GLASS, a tool for quality-controlled GNSS data and product dissemination.

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Europe is covered by various networks of GNSS stations maintained by different agencies with different technical and scientific objectives. The geodetic GNSS component of the European Plate Observing System (EPOS) aims to provide services optimized for Solid Earth Research applications through an e-infrastructure for data, metadata, and dedicated products collection and dissemination. We present here the efforts carried out by the members of this group to create a distributed software architecture called GLASS for disseminating standardized and quality-controlled data, metadata and products (coordinates, velocities and strain rates), scaled for thousands of stations. We describe the data flows from data suppliers and analysis centers to the various EPOS nodes and data & products portals, and its integration into the overall EPOS system and European GNSS community. The quality control steps that are performed on both the GNSS data and products (e.g. validating the station log files, computing quality metrics of RINEX files, comparing solutions from several processing strategies, . . .) are outlined. Finally, we detail the technologies and software that are used and developed to build this e-infrastructure. EPOS-IP is a project funded by the ESFRI European Union.