# navis N4

## IT'S TIME FOR MORE

"Since the original implementation of N4, TPE Paita has experienced much success in achieving our goals of updating and modernizing our port to compete on the international stage, N4 is the TOS of choice for terminals around the world to manage operations and the ability to absorb Navis' experience and the benefits associated with having a tool built on international standards and best practices is a major factor in our decision to upgrade."

**Eduardo Cerdeira**
Operations Manager, TPE Paita

"Navis' technology produces the best opportunity for North Carolina Ports to use a single platform for all cargo handled at our terminals. Our ambitions reach well beyond the terminal operating systems and N4 gives us the foundation we need to increase velocity, safety and volume. We will achieve this via a series of automation projects connecting our technology with operations, our customers and the entire port constituency."

**Bill Corcoran**
CIO, North Carolina Ports

# THE BEST GETS BETTER

Unlocking Greater Performance and Efficiencies with Navis Smart Technology

Navis N4 is a sophisticated and modern technology platform that optimizes efficiency and helps to power the intelligent movement of goods through the supply chain. Bigger ships and tighter supply chains are increasing the pressure on terminals to operate at peak productivity and efficiency. Shipping lines depend on a terminal's promised productivity; they need their vessels turned as quickly as possible to maintain schedules, maximize slow steaming to reduce costs and to have vessel assets deployed as efficiently as possible.

As one of the global supply chain's most important service sectors, a productive marine container terminal is key to on-time, efficient delivery of cargo and goods to the end user. To meet these needs, container terminals worldwide are successfully relying on Navis N4 to drive smarter decisions, faster moves and peak performance. N4 supports a terminal's IT infrastructure, productivity goals and technology leadership.

Quality at Navis is of the utmost importance. Each release of N4 is extensively tested and certified for up to 10 million TEU. In addition, the power of N4 is backed by more than 30 years of experience working with the leading terminal operators. Navis SPARCS was the industry's first computerized system and was installed at more than 250 sites globally. Based on that legacy, N4 is the trusted terminal operating system (TOS) for more than 245 of the most advanced marine terminal operators in the world.

# N4 FEATURES & FUNCTIONALITY

Navis has released a new layer of technology that will enable and connect Navis N4 solutions, applications and data from the ocean carrier and terminal side of the Navis portfolio.

- N4 is a modern platform that scales as operations change. It's the only TOS that supports multi-terminal operational visibility and control.

- Navis Smart unleashes the next wave of application intelligence - enabling insights from connected solutions and leveraging cognitive computing.

- Avoid expensive customization and tailor N4 to meet specific needs with system options that involve advanced configuration, customization and integration.

- Advanced EDI Options provide an innovative approach to EDI management that significantly reduces the amount of on-going maintenance with a highly configurable and accessible EDI format.

- A Suite of Mobile Applications coupled with intuitive, user friendly interfaces that free up terminal personnel from their desks. Useful applications such as Reefer, Lashing, Twistlocks (Pinning) improve terminal performance immediately. Updates are completed over the air with no dependencies to your TOS.

- Facility Planning and Control offers real-time features in the XPS client application providing world renowned operational efficiency.

- A complete suite of optimization modules provides help to automate decisions and improve efficiency and productivity.

Capturing and standardizing data across the Navis ecosystem will provide a foundation to apply machine learning to Navis applications - making the software smarter over time.

- Advanced Rail Options offer advanced monitoring and management of rail operations.

- Advanced Yard Options enable optimized use of yard space and CHE's and optimized Equipment Control.

- Automated Terminal Option supports unmanned technology, such as automated equipment.

- Navis Smart technology enables applications to be developed and deployed without the need for upgrades - so operational teams can get the benefits of new functionality faster. Navis Smart lays the foundation for the next wave of machine learning innovation in the ocean supply chain.

- N4 as a Service is a turn key, cloud-based deployment of N4 that simplifies the complexities of implementing and managing N4, saving you time and money.

- N4 Private Cloud is an N4 deployment option for customers who are interested in deploying and managing their TOS on their own cloud infrastructure. This option provides all the goodness, features and reliability of the Navis, on premise N4 TOS. Depending on the choice of private data centers, they can provide dedicated infrastructure, and all of the same resources available with an on site data center so you can perform personalized management functions that your terminal requires.

# STREAMLINE & OPTIMIZE TERMINAL OPERATIONS

## A MODERN PLATFORM

Navis N4 scales with your business to optimize utilization of IT infrastructure and eliminate unnecessary, upfront capital expenditures. The flexible N4 architecture allows terminals to create clusters of database and application servers, allowing your TOS to grow to meet demand. The Navis Smart technology also allows terminal operators to unleash and monetize the vast abundance of data being collected in and around their terminals - including water side and inland - to optimize planning, visibility and asset utilization for all players in their eco-system. Navis Smart eliminates all of the data silos that have been created over the years throughout a terminal. It makes data sharing in and around the terminal seamless with all of the new Navis applications that utilize the Navis Smart architecture.

## OPTIMIZE OPERATIONS

The open architecture of Navis N4 & Navis Smart allows you to readily connect to your existing systems and add new applications as your business grows. Whether looking at gate automation or managing highly complex business integration requirements, N4 has the APIs and tools for the task at hand.

# GET MORE WITH N4

## NAVIS SMART - ARCHITECTURE FOR DATA SHARING

### APPS & SERVICES
WHAT SERVICES AND APPS DO YOU NEED?

- Equipment Optimization
- Rail Optimization
- Ship Stability Calculations (MACS3 API)
- Data Intelligence AI/ML

- Truck & Gate Digitalization (Appointment System)
- Berth Optimization (Berth Window Management)
- API Partnerships

**API's**

### NAVIS SMART DATA LAYER
CONSOLIDATED DATA FROM ALL TOOLS

**API's**

navis N4   master terminal by navis   octopi by navis   Biarri Rail by navis

# navis®

## Headquarters

55 Harrison Street, Ste. 600
Oakland, CA 94607 USA
Tel: +1.510.267.5000
Fax: +1.510.267.5100

---

### London, United Kingdom

2nd Floor, The Pavillion
One Newhams Row,
London, England, SE1 3UZ
Tel: +44.20.7378.5260
Fax: +44.20.7378.3690

### Rotterdam, The Netherlands

Wilhelminakade 901
3072 AR Rotterdam
The Netherlands
Tel: +31 (0)10 294 6666

### Chennai, India

Navis India Technologies
Phase III Unit No: 4, 9th floor,
CSIR Road, Chennai 600 113, India
Tel: +91.44.4590.3000
Fax: +91.44.4590.3100

### Hong Kong

3/F., Magnet Place Tower Two
38-42 Kwai Fung Crescent
Kwai Chung, N. T. China
Tel: + 852.2439.5964
Fax: + 852.2439.5967

### Dubai, United Arab Emirates

Building No. 9, Office 217
P.O Box: 500405
Dubai - United Arab Emirates
Tel: +971.4.367.6543
Fax: +971.4.391.2960

### Christchurch, New Zealand

5 Sir Gil Simpson Drive
Burnside, Christchurch
8053 New Zealand

Navis is a provider of operational technologies and services that unlock greater performance and efficiency for the world's leading terminal operators and ocean carriers. Navis combines industry best practices with innovative technology and world-class services to enable our customers to maximize performance and reduce risk. Whether tracking cargo through a port, automating equipment operations, or managing multiple terminals through an integrated, centralized solution, Navis provides a holistic approach to operational optimization, providing customers with improved visibility, velocity and measurable business results.