

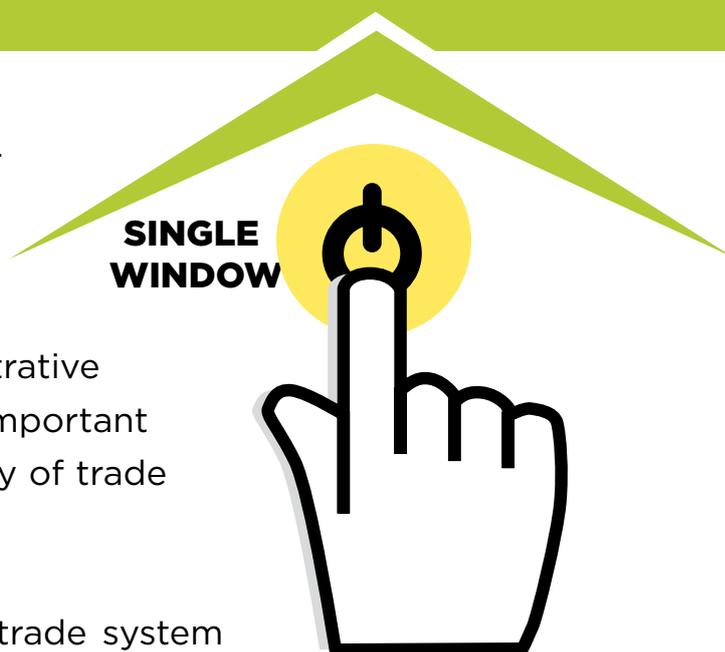
TOWARDS A SINGLE WINDOW TRADING ENVIRONMENT

Japan's Development of a Single Window - Case of NACCS

International trade facilitation greatly contributes to enhancements of international competitiveness of a country. Establishing a Single Window for all related administrative procedures is one of the most important measures to move forward efficiency of trade related procedures in each country.

Japan first introduced a paperless trade system in 1978, which has evolved into a Single Window system. It is called NACCS, managed by NACCS Center (Nippon Automated Cargo and Port Consolidated System, Inc.). NACCS is the computer system for online processing of regulatory procedures of customs and other related administration as well as related private sector services for arriving/departing ships and aircrafts or import/export cargos in Japan.

This Brief showcases how Japan successfully developed NACCS, resulting in an efficient paperless trading facility. This Brief explains its history, characteristics, evolutionary approach for integration of other regulatory systems, success factors, lessons learnt and future plan for improvement.



Outline of NACCS System

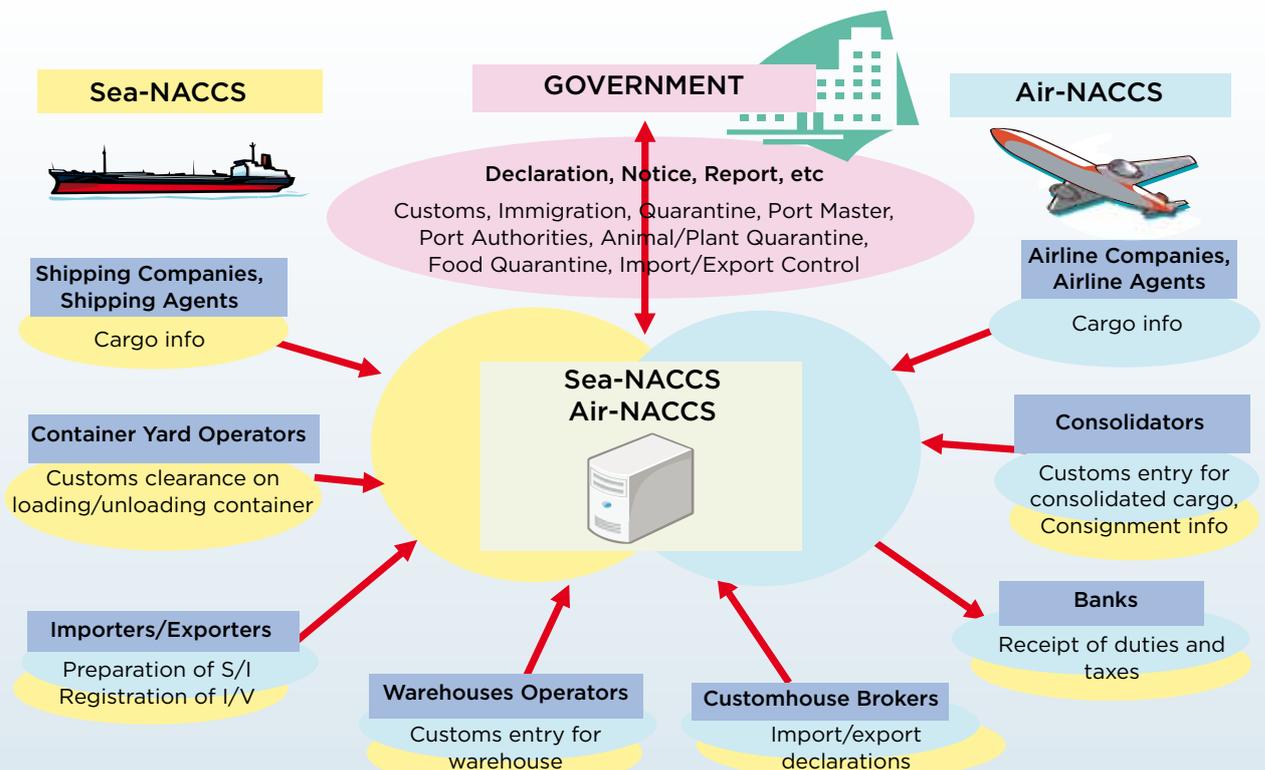
The Single Window for electronic trade procedures in Japan has been developed and operated by the NACCS Center based on the “Special Law of Import and Export Procedures through the Electronic Data Processing System”. NACCS is the computer system for online processing of regulatory procedures of customs and other related administration as well as related private sector services for arriving/departing ships and aircraft or import/export cargo in Japan.

Air-NACCS, which processes import/export by air, was put into operation by means of public private partnership measures in 1978 in order to process rapidly increasing air cargoes for import at the Narita Airport. Sea-NACCS, which processes import/export by sea, was put into operation in 1991. NACCS system has expanded its deployment areas and now covers the whole of Japan; it has also increased the type of functions to meet the development of international logistics and information communication technology. Sea-NACCS and Air-NACCS were initially exploited and operated separately, but, through the latest upgrades of Sea-NACCS in October 2008 and Air-NACCS in February 2010, Air/Sea-NACCS are now a unified system (see Figure 1).

NACCS currently provides many functions to process all import/export related procedures and can be joined by all related parties in both private and public sectors,¹ enabling to build up a “Comprehensive Logistics Information Platform”. Approximately, 98 % of import/export cargo are currently processed through NACCS system (See Figure 2). Main features of NACCS are a) a system to complete administrative procedures, b) a database system for cargo and transport management and c) a communication system among the users. NACCS handles all procedures in real-time in line with the flow of movement of cargo for import and export.

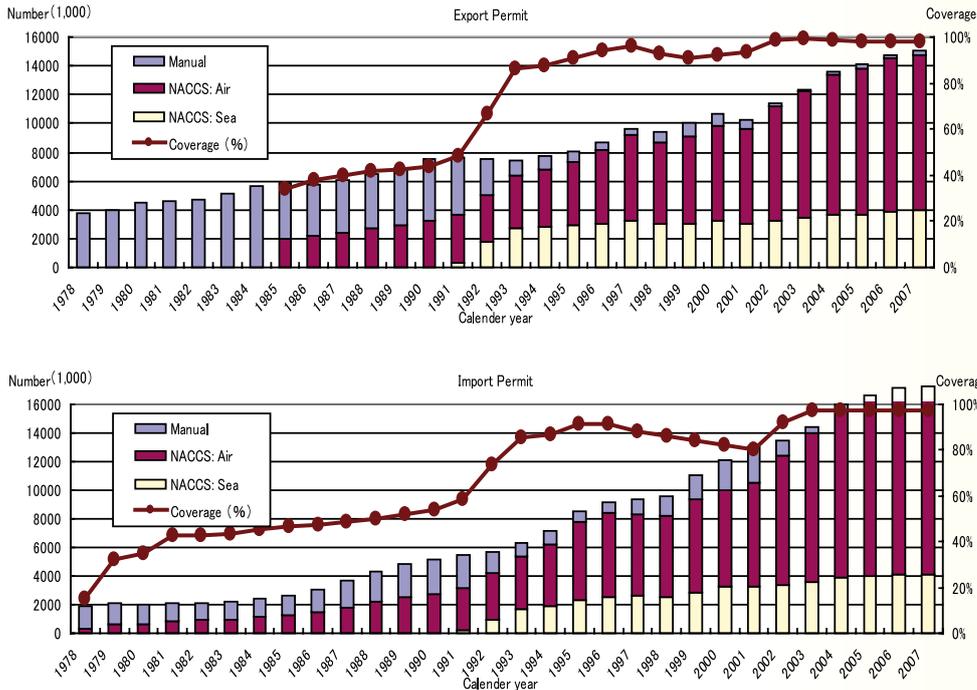
The NACCS Center, established as an authorized corporation by the Ministry of Finance in October 1977 for the purpose of operation and maintenance of NACCS system, was privatized in October 2008 with an expectation for improvement of its corporate management. The privatization has enhanced its service quality and given more flexibility in the development of new services. The privatization has also allowed the NACCS Center to better meet the growing needs in the field of international trade and logistics.

Figure 1: Operation of NACCS in Cargo Import/Export Procedure



¹ As of March 2010, the NACCS has more than 8,000 users (place of businesses basis) and handles about 500 million traffics per year.

Figure 2: Cargo Ratio and Volume Covered by NACCS



NACCS Export
 Air: 11 million
 Sea: 4 million
 Total: 15 million
 Coverage: 98%

NACCS Import
 Air: 13 million
 Sea: 4 million
 Total: 17 million
 Coverage: 98%

NACCS Export
 Air: 24 million
 Sea: 8 million
 Total: 32 million
 Coverage: 98%
 (Figures in 2007)

Transition to Single Window Environment

In accordance with the government policy, the NACCS Center has promoted connectivity among the systems related to procedures of import/export, port and airport, held by Ministries other than the Ministry of Finance (MOF, of which the Japan Customs Administration is a part), for the purpose of speeding-up and simplifying trade procedures. As shown in Figure 3, implementing a Single Window has progressed in line with major government policies.

1. One Stop Service

Computerization of all related administrative procedures was achieved in 1997. After completion of computerization, effort has shifted to building interface among the relevant systems for interoperability. To begin with, NACCS interfaced with FAINS (Food Automated Import Notification and Inspection Network System) operated by the Ministry of Health and Welfare (currently, the Ministry of Health, Labour and Welfare) in February 1997. Then, NACCS interfaced with ANIPAS (Animal Quarantine Inspection Procedure Automated System) and PQ-NETWORK (Plant Quarantine Network System) operated by the Ministry of Agriculture, Forestry and Fisheries. These interfaces made it possible to provide a so-called "One Stop Service" enabling procedures related to food sanitation, animal quarantine, and plant quarantine, together with customs procedures, to be completed through a single client terminal of NACCS. Submission of documents of permit of food sanitation or plant/animal quarantine to customs offices became unnecessary. Subsequently, NACCS interfaced with JETRAS (Japan Electronic Open Network Trade Control System) operated by the Ministry of Economy, Trade and Industry, which handled trade control procedures, in November 2002.

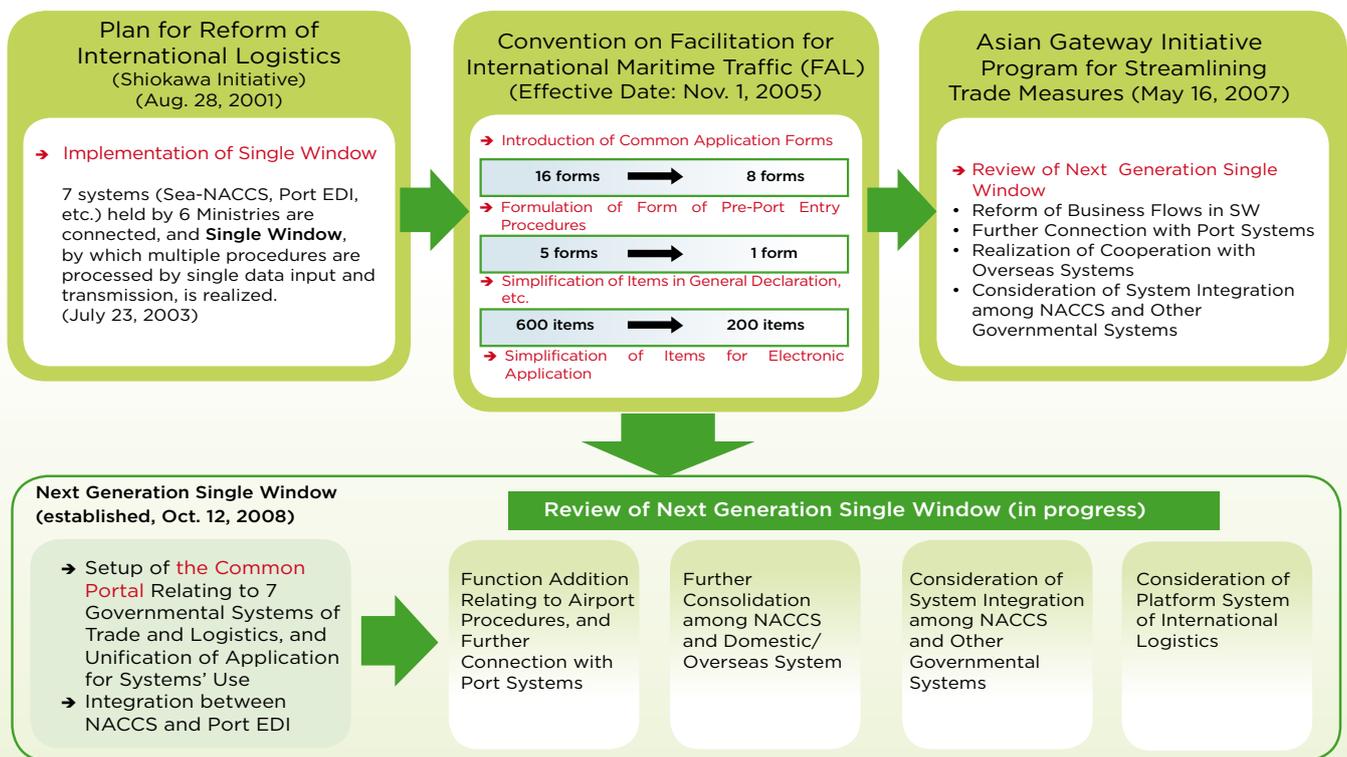
As a result of the interfaces, approximately 90 % of import declarations which involved procedures of Ministries other than MOF were processed through NACCS system. This made import/export processing more expeditious and simpler, bringing great benefits to customs brokers and traders. However, although the "One Stop Service" made it possible to complete multiple procedures of relevant systems of the government on a single terminal, it was still necessary to make data transmission separately for each procedure.

2. Single Window

In August 2001, the Finance Minister of Japan proposed the "Shiokawa Initiative - Plan for the Reform of International Logistics", which included the introduction of Single Window Service for import/export and port related procedures to minimize trading costs and make lead time shorter and more predictable. Based on the proposal, NACCS interfaced with Port EDI (Electronic Data Interchange) operated by the Ministry of Land, Infrastructure, Transport and Tourism, which handled port procedures, and Crew Landing Permit Support System operated by the Ministry of Justice, which handled immigration procedures, in July 2003, and upgraded linkage among NACCS and the relevant systems into a comprehensive computer interface system. This upgrade enabled users to implement all the necessary procedures required by different authorities at once by a single data transmission, realizing "Single Window Service" in Japan.

However, at the time of the realization of the Single Window in July 2003, application forms and their terms for the administrative procedures of the relevant Ministries were not reviewed. Therefore, much duplication of forms and terms for data input

Figure 3: Key Milestones of Government Policies on Single Window



remained. In November 2005, taking the opportunity of the legislation process to conclude and approve FAL Convention (Convention on Facilitation of International Maritime Traffic, 1965), the documents and procedures were reviewed among the relevant Ministries to enhance competitiveness of ports in Japan. As a result, 16 forms and 600 terms were reduced to 8 forms and 200 terms, respectively. The 5 different forms of the General Declaration for port entry procedures of 4 Ministries were integrated to a single form. This facilitated multiple use of inputted information and promoted streamlining of users' business.

3. Next Generation Single Window

The Liaison Conference of Chief Information Officer (CIO) of the Government adopted the "Plan to Optimize Businesses and Computer Systems related to Import/Export, Port and Airport Procedures" in December 2005. This Plan proposed a policy to upgrade Single Window to "Next Generation Single Window". The main components of the Next Generation Single Window are a) integration of Single Window functions between NACCS and Port EDI, b) establishment of Single Window Service for airport procedures, and c) establishment of "the Common Portal" to secure more user-friendly service and efficient single access.

Following the proposal, together with the upgrade of Sea-NACCS in October 2008, Port EDI and Crew Landing Permit Support System were integrated to NACCS system, and the Common Portal was also put into operation. Subsequently, along with the upgrade of Air-NACCS in February 2010, Single Window Service of airport procedures was established, and JETRAS

was integrated to NACCS system.

Furthermore, the "Asian Gateway Initiative - Program for Streamlining Trade Measures" prepared in May 2007 and endorsed by the Prime Minister to reform in customs clearance and other relevant procedures and enhance logistics capacity for international trade, included review of the Next Generation Single Window. In accordance with the program, reform of business flow in Single Window, system integration between NACCS and other governmental systems, etc. are in progress for more user-friendly service of NACCS, as a platform system for international logistics.

Characteristics and Benefits of Japan's Single Window

1. Speeding-up of Trade Procedures

Japan's Single Window is not a simple interface among the relevant systems, but enables users to implement all the necessary procedures of the relevant Ministries by single entry and transmission of data. For import/export procedures, Single Window Service has greatly contributed to the reduction of cargo clearance time² as shown in Figure 4 and streamlining of user's businesses³.

2. Integration of Forms and Data

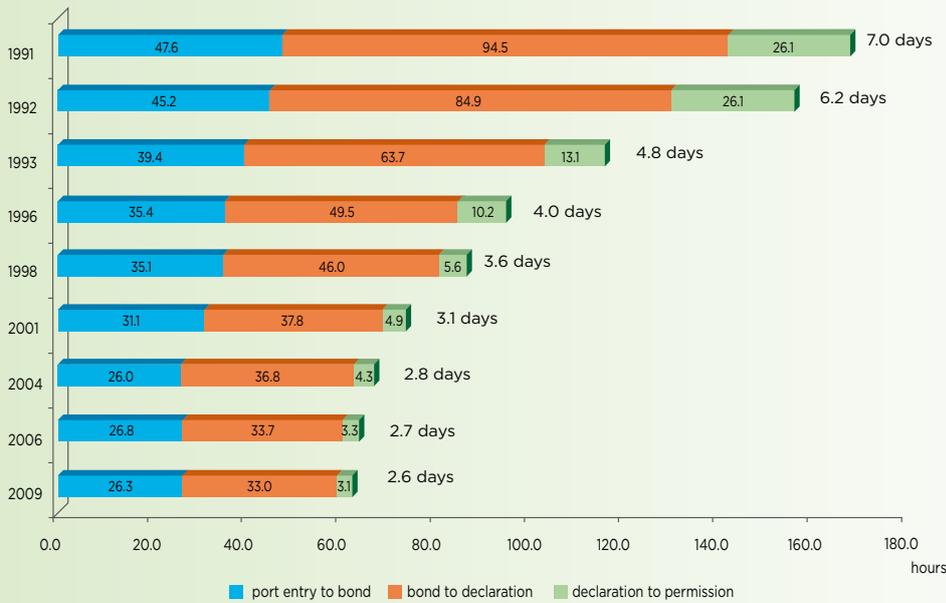
In connection with designing of a Single Window, administrative procedures were reviewed and simplified, with subsequent harmonization of forms, terms and data⁴. This work has freed users from

² The number of the import declarations has been tripled in 20 years. On the other hand, time needed for the customs clearance of import goods has been shortened to less than a third in this period. Interfaces between NACCS and systems of the relevant Ministries were initiated in 2003, and have contributed to shortening of processing time for procedures related to the trade and international logistics since then.

³ The result of the estimation of benefits by Mitsubishi Research Institute Inc., "Report on Possibilities for Renewal of Customs Related Systems (March, 2005) (written in Japanese)", was 55.2 billion yen/year (benefits of private sector user: 22.7 billion yen/year and benefits of customs: 32.6 billion yen/year) while the implementation costs of NACCS was 9.7 billion yen/year.

⁴ With this effort, 16 IMO FAL based forms were reduced to 8 forms. In the case of 8 non IMO FAL based electronic forms (Application for Berth Assignment, Application for Berth Charge, Application for Moorings, Report on the Financial Security Information, Report on Security Information of Ship, Application for the Night Entrance to the Port, Entry Notification, Additional Report), they were reduced to a single form (Pre-arrival Procedure Form). As a result, around 600 data were reduced to 200 in total.

Figure 4: Reduction of Lead Time in Sea Cargo Import



inputting data repeatedly and has allowed re-use of the inputted data. For instance, for port related procedures, Single Window Service has reduced the necessity of submitting same message several times since such users (e.g. ocean carriers and agents) can send data, such as port entry, to the relevant Ministries with one submission.

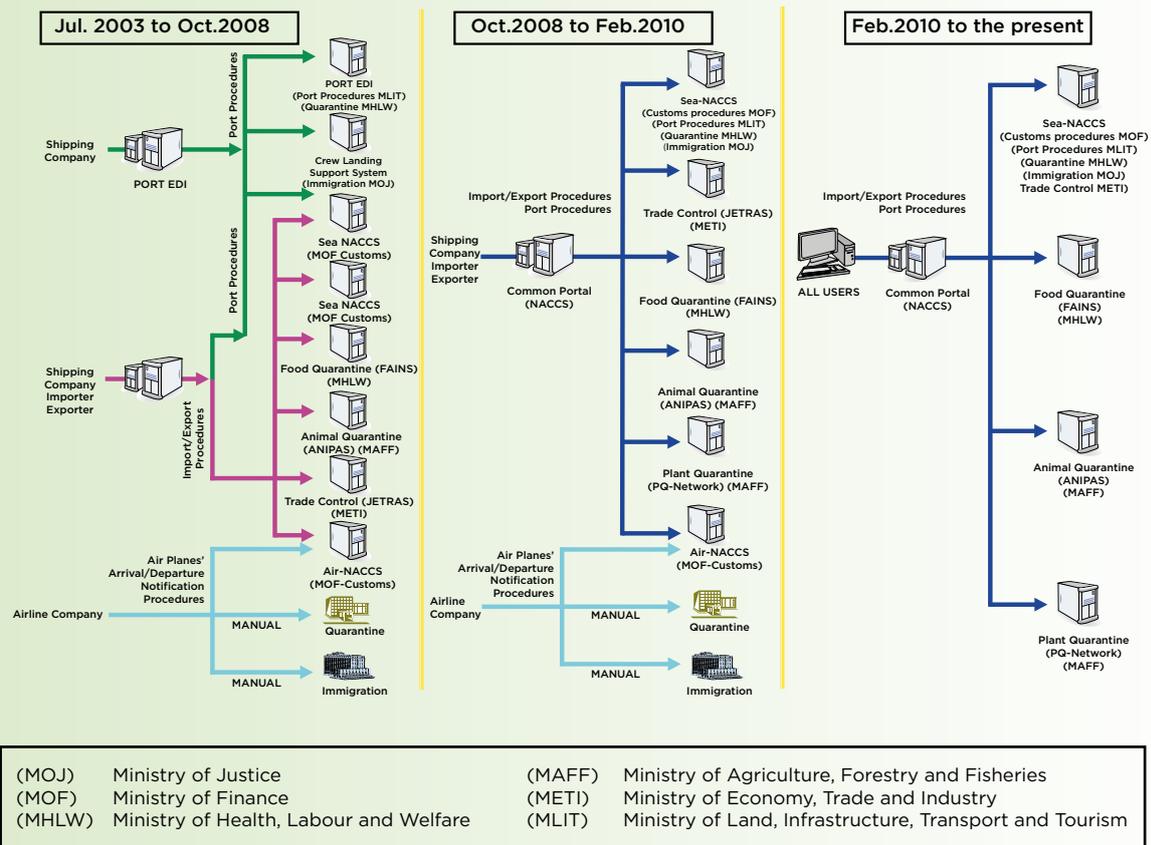
3. The Common Portal

The Common Portal, which has been operational since October 2008, is the biggest feature of the Next Generation Single Window. The Common Portal was developed and is presently operated by the NACCS

Center. At the same time, the help desk of the Single Window Service, operational 24 hours/day and 365 days/year for user inquiries, has been merged to the NACCS Center.

The Common Portal plays the role of an entrance for the Single Window Service. The Common Portal implements the function to issue “Common Registration Number” that links customs declaration and other trade procedures of relevant Ministries for declaration/application status management. The Common Portal is capable of delivering messages to each administration in a common format and protocol using one single message transmission made by users.

Figure 5: Evolution of a Single Window and Role of the Common Portal



The applications to use each administrative system were integrated into one single procedure, and private sector user may apply for the use of Single Window through a function of the Common Portal. Besides, the users can utilize all the connected systems with a single ID and password provided as a function of the Common Portal. The Common Portal timely provides users of private sectors with information related to operation of relevant systems in a single website.

4. Integration of Relevant Systems

Usually, a Single Window interconnects relevant systems through interfaces or linkages. However, an epoch-making attempt is in progress in the case of Japan's Single Window. Based on the "Asian Gateway Initiative - Program for Streamlining Trade Procedure," the relevant systems, developed and operated by respective authorities, are to be integrated to the NACCS system, resulting in a single system in the near future. So far, the Port EDI formerly managed by the Ministry of Land, Infrastructure, Transport and Tourism, the Crew Landing Permission Support System formerly managed by the Ministry of Justice and the JETRAS formerly managed by the Ministry of Economy, Trade and Industry have been merged to the NACCS system. Subsequently, the Common Portal, FAINS currently managed by the Ministry of Health, Labor and Welfare, PQ-NETWORK and ANIPAS currently managed by the Ministry of Agriculture, Forestry and Fisheries are planned to be integrated to the NACCS system in October 2013, resulting in the completion of integration of relevant systems to the NACCS system (See Figure 6). This attempt would be a great benefit in terms of cost savings in hardware, maintenance, warehousing, etc., since duplication of systems will be resolved and the system will be utilized more efficiently. This integration is also expected to shorten processing time of the system.

Key Success Factors and Lessons Learnt from Single Window Establishment

The introduction of Single Window is greatly beneficial to all related parties without exception. The most important success factor is that all of the relevant parties joined the consideration and coordination from the initial stage in moving toward the Single Window establishment as a

whole governmental policy. As all of the relevant parties are involved in the consideration of the Single Window, the establishment was realized smoothly, user-friendliness was fully taken into consideration, and the realities on the frontline of international logistics were reflected.

1. Policy-making by Government as a Whole

Establishment and upgrade of Single Window Service were incorporated into whole Japanese governmental policy programs as top priority issues in the context of computerization of administrative procedures, logistics, etc. and shared in common among the relevant Ministries together with clear timelines. As a result, coordination to resolve the challenges, including budget among the relevant Ministries, were facilitated, and the policies on the Single Window could be realized smoothly. Making the Single Window Service part of the national policy program was the most important success factor in realizing the One Stop Service in 1997, subsequently in establishing Single Window Service in 2003, and finally in reaching to Next Generation Single Window in 2005 in Japan.

2. Coordination among Relevant Ministries

In order to materialize the whole governmental policies on single window service establishment, a "Liaison Conference on NACCS among the Ministries related to Import/Export and Port", with the membership composition at the level of responsible director of each Ministry, has been launched. In addition, several working-level conferences were set up to consider more detailed issues jointly among the Ministries.

For the coordination among the Ministries, the role of the Ministry of Finance, which is the Head Office of Japan Customs Administration and supervises the NACCS Center, was the most important. For example, the costs to set up and maintain the Common Portal were allocated to the relevant Ministries based on the ratio of the number of the traffics of their respective systems, and, as a consequence, over 90 % of the costs of the Common Portal were shouldered by the Ministry of Finance. For this reason, the Ministry of Finance could lead the discussion for establishment and upgrade of Single Window Service, and other Ministries followed the proposal by the Ministry of Finance since they could save their costs. The leadership and coordination by the Ministry of Finance

Figure 6: Integration Roadmap for Import/Export Processing Systems

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