“Sustainable freight transport in support of the 2030 Agenda for Sustainable Development”

IPCSA
International Port Community Systems Association

by
Richard Morton
IPCSA

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IPCSA
International Port Community Systems Association

Richard Morton, Secretary General, IPCSA
Hans Rook, Chairman, IPCSA
Uwe Liebschner, Dbh / IPCSA Customs Expert
Jalal Benhayoun, CEO, PortNet

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• PCS Concept
• Examples of PCS
• Integration into Single Window
• How to develop a PCS
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Details – Logistics and Customs Flows
Example – Portnet, Morocco
So who is IPCSA?

- 39 members operating in over 40 Countries.
- 1 million + users – many small and medium sized organisations
- Estimated 30m plus electronic messages per day
- Members currently handle the exchange of information for over 100 air and sea ports, this equates to over 400m TEU and 8bn tonnes of cargo
- IPCSA membership is open to:
  ✓ Air and Sea Port Community System Operators
  ✓ Air and Sea Port Authorities
  ✓ Single Window Operators
  ✓ International and Regional Organisations

So what is a Port Community System?

“A Community System is not an IT project, but a change management project.”

- Provides for the electronic exchange of information in the supply chain for B2B, B2G and G2B.
- An exchange platform interfacing with existing IT systems within a Port Environment
- Trusted Third party
- Use international data model standards (UN/EDIFACT, WCO, ISO) and message formats (EDIFACT, CARGOXML, WCOXML etc.)
- First Community Systems in late 1970’s
Traditional operational processes

In addition to operational processes there are administrative reporting process for Customs, Maritime Authorities, Security and Safety and other administrative requirements.

The Port Community System – a typical example
Typical PCS Services

Useful Definitions

A Port Community System is:

- a neutral and open electronic platform enabling intelligent and secure exchange of information between public and private stakeholders in order to improve the competitive position of the sea and air ports’ communities.
- optimises, manages and automates port and logistics efficient processes through a single submission of data and connecting transport and logistics chains.

A Port Community System Operator:

- is an organisation that is either public, private or public/private that operates and maintains a Port Community System and where the Port Community System represents the core of that organisation’s business.
- has a board, or some form of steering committee, made up of representatives from different internal and external groups within the Port and Logistics community.
- has “service level agreements” with PCS users to manage the electronic exchange of information between different parties on their behalf.
Useful Definitions

A Single Window Operator is:
• The organisation that has the legal responsibility for implementation and operation of a Single Window within a country or region and which operates the Single Window within that remit, whereby the Single Window allows parties involved in trade and transport to lodge standardised information and documents.

A Cargo Community System (CCS) is:
• a neutral and open electronic platform linked to the cargo flows of any kind of freight passing through an identified port, airport, or multimodal site(s) to improve the competitive position of sea, air, inland and dry port communities for the benefit of public and private stakeholders.
• which enables the renewal, optimisation, automation and management of logistics, ports and administrative processes through a single submission of data, connecting transport and logistics chains.

Differences

In general we can see some of the differences

• PCS

• Port Single Window
  – Focus is on Port Regulatory requirements for entry and exit of vessels

• Single Window
  – Collaborative environment bringing together public administrations to ensure traders only have to submit information only once for cross border trade (simplified view – see Rec 33, 34, 35, 36 and also the associated technical documents of UNCEFACT)
Single Window Integration

PCS can:
• Act as gateways to Single Window
  – e.g Maritime Single Window
• Be an integral part of a Single Window
  – e.g Trade Single Window (Benin, Togo, DRC Congo)
• Simplify interfaces for Administration
  – Translate from different message formats
• Provide paperless logistics flows in Sea and Air
  Ports and border crossings linked to administrative flows

FROM SINGLE PORT TO ALL SEA PORTS;
30 DAYS TO 1 Hr (Goods in containers)
From LOCAL TO NATIONAL AND REGIONAL

THE SYSTEM CONNECTS:
REGULATORY AND CONTROL BODIES;
PORT AUTHORITIES;
PORT OPERATORS;
AGENCY COMPANIES;
FORWARDING ORGANIZATIONS;
UKRAINIAN RAILWAYS.

More than 550 000 containers and 2000 vessels processed

Time reduced to 1- 1,5 Hours

Study on the readiness of Ukraine to implement WTO TFA provisions

WTO Time Release Study in Odessa Seaport
Before and After PCS implementation
SEGUB, Benin, West Africa

Custom Revenue:
- 2011 – Euros 410 million
- 2012 – Euros 490 million

Dwell time:
- 2012 – 36 days
- 2014 – less than 8 days

TEU (Twenty-foot Equivalent Unit):
- 2012 – 155 337
- 2013 – 251 053

GAIN OF MONEY, GAIN OF TIME for private and public sectors:
➢ Gains of productivity
➢ Gains in efficiency
➢ Gains in autonomy / flexibility

Rapid information exchange, coupled with accurate performance indicators has reduced dwell time from 5 weeks to less than 8 days as shown below.

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How to develop a Port Community System
The Twelve Actions

1. Why choose to have a Port Community System?
2. Create a Common Understanding of a Port Community System
3. How to start developing a PCS – the Community
4. Ambassadors
5. Communication
6. Identification of Core Business Processes to be Addressed
7. Customs Integration
8. Legal Framework
9. PCS Organisation
10. Development Groups
11. Use Existing Knowledge of Port Community Systems
12. Long-term Operation
GOVERNANCE MODEL

Option 1

Port Authority

PCS Platform

maintains and updates the platform

Platform Available to the PCS Entity

PCS Entity

Provides the service

Eventually pays for the services

 USERS

GOVERNANCE MODEL

Option 2

Port Authority

PCS Platform

Concedes the right of operating the platform

Eventually pays a fee for providing a service to the Port

External Company

PCS Entity

Pays a fee for the concession of the platform

Provides the service

Eventually pays for the services

 USERS
GOVERNANCE MODEL

Option 3

Port Authority

Concedes the right of operating the platform

Pays a fee for the concession for the service provided to the Port Community

External Company

Builds and maintains the platform

PCS Platform

Platform owned by the external company during the concession period

PCS Entity

Provides the service

Eventually pays for the services

USERS

The PCS will be treated as a cost center. It will have an annual budget allocated, plus shared resources from PA.

The payments from users are not intended to cover costs but to create a stronger link with users or to pay for new PCS services.

The revenues can pay for at least the running costs of the PCS, without taking into account the amortization of the investment in the platform.

The PCS is a self-sustained project, as both the initial investment, CAPEX and the operating costs are covered.

BUSINESS AND REVENUE MODEL

Basic tariff concepts

1. Upfront fee, to sign-in with the PCS.
2. Fixed fee (or flat rate).
3. Transaction fee
Network of Trusted Networks
Globally Connected Logistics

Value Proposition of Community Systems
• Existing global network of Systems with over 1 million users
• Trusted and Neutral
• Using and developing international open standards

Vision:
• A neutral and trusted network
• Globally Connecting Logistics
• Use of existing IT Infrastructures not new ones
• APIs to connect Community Systems
• Simplified User Authorization

What and How to Exchange

Problem: Visibility and the lack of it
• Public versus Private Data
  — Survey or participants
    • Vessel Status
    • Container Status
• APIs (Application Program Interface)
  — No current standards for API, IPCSA has developed it’s own for exchanging information
  — Relatively easy to implement
• Standards
  — Use of international standards
Network of Trusted Networks – The Vision

**BEFORE**

**PHASE 01**

**KEY**
- UI: User Interface
- MSG: Message
- API: Application Programming Interface
Global Data Sharing – ISO TC154/JW8

Working Together to create practical International Standards for data sharing
The Reality: Network of Trusted Networks

IPCSA and NEAL-NET Cooperation
(North East Asia Logistics Network)

IPCSA:
PORTIC, Spain
Antwerp Port, Belgium
Trieste Port Italy
Odessa Port, Ukraine
Portbase, Netherlands
Maqta Gateway, Abu Dhabi
1-STOP, Australia
DBH, Germany
DAKOSY, Germany
ValenciaportPCS, Spain
Bilbao Port, Spain
PORTEL, Spain
MCP, UK
Israel Ports

China:
Ningbo Port
Qingdao Port
Dalian Port
Zhoushan Port
Wenzhou Port
Jiaxing Port
Qinzhou Port
Fangcheng Port
Beihai Port
Zhuhai Port

Japan:
Tokyo-Yokohama Port
Kawasaki Port
Osaka Port
Kobe Port
Yokkaichi Port
Niigata Port

Korea:
Busan Port
Kwangyang Port
Incheon Port
Ulsan Port
Pyeongtaek Port

“Soon to Come
SEAL-NET” (South
East Asia Logistics
Network)

Conclusion

Port Community System

Business drives Processes

Technology enables Business

Processes drive Technology

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