



**CrimsonLogic**

A member of the PSA Group

# Port Community System (PCS)

Digitalise port management under a single window and connect users.



**Simpler trade. Smarter tech.**  
[crimsonlogic.com](https://crimsonlogic.com)

## A single window For all port functions

PCS is a Collaborative Electronic Platform that enables intelligent and secure data transfer between the port and the customers as well as with all public and private stakeholders. It aims to achieve operational efficiency and service excellence for the port and logistics community and facilitate logistics services — by sea, air, road, rail, barge and inter-modal transportation.

The key role of a Port Community System is to bring together administrative and operational processes, share data for the benefit of port operators and businesses using port facilities and services, acting as a single window for all stakeholders.



### 1. Streamline documentation and processes

Streamlines documentation and business processes for the port community.

### 2. Improve efficiency with single-view platform

A single-view, consolidated platform improves efficiency by eliminating repetitive data entry, processing and transcription errors.

### 3. Transparent, real-time information

Provides transparency and real-time information to facilitate tracing and tracking of cargo.

### 4. Simplify processes through integration

Simplifies processes through integration with Government, Port Operator and Port Authorities' systems as well as Port Users' systems.

### 5. Real-time tracking and notifications

Real-time tracking and proactive notification on business exceptions.

### 6. Reduce time and cost

Reduce time and cost for movement of goods.

### 7. Enhance competitiveness

Enhance international and regional competitiveness of the Port.



## Transform port ecosystems, Enhance competitiveness

A PCS is expected of a modern Port as an electronic community platform for the exchange of information between port users and the port and among stakeholders. A reasonable expectation of Port customers — shipping lines/agents, shippers, forwarders, etc. Improves the competitive position of the port as well as the port and shipping-related businesses.

A key component in the National Total Trade Platform that integrates national agencies and businesses along the Supply Chain through improved information sharing, data reusability and global connectivity.

Expedite the transforming of a port into an efficient and advanced maritime hub, hence attracting more ships, more cargo and a varied range of maritime businesses such as bunker suppliers, ship suppliers, ship repairs, etc.



### Singapore's PCS: **PORTNET®**

As the world's first nation-wide e-commerce system, the PORTNET® system links the entire shipping community in Singapore enabling customers to book berths, order marine services, transact bills and receive alerts and many other innovative services.

PORTNET® is the first nation-wide business-to-business (B2B) port community solution that empowers the shipping community to easily manage the complexity of cargo operations and the entire shipping process implemented in 1989.

PORTNET® today processes more than 300 million transactions annually. In a 2007 survey by the World Bank, it was cited as a key success factor in Singapore's ranking as the world's Number 1 Logistics Hub, for its role in simplifying and integrating the complex processes involved in the moving and tracking of cargo worldwide.

## Global PORTNET® Leveraging on excellence

Global PORTNET® is available for ports and terminals outside of Singapore.

First implemented in Beibu Gulf Port Group group of ports in Guangxi province, People's Republic of China. The group of ports and terminals handle containers, break bulk cargo and bulk cargo. The implementation was done progressively in phases and by terminals.

Global PORTNET® projects have also been used to enhance the port of Singapore since 2021.

**Best practices, proven and effective core Port Community processes**



**Information analytics, hyper-awareness of Port situations**



**Notifications**



**Security, 2FA**



**Cloud-ready, faster deployment, higher scalability**



**TOS & Authorities Integration**



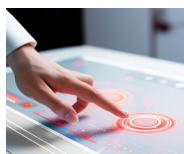
**Open-source support**



**EDIs and APIs**



**Accounts, roles and permissions**



**Multi-lingual, modern UI**





## Manage port operations from a single browser window

Proven best practices from large-scale operations in Singapore and province-wide experiences in Beibuwan.

Community integration and orchestrated workflows.

Ready APIs and ease of platform integrations for supply chain facilitation.



### Port operations & logistics excellence

- Handle bigger ships
- Manage bigger alliance
- Improve asset utilization
- Manage transport traffic
- Faster container turnaround & cargo flows



### Port community integration

- Data standards and exchange
- Regulatory compliance
- Multiple terminals



### Supply chain facilitation

- Multi-modal support
- Internet of logistics
- Newer trade corridors

## Port operations, Logistical excellence

1

### Connectivity and planning

**Shipping connectivity:**  
Discover faster shipping & mode of transport.

2

### Trucker delivery

**Track & trace/notifications:**  
Faster delivery, lowers dwell time.

3

### Traffic planning

**Traffic summary & forecast:**  
Upkeep terminal haulier service level.

4

### Terminal performance

**Loading & discharging throughput:**  
Trend analysis of load & discharge.

5

### Document exception

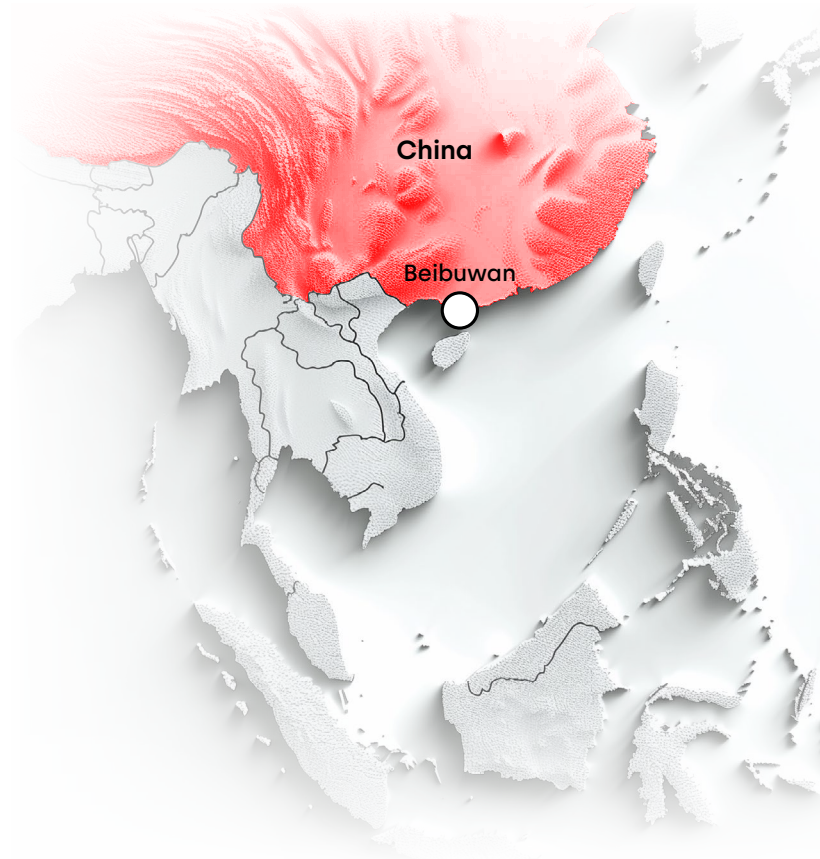
**Vessel exception manager:**  
One-stop document 'health' check.



## Global PORTNET® Beibuwan implementation

Recent Beibuwan implementation for the whole Guangxi province in the People's Republic of China include digitalising 4 container terminals and 3 conventional terminals (2019–2020).

Positive outcomes for the Beibuwan region in Guangxi include:



### Productivity



#### 1. 60% integrated terminal workflows

Streamlines documentation and business processes for the port community.

#### 2. Scheduling

Reduces gate traffic congestion.

### Community support



#### 3. Proactive alerts

Track critical DCTG container activities for smooth container movement.

#### 4. Info analytics insights

Community self-service visualization with drill-in for terminal situation awareness.

### Port & supply chain ecosystem

#### 5. APIs

Stronger foundation with extensions to Port Community supply chain.

#### 6. Sustainability

Less paper ops, higher community effectiveness.