

# CASE STUDY

## Asset Management Maximized Competitive Position

**INDUSTRY**  
Transportation

**COUNTRY**  
USA



The Port of Tacoma teamed with the Port of Seattle to form the Northwest Seaport Alliance. Combined, these ports are the third-largest trade gateway in North America, only behind the ports of Los Angeles and Long Beach and the Port of New York/New Jersey.

Operating a large seaport is an expensive proposition that requires billions of dollars in hard assets such as wharves, cranes, warehouses, roads, rail facilities, office buildings, and the like. Efficiently sustaining these assets is an ongoing requirement to ensure uninterrupted operations and judicious use of limited funds.

### SERVICE DELIVERED:

- Rapid Prototyping and Proof-of-Concept
- Requirements Development
- Solution Architecture
- System Implementation and Configuration
- Systems Integration
- Testing

### ENTERPRISE ASSET MANAGEMENT DRIVES EFFICIENT, SUSTAINABLE OPERATIONS

#### ISSUE

The port needed to be able to make informed judgments about how to prioritize its investments

In 2013, as part of top down modernization initiative, the Port of Tacoma recognized the need to understand the condition of its physical assets (facilities). Equipped with this knowledge, the Port would then be able to make informed judgments about how to prioritize its investments to maximize its economic position with competing ports, while simultaneously addressing safety and environmental impact priorities.

Access Sciences teamed with Cardno GS to develop and implement an Enterprise Asset Management Program to improve understanding of the Port's assets and clarify investment decisions. Program Support included:



- A review and evaluation of the Port's draft Enterprise Asset Management Plan and recommendations for augmentation and alignment of the Plan consistent with industry best practices,
- Completing an analysis of existing data, including facility condition and function, financial, key performance indicators, energy etc. in order to evaluate the usability of that data to support informed decision making, and
- Population of an "escrow" database with the data required to test a Pilot AM program at predetermined facilities.

This effort also included development of a risk-based prioritization program aligned with the ten goals of the Port's strategic plan.

## **ENTERPRISE ASSET MANAGEMENT FOUNDED ON ACCURATE, VERIFIABLE DATA**

Access Sciences' role in this initiative included working with Cardno PS and Port resources to evaluate existing Port data and systems in an effort to gain a clear and common understanding of the Port's existing asset data and associated systems. Our team mapped key workflows to align information systems with business processes and needs, defined key performance indicators, and identified data and systems to support the program.

The project included the design, development, and provisioning of a supporting "escrow" database to facilitate efficient storage, access, and analysis of asset and associated FCA (Facility Condition Assessment) findings, preliminary prioritization of prospective asset reinvestment projects, and the means required to collect and store these data elements. High-level, preliminary business process analysis was conducted to identify requirements,

and document same for both the pilot phase and future FCA activities, for the usage of the Escrow database, and for core and supporting data elements required to support data capture, analysis, and reporting requirements.

Data mapping was developed for each data element identified in the "escrow database," with relation to current Port Systems (IBM Maximo, MS Great Plains, ESRI ArcGIS, and Prophix CPM), and for data elements determined to be

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## **SOLUTION**

- ☑ **An enterprise asset management program supported by accurate, sustainable data**
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## **BENEFIT**

- ☑ **The port can now make investment and maintenance decisions based on sound information**
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new requirements, suitable storage location within current Port systems were specified or identified as data gaps within the data mapping. For initial database population, our team extracted pre-existing FCA data from Port systems; transformed and loaded the dataset into the escrow database; and validated it for completeness, accuracy, and data quality.

## **PORT PRIMED FOR FUTURE GROWTH**

Implementation of a data-enabled Enterprise Asset Management Program provided the Port with the means to effectively and sustainably modernize its asset portfolio, which culminated in creation of the Northwest Seaport Alliance. Now the Port can make investment and maintenance decisions based on sound information that directly support its focus on efficiency, reliability and customer service.

