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Author: Ms. Manuela Zapata Quirós
France

# IMPLEMENTATION PROCESS OF THE SKY SCAN FEATURE AS A SOFTWARE MICROSERVICE

**Abstract**

This paper presents lessons learned from the development of a software feature that leverages a Ku/Ka-band phased array antenna to monitor Radio Frequency (RF) activity within its field of view and generate a heat map of the sky. The primary objective of this system is to detect anomalous RF emissions and ensure compliance with regulatory licenses. This feature is integrated into a broader system designed to assist satellite operators in identifying interference caused by the coexistence of multiple satellite constellations while maintaining regulatory compliance. The paper discusses key challenges encountered during development, including hardware limitations, hardware-software integration complexities, and beam control constraints. Additionally, it introduces an algorithm designed to optimize scan scheduling and mitigate false positives from known LEO satellites. Finally, the results of the implementation are presented, demonstrating the effectiveness of the approach.