



Seismology waveform services in EPOS

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After two years in the EPOS-IP project, considerable progress has been achieved in the technical developments of European level community services for Seismology and in their integration with the EPOS Integrated Core Services (ICS) that are currently being developed. Within EPOS Seismology the seismological waveform services are coordinated by ORFEUS and provides standardized access to waveform data, strong motion parameters and related metadata.

As part of ORFEUS, the European Integrated Data Archive EIDA coordinates the governmental and technical challenges to operate - and provide access to - a distributed federation of (currently 11) datacenters by standardized webservices (waveforms, waveform quality data, station metadata, routing). The success of ORFEUS/EIDA is reflected by a) the large number of about 100 permanent seismic networks and about 70 temporary network deployments that provide data to EIDA (more than 7000 stations today) and b) the large number of users (exceeding the 1500 unique user in a year).

ORFEUS also coordinates services on strong motion data, both the Rapid Raw Strong Motion (RRSM) and the Engineering Strong Motion (ESM) databases, and the EIDA StationBook database. These complementary strong motion databases are accessible by standardized webservices to provide event waveform data and the PGM parameters for both databases. Finally, coordination with both OBS and Mobile Pool communities takes place within ORFEUS to integrate these types of data in the waveform services.

Important topics that are currently in progress to further strengthen EIDA and extend its services are related to the development/implementation of the EIDA Federator, the Authentication Service, new clients and the performance monitoring of EIDA. Governmental and organizational challenges are related to efficient and sustainable expansion of all services and relevant licensing issues. Current status and challenges will be presented.