

Annual review November 2013



WP7 - Avionic Scenario



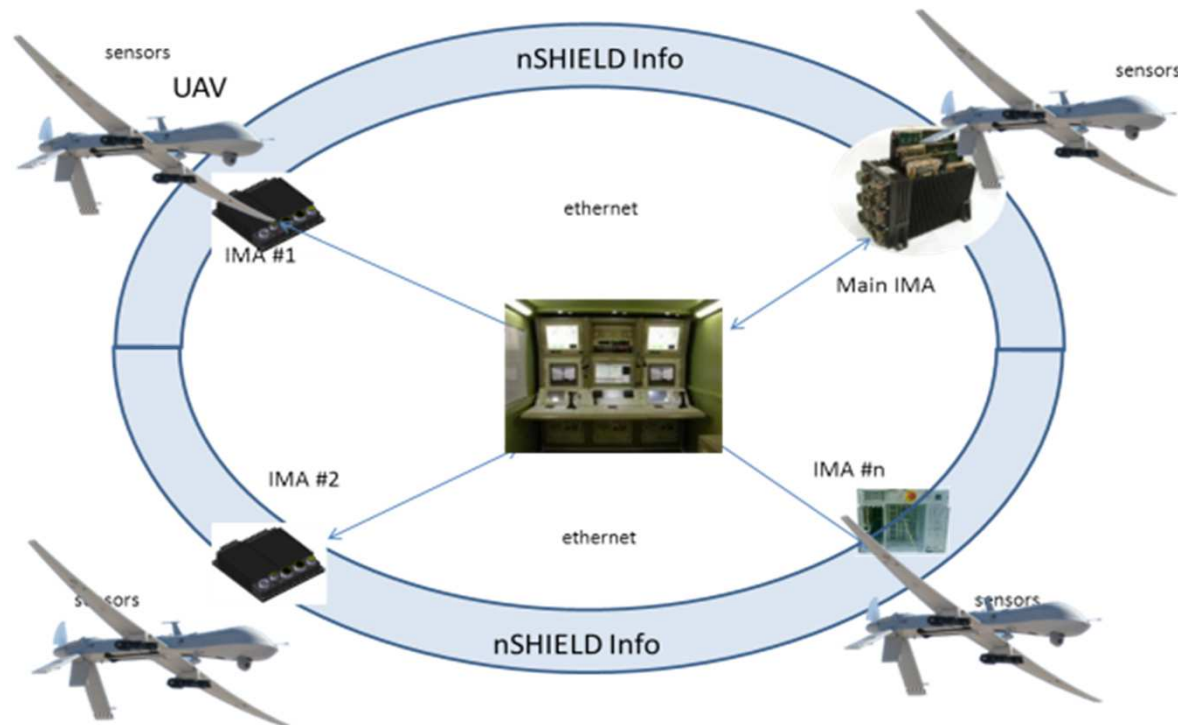
Avionic Dependable Scenario Context & Objective

- SHIELD framework will be employed to design an innovative Avionic dependable Architecture;
- Aspects such as Dependability and Composability will be encompassed into the demonstrator;

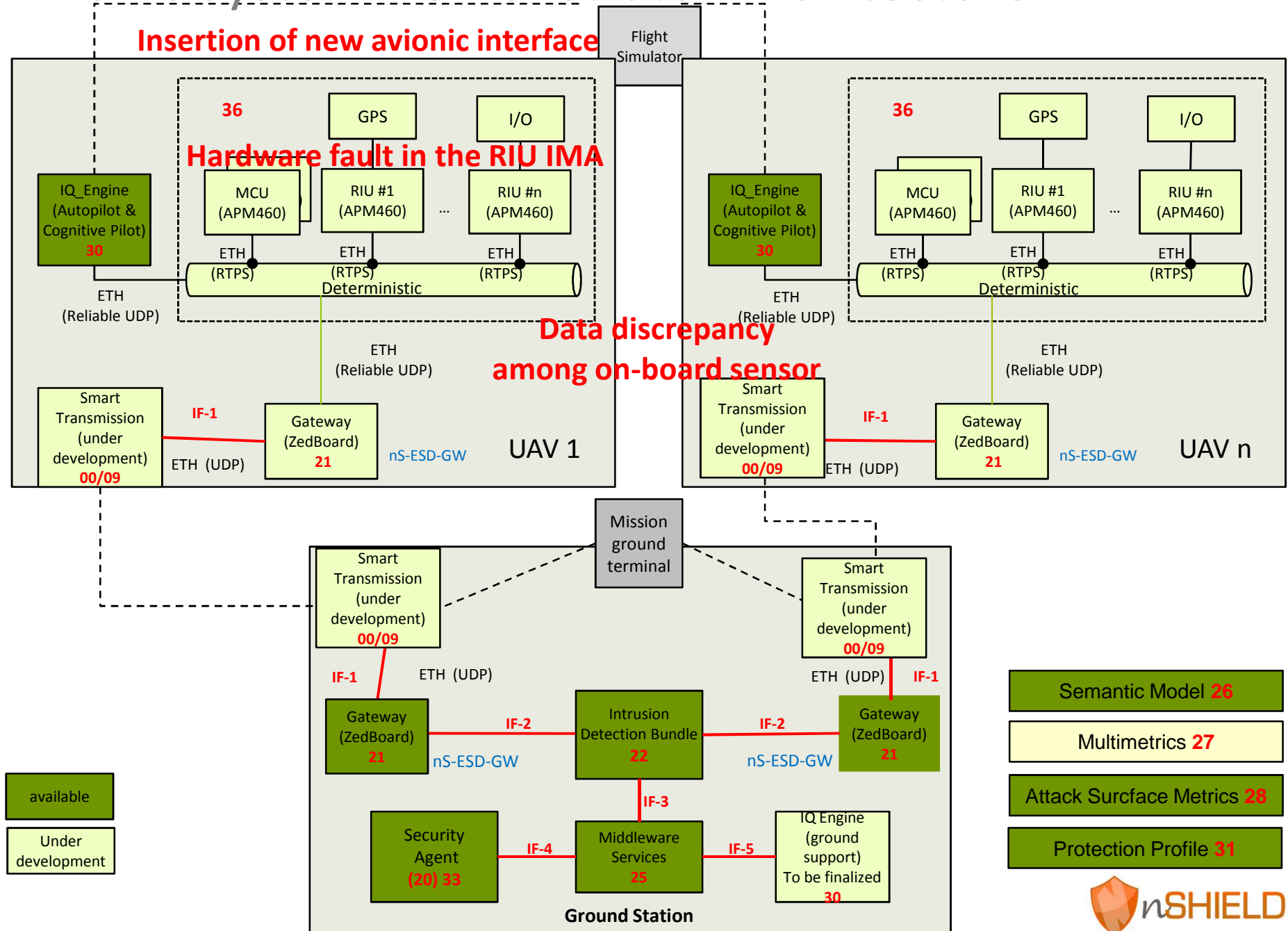
Avionic Dependable Scenario Context & Objective

The Dependable Avionic scenario can be seen as System of Systems (SOS): a set of heterogeneous systems logically or physically connected that cooperate for the execution of one or more tasks, without impact on any new avionic application function (mission independent).

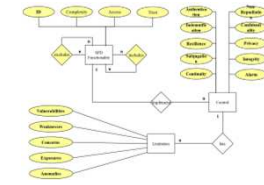
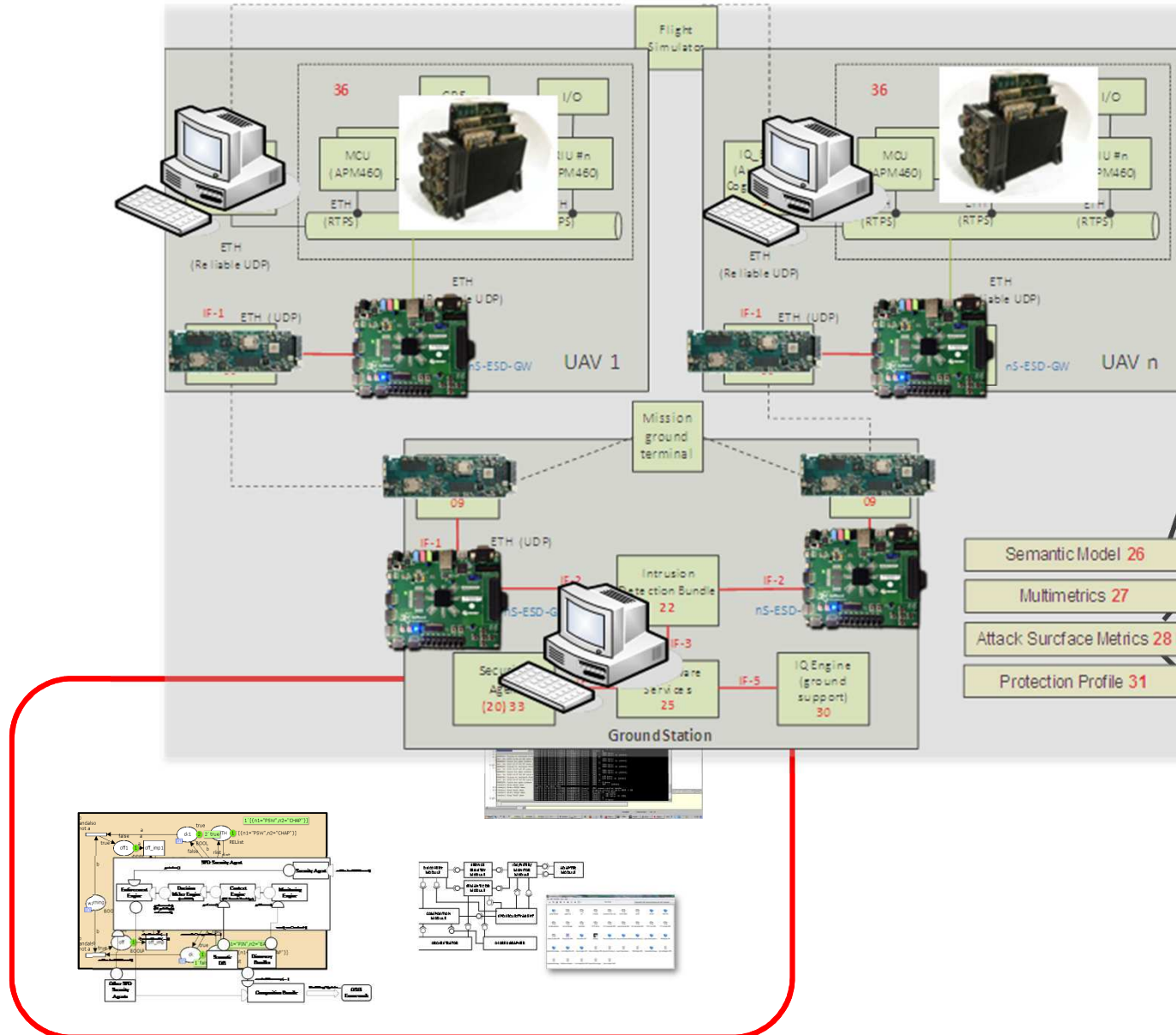
Typical examples is a “Avionic Mission Management ” for “surveillance”, “vehicle management”, “flight management”,



Avionic System Demonstrator Architecture



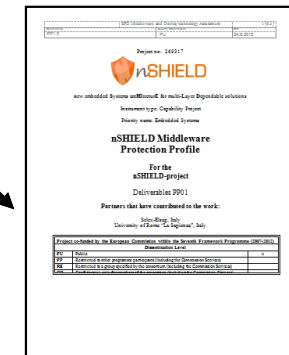
Avionic System Demonstrator Architecture



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- ② Mission
- ③ Test
- ④ Analysis
- ⑤ Configuration
- ⑥ Mission
- ⑦ Test
- ⑧ Analysis
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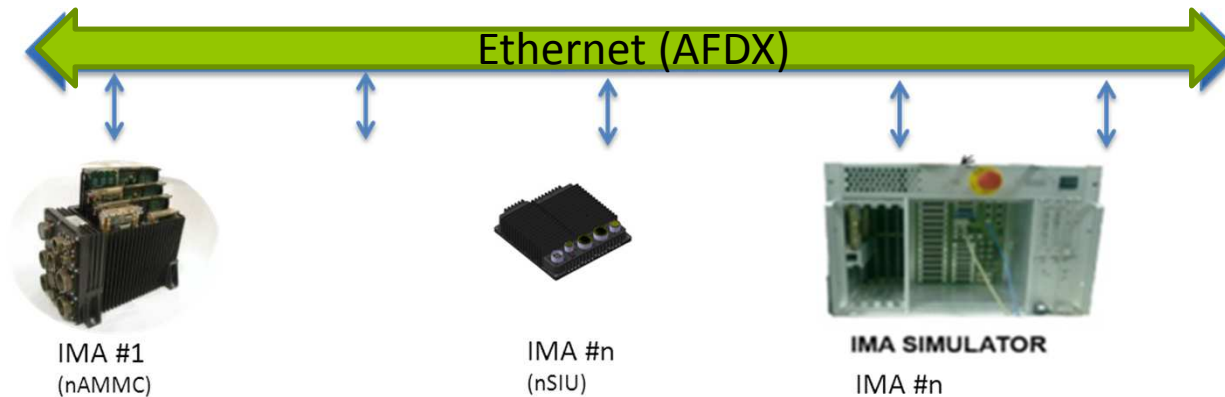
- Semantic Model 26
- Multimetrics 27
- Attack Surface Metrics 28
- Protection Profile 31

A table with multiple columns and rows, likely representing a data matrix or a comparison table. The columns are labeled with various metrics and the rows represent different system components or configurations.



Omnia System

OMNIA system : provides aircraft mission/management/navigation functionalities on IMA platform. It is composed by a IMA Central Unit and by several IMA/RIU connected to the aircraft sensors



OMNIA SPD features:

Interoperability: middleware based on SOA/DDS architecture

Integrity: sensor data handled by OMNIA middleware

Health Monitoring and **Fault Management** performed at node level

The END



That's all folks!



Planned Activities

Dependable Avionic Demonstrator plan

