

MDDSystems

Solutions for improving aircraft systems reliability



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- 19 years experience in engineering @ Bombardier Aerospace (12 yrs management)
- Manager of the Flight Test Instrumentation Department
- 14 years project and business development management @ Curtiss-Wright (data acquisition design)

The Person

1

Even though modern airlines have many sensors, there are still several systems that could be more reliable.

2

This leads to delays, unplanned maintenance and customer dissatisfaction

3

Adding data acquisition is costly and time consuming.

The Problem

The Proposal

1

Use low cost data acquisition mounted close to the sensors to minimise wiring. The sensors will, unfortunately need to be installed.

2

Collect the sensor data and send it wirelessly to a gateway where it can be offloaded after flight. No long wires will be needed as all comms will be wifi.

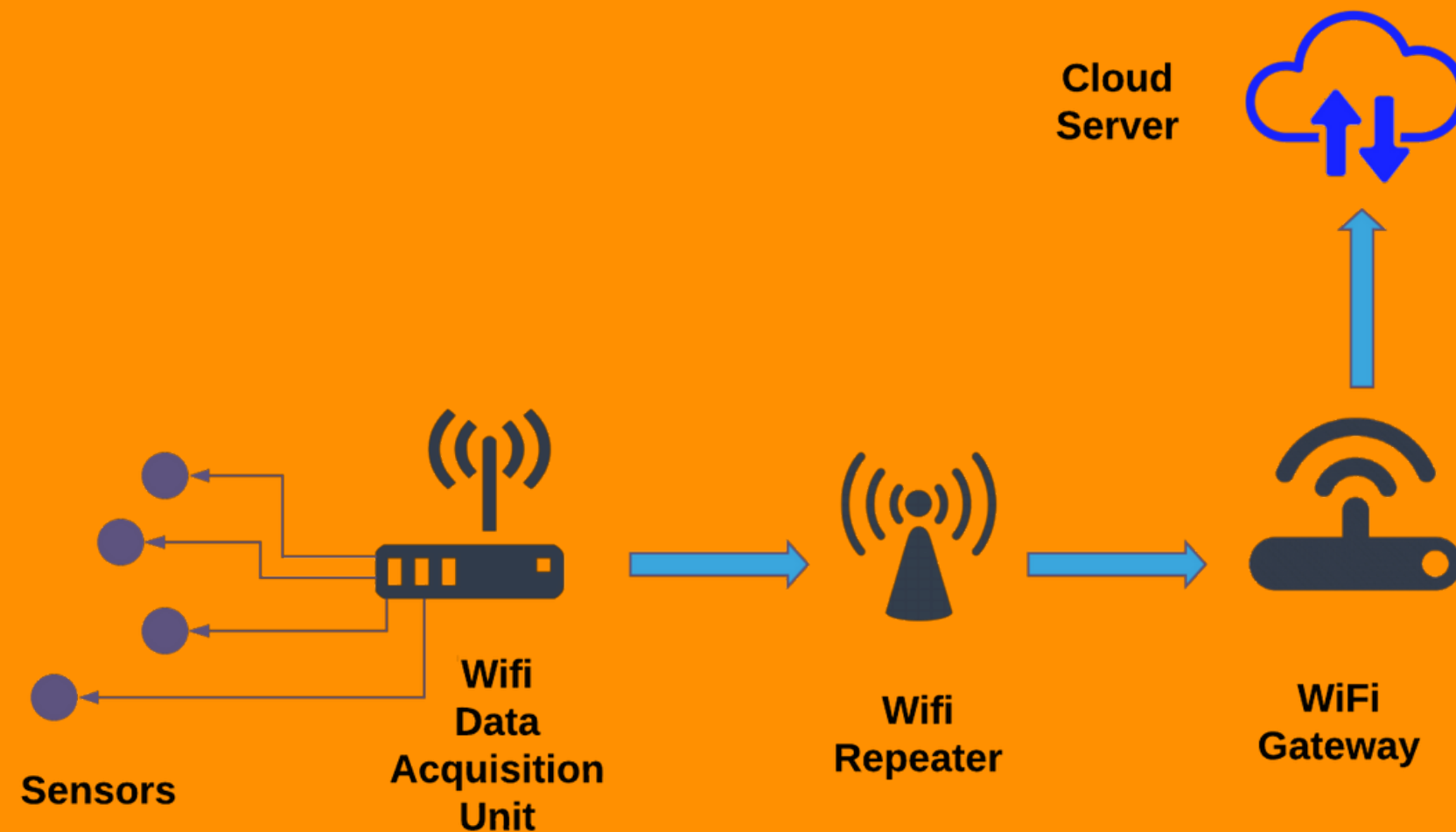
3

Consider local energy harvesting thus removing the need for local 28V. This will eliminate the need for routing a wire back to a power distribution panel.

The Product

A Wifi data logger will monitor the low reliability system.

The data will be sent via a wifi repeater to a gateway where it will be uploaded to the cloud after each flight.



- My objective is to validate the concept with potential customers
- I will work with one or two lead customers to spec the product and service
- The initial prototype will be tested along with the lead customers to gather feedback
- The lead customers will have a big say in the specification of the product

The Journey

The Questions

- Does your fleet have recurring reliability problems that are of concern?
- If so which systems?
- Can you provide a figure for how much you would expect to save per year?
- Would adding additional sensors and a local data logger to collect data on the most problematic systems help to improve their reliability?
- If so, what are the biggest challenges that would need to be addressed in order to obtain this data?
- Are you actively looking for solutions?
- Would you like to explore a solution with me?
- Is there anyone else I should talk to?

Thankyou

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