

InPort Intelligent Port Systems AB

Call to Port Process

Preliminary study

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Preliminary Study: Call to Port Process

1 GENERAL

1.1 BACKGROUND

Together with most of the ports in Sweden, Inport has developed system solutions for the management of flows predominantly within the port and terminal industry, where vessel calls to port make up a central part.

With more than 25 years in the industry, we have acquired a broad know-how on ports and our aim is to continue to improve and secure Scandinavian logistics.

Knowing that “MonaLisa” offers the same client focus, new improvements for the client, lower costs and environmental awareness, we look forward to a successful collaboration.

1.2 CURRENT SITUATION

To shed light on the flow of the call to port process, we have conducted a preliminary study with some of our clients/ports.

The aim has been to gather information on how the port is informed of the actual time of arrival, as well as how we define actual time of departure.

1.3 FUTURE

With the use of three examples, the report addresses and describes how both agent and port can get a useful tool to report the call to port information to SafeSeaNet Sweden (from now on referred to as SSN) and the port, as well as sending feedback.

1. Today's flow: From agent to SSN and port, see page 7.
2. Next step: From agent using Portit call to port to SSN, see page 8.
3. Future: From agent via Portit's web portal or an agent application to SSN and port, see page 11.

Abbreviations used:

SSN = SafeSeaNet
ST = Statistics Sweden (Statistiska centralbyrån)
AIS = Automatic Identification System

2 THE CALL TO PORT PROCESS

2.1 A CALL TO PORT

From the viewpoint of this report, the process starts with the agent updating mandatory information regarding the pending call to port in SSN and to the port.

The agent reports

- directly in the vessel reporting system (SSN) and sends the vessel registration to the port.
-
- to SSN via a connection in their own system.

A vessel registration with complementary information must still be sent to the port.

The port is enabled to

- automatically and with regular intervals, via an established connection, access information from SSN in order to register and update all calls to port in the port system. This includes both new registrations and changes to e.g. estimated time of arrival (ETA). Requires access rights and a verified connection with SSN.
- log into SSN and then manually transfer information to the port system. Requires access rights.
- use the vessel registration provided by the agent and update the port system accordingly.

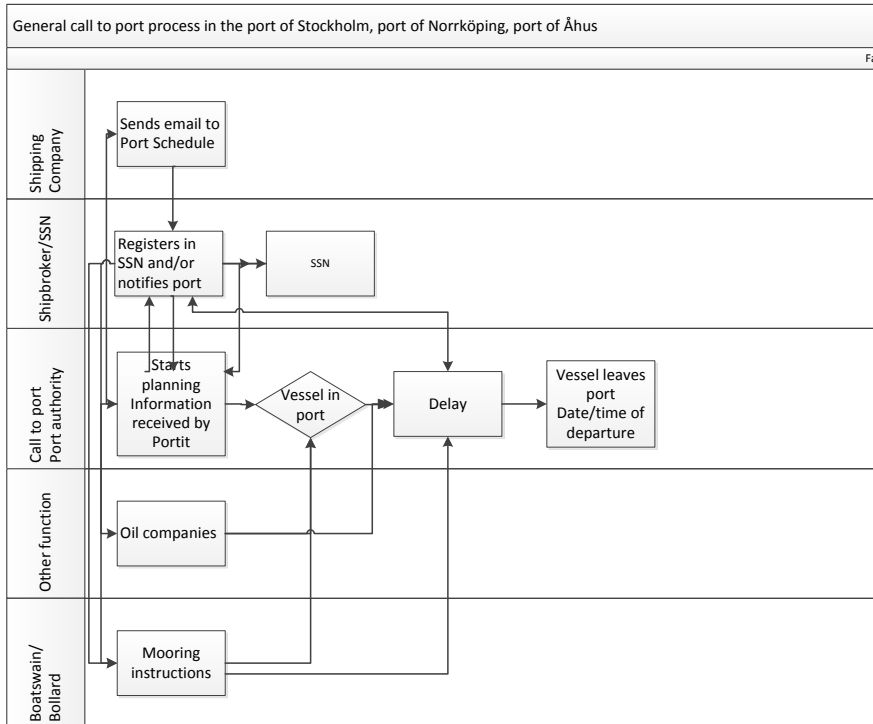
Most ports have their own forms, requesting the information needed. The forms are used by the agent as a complement and usually sent to the port by e-mail.

2.2 AGENT

It is the agent who provides the call to port process with data. If the data is incorrect it means that all input for the process is incorrect. As a consequence, the port will not know for certain when the vessel will be arriving at the dock.

For ports making use of the AIS signal of the vessel, it means that they know where the vessel is located but cannot use this to calculate the time of arrival or make an estimation.

See the general process on the following page.



2.3 REGISTERING IN ADVANCE

2.3.1 The different steps for shipbroking at the Port of Åhus

Information regarding the agent mission for the port in question is sent from the shipping company by e-mail, fax or via telephone.

Information about: shipping company, vessel, cargo port, date etc.

In advance registration: A form for in advance registration can be downloaded from the Swedish Customs website. At the moment the form needs to be filled out and sent to customs via fax.

SSN for updates
Arrival/Departure:

Register a vessel registration, collect information about the vessel from underlying register by use of IMO/Signal/MMSI/vessel name. Complement with duration of stay, people on board, including crew. Provide up to date times of estimated arrival and departure.
Examples of other data are latest/next port/anchorage and draught.

- Receipt from SSN with reference number will be shown immediately after registration/visitors ID.
- An invoice for pilotage services among other charges, will be sent from SSN to the agent.
- The shipping company provides an ISPS form with crew list and the 10 latest ports. Clear inwards to customs, vessel declaration.

2.4 ORDERING PILOTAGE

Pilotage is ordered at the Pilotage Order Center, which will provide a confirmation via text message/e-mail.

The following data is entered in SSN:

- whether there's a pilotage obligation or no pilot obligation
- whether a pilotage order will be made or not
- exemption number (if applicable)
- draught for arrival/departure
- contact details.

2.5 CUSTOMS

Information is updated with regular intervals via phone and/or fax communication between the agent and the Swedish Customs.

In advance registration of incoming vessel

- Form available on the Swedish Customs website.

Vessel declaration

- Form available on the Swedish Customs website.

Customs will fax approved and stamped documents:

- vessel declaration
- crew list
- custom documents (if applicable).

Note! If the Swedish Customs were to enable online updates it would relieve the agent from manual management.

3 PORTIT INTEGRATED WITH SSN

Inport's clients use the Portit system, Inport's own system. Portit is an umbrella term for a number of modules which have been designed to suit the port and terminal industry and their partners.

The incentive of Portit is to manage all activities from quotation to invoice within the port/terminal. In many aspects, the call to port module functions as a hub. Most of the activities are connected to the call and its key concept, the *call to port number*. The call to port number is equal to the project or object number.

Another key concept is the client. The client can take many different shapes. It could be an agent, a shipping company, an owner of goods or containers, to mention a few examples.

When we present systems in this document, we will name them Portit and thus refer to the modules that deal with the call to port process.

3.1 PORTIT CALL TO PORT

- Includes all information required at a call to port:
 - o estimated and actual arrival/departure dates
 - o district codes according to ST and other information required by ST
 - o transfer to ST.
- Is used separately by the agent.
- Can collect information from SSN.
- Can be integrated with AIS system in order to receive AIS information automatically from the vessel. AIS is activated with clients in Norway.

3.2 TODAY'S FLOW

Portit has been integrated with SSN for many years and allows for data to be transferred automatically from SSN to Portit when the agent updates the vessel registration in SSN. This way the user updates Portit with all new vessel registrations, as well as all changes to those which are already in the system.

Advantage: All calls to port that are registered with SSN will enter the port system without manual supervision.

Note! At the moment there is no feedback or way for agents who use Portit to generate data to SSN.
The port authorities we work with have not been willing to take on the responsibility of providing the service.

3.3 SSN NOT UP TO DATE

It is not yet possible to report goods and vessel information etc. Another issue is that reports coming in from the agent can sometimes be insufficient and unreliable, and in some cases there are no reports at all.

We don't have a good answer as to why SSN is not correctly updated, but in order to facilitate the work around the port and for the MonaLisa project to succeed as a whole, the SSN information must be reliable.

4 PORTIT UPDATES SSN

4.1 EXTENDED POSSIBILITIES

Portit is constantly improving so that the user will get access to new functions and options in accordance with the wishes and demands of the outside world.

One way of securing the MonaLisa project would be to allow Portit to send information (vessel registrations) to SSN since the system is always kept up to date.

Keeping track of arrival and departure times respectively is important for a number of reasons as they make up the basis of planning for all the involved parties, as well as invoicing.

SSN already has specifications for the information required to generate a vessel registration and for other types of information that needs to be provided.

4.2 NEXT STEP

Our aim is to connect specifications with output from Portit's call to port module, which means that the agent only has to update and manage the call to port information in Portit.

This enables agents who use Portit as a separate system or as a system connected to a port, to update SSN.

The solution is generally applicable which gives the agent the option of sending information to several ports from the same system.

- All information which the agent updates to SSN is reported to Portit which then forwards it.
- Even the information sent back from SSN will be managed and presented by Portit.

YES, follow the user ID from the login. It is the agent's responsibility to make sure the update is correct.

The reports which are registered with SSN and the Swedish Customs are available and controlled from Portit.

Advantage: Agents who use Portit as an agent system only have to register an in advance registration in Portit.

Reports, including vessel registrations, can be printed out/e-mailed directly from Portit to each receiver respectively.

This will not impede the way that information from SSN is collected and updated by the port, it will simply relieve the reporting process for the agent.

The transfer will be made in XML format, just like the information that we are already collecting from SSN and which we use to update Portit calls to port on behalf of the ports.

4.3 ASSESSMENT

We estimate that this type of solution would take roughly 80–100 hours to put together.

5 SUMMERY

5.1 REPORTING TIME

5.1.1 Actual time of arrival

Examples of events affecting the reporting of actual time of arrival in relation to estimated time of arrival:

- Manual update being required.
- Crew not having access to the system during mooring.
- Unforeseen delays of the call to port due to e.g.
 - o bad weather conditions
 - o the previous vessel not having left the dock.

5.1.2 Actual time of departure

Examples of events affecting the reporting of actual time of departure in relation to estimated time of departure:

- Unloading/loading taking longer than expected.
- Manual update being required.
- Actual time of arrival being later than announced.
- Having to wait before accessing the dock.
- Experiencing bad weather conditions.

5.2 REPORTING

It is important that both agent and port update changes to arrival and departure times respectively.

Estimated time of arrival: It is important that the agent updates all changes, which can be done

- o directly in SSN
- o via Portit connected to SSN
- o through a web portal.

Actual time of arrival: The port must report as soon as the vessel is moored. This can be done via

- o a phone app
- o a web portal
- o Portit.

Estimated time of departure: It is important that the agent and the port update all changes.

Actual time of departure: The port must report as soon as the vessel has departed. This can be done via

- o a phone app
- o a web portal

- Portit.

5.3 SYSTEM SOLUTION

Getting access to the actual date of arrival and date of departure is not a problem as far as systems are concerned. We know which fields are the controlling ones. What it requires is small reel that reads the fields and then exports them in a pre-set format, ready to be reused in a joint system.

Data entered in the date fields are no more correct than the input which the port relies on. Today, relatively big divergences are noticeable here.

Call to port database

- The vessel's
 - signal
 - IMO number
 - name
 - estimated arrival date + time
 - actual arrival date + time
 - estimated departure date + time
 - actual departure date + time.

5.4 LIMITATION

The solution is aimed primarily at information regarding conventional calls to port.

Calls to port in terms of ferries, small boats and fishing boats etc. do not have the same need and are therefore not included.

5.5 ASSESSMENT

We estimate that generating an output file with calls to port and vessel information regarding arrival and departure takes 25–35 hours.

6 PORTIT WEB PORTAL

6.1 POSSIBLE FUTURE WITH PORTIT WEB (SWEDEN HUB)

If there is a central hub where both port and agent actively can update and access information, the data on actual date of arrival and departure become much more reliable and can be used for further information. Divergence will be avoided since it is the same system and source of information holding the data.

The ultimate idea is for the agent to be able to log in to a portal and register, manage and access information for all ports where they have calls to port, at the same time as the port's Portit is being updated.

As a system developer, Inport can create these features and manage Sweden Hub. Once again, the advantage is that the information from several parties is stored in one place.

All agents have access to their own login and an option for each port they do business with. In cases where the port uses Portit, a bridge is created so that Portit can provide and update Sweden Hub with important information. Other call to port systems can also be integrated with the bridge and thus connect with Sweden Hub.

This means:

- an interface which allows for all changes and other relevant information relating to the call to port to be stored for future use.
- a web interface which provides SSN and the port data system with information.

The agent is the party responsible for the information and the updates being sent to SSN. The port system adds its "own" information.

Examples:

- Ready system where all necessary services such as pilotage and sludge emptying can be ordered.
- The possibility of a joint vessel register. Enter an IMO number or vessel signal and the data will automatically be presented and can then easily be stored.
- Joint layout with an editable section for the agent and an editable section for the port.
- Goods information.

One business arrangement could be that the agent is charged per call to port and has a complete IT system with all the data needed in order to complete the task at hand.

In cases where the agent is managing several calls to port, a monthly rate could be offered, irrespectively of the number of calls.

It should be possible to certify the page as the official path to provide SSN Sweden with information, and also to address that this is something that is required by all agents.

6.2 WINNER

All parties who have access to information in the hub.

- The agent can register and manage the vessel registration.
- Customs can browse for useful information in one place.
- Pilotage can view arrival and departure status updates.
- The port can view status updates regarding pending calls of port.

6.2.1 App

Many services can be secured and made easily accessible with the use of a phone app. This way all involved parties get the same information at the same time. Everything from confirming anchorage or departure, to possible delays or other issues that might arise. Even the ordering of services could in the future become available through an app.

The equivalent information will of course be available in Sweden Hub.

6.3 ASSESSMENT

A rough estimate is that it would take 500–800 hours to develop a web-based solution. It remains to be seen how to run and manage the solution in the best possible way.

However, we consider the profit for many of our partners to be so great that it will have to be applied in order to secure an efficient processing of data in the future.