
THEME: MOBILE ACCESS TO PORT AND MARITIME DATA

EXTENDING PORT DATA ACCESS & COLLABORATION

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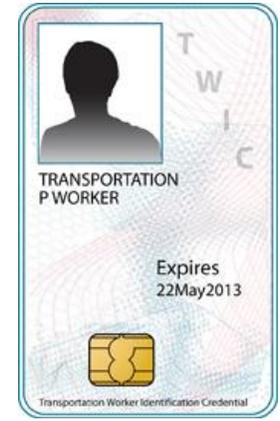
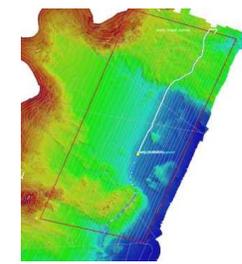
AAPA – IT & Security Seminar and Expo

AGENDA

- Port and Maritime Data Systems
- Options for Extending Data Access
- User Group Perspective
- Collaboration

PORT AND MARITIME DATA SYSTEMS

- Port Management Information System (PMIS)
 - Visit Planning, Scheduling, Resourcing, Data collection, Billing, Statistics
- Vessel Traffic Services (VTS)
- Automatic Identification System (AIS)
- Weather, Hydrographical and other 3rd party data
- Security Systems Data (TWIC, Access Control, Gate Control, Cameras)
- Facilities Data (CAD drawings, Asset Management, etc)
- Financial System
- + ?



EXTENSION: MOBILE APPS

- Can be used for:
 - Assignment notification and confirmation
 - Messaging
 - Remote data collection
- Pros: On & Offline mode
- Cons: Investment (\$)



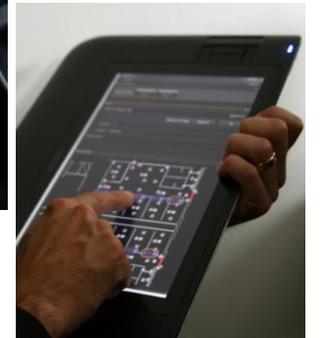
The collage consists of five overlapping screenshots from mobile applications:

- Top Left:** A 'Job Detail' screen for a 'Pilot Job'. It features a 'Work Log' section with a 'Submit' button and a list of 'ACTUAL WORK TIMES' with fields for 'Pilot Start', 'Arrive Stn', 'Depart Stn', 'POB', 'Disembark', 'Arrive Stn', 'Depart Stn', and 'Return Home'. A bottom navigation bar includes 'Detail', 'Worklog', and a notification icon.
- Top Right:** A 'Home' screen with sections for 'MY WORK' (Message 1/1, Pilot Job 1/2) and 'LINKS' (7 days traffic forecast, AIS Live, Local Weather). A 'Checking....' indicator is visible at the bottom.
- Middle Left:** A 'PILOT START TIME' screen with 'Cancel', 'Update Info', and 'Save' buttons. It shows 'Scheduled' and 'Actual' times for '2015-01-13 21:33'.
- Middle Right:** A '7 days traffic forecast' screen for 'TUE, JAN 13, 2015 (7)'. It lists several ships with arrival and departure information, such as 'Bulk Orion' and 'Aegean Leader'.
- Bottom:** A calendar view for January 2015, showing dates from Saturday the 10th to Friday the 16th. The date 'Tue Jan 13' is highlighted with a value of 33.

EXTENSION: WEB PORTALS

- Can be optimized for various mobile h/w and s/w platforms
- Developed using familiar user interfaces
 - UX design methodology
- Specific functionality for targeted user groups

- Pro: Lower Investment (\$)
- Cons: On-line mode only



EXTENSION: WEB PORTALS (EXAMPLE)

- Used to manage:
 - Agent: NOA/Berth Requests
 - Scheduler: Resource requests and confirmation
 - Finance: Billing/Invoice publication
 - Agent/Terminal: Cargo Manifest Input
 - Public Affairs: Notices/Information webpages

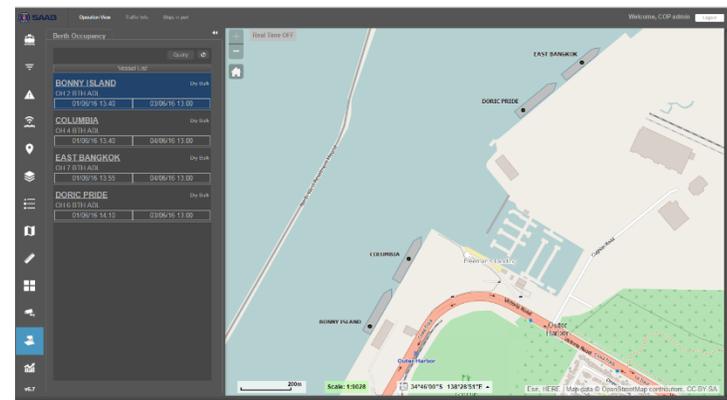
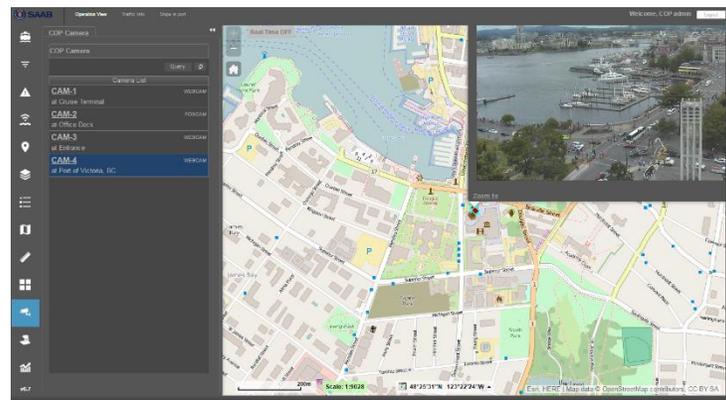
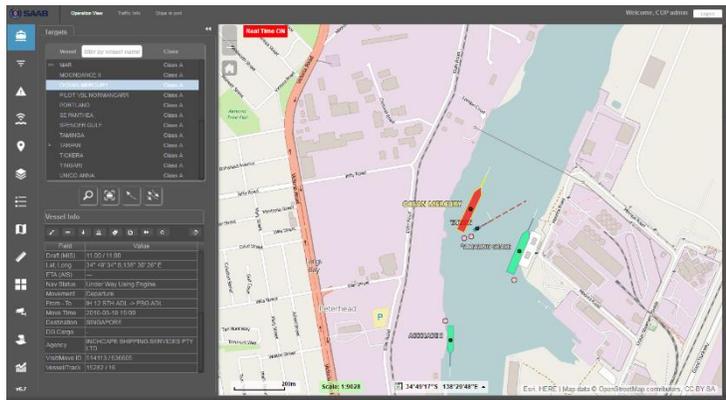
The screenshot shows the Prince Rupert Port Authority website. The top navigation bar includes 'Welcome, Guest' and a 'Login' button. The main content area is divided into 'Modules' (Shipping Notices, Traffic Information) and a 'Traffic Information' section with a search bar and a table of shipping data.

Status	Date	POB	Type	Ship	From	To	Agent
COMP	05:00 / 28 Jun		SHFT	GIANTS CAUSEWAY	Anchorage 04	Prince Rupert Grain	Pacific Northwest Ship
COMP	11:32 / 28 Jun		ARR	KEN KON	Triple Island Pilot Station	Anchorage 09	G.W. Nickerson Company Limited
COMP	13:51 / 28 Jun		ARR	HANJIN MAR	Triple Island Pilot Station	Fairview Containe	Northcoast Shipping Agency
COMP	16:00 / 28 Jun		SHFT	KEN KON	Anchorage 09	Anchorage 09	G.W. Nickerson Company Limited
COMP	18:00 / 28 Jun		DEP	SUN EXCELSIOR	Ridley Terminal	Triple Island Pilot Station	G.W. Nickerson Company Limited

Below the table is a 'Daily Shipping Sheet' with columns for 'Estimated Time of Arrivals' and 'Ship/At Berth'.

The screenshot shows a social media-style web portal for 'Agent BURKE'. The top navigation bar includes 'Click to go back, hold to see history', 'Agent BURKE | Home', and 'Welcome, Agent BURKE | Logout'. The main content area is a 'News Feed' with several posts from 'Agent BURKE' and 'VTSO' regarding schedule time updates for ships like MAERSK BLAZER and BALTIC WARRIOR. A 'Local Weather' widget is visible on the right side, showing a temperature of 22°C in Vancouver.

EXTENSION: WEB PORTAL (EXAMPLE)



Common operational picture (map-display) of port and maritime information

HOW

- Web presentation
- Map-based information
- Layering options
- Integration with data sources

WHY?

- Accessible on any computer or device
- Geographical reference for context
- Selectable view of relevant layers
- Complete representative view of the port (now and future)

PORT STAKEHOLDERS WITH MOBILE DATA INTEREST



USER GROUP: PORT STAFF

- Includes: Executive, Operations, Contracts, Business Development, Finance and...
- Requirement: Day-to-day access to information and interactive capability
- Suggest extension: Web Portals (incl. map display)
 - Maritime Domain Awareness
 - Berth Planning
 - Asset & resource tracking display
 - Camera and access system
 - Statistical Analysis



USER GROUP: SERVICE PROVIDERS

- Includes: Pilots, Tugs, Stevedores, Linesmen and other ?
- Requirement: Assignment and Reporting
- Suggested extension: Web Portal and/or Mobile App
 - Job assignment
 - Remote data input
- Collaborative enhancement: Other Web Portal (map display)



USER GROUP: EXTERNAL PARTNERS

- Includes: Agents, Terminals, Shipping Companies, etc.
- Requirement: Access and interaction with Port's PMIS
- Suggested extension: Web Portal
 - NOA/Berth Application
 - Resource requests
 - Permit requests
 - Cargo manifests
 - Invoices



USER GROUP: PORT SECURITY

- Includes: Port Security, DHS, Police
- Requirements: Reporting, threat awareness, response coordination
- Suggested extensions: Mobile App & Web Portals (incl. map display)
 - Security Job assignments and reporting
 - Ship location data
 - Asset & resource tracking
 - Visit details from PMIS
 - Camera and access systems display
 - Building drawings and other infrastructure details



USER GROUP: OTHER AGENCIES

- Includes: Customs, Coast Guard, Navy, Fire, Ambulance
- Requirement: Awareness and response coordination
- Suggestion extension: Web Portals (incl. map display)
 - Ship location data
 - Visit details from PMIS
 - Camera and access system display
 - Building drawing and other infrastructure details



USER GROUP: WIDER PORT COMMUNITY

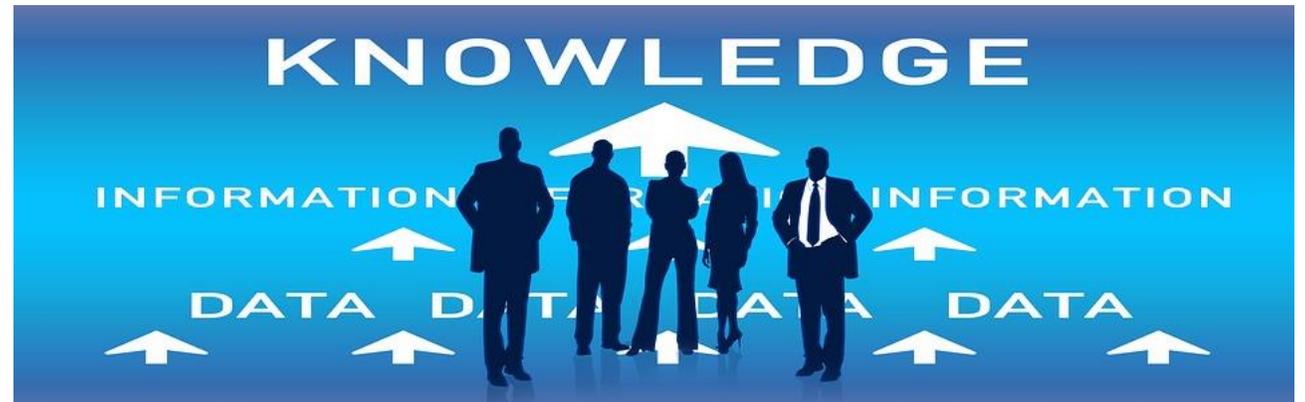
- Includes: External and Internal communications
- Requirement: Connect with wider port community to provide information relevant to their needs
- Suggested Extension: Web Portals
 - Notice to Mariners
 - Special events advisory
 - Provide real-time update of port activities
 - Vessels in port, arrivals/departures, press events
 - Targeted information for specific community groups



INCREASED DATA ACCESS = IMPROVED COLLABORATION

Providing mobile and local data access facilitates:

- Stakeholders sharing common **data**
- Immediate access to relevant **information**
- Increased **knowledge** and awareness



- Result: Efficient and Effective Port Operations

CONTACT DETAILS

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