Understanding users' workflows

GloFAS current and future data services

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1. Demonstrate how GloFAS data is disseminated and accessed now and in the future

2. Understand the users' workflow of getting information

3. Accommodate for the needs as much as possible

4. Prioritise future developments

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- Data access

- Web services

  – What the services provide

  – Future plans

- Data archiving

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- Interactive session: Discussion of users' workflows using user stories

  – What can you imagine doing with GloFAS?

    - Ex. Decision making tool, visualisation of events, training

  – How do you want to do it it?

    - Ex using web tools, web services, direct manipulation of data,

  – What is your expected result?

   - Ex: animations, images, raster data, derived products, information

Data, and images are available in real-time through:

- ✓ Web interface with layers of information
- ✓ Web services (WMS)
- ✓ Data pushed to ftp

Future developments

- ✓ MARS data archive
- ✓ Copernicus Climate Data Store
- ✓ More web services (SOS, WMS-T, WaterML…)

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- **The Web Map Service (WMS)** is a an OGC (Open Geospatial Consortium) standard protocol for serving georeferenced map images generated by a map server.

- WMS is a way for a client (web browser, GIS application etc.) to request map images from a server. The client sends a request to a map server, then the map server generates an image based on parameters passed to the server in the request and the server returns an image.

- The WMS server generates an image from whatever source material, which could be vector data, raster data, or a combination of the two
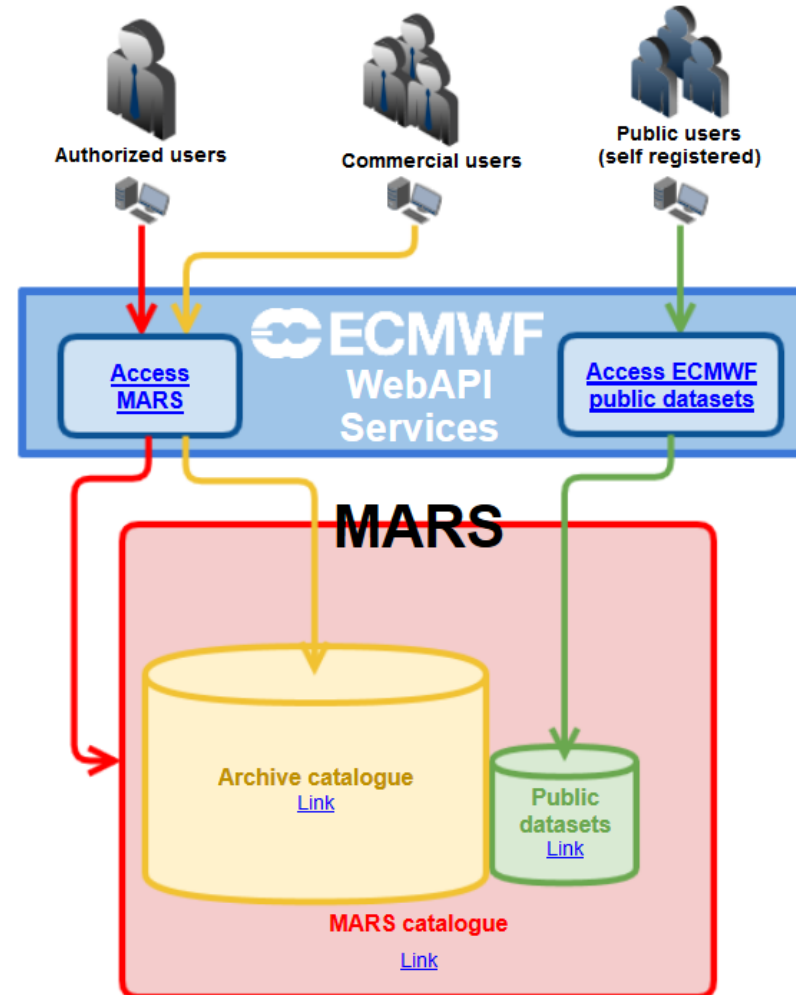
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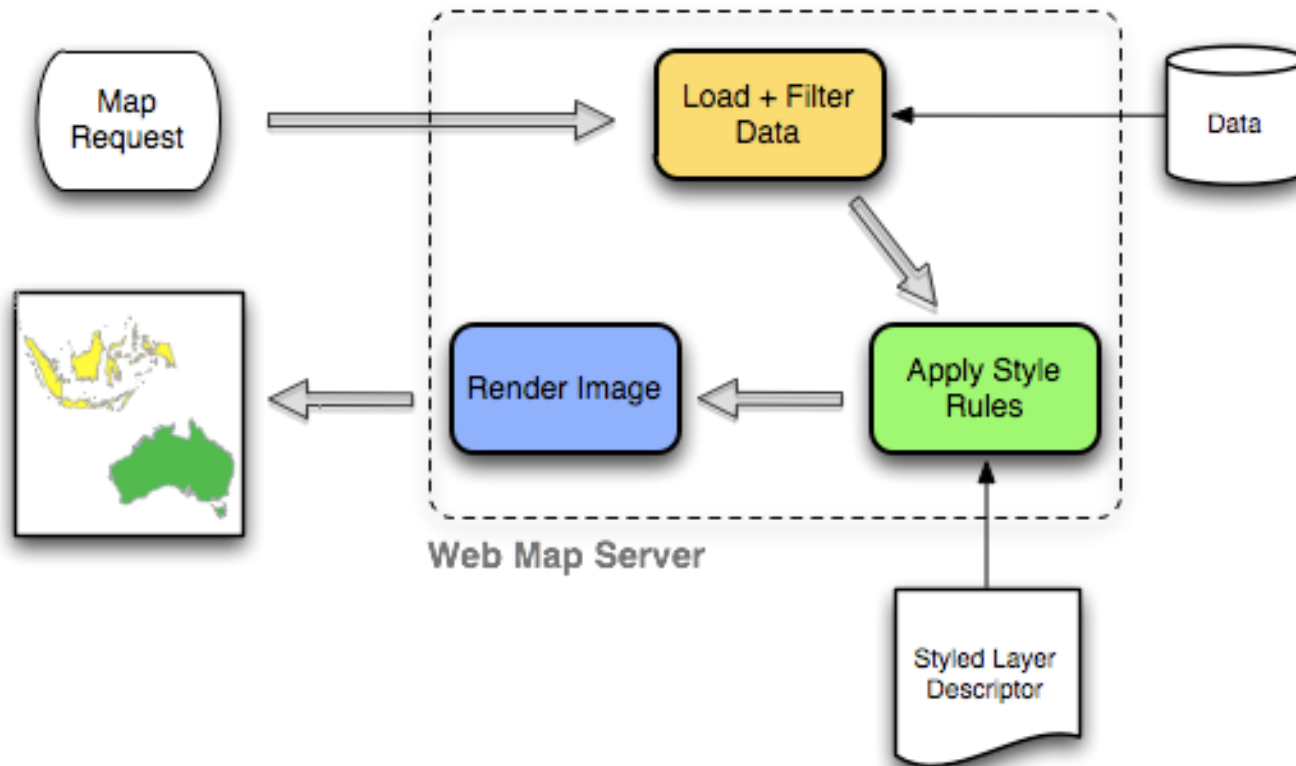
Work flow:

1. Request for GloFAS data from user

2. Data is extracted from GloFAS data and pushed to an ftp server

3. User picks up the data

- Requires manual setup and monitoring. Currently not 24/7 guaranteed.

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MARS is ECMWF's **M**eteorological **A**rchival and **R**etrieval **S**ystem. The system have the following features:

- Facilities to archive and retrieve environmental data
- MARS is a 24/7 service
- Large amount of data, both in size and number of items stored
- Large number of users with different requirements

Web - MARS

MARS Scratch Catalogue

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The MARS Scratch Catalogue allows you to browse the contents of a test / scratch MARS system.

Choose the class:

Operational data

- Operational archive

ECMWF Re-Analyses

- 15 years reanalysis (ERA15)
- ERA5
- ERA5/LAND
- ERA Interim
- ERA-CLIM2 coupled reanalysis of the 20th-century (CERA-20C)
- ERA-CLIM2 coupled reanalysis of the satellite era (CERA-SAT)
- ERA-CLIM model integration for the 20th-century (ERA-20CM)
- ERA-CLIM reanalysis of the 20th-century using surface observations only (ERA-20C)

ECMWF Experiments

- Research department

Special datasets

- Copernicus Climate Change Service (C3S)
- Copernicus Emergency Management Service (CEMS)
- DEMETER
- ECSN
- ENSEMBLES
- EURO4M

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Web - MARS

- Pushed to ftp
  - Available for a few specific datasets
  - Requires manual effort in setup

- Web services
  - Good for layers and smaller subsets of data (maps, points)
  - Serving information in real-time

- Copernicus Climate Data Store (CDS)
  - Screen available data
  - Manipulate and create new subsets using available tools

- MARS retrieval
  - All data available
  - Subset of data possible
  - Flexible, adaptable and programmable
  - Code knowledge or "cook book" for inexperienced users

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- Is the data provision sufficient for your needs?

- What is missing?

- What can be improved?

- What would be your ideal workflow?

- How can we co-develop the proper tools?

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We would like to have answers to 3 questions:

What could you imagine doing with GloFAS?

How do you want to do it?

What do you want to use it for?

Try to describe the workflow using **user stories**

A user story is written from the end-users' perspective and describes the type of users, what they want to do and why.

User stories will translate into acceptance criteria for development

As a ……… < type of user >

I want……. < some goal >

So that….. < some reason >

As a civil servant

I want to be able to load a specific GloFAS map view into my GIS software

so that I can produce an bulletin about the forecasted flood

As a developer for my insurance company

I want to download the GloFAS reanalysis in NetCDF

so that I can calculate return periods for a point in my catchment

As a forecaster

I want to change the colour scheme of the reporting points

so that they match the colour scheme of my national forecasting system

Exercise:

1. Individually or in groups: write one or more

user stories using the post-it notes

As a ……… < type of user >

I want……. < some goal >

So that….. < some reason >

2. If there is enough time, put the user stories on the flip charts and rank

them in order of effort:

1 Small effort – 2 relatively small – 3 medium – 4 relative large – 5 large

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