



Enabling predictive maintenance for weather system networks

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Today's changes in the world of mobile technologies for the Internet of Things (IoT) are expected to revolutionize remote operations and maintenance, enabling a new cost-effective connectivity for many different applications. Efficient maintenance of weather system networks is crucial for meteorological and climatological communities, in order to minimize system downtime and maximize observation data quality and availability.

This paper aims to examine how IoT disruptive technologies affect the maintenance of weather system networks and how Vaisala products take advantage of these technologies.

Latest developments of Vaisala weather systems combine different techniques such as data aggregation, automatic metadata retrieval, remote monitoring, remote control and real-time artificial intelligence algorithms, which enable predictive maintenance without compromising the security of the network.

Examples of transition from a corrective maintenance approach to a preventive maintenance approach for weather system networks are given. In addition, future scenarios of the network maintenance are considered.