

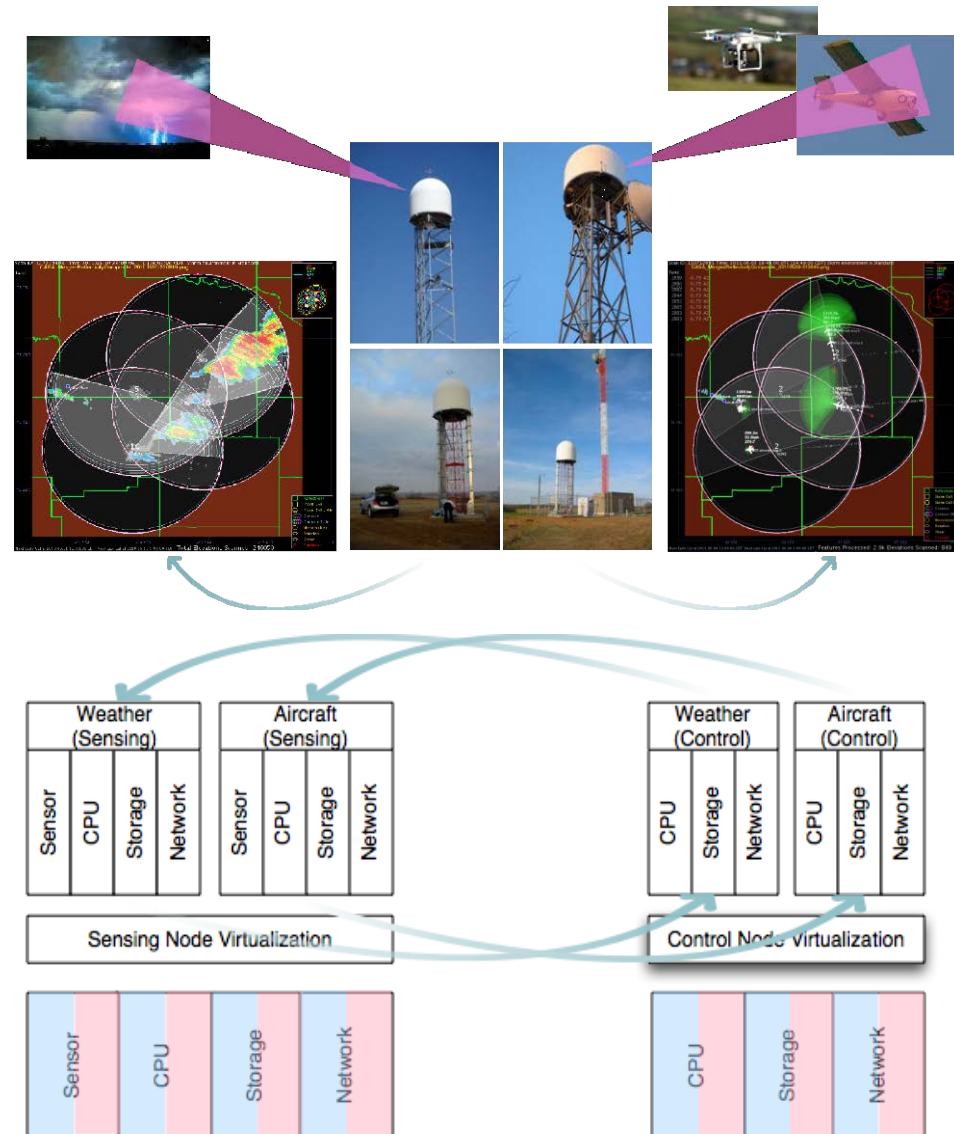


Sensing as a Service - Architectures for Closed-loop Sensor Network Virtualization

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Description

- Cyber-physical architectures will enable closed-loop sensor networks to be shared among multiple applications.
- Dynamically allocate sensing and computing resources to analyze data and perform sensor actuation.
- Sharing of sensor network infrastructures will make the provision of data (e.g., weather information) more cost efficient
- Utility-driven scheduling algorithms that enable multiplexing of different applications on to a single sensor network
- *Sensing as a Service*



Findings

- Analysis of sensor/actuator virtualization based on data from actual sensor network
- Analysis of a scheduling approach that allows data to be shared between incoming requests based on the data overlap (DSES).
- A-DSES: requests are reordered to maximize the number of overlaps
- The average utility of most of the applications sharing a sensor network is higher in A-DSES compared to DSES.

