



InGeoCloudS in a Nutshell

InGeoCloudS is a project co-funded by the European Commission under the Information and Communication Technologies Policy Support Programme. Its aim is to implement a cloud-based infrastructure providing efficient and competitive solutions for the publication, sharing, dissemination and aggregation of Geodata in compliance with European INSPIRE recommendations. The pilots developed within the project demonstrate how data providers can seamlessly integrate their environmental datasets and Web applications in the cloud-based platform while enjoying added-value services such as Linked Open Data. All new data and application providers can benefit now from their InGeoCloudS free trial.

InGeoCloudS Platform's Features

Services offered:

- ◆ Handling large datasets
- ◆ Easy-to-use map edition, customization and sharing
- ◆ INSPIRE service infrastructure
 - Technical Web services (OGC/WMS, OGC/WFS)
 - Mapping and export towards INSPIRE data models
- ◆ Monitoring services
- ◆ Accounting services for a « pay-as-you-go » approach
- ◆ Portal for smooth integration of Geo-Applications
- ◆ Linked Open Data services
- ◆ Helpdesk and comprehensive reference documentation

Technology developed:

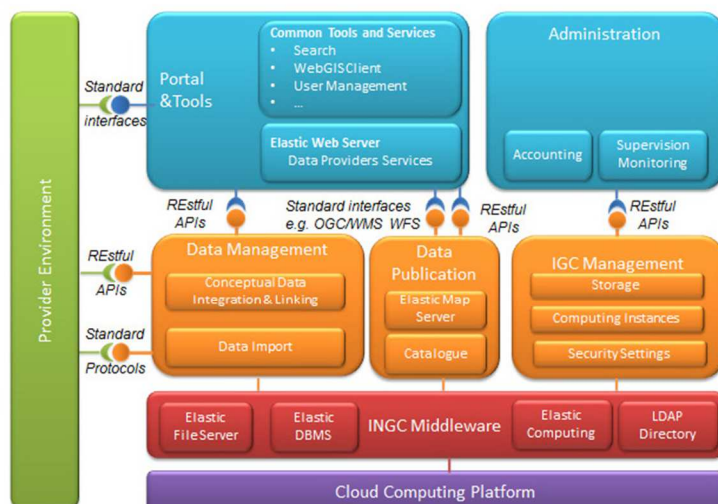
- ◆ Public cloud infrastructure
- ◆ Secured RESTful API for data providers
- ◆ OGC compliant services (WMS, WFS, WPS)
- ◆ Elastic Storage services for Geodata (PostGIS/RDF/NFS)
- ◆ Elastic Map Server
- ◆ Open source technologies

High-Availability and Load Balancing in the Cloud

Typical datacenter implementations rely on large, powerful computing hardware and network infrastructures, which are subject to the classical risks associated with physical devices like hardware failure, power or network interruptions. If not correctly dimensioned, the datacenter can even face resource limitations in times of high-traffic on the deployed services.

In a cloud infrastructure, load balancing provides a solution to distribute the incoming traffic of a service across a pool of virtualized instances hosting the same application, as well as to detect unhealthy instances inside the pool rerouting consequently the request to healthy instances only. By doing that, a load balancer prevents any server from becoming a single point of failure, increasing the application availability and responsiveness. In a public cloud infrastructure, like in any other, individual instances going down is not impossible and we can even say it happens at various and random paces. As such, it is important to think about and design "high-availability" of the different software stacks right from the beginning while still applying the basic rules of scaling horizontally. InGeoCloudS pilot now integrates load balancing on several main services (e.g Data Base, File System, Map Server, and Linked Data).

Despite theoretical infinite scaling possibilities of clouds (modulo the money you got in your wallet, of course...), there is nevertheless no magic key-turn load balancing solution that fits all needs in the different software pieces of your architecture and that would prevent any point-of-failure. InGeoCloudS tries and put in place ad-hoc load balancing solutions coupled with fine-grained monitoring and supervision mechanisms. These unique InGeoCloudS features enable the implementation of controlled load-balancing policies in order to cope with specificities of the hosted (Geo-) applications. In the meantime, it remains as independent as possible of cloud service providers' pre-packaged offers.



LATEST NEWS

◆ FOSS4G Conference, Nottingham, England

On September 20th, Benoit Baurens (AKKA) gave a presentation of the project and its open source approach. The presence of InGeoCloudS at the most popular Conference for Open Source Geospatial Software shows the commitment of the Consortium in the adoption of Open Source principles for the work it produces.

For further information about the conference: <http://2013.foss4g.org/>

◆ “Towards a Cloud of Public Services” Workshop, Brussels, Belgium

On September 24th, the European Commission DG-Connect organized a workshop to, first, present European Cloud Computing strategy, then better ensure coordination between different projects - including InGeoCloudS - and EC policy makers and finally favor best practices sharing between the projects.

For further information about these “Towards a Cloud of Public Services” projects, download the workshop’s flyer: <http://ec.europa.eu/digital-agenda/en/news/towards-cloud-public-services-flyer-0>

◆ PV 2013 Conference, Frascati, Italy

The PV 2013 Conference, organized by the European Space Agency from November 4th to 6th, was raising the issue of “Ensuring Long-Term Preservation and Adding Value to Scientific and Technical Data”.

Dimitris Kotzinos (FORTH) participated in a Poster Discussion Session to present “InGeoCloudS Cloud-based Services for Geospatial Data Publication and Access in an INSPIRE Context”.

For further information about the conference: <http://www.congrexprojects.com/2013-events/pv2013>

To help us better identify your needs and expectations in regards to InGeoCloudS Platform, please take a few minutes to fill in our questionnaire online!

The Wait is Over... Our Pilot2 is Now Online



InGeoCloudS
Inspired GEOdata CLOUD Services

As promised in our last newsletter, InGeoCloudS Pilot2 has been implemented. Since October 24th, Pilot2 has thus been opened to a wider audience: portal.ingeoclouds.eu.

This new platform developed by our team offers numerous services and features our partners’ use cases: ShakeMaps, Landslides Susceptibility Mapping, Pesticides in Groundwater, Management of Groundwater Resources in Granular Aquifers and GeoPublication.

Note that the platform is available without any registration but, as a data provider, you might want to enjoy the entire range of InGeoCloudS services. In that case, please contact us at contact@ingeoclouds.eu and ask for a free trial answering your specific geodata publication and sharing needs.

First come, first served!



[Visit Pilot2](http://portal.ingeoclouds.eu)



InGeoCloudS
Expert
Workshop

We invite you to InGeoCloudS Workshop on November 21st in Brussels.

The workshop will offer you insights into the wide range of opportunities made possible by the implementation of InGeoCloudS Pilot2, regarding for example INSPIRE data models or Linked Open Data. You will then have the choice either to participate in discussions about the exploitation of the platform or to attend a parallel training session on technical aspects of the platform.

If you are interested in attending InGeoCloudS workshop, you will find all the details about the location and the agenda on our website: www.ingeoclouds.eu.

The participation is free of charge but, since the number of participants is limited, we kindly ask you to register for the event by sending an email to contact@ingeoclouds.eu before 15 November 2013.