

CEOS Water Portal Project < <Final Project Summary> >

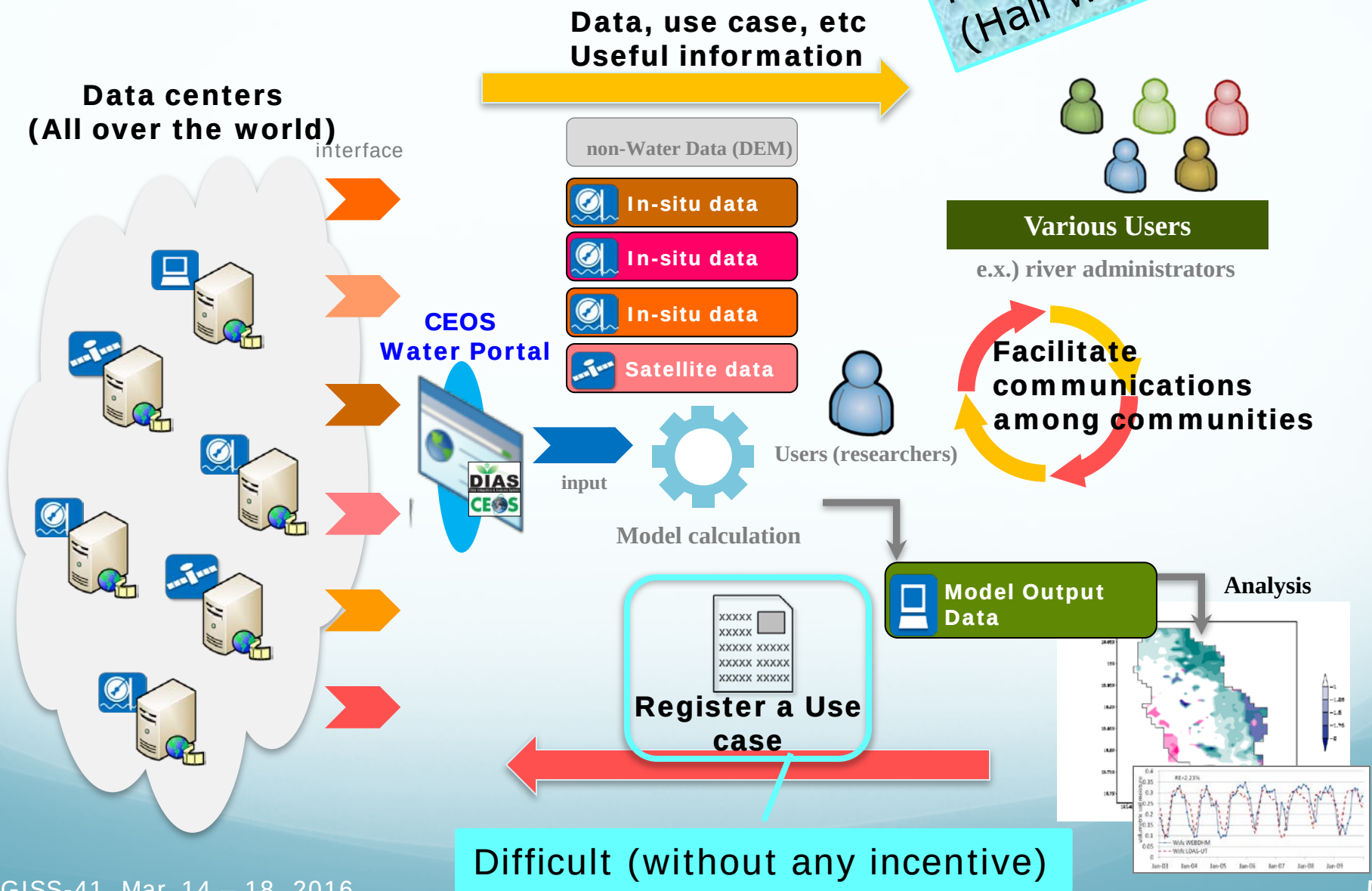
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1. Goal
2. Concept
3. History
4. Data Partners
5. Available Data List
6. System Architecture
7. Future Plan for the portal
8. Lessons and Learned

CEOS 1. Goal



CEOS 2. Concept (1/2)

- CEOS Water Portal is ;
 - A distributed data system component of DIAS (Data Integrated Analysis System)-Program
 - To provide “[Easy to Access](#)” service to users
 - To provide access to a whole variety of hydrological data and water relevant data scattered over the world
 - To [connect the existing components](#) like data centers, scientists and wide users.
- Multiple types of data are available such as;
 - In-situ data
 - Satellite data
 - Model output data





2. Concept (2/2)

1. Dataset Search

- Category Search/Map Search
- Connecting to 11 data centers and 2 catalog broker system

2. Dataset Access

(Depend on the Server side function,
ex. OPeNDAP server)

- Data Subset (time, variables)
- Data Download/Format conversion (NetCDF, ascii, GRIB (Modeloutput only))

3. Sharing Use Case

- Use Case registration/browsing

CEOS 3. History (1/2)

a. Sep., 2010(WGISS30): Project was approved.

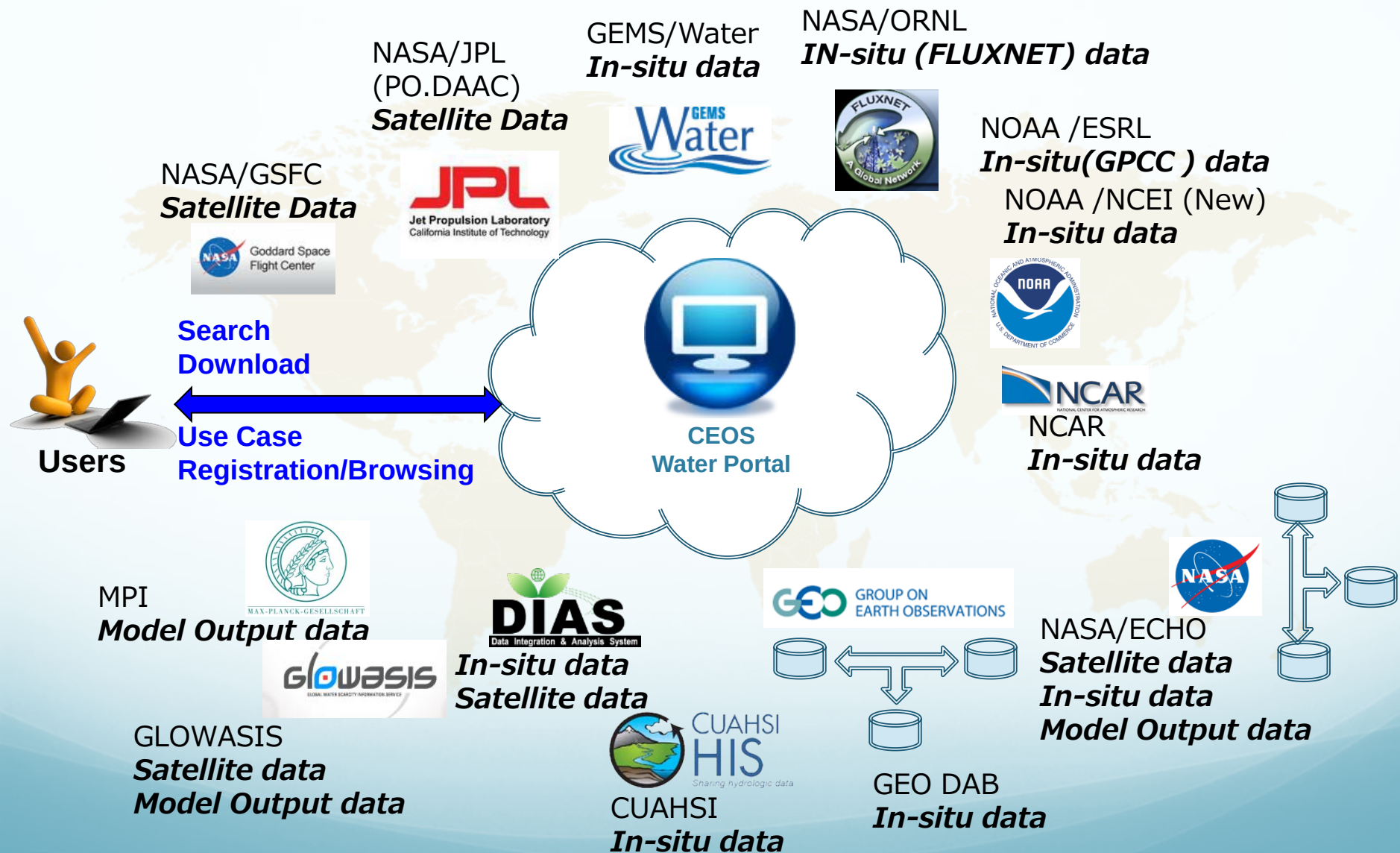
b. Major updates

- JFY 2011
 - New features: Compare service for MOLTS data, Registration service of use case
 - New Data Partners : FLUNEXNET(NASA/ORNL DAAC (FLUX data)) and NASA/JPL (GRACE level 3 data)
- JFY 2012
 - New Data Partners : GEMS/Water (In-situ data) and Deltares (In-situ data)

b. Major updates (cont.)

- JFY 2013
 - New User Interface
 - New Data Partners : NASA ECHO, CUAHSI
- JFY 2014
 - New Data Partners : NCEI and GEO-DAB
 - New System Architecture
- JFY 2015
 - User Authentication Function Change
 - New Dataset (NCEI Model data)
 - Modify the User I/F for GEO-DAB response
 - Choose a more useful Download URL for users.

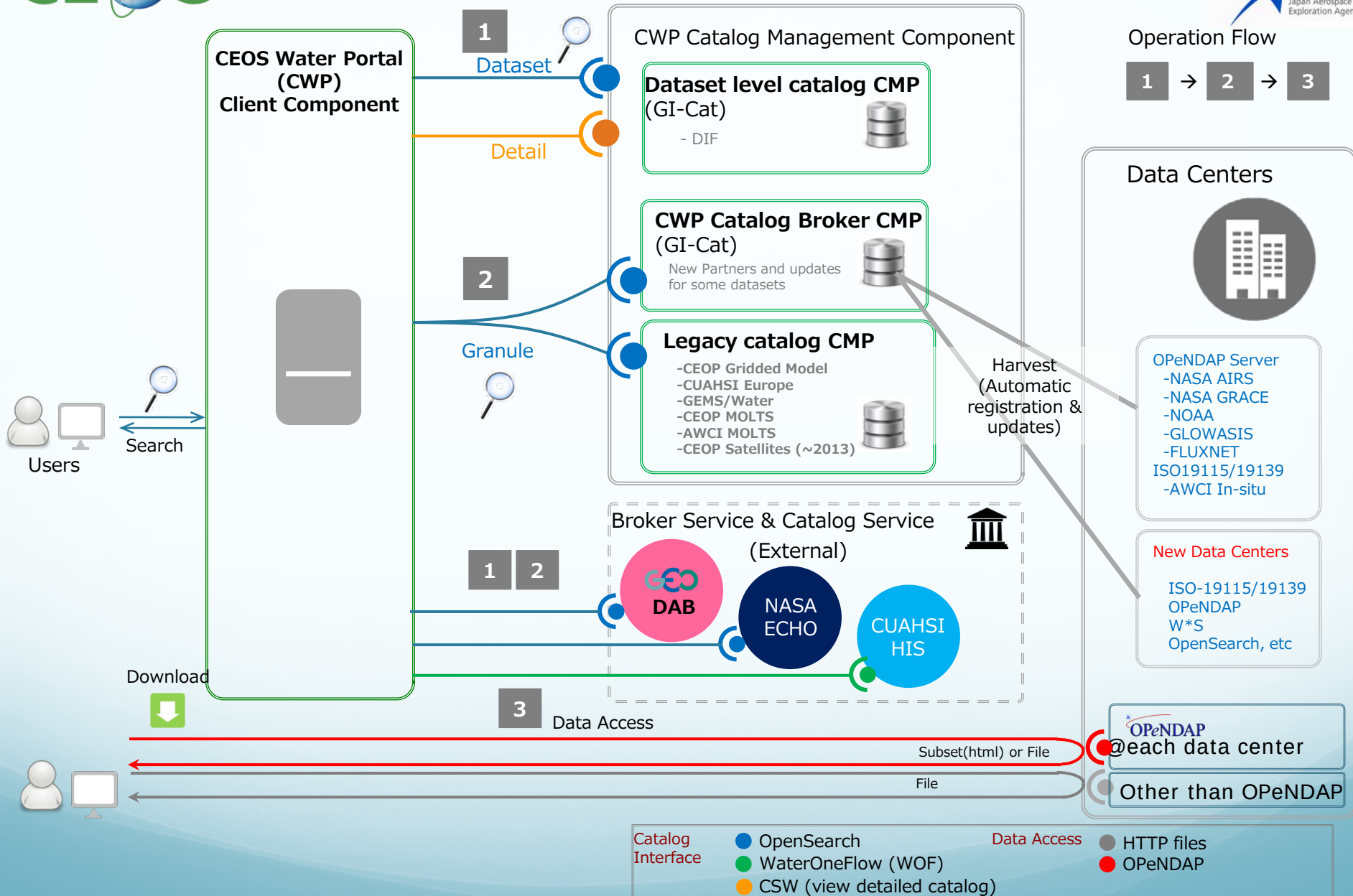
4. Data Partners



Data Partners	Data Types	Variables	Server type	Server Locations
CEOP	Satellite	PR, TMI, AMSR, AMSR-E, MODIS, GLI, SSMI, VISSR	Hyrax	University of Tokyo (Japan)
	Model (MOLTS)	surface pressure, skin temperature, precipitation amount in hour, brightness temperature surface, specific humidity, u-component of wind, v-component of wind, etc	THREDDS	MPI (Germany)
	Model (Grid ded)	Air pressure, surface air pressure, air temperature, precipitation rate, snowfall amount, etc	Jblob	MPI (Germany)
	In-situ	Surface Meteorological and Radiation Data Set Flux Data Set Soil Temperature and Soil Moisture Data Set Meteorological Tower Data Set	http link	NCAR (USA)
AWCI	Model (MOLTS)	surface pressure, skin temperature, precipitation amount in hour, brightness temperature surface, specific humidity, u-component of wind, v-component of wind, etc	THREDDS	MPI (Germany)
	In-situ	Precipitation amount, River discharge, River water level, etc	Hyrax	University of Tokyo (Japan)
NASA	Satellite	Airs level 3 data	Hyrax	NASA (GSFC)
NOAA (GPCC)	In-situ	Precipitation data	THREDDS	NOAA (USA)

CEOS 5. Available Data List (2/2)

Data Partners	Data Types	Variables	Server type	Server Locations
NASA	Satellite	GRACE Level 3 data	THREDDS	NASA/JPL(PO.D ACC)
FLUXNET	In-situ	FLUX data Fluxes of carbon dioxide, water vapor, and energy exchange, etc	THREDDS	NASA (ORNL DAAC)
GEMS/Water	In-situ	Instantaneous Discharge , Dissolved Oxygen , Temperature, etc	WFS	GEMS/Water (CANADA)
GLOWASIS	Satellite Model(Gridded)	Precipitation, Air temperature	THREDDS	Deltares (Netherland)
ECHO Broker Service	In-situ Satellite Model	Various types of data via ECHO broker	OpenSearch	NASA (GSFC)
CUAHSI	In-situ	precipitation, humidity, discharge, oxygen, etc	REST/WaterML2, WaterOneFlow/WaterML1	CUAHSI (USA)
GEO DAB/GRDC	In-situ	River Discharge via GEO DAB	OpenSearch	GEO
NOAA/NCEI	In-situ Satellite Model	Air temperature, Precipitation, Air Pressure あとで今年度追加分を追記	THREDDS	NOAA/NCEI





7. Future Plan for the portal

- The Tokyo-University team will operate the portal from April 1st, 2016.
- The URL may change on April 1st. This should be confirmed in a week or so.
- It is very likely that the portal will be used as it is (=without major improvement/development).

1. User communities

- a. We are data/service providers, engineers and system developers. WE ARE NOT USERS.
- b. How to collect user requirements/feedback is important.

2. Appropriate POC (Official and Technical) and enough preparation period for adding data partners.

- a. Internal coordination within each data partner agency may take very long time.





3. Use (de-facto) standards for I/F with data partners
 - c. Easier implementation for both sides.
4. Continuous improvement on UI should be planned.
 - a. Resource planning “in advance” is necessary.

Recommendation