PORT COMMUNITY SYSTEMS

# JANAICA JAMAICA PCS

# Introduction

#### In brief

The Jamaica PCS solution is a modern technology platform started in 2016. One of its key features includes the strategic decision made by the Port Authority of Jamaica (PAJ) to move towards the cloud. The Jamaican government provided strong support, through timely cabinet approvals to enable a fast-track development. The Port Authority soon became responsible for all aspects of the implementation – including providing the required funding for implementation.

As is the case with other case studies and examples, the project was originally intended and conceived as a public private partnership (PPP). The view on this, however, changed and the project was eventually implemented as a public initiative, financed wholly by the PAJ. This was important to enable high uptake, which may have otherwise been hampered by relatively high fees for users. Another key driver for this was sensitivities around information sharing, particularly Customs related information.

#### Why the case study is significant

**Firstly, this case study highlights several good practices in Jamaica.** It shows the extent to which placing a PCS project at the center of a wider policy drive and framework facilitates engagement and ultimately uptake by different stakeholders. In Jamaica's case, the initial drivers of the PCS acquisition were the Shipping Association of Jamaica – a private body, which ultimately worked with public entities to realize the project. Clarity on who the implementing agencies were, and including Customs as a partner, helped to drive the project forward. It also facilitated integration. Other cases often reveal unfinished integration because of lack of alignment between entities.

Secondly, the implementation was carried out in a modular format, with the systematic rollout of different services. This includes trans-shipment activities, import and export processes, truck appointments, Air cargo<sup>41</sup> and FAL Forms. This enabled a careful assessment of the need of each, as well as of the costs and benefits of implementing the solution to cover the scope of these services.

Thirdly, Jamaica is home to one of the region's largest trans-shipment terminals in Latin America and the Caribbean (LAC). A key element was the development of Jamaica's PCS

and its integration with ASYCUDA along with the National Single Window (NSW). This directly addressed at least two of the six core bottlenecks at the port, namely: (i) The customs process. (ii) Timely shipments. Both were well documented by industry players as posing challenges in import and export activities, especially to potential investors and companies looking to Jamaica for opportunities.

## Project preparation and development

The PCS project in Jamaica was government mandated and PAJ was identified as the Lead Agency with the Jamaica Customs Agency (JCA) designated as a partner. Both were tasked with setting up a PCS in 2012. While PAJ took the role of lead implementing entity, the Shipping Association of Jamaica (SAJ) played a role in the early initiative. It later became a government-led project.

As the lead entity, PAJ was responsible for addressing the key strategic and operational issues covering governance, risk, finance and legal. These tasks, however, were not a completely new enterprise for stakeholders operating in and around the port. The SAJ had earlier pursued exploratory and fact-finding trips to various countries. With help from the Jamaica Promotions Corporation (JAMPRO), SAJ was able to engage an international port community consultant to assist in identifying and developing a suitable PCS solution for Jamaica's port community. The process included research into PCS solutions, site visits to ports in the UK, Kenya, Spain, India, Senegal, and France.

Following these studies, SAJ collaborated with PAJ. Both planned for the implementation of the PCS. Plans were made for the inclusion and the establishment of a working committee comprising public and private sector interests. The collaboration with PAJ went as far as making and agreeing budgetary provisions by both the PAJ and SAJ to fund the start of the project.

The PCS in Jamaica was seen as part of a wider initiative by the government focused on improving the logistics and trading environment. A recent strategic project related to improving the trade environment is the National Single Window (NSW). This went live in 2020. This was very much a strategic initiative by the government to increase Jamaica's trade facilitation and competitive business environment, both of which are critical for realizing the goals of the Global Logistics Hub Initiative.<sup>42</sup> Its implementation also became part of the country's development strategy and was monitored as part of the medium-term socio-economic policy framework 2015-2018<sup>43</sup> by the Planning

<sup>41</sup> The final modules being implemented are air cargo/import and export along with FAL Forms. The project is slated for full implementation in late 2023, at an overall estimated cost of around US\$12m.

<sup>42</sup> https://www.jseza.com/jamaica-logistics-hub-initiative/

<sup>43</sup> Planning Institute of Jamaica (PIOJ), Medium Term Socio-Economic Policy Frameworks

#### Table 4. Summary Roadmap to Implementation

27-Feb-2012	Cabinet approval obtained by PAJ.
13-Dec-2013	Cabinet approved the following: The Stage 1 assessment and recommendation to proceed to Stage 2 of the tender process to select the preferred bidder. The Port Community System Public-Private Partnership Transaction (Project) Structure. The Port Authority of Jamaica to be the Regulatory Body/Concession Authority and Grantor of the Port Community System's operations. The approval also included provisions for legislative changes to support mandatory use of the Port Community System by regulations to be vested within The Port Authority Act. Allow for the sharing of trade information with a trusted private partner (Concessionaire) and other government agencies directly dealing with trade transactions via The Customs Act and amendments to the statutes governing the relevant regula- tory agencies. Allow for the successful implementation of a paperless environment for the Port Community System within Jamaica.
27-Apr-2015	Cabinet approved a change of strategy from the Public-Private-Partnership (PPP) arrangement to a new competitive bidding model which included: The use of the Limited Tender Procurement Methodology for the procurement of goods and services to establish a PCS and the subsequent creation of a PCS0 for the acquisition and operations of a PCS for Jamaica.
28-Jul-2015	Cabinet approved: The award of a fixed five-year contract to the joint venture consortium of SOGET S.A. Bureau Veritas B.I.V.A.C. BV, with the main ICT provider being Microsoft Corporation, for the design, development, implementation, and maintenance of a Port Community System. Cabinet also approved the creation of a Port Community System Operator responsible for the daily operations of the Port Community System within Jamaica and the implementation of a Port Community System Tariff Fee, which will be applied to the Port Community and implemented by way of regulation under the Port Authority Act.

Institute of Jamaica (PIOJ), which is charged with development and implementation of Vision 2020<sup>44</sup> 4 (now expanded to 2030). As explained below, the government also facilitated several legislative changes to both the PAJ Act and Jamaica Custom Regulations, making the submission of all manifests via the PCS mandatory.

In terms of a roadmap, the table below comprises a list of activities approved by Cabinet for the implementation of the PCS by PAJ.

# Legal framework and governance

To enable the PCS to legally operate, both JCA and PAJ had to review their existing laws and regulations that govern some of their operations with respect to data sharing and use of paperless transactions. At the heart of the amendments was the Electronic Transactions Act, 2<sup>nd</sup> April 2007, which made provisions for the legal transactions via electronic platforms. This provided the framework that would assist the necessary legislative changes.

Jamaica in November 2014 also passed specific laws which allowed the JCA to collect information through a paperless medium, assisting the PCS solution to achieve transactions in a paperless, digital environment. The PAJ also amended the Port Authority (Port Management & Security) and the Port Authority (Port Management and Security (Amendment) Regulation 2015. The change enabled the implementation and use of the PCS in Jamaica, and to also include the collection of a "user fee."

The PCS today has some mandatory and some optional functions. The submission of manifests through the PCS is mandatory. Optional services, on the other hand, include business intelligence data, that may soon be made available as a valueadded service (fee).

From a governance perspective, as already noted, PAJ was the lead agency for the PCS development. To do this, a Steering Committee was set up. Monthly meetings were organized that focused on providing strategic and tactical initiatives. The recommendations that emerged were then approved by the PAJ board and the Cabinet. The committee included:

- I. PAJ chair/implementing agency.
- II. JCA co-chair.
- III. SAJ, lead private sector stakeholder, and major port labor provider/trade union. Initially conceptualizer/ driver of the development of the PCS, from 1990s (see above).

44 "https://www.vision2030.gov.jm. The country's first long-term strategic development plan and covers the 21-year period, 2009-2030, up from the original 2020. It embodies the plans and processes for the realization of a collective vision, encapsulated in the statement: "Jamaica, the place of choice to live, work, raise families and do business."In 2015, Jamaica adopted United Nations 2030 Agenda for Sustainable Development and its Sustainable Development Goals.



- IV. Development Bank of Jamaica (DBJ), lead agency/secretariat for all PPP projects/transactions. They later withdrew from the committee when it was no longer a PPP project.
- V. Ministry of Finance and the Public Services, parent ministry for JCA and for all financial decisions / approval for public entities.
- VI. Ministry of Transport & Works, the parent ministry at the time for PAJ.
- VII. eGov Jamaica Ltd, national single window operator, public sector.
- VIII. Customs Brokers & Freight Forwarders Association, representing freight forwarding, umbrella entity, private sector.
- IX. Jamaica Society for Customs Brokers, representing Custom brokers, private sector.
- Port Trailer Haulage Association of Jamaica, representing port haulage contactors and services, private sector.
- XI. Terminal Operators.

- XII. Kingston Wharves Ltd (KWL), private sector, multi-user, multi-purpose cargo terminal operator, Kingston.
- XIII. Kingston Freeport Terminal Ltd (KFTL), subsidiary of CMA CGM, the concessionaire and container/trans-shipment terminal operator, Kingston.
- XIV. Port Cargo Handlers (PCH), multi-user, multi-purpose cargo terminal operator, Montego Bay.
- XV. Advantum, IT provider/major port platform and subsidiary of SAJ, private sector.

### Financing and business model

A revenue "neutral" model was considered and applied based on the need to receive buy-in by the port community, particularly considering the changes needed to implement the project. PAJ decided to de-risk the project by providing all CAPEX and OPEX from the end of 2015 and the start of 2022, therefore not billing the private sector during that period.

The creation of the business case, economic rationale, analysis of the PPP options and financial model required the engagement

of a financial consultant, which was recruited through an international tender process. Extensive work was done to develop a robust financial model with the aid of a local consultant. Factors considered included:

- Trade activities -import/export/trans-shipment.
- Number of Customs declarations.
- Type/number of stakeholders in port community.
- Assessment of subscription services and related fees.
- Assessment of PCS fees and revenue streams globally.

In terms of the overall development cost, the PAJ estimated this as amounting to around US\$12 million since 2016. These funds were provided entirely by PAJ.

The current fee structure, started in February 2022, consists of: (a) User fees (@US\$20/commercial import declaration). (b) A fixed fee paid by the 3-cargo terminal operators. (c) A portion of revenues set aside for expansion and further developments.

Recently, the PCSO brought forward a public advisory indicating the need for users to pay for PCS services directly to the operator. The mandatory fee is US\$20 to be paid in Jamaican dollars.

Elements that will be potentially developed as value added services include:

- I. Providing more business intelligence information to users with specific data being made available online to all or per request. This will lead to greater revenue opportunities via fees and or subscription - per user/per month.
- Capacity building activities within the region to support PCS adoption rates, such as undertaking advisory and consultancy engagements to small regional states.
- III. Technical support, project management and advisory services to other regional ports seeking to implement their own PCS solution.
- IV. Additionally, each year a portion of the revenue will be allocated for future expansion of services and added functionalities.

For the PAJ, amendments were also made to facilitate the collection of user fees. This opened opportunities for more fee-based services to be provided to the port community, who themselves are keen to obtain more digitalized processing of tasks.

# Functional and technical architecture

From a technical perspective, the platform is an off-the-shelf solution. The solution is hosted within a public cloud service provided by Microsoft Azure. Functionalities include email, web-services, SFTP and options for different messaging formats. Hence up-todate information is provided through messages (EDI).

The PCS platform is managed internally by a technical team of the PCSO. The PCS application is managed by the application vendor. Data analytics is managed internally.

Regarding interoperability, the PCS and Customs solutions are integrated to provide transactions for cargo processing. This exchange was made possible by the signing of an MOU between the two entities. The eSAD Declarations are sent to Customs' ASYCUDA World and manifests sent to the PCS. Both systems are integrated and validate the information. The PCS also disseminates specific manifest information to customs, terminals, and regulatory agencies in the required format. Once cargo is cleared and released by all the major stakeholders, the PCS provides confirmation and then generates an electronic release.

The PCS is also integrated with JCA and all three terminal operators' operating systems, namely: KFTL with Navis (Kingston container trans-shipment terminal), KWL with Tideworks (multi-purpose cargo terminal), and PHL with Advantum (Montego Bay multi-purpose terminal<sup>45</sup>).

Steps were taken to ensure the platform is reliable, consistent, resilient, and predictable. The cloud-based infrastructure allows this to be the case via multiple layers of redundancy that have been built into its architecture and supported by teams that continuously monitors system performance.

The PCS also increased data security. This is achieved via multiple layers of protection relying on the security ecosystem upheld by Microsoft and other third-party security solutions.

## **Benefits and impact**

Feedback from the port community has been positive. Terminals now receive manifests via the PCS. Market measures apply to push towards compliance. Manual entries are, for instance, discouraged by means of applicable fees levied by the operators.

Truckers also indicated that they have seen improvements. These stakeholders can book a pick-up via PCS (directly or via agents). Benefits include faster, more efficient Customs clearance, more streamlined standard process, faster turn-around of gate in-gate-out operations with less gate congestions (no long lines).

Besides notable benefits, there are also two noted challenges. Firstly, manual entry of data continues to apply in the case of the terminal operator. This is due to lack of full standardization and harmonization of data formats. Terminal operators therefore still need the solution to provide PCS data in a format that can seamlessly be included in their existing systems.

The second is the continued need to use a broker by the trucking community. Truckers are not allowed to make changes to appointments that they did not create. This means that when brokers make the booking, truckers themselves may face challenges to change these. The PCS enhanced its service so that the broker or importer can check a flag to allow truckers to make updates. This has, however, not been taken up by the community as much as needed.

## **Key takeaways**

The PCS initiative in Jamaica was implemented thanks to government driven policy. It was part of a broader set of initiatives driven by the need to improve performance in Jamaica's ports and airports. This was for the purpose of positioning Jamaica within the sphere of a global logistics hub. Key leading entities of the initiative included the Port Authority, Customs, and the private sector.

The PCS implementation was a change management project. Business process re-engineering and stakeholder participation were key success factors. The governance framework that was established from the early stages of pre-implementation fostered an environment in which stakeholders were included. They were able to review, provide input and approve all the new processes. This committee continues to meet monthly and actively leads the strategic activities of the PCS for the Jamaican Port Community.

From a macro-perspective, stakeholders had high expectations from the implementation of the PCS. Along with other initiatives, such as the privatization of the container terminal and airports (SIA and NMIA), reform and modernization of Customs via ASYCUDA, the developments of LNG facilities near Port Logistics Industrial Parks, the PCS platform was seen as a core initiative. The aim was to facilitate efficient cargo transactions and support Jamaica's logistics hub ambitions.

One of the key instruments enabling the implementation of the initiative was the MOU signed between the Port Authority and Customs to ensure interoperability of the systems. This enabled an effective integration and smoother user experience. In addition, regulatory changes, including making the use of the PCS for certain information exchanges mandatory all provided the enabling framework for the project.

Another key element of the case study is the shift from an earlier concept of the project being implemented on a PPP basis, to the decision of financing the project through government funding. This allowed for user fees to remain low, at least for the initial period of the implementation. It also overcame potential issues concerning information sharing and sensitivities around this.

Looking ahead, the PCS in Jamaica intends to rollout more valueadded services once all the modules have been implemented. It plans to facilitate greater utilization, improve efficiencies, lower costs, and provide more attractive domestic and international logistics and supply chain solution to users of Jamaica's (air and sea) ports.