Contribution ID: **8**   Type: **Presentations**

SeaDataCloud –further developing the pan-European SeaDataNet infrastructure for marine and ocean data management

Thursday, 30 November 2017 11:00 (15 minutes)

SeaDataCloud is a new project funded by the European Commission to considerably advance the SeaDataNet Services and increase their usage and adoption of cloud and High Performance Computing technology for better performance.

The SeaDataCloud project involves a network of 56 partners across 29 countries, bordering the European seas. The Consortium is made of 41 data centres and major research institutes whose activities comprise collecting and managing marine and ocean data.

The SeaDataCloud project has recently entered into a strategic and technical cooperation with the EUDAT Collaborative Data Infrastructure consortium, with which it will collaborate to build upon the state of the art in Information and Communications Technology (ICT) and e-infrastructures for data, computing and networking for the SeaDataNet community.

EUDAT is participating in SeaDataCloud through five sites which joined the project as partners: CSC (Finland), CINECA (Italy), DKRZ (Germany), GRNET (Greece), and STFC (United Kingdom).

These five EUDAT centres will establish a common cloud and computing environment that will be integrated with the SeaDataNet data management infrastructure to provide central caching and cloud computing facilities. EUDAT is bringing in EUDAT common services that will be adopted and, where needed, adapted for upgrading and optimizing the SeaDataNet Common Data Index (CDI), Data Discovery and Access service and for establishing the new SeaDataNet Virtual Research Environment (VRE).

Acquisition of oceanographic and marine data is expensive with an annual cost in Europe estimated at 1.4 Billion Euro (1.0 = in-situ; 0.4 = satellites).
Therefore, professional data management is required with agreements on standardisation, quality control protocols, archiving, catalogues, and access.
Collect once; use many times!

The new partnership with EUDAT's five data centres CSC, DKRZ, STFC, GRNET and CINECA will provide a data cloud environment providing data and computing services which will advance the integration, quality and availability of data for the SeaDataNet community.

All services, upgraded and / or newly established in the SeaDataCloud project, will be accessible from the SeaDataNet portal.

The SeaDataNet infrastructure will be extended to leverage EUDAT capability to principally allow;
i. individual data centres to replicate data onto EUDAT resources improving data archiving and conservation;
ii. instrument automated quality control checks on replicated data;
iii. improve data access;
iv. account and monitor data usage and distribution.

The aim of the partnership with EUDAT is to increase considerably the number of users and transactions by expanding and engaging potential user communities by promotion, dissemination, development and demonstration of use cases, and organising workshops, encouraging use of the online tools and services, adoption of common principles such as data sharing, and collaborative research.

Topic Area

The EOSC & EDI building blocks

Type of abstract

Presentation (15 minutes)

Primary authors: Mr ARIYO, Chris (CSC); Mr SCHAAP, Dick (MARIS)

Presenter: Mr ARIYO, Chris (CSC)

Session Classification: EOSC building blocks presentations

Track Classification: Topic Area 5: The EOSC & EDI building blocks