CEOS Water Portal Status Update

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Introduction

- CEOS Water Portal is ;
  - A web based portal system evolved from ”Distributed Data Integration System Prototype for CEOP”
  - To provide access to a whole variety of hydrological data and water relevant data scattered over the world
  - To retrieve data from distributed data centers on-the-fly (by OPeNDAP etc.) and let users download and see rendered image/plot
- The Portal is **NOT** a system for data distribution.
- The Portal is aimed to become a system that enables data integration.

Concept

Data Integration

- Multiple types of data are available such as;
  - In-situ data
  - Satellite data
  - Model output data
- The portal provides multiple functionalities and services to perform data integration.

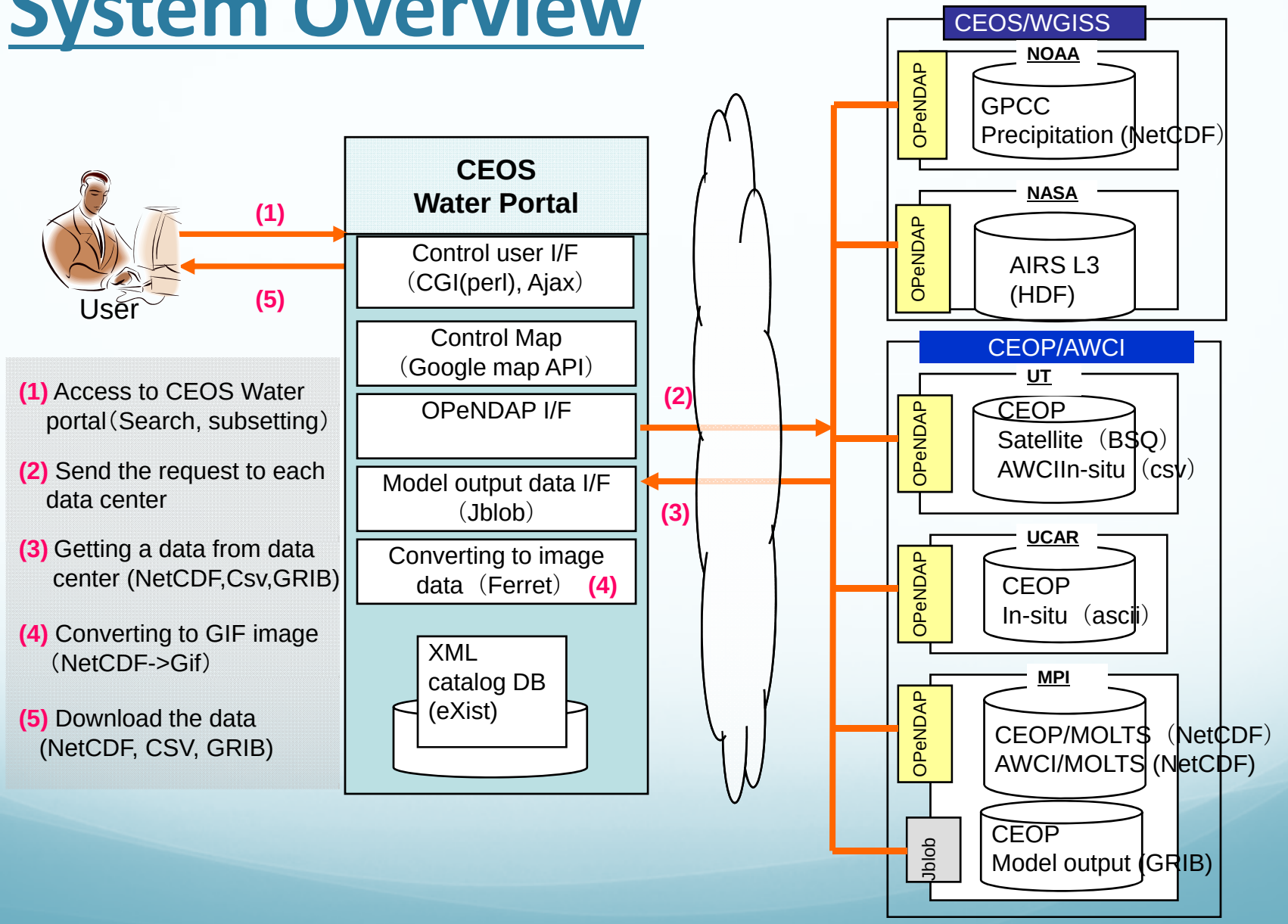
Portal System Concept

- Provide users “Easy to Access” service.
- Users include;
  - Scientists in hydrological domain
  - Non-researchers or operational users who are dealing with those data in their work

Main Features of the Portal

Data Integration (in-situ, satellite, and model output)	(1) Data Archive Centers in remote locations are connected using standard data access protocol (OPeNDAP) (2) Single user interface - Spatial Data Integration - Temporal Data Integration - Consistent data variable names
Functions to facilitate Easy Access	(1) Different types of search features : Category and Map (2) Select data by - time range (start time / stop time) - CEOP Reference Site, Station name - height or depth - variable name (3) View data (gif image) (4) Compare MOLTS data and In-situ Data in a single chart (5) Download data (NetCDF, ascii, Grib (only Model output))
Function to encourage communication among users (under development)	(1) Users can register/upload their research results obtained by using portal's data, which then becomes available for other users to reference at their data search on the portal.

System Overview



(1) Access to CEOS Water portal（Search, subsetting）

(2) Send the request to each data center

(3) Getting a data from data center (NetCDF,Csv,GRIB)

(4) Converting to GIF image （NetCDF->Gif）

(5) Download the data (NetCDF, CSV, GRIB)

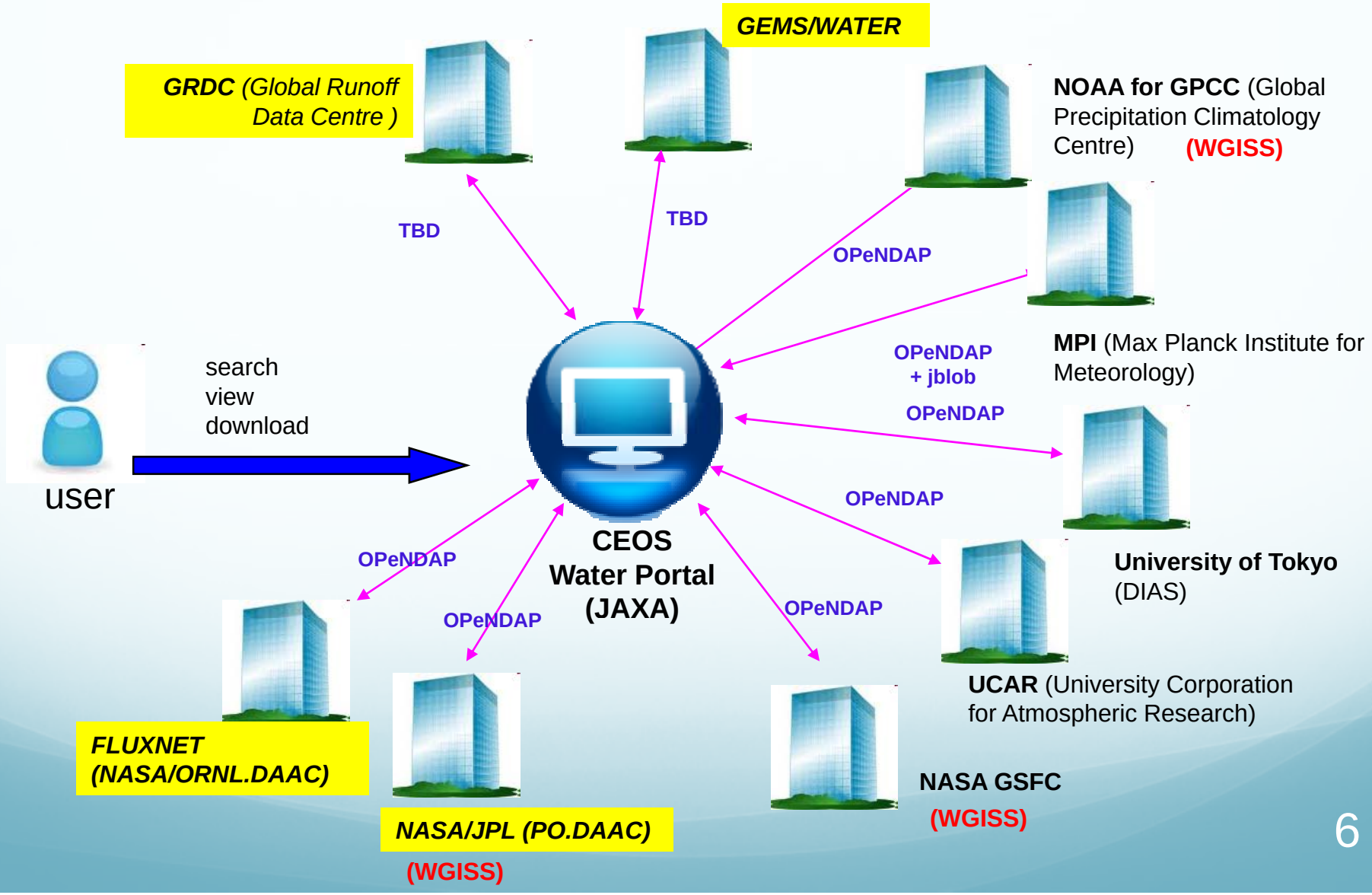
Status update since WGISS-31

- URL under CEOS Domain now available
  The alpha version is publicly available at :
  http://waterportal.ceos.org/

- Number of catalogs on the rise
  - More than 4 million data files can be searched and obtained through the portal (as of Aug 2011)

- User interface improved
  - Number of windows/tabs reduced
  - Buttons/Links improved for better operation
  - E-mail notification when ready to download

Data Partners



Data Partners List

Listed below is current data partners.

Data Partners	Data Types	Server Locations	Interface Methods
CEOP	Satellite	University of Tokyo (Japan)	OPeNDAP
	Model(MOLTS)	MPI (Germany)	OPeNDAP
	Model(Gridded)	MPI (Germany)	jblob
	In-situ	UCAR (USA)	OPeNDAP
AWCI	Model(MOLTS)	MPI (Germany)	OPeNDAP
	In-situ	University of Tokyo (Japan)	OPeNDAP
	GIS	University of Tokyo (Japan)	TBD
NASA	Satellite	NASA (GSFC)	OPeNDAP
NOAA (GPCC)	In-situ	NOAA (USA)	OPeNDAP

Candidate Data Partners

Coordination with these agencies is foreseen.

Data Partners	Data Types	Server Locations	Interface Methods
NASA	Satellite (GRACE Level 3)	NASA/JPL(PO.DACC)	OPeNDAP
NASA (FLUXNET)	In-situ (FLUX data)	NASA (ORNL DAAC)	OPeNDAP
GRDC	In-situ		TBD
GEMS/Water	In-situ		WFS (TBD)

Future Plan

- **Contribution to GEO**
  - Work plan (2009-2011) Task WA-08-01 (already offered to CEO)
  - Work plan (2012-2015, Version0, Under Technical Review) Task DS-05
- **New Data vs New Functions**
  - We are open to new data center collaboration (within budget !).
  - The balance to be considered, based on the coordination with data center collaboration “candidates”.
  - Adding the new function for more integrating the data and encouraging the communication among the users.
- **Collaboration with other “portal(s)”.**
  - CEOS Precipitation Constellation (PC) portal