ECMWF products

Data Services Team

ECMWF

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Data Services plays a key role in the distribution of ECMWF Meteorological products to external stakeholders worldwide. Part of Data Services‘ role is to help them customise products for their specific needs and enable them to use ECMWF’s vast archive.

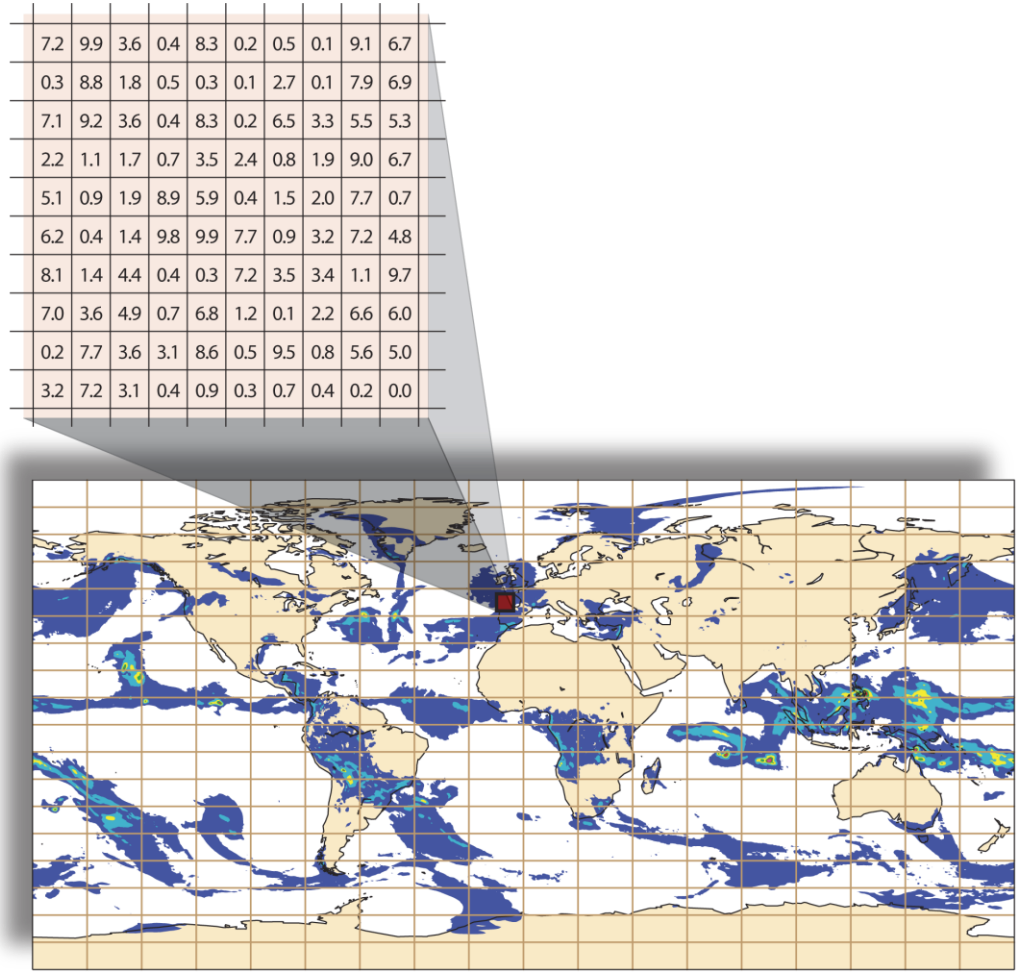
The challenges of providing these data and services include

- offering users easy and powerful interfaces to tailor their requests
- dealing with an increasing number of users
- transferring large amounts of data via the Internet

The future of Data Services at ECMWF will include new self-service (web) interfaces for end users, possible new uses of cloud services and reviews of our current licensing models.

What are ECMWF products?

ECMWF products are output of numerical weather prediction (NWP) models that run on high performance computers



Each field represents a predicted value of:

- One parameter
- One date
- One time
- One step
- One level
- One forecasting system

What are ECMWF products?

Sets of fields are expressed in meteorological terms (MARS requests)

```
STREAM =    DA,
TIME    =   00/12,
LEVT    =   SFC,
TYPE    =   FC,
STEP    =   0/3/6/12,
PARAM   =   10U/10V
```

Availability of ECMWF Products

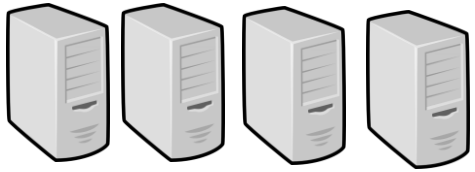
- **Via the dissemination system**
- In MARS (Meteorological Archival Retrieval System)
- On the Web
- Via dedicated data servers or FTP

Dissemination system is driven by a set of user defined requirements

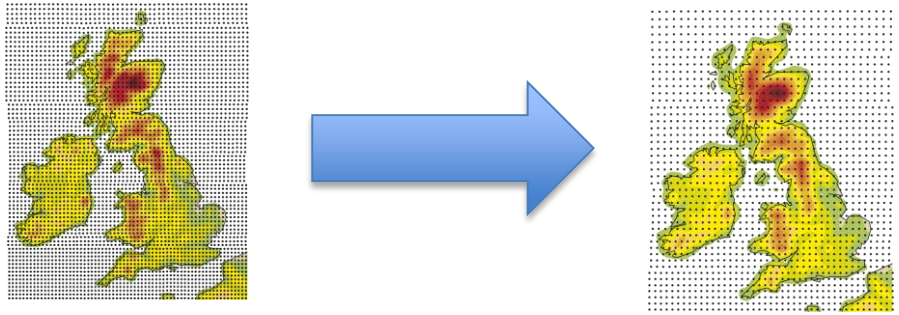
List of requested products

```
STREAM =    DA,
TIME   =    00/12,
LEVT   =    SFC,
TYPE   =    FC,
STEP   =    0/3/6/12,
PARAM =     10U/10V
```

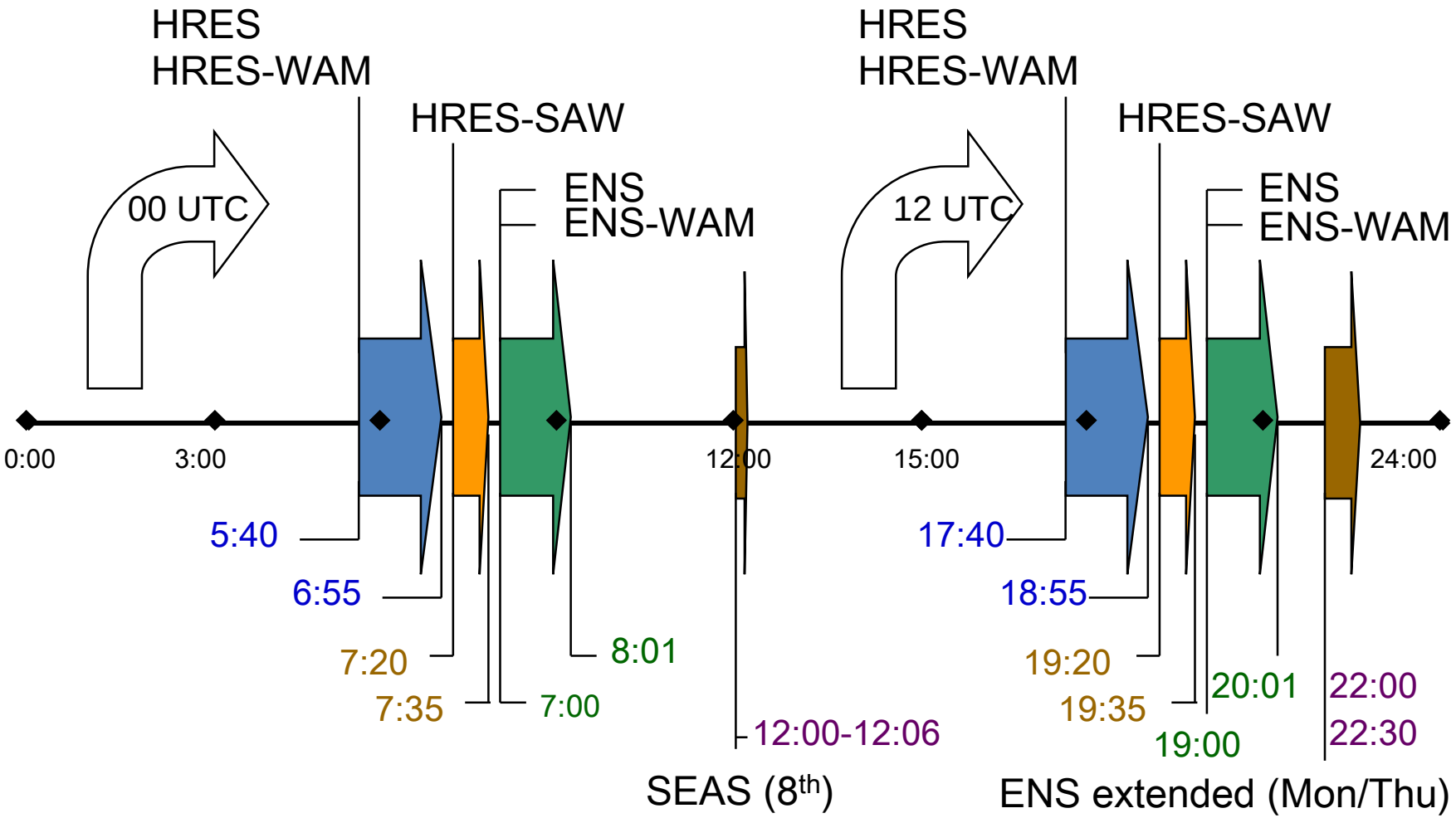
Destinations (target machines,…)



Post-processing (interpolation)



Products are pushed to the end users according to a specific schedule



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Availability of ECMWF Products

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- **In MARS (Meteorological Archival Retrieval System)**
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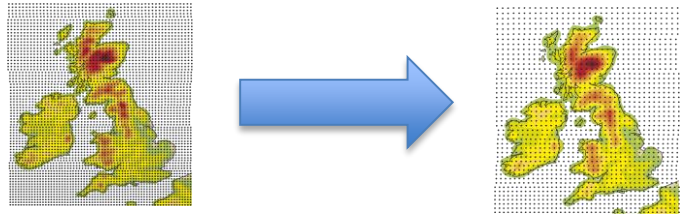
MARS: Meteorological Archival Retrieval System

- More than 30 years of data
- Data in GRIB and BUFR format according to WMO standards

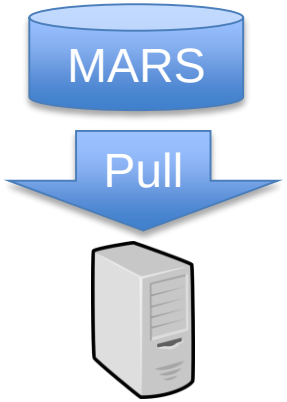
- Retrievals expressed in meteorological terms (MARS requests)

```
STREAM =    DA,
TIME   =    00/12,
LEVT   =    SFC,
TYPE   =    FC,
STEP   =    0/3/6/12,
PARAM  =    10U/10V
```

- Post-processing facilities
  - Interpolation between various data representation
  - Interpolation on coarser grids
  - Sub-area extractions



- Data can be pulled to the client machine



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Availability of ECMWF Products

- Via the dissemination system
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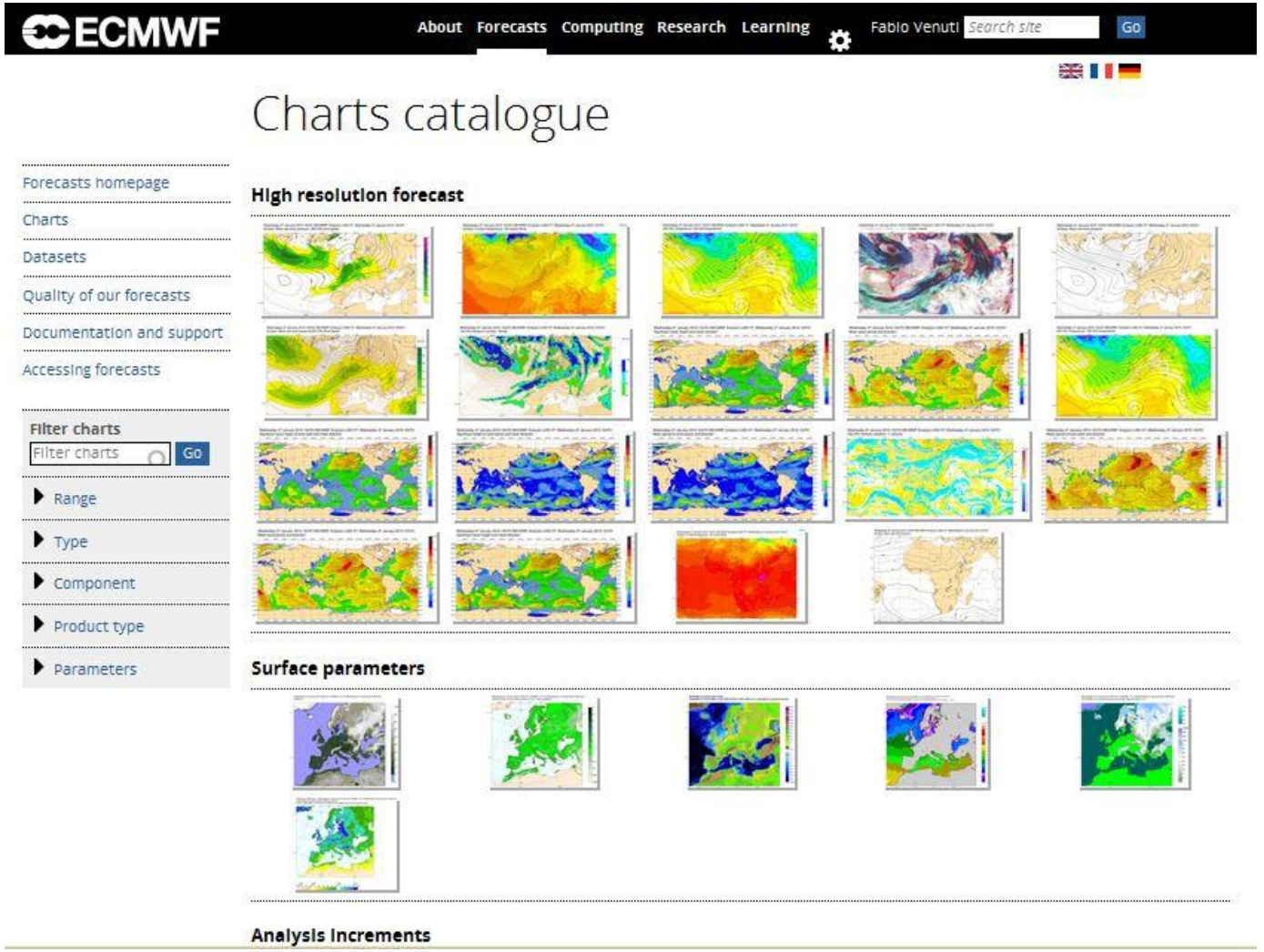
- **On the Web**
- Via dedicated data servers or FTP

Web products

- The current WEB Catalogue
  - A fixed set of products
  - A consistent view of all ECMWF graphical products
  - A consistent navigation

- ecCharts
  - A fully interactive web based way of visualising the ECMWF products

Web product catalogue



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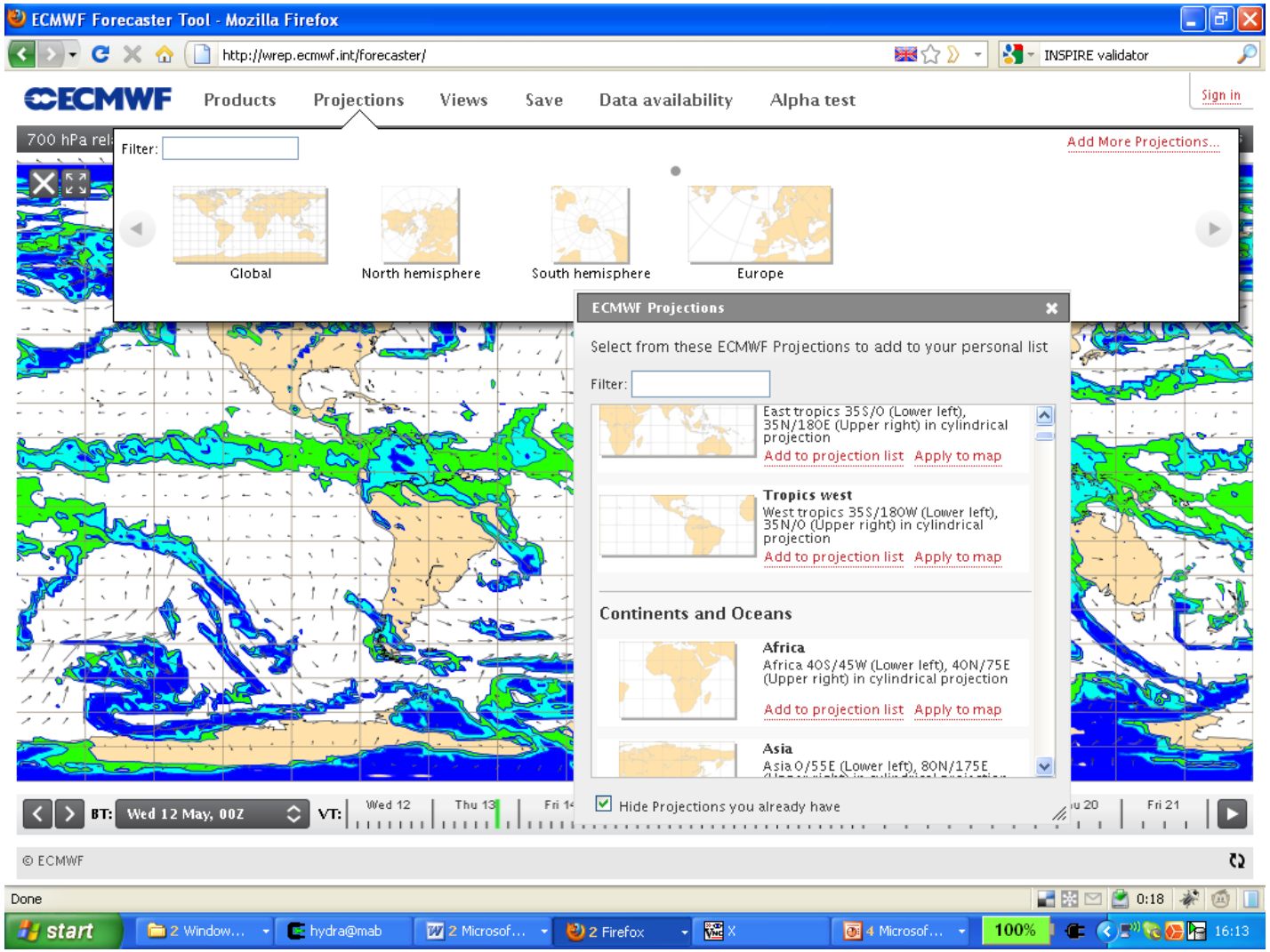
ecCharts: forecaster application



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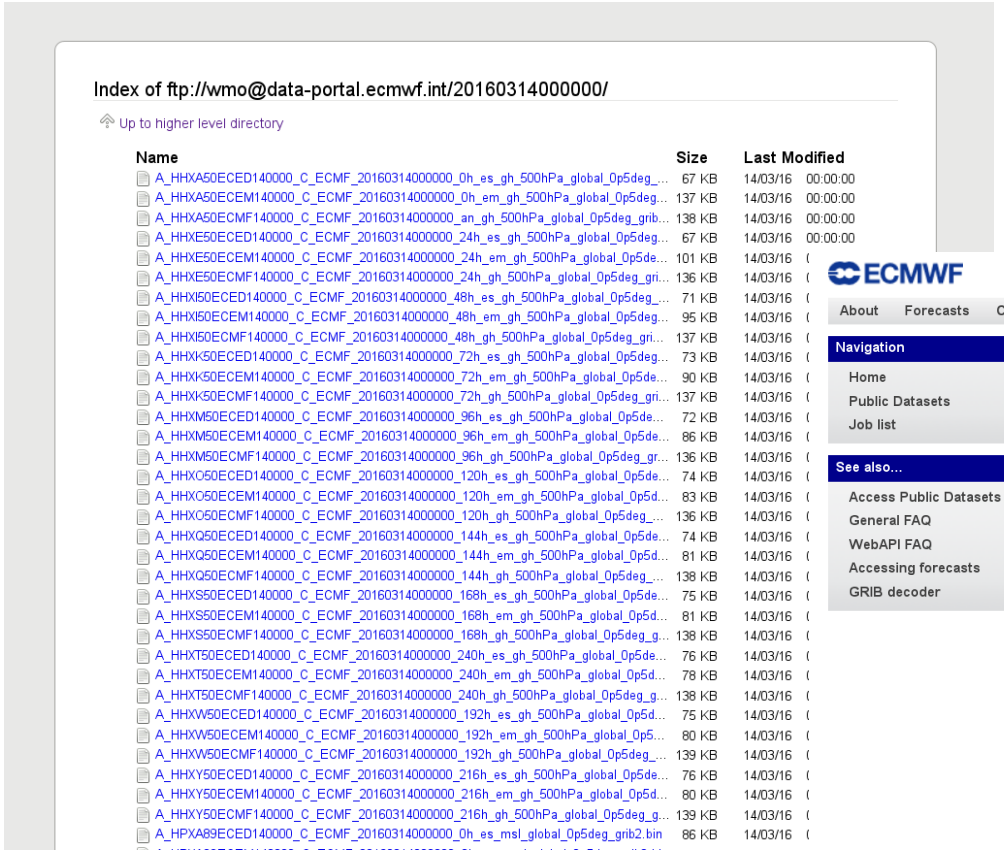
Availability of ECMWF Products

- Via the dissemination system
- In MARS (Meteorological Archival Retrieval System)
- On the Web
- **Via dedicated data servers or FTP**

ECMWF dedicated data servers



Index of ftp://wmo@data-portal.ecmwf.int/20160314000000/

Up to higher level directory

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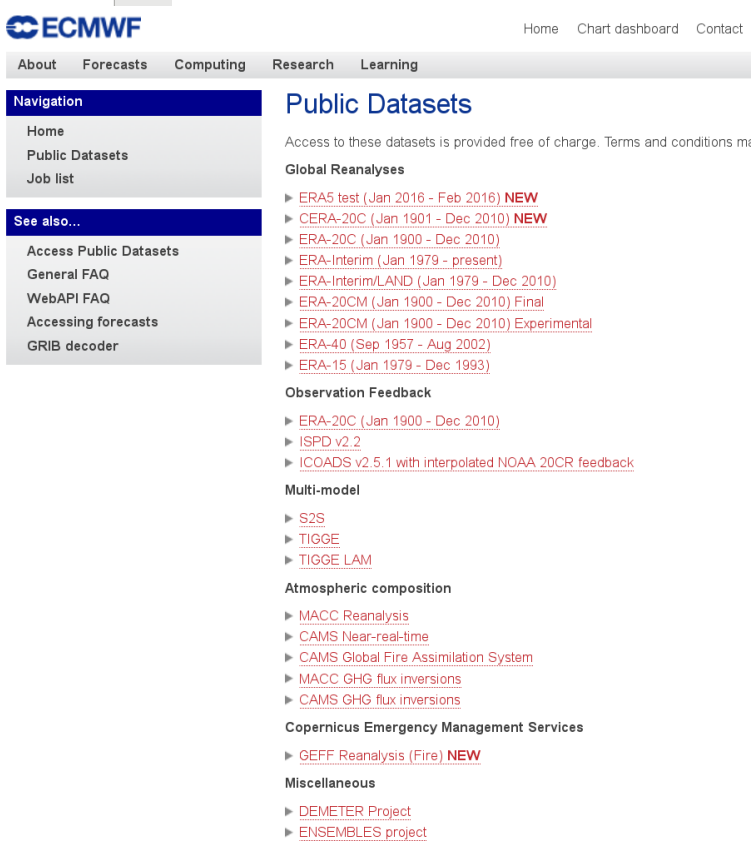

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Home Chart dashboard Contact

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Navigation

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See also...

- Access Public Datasets
- General FAQ
- WebAPI FAQ
- Accessing forecasts
- GRIB decoder

Public Datasets

Access to these datasets is provided free of charge. Terms and conditions ma

Global Reanalyses

- ERA5 test (Jan 2016 - Feb 2016) **NEW**
- CERA-20C (Jan 1901 - Dec 2010) **NEW**
- ERA-20C (Jan 1900 - Dec 2010)
- ERA-Interim (Jan 1979 - present)
- ERA-Interim/LAND (Jan 1979 - Dec 2010)
- ERA-20CM (Jan 1900 - Dec 2010) Final
- ERA-20CM (Jan 1900 - Dec 2010) Experimental
- ERA-40 (Sep 1957 - Aug 2002)
- ERA-15 (Jan 1979 - Dec 1993)

Observation Feedback

- ERA-20C (Jan 1900 - Dec 2010)
- ISPD v2.2
- ICOADS v2.5.1 with interpolated NOAA 20CR feedback

Multi-model

- S2S
- TIGGE
- TIGGE LAM

Atmospheric composition

- MACC Reanalysis
- CAMS Near-real-time
- CAMS Global Fire Assimilation System
- MACC GHG flux inversions
- CAMS GHG flux inversions

Copernicus Emergency Management Services

- GEFF Reanalysis (Fire) **NEW**

Miscellaneous

- DEMETER Project
- ENSEMBLES project

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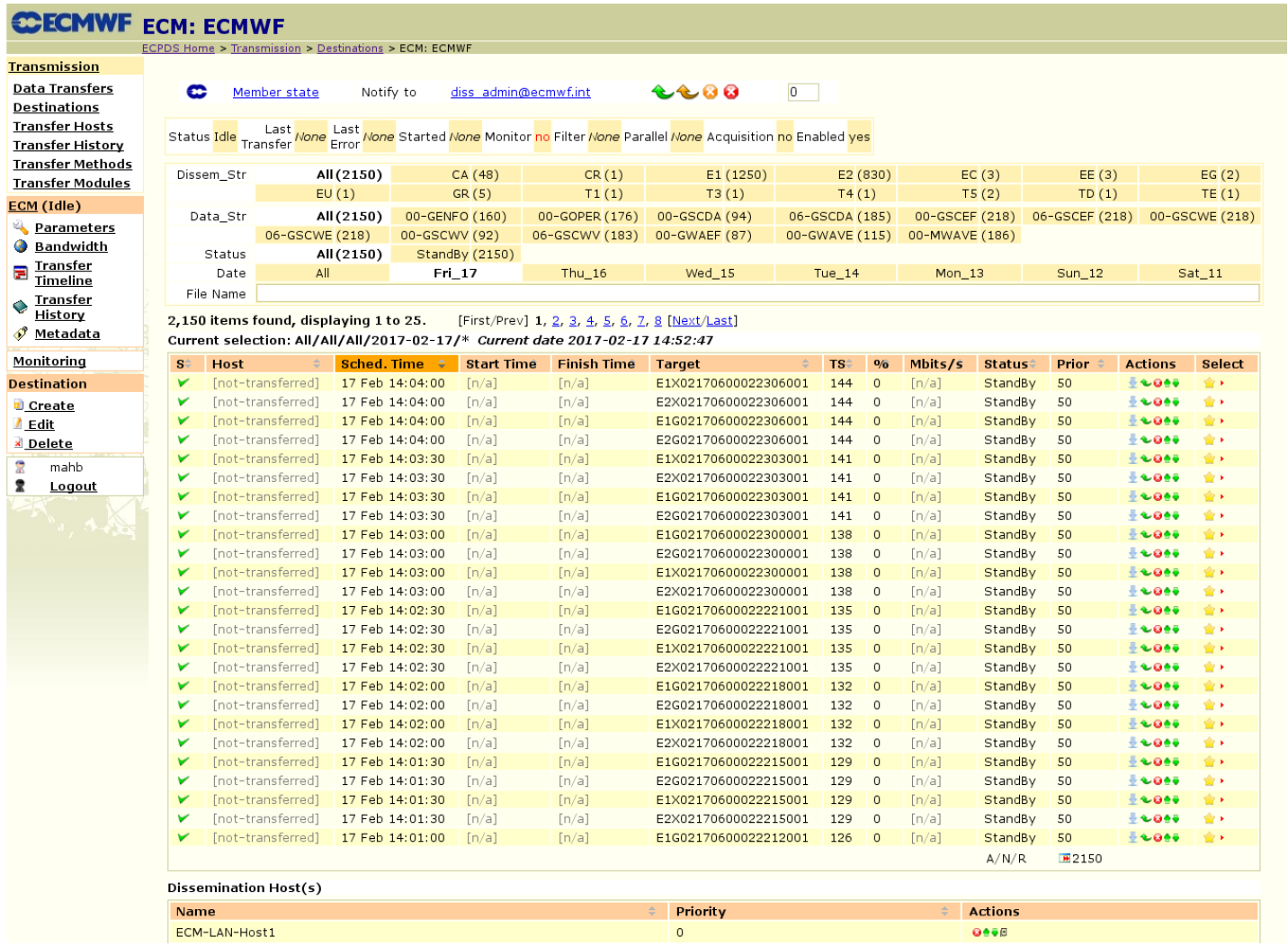
Data Services Challenges

Improve existing tools & offering new powerful interfaces to deal with the increasing number of users

- **Manage Dissemination**
  - Manage dissemination
  - View requirements & submit change requests
  - Future developments
- Jira Service Desk for Customer requests management
  - Quotes & Contracts
  - Questions & support
  - Change requests

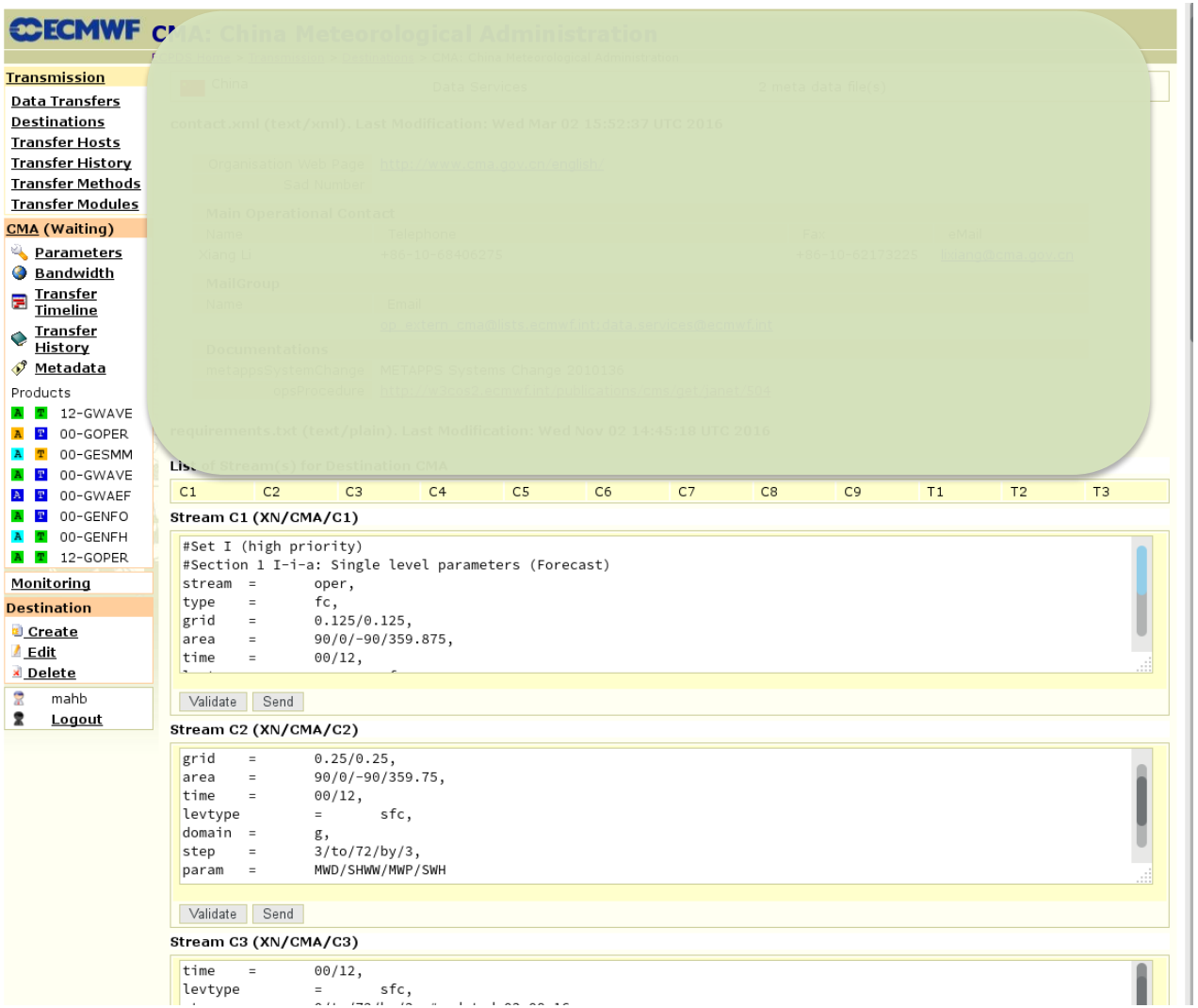
Manage Dissemination via ECPDS



Advanced users can currently

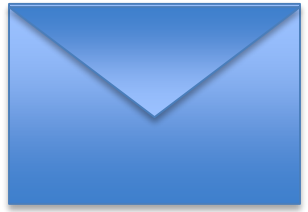
- re-send files
- view their network configuration
- diagnose network issues

View requirements and submit change requests



Advanced users can also

- validate requirement
- send their proposed changes to Data Services

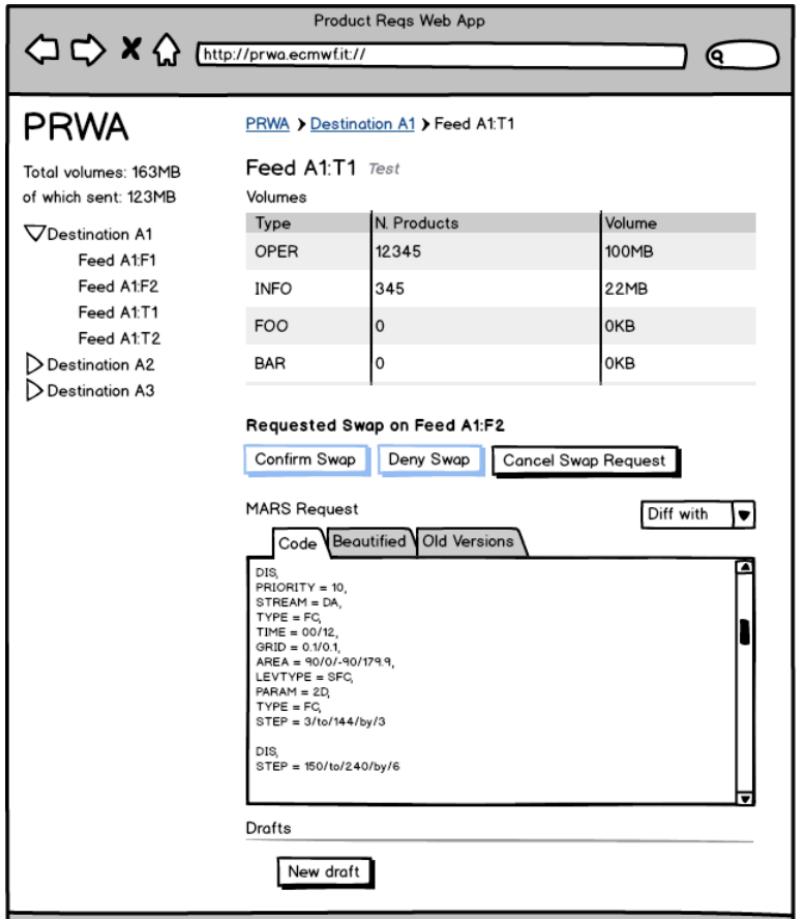


Future developments

Key points of the new Product Requirement Web Application (PRWA)

- Plug into the new Catalogue Database
- Self-service approach
- Validation of requirements
- Volume calculation
- Advance text editing capabilities

In the future this will be extended to allow novice users to specify their requirements.



Data Services Challenges

Improve existing tools & offering new powerful interfaces to deal with the increasing number of users

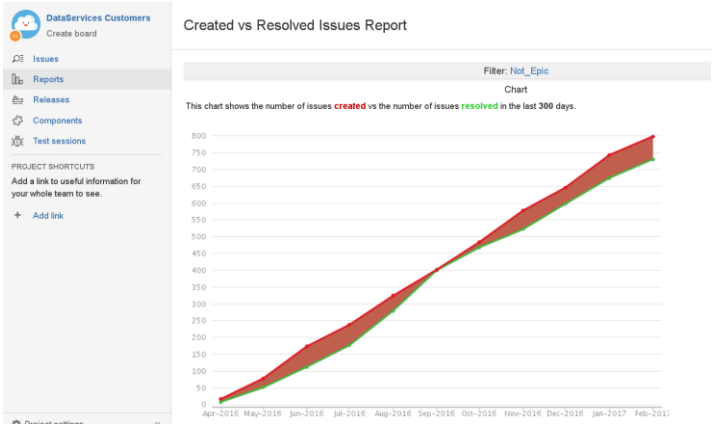
- Manage Dissemination
  - Manage dissemination
  - View requirements & submit change requests
  - Future developments
- **Jira Service Desk for Customer requests management**
  - Quotes & Contracts
  - Questions & support
  - Change requests

Jira to support Customer requests management

Data Services has been using Jira for few years to manage customer requests.

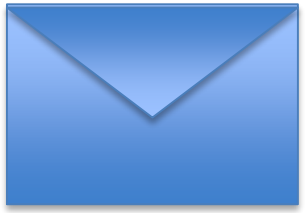
We are now looking into leveraging the **Jira Service Desk (JSD)** and provide more self-service offering capabilities to our customers to deal with

- Quotes & Contracts
- Questions & support
- Product change requests

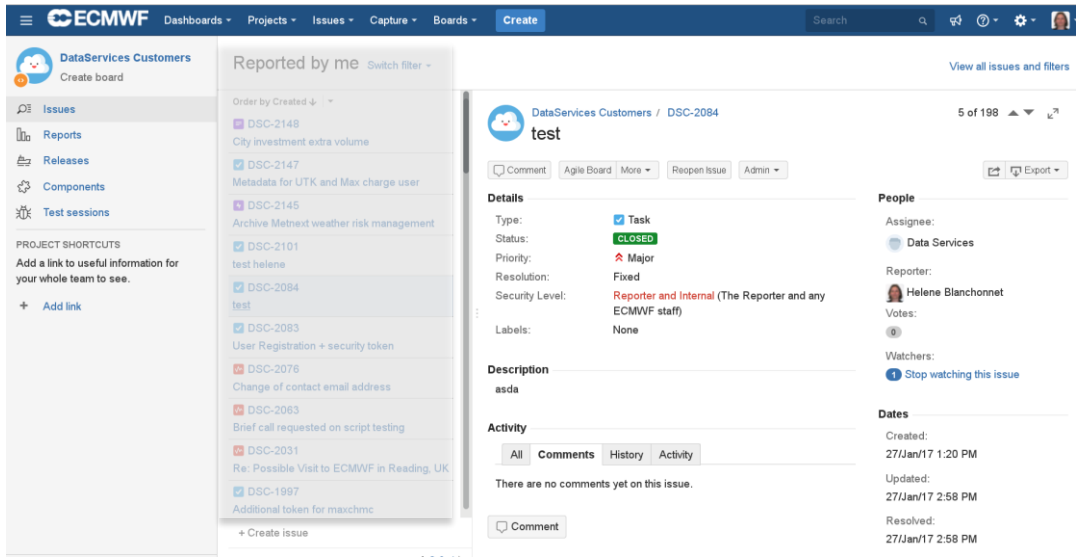


Current situation: Jira to support Customer requests management

Data Services has been using Jira for a few years to manage the increasing number of requests.

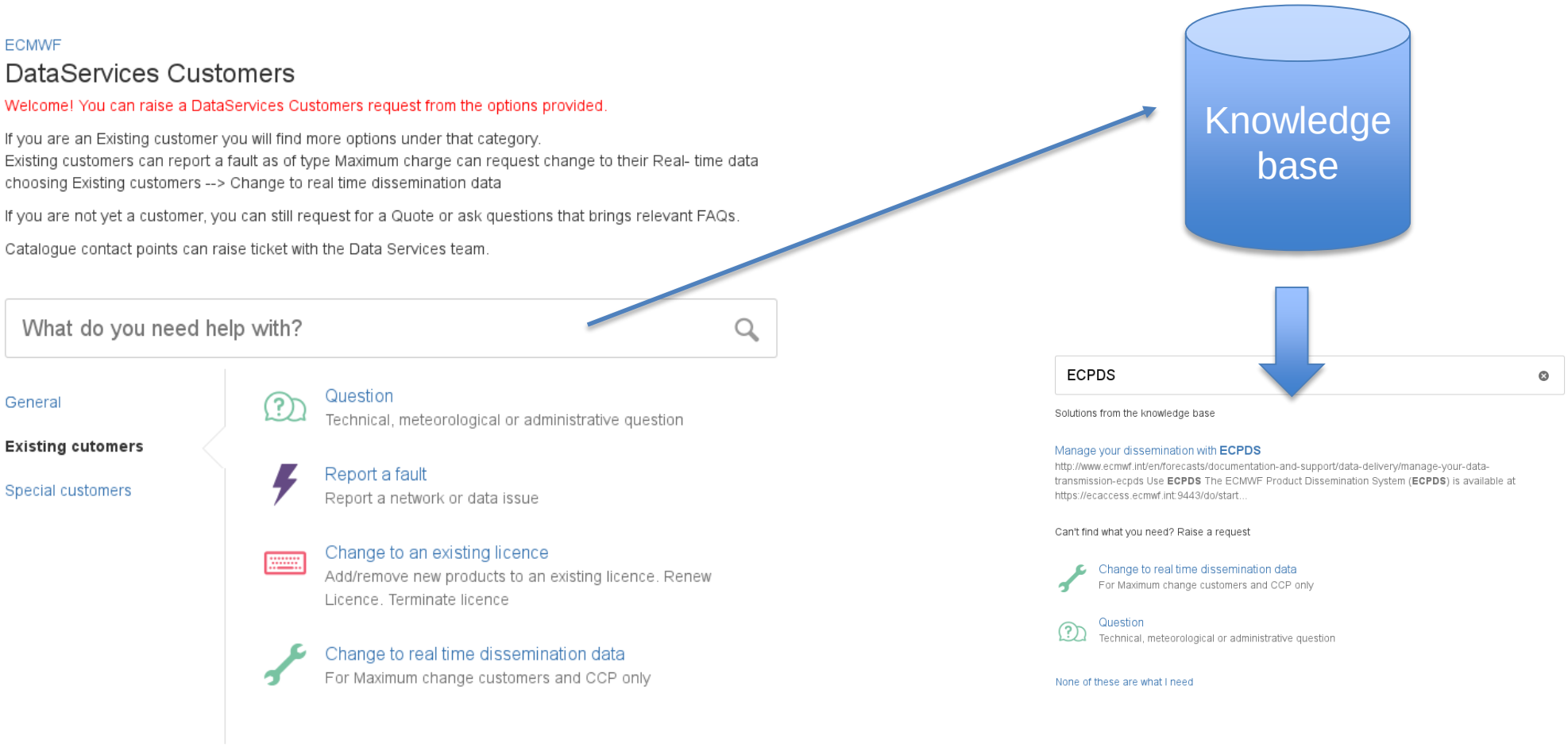


Create issues



In the aim of managing the customer's requests better, Data Services is moving to JIRA Service Desk.

Jira Service Desk: a customer portal



Questions?

Thank you

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