Data Management

Axiom Data Science
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Overview

• Curate multiple data streams from the sensors and models supported by SECOORA as well as from independent data providers

• Document data using IOOS-approved metadata standards

• Provide data to users via standard services and data products

• Archive data in long-term archives
Accomplishments

- Enhanced data center server access security
  - Built, installed, and provisioned a new persistence server cluster
  - Decommissioned old generation compute servers in favor of more performant hardware
  - Developed deployment topology for compute nodes with high performance NVMe storage
  - Improved web server deployment configuration update procedure for increased stability
  - Developed enhanced storage appliance monitoring dashboards
- V1 to V2 sensor migration is functionally complete. QARTOD is now easily applicable to any real-time sensor.
- Completed initial implementation of mobile interface for viewing regional real-time sensor data
- Leverage modern portal image format to optimize home page load times
  - Update metadata and sensor database hardware and software, reducing initial metadata load time from ~7 seconds to ~1.8 seconds
- Compiled and sent out data portal asset spreadsheet to survey RA priority layers
- Participation and presentation at IOOS RA shared users group on Dec 8
- Support and data ingestion for the water level team
- Glider support updates
- Updates to stations- can now have defined Datum conversions
- WebCOOS updates, support, and management
- Support and tool development for the Estuarine Soundscape Observatory Network and FACT programs, and the glider team
- Development of SECOORA AI gateway site
- Support for SE SEAMAP program
- Ingestion and visualization of other relevant data
Looking Ahead

• Planning for Next Generation data portal
• Scaling to national WebCOOS capabilities
• Visualization of SE-SEAMAP data
• Ingestion and visualization of Surface Elevation Table (SET) data
• Continued support for all SECOORA funded efforts
• Improvements to exiting storage and search capabilities