



Navayuga Infotech

A CMMI Level 5 & ISO 9001 Company



PortKonnnect

Introduction

Rapid growth in the global shipping industry present difficult challenge to port administrators, terminal operators, and other port service providers to handle without IT systems. Traditional ways of doing business in ports without IT systems are leading to revenue leakages, inability to track/estimate costs incurred in handling cargo through the port and decreased customer responsiveness. Increasingly sophisticated IT is spreading throughout the port sector as users demand more timely information to support their operations, planning and logistics systems.

Automation of marine and cargo operations is the key to the success of terminal operators across the world. **PortKonnnect** automates marine, cargo operations and invoicing to provide the right information to the right people at the right time to improve productivity and reduce operational delays.

PortKonnnect is a web based end-to-end integrated port solution from Navayuga Infotech that handles vessel and cargo movement activities in and out of the port. For better decision-making the system provides users with real time information about vessel arrival/departure, port facilities management, cargo & logistics information, gate operations, etc. The objective of the application is to get the highest competitiveness by maximizing the work efficiency, enabling effective usage of port facilities and achieving customer satisfaction by high quality service. It also provides you with various enterprise based functional, operational & management modules with seamless integration & interoperability.

Marine Operations

Allows the user to effectively and efficiently manage Marine operations such as Anchorage, Pilotage, Berthing, Unberthing, Shifting and Warping. It also caters to systemized management for vessel arrival/ departure and movement status in the port, berth management, automatic invoice generation/ calculation of port dues and services requested, etc.

Features:

- Vessel Voyage Registration
- Automated Proforma Invoice/ Rate Card Definition
- Complete Pilotage and Berthing process recording
- Capturing and recording all services offered to a vessel
- Finalisation/ Closure intimation of all interfacing activities
- Dashboard to view entire marine operations with real time information

Cargo Operations

Provides a solution for the smooth management of import/export process documentation and helps to plan, allocate, schedule, control and monitor all cargo operations to maximize their productivity and efficiency. The application captures the activities and functions of Gate, Warehouse and Rail.

Features:

- Consists of complete import and export process flow
- Captures entire operations flow right from documentation to delivery
- Extensive and sequential Gate Operations flow
- Usage of technologies like Bar Code scanning, thus reducing human errors
- Invoicing of services such as wharfage, storage, etc.



PortKonnnect - Modules & Features

Marine & Vessel Operations System (MVOS)

- Berth Definition, Automated Planning and Monitoring
- Vessel Documentation
- Real Time data capturing through Mobile Devices
- Service Request/ Recording
- Marine Closure
- Vessel Dashboard

Cargo & Logistics Management System (CLMS)

- Import/ Export Documentation
- Warehouse Operations
- Control Centre Operations
- Shipping Operations
- Storage Planning

Warehouse or Yard Operations

- Monitor and report duration of stay of cargo
- Bagging and debagging of cargo operations
- Barcoding system to track warehouse cargo
- Equipment and manpower utilization can be tracked for cargo stacking, bagging and internal shifting's
- Mobile application to capture loading/ unloading and equipment timings
- Cargo reconciliation based on draft surveys and Weigh Bridge operations

Jetty Operations

- Draft Survey Recordings
- Vessel Cargo Operations
- Mobile device application for capturing vessel cargo operations/ crane operations
- Dashboard to alert/ notify operations departments on KPI's and operational planning's
- Alerts to terminal operators on load/ discharge rates
- Resource utilization/ performance reports
- Statement of facts (SOF)

Rail Operations Management System

- Rail Documentation
- Exchange Yard Operations
- Placement/ Release of Rake
- Indent for Wagons
- Wagon Allotment

Gate Operations

- Gate access control for personal, trucks and agents
- Gate in and gate out times
- Yard/ Warehouse in and out times
- Truck turnaround times reports

Weighbridge Operations

- Provision for integration with all major weigh bridge manufacturers
- Truck tare weight and load weight capturing
- Cargo quantities will be updated in warehouses/ yards against the import/ export applications accordingly

Logistics

- Equipment performance reports based on costs incurred on maintenance and output
- Alerts on Maintenance schedules for the equipment
- Fuel consumption reports
- Track truck movements using RFID

Fleet and Fuel Management

- GPS/ GPRS based Live Vehicle Tracking
- Geo fencing
- Emergency Alerts
- Speed Alerts
- Stoppage Alerts
- Fuel Management
- Integration of Fleet Management services with CCTV and RFID systems



PortKonnnect - Modules & Features

Equipment Management System

- Equipment Categorization
- Equipment Indent/ Approval
- Transfer/ Receipt/ Release
- Equipment Log Entries
- Service Management

Material Management System

- Vendor Management
- Procurement Process
- Quotation System
- Purchasing & Invoicing
- Inventory & Stores
- Goods Indent/ Receipt/ Issue/ Transfer

Costing Reports

- Collection of terminal operating costs
- Usage of EBIDTA to ascertain the cost of services rendered

Invoicing

- Alerts and reports on total pending invoices and invoice amounts
- Configurable port tariffs with effective dates onto the application
- Generation of pro forma invoices for marine and cargo operations as per tariff configurations
- Generation of pro forma invoices from service requests as per tariff configurations
- Revise option for pro forma invoice on receiving new service request
- Ability to revise invoices
- Ability to generate invoices in multiple currencies
- Integration with foreign exchange sites for currency conversions
- Seamless Integration with external finance applications such as SAP/IFS

Dashboards

- Terminal performance reports
- Dwell time reports
- Berth utilization reports
- Resource performance reports
- Load/discharge rates report
- Annual comparison report

Finance Management System

- Rate Card Automation
- Customer Service Agreements
- Automated Invoicing/ Billing
- Bill Adjustments
- Cash/ Bank Transactions

Human Resource Management System

- Recruitment Management
- Employee Information
- Leave Management
- Attendance
- Payroll Management
- Appraisals
- Personnel Calendar
- Personnel Requisition/ Allocation

System Administration

- User and User Group Setup and Administration
- Privileges Setup and Management
- System Configuration and Customization
- Audit Trail



Key Features

Online Access for External Stakeholders

Vessel Agents, Terminal Operators and other external stakeholders can easily access the application from any computer using a web browser without any software installation.

Application Security

Application functions based on access privileges wherein each user is able to access the features he has access to. The login credentials are stored in an encrypted form to provide an additional layer of security.

Alerts and Notifications (SMS/ Email)

Modern notification system capable of sending out SMS and Email notifications to the stakeholders for any events of their interest.

Dashboard with drilldown features

The unique dashboard designed gives an immediate snapshot of the port operations. This facilitates the senior management to analyze, monitor the performance thus enabling quick and critical decision making.

Automated Visual Berth Planning

The system enables Berth Planner to efficiently plan the berths using multiple berth views. System allocate berth automatically based on the configured business rules but allows the planner to override if required.

Auto Resource Planning

The system enables automatic resource planning based on the services requested and available resources (Pilots, Tugs, Gangs etc). Facility to override an existing plan also is provided.

Mobile Application

Mobile solution allows access to real time updates and entry or operational info for the pilots and field staff during the operations, instead of entering the data at the end of the day. This helps in better planning and decision making.

Tablet (Smart Phones) based solution

Tablet based solution enables the senior management to get the real time information regardless of their geographical location.

Integration with External Systems

PortKonnnect architecture allows seamless integration with external systems like Lloyds Register, AIS, EDI, and SAP etc. as per the needs of the Port operations.

Reporting

PortKonnnect provides comprehensive reporting which give a clear picture of the current scenario of the port which aids tracking, monitoring and analysis for better decision making. Facility to export the report to PDF, Word or Excel formats is also provided.

Easy System Administration

Comprehensive administrative features helps the administrator configure business critical berthing and port parameters as per the changing needs and policies. This also includes threshold values for all alarms.

24x7 Support

24x7 support through phone and email ensures that customer is never out of service. Online service desk allows registration of issues by the customer for immediate escalation and rectification.



Benefits

- Maximizing the work efficiency
- Reducing operating cost by efficient planning and minimizing idling time of resources
- Enabling effective usage of port facilities
- Achieving customer satisfaction through high quality service

References

Port of Durban, South Africa	Richards Bay, South Africa
Port of Capetown, South Africa	Dubai Creek, UAE
Port Elizabeth, South Africa	Marfaa Deira, UAE
Saldanha, South Africa	Al Hamriya, UAE
Ngqura Port, South Africa	Krishnapatnam Port Company Limited, India
Mossel Bay, South Africa	Cochin Port Trust, India
East London, South Africa	Krishnapatnam Port Container Terminal, India



Client Speak

“Since 2008, various feasibility studies were undertaken where we identified the need for an automated and web-based system to improve port operations, strengthen efficiencies and enhance competitiveness. This online system will help transform our ocean gateways into smartPORTs by using advanced information technology that will make them more intelligent and sustainable while conserving resources, time, space and energy.”

- Mr. Richard Vallihu, CEO
Transnet National Ports Authority



“Navayuga's PortKonnnect solution has helped us improve utilization of our berths and other marine resources and therefore improve our operational performance.”

- Mr. Bharath Reddy, GM-Operations
Krishnapatnam Port Company Limited



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