

The background of the cover features a semi-transparent red overlay over a photograph of a business meeting. Several people in professional attire are visible, some standing and talking. The bottom half of the cover is decorated with a complex geometric pattern of overlapping triangles in various shades of red and pink. Two thin white diagonal lines cross the cover: one from the top-left towards the center, and another from the bottom-right towards the center.

# INTRODUIRE LES PARTENARIATS PUBLIC/PRIVÉ

PARTIE II  
VOL 2

## **Volume 2**

# **Part II**

## **Introducing Public-Private Partnerships**

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Provided that there is a sound commercial basis and complementarity between the public and private sectors, Single Window projects offer an excellent opportunity to transform services through completion, efficiency, and economy. To make PPP a success, there should be a fair distribution of risks and returns between partners.

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# 1. The Public-Private Partnership Option

As a measure to facilitate trade, the Single Window promises to be a ‘one-stop’ service for businesses interacting with government agencies in the context of formalities to clear goods and means of transport at the border. Single Window operations can also cover commercial and logistics procedures associated with service providers that are present at border crossings, ports, airports and dry ports. In addition, the Single Window has the potential to usher in a paperless environment, replacing archaic paper-based processes with electronic documents and online, real-time exchange of structured data. It offers governments efficiency in implementing border procedures, and effectiveness in applying regulatory controls.

The Single Window is a win-win proposition, with savings and ‘customer value’ accruing to all stakeholders. However, it is not easy to implement and can be very costly to develop and operate. On the one hand, there are risks associated with implementing any large-scale ICT projects; on the other, there are challenges associated with bringing all participating government agencies on board to align all their regulatory procedures into a typical process flow. Public-private partnerships (PPPs) have been used successfully in implementing Single Window solutions in different regions of the world and in various types of economies. Is there a right way and a wrong way to implement a Single Window through the PPP route? What are the most important points when considering a PPP option?

## 1.1 What is a PPP in the Single Window Context?

A public-private partnership is an arrangement between a public/statutory body and a private sector body, and has the following characteristics:

- (1) Public assets and/or public services are provided through investment and/or management undertaken by the private sector body in a contractual arrangement between the public body and the private sector body;
- (2) The arrangement is for a specified period;
- (3) Operating and financial risks are allocated between the private sector and the public body;
- (4) Payment to the private sector partner is linked to delivery and achievement of pre-determined performance standards;
- (5) Attainment of service levels and performance standards is against publicly defined measures.

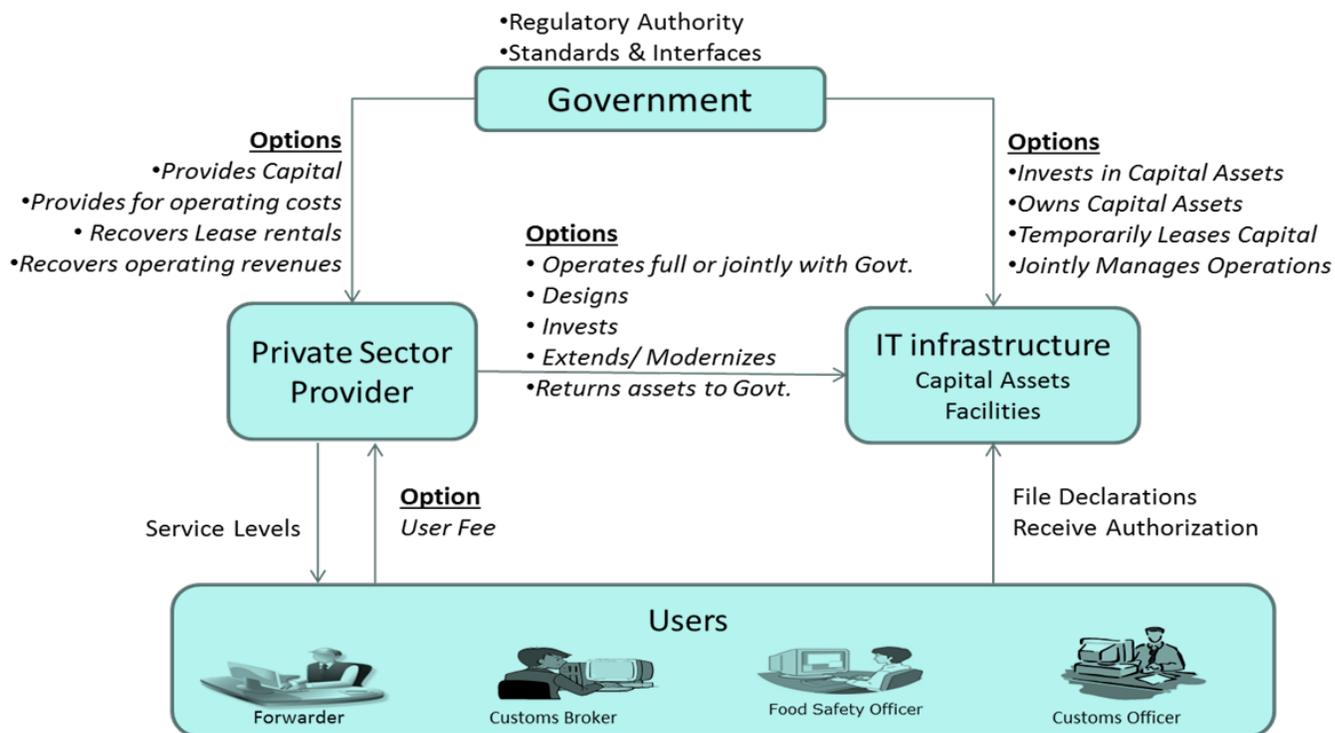
The primary goal of a PPP for a Single Window is to be able to harness the expertise and efficiency that private sector bodies can bring to the project. It is easier to align incentives to support the delivery of high-quality services to users.

## 1.2 Different Types of PPP Model

The involvement of the private sector can take many forms and will influence the financial and operating governance of the Single Window environment. The form of public-private partnership

will determine the extent of government involvement in financing capital and revenue expenditure, and the structuring of the inflow/outflow of funds in the Single Window initiative. The forms of PPP can vary in line with two factors – the increase in the degree of private sector risk, and the level of private sector involvement, especially when it comes to dealing with the operating infrastructure. However, a common underlying theme remains: regulatory authority, and the accountability for regulatory compliance, stay with the government, regardless of the form of PPP.

Figure 1 below illustrates the options for PPP. The italicized items describe the choices available to the government.



**Diagram: Options for private sector involvement**

Figure 1: Options for private sector involvement.

The essential forms of PPP are: (i) operations and management contracts; (ii) asset acquisition or leasing deal; (iii) DBFO (Design-Build-Finance-Operate); (iv) BOO (Build-Own-Operate); (v) BOOT (Build-Own-Operate-Transfer); and (vi) joint venture. The reader is referred to the widely available literature in this area.

One of the above forms of PPP will emerge, based on a careful analysis of the following questions:

- ✓ Does the private sector take over existing assets involved in the Single Window project, whether through acquisition or lease?
- ✓ Will the existing ICT assets that are leased to the private sector be returned at the end of the period of operation of the lease or contract?
- ✓ Is the private sector permitted to acquire additional capital assets, or will only government decide on capital investments?

- ✓ Will the operating expenditure be met through revenue streams by charging user fees, or will the government fund partially or wholly the operating costs?
- ✓ In the asset acquisition cycle, will the private sector also be involved from the design stage?
- ✓ How long will the private sector partner be permitted to operate?
- ✓ How will the private sector partner be penalized for non-delivery or poor performance?
- ✓ Will the government and the private sector jointly build and operate the unit where risks and returns are shared?

### **Singapore: A PPP Success Story**

Singapore is one of the world's biggest trading hubs. Many people attribute this to its success in streamlining trade processes. Singapore is one of the earliest and best examples of a Single Window. Almost three decades ago, it implemented automated systems and procedures. It has worked tirelessly with systems and procedures to reduce trade costs and process times. In the TradeNet system, declarations are processed and cleared in as little as 10 minutes. This is accomplished because over 90% of declarations are machine-processed, without a Customs officer ever handling them during a 'live' clearance process. To a large extent, the agility and dynamism in Singapore's system was achieved through its public-private partnership (PPP) model. The private sector partner was selected through a transparent, open tender process and tasked with the design, development, operation and maintenance of the Single Window. Notwithstanding strong internal IT capabilities within government, Singapore Customs opted for the PPP model because it enabled them to leverage the flexibility and dynamism of the private sector partner.

The PPP model of implementation extends beyond Customs clearance. Port operation and port clearance processes are similarly supported through partnerships.

While PPP implementation of the Single Window stands out, one should not lose sight of Singapore Customs' overall capacity in terms of governance. To make partnership work, Singapore involved the private sector in Single Window implementation. The private sector participated in project activities ranging from the development of functional requirements, through to process improvements and data standardization. As a result, 20 forms previously required for international trade were reduced to a single online form.

The PPP has since grown from strength to strength and offers a success story to the rest of the world.

## **2. Defining Single Window Services**

Government agencies are obligated to provide border services in relation to the clearance of goods, people and means of transport. Likewise, as 'public' assets/facilities, port and airport operators are obligated to provide 'public' services to businesses and citizens. The Single Window is essentially a collection of services provided on a common platform. Part I of Volume 1 gives a detailed

classification of services. The Single Window provides **regulatory** services, such as broker registration or filing of declarations, and **ancillary** services, such as location of cargo or time of cargo release (where it can provide access to information).

### 3. Understanding the Costs

Broadly speaking, the costs of developing a Single Window can be divided into fixed costs and operating expenses. **Fixed costs** include design and development costs, as well as ICT infrastructure costs. **Operating expenses** are broadly threefold: training, support, and change requests. Support includes helpdesk support (level 1), and technical support for equipment and software (level 2 and level 3). In the early years, more resources will be required on all three counts (support, training and change requests).

The cost of design and development of a Single Window is significant, considering that the Single Window is an ‘enterprise class’ software, involving multiple internal and external dependencies. The real costs of trying to meet requirements are often underestimated. These are due to the time-consuming process of negotiation and agreement between agencies. In enterprise class solutions, it is acceptable to estimate annual operating costs as a percentage (20% to 30%) of fixed costs.

### 4. Appreciating and Allocating Risks

Risks to a Single Window project necessarily relate to potential financial losses arising from non-delivery and the cost of lost opportunities. Risks can arise at different stages of the project, and varying levels of risk occur with the different types of PPP model. It can be said that the success or failure of a Single Window PPP depends on whether the PPP arrangement has a symmetry and a sense of proportion in sharing risks and costs.

Single Window PPP: A Risk Allocation Model			
		<u>Normal Procurement</u>	<u>Public Private Partnership</u>
<u>Legend</u>			
Private Sector Risk	Design Phase	Faulty Systems Design	Faulty Systems Design
Public sector Risk		Deficient Software Development	Deficient Software Development
Shared Risk		Organizational delays in roll-out	Organizational delays in roll-out
		Hardware became obsolete	Hardware became obsolete
		ICT Infrastructure undersized/oversized	ICT Infrastructure undersized/oversized
	Operational Phase	Volumes well below estimates	Volumes well below estimates
		Too many bugs	Too many bugs
		Service Levels Not achieved	Service Levels not achieved
		Too many change requests	Too many change requests
		Systems availability takes a hit	Systems availability takes a hit
	Any Phase	Partner agencies not Cooperating	Partner Agencies not Cooperating
		Force Majeure Event	Force Majeure Event
		Security Lapse	Security Lapse

Table 1: Risk allocation by project phase in public-private partnerships which involve the operation of IT systems.

The above table illustrates an ideal distribution of risk in a Single Window PPP. In the first column, where the traditional model of procurement is followed, the entire risk lies with the government. In the PPP model, however, there is a rational allocation of risk, so that proper risk transfer can take place to the private sector partner. This might present a compelling case for moving to a PPP mode of delivery. With sufficient skills in tendering and contract development, it is possible to develop a reasonably good PPP project for the Single Window. However, it is not as straightforward as the table suggests. Not all countries start from a zero base of IT investment. At any given time, there is dead stock of active and passive ICT assets and data assets. Apart from the existing ICT base, the human and technical capital which is engaged with the current systems, the working arrangements, ongoing contracts, partnerships and EDI relationships, etc. weigh heavily in a country's decision. PPP comes in many forms, and risk allocation also varies according to the model adopted. The principle of risk sharing is that risk is managed by the PPP partner which is in control and is best capable of handling it. Figure 2 below illustrates how the model itself impacts risk.

In Figure 2, “**Design and build**” indicates a traditional procurement model. A tender is issued, and a vendor chooses to deliver the solution. The rest of the risk remains with the government. If the

vendor also has a stake in **operating and maintaining** the Single Window, the vendor takes some degree of risk. Further, if the vendor also **designs, builds**

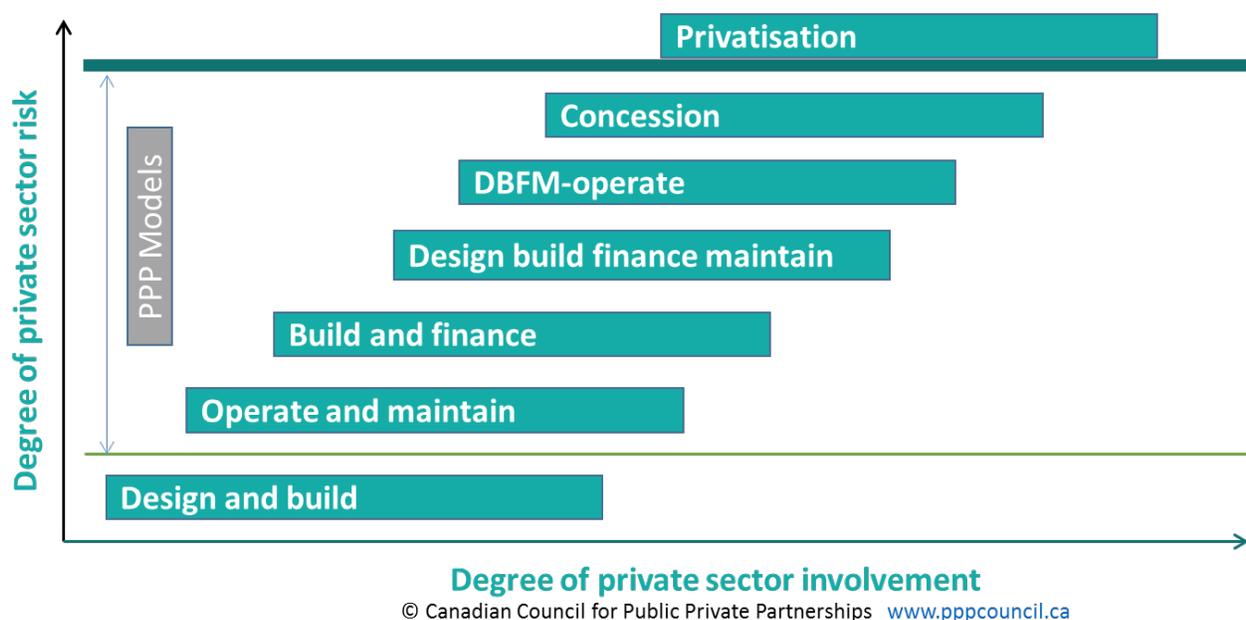


Figure 2: The risk to the private sector correlates with the business model and the allocation of public and private sector responsibility.

Source: Canadian Council for Public-Private Partnerships

**and finances** (for a return proportionate to the financial costs and risks), then the risk is allocated to industry to a higher degree. The highest level is reached when complete control is given to the private partner through a concession. A **concession** involves delivery of assets and an opportunity to invest in capital and operational infrastructure, in exchange for the ability to generate revenue from the operations for a fixed period (with or without sharing a portion of the income with the government). This model has a high level of private sector engagement and freedom of operation, and a high degree of risk.

## 5. Revenue Models and Incentive Structure

PPPs can be leveraged effectively by aligning government objectives and outcomes with private sector incentives. Care should be taken at the beginning of the PPP project: when inviting tenders, the scope of work and the payment terms should be such as to align government objectives and outcomes with the private sector incentive structure. These terms should be reflected in the contract or concessionaire agreement. Table 2 below provides an example of the alignment between government objectives, expected outcomes, and private sector revenues.

Government's Objectives		Private Sector Incentives
Output	Outcome	Impact on Partner's Billing
More Functional SW Modules	Streamlined procedures	Payment milestones linked to implemented modules
High Uptime	High System availability	Payment based on service level achievement
High utilization Rate	Automated environment	Payment based on processing volumes and/or coverage
Quick Response time	Users are satisfied	Payment based on service level achievement
Accuracy in processing	Users trust the system	Penalties for use case failure, or
Reliable process cycle times	Predictable speed of	Penalty based on deviations in process

Table 2: Alignment of government goals and private sector incentives.

## 5.1 PPP Viability and Usage Fees

Whether to Charge for Services?				
Processing Items/ Services	Single Window coverage is must?	Volumes/ Frequency	User Fees?	Certainty of Billing
Trader Registration	Yes	High	Yes	Yes
User Registration	Yes	High	Yes	Yes
Warehouse Registration	No	High	Yes	No
AEO Application	No	Low	No	No
Carrier Registration	Yes	Low	Yes	Yes
Import Declaration	Yes	High	Yes	Yes
Cargo Reports	Yes	High	Yes	Yes
Export Declarations	Yes	High	Yes	Yes
Refund Applications	No	Low	Yes	No
Drawback	Yes	Medium	Yes	Yes
Transit Declarations	No	Medium	Yes	No
TIR Carnet Processing	No	Low	Yes	No
Case Management	Yes	Medium	No	No
Appeals	No	Low	Yes	No
Adjudications	No	Low	No	No

Table 3: How the industry partner may examine profitability.

Table 2 outlines how incentives to the private sector can be aligned with government objectives and targeted outcomes. The tender invitation should provide adequate information to the PPP partner to assess revenue risks. The PPP contract should ensure that the project is attractive to prospective bidders, and there should be a balance between private sector risks and rewards. If revenue is risky and based on uncertain milestones or volumes that cannot be determined in advance, the bidding process will be skewed. Table 3 gives an example of how the scope of operations can be presented. Only the government can confirm which processes will be covered by the Single Window, and which will be excluded. Only government policy can determine which services will be free, and which will involve user fees. It should be kept in mind that governments need not require businesses to pay fees in all cases: it may prefer not to charge businesses, but to compensate the private sector partner based on system usage.

Incentive structures can be used to encourage the private sector to carry out the necessary changes to government forms and business processes. To ensure that the PPP partner focuses beyond the revenue-generating modules for import and export transactions, it will be necessary to incentivize: (a) quick implementation of ancillary and support functions; and (b) rapid follow-up in implementing changes to forms. The following table is an example of how this can be achieved.

Core Modules	Percentage fees per transaction
Core Transactional Modules	
Import and Export Declarations	50
Automated Targeting & Selectivity	20
Licence Application	10
Ancillary Modules	
Refund	5
Drawback	5
Case Management	5
Enforcement & Other Modules	5
<b>Total</b>	<b>100</b>

Table 4: Transaction fees can be imposed for services delivered by the PPP partner.

This example shows that the private sector partner receives only a small percentage of fees if simply the core modules are implemented. The full complement of transaction fees is not made available, and a percentage of transaction fees is withheld, if the ancillary modules are not delivered.

Of course, the framework of incentives and penalties includes other considerations. Incentives should not be withheld if the government fails to meet requirements on time, or issues faulty specifications. There are, therefore, enough incentives available to the private sector partner to ensure that Single Window functionality is complete and up-to-date.

## 6. The Single Window Operator as a Special Purpose Vehicle

A particular case of public-private partnership (PPP) projects is the creation of a business entity referred to as a ‘special purpose vehicle’ or ‘SPV’.

The SPV provides a framework not only to create a legally ring-fenced structure for delivering services, but also for raising funds and achieving financial closure. The foundational documents establishing the SPV help bind the stakeholders legally into a sound arrangement for providing Single Window facilities and supporting Single Window operations. There are plenty of examples in the area of Single Windows, port community systems and EDI value-added networks (VANs).

Name of SPV	Country	Area of Operation
<b>NACCS</b>	<b>Japan</b>	<b>Single Window</b>
<b>TradeNet (&amp; TradeXchange)</b>	<b>Singapore</b>	<b>Single Window (&amp; VAN)</b>
<b>Cupia</b>	<b>Korea</b>	<b>Single Window &amp; VAN</b>
<b>KT NET</b>	<b>Korea</b>	<b>Trade Services &amp; VAN</b>
<b>KL NET</b>	<b>Korea</b>	<b>Logistics Services &amp; VAN</b>
<b>GSTN</b>	<b>India</b>	<b>Goods &amp; Services Tax</b>
<b>GCNET</b>	<b>Ghana</b>	<b>Customs clearance &amp; VAN</b>
<b>TradeLink</b>	<b>Hong Kong</b>	<b>VAN</b>

Table 5: Examples of special purpose vehicles.

# Annex: Examples of Public-Private Partnerships in the Single Window

## I. Singapore: A PPP Success Story

Singapore is one of the world's biggest trading hubs. It has ranked consistently as one of the most competitive economies in the world and has made great efforts to streamline its trade processes. Singapore is one of the earliest examples of successful national Single Window implementation, with TradeNet® first launched in 1989. TradeNet® has undergone several enhancements and evolved since that time. Improvements in system functionalities and procedures have steadily brought down trade documentation costs and processing times. Currently, TradeNet® is able to process within 10 minutes over 90% of declarations submitted. TradeNet® also permits data to be available to the Immigration and Checkpoints Authority, which undertakes inspections, if necessary, when the cargo has arrived in Singapore.

The decision to move towards a public-private partnership (PPP) model was made in 2007 as part of Singapore's ongoing evaluation and exploration of how to achieve greater efficiency and cost-benefits for the government and taxpayers. One of the decisions taken was the establishment of TradeXchange® – a neutral platform for providing interconnectivity between private sector and regulatory systems. TradeNet® was redeveloped and located within TradeXchange®. Private sector value-added service (VAS) providers were able to come on board TradeXchange® to enrich the ecosystem, and enhanced the seamless exchange of data between services offered within TradeXchange®.

The PPP partner was selected through a transparent, open tender process, with sharing of costs and risks between the government and the PPP partner. The government paid an up-front fee to develop TradeXchange®, as well as an annual fixed recurring fee to maintain TradeXchange®. The PPP partner, on the other hand, paid for the full development, operation and maintenance cost of the new TradeNet®, as well as the variable costs to operate and maintain TradeXchange®. Ownership of the system was vested in the government, while the PPP partner was contracted to build and operate the system for 10 years.

As part of cost recovery, and to establish a viable and sustainable operating model, usage fees for the system were collected by the PPP partner. These are distinct from duties and taxes, which are paid directly to the government.

The decision to choose a PPP model for TradeXchange® and TradeNet® was motivated by the potential for lower fees and improved service and functionality by leveraging the PPP partner's expertise and know-how.

While its choice of a PPP model for the Single Window stands out, one should not lose sight of Singapore Customs' overall capacity in terms of governance and project management. To make such a partnership work, the cost, risk sharing and incentives must be carefully structured to achieve a win-win equilibrium. Usage fees should provide a sufficient basis for cost-recovery and

sustainability, but yet remain affordable so that they do not pose a burden to traders. The administration of service standards and service level agreements must be done diligently, so that the PPP partner is able to provide its services on time and on budget. The government must also ensure that the project has been properly documented and knowledge retained within its ranks, so that flexibility is retained in the event that it is necessary to shift to a different operating model or a different PPP partner.

Singapore resumed its journey to seek the next breakthrough in bringing facilitative and innovative regulatory services to the public. With the impending expiry of the PPP contract in mind, a revamp of TradeNet® and TradeXchange® was undertaken in 2015 and culminated in the award of the tender for the next-generation National Trade Platform (NTP) in 2016. The journey continues.

## II. NACCS – Nippon Automated Cargo Clearance System (Japan)

Since its introduction in 1978, NACCS has been operated as a public-private system, processing both Customs procedures and related services provided by the private sector.

In October 2008, the Port EDI System and the Crew Landing Permit Support System for Immigration were integrated into NACCS, boosting it into the fully-fledged Nippon Automated Cargo and port Consolidated System (NACCS) that covers all port and import/export procedures. In addition, the Japan Electronic open network TRAdE control System (JETRAS), which processes applications for import and export licences, was integrated into NACCS in February 2010. Subsequently, the Food Automated Import Notification and Inspection System (FAINS) of the Ministry of Health, Labour and Welfare, and Plant Quarantine NETWORK System (PQ-NETWORK) and Animal Quarantine Inspection Procedure Automated System (ANIPAS) – systems of the Ministry of Agriculture, Forestry and Fisheries – were also integrated into NACCS in October 2013. Since November 2014, NACCS has also been operated as a system processing the medicines import/export procedures of the Ministry of Health, Labour and Welfare. NACCS continues to be a core system to process import/export procedures and port clearance procedures beyond the boundaries between the private and public sectors and among different ministries.

The NACCS Center, operating NACCS system, was first established in 1977 as a government-authorized body and reorganized as an Incorporated Administrative Agency in 2003. In October 2008, it was privatized as Nippon Automated Cargo and port Consolidated System, Inc. Regarding the government-owned stock (10,000 shares) of the Nippon Automated Cargo and Port Consolidated System, Inc. (NACCS Center), the operator of the NACCS system, the NACCS Law (Act on Processing, etc. of Business Related to Import and Export by Means of Electronic Data Processing System) stipulates that the government shall sell the company's stocks other than those which the government is obliged to hold (more than one half of all the issued stock to secure the majority of the voting rights) as quickly as possible.

Accordingly, the government sold approximately one half of the total issued stock (4,999 shares) through general competitive bidding in March 2016. Because of this sale to private entities, it is expected that the NACCS Center will further streamline its management and improve the

convenience of the NACCS system for its users. NACCS or 'Nippon Automated Cargo Clearance System' is a significant example of public-private partnership. It is now an integrated national Single Window system, but two decades ago it started as a modest air cargo clearance system. It gradually grew to cover all modes of transport (Air & Sea NACCS). Initially, it was a central computer with direct data connectivity to all users in the government and the private sector. Subsequently, it introduced comprehensive EDI interfaces and web interfaces. After that, it took steps to integrate through data interchange with FAINS (Food sanitation), ANIPAS & PQ-NETWORK (Animal & Plant Quarantine) and JETRAS. This arrangement resulted in the emergence of a 'one-stop service' or a virtual Single Window system. It is a comprehensive trade information platform which was developed jointly by the government and private sector.

### **III. Mauritius Network Services Ltd (Mauritius)**

Incorporated in 1994, Mauritius Network Services Ltd was established as a self-sustaining value-added network operator under a public-private partnership business model. Mauritius Network Services Ltd has developed and is maintaining the current Trade Net System, which was modelled as per the Singapore TradeNet system. The Trade Net System has been designed to promote B2B, B2G, G2B and G2G electronic exchanges, by ensuring secure and efficient electronic transmission and processing of cargo declarations, licence/permit requests and certificates of origin, and electronic payments settlement, with due care taken in adopting international security/messaging standards and best practice for the development of the Mauritius Revenue Authority Customs Department and other government agencies' (licensing/permit) workflows. As such, the Trade Net System is pivotal to the linkage of the trade community with government, and to the future development of national and regional Single Windows. MNS handles maintenance and operation support for its services, including a helpdesk. Authorized users have to pay an initial registration fee and software charges. Thereafter, the pricing is based on transactions, in terms of transmission costs. Using these revenue streams, MNS becomes a self-sustaining entity.