Odyssey: a regional solution for weather radar data exchange and radar products generation.

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Weather radars are of increasing importance for regional and global weather forecasting and for civil aviation. This has been acknowledged by WMO, in the action G48 of the Implementation Plan for the Evolution of Global Observing Systems (EGOS-IP) to examine solutions for exchanging weather radar on global scale. At a regional level, the European led initiative EUMETNET OPERA is a model of collaborative development between countries that is attracting lots of attention from the world community. Meteo France and The Met Office are currently operating the OPERA Data Centre (Odyssey) that collects radar volume data from circa 200 radars and generates pan-European precipitation composites. The aim of the OPERA community is to develop by 2020 an architecture capable of redistributing all the incoming polar volume data and the generated quality information to NWP centres, and to produce quality controlled 2D and 3D radar composite products, covering the whole Europe at 1km and 5' resolution with comparable quality to what is currently achieved at national level.

To achieve this goal a consistent framework for collecting and generating the quality information both at the generating NMS and the Odyssey nodes is needed. In this presentation, we will discuss the various scenarios proposed to achieve this, the advantages and disadvantages of the different technical solutions linked to each scenario with consideration of the costs and risks involved.