ID Number	442

Name	Michael SCHULZ
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Paper Title	The Digital Observatory for Protected Areas (DOPA) - providing and integrating thematic information on protected areas using web services

Paper Abstract (long)

The Digital Observatory for Protected Areas (DOPA) is built around a set of independent web services developed at a number of key institutions dealing with the conservation of biodiversity. With a focus on protected areas in developing countries, DOPA allows end-users to combine in situ data with remotely sensed environmental observations to assess, monitor and even forecast biodiversity without requiring large local ICT infrastructures. The multiple combinations of the web services allow DOPA to propose a broad range of applications that are customized for different end-users, which typically range from park-managers, researchers to decision and policy makers.

It is the purpose of this presentation to showcase some of these specific applications and to discuss our initial operating capacities integrating species information, bio-physical indicators, climate and climate change models together with remote sensing data based on our Open Source software and OGC standards stack, that includes (not only) PostGIS, GeoServer, MapServer/MapCache, PyWPS, Hadoop, GeoNetwork, GeoExt, WCS, WPS and custom REST services.

DOPA is currently supported by web services from the European Commission's Joint Research Centre (EC-JRC), the UNEP - World Conservation Monitoring Centre (UNEP-WCMC), the International Union for the Conservation of Nature (IUCN), the Global Biodiversity Information Facility (GBIF) and BirdLife International together with the Royal Society for the Protection of Birds (RSPB).

ID Number	443

Name	Vladimir Agafonkin
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Paper Title	Leaflet: Past, Present, Future

Paper Abstract (long)

Leaflet, a JavaScript library for mobile-friendly interactive maps, has come a long way since its inception. The library started as a one-night hack and evolved over the next two years as a closed proprietary API, developed by one person, and then was finally rewritten from scratch as an open source library in 2011. Leaflet is now the most popular open source solution for publishing maps on the Web.

What's the story behind Leaflet? How did it became so successful so quickly despite strong competition and lack of features? This talk will be presented by its lead developer and will cover lessons learned, the current state of the project and future challenges.

ID Number	**444**

Name	Vladimir Agafonkin
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Paper Title	High Performance Data Visualizations in JavaScript

Paper Abstract (long)

If you thought that building rich, interactive and mobile-friendly visualizations of high volume data with 100,000+ points just using the power of browser-side JavaScript was impossible, this talk will prove you wrong.

We'll review every important aspect of achieving peak performance and responsiveness for these types of applications, including real-time data simplification, computational geometry, clustering algorithms, tree structures, fast collision detection, Web Workers, CSS Transform Transitions and mixing Canvas with SVG and HTML.