METEOROLOGICAL MONITORING SYSTEM FOR THE MET OFFICE



THE CHALLENGE

The UK Met Office, a world leading provider of weather and climate services, currently operates a network of manual, automatic and semi-automatic meteorological observing sites at locations in the United Kingdom and overseas.

In order to effectively monitor and control their remote and fixed assets, the Met Office needed a fully scalable, flexible and expandable system solution for weather monitoring and observation.

THE SOLUTION

The SCOPE-based Meteorological Monitoring System (MMS) was created by Ovarro to meet the Met Office's specific industry needs.

The MMS is a telemetry system which can gather data from hundreds of geographically widespread sites, then store and process this information as required.

The Ovarro-designed MMS replaced multiple legacy systems and enables the collection of minute-by-minute frequency data from meteorological sensors for analysis at the Met Office headquarters in Exeter.

It delivers improved data quality, enhancing the scientific integrity of the observed data, whilst maintaining a long-term meteorological information source, which is invaluable to support long-term forecasts.









FEATURES

- Extendable cluster technology, currently supporting over 500 sites
- Central data processing and analysis
- Frequent data sampling

- Versatile and scalable observing infrastructure
- Data delivery to a modularised, central processing system
- Flexible reporting frequency/data quality



"The MMS is used to monitor a few sites for smaller scale applications through to enterprise country-wide networks of Automatic Weather Stations (AWS) providing comprehensive weather monitoring."



OPERATIONAL BENEFITS

The SCOPE-based system maintains observation standards and services, while remaining flexible and versatile in order to support scalable observing infrastructures. Its specialised functionality provides the ability to automatically produce and disseminate World Meteorological Organization (WMO) defined observations in Binary Universal Form (BUFR) format.

The real-time integration of data into management information systems allows users through the business to access data for making informed and independent decisions. Flexible system architectures meet the requirements of a range of applications, from a simple single site SCADA to enterprise-wide systems.

KEY DELIVERABLES

- Adapts to changing customer needs
- Proactive reporting
- Reduced maintenance costs
- Robust software design

- More efficient management and support structure
- Fully functional user interface
- Reduced technical risk

