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Earth science big data at users' fingertips: the EarthServer Science Gateway Mobile

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The EarthServer project (www.earthserver.eu), funded by the European Commission under its Seventh Framework Program, aims at establishing open access and ad-hoc analytics on extreme-size Earth Science data, based on and extending leading-edge Array Database technology.
The core idea is to use database query languages as client/server interface to achieve barrier-free "mix & match" access to multi-source, any-size, multi-dimensional space-time data – in short: "Big Earth Data Analytics" - based on the open standards of the Open Geospatial Consortium Web Coverage Processing Service (OGC WCPS) and the W3C XQuery. EarthServer combines both, thereby achieving a tight data/metadata integration. Further, the rasdaman Array Database System (www.rasdaman.com) is extended with further space-time coverage data types. On server side, highly effective optimizations - such as parallel and distributed query processing - ensure scalability to Exabyte volumes.
In this contribution we will report on the EarthServer Science Gateway Mobile, an app for both iOS and Android-based devices that allows users to seamlessly access some of the EarthServer applications using SAML-based federated authentication and fine-grained authorisation mechanisms.