SWITCHengines for geodata4edu.ch

Creating an easy access to Swiss geodata

"In our research we ask ourselves how to organize the spatial pattern to ensure e.g. a quality service public in the future. For these kinds of projects access to spatial data is key … (by using) SWITCHengines, we can run our systems optimally and have enough power and performance."

– Dirk Engelke, Professor of Spatial
  Development at HSR Hochschule
  für Technik Rapperswil

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My research

I am a spatial planner and as such I am interested in the results of planning, so how people use the city or the countryside. In the end my team and I do research to enhance the overall quality of life. This means for instance having quality public spaces, an integrated mobility or affordable housing. We always ask the question: "how does this really function?" At the moment we are involved in a project on "service public" in Switzerland. Here we build up a spatial vulnerability index of public services like medical care, postal services or shopping opportunities based on door-to-door commuting times. In our research we ask ourselves how to organize the spatial pattern to ensure e.g. a high quality service public in the future. For these kinds of projects access to spatial data is key. Therefore we are engaged in another project called "geodata4edu.ch". Here we build up a geodata cloud for researchers and students in Switzerland to create an easy access to spatial data. These geodata are not only of interest for spatial planners, but also for economists, social scientists and many more disciplines to support their research and teaching activities.

My challenges

Talking about the geodata4edu.ch project, our main challenge is to build up a user-friendly access to geodata and to ensure an adequate performance of the service. First of all there is lots of data to be taken care of. Then on the technical side it is the question of using the right algorithms and frameworks in order to give suitable results to the search requests of the users. A data pool without a powerful search or a visual access is a sunken treasure. Especially important to us is the usability of the platform and a smooth link between the web- and desktop-access to the data – including all questions of authentication and security. The way to achieve this and also to simplify the actual user management was to go with AAI of SWITCH, which guarantees access to every academic user in Switzerland via standard login and password. We even managed the authentication within GIS desktop programs via the AAI web login.

My solution

We decided to host this service for Swiss researchers and students that deals with Swiss geodata within the academic community in Switzerland. A project like this exceeds the interest of a single institution like the HSR and therefore we build up geodata4edu.ch as a national service together with the ETH within the swissuniversities' program SUK-P2. In order to realize this, using an external technology partner like SWITCH reduces the complexity of the overall project. Our decision for the SWITCHengines hosting was based on two major points. First, with this solution we make use of the high grade accessibility of the SWITCH service (24/7 during 52 weeks). Second, with SWITCHengines we can run our systems optimally and have enough power and performance – also because it is linked directly to the high-speed SWITCHlan backbone.

In this respect you can name these efforts a kind of "service public" for the Swiss academia.

Further information:
swit.ch/engines

SWITCH