

New business from space

Mundi Web Services makes use of European satellite data for new business models

Reference project



Mundi Web Services is a platform for processing satellite data. Behind Mundi Web Services is a consortium of nine companies led by Atos, which offers its services on behalf of the European Union (EU) and the European Space Agency (ESA). One program being operated by the EU is Copernicus, a series of earth observation satellites that deliver 20 terabytes of data every day. This data can be accessed freely via the Mundi platform and forms the basis for new business models in many different industries. However, the platform offers more than just pure data storage. It combines the data with services from geo-service providers and on-demand computing and storage capacities. As a result, Mundi Web Services offers a complete toolkit for every geo-service user.

At a glance

Mundi Web Services is a platform that exploits the value of earth observation data either to increase the efficiency of existing processes or to develop completely new business models. It targets both end users and geo-service providers. The Open Telekom Cloud is an integral component of the platform and ensures that the satellite data is processed quickly and efficiently.

- Positioning Europe in international competition for earth observation
- On-demand computing resources for processing large data volumes
- Platform for new geo-based business models and processes

Reference in detail

The challenge

The ESA makes its earth observation data from the Copernicus program freely available to everyone. However, accessing the data is complex; the loading times are extensive because large data records must be downloaded fully. This is necessary in order to migrate the data to an analysis platform. That's because the raw image material has little meaning on its own: First, specific data records must be extracted, copied, and standardized, for example. In a second step, business-relevant statements can be generated through mathematical models. Both steps require extensive computing and storage capacities that are only used temporarily – and that the user does not always have available. The Copernicus setup, requiring separate data storage and computing capacities, causes unnecessary complexity and makes it difficult to work with valuable satellite data. Consequently, it is not widely accepted by potential users.

The solution

This complexity is a thing of the past with Mundi Web Services. All components that allow satellite data to be used easily for business purposes are integrated in Mundi Web Services: constantly updated and historical data as well as geo-applications stored and operated jointly on the Open Telekom Cloud, plus on-demand computing and storage resources for specific analysis projects. The end result is a platform that allows efficient use of geo-services. Geo applications, such as grassland monitoring, are kept on Mundi's own marketplace and can be used directly by end users to decide on the payment of subsidies to farmers, for example. Users that have their own analysis algorithms can install them on the Open Telekom Cloud and execute them using the Copernicus data. The platform can be extended, so new services can be integrated at any time. The scalable cloud resources are ideal for temporary high-load computations but can also be used to offer geo-services as web services on the market in the long term.

Customer benefits

Mundi Web Services enables satellite data to be accessed efficiently and easily and the data to be processed for geo-services. The added value of satellite data is exploited both for existing management processes and for new business ideas. The Open Telekom Cloud, an integral part of Mundi Web Services, allows users to establish their own optimal analysis speed and costs. Mundi resources are also suitable for extending internal computing resources to manage peak loads. Other advantages:

- Adaption of IT costs to the project in question
- IT resources that are available in the short-term
- OpenStack open standard



On behalf of the European Commission and the European Space Agency. Consortium lead by Atos.

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