

PCS Port Community System

Ports Operation

Two general systems are provided for the port operations. The two complementary systems are split into the part POS - Port Operating System - and PCS - Port Community System.

Each system contains several modules for special issues, functions and processes within their scopes to cover the requested requirements and processes of the tender.

The POS covers the operations of port management by the port authority and includes the modules for the participants to grab the information of their vessel declarations and declaration of dangerous cargo. The PCS system covers more the part of the clients of the ports. Clients are in this scope the carriers, vessel operators and forwarders.

These participants are interested in to load or un-load cargo and containers in the ports. For these operations they have to make different applications for the import and export processes.

Port Community system

The PCS is the platform for the clients of the ports. Clients are in this approach vessel operator, carriers and forwarders. With the PCS they can make their export orders and import declaration on customs issues and also as information to other clients, authorities and participants of the port processes.

The PCS is a centralized database and data turntable for the clients of the ports. Furthermore the clients can make parts of the customs declaration electronically. On customs import processes they can close the ENS process and make the presentation of cargo to the local customs office. On export processes they can present the cargo electronically to the customs as well.

The PCS includes the following modules:

- **HT (*harbor telematics*)**

HT is the export oriented part of the PCS. It includes the database and the functionality of the data turntable. The standard main process will be that the client, in major cases the forwarder, creates a port order for one transport. The port order includes information about the Vessel, the loading terminal, the cargo and the customs documents. The information is used for the customs process and also forwarded to the terminal as pre-advise as additional information for the yard planning when the cargo comes into the yard.

For the customs export process and the customs will have the possibility to create permissions on every port order or to set stop events on the cargo for inspection issues. Permissions and stop events will be forwarded to the forwarder and terminal operator as well. The terminal operator will load the cargo only when the port order has permission for export. These facts increase the security aspects that only cargo with permission will be loaded on vessels. HT is useable for Container, break bulk and vehicles.

- ***IP (import platform)***

IP is the import oriented part of the PCS. It includes the database and the functionality of the data turntable as well. The carrier can send the import manifest by EDI message as like as kind of eManifest or keying in over a web application by using wizard functionality. IP provides all information in a web application for the responsible carriers and forward all status changes as EDI message, too.

The standard main process will be that the import carrier can provide more less 24h before vessel arrival the import manifest with all cargo which is planned to discharge at ports. The data of the import manifest can be used for several issues. It can be forwarded to the terminal as pre-advise and additional information for the berth, crane and yard planning.

The information can be forwarded to specific authorities for different issues e.g. customs, vegetarian office etc. The PCS will have an interface to the MPOS and after vessel arrival each cargo is confirmed that it has been discharged by MPOS. On this status change the next processes could start on e.g. presentation the cargo to the customs system of your country to confirm the arrival of the cargo in the ICS process. Also the status could be forwarded to other parties e.g. forwarders as arrival notice or to authorities for inspection issues. IP is useable for Container, break bulk and vehicles.

- ***VIS-Vessel Schedule (Vessel Information System)***

The modules HT and IP are working with information of the vessel schedules of the carriers. Also the forwarders and authorities will have information about the schedules and planed arrivals and departure of vessels in the ports.

VIS is the module in which the carriers can key in or send by EDI messages their specific and own schedules. VIS creates unique vessel reference numbers which are used by the modules HT, IP and PO. By giving the unique vessel id, every module and user knows about the vessel, loading port, ETA, ETD, discharge port and the operating carrier.

- ***PO (Port Order)***

The module PO is the client interface to connecting to the HT system. The clients are normally the forwarders and they can enter the export port order into PO. PO stores the data in a database and forwards the port order over standardized interface to the HT.

The interface is also useable by own or other systems as PO but for clients without powerful IT-systems PO will be the interface for the export port orders. Within the standard process the forwarder enters the port order with all needed information e.g. vessel-id, loading terminal, cargo id and description and customs data (e.g. AES data).

The port order will be forwarded to the terminal and customs as described in the standard process of HT. The clients receive back the event status and changes on every port order into PO so they can keep track on the export transport process themselves.