



Advances in the TRIDEC Cloud

Martin Hammitzsch, Johannes Spazier, and Sven Reißland

Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences, Potsdam, Germany
(martin.hammitzsch@gfz-potsdam.de)

The TRIDEC Cloud is a platform that merges several complementary cloud-based services for instant tsunami propagation calculations and automated background computation with graphics processing units (GPU), for web-mapping of hazard specific geospatial data, and for serving relevant functionality to handle, share, and communicate threat specific information in a collaborative and distributed environment.

The platform offers a modern web-based graphical user interface so that operators in warning centres and stakeholders of other involved parties (e.g. CPAs, ministries) just need a standard web browser to access a full-fledged early warning and information system with unique interactive features such as Cloud Messages and Shared Maps. Furthermore, the TRIDEC Cloud can be accessed in different modes, e.g. the monitoring mode, which provides important functionality required to act in a real event, and the exercise-and-training mode, which enables training and exercises with virtual scenarios re-played by a scenario player.

The software system architecture and open interfaces facilitate global coverage so that the system is applicable for any region in the world and allow the integration of different sensor systems as well as the integration of other hazard types and use cases different to tsunami early warning.

Current advances of the TRIDEC Cloud platform will be summarized in this presentation.