



END-TO-END SUPPLY CHAINS THROUGH COLLABORATION AND WORKING WITH THE COMMUNITY

Richard Morton, Secretary General, International Port Community Systems Association (IPCSA)

A simple way of explaining the concept of a Port Community System (PCS) is the spider’s web: a PCS is at the centre of the web, enabling stakeholders (port authority, terminal operator, Customs and other authorities, shipping line, agent, haulier, rail operator and so on ...) to exchange real-time information via a secure and neutral platform, thus driving and supporting the smooth and swift flow of messages and cargo.

There is more – of course there is! With-in IPCSA, our members share knowledge, expertise and experience and that is based on the fact that they provide similar services and have similar challenges. However,

no two PCS are exactly the same. We share our differences, too!

Ports are the vital link in millions of supply chains. Many PCS operators have expanded their services to support companies and stakeholders along those chains.

Among our members, India’s Kale Logistics, with its technology and solutions for the supply chain; France’s MGI, providing connectivity between hinterland road, rail and barge; and Australia’s 1-Stop, with its solutions for vehicle and terminal booking to optimise flows and throughput; are three great examples of what is being achieved through collaboration, communication and community to

increase efficiency and information flow through the supply chain.

COLLABORATION

Kale Logistics has taken the UN Recommendation 33 for Trade Facilitation and ‘re-drawn’ it to look at the basic building blocks of the supply chain. That approach includes Customs management system; regulatory supply chain; air and sea port community and free zones; marketplace – insurance, freight forwarding, etc.; and cross-border, including Kale’s involvement in IPCSA’s Network of Trusted Networks (NoTN).

When one considers the marketplace and movements of goods cross-border,



there are a wide number of elements to consider before the goods are even handed over – price discovery, capacity discovery, traceability, etc. Free zones are often forgotten, but they are usually next to the port or airport and require a high level of synergy. There is also the question of communicating with the next port or airport along the supply chain – for example, between two Customs authorities. Kale sees all of these solutions coming together as building blocks in an end-to-end supply chain.

As Vineet Malhotra, Director at Kale Logistics, said: the definition of a PCS is very broad, and everyone has a different take on it. What is clear is that Port Community Sys-

tems, as neutral platforms, will be able to offer a lot of added value services along the supply chain in the coming years.

Kale's approach is about connectivity and collaboration. "While 20% of stakeholders are responsible for 80% of the transactions through a PCS, 80% of stakeholders will be much smaller, accounting for 20% of transactions. But if you do not bring in the smaller ones, you are not a community," Malhotra said.

"Large stakeholders have all the IT connectivity they could need. But smaller stakeholders – agents, importers, truckers, warehouse operators – often do not have that ability. Bearing in mind these 'have nots', our system design ensures they can

participate in any manner possible without altering anything they are doing currently."

For 'less connected' users, Kale offers access via a portal and via standard connectors. And there is another option aimed at companies that are only creating a few documents and exchanging them with several people, such as Customs. The system allows for that same document to be uploaded on to Kale's portal like an attached PDF; a combination of Optical Character Recognition (OCR) and machine learning is used to extract the information from the document and put it into the PCS. Kale processes 1,500 documents a day in this way, helping smaller operators (who might otherwise feel daunted) to play their part in optimising supply chains.





COOPERATION

When it comes to supply chains, no port is an island. Hence it makes sense for PCS to consider ways to optimise sections of the supply chain in both directions from the port outwards.

IPCSA member MGI, based in Marseilles, goes much further than port limits with its Ci5 network. This PCS already interconnects with the IT systems of barge and train operators to offer traceability of goods across a wide hinterland (which stretches as far as Lyon via the Rhone), tracking the information of containers loaded or unloaded on barges or trains.

Having clear information in advance about which goods will arrive when at the terminal is a major focus in the world of logistics. Work is under way to connect Ci5 to the Cooperative Intelligent Transport System, which provides drivers with real-time traffic information on the highways. This could provide drivers and terminals with even more precise arrival times, depending on factors such as typical traffic loads, congestion, traffic incidents and even weather, and is another way to link trucks, barges and trains to ports and airports to create streamlined supply chains.

MGI also wants to be more interconnected to the city's IT system to provide information in both directions. "The city is really interested in the data we are capturing into the PCS, for example for them to give information to citizens on activity at the port so that they know, for instance, when there will be more port traffic," said Dominique Lebreton, Member of the Executive Board of MGI.

Catherine Mégélas, Head of Corporate and Internal Communication, added: "We are going a lot further than most PCS – we are a Port Community System, but we are expanding to become a whole community system."

At present, by connecting the various stakeholders and IT systems in its ecosystem, Ci5 provides traceability and fluidity of information on what is arriving in the terminals. The more it connects to the hinterland, the more it will be able to improve the attractiveness and performance of the logistics chain.

By delivering rapid information exchange, PCS can speed up goods transit, track cargoes and enable productivity increases – and there are environmental advantages too. If trucks spend less time waiting to load or unload cargo, emissions are reduced. That's important too, in a world where multinationals are seeking greener supply chain solutions – and increasingly taking an interest in each link along the way.

COMMUNICATION

Optimising flows and throughputs at ports and terminals is essential to avoiding long queues of trucks clogging up the terminal or waiting outside the port gates (all the while wasting time, fuel and money, and throwing out exhaust fumes).

In Australia, 1-Stop had slightly different origins to a traditional PCS, working with the supply chain community to understand their pain points and build products and solutions to create paperless ports, information validation and messaging services to track and trace containers, as well as to comply with regulatory processes such as the Maritime Security Access Card (MSIC) and local port requirements.

1-Stop's flagship product, the Vehicle Booking System (VBS) was created to maximise terminal operations and coordinate the efficient flow of trucks through a facility. Over the past 16 years, 1-Stop has continually reinvested in the VBS to ensure the supply chain is optimised in order to make cargo move smarter. The use of 1-Stop's VBS in conjunction with other 1-Stop solutions has reduced dwell time by 50%, increased yard utilisation by 47% and enabled operators to grow their capacity by 30% with no further investment. The VBS is now being implemented in non-containerised ports to connect to the wider supply chain community.

The next step for 1-Stop is combining and analysing information gathered to provide users with new levels of visibility, improve efficiency and reduce congestion – not just at the terminal but at all container and rail facilities, all based on real-time data. It is another example of extending value along the supply chain and increasing efficiency far beyond the port gates.

1-Stop's goal is to bring everything on to one platform, providing real-time traffic and other important information to help hauliers plan their journey to pick up or deliver a container. It could advise, for example, if traffic is building up on one route, or if it would be more efficient to collect one container before another. In the terminal, it could raise the alert if a truck were five miles away but the container it was coming to collect was still at the bottom of the stack. It's all about helping users make the best decision for optimum efficiency.

1-Stop could see the power of the data and started talking to the industry about what else. Why wouldn't they take the opportunity to create further efficiencies?

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- Catherine Mégélas

ABOUT THE AUTHOR

Richard Morton has been Secretary General of the International Port Community Systems Association (IPCSA) since its beginnings as a European organisation in 2011. As an expert in trade facilitation and the exchange of electronic information, Richard is in demand across the globe as an adviser and speaker. He is a member of the Experts Committee of the APEC E-Commerce Business Alliance and an Expert at UN/CEFACT.

ABOUT IPCSA

IPCSA is an international association of sea and air port community operators, sea and air port authorities and single window operators that is recognised across the globe for providing advice and guidance on the electronic exchange of information across borders and throughout the whole supply chain. The association has nearly 50 members from across the globe who handle the exchange of information for Business to Business, Government to Business and Government to Government processes and facilitate the smooth cross-border movement of goods. This equates to the electronic exchange of information relating to more than 500 million TEU movements and 10 billion tonnes of cargo for air, sea and land transport – estimated to be in excess of 50 billion million exchanges every year.