PORT OPENING

Over the last few decades, ports have been suffering a continuous process of opening towards their communities. They have evolved from civil works managers to service providers and this transformation has led to more and more information being exchanged among a port and its hinterland. Thus, Port Authorities have begun to exchange information electronically with their partners, first using EDI, and later implementing Port Community Systems (PCS).

With the web explosion, ports also started to publish information on their websites, first static data and subsequently dynamic information, creating a communication channel with its environment that is firmly established nowadays.

The opening process has not affected only port’s business partners, such as ship agents, terminals and shipping lines. A vast number of ports are located in or nearby cities. This fact has affected ports in two ways:

• Opening the port up to local citizens wanting to know more so that they can live with the port as a part of their cities. In this spirit, a lot of port-city integration projects have been developed all around the globe.
• The growing arrival of cruises with tourists eager to visit a city in a few hours, who need to start and finish their visit in the port.

Port Authorities are seeing how citizens and tourists have become relevant stakeholders in the port’s community. These significant stakeholders are not a passing trend, they are here to stay, and they provide important incomes to the port business.

Thus, sharing port information with port community business partners, citizens and cruise passengers becomes a must.

The SmartPort concept allows the gathering of a wide set of disparate data, from any kind of sensors to application and services. These data can be analysed, monitored, displayed and used in business processes. The combination of sensor data with business processes should be shared with the port community to achieve an effective integration of the port and its environment. This is the focus of the SmartPort App deployed at Port of Cartagena, and one of the keys of its successful usage.

CASE STUDY: PREVIOUS SITUATION AT PORT OF CARTAGENA

The Port of Cartagena (http://www.apc.es) is located on the south-east coast of Spain. It had a cargo turnover of around 30 million tons in 2013, being the first Spanish port in bulk traffic. Cruise passenger numbers are also growing, having a cruise terminal with 560 m of berth and ongoing works to widen land access.

The Port Authority of Cartagena decided some years ago to share information with its port community through its corporate website, giving open access to a wide range of contents. The most visited section

![Figure 1: Desktop versus Mobile and Tablet Traffic. Source smart Insights – Morgan Stanley Research](image)

![Figure 2: Mobile data traffic looks set to explode. Source Cisco, via Statista](image)
Figure 3: Current port situation on Posidonia SmartPort for the Port of Cartagena.

Figure 4: (Top left) Access to twitter posts of Port of Cartagena from the App; (Top right) Weather information in the port of Cartagena.

Figure 5: (Top left) Access to twitter posts of Port of Cartagena from the App; (Top right) Weather information in the port of Cartagena.
of the website is the current situation of the port (http://atraques.apc.es/), regarding ships, berths and operations. It is based on a product of the suite Posidonia Port provided by Prodevelop, which is deployed in the cloud, and integrated with the internal Port of Cartagena’s PMS (Port Management System).

The intention of the Port of Cartagena was to strengthen this information sharing and to offer a new means of connecting with port visitors (both citizens and cruise passengers).

**INFORMATION EVERYWHERE**

The way how information is obtained has changed with the spread of the smartphones with Internet connection. The usage of mobile devices for accessing information is growing at very high pace and it has already overtaken desktop traffic, as it can be seen in the figure below.

**CASE STUDY: SOLUTION ADOPTED BY PORT OF CARTAGENA**

The convergence of sharing information to port’s business partners, citizens and cruise passengers with the universalisation of the smartphones and the traffic trends led the Port Authority of Cartagena to acquire Posidonia SmartPort, a product developed by Prodevelop consisting in an App for accessing port information.

With this decision, The Port of Cartagena reinforces its relationship with the port community, consolidates its compromise with the integration of the port in the city environment and boosts the positioning of the port in the cruise panorama.

Posidonia SmartPort is an App that supports the most common mobile platforms (iOS, Android and Windows Phone). It’s delivered through the most popular App stores and generates a very low impact on the port IT infrastructure, as all the services the smartphones access are located in the cloud, using Amazon Web Services.

The adoption of this product has allowed the Port of Cartagena to share instant information about vessel situation, movements, operations, historic traffic or forecasts.

Apart from vessel and calls information, The Port of Cartagena offers access to its corporate news, integrating its twitter account, allowing the users to know what’s going on in the port without needing to know RSS feeds or twitter accounts. Even non twitter users can easily read the latest tweets. News information can also be shared using the usual mobile Apps (Facebook, WhatsApp, Google+, e-mail, etc.)

The application offers weather information at the port, with current information and forecasts, and it can provide direct access to webcams available at the port, displaying real-time images of the port.

Finally, the application includes a complete list of port facilities (docks, buildings, places of interest, terminals, public bodies, etc.) and a directory of all the companies working or offering services around the port’s activity (ship agents, freight forwarders, custom agents, stevedores, etc.)

The deployment of the solution has helped the Port of Cartagena to strengthen its relationship with port stakeholders, to make the port known to Cartagena citizenship and to offer a useful tool to the growing number of cruise passengers.

Posidonia SmartPort is a successful solution for the Port of Cartagena so far, but the best advantages will appear in the near future, according to the growing evolution of the smartphone usage for accessing information.

More information about the product can be found at http://www.smartport.prodevelop.es

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**ABOUT THE ORGANISATION**

The Port Authority of Cartagena, located on the south-east coast of Spain in the Mediterranean, is the public body responsible for running and managing two state-owned ports, Cartagena and Escombreras. Cartagena is the top Spanish port in bulk cargo, fifth in total cargo in Spain and one of the most important industrial ports in the Mediterranean. Prodevelop is a company highly specialised in information and communications technology (ICT) application for the maritime industry, which prides itself on its ability to offer innovative and flexible solutions, specially designed to meet the requirements of each and every one of its clients. It offers comprehensive port information system platforms, which focus on meeting the needs of port authorities. The portfolio of Prodevelop covers: integrated port operation management systems; port community systems; safety and security; environmental management systems; space management; mobile workforce.

**ENQUIRIES**

www.smartport.prodevelop.es