

Great communication is crucial for optimized port management

Overly complicated communication systems can be more of a hindrance than a help to ports – the answer is simple but effective

Henk Kuipers, Klein Systems Group Ltd., Burnaby, Canada

Ports are in a high stakes information game where great communication improves a port's attractiveness. Great communication allows the port to provide effective and efficient service to their customers and stakeholders. Ports have an abundance of information needs and demands that, if taken care of, can result in optimal operational processes. An electronic service bus, which exchanges information electronically and securely within the port and the port community, allows ports to achieve efficient and effective communication.

Complex communication needs and demands

Adhering to processes is difficult in any environment, but it is crucial for ports. Streamlining the high level of communication required is a challenge. Many parties are involved in port operations, such as pilots, tugs, linesmen, waste collectors, agents, customs and safety authorities. To keep so many parties well informed and working together is a serious challenge.

It is common practice in many ports to exchange information by phone calls, by fax or by mail. If port operators need

additional information they will pick up the phone to get that information. Much of this information is not readily accessible and available for sharing with interested parties. This limits the efficiency available to a port and frustrates stakeholders.

In addition, the Port Authority may find out at the end of the day or week that the available information on a ship's stay or the reasons for decisions taken is incomplete. This may result in avoidable errors in billing, penalties, operations; discussions on bills sent to customers or incomplete information provided to other parties, ports or safety authorities in the region. Utilizing an information service bus can eliminate the redundancy and solve these communication challenges.

Multiple data sources reduce accuracy of communication

With the volume of information exchanged with a port and the port community, many ports find themselves contending with multiple data sources. Having multiple sources for the



Sharing information between various third parties such as agents, pilots, customs and safety inspectors can be problematic unless an effective system is in place.

same information is a risk. How do the sources match? Do they match? Which source is used by the partners and why? What is the consequence of choosing a specific source, especially in communication with partners that may have chosen another source?

Take, for instance, the Estimated Time of Arrival (ETA) of a vessel. ETAs differ from source to source. Depending on the source, such as an agent, captain, pilot or port authority, it may refer to different locations: a pilot station, the port entrance, locks or at berth.

Not only does ETA mean different things to different users, the actual precision and preciseness of the ETA is also dependant on the receiving and sending sources. An ETA that is updated every minute may be a nuisance to processes like inspections, where a long-term forecast is needed, but crucial for other stakeholders. Knowing the reliability of the source of information and understanding the audience is a challenge, which can also be solved by integrating information and sharing technology as part of a port's infrastructure.

Poor communication is costly and causes irritation

The consequences of using the wrong source with outdated or low-quality data can be very costly. A pilot leaving the station to meet the vessel at the rendezvous point has to be sure that the vessel will be there and not several hours later or not at all. If the information is not in sync, this causes irritation between involved parties and wastes pilot and berth capacity. Disturbed processes like these prevent the port from achieving excellence in services to their customers. Without good communication, ports may also struggle to provide mandatory information to third parties such as ship arrival, departure and dangerous goods on board.

A port service bus optimizes communication

The optimal solution in a high-stakes communication environment is to bring all available information together, assess the information right away, combine the other information available, adjust the information as needed, and distribute the

information for the various needs within the port arena. The technical solution to share information in a reliable and relevant way is an Enterprise Service Bus (ESB).

Most ports share a number of similar services with third parties such as agents, pilots, customs and safety inspectors. This knowledge, gained over 25 years in close co-operation with customers and end users, is used by Klein Systems Group Ltd. to define a port-specific ESB: the Klein Service Bus.

The Klein Service Bus supports the communication needed for each party within the port community. Each party is able to communicate with others in their own language. Pilots talk about boarding time, tugs about meeting time, stevedores about arrival times at berth, etc. The port service bus takes care of the necessary translations and ensures that the exchange fits with the partner's processes.

Next to that, the port service bus is able to determine which third parties need to be informed automatically if specific information has changed. Business rules are used to validate the information in the port service bus. Also of importance is the fact that the Klein Service Bus for ports provides security of information from third party to third party. Partners can only work with the information relevant to them and are shielded from business-sensitive information of others.

Good communication makes ports attractive

Ports using a port service bus can provide a highly efficient and effective service to their customers and partners. Although ports share many services, the specific implementation of these services differs considerably between ports. It is therefore important to use a highly configurable and flexible solution that can be tailored to all specific ports.

Ports using a port service bus also see an increase in port capacity, servicing more vessels and cargo with the same infrastructure and available space. Additionally, workload is lowered, as conflicts and friction in communication and cooperation are minimized.

Optimally managed information results in an optimized operation. These efficiency improvements have a big positive effect on the attractiveness of a port, and are very much appreciated by all the stakeholders of the port.

ABOUT THE AUTHOR

Henk Kuipers is Director of Marketing and Sales for Klein Systems Group Ltd. in Europe. Henk has over 25 years experience in vessel traffic information systems. He has a BSc in Electronic Engineering and an MSc in Business Science. Henk has been involved in the planning and realization of a number of the largest VTS systems in world, such as Rotterdam.

ABOUT THE COMPANY

Klein Systems Group Ltd. is an international software and services company specializing in the automation of business operating processes. Klein has over 25 years of experience in delivering enterprise-wide software applications for maritime ports, vessel traffic and coastal surveillance organizations, pilotage organizations; tug operators and maritime community systems. This experience with processes within and around a port is used to create port management solutions, in close co-operation with customers and end-users.

ENQUIRIES

Klein Systems Group Ltd.
4400 Dominion St., Suite 360
Burnaby BC V5G 4G2
Canada

Tel: +1 (604) 689 7117
Fax: +1 (604) 689 7119
Email: sales@kleinsystems.com
Web: www.kleinsystems.com