Managing Big Data

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Port of San Diego Overview

- The Port of San Diego celebrated its 55th anniversary this year.
- The Port of San Diego has a partnership with its 5 member cities.
- Port of San Diego is the 4th Largest of California’s 11 Public Ports.
- California’s 11 ports comprise one of the most competitive port systems in the World, importing 50% of America’s goods.
- San Diego is one of 17 Strategic Ports nationally.
Port of San Diego Jurisdiction

- 34 miles of waterfront
- 2,403 acres of land
- 3,535 acres of water

Port Tidelands
Submerged Tidelands
Economic Engine

More than $1.7 Billion Invested Since 1963

- Two Maritime Cargo Terminals
- B Street Cruise Ship Terminal
- Port Pavilion on Broadway Pier
- Expansion of NC Marine Terminal Wharf
- SD Convention Center & Expansion
- Airport Terminals and Expansions
- ...Shelter Island
- Harbor Island
- South Bay Wildlife Refuge
- Wildlife and Habitat Preservation
- 22 Dedicated Public Parks
- National City Marina Basin
- North Embarcadero Visionary Plan Phase I
5 public piers
9 museums & attractions
17 hotels
22 parks
70 artworks
73 restaurants
80+ sponsored events
What is Big Data Management?

• Collection
• Organization
• Maintenance
Why Big Data Management?

Growing Data
Ever-growing databases that show no signs of stopping

Data Quality
The data silos and growing data make it difficult to confirm data quality.

Data Silos
Large amounts of databases that are separate from each other with little to no transfer of information
Big Data Management Benefits

- Improved data quality
  - Data quality assurance process
  - Living database
- Increased efficiency
  - Data Entry
  - Real Time Access
  - Eliminating silos
- Improved analytics
- Cost Savings
Data Management Project Team

Core team
- Program Manager
- Super User
- Data storage and data management specialists
- Data Analysts

Governance Committee
- Program Manager
- Executive Leadership
- Information Technology
- Department Representatives
- Super User
The Port Of San Diego’s Current Landscape

- Over 88,000 Assets and counting
- Data sources include GIS, SAP, and Excel
- Analytical software to evaluate asset data and prioritize replacement.
Port Of San Diego’s Future Landscape

- Integrated Enterprise Systems

- GIS
- SAP
- EAM
Data Collection

• A review of available as-builts and record drawings
• Field verification of as-built research
• Condition assessment of critical assets
• Calculation of remaining useful life, potential of failure, and consequence of failure
• Geolocation
Analytics

- Real time data
- Scenarios
- Project Development
Key Performance Indicators

- Decrease in reactive maintenance
- Increase in planned maintenance.
- Improve long range capital planning forecasts, balanced 5 year spending
Thank you.

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