

Ocean data networking efforts under Asia Oceania GEO framework

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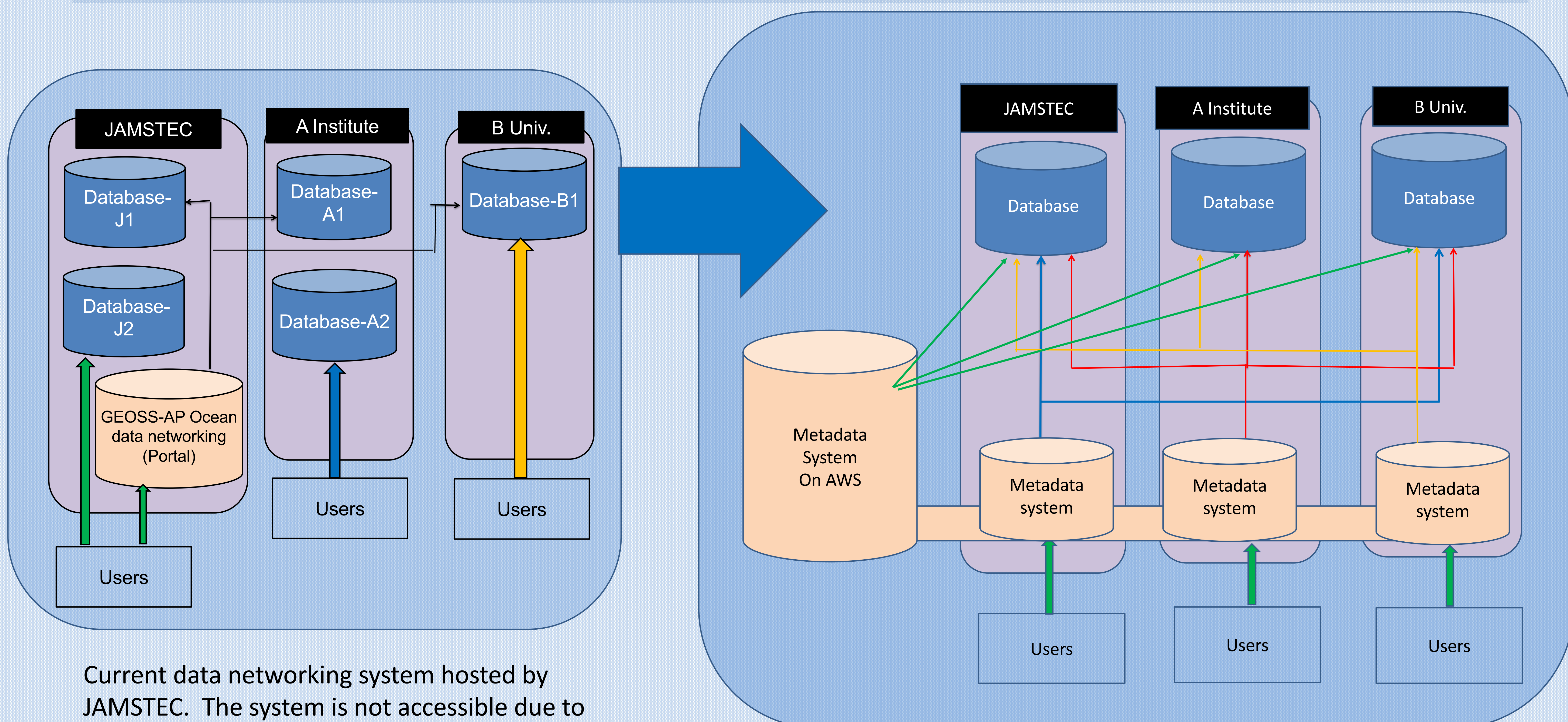
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Abstract:

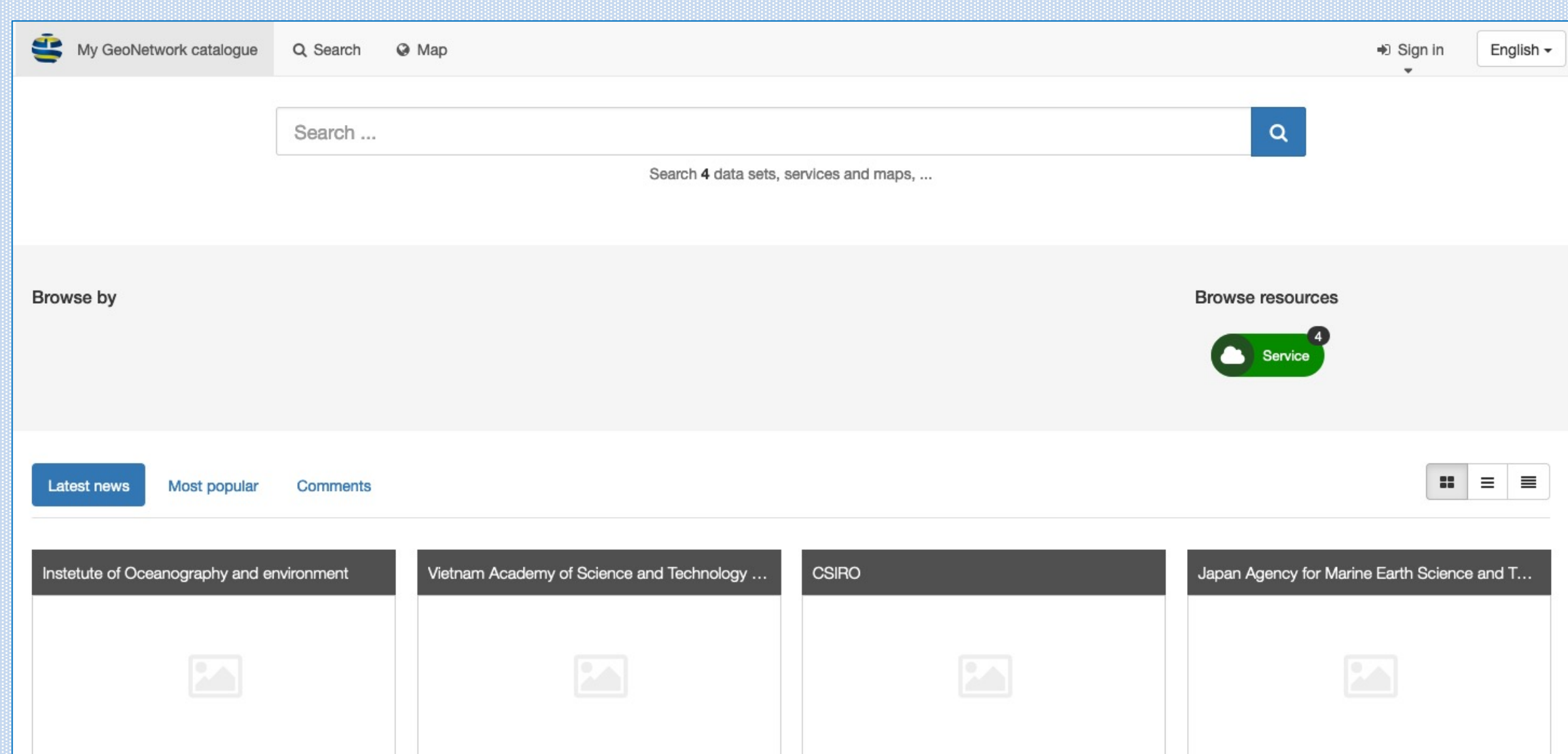
Under the framework of Asia Oceania Group on Earth Observation (AOGEO), the Ocean, Coasts and Islands Task of AOGEO has been developing an ocean data portal for sharing ocean data and information from the Asia Oceania region. Without such a collaboration mechanism among member states, it has been challenging to integrate across boundaries of national jurisdiction and share coastal ocean data into a single site. On the other hand, most of oceanographic institutes in Asia have been developing their own data system and opening their data via their own system. Therefore, the group has tried to develop a data portal to access to all necessary data systems. Although we could not move forward quickly due to the COVID-19 pandemic, two technology transferring sessions on the application of Geonetworks (<https://geonetwork-opensource.org/>) for the developments of data portals at each institute in Asia have been conducted.



Current data networking system hosted by JAMSTEC. The system is not accessible due to the network incident occurred in JAMSTEC.

New data portal system under development by the participants:

- We have discussed how to improve the current system since 2018, and decides to use "Geonetwork" as a core data portal system.
- Then though two technology exchange sessions under the framework of AOGEO/GEO among Australia, Japan, Malaysia, Thailand, Vietnam, and Taiwan, we have tried to develop data portal system based on "Geonetwork" in each institute/agency/university.
- As well as the efforts to develop the systems, we have also tried to develop the data portal under the Amazon Web Service (AWS).
- On the AWS, we have to use t2.large by Amazon Linux, so it is not cheap, but our system is free from any constraint by organizations which each member belongs.



Demonstration site for the new ocean data portal for AOGEO by using "Geonetwork" on the Amazon Web Service (Tokyo site). For this demonstration, harvesting was only done for the JAMSTEC data sites.

Participating organizations to the new effort for the data portal:

- CSIRO (Commonwealth Scientific and Industrial Research Organization)
- IO/VAST (Institute of Oceanography/Vietnam Academy of Science and Technology)
- JAMSTEC (Japan Agency for Marine-Earth Science and Technology)
- PMBC (Phuket Marine Biological Center)
- TORI (Taiwan Ocean Research Institute)
- UMT (University of Malaysia Terengganu)



Participants to the technology exchange session of Ocean, Coast, Island Task of AOGEO.

