: 1 device or above
		4.LTO Library device	: Not required
		5.Operating System	: Red Hat Enterprise Linux Server Standard (Maximum number of guest OS:1 user)

		6.Middleware	: Cluster Software
			: MULTIPATH Driver
1-4	Operation Monitoring/Batch AP Server		
		Construction	
		1.Server	: 2 pcs.
		2.DVD-RW device	: 2 pcs.
		3.DAT device	: 2 pcs.
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: TWO-WAY system or above
		CPU	: Intel Xeon E5-2609v2 4C/8T 2.5GHz 10MB * 2 UNIT or above
		DDR Memory	: 64GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×2 cards or above (Dual port)
		FC Interface	: 2 cards or above (Dual port)
		FC cable	: 2 cables (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 2 cables (3m or above)
		Remote monitoring board	: 1 set or above
		Rack Mount Kit	: 1 set or above
		2.DVD-RW device	: 1 device or above

		3.DAT device	: 1 device or above
		4.LTO Library device	: Not required
		5.Operating System	: Red Hat Enterprise Linux Server Standard (Maximum number of guest OS:1 user)
		6.Middleware	: Not required
1-5	Linux Patch Collector		
		Construction	
		1.Server	: 1 pc.
		2.DVD-RW device	: 1 pc.
		3.DAT device	: 1 pc.
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 clinet per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: ONE-WAY system or above
		CPU	: Intel Pentium G2120 2C/2T 3.10Ghz 3MB * 1 UNIT or above
		DDR Memory	: 2GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×1 card or above
		FC Interface	: Not required
		FC cable	: Not required
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 1 unit (300W or above)
		Power cable	: 1 cable (3m or above)
		Remote monitoring board	: 1 set or above
		Rack Mount Kit	: 1 set or above

		2.DVD-RW device	: 1 device or above
		3.DAT device	: 1 device or above
		4.LTO Library device	: Not required
		5.Operating System	: Red Hat Enterprise Linux Server Standard (Maximum number of guest OS:1 user)
		6.Middleware	: Not required
1-6	Windows Patch and Virus Pattern Collector		
		Construction	
		1.Server	: 1 pc.
		2.DVD-RW device	: 1 pc.
		3.DAT device	: 1 pc.
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 clinet per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: ONE-WAY system or above
		CPU	: Intel Pentium G2120 2C/2T 3.10Ghz 3MB * 1 UNIT or above
		DDR Memory	: 2GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×1 card
		FC Interface	: Not required
		FC cable	: Not required
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 1 unit (300W or above)
		Power cable	: 1 cable (3m or above)
		Remote monitoring board	: 1 set or above

		Rack Mount Kit	: 1 set or above
		FLASH FDD	: 1 set or above
		2.DVD-RW device	: 1 set or above
		3.DAT device	: 1 set or above
		4.LTO Library device	: Not required
		5.Operating System	: Microsoft Windows Server 2008 R2 Standard (1-4 CPU, w/5 CAL) Windows Svr Std 2008 R2 w/SP1 x64 English 1pk DSP OEI DVD 1-4CPU 5 Clt - OEM
		6.Middleware	: MS Windows Server 2012 UserCAL OPEN-BNS
			: CA ARCserve Backup r16 for Windows
1-7	Disk array & NAS		
		Construction	
		1.Storage system	: 1 pc.
		2.DVD-RW device	: Not required
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: Not required
		6.Middleware	: Not required
		Main Specification(Per 1 Rack)	
		1.Storage system	: 1 pc or above
		CPU	: Not specified
		DDR Memory	: Not specified
		Embedded Disk	
		Diskarray 1(HDD or SSD)	: 100GB MLC SAS*4 drives or above
		Diskarray 2(HDD or SSD)	: 300GB SAS*32 drives or above
		Diskarray 3(HDD or SSD)	: 1000GB SAS*8 drives or above
		Diskarray 4(HDD or SSD)	: 300GB SAS*9 drives or above
		Diskarray 5(HDD or SSD)	: 300GB SAS*18 drives or above
		Diskarray 6(HDD or SSD)	: 300GB SAS*5 drives or above
		Diskarray 7(HDD or SSD)	: 1000GB SAS*6 drives or above

		Diskarray 8(HDD or SSD)	: 1000GB SAS*3	drives or above
		Diskarray 9(HDD or SSD)	: 600GB SAS*9	drives or above
		Drive enclosure (2.5inch)	: 3 sets or above	
		Power distribution unit	: 1 set or above (AC 200V)	
		InterfCard FC 2Port 8G	: 1 card or above	
		Network Interface card	: Not specified	
		FC Interface	: Not specified	
		FC cable	: 4 cables (30m or above)	
		RAID controller	: Not specified	
		Power unit	: Not specified	
		Power cable	: Not specified	
		Remote monitoring board	: Not specified	
		Rack Mount Kit	: Not required	
		2.DVD-RW device	: Not specified	
		3.DAT device	: Not required	
		4.LTO Library device	: Not required	
		5.OS	: Not required	
		6.Middleware	: Not required	
1-8	LTO/FCSW			
		Construction		
		1.Tape Library	: 1 pc.	
		2.DVD-RW device	: Not required	
		3.DAT device	: Not required	
		4.LTO Library device	: Not required	
		5.Operating System	: Not required	
		6.Middleware	: Not required	

		Main Specification(Per 1 Rack)	
		1.Tape Library	: 1 pc or above
		CPU	: Not required
		DDR Memory	: Not required
		Embedded HDD	: Not required
		Additional drive for Tape Library	: 2 devices or above
		Barcode Label ULB(Laminate)	: 40 sets or above
		FC cable	: 2 cables (30m or above)
		FC switch	: 4 cards (12 ports)
		SFP MULTI MODE FIBRE(Cable+Module)	: 4 sets or above
		FC cable	: 1 cable (2m or above)
		2.DVD-RW device	: Not required
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: Not required
		6.Middleware	: Not required
			: Not required
1-9	Server Rack		
		Construction	
		1.19 inch Rack(Main)	: 4 sets (42U Rack or above)
		2.Additional Parts	
		Blank Panel	: 15 sets (for 1U)
		Blank Panel	: 20 sets (for 2U)
		Power point sockets box	: 6 boxes (AC 100V)
		KVM cable	: 6 cables (3m or above)
		KVM cable	: 2 cables (5m or above)
		Console switch	: 2 sets (8 port or above)
		Rack console device(RC25)	: 2 devices (17 inch or above)
		Rack console device storage kit	: 2 sets

		Rack Tray table	: 2 tables
1-10	System Monitoring Terminal		
		Construction	
		1.Terminal	: 8 pcs.
		2.DVD-RW device	: 8 pcs.
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main Specification(Per 1 Terminal)	
		1.Terminal	: 1 pc. (Type of Notebook Computer)
		CPU	: Intel Core i5-3320M 2C/4T 2.6Ghz 3M * 1 UNIT or above
		DDR Memory	: 4GB or above
		Embedded HDD	: Not specified
		Network Interface card	: 1000BASE-T×1 card or above
		FC Interface	: Not required
		FC cable	: Not required
		RAID controller	: Not required
		Power unit	: Not specified
		Power cable	: Not specified
		Remote monitoring board	: Not required
		Rack mount Kit	: Not required
		Battery	: 1 pc. (standard Type)
		External monitor	: 1 pc. (19 inch monitor or above) (Total 4 pcs.)
		Printer	: 1 pc. (HP LaserJet 5200 Printer or above) (Total 2 pcs.)
		External HDD device	: 1 pc. (Mybook Desktop USB 3.0 and USB 2.0 or above) (Total 4 pcs.)
		LAN cable	: Not specified
		2.DVD-RW device	: 1 device

		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: Windows 7 Professional 64-bit
		6.Middleware	: TrendMicro - Enterprise Security Suite
			: InterScan Messaging Security Suite Advanced (Windows, Linux, Solaris)
			: InterScan Messaging Security Virtual Appliance Advanced
			: InterScan Web Security Virtual Appliance Advanced
			: ScanMail Suite for Microsoft Exchange (Windows)
			: ScanMail Suite for Lotus Domino (Windows/Linux Only)
			: OfficeScan (Windows)
			: ServerProtect for Windows/Novell NetWare (Windows/Novell NetWare)
			: ServerProtect for Linux (Linux)
			: Intrusion Defense Firewall
			: Mac Security
			: Mobile Security (Standard)
			: Control Manager Advanced (Windows)
			: License for 1 Year
			: SYMC GHOST SOLUTION SUITE 2.5 WIN DEVICE STD LIC EXPRESS BAND A
			: SYMC GHOST SOLUTION SUITE 2.5 WIN DEVICE ESSENTIAL 12 MONTHS EXPRESS BAND A
1-11	Backup server		
		Construction	
		1.Server	: 2 pcs.
		2.DVD-RW device	: 2 pcs.
		3.DAT device	: 2 pcs.
		4.LTO Library device	: Not required
		5.Operating System	: 1 clinet per CPU
		6.Middleware	: 1 clinet per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: TWO-WAY system or above

		CPU	: Intel Xeon E5-2609v2 4C/8T 2.5GHz 10MB * 1 UNIT or above
		DDR Memory	: 16GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×2 cards or above (Dual port)
		FC Interface	: 2 cards or above (Dual port)
		FC cable	: 4 cables (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 4 cables (3m or above)
		Remote monitoring board	: 1 card or above
		Rack mount Kit	: 1 set or above
		2.DVD-RW device	: 1 device or above
		3.DAT device	: 1 device or above
		4.LTO Library device	: Not required
		5.Operating System	: Red Hat Enterprise Linux Server 〔1WAY/2WAY/Extended Support/1Guest：24h365d Support〕 License
		6.Middleware	: NetBackup Enterprise Server v7.5 for Linux Tier 2
			: NetBackup Enterprise Client v7.5 for Windows/Linux Tier 2
			: NetBackup Library Based Tape Drive v7.5
			: NetBackup v7.5 DVD Media Kit (Eng)
			: NetBackup v7.5 for UNIX and Linux Documentation Kit (Eng)
			: NetBackup Standard Client v7.5

1-12	Hub Server (Build in Customs branch)		
		Construction	
		1.Server	: 7 pcs.
		2.DVD-ROM device	: 7 pcs.
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: ONE-WAY system or above
		CPU	: Intel Celeron G1610 2C/2T 2.60GHz 2MB *1CPU or above
		DDR Memory	: 4GB or above
		Embedded HDD	: 250GB or above
		Network Interface card	: Not required
		FC Interface	: Not specified
		FC cable	: Not required
		RAID controller	: Not required
		Power unit	: 1 unit (250W or above)
		Power cable	: 1 cable (2m or above)
		Remote monitoring board	: Not required
		Rack mount Kit	: Not required
		Keyboad	: 1 device
		Mouse	: 1 device
		External monitor	: 1 pc. (19inch or above)
		UPS device	: 1 pc. (Smart-UPS SMT 750J or above)
		2.DVD-ROM device	: 1 device
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: Windows server

		6.Middleware	: Not required
1-13	Network		
		Construction	
		1.Router and Switch devices	: 26 pcs.
		2.Power device for Router and Switch devices	: 10 pcs.
		3.Load balancer	: 4 pcs.
		4.Appliance device	: 6 pcs.
		Main Specification	
		1.Router and Switch devices	: 2 devices (device Cisco Catalyst 3560X 24 Port or above)
			: 2 devices (Cisco Catalyst 3560X 48 Port or above)
			: 2 devices (Cisco Catalyst 3560X 24 Port or above)
			: 2 devices (Cisco Catalyst 3560X 48 Port or above)
			: 1 device (Cisco Catalyst 3560X 24 Port or above)
			: 1 device (Cisco Catalyst 3560X 24 Port or above)
			: 2 devices (Cisco Catalyst 2960S 24 Port or above)
			: 2 devices (Cisco Catalyst 2960S 24 Port or above)
			: 1 device (Cisco Catalyst 2960S 24 Port or above)
			: 1 device (Cisco Catalyst 2960S 24 Port or above)
			: 4 devices (Cisco Catalyst 2960 - 8ports, 10/100/1000MBps or above)
			: 2 devices (Cisco Catalyst 2960S 24 Port or above)
			: 2 devices (Cisco Catalyst 2960S 24 Port or above)
			: 1 device (Cisco Catalyst 2960S 24 Port or above)
			: 1 device (Cisco Catalyst 2960S 24 Port or above)
		2.Power device for Router and Switch devices	: 2 devices (Catalyst 3K-X 350W AC Power Supply or above)
			: 2 devices (Catalyst 3K-X 350W AC Power Supply or above)
			: 2 devices (Catalyst 3K-X 350W AC Power Supply or above)
			: 2 devices (Catalyst 3K-X 350W AC Power Supply or above)
			: 1 device (Catalyst 3K-X 350W AC Power Supply or above)
			: 1 device (Catalyst 3K-X 350W AC Power Supply or above)

		3.Load balancer	: 2 devices (F5 BIG-IP Switch: Local Traffic Manager 3600 or above)
			: 2 devices (F5 BIG-IP Switch: Local Traffic Manager 1600 or above)
		4.Appliance device	: 1 device (Check Point 4800 Appliances or above)
			: 1 device (Check Point 4600 Appliances or above)
			: 1 device (Check Point Smart-1 Appliances or above)
			: 1 device (Juniper SSG5 or above)
			: 2 devices (IBM WebSphere DataPower B2B Appliance XB62 or above)
1-14	Virtual Server(development environment)		
		Construction	
		1.Server	: 3 pcs.
		2.DVD-RW device	: 3 pcs.
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: 1 clinet per CPU
		6.Middleware	: 1 clinet per CPU
		Main Specification(Per 1 Rack)	
		1.Server	: TWO-WAY system or above
		CPU	: Intel Xeon E5-2620v2 6C/12T 2.10GHz 15MB * 1 UNIT or above
		DDR Memory	: 32GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×1 card or above (Dual port)
		FC Interface	: 1 card (Dual port)
		FC cable	: 4 cables (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 2 cables (3m or above)
		Remote monitoring board	: 1 card or above
		Rack mount kit	: 1 set or above

		2.DVD-RW device	: 1 device or above
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating system	: Red Hat Enterprise Linux Server Premium (Maximum number of guest OS:infinity)
		6.Middleware	: VMware vSphere5　Enterprise
1-15	Physical Server(development environment)		
		Construction	
		1.Server	: 2 pcs.
		2.DVD-RW device	: 2 pcs.
		3.DAT device	: 2 pcs.
		4.LTO Library device	: Not required
		5.Operating system	: 1 client per CPU
		6.Middleware	: 1 client per CPU
		Main specification (Per 1 Rack)	
		1.Server	: TWO-WAY system or above
		CPU	: Intel Xeon E5-2603v2 4C/8T 1.80GHz 10MB * 1 UNIT or above
		DDR Memory	: 32GB or above
		Embedded HDD	: 300GB or above（Total execution capacity by disk mirroring）
		Network Interface card	: 1000BASE-T×1 card (Dual port or above)
		FC Interface	: 1 card (Dual port or above)
		FC cable	: 4 cables (15m or above)
		RAID controller	: 1 card or above (PCIe X4)
		Power unit	: 2 units (450W or above per unit)
		Power cable	: 2 cables (3m or above)
		Remote monitoring board	: 1 card or above
		Rack mount kit	: 1 set or above
		2.DVD-RW device	: 1 device or above
		3.DAT device	: 1 device or above

		4.LTO Library device	: Not required
		5.Operating system	: Red Hat Enterprise Linux Server Standard (Maximum number of guest OS:1 user)
		6.Middleware	: Cluster Software
			: MULTIPATH Driver
1-16	Disk array(development environment)		
		Construction	
		1.Storage system	: 1 pc.
		2.DVD-RW device	: Not required
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating system	: Not required
		6.Middleware	: Not required
		Main specification (Per 1 Rack)	
		1.Storage system	: 1 pc or above
		CPU	: Not specified
		DDR Memory	: Not specified
		Embedded HDD	
		Diskarray1(HDD)	: 1000GB SAS*18 drives or above
		Diskarray2(HDD)	: 1000GB SAS*18 drives or above
		Drive enclosure (2.5inch)	: 2 sets or above
		Power distribution unit	: 1 set or above (AC 200V)
		InterfCard FC 2Port 8G	: 1 card or above
		Network Interface card	: Not specified
		FC Interface	: Not specified
		FC cable	: 4 cables (30m or above)
		RAID controller	: Not specified
		Power unit	: Not specified
		Power cable	: Not specified
		Remote monitoring board	: Not specified
		Rack mount kit	: Not required

		2.DVD-RW device	: Not specified
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating system	: Not required
		6.Middleware	: Not required
1-17	LTO/FCSW(development environment)		
		Construction	
		1.Tape Library	: 1 pc.
		2.DVD-RW device	: Not required
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating system	: Not required
		6.Middleware	: Not required
		Main specification (Per 1 Rack)	
		1.Tape Library	: 1 pc.
		CPU	: Not required
		DDR Memory	: Not required
		Embedded HDD	: Not required
		FC cable	: 1 cable (2m or above)
		Additional drive for Tape Library	: Not required
		Barcode Label ULB(Laminate)	: Not required
		FC cable	: Not required
		FC switch	: 1 pc(12 ports or above)
		SFP MULTI MODE FIBRE(Cable+Module)	: 2 sets above
		FC cable	: 1 cable (2m or above)
		2.DVD-RW device	: Not required
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating system	: Not required
		6.Middleware	: Not required
			: Not required
1-18	Server Rack(development		
		Construction	

	environment)	1.19 inch Rack(Main)	: 2 sets (42U Rack or above)
		2.Additional Parts	
		Blank Panel	: 10 sets (for 1U)
		Blank Panel	: 10 sets (for 1U)
		Power point sockets box	: 3 boxes (AC 100V)
		KVM cable	: 1 cable (3m or above)
		KVM cable	: 1 cable (5m or above)
		Console switch	: 1 set (8 ports or above)
		Rack console device(RC25)	: 1 device (17 inch or above)
		Rack console device storage kit	: 1 set
		Rack tray table	: 1 table
1-19	System Monitoring Terminal(development environment)		
		Construction	
		1.Terminal	: 4 pcs.
		2.DVD-RW device	: 4 pcs.
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating System	: 1 client per CPU
		6.Middleware	: 1 clinet per CPU
		Main Specification(Per 1 Terminal)	
		1.Terminal	: 1 pc (Type of Notebook Computer)
		CPU	: Intel Core i5-3320M 2C/4T 2.6Ghz 3M * 1 UNIT or above
		DDR Memory	: 4GB or above
		Embedded HDD	: Not specified
		Network Interface card	: 1000BASE-T×1 card or above
		FC Interface	: Not required
		FC cable	: Not required
		RAID controller	: Not required
		Power unit	: Not specified

		Power cable	: Not specified
		Remote monitoring board	: Not required
		Rack Mount kit	: Not required
		Battery	: 1 pc. (standard Type)
		External monitor	: 1 pc. (19 inch monitor) (Total 4 pcs.)
		Printer	: 1 pc. (HP LaserJet 5200 Printer or above) (Total 1 pc.)
		External HDD device	: 1 pc. (Mybook Desktop USB 3.0 and USB 2.0) (Total 4 pcs.)
		LAN cable	: Not specified
		2.DVD-RW device	: 1 device
		3.DAT device	: Not required
		4.LTO Library device	: Not required
		5.Operating system	: Windows 7 Professional 64-bit
		6.Middleware	: TrendMicro - Enterprise Security Suite
			: InterScan Messaging Security Suite Advanced (Windows, Linux, Solaris)
			: InterScan Messaging Security Virtual Appliance Advanced
			: InterScan Web Security Virtual Appliance Advanced
			: ScanMail Suite for Microsoft Exchange (Windows)
			: ScanMail Suite for Lotus Domino (Windows/Linux Only)
			: OfficeScan (Windows)
			: ServerProtect for Windows/Novell NetWare (Windows/Novell NetWare)
			: ServerProtect for Linux (Linux)
			: Intrusion Defense Firewall
			: Mac Security
			: Mobile Security (Standard)
			: Control Manager Advanced (Windows)
			: SYMC GHOST SOLUTION SUITE 2.5 WIN DEVICE STD LIC EXPRESS BAND A
			: SYMC GHOST SOLUTION SUITE 2.5 WIN DEVICE ESSENTIAL 12 MONTHS EXPRESS BAND A
1-20	Network(development environment)		
		Construction	
		1.Router and Switch devices	: 5 pcs.

		2.Power device for Router and Switch devices	: 3 pcs.
		3.Load balancer	: 1 pc.
		4.Appliance device	: 3 pcs.
		Main Specification	
		1.Router and Switch devices	: 2 devices (Cisco Catalyst 3560X 24 Port or above)
			: 3 devices (Cisco Catalyst 2960S 24 Port or above)
		2.Power device for Router and Switch devices	: 2 devices (Catalyst 3K-X 350W AC Power Supply or above)
		3.Load balancer	: 1 device (F5 BIG-IP Switch: Local Traffic Manager 1600 or above)
		4.Appliance device	: 1 device (Check Point 2207 Appliance or above)
			: 1 device (Juniper SSG5 or above)
			: 1 device (IBM WebSphere DataPower B2B Appliance XB62 or above)

2-2-3 Outline Design Drawing

(1) System Layout

System layout of the new system to be introduced in Myanmar is as shown in Figure 2-5, and is the same as Figure 3-3 in Chapter 3 of the B/D.

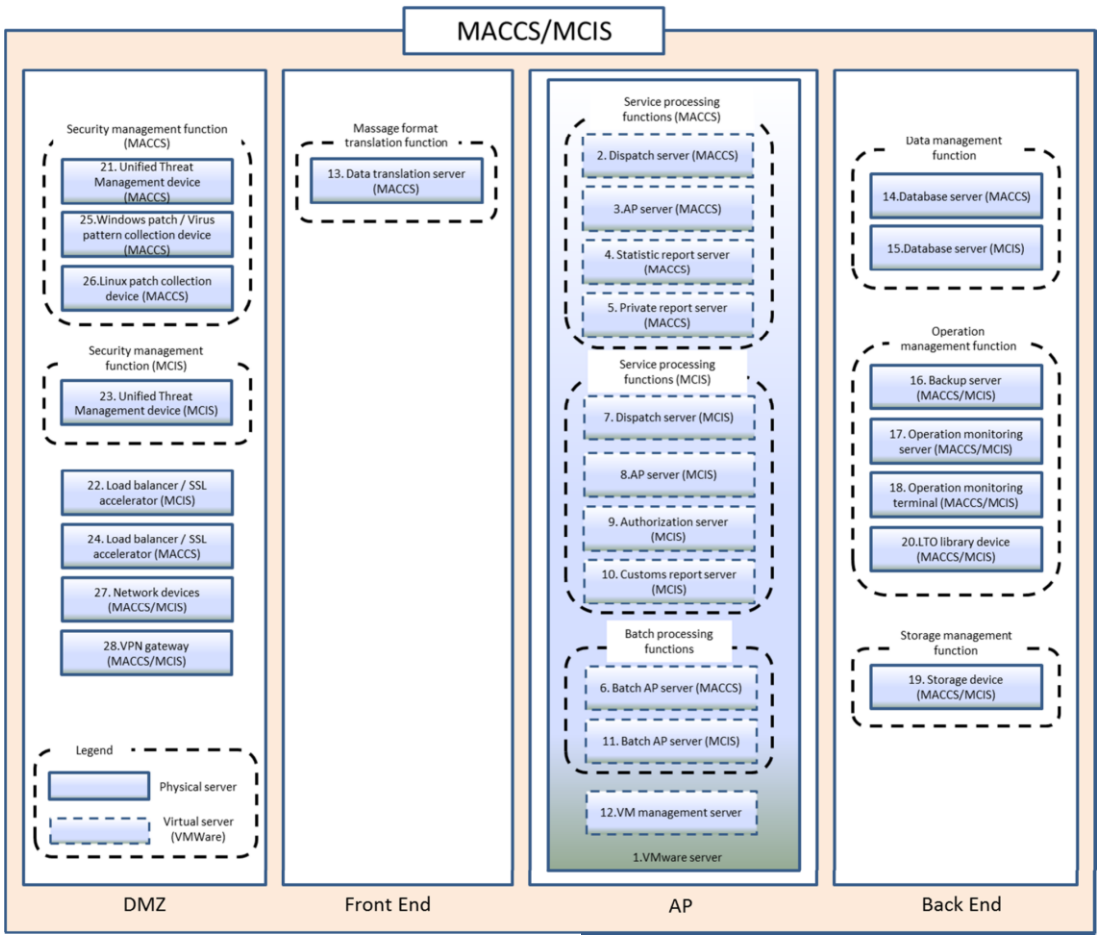


Figure 2-5 System Layout

Note: The layout shown above is the logical layout, which is not the same as actual physical layout. The networks and external destinations relating to the external connections shown in the above figure are outside the scope of design of the new IT system to be done by the Japan side.

(2) Network Layout Design

The overview of layout of the network within the data center of MACCS/MCIS is as shown in Figure 2-6, and is the same as Figure 8-1 in Chapter 8 of the B/D.

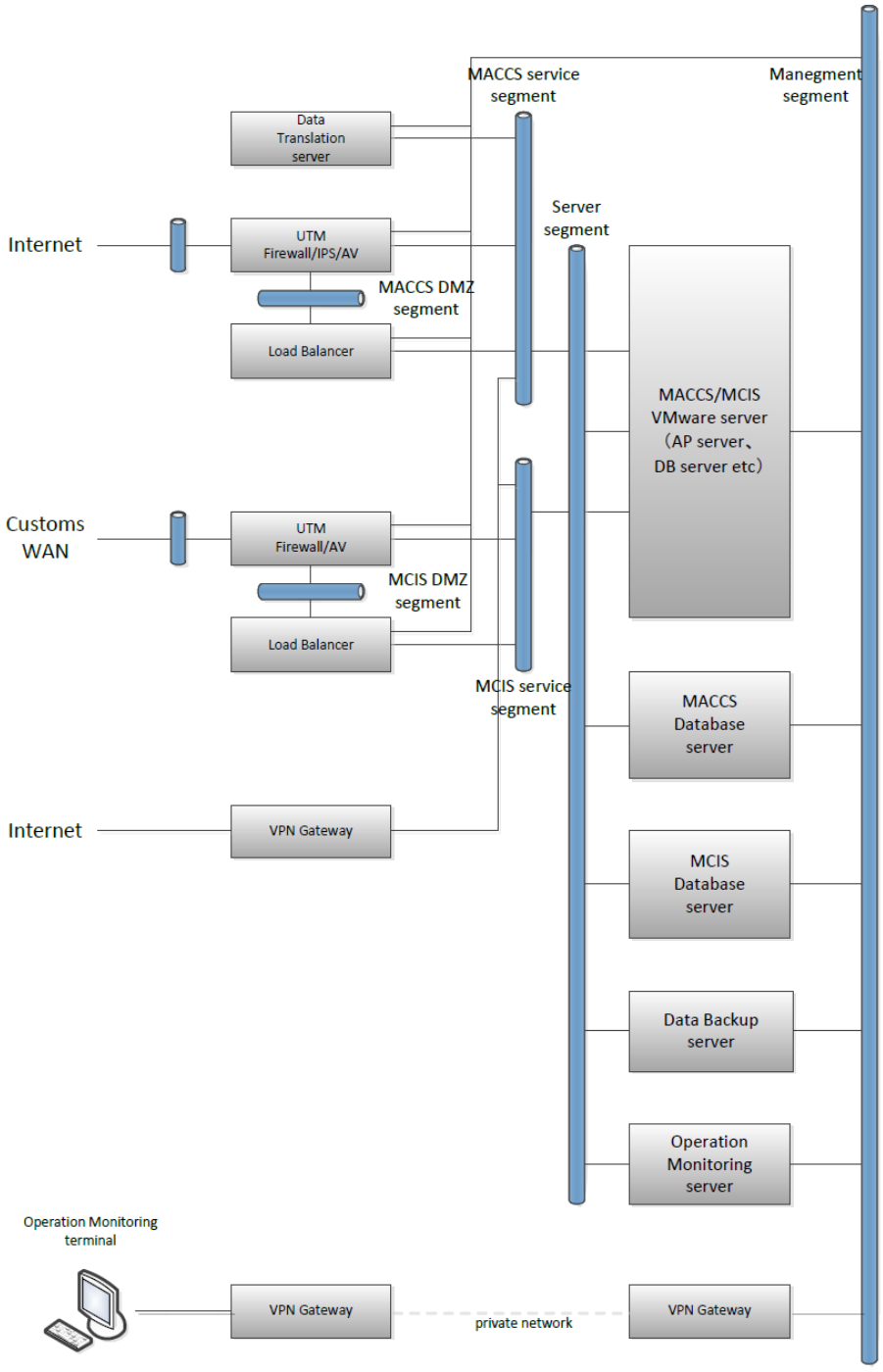


Figure 2-6 Overview of Network Layout

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

With regard to software development for the Project, procurement by single-source method with the vendor who has developed the current version of NACCS/CIS in Japan is considered indispensable, on the basis of conclusions of technical considerations regarding the following: peculiarity of output of the Project, MACCS/MCIS, which is a new IT system for Customs clearance procedures in Myanmar to be developed with Japanese NACCS/CIS technology; limited time frame for the completion of the output; and economic rationality from a view point of total cost for the implementation of this Project. In view of the above considerations, a request from Myanmar for single-source method, and the existence of only one vendor who has developed NACCS/CIS in Japan, were also taken into account. As explained in the above section 2-2-1 (4), the provisions of the Procurement Guidelines which allow direct contracting are considered applicable to this case.

Single-source method with such vendor is regarded as an appropriate method of procurement.

Hardware, OS and middleware are to be procured, separately from software, through open competitive tendering under the conditions of the Procurement Guidelines.

2-2-4-2 Implementation Conditions

It is necessary to minimize a risk of mismatch between the software and OS/middleware by preparing appropriate tendering documents, including concrete information on OS/middleware as specifications of servers and clarifying the scope of responsibilities of each vendor. Also, tendering documents are to contain specifications of the software for reference.

Hardware components for the Project are not produced in Myanmar and their country of origin is either Japan or third countries. As a policy on procurement of hardware, OS and middleware, timely and proper maintenance services from official vendors are to be ensured.

2-2-4-3 Consultant Supervision

Development of MACCS/MCIS software for the Project is planned to complete within 28 months after conclusion of a contract as shown in Table 2-18. With regard to the supervision of software development by a consultant, the work of supervision in Myanmar will be done on a spot basis by timely dispatch of persons in charge from Japan.

In the Project, hardware, OS, middleware and other related equipment are to be procured through open competitive tendering. A consultant is to properly and timely carry out procurement procedures, including preparation of tender documents and holding of a tender under the name of the implementing agency, and shall ensure that implementation of tests for developed software is not delayed.

2-2-4-4 Quality Control Plan

As stipulated in Chapter 14 of the B/D, in order to realize smooth introduction of MACCS/MCIS in Myanmar, running tests are to be conducted for about 3 months for users of the system in order to provide them with service learning training. Such running tests are to be hosted and conducted in the production environment by the MCD.

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.

2-2-4-5 Operational Guidance Plan

As stipulated in Chapter 15 of the B/D, the software development vendor is to provide designated officials of the MCD with the training so that they can fulfill their responsibility of providing other officials and private users with training on how to use MACCS/MCIS as stipulated in Chapter 16 of the B/D.

2-2-4-6 Soft Component Plan

In order for MACCS/MCIS to be used continuously in Myanmar and to achieve the expected objectives, it is important to ensure the following: (i) legal system and business process, which are bases of services provided by MACCS/MCIS, are reviewed and recommendations are properly implemented after the review; (ii) operation and maintenance structures for MACCS/MCIS are established and properly managed and (iii) both Customs users and private users fully understand how to use MACCS/MCIS.

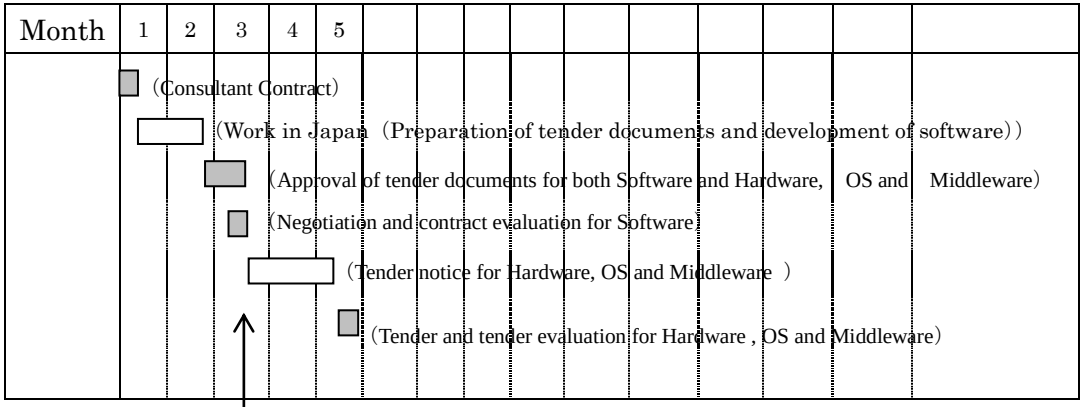
The above issues are to be addressed by the MCD as stipulated in Chapters 10, 15, and 16 under the support of the TC-Project which will be conducted with the Project in an integrated manner. Therefore, activities related to the above issues are not included in the soft component of the Project.

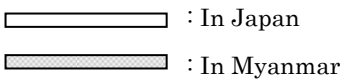
2-2-4-7 Implementation Schedule

The implementation schedule for the matters to be borne by the Japanese side is as shown in Table 2-18 in line with the schedule stipulated in the B/D.

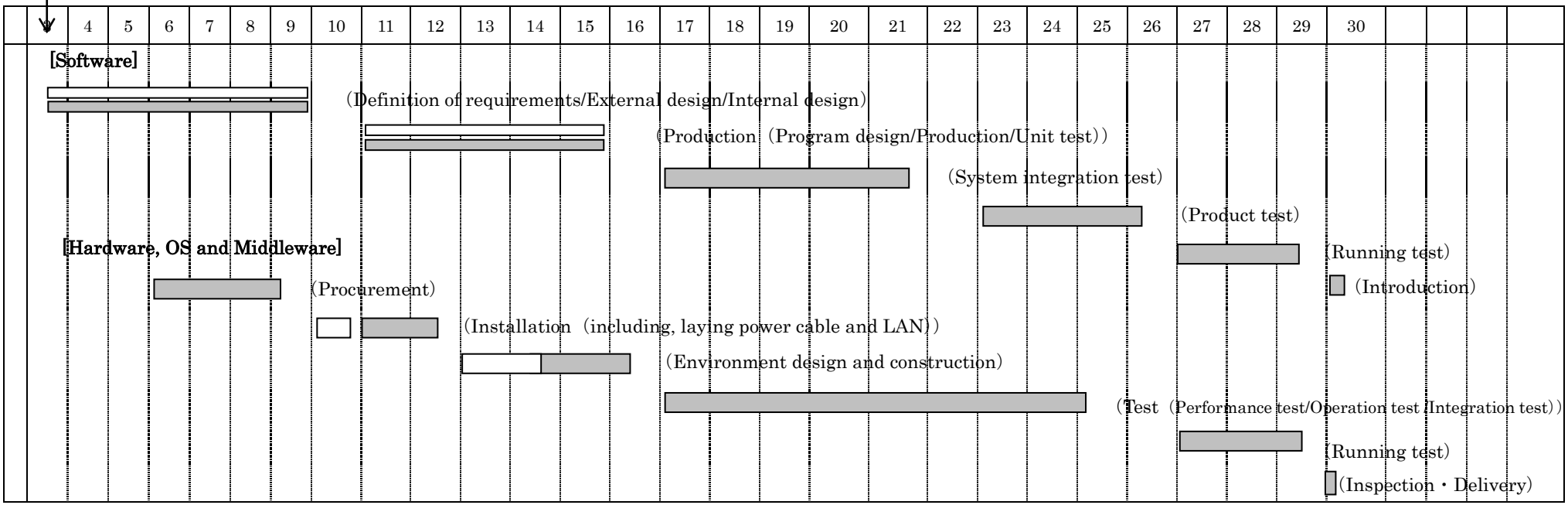
Table 2-18 Implementation Schedule for Works to be Borne by Japan's Grant Aid

.[Implementation Design: Procedures for Procurement of Software, Hardware, OS and Middleware]





[Development of Software and Procurement/Delivery/Installation of Hardware, OS and Middleware]



2- 3 Obligations of Recipient Country

2-3-1 Procedural Undertakings

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

- To ensure tax exemption and Customs clearance of the products purchased from Japan or third countries at the port of disembarkation in Myanmar;
- 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;
- 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;
- To ensure that the facilities and equipment be maintained and used properly and effectively under the Project;
- To bear the expenses, other than those covered by the Japan's Grant Aid, necessary for the implementation of the Project such as preparation of infrastructures;
- 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
- To give due environmental and social consideration in the implementation of the Project.

2-3-2 Work to be conducted by the Myanmar side

Chapter 16 of the B/D summarizes work to be conducted by the Myanmar side during the period of system development for smooth introduction and operation of MACCS/MCIS, and deadlines for such work. Table 16-1 of Chapter 16 of the B/D is shown as Table 2-19 below. In addition, any changes of the system or in the specifications of software after the detailed design phase are outside the scope of Japan's Grant Aid.

However, taking into account the importance of introducing MACCS/MCIS systems smoothly, the following items are to be partially borne by the Japanese side as specified in the Appendix.

(1) Item No.3 of Table 2-19: Procurement and construction of LAN in each location

- Procurement of LAN at Headquarter and 4 places is to be borne by the Japanese side.
- Procurement of LAN at the other places is to be borne by the MCD.

(2) Item No.8 of Table 2-19: Procurement of the terminal of the recommended specifications for the Customs users

- 150 pcs of terminals are to be borne by the Japanese side.

Table 2-19 Work to be Conducted by Myanmar Customs and Deadlines

No.	Category	Work to be conducted	Deadline
1	Procurement	Usage contract with the data center	Prior to commencement of datacenter contract (June, 2014)
2		Procurement and construction of the customs WAN among locations	By three months prior to commencement of product test
3		Procurement and construction of LAN within each location	By three months prior to commencement of product test
4		Procurement and construction of Network for private users	By three months prior to commencement of system integration test
5		Determination and procurement of operation (System Supervision and Operation) vendor	By four months prior to commencement of running test
6		Procurement and determination of software maintenance (Technical Support for Software) vendor	By three months prior to commencement of running test
7		Procurement and determination of hardware maintenance (Technical Support for Hardware) vendor	By three months prior to commencement of running test
8		Procurement of the terminal of the recommended specification for the customs users	By three months prior to commencement of running test
9		Procurement of media, supplies such as toner, etc.	Prior to commencement of running test
10	Coordination and communication	Communication and coordination with other government agencies	As needed during development period
11		Communication, coordination, and arrangement among vendors	As needed during development period

		(Arrangement among software development vendor, hardware vendor, network vendor and data center)	
12		Communication and coordination with each customs base and private users (Customs HQ, Customs bases, carriers, customs broker, forwarder, CY, airport warehouse, importer/exporter, etc.)	As needed during development period
13	Organization and environment arrangement	Establishment or procurement of an organization (Help desk) within the Myanmar customs serving as the contact for inquiries from the system operators or the users	By three months prior to commencement of running test
14		Maintenance the IT section which is to perform the maintenance operation management of MACCS/MCIS within the Myanmar customs. Also, maintenance the operation/maintenance organization including the vendor.	By three months prior to commencement of running test
15		Establishment of an organization which determines the risk analysis and screening criterion within the Myanmar customs.	By three months prior to commencement of running test
16	Items related to creation of Master Table, including user information and HS	Determination of code scheme such as the user code, customs office code, bonded area code, etc. and classification method for means of transport.	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 the private users (provision of ID, password) *	By three months prior to commencement of running test
19		Creation of the Master Table, such as the user, HS, etc. *	Prior to commencement of product test, running test, system start
20		Determination of an organization and procedure for the managing information on the private users and the Customs users	By three months prior to completion of detail design
21	Briefing sessions	Activities for making private users and Customs	As needed during

	Distribution of terminal	users aware of briefing sessions	development period
22		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 Customs users Preparation*, printing, and distribution of documents for briefing sessions (About procedure for conducting connecting tests)	By three months prior to commencement of product test
24		Holding of briefing sessions for private users and Customs users Preparation*, printing, and distribution of documents for briefing sessions (About procedure for conducting running tests)	By three months prior to commencement of running test
25		Distribution of terminal software to private users and Customs users	By one months prior to commencement of running test
26		Serving as contact for inquiries from private users and Customs users in running test (This is not necessary in case Help Desk is procured)	As needed during running test
27	Business processing procedure	Preparation of business processing procedure * (Document describing the interrelation between services achieved by the system and legal systems)	By two months prior to commencement of running test
28	Data migration	Myanmar customs 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 MACCS/MCIS	Prior to commencement of running test

* Software development vendor is deemed to support.

2- 4 Project Operation Plan

As for the MCD, the ICT Section is to be responsible for the maintenance of MACCS/MCIS introduced by the Project. The Section will maintain MACCS/MCIS in collaboration with vendors concerned. Operation structure, roles and responsibilities for operation, and maintenance structure currently envisaged are as shown in Table 2-20 and Figure 2-7, and is the same as Table 10-1 and Figure 10-1 in Chapter 10 of the B/D.. They reflect corresponding structures for NACCS/CIS in Japan and are considered appropriate. As such, it is expected that the MCD will establish such structures for operation/maintenance and ensure common recognition of the burden-sharing among parties concerned expeditiously.

Table 2-20 Roles and Responsibilities of Operation/Maintenance

[Legend] ◎ : Primary person in charge : Main vendor in charge of each activity item, a responsible person of the item.

○ : Secondary person in charge : A vendor who conducts activities in cooperation with primary person in charge if necessary.

△ : Report to

Large classification	Middle classification	Small classification	Activity items	Myanmar customs	Operation vendor	Software maintenance vendor	Hardware maintenance vendor	Network vendor	Datacenter vendor
System operation and management	System operation plan	Drafting of operation plan	Drafting of system operation plan	◎	○	○	○	○	
			Approval of system operation plan	◎					
	Management of system operation status	Operation status management	Checking the system operation status	△	◎				
			Investigation regarding system operation	◎					
			Review of operation plan, reflection and revision control	◎					
			Deliberation of special operation	◎					
	Management of system failure status	Response to recurrence prevention measure	Historical management of hardware failure, software failure and data failure	◎					
			Investigation and execution of recurrence prevention measure	△	◎	◎	◎		
			Practice of response to center failure	◎	◎	◎	◎		
	Management of management status of system resources	Center performance management	Collecting fundamental monitored values (at each server)		◎				
			Performance investigation, analysis, performance evaluation		◎				
			Report of evaluation results	△	◎				
			Response to questions about performance	△	◎	◎	◎		
Data management	Security means measure	Security management	Drafting of security plan (security policy of MACCS/MCIS)	◎					
			Execution of security measurements (security policy of MACCS/MCIS)	◎	◎	◎	◎	◎	◎
	Data resource management	Center data management	Modification of table (change in the customs organization, new participation/transfer of users, modification of item table etc.)	◎					
			Management of storing file and method of store.	◎					
System Operation	Generation of operation schedule	Operation status	Job schedule registration (online/batch)	△	◎				
		Backup management	Drafting of backup plan	◎					
	Operation	Operation status management	Execution of each operation (handling activity, data output to media etc.)	△	◎				
		Backup management	Execution/monitoring of backup	△	◎				
			Exchange of backup media	△	◎				
	Response to failure	Management of failure status and response to it	Failure status analysis (fault isolation)	△	◎				
			Proposal of response to failure	△	◎				
			Hardware failure	△			◎		

			Software failure	△		◎			
			Data failure	△		◎			
			Response to Center network failure	△			◎		
			Response to Customs network failure	△				◎	
			Coordination, communication, consolidation between vendors.	◎					
	Status monitoring	Status monitoring	Monitoring of operation status of system	△	◎				
			Monitoring status of various servers	△	◎				
System resources management	Hardware resources management	Center equipment management	Monitoring status of various server configurations	△			◎		
			Peripherals management	△			◎		
			Maintenance and management of datacenter facility	△					◎
	Software resources management	Response at law amendment/ system revision	Influence research, report of research results	△		◎			
			Decision of response policy	◎					
		Response to addition/change of function requested by user	Influence research, report of research results	△		◎			
			Decision of response policy	◎					
		Response to addition/change of function of related system.	Influence research, report of research results	△		◎			
			Decision of response policy	◎					
		Program management	Management for programs which configure the system			◎			
	Network resources management	Center equipment management	Management of equipment in the network within center (network equipment provided by hardware vendor)	△			◎		
			Management of equipment in the network within center (network equipment provided by network vendor)	△				◎	
		Customs network management	Management of customs network equipment (router)	△				◎	
User support	Education/ Training	User education/ training support	Planning of users education/training	◎					
			users education/training execution	◎					
	Response to a question from user	Response to the question from user	Contact for question	◎					
			Research and generation of answer report	◎					
		Response to the question from Myanmar customs	Response to various questions from Myanmar customs (including submissions of report etc.)	△	◎	◎	◎	◎	◎
		Response to the service question from user	Response to service questions from users escalated through helpdesk	△	◎	◎	◎	◎	◎
Documents on statistical	Documents on statistical record	Operation for documents on statistical record	Execution of system statistics material retrieval		◎				
			Execution of traffic material retrieval		◎				

Resource management	Resource management	Resource management plan	Decision of resource management target (backup media)	◎					
			Inventory management of resources (inventory check, placing an order, purchasing)	◎					
			Execution of media disposal	◎					
System maintenance	Software maintenance	Software maintenance	Maintenance for developed software *Refer to 10.5.1 for details			◎			
	Hardware maintenance	Hardware maintenance	Maintenance for hardware and middleware which includes OS *Refer to 10.5.2 for details				◎		

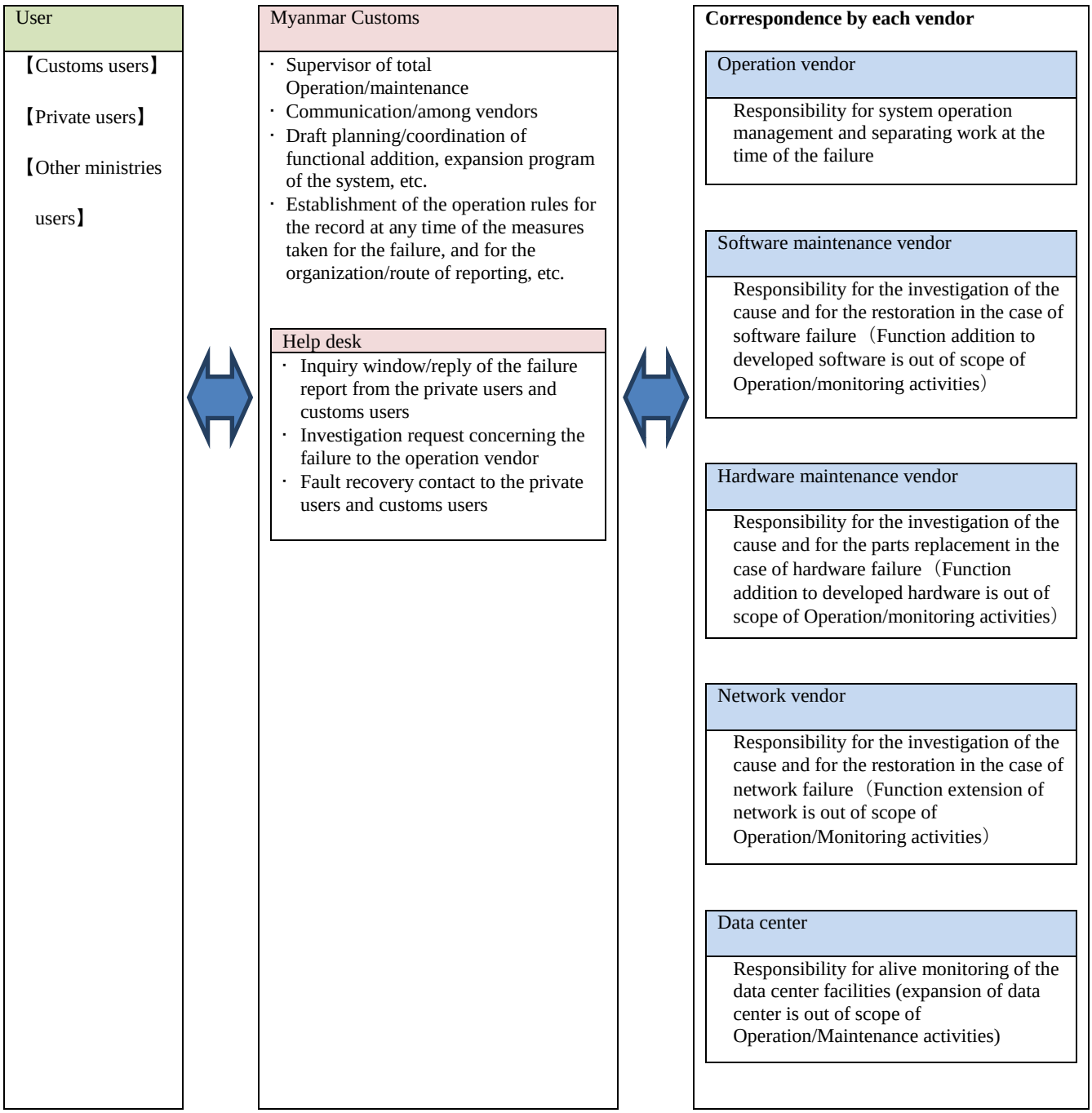


Figure 2-7 System Image of Operation/Maintenance

2- 5 Project Cost Estimation

2-5-1 Initial Cost Estimation

The amount of initially estimated cost for the Project to be borne by the Myanmar side and conditions of such estimation are as shown below.

(1) Cost to be borne by the Myanmar side

- LAN & WAN	MMK 494 million	(JPY49.4 million)
- Internet Connection	MMK 0.2 million	(JPY0.02 million)
- Others (Bank Commissions)	MMK 49 million	(JPY4.9 million)
Total	MMK 543.2 million	(JPY54.3 million)

(2) Conditions of Cost Estimation

Timing : October 2013
Exchange Rates : US$ 1 = JPY99.93
US$ 1 = MMK 974.34
MMK1 = JPY 0.10
Implementation Schedule : As shown in Table 2-7 above.
Others : The estimation of cost is to be done in accordance with rules and guidelines regarding Japan's Grant Aid.

2-5-2 Operation and Maintenance Cost Estimation

Annual cost of operation/maintenance of MACCS/MCIS, which is to be borne by the Myanmar side from FY 2016/2017 in principle when the running tests start, is estimated at MMK 1,953.3 million as below.

i) Yatanarpon Datacenter	MMK 72 million	(JPY 7.2 million)
ii) LAN & WAN	MMK 400 million	(JPY 40.0 million)
iii) Internet Connection	MMK 1.3 million	(JPY 0.13 million)
iv) System Supervision and Operation	MMK 180 million	(JPY 18.0 million)
v) Technical Support for Software	MMK 600 million	(JPY 60.0 million)
vi) Technical Support for Hardware	MMK 700 million	(JPY 70.0 million)
Total	MMK 1,953.3 million	(JPY 195.3 million)

The specific amount of the annual cost of operation/maintenance of MACCS/MCIS is to be finalized by the MCD after further scrutiny.

Note: The above cost is to be borne according to the following schedule:

- item-i): from FY 2014/2015,
- item-ii) and iii): from FY 2015/2016, and
- item-iv), v), and vi): from FY 2016/2017.

【Project of Technical Cooperation】

2-6 Outline of the Technical Cooperation Project

2-6-1 Title of the Project

Project of Capacity Development for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System in Myanmar

2-6-2 Overall Goal

Trade facilitation in Myanmar is further promoted with securing appropriate collection of Customs and Tariff.

[Verifiable Indicators]

- Reduce the amount of time required for Customs clearance to X seconds for Simplified Examination (from declaration to permission, except Payment by Manual), to X minutes for Document Examination (from start screening to completion of examination).
- Indicators of efficient trade processing are improved.

2-6-3 Project Purpose

Necessary environment for properly operating and maintaining MACCS/MCIS is enhanced with smooth introduction of the system based on the technology of NACCS/CIS towards Customs reform and modernization.

[Verifiable Indicators]

- The rate of declared number through MACCS reaches X % of the total declared number of import and exports at the targeted Customs offices.
- The number of claims against Customs procedure handled by the Customs authority decreases.
- MACCS/MCIS is maintained and managed properly and targeted capacity utilization at X% is attained.

2-6-4 Outputs and Activities

Output 1: Necessary preparation is made for properly introducing MACCS/MCIS.

[Verifiable Indicators]

1-1. Detailed design which ensures feasibility, efficiency and effectiveness of MACCS & MCIS under Myanmar's environment is developed strictly according to the schedule.

1-2. Business processing guidelines for Customs users and Center Setup File (CSF) are

developed in accordance with the schedule.

1-3. Business processing manuals for users in the private sector are developed in accordance with the schedule.

[Activities]

1-1. Deepening understandings on MACCS/MCIS through consideration of business process by introducing MACCS/MCIS including detailed design process.

1-2. Develop business processing guidelines for Customs users and Center Setup File.

1-3. Develop business processing manuals for users in the private sector.

Output 2: The officials of Myanmar Customs acquire necessary knowledge and skills to use MACCS/MCIS properly.

[Verifiable Indicators]

2. The number of participants of explanatory meeting about MACCS/MCIS reaches X% of the total number of officers engaging in Customs clearance.

[Activities]

2-1. Deepen understandings on MACCS/MCIS through consideration of business process by introducing MACCS/MCIS, including detailed design process.

2-2. Prepare explanatory materials in accordance with each stage, such as detailed design and running test to Customs users.

2-3. Develop instructors who conduct explanations to Customs users.

2-4. Conduct explanatory meetings for Customs users in accordance with each stage such as detail design and running test.

Output 3: A structure to operate, maintain, and manage MACCS/MCIS properly is established and necessary human resource are developed.

[Verifiable Indicators]

3-1. A help desk for MACCS/MCIS users is established in accordance to the schedule.

3-2. FAQs for system administration and problem processing are developed in accordance with the schedule.

[Activities]

3-1. Establish necessary structures including user’s help desk and assigning technicians for administration of MACCS/MCIS.

3-2. Establish necessary structure to plan and implement running test properly.
3-3. Establish a structure to grasp and solve problems in order to operate, and maintain MACCS/MCIS properly.
3-4. Develop FAQs for system administration and problem processing.
3-5. Develop concrete measures to respond to inquiries and problem handling after MACCS/MCIS starts operation.

Output 4: Users in the private sector acquire necessary knowledge and skills to use MACCS properly.

[Verifiable Indicators]
4. The number of staffs and private corporations participating in the explanatory meetings reach X and X, respectively.

[Activities]
4-1. Prepare documents in accordance with each stage, such as detailed design and running test, which are delivered to users in the private sector and banks at an explanatory meeting.
4-2. Conduct explanatory meetings for users in the private sector and banks in accordance with each stage, such as detail design and running test.

Output 5: Necessary laws and regulations corresponding to usage of MACCS/MCIS are established.

[Verifiable Indicators]
5. Necessary and sufficient laws and regulations to operate MACCS/MCIS are established in accordance with the schedule.

[Activities]
5-1. With change of system and custom-house business process by introducing MACCS/MCIS, specify relevant laws and regulations which need to be revised.
5-2. Make draft revisions of relevant laws and regulations, taking into account the preceding cases inJapan.
5-3. Consult draft revisions with stakeholders.

Output 6: A proper information security policy and mechanism for proper operation of MCIS is established.

[Verifiable Indicators]

6. Information security manuals are developed in accordance with the schedule.

[Activities]

6-1. Develop necessary information security mechanisms.

6-2. Develop information security manuals.

Output 7: Capacities on the core operations of Customs administration such as tariff classification, Customs valuation, post clearance audit and Customs risk management are enhanced for realizing prompt and appropriate Customs clearance utilizing MACCS/MCIS.

[Verifiable Indicators]

7-1. The number of Customs officers who received training reaches X before the end of the Project.

7-2. The level of understandings for the contents of training by participants reaches X % on average.

[Activities]

7-1. Identify areas which are necessary to be enhanced for the Customs modernization in Myanmar, including Customs Classification, Customs Valuation, Post Clearance Audit, and Risk Management.

7-2. Develop training plans for identified areas.

7-3. Conduct training based on the developed training plans.

2-6-5 Inputs

(1) Japanese side

1) Expert(s)

Up to three Long-term experts

- Chief adviser
- Customs administration
- Coordinator

Short-term experts (as needed)

- Review of laws and regulations and custom-house business process, IT, tariff classification, Customs valuation, post clearance audit, Customs risk management, etc.)

2) Training in Japan and/or Third-country training

3) Equipment provision (as needed)

4) Project expense for field activities

- Travel expense for experts and transportation cost
- Others (as needed)

(2) Myanmar side

1) Human resources

Project Director
Project Manager
Deputy Project Manager
Counterpart WG(s)

2) Provide offices and basic logistic facilities necessary to implement the project.

3) Operating and ordinary expenses

- Expenses for electricity, water, communication etc.
- Expenses for holding explanatory meetings
- Others (as needed)

2-6-6 Implementation of the Project

It is indispensable for the MCD to acquire necessary knowledge and know-how in order to operate and manage MACCS/MCIS properly and ensure sustainably after its introduction. In order to do so, counterparts of the MCD take initiative to conduct a series of activities mentioned above on learning by doing basis and the Japanese experts offer necessary advices and supports.

2-6-7 Preconditions and Assumptions

(1) Preconditions

The Government of Myanmar does not change its policy to modernize Customs administration by introducing a new automated cargo clearance system.

(2) Assumptions

1) Assumptions for achieving Outputs

Change in personnel of the counterpart does not happen frequently.

2) Assumptions for achieving Project Purpose

- Necessary laws and regulations are approved as scheduled in accordance with the progress of development of MACCS/MCIS.
- Necessary decisions by relevant authorities are made as scheduled in the course of the activities.
- MACCS/MCIS are developed and introduced as planned.
- Sufficient number of staff and budget to operate and maintain MACCS/MCIS is secured.
- Users in the private sector do not oppose introduction of MACCS/MCIS.

3) Assumptions for achieving Overall Goal

Sufficient number of staff and budget for operation and maintenance of MACCS/MCIS are secured.

Chapter 3 Project Evaluation

Chapter 3 Project Evaluation

【Project of Grant Aid】

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. In particular, it is important that work set out in the above Table 2-8 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 as agreed.

Also, as mentioned in the above section 2-2-4-6, the MACCS/MCIS 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 MACCS/MCIS 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 Customs and private users fully understand how to use MACCS/MCIS. It is expected that these matters will be properly implemented, since the Myanmar side has fully recognized their importance and Japan's technical assistance project shall support their implementation upon request from Myanmar.

3-3 Important Assumptions

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

- Recognition of the importance of Customs modernization, including automation of Customs clearance procedures, shall be maintained within the Government of Myanmar;
- The use of IT in the business process of private users of Customs procedures shall progress; and
- The automation of trade-related procedures other than Customs procedures shall progress and the number of external systems to be connected to this one shall increase.

3-4 Project Evaluation

3-4-1 Relevance

The Project shall establish MACCS/MCIS, which is a convenient and efficient IT system for Customs clearance procedures on the basis of Japanese NACCS/CIS technology. It is considered a central part of efforts to modernize Customs Administration in Myanmar and is expected to play a relatively important role in expanding trade and growing the economy through more expeditious Customs procedures. Accordingly, the Project is beneficial, not only to Customs and private companies directly engaged in international trade but also to the general public as a whole, including the poor.

3-4-2 Effectiveness

(1) Quantitative Effects

Implementation of the Project means that MACCS/MCIS, which is a convenient and efficient IT system for Customs clearance procedures based on NACCS/CIS technology in Japan, will be introduced in Myanmar. Accordingly, the time for Customs clearance procedures shall be shortened in Myanmar, as the use of automated Customs clearance procedures is promoted. The number of Customs declarations in electronic form and the amount of electronically declared Customs value will increase as the use of automated Customs clearance procedures is promoted. Also, together with a decrease in the scope for arbitrary treatment by individual Customs officials, the efficiency of Customs clearance procedures in general shall be improved in Myanmar.

The effect of expediting Customs clearance procedures can be quantitatively measured by surveying the time required for Customs clearance procedures.

Table 3-1 Expected Quantitative Effects

Indicator	Base（2014）	Target（2019） 【3 years after completion of the Project】
Shortening of time for Customs clearance procedures*		
Green Channel	—	3 seconds
Yellow Channel	1～3 days	2～4 hours
Red Channel	**	**
Increase in the proportion of declarations through MACCS/MCIS out of total declarations for foreign trade (number and value basis) in Yangon area	—	About 90%

* Average time required for Customs clearance of ordinary goods in Yangon area.

** It is difficult to show the exact target for Red Channel since the time required is subject to physical examination of cargoes although the introduction of MACCS/MCIS surely contributes to shortening time of Customs clearance procedures in the Red Channel.

(2) Qualitative Effects

As for the improvement of efficiency of Customs clearance procedures, LPI is an index regarding the efficiency of the clearance process by border control agencies, including Customs. Accordingly, it is also considered that the improvement of efficiency of Customs clearance procedures can be measured by using such an index, since such an index is expected to show improvement by 2019 (3 years after completion of the Project). (The figure of Myanmar's LPI in 2012 is rated at 2.24 points (source: the World Bank Group)).

(3) Others

Specific improvements on Customs procedures in Myanmar, which are expected to be realized through the introduction of MACCS/MCIS and accompanying changes of relevant laws and regulations in Myanmar, include the following:

- MACCS/MCIS automatically checks whether or not submitted export/import declarations meet the requirements, and examination of attached documents by Customs officials need not be done for this purpose. Accordingly, this will ease the administrative burden on Customs officials and trade facilitation will be enhanced by shortening the time for processing of declarations.
- MACCS/MCIS classifies export/import declarations into appropriate channels upon

acceptance, and declarations classified into the "green channel" will be immediately permitted, which will further enhance trade facilitation.

- MACCS/MCIS automatically calculates the duties for export/import declarations once the required data are entered into the appropriate fields. Accordingly, the burden of declarants will be mitigated and the number of misdeclarations will decrease.

【Project of Technical Cooperation】

3-5 Evaluation Analysis of the Technical Cooperation Project

3-5-1 Relevance

The relevance of the TC-Project is considered high for the following reasons:

- The level of capacity of Customs administration (including establishment of Customs IT system) in Myanmar is behind that of ASEAN member countries (according to the LPI conducted by the World Bank group, Myanmar is ranked 122 out of 155 countries in the world, the worst in the region). Although the volume of trade has increased, the proportion of Customs and Tariff still remains very low at 3.2% out of total tax revenue in Myanmar. Both revenue increase and trade facilitation by more efficient and modernized Customs administration are the priorities of the MCD.
- In addition, under the regional commitment by ASEAN member states leaders for the ASEAN Economic Community by 2015, the MCD has to establish a National Single Window, so that it contributes to ASEAN Single Window implementation. In order to realize this commitment, the MCD needs to introduce the modern Customs ICT system.
- The government of Myanmar has set "Promotion of trade and investment as an engine for economic growth" as one of its strategic priorities. The introduction of National Single Window by 2015 towards the ASEAN Economic Community has become one of the priorities of the Office of the President.
- It is an appropriate approach to establish MACCS/MCIS based on the technology of NACCS/CIS in accordance with the international standard of Customs administration.

3-5-2 Effectiveness

The effectiveness of the TC-Project is considered high for the following reasons:

- There are seven components as Ouputs of the TC-Project in order to achieve the TC-Project Purpose. These outputs are comprehensive and consistent with the path for the TC-Project Purpose.
- As for the assumptions for achieving the TC-Project Purpose, close monitoring of the status of such assumptions is expected to enhance effectiveness..

3-5-3 Efficiency

The efficiency of the TC-Project is considered high for the following reasons:

- Counterparts of the MCD who have been engaged in developing Brief Design of MACCS/MCIS in the course of consideration during a preparatory survey for MACCS/MCIS are expected to be continuously involved in the TC-Project. Therefore, an efficient implementation structure with their knowledge and experience through the design stage of MACCS/MCIS is to be ensured for smooth implementation and introduction of reviewing legal framework and Customs business process.
- MACCS/MCIS will be developed based on the technology of NACCS/CIS by making full use of experience of Japan in terms of development approach and implementation structure. Moreover, Japanese Working Group members (J-W/G) consisting of officers of the Customs and Tariff Bureau, Ministry of Finance have been engaged in supporting the development of the Brief Design. This is expected to enhance the efficiency of the Project by consistent technical transfer by their continuous involvement in the TC-Project.
- It is necessary for both public and private users to properly use MACCS/MCIS in order to ensure suitable and efficient operation of MACCS/MCIS. It is expected that such users can well share necessary knowledge and skills since the TC-Project includes sufficient activities of explanatory or awareness raising for users in the target area.
- As for assumption for achieving Outputs, its risk can be assessed as minimized, since the MCD has committed to assign officers who have been engaged in the preparatory survey as counterparts of the TC-Project.

3-5-4 Impact

The impact of the the TC-Project is prospected as follows:

- Completion of the TC-Project as well as the development of MACCS/MCIS through the Grant Aid is expected to realize automated clearance procedures from e-declaration to collection of duty, and which will contribute to reducing clearance time and promoting trade facilitation while securing Customs revenue.
- In addition, comprehensive activities for human resource development in various fields of Customs administration are to be included in the TC-Project activities, which may contribute to enhancing capacities of Customs officers not only in the TC-Project target area but also nationwide. This could be a significant impact for the MCD, which still lags behind other ASEAN member countries in terms of the capacity of Customs administration.
- Further discussion and consideration among relevant authorities and necessary investment for IT system are inevitable for realizing NSW. This is expected to promote such initiatives through relevant activities for introducing MACCS/MCIS both in the Project and

the Grant Aid.

- Discussions in the preparatory survey confirmed that the MCD will take necessary measures for securing necessary budget to properly operate and manage MACCS/MCIS. In addition, tariff structures for using MACCS/MCIS will be considered in the course of activities of the TC-Project. Therefore, the assumption for achieving Overall Goal can be well managed.

3-5-5 Sustainability

The sustainability of the TC-Project is prospected as follows:

1) Political aspect

As mentioned above, the introduction of NSW through proper introduction of MACCS/MCIS will remain the prioritized target of the Government of Myanmar.

2) Institutional and budgetary aspect

As mentioned, the MCD has been well aware of the importance and necessity to secure necessary budget for proper operation and maintenance of MACCS/MCIS. In addition, the TC-Project includes activities to consider tariff structure for using MACCS/MCIS based on the experience of NACCS/CIS. Also, further assignment of officers who are engaged in maintaining MACCS/MCIS is considered in addition to the existing counterparts.

3) Technical aspect

Counterparts who have been engaged in the development of B/D are expected to take a core role in implementing the TC-Project. It is also expected that such officers are to be ensured and enhanced their knowledge and know-how by encouraging their initiatives on each activity with the continuous and consistent support from Japanese experts.

Appendices

APPENDIX-1 Member List of the Study Team

No	Name	Task	Organization
1	Makoto YAMASHITA	Leader	Executive Advisor to the Director General and Deputy Director General for Southeast Asia 1 and 2, Southeast Asia and Pacific Department, JICA
2	Kensuke TSUJI	Project Coordination	Deputy Director, Public Governance and Financial Management Division Governance Group Industrial Development and Public Policy Department, JICA
3	Tatsuya FUJIOKA	Chief Consultant/ System Planning 1	Planning and Research Department, Nippon Automated Cargo And Port Consolidated System, Inc.
4	Nanami SHIGYO	Customs Clearance Operation Planning 1	Planning and Research Department, Nippon Automated Cargo And Port Consolidated System, Inc.
5	Hidehiro OHASHI	System Planning 2/ Cost Estimation	Public System Solution Division, Public System Solution Group-2 Mitsubishi Research Institute, Inc.

Note: an Interpreter (Japanese-Myanmar) was employed in Yangon.

APPENDIX-2 Study Schedule

(1) The First Field Survey (Preparatory Survey)

Date			Team Leader (Mr. Yamashita)	Project Coordinator (Mr. Tsuji)	Chief Consultant/ System Planning1 (Mr. Fujioka)	Customs Clearance Operation Planning 1 (Ms. Shigyo)	System Planning 2/ Cost Estimation (Mr. Ohashi)
1	Oct. 6	Sun	Departure from Tokyo ⇒Arrival in Yangon				
2	Oct. 7	Mon	Departure from Yangon ⇒Arrival in Nay Pyi Taw Courtesy call to Minister of Finance			Visit to a private company -Survey on procurement/maintenance	
3	Oct. 8	Tue	Departure from Nay Pyi Taw ⇒Arrival in Yangon Meeting with the MCD -Discussion on the contents of the Minutes of Discussion (M/D)			Visit to Yangon port -Survey on Customs procedures	
4	Oct. 9	Wed	Meeting with the MCD - Discussion on the possible framework of the technical cooperation			Visit to a private company -Survey on procurement/maintenance - Survey on trade business	
5	Oct. 10	Thu	Meeting with the MCD -Discussion on the contents of the Minutes of Discussion (M/D)			Visit to Yangon port -Survey on Customs procedures	
6	Oct. 11	Fri	Meeting with the MCD			Visit to Yangon port -Survey on Customs procedures	
			Report to JICA Myanmar Office				
7	Oct. 12	Sat	Departure from Yangon ⇒Arrival in Tokyo				

(2) The Second Field Survey (Working Group Meeting)

Date			Chief Consultant/System Planning 1 (Mr. Fujioka)	Customs Clearance Operation Planning 1 (Ms. Shigyo)
1	Oct. 23	Wed	Departure from Tokyo ⇒Arrival in Yangon Meeting with the MCD	Departure from Tokyo ⇒Arrival in Yangon
2	Oct. 24	Thu	Meeting with the MCD - W/G Meeting	
3	Oct. 25	Fri	Meeting with the MCD - W/G Meeting	
4	Oct. 26	Sat	Survey Preparation	
5	Oct. 27	Sun	Survey Preparation	
6	Oct. 28	Mon	Meeting with the MCD - W/G Meeting	
7	Oct. 29	Tue	Meeting with the MCD - W/G Meeting	
8	Oct. 30	Wed	Meeting with the MCD - W/G Meeting, Survey on trade business	
9	Oct. 31	Thu	Meeting with the MCD - W/G Meeting	
10	Nov. 1	Fri	Meeting with the MCD - W/G Meeting, Survey on Customs data	
11	Nov. 2	Sat	Departure from Yangon ⇒Arrival in Tokyo	

(3) The Third Field Survey (Working Group Meeting)

Date			Customs Clearance Operation Planning 1 (Ms. Shigyo)
1	Nov. 20	Wed	Departure from Tokyo ⇒Arrival in Yangon
2	Nov. 21	Thu	Meeting with the MCD - W/G Meeting
3	Nov. 22	Fri	Meeting with the MCD - W/G Meeting
4	Nov. 23	Sat	Departure from Yangon ⇒Arrival in Tokyo

(4) The Fourth Field Survey (Working Group Meeting)

Date			Chief Consultant/System Planning 1 (Mr. Fujioka)
1	Dec. 22	Sun	Departure from Tokyo ⇒Arrival in Yangon
2	Dec. 23	Mon	Meeting with the MCD - W/G Meeting
3	Dec.24	Tue	Meeting with the MCD - W/G Meeting
4	Dec. 25	Wed	Survey Preparation
5	Dec. 26	Thu	Meeting with the MCD - W/G Meeting
6	Dec. 27	Fri	Departure from Yangon ⇒Arrival in Tokyo

(5) The Fifth Field Survey (Working Group Meeting)

Date			Customs Clearance Operation Planning 1 (Ms. Shigyo)
1	Jan. 19	Sun	Departure from Tokyo ⇒Arrival in Yangon
2	Jan. 20	Mon	Meeting with the MCD - W/G Meeting
3	Jan. 21	Tue	Meeting with the MCD - W/G Meeting
4	Jan. 22	Wed	Meeting with the MCD - W/G Meeting
5	Jan.23	Thu	Meeting with the MCD - W/G Meeting
6	Jan. 24	Fri	Meeting with the MCD - W/G Meeting
7	Jan. 25	Sat	Departure from Yangon ⇒Arrival in Tokyo

(6) The Sixth Field Survey (Working Group Meeting)

Date			Customs Clearance Operation Planning 1 (Ms. Shigyo)
1	Feb. 5	Wed	Departure from Tokyo ⇒Arrival in Yangon
2	Feb. 6	Thu	Meeting with the MCD - W/G Meeting
3	Feb. 7	Fri	Meeting with the MCD - W/G Meeting
4	Feb. 8	Sat	Meeting with the MCD - W/G Meeting
5	Feb. 9	Sun	Survey Preparation
6	Feb. 10	Mon	Survey Preparation
7	Feb. 11	Tue	Meeting with the MCD - W/G Meeting
8	Feb. 12	Wed	Survey Preparation
9	Feb. 13	Thu	Meeting with the MCD - W/G Meeting
10	Feb. 14	Fri	Meeting with the MCD - W/G Meeting
11	Feb. 15	Sat	Departure from Yangon ⇒Arrival in Tokyo

(7) The Seventh Field Survey (Explanation of Draft Summary Report)

Date			Team Leader (Mr. Yamashita)	Project Coordinator (Mr. Tsuji)	Chief Consultant/System Planning1 (Mr. Fujioka)
1	Feb. 12	Wed	N/A	Departure from Tokyo ⇒Arrival in Yangon	
2	Feb. 13	Thu	N/A	Meeting with the MCD - W/G Meeting	
3	Feb. 14	Fri	N/A	Meeting with the MCD -W/G Meeting Discussion on the contents of Draft Summary Report at the MCD	
4	Feb. 15	Sat	Departure from Tokyo ⇒ Arrival in Yangon	Survey Preparation	
5	Feb. 16	Sun	Survey Preparation		
6	Feb. 17	Mon	Discussion on the contents of Draft Summary Report and Minutes of Discussion (M/D)		
7	Feb. 18	Tue	Discussion on the contents of Draft Summary Report and M/D		
8	Feb. 19	Wed	Survey Preparation		
9	Feb.20	Thu	Discussion on the contents of Draft Summary Report and M/D		
10	Feb. 21	Fri	Signing of M/D at the MCD Courtesy calls to Embassy of Japan		
11	Feb. 22	Sat	Another Assignment	Departure from Yangon ⇒Arrival in Tokyo	

APPENDIX-3 List of Parties Concerned in the Recipient Country

Ministry of Finance

Lin Aung	Vice Minister

Myanmar Customs Department (MCD)

Htun Thein	Director General
Thant Zin	Director of Finance and Inspection
Win Thant	Deputy Director of Administration
Thet Naign Ooo	Import / Export Division
Win Myint	Administration Division (ICT)
Moe Kyaw Aye	Administration Division
Zaw Myo Aung	Preventive Division
Thi Thi Tin	Finance and Inspection Division
Kyaw Aung Lwin	
Ye Zaw Tun	
Myo Miat Kaw	
Maung Mg Lwin	
Thang Juan Pyanug	
Huu Nghi	

UMFCCI/Myanmar Customs Brokers Association

Maung Maung Kywe	Vice Chairman
Myo Saung Bo Bo	Vice Chairman
Htin Aung Zaw	Treasurer
Nyi Nyi Aung	Managing Director of La Min Aung
Tin Tin Moe	Managing Director of Excellent Trade

KMD Company Limited

Tyn Tyn Aye	President
Ronald Aung Moe Shwe	CEO
Zaw Hlaing Bwa	General Manager
Lwin Htoo Aung	General Manager
Chaw Chaw Mying	General Manager
Aye Aye Cho	Director

NTT DATA Myanmar Co., Ltd.

Masaki Horikawa	President & CEO

NTT Communications Yangon Office

Hajime Miyazaki	Country Manager (Myanmar)

WINNER COMPUTER GROUP COMPANY LIMITED.

NAING WIN	General Manager
Kyaw Kyaw Win	Technical Director
Thet Htar Su	Director, Sales and Marketing
KHIN TOE YIN	Managing Director

Yadanapon TeleportYadanapon Teleport

Tin Naing Zaw	Head of Department

Nippon Express（South Asia & Oceania) Pte.Ltd. Myanmar Branch

Nobuya Nakada	General Manager
Hiroshige Odani	Deputy Generral Manager

HANKYU HANSHIN EXPRESS (MYANMAR) CO., LTD.

Takeshi Kotaka	Managing Director

Myanmar Foreign Trade Bank

Lwin Mie Mie Htay	Assistant General Manager
San San Myint	Assistant General Manager
Sein Win Kyi	Assistant General Manager

Embassy of Japan in MYANMAR

Mikio Numata	Ambassador Extraordinary and Plenipotentiary
Ichiro Maruyama	Minister-Counsellor / Deputy Chief of Mission
Sachio Otaki	Second Secretary

Japan International Cooperation Agency (JICA) MYANMAR Office

Masahiko Tanaka	Chief Representative
Kyosuke Inada	Senior Representative
Nobuo Yamasaki	Representative

APPENDIX-4 Minutes of Discussions

Minutes of Discussions
on the Preparatory Survey
for the Cooperation to Customs Reform and Modernization
by Introducing Automated Cargo Clearance System
in the Republic of the Union of Myanmar

In response to the request for both the Grant Aid and the Technical Cooperation to Customs Reform and Modernization by Introducing Automated Cargo Clearance System from the Republic of the Union of Myanmar (hereinafter referred to as "Myanmar"), the Japan International Cooperation Agency (hereinafter referred to as "JICA"), in consultation with the Government of Japan, decided to conduct a Preparatory Survey on the said cooperation.

JICA sent to Myanmar, the Preparatory Survey Team (hereafter referred to as "the Team"), headed by Mr. Makoto Yamashita, Executive Advisor to the Director General, Southeast Asia and Pacific Department, JICA.

The Team held discussions with the officials concerned of the Customs department under the Ministry of Finance, the Government of Myanmar and conducted a field survey.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets.

The Team will proceed to further work and prepare the Preparatory Survey Report.

Yangon November 22, 2013

Mr. Masahiko Tanaka	Mr. Htun Thein
Chief Representative	Director General
Myanmar Office	Customs Department
Japan International Cooperation Agency	Ministry of Finance
Japan	Republic of the Union of Myanmar

ATTACHMENT

Part I: Outline Design for the requested Grant Aid

1. Japan's Grant Aid Scheme

1-1. The Myanmar side understands the Japan's Grant Aid Scheme explained by the Team, as described in Annex 1 and Annex 2.

1-2. The Myanmar side will take the necessary measures, as described in Annex 3, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented in addition to Myanmar undertakings mentioned in the Article 7 below.

1-3. The both sides clarified that "export and re-export" of purchased products under the Grant Aid which is stipulated in Article 3. (7) in Annex 1 does not include the case only for repair and maintenance. The both sides further affirmed that the said repair and maintenance are to be recommended in Myanmar as much as possible to avoid unexpected incident during transfer and etc.

2. Title of the Grant Aid Project

The both sides agreed to the title of the Grant Aid Project as "the Project for Customs Reform and Modernization by Introducing Automated Cargo Clearance System."

3. Objective of the Grant Aid Project

The objective of the Grant Aid Project is to reform and modernize customs administration including introducing E-customs and national single window by establishing new automated cargo clearance system (hereinafter referred to as "MACCS/MCIS") based on the technology of Japan's Nippon Automated Cargo and Port Consolidated System (NACCS) and Customs Intelligence Database System (CIS).

4. Project Site

The Project site is Yangon area including the Thilawa Area.

(Note) The desirable design of a backup center including its location which will be borne by the Myanmar side will be discussed among Joint Working Group in due course of the time.

5. Responsible and Implementing Agency

5-1. The Responsible Agency is the Ministry of Finance (MOF).

5-2. The Implementing Agency is the Customs Department, the Ministry of Finance (hereinafter referred to as "Myanmar Customs").

6. Items requested by the Myanmar side as a scope of the Grant Aid Project

The Myanmar side requested the following items as a scope of the Grant Aid Project.

(1) Software Development

1) e-Declaration: This module will allow Myanmar Customs and traders (e.g., importers, exporters, customs brokers, transit transport operators, etc.) to electrically proceed customs procedures, such as import/export, bond in/out, bonded transportation, or entry/exit of means of transport under the paperless environment;
2) Single Window: This module will equip a portal function of the single window system with MACCS and assists Myanmar Customs to fulfill the mandate from the leaders of the ASEAN Member States to establish the National Single Window which improves the efficiency of coordinating border management between Myanmar Customs and other government agencies (OGAs);
3) e-Manifest: This module will help Myanmar Customs and the trade to smoothly proceed the customs clearance procedures by allowing them to easily match cargo information and goods declarations;
4) Selectivity: This module will help Myanmar Customs to effectively implement modern customs technique, namely risk management which decides an appropriate level of customs intervention (e.g., green channel/immediate release without human intervention, yellow channel/document check, or red channel/physical examination) based on risk profile/risk criteria;
5) e-Payment: This module will greatly contribute to reducing customs clearance time period by allowing the trade to utilize electronic payment of the relevant taxes, duties and fees;
6) Risk profile/risk criteria management (within MCIS): This module will help Myanmar Customs to manage risk profile/risk criteria for customs clearance, especially valuation assessment as well as for compliance management of the stakeholders;
7) Database of past records (within MCIS): This module will help a customs officer to make the right decisions

about the degree of the customs intervention by referring to the past record of the declarant concerned; and

8) Any other preparatory works for the proper installation: This component includes technical coordination of the appropriate design and specification of the datacenter and the appropriate structure and specification of network, and drafting of Center Setup File (CSF) and operational manuals for both the customs and private users.

(2) Hardware Development

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

Upon the receipt of the Brief Design which stipulates more detailed description on the scope above, the Team will review it and develop technical design as well as estimate the cost of the Project as an outline design.

Referring to Article 1 above, the Myanmar side showed its expectation that the System is to be developed with the same program structure and logic as well as the same source code as those of Japan's NACCS and CIS in order to develop the System with securing the same level of efficiency and stability of Japan's NACCS and CIS within their expected timeframe.

In order to materialize this issue, Myanmar Customs, as an implementing agency, is expecting single-source method for the selection of contractor to conduct software development in Myanmar and is asking for approval from relevant authorities. Upon the request from Myanmar Customs, the Team will share technical view point on this matter with them.

7. Undertakings taken by the Myanmar side

The Myanmar side confirmed that Myanmar side will finance and have responsibility to realize the following components that will not be covered by a Japanese Grant Aid but are essential for proper and effective operation of MACCS/MCIS:

- Construction/Upgrading of a datacenter including necessary facilities such as security devices, nitrogen fire extinguishers, air-conditioners for temperature and humidity control, generators, UPS, network equipment, and other necessary devices or equipment;

- Sustainable management of the datacenter after installment;
- Procurement of terminal PCs for customs officers, hub servers, generators and UPS for customs offices;
- Establishment of duplicative structured LAN, WAN connecting customs officers and internet access by hiring telecommunication venders;
- Contract with a capable vender for system supervision and operation for proper daily operation;
- Contract with a capable vender for technical support for software and hardware for the instant recovery from any system failure and version update of OS, middleware, and other package software incorporated into the system;
- Significant customizations of the system largely deviated from the international standards and common practices;
- Any changes in the specifications of software after the detail design phase as shown in Annex 6; and
- Any changes of the system after the system delivery as shown in Annex 6 including program alteration and reproduction of the software.

Both sides confirmed that the Myanmar side will complete construction of a datacenter including utility, security and network which would be necessary environment for operating the System properly, before the end of June 2014.
The Team will design the operation and maintenance which is to be borne by the Myanmar side after the system delivery as shown in Annex 6 and estimate its annual cost so that the Myanmar side can execute their responsibility to secure necessary budget for operation and maintenance.

The Myanmar side sounded the Team the possibility to consider for any measures to cope with the operation and maintenance cost taking into account its impact to their budget.
The Team answered that the necessary and appropriate cost as well as possible measures to afford the system will be carefully considered in the course of the Survey and shared with the Myanmar side in a timely manner.

8. Necessary Actions required for Myanmar Customs

In addition to the above-mentioned undertakings, Myanmar Customs will be expected to take the following actions which are essential for proper and effective operation of MACCS/MCIS:

(1) Role of ICT Section of Myanmar Customs

Make the following actions with full understanding of Brief Design and Detailed Design;

- Refine and update the draft center setup file (CSF) of the system, such as the user list and the HS tariff schedule;
- Finalize, refine, and update operational manual/guideline drafts;
- Register system user;
- Establish and operate Help Desk and Call Center; and
- Hold seminars and workshops and deliver lectures to customs officers and private users.

(2) Business Process Reengineering (BPR) and Legislative Amendment

- Amend the customs laws, and other relevant trade-related laws, and regulations in order to conform them to the international standards and effective operation of MACCS; and
- Review and reengineer the business process.

(3) Reorganization of Customs Department

- Reallocate human resources to enhance ICT Section and other important sections, such as PCA and Risk Assessment sections.

(4) Promotion of MACCS

- Encourage prospective private MACCS users (such as banks and traders) to participate in MACCS, for example, by holding seminars and/or workshops; and
- Lead OGA to join National Single Window.

(5) Budget-securing for MACCS/MCIS project

- Collect processing fees to secure sufficient funds/budget to cover any necessary cost for the system development and operation and maintenance costs which are not covered by Japan Grant Aid as in Section 7 above and for any actions required in this Section.

9. Submission of the final brief design

The Team will receive the first version of draft brief design which will be developed at the next Working Group late October. The Myanmar side agreed to prepare and share with the Team the progress of brief design in a timely manner for smooth implementation of the preparatory survey. The Myanmar side agreed that any modification and suggestion related to the brief design shall be made and mutually agreed before submitting the final one which will be submitted to the Team before the end of December 2013.

10. Function of Joint Working Group

The Myanmar side agreed that the Working Group consisting of staff of Myanmar Customs will work together with the Japanese side (consultant team and Japanese Working Group members) in the course of the business process reengineering and the outline design/development of MACCS/MCIS.

For smooth implementation of the survey, the Myanmar side also agreed to provide necessary information in a timely manner in accordance with the Inception Report which was explained by the Team.

11. Schedule of towards the implementation of the Grant Aid

Both sides confirmed the schedule as stipulated in Annex 4.

11-1. The consultants will occasionally visit Myanmar to collaboratively work with the joint Working Group members for elaborating the scope of the project taking into account the progress of discussions among Working Group members.

11-2. JICA will prepare the draft report in English and dispatch a mission in order to explain its contents in February 2014. Due to the time constraints, relevant stakeholders among the Japanese side will proceed to determine the technical design and estimated cost of the Project before dispatching the mission while the Team will share with Myanmar Customs such information in a timely manner. In order to mutually agree to the technical design and estimated cost of the Project before the end of December 2013, the both sides will closely communicate with each other on the progress of consideration and appraisal procedures in respective countries.

11-3. In case that the contents of the outline design report are accepted in principle by both Governments of Japan and Myanmar, JICA will complete the final report and send it to the Government of Myanmar by March 2014.

11-4. The both sides will take necessary preparatory measures for signing of E/N and G/A within one month after the Japanese cabinet approval, which would be the important factor for developing MACCS/MCIS on scheduled timeline.

Part II: Detail Planning for the requested Technical Cooperation Project

1. Specific Issues Confirmed on the Technical Cooperation Project

(1) The both sides agreed to the title of the Technical Cooperation Project as "The Project for Capacity Development of Customs Reform and Modernization by Introducing Automated Cargo Clearance System."

(2) The both sides agreed to the Project Design Matrix (PDM) and the Tentative Master Schedule (including Plan of Operations of the Technical Cooperation Project) as shown in Annex 5 and 6 respectively. These documents would be reviewed and revised jointly with the Japanese experts after their assignment of work if necessary at the Joint Coordinating Committee.

(3) Each activity of the Technical Cooperation Project needs to be conducted by the On-the-Job training basis so that relevant counterparts of the Myanmar side can acquire necessary practical knowledge and skills, and thus Myanmar Customs can take full responsibility to properly operate, maintain and renew the MACCS/MCIS after its installation. In this regard, both sides agreed that Myanmar Customs takes the initiatives in carrying out the activities described in the PDM.

(4) The both sides agreed that Myanmar Customs will form a team of counterparts which is composed of experts/officials in respective areas of the activities of the Technical Cooperation Project so that Myanmar Customs can takes the initiatives of Project activities as mentioned above with the support of the Japanese experts. The team shall be formally established in consultation with the experts as well as JICA Myanmar office upon the official launch of the Technical Cooperation Project.

(5) Myanmar Customs confirmed that they would arrange the necessary coordination in order to sign the Record of Discussions (hereinafter referred to as "R/D") which has been mutually prepared as shown in Annex 7. The R/D is expected to be signed between JICA and Myanmar Customs in December 2013.

2. Basic Framework of the Technical Cooperation Project

The summary of the Technical Cooperation Project is as follows:

(1) Project Title

Project for Capacity Development of Customs Reform and Modernization by Introducing Automated Cargo Clearance System

(2) Project Duration

Four (4) years from the date of sign of the R/D of the Technical Cooperation Project

(3) Project Purpose

Necessary environment for properly operating and maintaining MACCS/MCIS is enhanced with smooth introduction of the system based on the technology of NACCS/CIS towards Customs reform and modernization.

(4) Target Group

1) Direct Beneficiaries: Officials of Myanmar Customs and relevant private users of the system such as importers, exporters, customs brokers, transit transport operators

2) Indirect Beneficiaries: The private sector and other governmental agencies which are engaged in trade

(5) Details of the Project

See Tentative Project Design Matrix in Annex 5.

(6) Tentative Master Schedule of Project Implementation including Plan of Operations

See Tentative Master Schedule in Annex 6.

Part III: Ensuring synergy effect between the scheme

The both sides confirmed that both the Grant Aid and the Technical Cooperation Project need to be implemented as a one comprehensive project, ensuring the maximization of the synergy effects in order to ensure utmost impact and effectiveness towards Customs reform and modernization in Myanmar. The both sides will consult each other whenever any major issues arise which are not stipulated in this M/D.

Annex 1. Japan's Grant Aid

Annex 2. Standard Flow Chart of Japan's Grant Aid Procedures

Annex 3. Major Undertakings to be Taken by the Both Sides

Annex 4. Schedule Towards the Implementation of the Grant Aid

Annex 5. Project Design Matrix (PDM)

Annex 6. Tentative Master Schedule (including Plan of Operations)

Annex 7. Draft Record of Discussions (to be discussed in near future)

Annex 1 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 singed 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"
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 shown in this M/D and Annex 3.

(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)

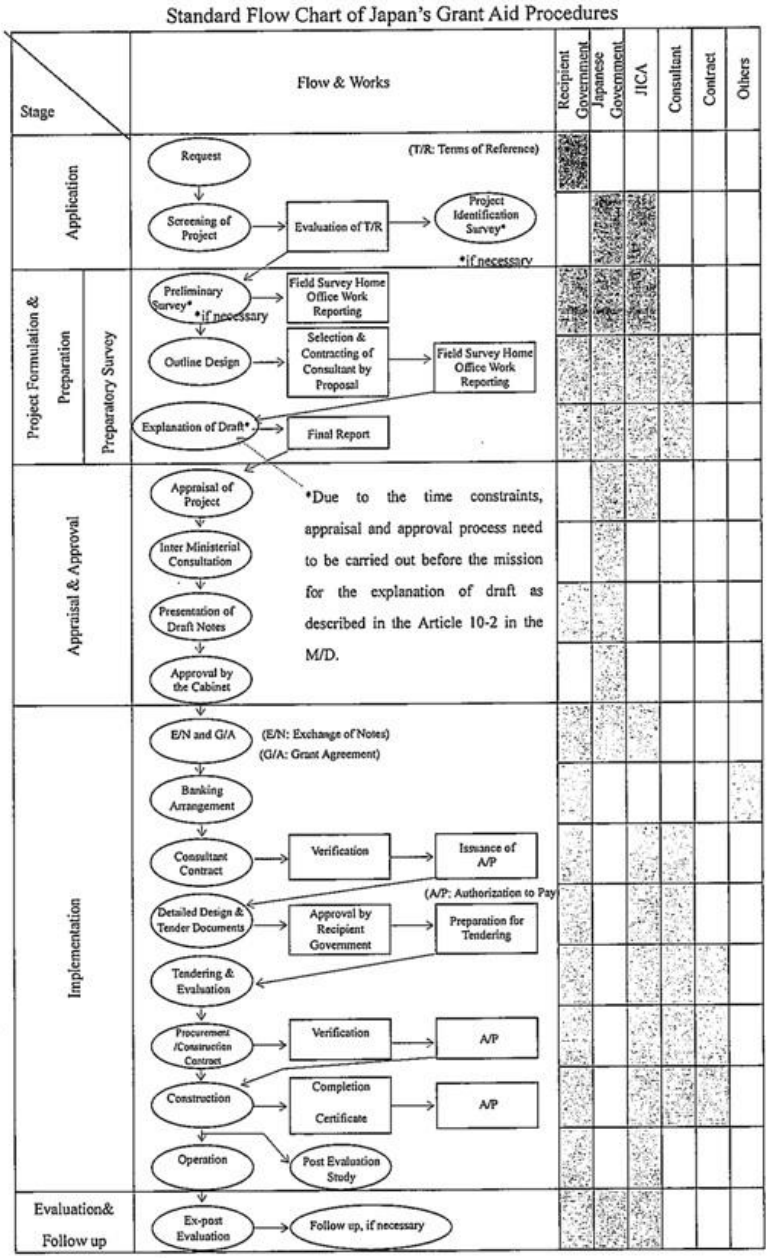
The Government of the recipient country should bear an advising commission of an A/P and payment commissions paid to the Bank.

(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.

Annex 2

Standard Flow Chart of Japan's Grant Aid Procedures



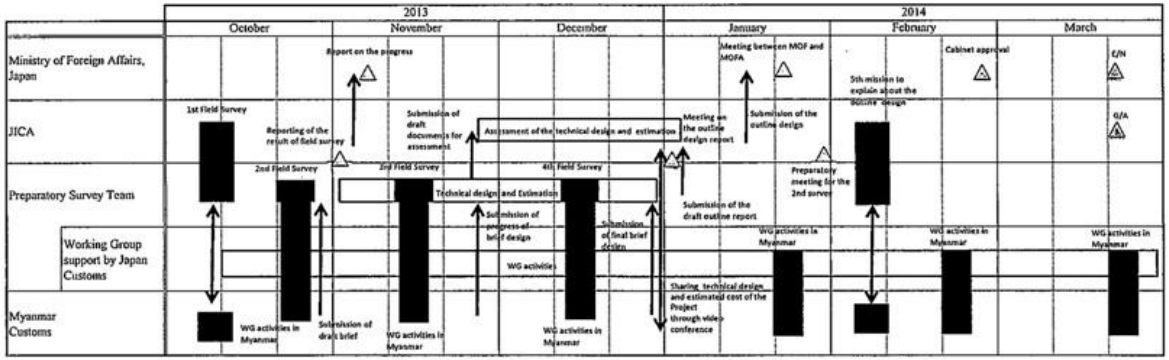
Annex 3

Major Undertakings to be Taken by the Both Sides

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products		
	1) Marine (Air) transportation of the Products from Japan and/or a third country to the recipient country	●	
	2) Tax exemption and custom clearance of the Products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
2	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		●
3	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 the recipient country and stay therein for the performance of their work		●
4	To ensure that the facilities and equipment be maintained and used properly and effectively under the Project		●
5	To bear the expenses, other than those covered by the Grant, necessary for the implementation of the Project such as preparation of infrastructures		●
6	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 commissions		●
7	To give due environmental and social consideration in the implementation of the Project		●

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

Annex 4
Schedule Towards the Implementation of the Grant Aid



Note: The timing of Cabinet approval in Japan, E/N and G/A is subject to consultation with Ministry of Foreign Affairs, Japan.
The timing of WG activities in Myanmar is subject to change depending on the progress and availability among members.

Annex 5: Project Design Matrix

Project Title: Project for Capacity Development of Customs Reform and Modernization by Introducing Automated Cargo Clearance System (four years)

Project Duration: from December 2013 to November 2017

Target Group: Officials of Myanmar Customs and relevant private users of the system such as importers, exporters, customs brokers, transit transport operators

Version: No. 0.0

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal Trade facilitation in Myanmar is further promoted with securing appropriate collection of Customs and Tariff.	1. Reduce the amount of time required for Customs clearance to X seconds for Simplified Examination (from declaration to permission, except Payment by Manual), to X minutes for Document Examination (from start screening to completion of examination). 2. Indicators of efficient trade processing are improved.	1. Annual report of MOF, Time release study, Sample survey 2. The World Bank statistics (Logistics Performance Index)	
Project Purpose Necessary environment for properly operating and maintaining MACCS/MCIS is enhanced with smooth introduction of the system based on the technology of NACCS/CIS towards Customs reform and modernization.	1. The rate of declared number through MACCS reaches X % of the total declared number of import and exports at the targeted Customs offices. 2. The number of claims against Customs procedure handled by the Customs authority decreases. 3. MACCS/MCIS is maintained and managed properly and targeted capacity utilization at X % is attained.	1. Annual report of MOF 2. Questionnaire survey 3. Activity report of the Project	Sufficient number of staff and budget for operation and maintenance of MACCS/MCIS are secured.
Outputs 1. Necessary preparation for properly introducing MACCS/MCIS is made. 2. The officials of Myanmar Customs acquire necessary knowledge and skills to use MACCS/MCIS properly. 3. Structure to operate, maintain and manage MACCS/MCIS properly is established and necessary human resource is developed. 4. Users in the private sector acquire necessary knowledge and skills to use MACCS properly. 5. Necessary laws and regulations corresponding to usage of MACCS/MCIS are established. 6. Proper information security policy and mechanism for proper operation of MCIS is established. 7. Capacities on the core operations of Customs administration such as tariff classification, Customs valuation, post clearance audit and Customs risk management is enhanced for realizing prompt and appropriate Customs clearance utilizing MACCS/MCIS.	1-1. The detailed design which ensures feasibility, efficiency and effectiveness of MACCS & MCIS under Myanmar's environment is developed strictly according to the schedule. 1-2. Business processing guidelines for Customs users and Center Setup File (CSF) are developed in accordance to the schedule. 1-3. Business processing manuals for users in the private sector are developed in accordance to the schedule. 2. The rate of participants of explanatory meeting about MACCS/MCIS reaches X% of the total number of officers engaging Customs clearance. 3-1. Help desk for MACCS/MCIS users is established in accordance to the schedule. 3-2. FAQ for system administration and problem processing is developed in accordance to the schedule. 4. The number of staffs as well as private corporations participated in the explanatory meetings reaches X and X respectively. 5. Necessary and sufficient laws and regulations to operate MACCS/MCIS are established in accordance to the schedule. 6. Information security manuals are developed in accordance to the schedule. 7-1. The number of Customs officers who received trainings reaches X before the end of the Project. 7-2. The level of understandings for the contents of trainings by participants reaches X % on average.	In verifying, actual result per schedule is also evaluated. 1-1. Detailed Design 1-2. Business processing guidelines for both Customs users and the private sector, CSF 2. Report of the Project activities 3-1. Annual report of MOF (Conditions of facilities and staff of help desk that was set up by the project) 3-2. FAQ 4. Report of the Project activities 5. Laws and regulations 6. Information security manuals 7-1. Report of the Project activities 7-2. Report of the trainings, questionnaire survey	• Necessary laws and regulations are approved as scheduled in accordance with the progress of development of MACCS/MCIS. • Necessary decisions by relevant authorities are made as scheduled in the course of the activities. • MACCS/MCIS are developed and introduced as planned. • Sufficient number of staff and budget to operate and maintain MACCS/MCIS is secured. • Users in the private sector do not oppose introduction of MACCS/MCIS.

Activities

As for following activities, counterparts of Myanmar Customs take the initiatives and the Japanese side offers necessary advices and supports.

1-1. Deepening understandings on MACCS/MCIS through consideration of business process by introducing MACCS/MCIS including detailed design process.
1-2. Develop business processing guidelines for Customs users and Center Setup File.
1-3. Develop business processing manuals for users in the private sector.
2-1. Deepening understandings on MACCS/MCIS through consideration of business process by introducing MACCS/MCIS including detailed design process.
2-2. Prepare explanatory materials in accordance with each stage, such as detailed design and running test to Customs users.
2-3. Develop instructors who conduct explanations to Customs users.
2-4. Conduct explanatory meetings for Customs users in accordance with each stage such as detail design and running test.
3-1. Establish necessary structures including user's help desk and assigning technicians for administration of MACCS/MCIS.
3-2. Establish necessary structure to plan and implement running test properly.
3-3. Establish a structure to grasp and solve problems in order to operate, maintain MACCS/MCIS properly.
3-4. Develop FAQ for system administration and problem processing.
3-5. Develop concrete measures to respond to inquiries and problem handling after MACCS/MCIS starts operation.
3-6. Respond to inquiries and problem handling after the system starts operation.
4-1. Prepare documents in accordance with each stage such as detailed design and running test, which are delivered to users in the private sector and banks at an explanatory meeting.
4-2. Conduct explanatory meetings for users in the private sector and banks in accordance with each stage such as detail design and running test.
5-1. With change of system and custom-house business process by introducing MACCS/MCIS, specify relevant laws and regulations which need to be revised.
5-2. Make draft revisions of relevant laws and regulations, taking into account the preceding cases of Japan.
5-3. Consult draft revisions with stakeholders.
6-1. Develop necessary information security mechanisms.
6-2. Develop information security manuals.
7-1. Identify areas which are necessary to be enhanced for the Customs modernization in Myanmar, which includes Customs Classification, Customs Valuation, Post Clearance Audit and Risk Management.
7-2. Develop training plans for identified areas.
7-3. Conduct trainings based on the developed training plans.

Inputs

Japanese side

1. Expert(s)
   Up to three Long-term experts
   - Chief adviser /Customs administration
   - Operation and maintenance of the system
   - Coordinator

   Short-term experts (as needed)
   - Review of laws and regulations and custom-house business process, IT, tariff classification, Customs valuation, post clearance audit, Customs risk management, etc.)

2. Training in Japan and/or Third-country training

3. Equipment provision (as needed)

4. Project expense for field activities
   - Travel expense for experts and transportation cost
   - Others (to be determined)

Myanmar side

1. Human resource
   Project director
   Project manager
   Counterpart WG(s)

2. Provide offices and basic logistic facilities necessary to implement the project.

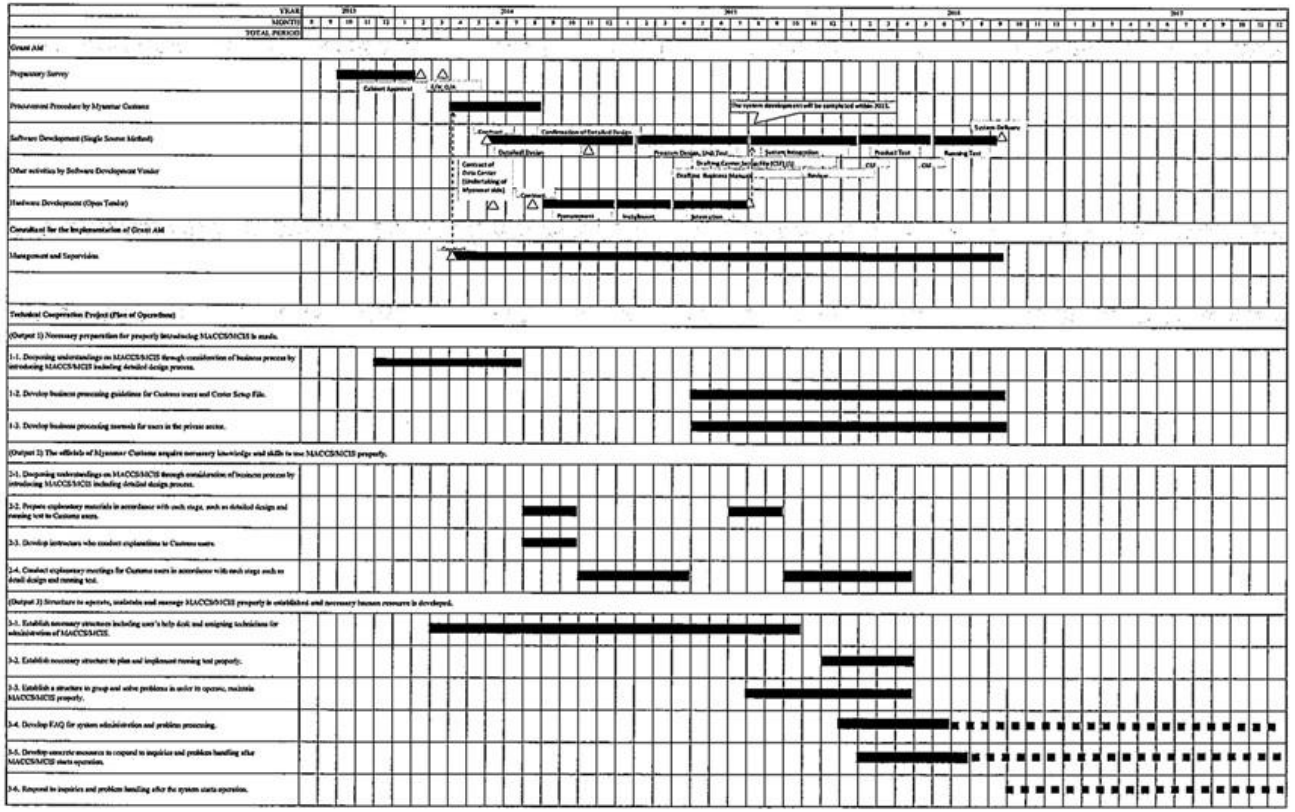
3. Operating and ordinary expenses
   - Expenses for electricity, water, communication etc.
   - Expenses to hold explanatory meetings
   - Others (to be determined)

Change in personnel of counterpart does not happen frequently.

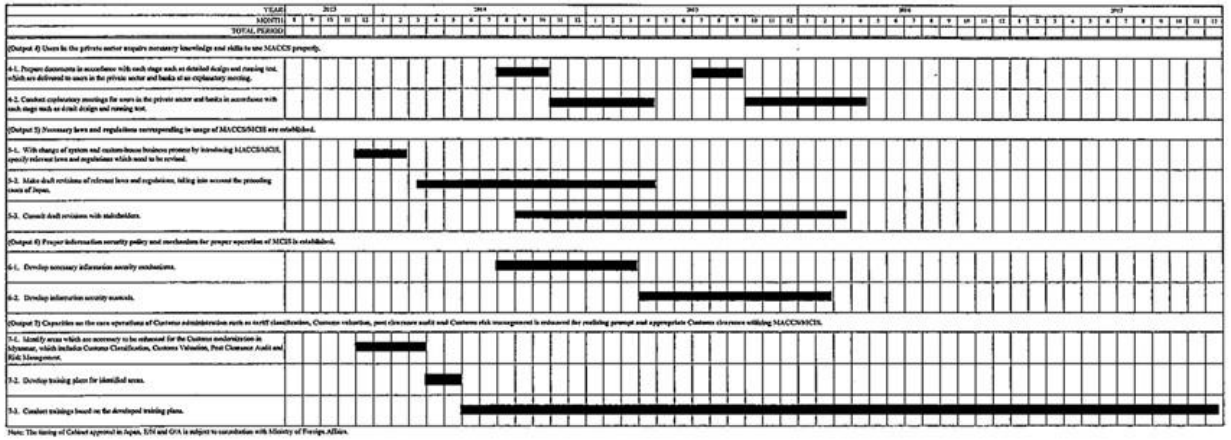
Preconditions

Government of Myanmar does not change its policy to modernize Customs administration by introducing a new automated cargo clearance system.

Annex 6: Tentative Master Schedule (including Plan of Operations)
Project for Capacity Development of Customs Reform and Modernization by Introducing Automated Cargo Clearance System



Annex 6: Tentative Master Schedule (including Plan of Operations)
Project for Capacity Development of Customs Reform and Modernization by Introduction of Automated Cargo Clearance System



Note: The timing of Cabinet approval in Japan, E/N and G/A is subject to consultation with Ministry of Foreign Affairs.

Minutes of Discussions
on the Preparatory Survey
forthe Project for National Single Window and Customs Modernization
by Introducing Automated Cargo Clearance System
in the Republic of the Union of Myanmar
(Explanation of the Draft Summary Report of the Outline Design for the Requested Grant Aid)

From October 2013 to February 2014, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey Team for the Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance Systemand through discussions, field survey and technical examination in Japan, JICA prepared a Draft Summary Report of the Outline Design for the Requested Grant Aid.

In order to explain and to consult with concerned officials of the Customs Department under the Ministry of Finance, the Government of Myanmar on the components of the Draft Summary Report, JICA sent to Myanmar the Preparatory Survey Team (hereinafter referred to as "the Team"), which is headed by Mr. Makoto Yamashita, Executive Advisor to the Director General, Southeast Asia and Pacific Department, JICA, from February 13 to 21, 2014.

As a result of discussions, both sides confirmed the main items described on the attached sheets.

Yangon, February21, 2014

Mr. Makoto Yamashita	Mr. HtunThein
Leader	Director General
Preparatory Survey Team	Customs Department
Japan International Cooperation Agency	Ministry of Finance
Japan	Republic of the Union of Myanmar

ATTACHMENT

1. Title of the Grant Aid Project

The both sides agreed to the title of the Grant Aid Project as "the Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System" (hereinafter referred to as "the Project").

2. Components of the Draft Summary Report

The Customs Department under the Ministry of Finance (hereinafter referred to as "MCD") agreed and accepted the components of the Draft Summary Report (as shown in Annex) of the Projectthat was explained by the Team.

3. Confidentiality of the Specification of the Equipment and the Project Cost Estimate

3-1.Confidentiality of the Specification of the Equipment

Both sides agreed that the draft specification is confidential and should never be duplicated or released to any outside parties.

3-2. Confidentiality of the Project Cost Estimate

Both sides agreed that the Project cost estimate is confidential and should never be duplicated or released to any outside parties. The Myanmar side understood that the Project cost estimate is not final and is subject to change in the course of appraisal by the Government of Japan.

4. Undertakings by the Myanmar side

Both sides reconfirmed that the Myanmar side would allocate necessary budget for undertakings which was described in the Draft Summary Report to be conducted in a timely manner.

5. Schedule

The Draft Report will be submitted to the Japanese government inMarch 2014.

Both sides agreed to make necessary procedures for the Exchange of Notes and the Grant Agreement which would be signed right after the approval by the Japanese cabinet.

6. Others

On other issues related to the Grant Aid which are not stipulated in this M/D, the Minutes of Discussions which was signed on November 22, 2013 remains applicable.

The both sides will consult each other whenever any major issues arise which are not stipulated in the said two (2) M/Ds.

Annex Draft Summary Report

APPENDIX-5 References

No	Title	Issuing Agent	Contents
1	Brief Design of the Project for National Single Window and Customs Modernization by Introducing Automated Cargo Clearance System in Myanmar (Version 2.0)	MCD	A brief design of MACCS/MCIS (2013)