Verification Engineering of Safety and Security Critical Industrial Applications

MOTIVATION & MISSION

As the internet brings new threats to software developers VESSEDIA will:

- allow connected applications to be **safe** and **secure**
- **enhance** and **scale up** modern software analysis tools
- take the Internet of Things (IoT) domain as a target for **demonstrating the benefits** of using the tools on connected applications

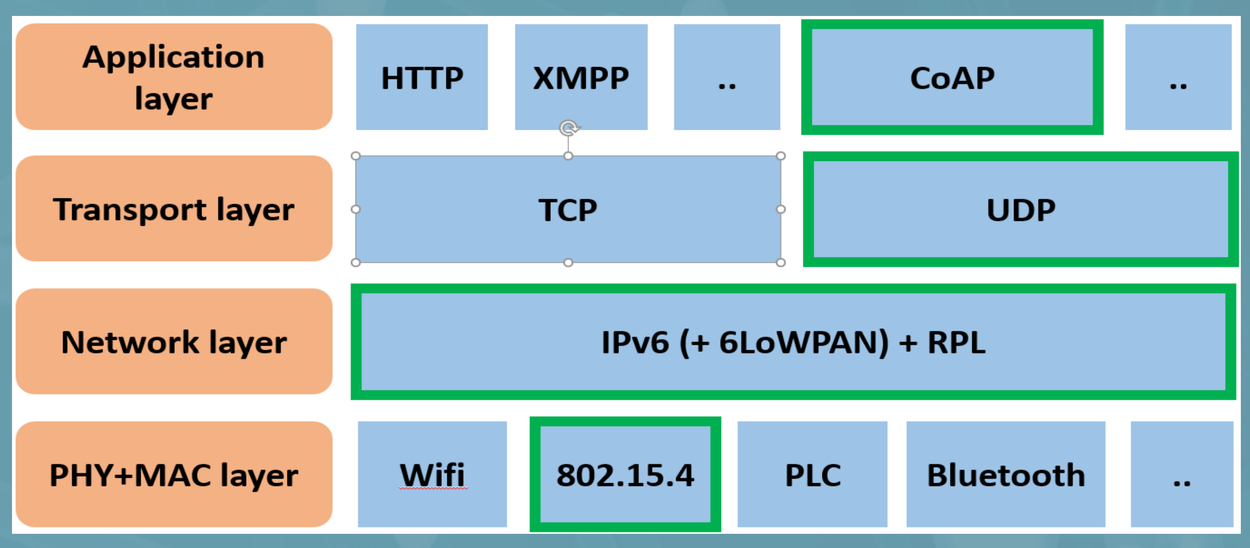
OBJECTIVES

- Drastically **improving security verification tools**
- Quantification of the **verification process**
- Building **collaborative** and **smart** user interfaces
- Formal methods for **non-highly-critical domains**
- Management of **verification data**
- **Higher-level models** for verification
- **Building strong links** with existing certification practices

USE-CASES

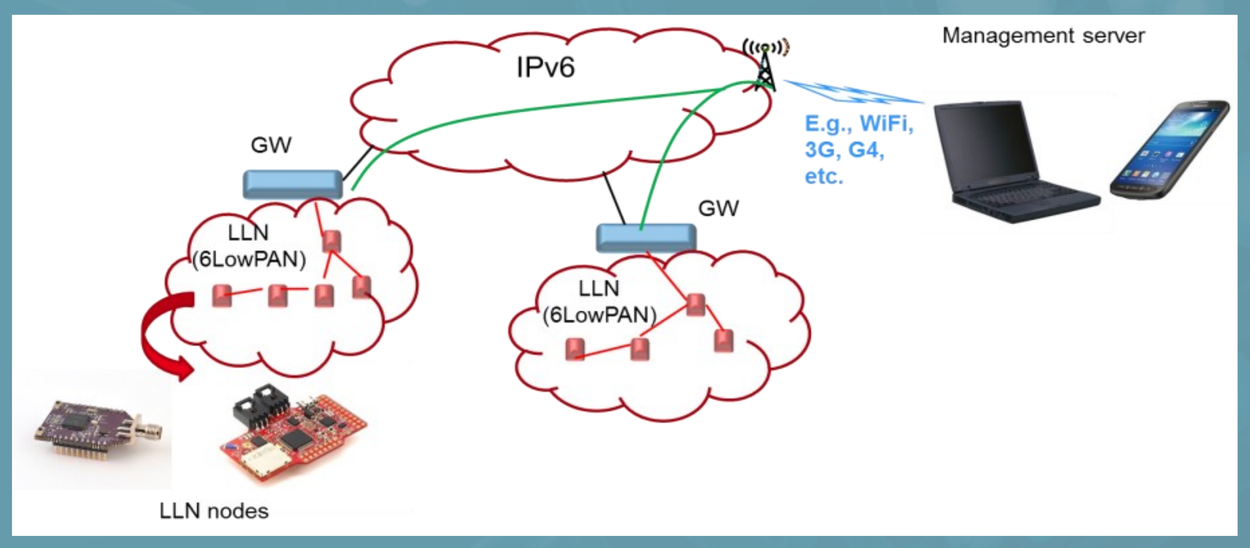
Contiki OS

The vision is to enable, in the long run, **networks of internet-connected devices** that support a variety of applications through an inter-vendor synergy. In VESSEDIA, we focus on **verifying** the relevant subset of protocols highlighted in green.



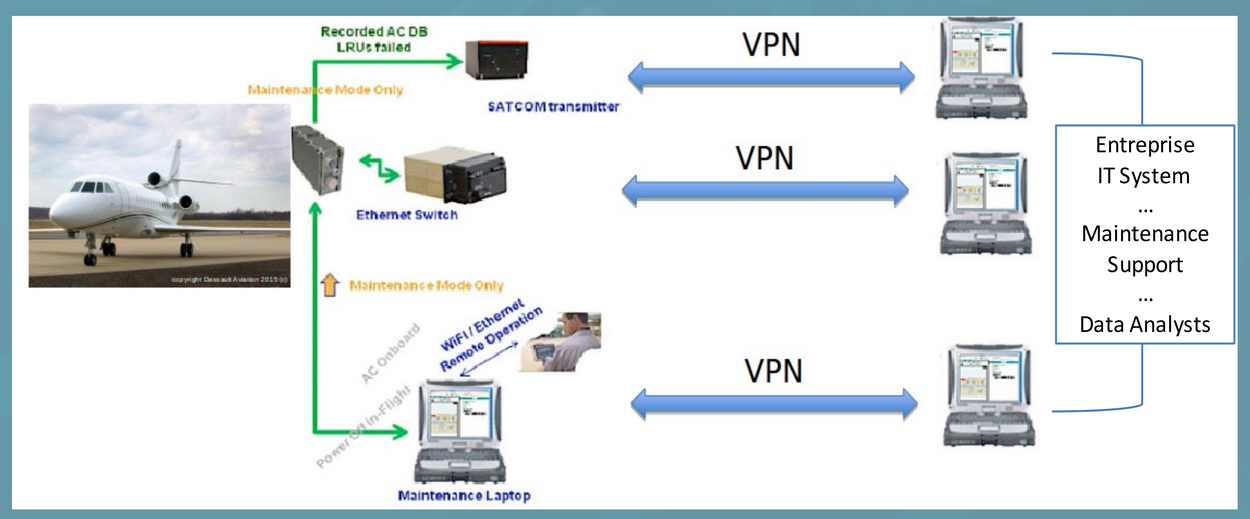
6LowPAN Management Platform

The 6LowPAN remote management platform aims at **maintaining a good performance** and sustainability of the 6LowPAN networks. The platform comprises **three functional components**: the management server, the gateway and the managed node.



Aircraft Maintenance System

This use case is based on an experimental **civil aircraft maintenance application**, comprising security components: from embedded servers, to VPN and network gateways.



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Project Coordinator:	Dr. Klaus-Michael Koch coordination@vessedia.eu
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Project Partners:

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