

## Progress of EISCAT\_3D Competence Center

*Tuesday, 10 November 2015 15:10 (20 minutes)*

The design of the next generation incoherent scatter radar system, EISCAT\_3D, opens up opportunities for physicists to explore many new research fields. On the other hand, it also introduces significant challenges in handling large-scale experimental data which will be massively generated at great speeds and volumes. This challenge is typically referred to as a big data problem and requires solutions from beyond the capabilities of conventional database technologies. The first objective of the project is to build common e-Infrastructure to meet the requirements of a big scientific data system such as EISCAT\_3D data system.

The work on the design specification has been looked at from a number of aspects such as: Priority Functional Components; Data Searching & Discovery; Data Access; Data Visualisation; Data Storage. There are different technologies at the different stages of the portal, such as dCache, iRods, OpenSearch, LifeRay and different forms of identifiers. We will present the ones chosen and why they suit better for operations and data from an environmental facility like EISCAT\_3D. The design specification has been presented to the EISCAT community and the feedback has been adopted in the portal development environment.

**Primary author:** HAGGSTROM, Ingemar (EISCAT)

**Presenter:** HAGGSTROM, Ingemar (EISCAT)

**Session Classification:** Showcasing tools and services from Research Infrastructures