

EPOS Board of Service Providers (all thematic & integrated service Board members)

EPOS Geodetic Products & Services (EGPS)

Steering Committee and Executive Committee

COORDINATION

(see next slide)

GNSS DATA DISSEMINATION & PRESERVATION

LEVEL 0

GNSS Observation and Meta-data from Permanent (and Campaign) Stations

Structure: Distributed (GSAC-like)

1 EPOS Data Gateway

National and Regional nodes.

Products:

- Observation data (streams and files).
- Meta-data (site logs, access conditions, QC, etc..) for all archived data.

Services:

- Seamless and redundant access to Level 0 data through GSAC derived web-services.
- Seamless storage and upload of Level 0 data.
- Conversion from RAW into international standard format (RINEX x.x).
- Checking of essential meta-data.

GNSS PRODUCTS

LEVEL 1,2,3

GNSS Data Analysis and Derived Products

Structure:

1 EPOS Product Gateway

National and Regional nodes.

Products:

- Real-time to post-processed positions
- Velocity Fields
 - Secular Motions
 - Periodical and no-periodical signals.
- Strain Fields

Services

- Seamless and redundant access to Level 1,2,3 data through GSAC derived web-services
- Web-services for online GNSS data processing
- Repository of existing Level 1,2,3 data.

USER COMMUNITY SUPPORT

Support to GNSS activities for Solid Earth research

Structure: Centralized

1 node (EPOS-GNSS Center)

Products:

Services

- Diffusion of best practices and tools.
- Support to Research projects (e.g., pool of instruments, installation support, data management)
- Realization of Scientific and Technical Courses.

DEVELOPMENT OF STANDARD TOOLS

(see next slide)

e-Geodesy & common services

Geodetic services for visualisation, discovery and access to portal expert groups, standards

EPOS Integrated Services

Visualisation tool / discovery & access portal
high performance and high end computing
expert groups, standards

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COORDINATION

Coordination

(based on EUREF experience)

Structure: Centralized

1 node (EPOS-GNSS Center)

Products:

- EPOS Geodetic Web Portal:
 - gateway providing access to the geodetic data/products
 - gateway interacting with the EPOS ICS
- Guidelines & Standards

Services

- Day-to-Day Network Management & Coordination of Pillars.

DEVELOPMENT OF STANDARD TOOLS

Development and Maintenance of software tools in support of other pillars

Structure: Distributed

Products:

- Further Development of GSAC
- Further Development of online GNSS processing services
- Further Development of meta-data management tools
- Development of Interfaces between Pillars (e.g., QC tools)
- Development of Interfaces between Pillar 5 and ICS
- Development of Interfaces with existing services (e.g., EUREF)
- Visualization tools

Services

- Installation support

EPOS Volcanology

EPOS Geology

... Other EPOS Communities

Interaction with other Solid Earth Sciences

Collaboration with other working groups, namely:

Seismology (WG1)

- Data Standardization
- GNSS Seismology

Volcanology (WG2)

- Volcano Instrumentation

Satellite Data (WG8)

- Co-localization with SAR

e-Geodesy & common services

Geodetic services for visualisation, discovery and access to portal expert groups, standards

EPOS Integrated Services

Visualisation tool / discovery & access portal high performance and high end computing expert groups, standards

GSAC – Geodetic Seamless ArChive Cooperation with UNAVCO

GSAC – WS, an Open-source x

facility.unavco.org/data/gsacws/gsacws.html

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SEARCH

UNAVCO

Community Services Data Instrumentation Software Science Learning

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GSAC Web Services for Data Repositories

GSAC-WS Project
Documents
GSAC Installation
GSAC Use
Community
Participation
Contacts

GSAC is a package of code for web services. With GSAC a geodesy or geophysics data center can quickly offer a set of complete, consistent, modern web services for remote users to query the data center about stations and instruments, and download data files. GSAC does not copy data files or hold any data (station or instrumental metadata, or data files). GSAC reads from your existing data. GSAC itself is not a data repository.

GSAC-WS: GSAC Web Services

GSAC-WS, usually called simply GSAC for Geodesy Seamless Archive, is a free, open-source software package for data repositories with site-located instruments and their data files, especially geodesy repositories. GSAC provides a complete set of the latest web services for search, discovery, and download of geodesy data in existing repositories. Any organization with geodesy data files, and information about the data files and related monuments (stations) and instruments in a database, can implement a data repository with web services by utilizing GSAC code. GSAC-WS uses the latest software technology to create a complete web site with the latest web services. The GSAC-WS software package provides comprehensive user access to a broad range of space geodetic data including GPS/GNSS, DORIS, SLR, and VLBI.

For more about GSAC and its operation at your geodesy data repository, see the GSAC document [UNAVCO GSAC WS: Web Services for Geodesy Data Repositories](#).