

Lessons learnt and issues associated with the current conformity system



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**Workshop on conformity assessment of
ATM/ANS systems and constituents**

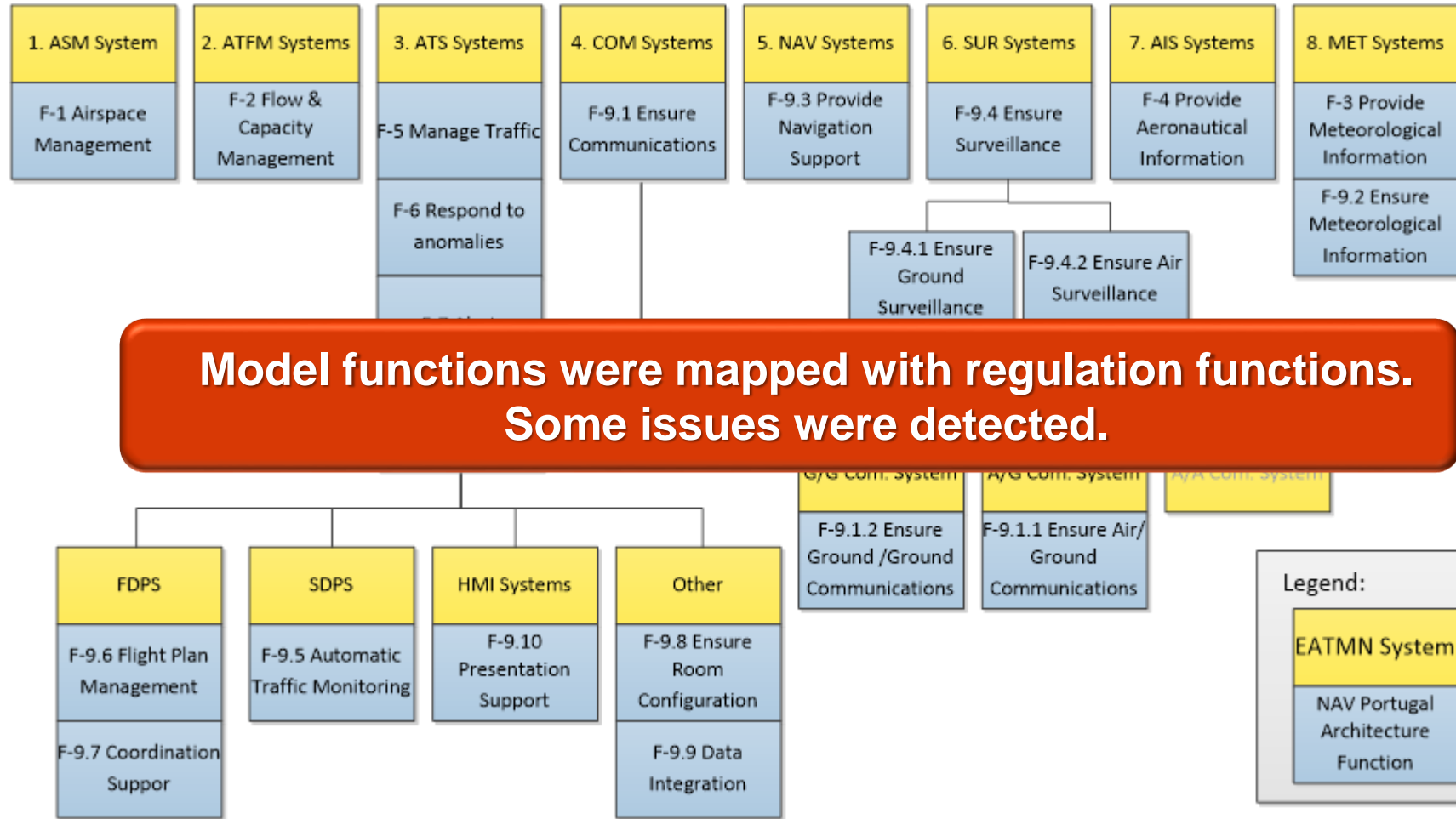
Conformity declaration

Focus: Declaration of Verification of Systems (ANSP's responsibility)

- Interoperability regulation is developed for functional systems.
- Essential requirements apply to people, procedures and equipment.
- Conformity assessment has to be performed at functional system level, not at component / constituent level.
- Verification of compliance only makes sense at functional system level.

NAV-P uses a model of the ATM functional system to support this activity. This model describes the functional system and is also used in change management, safety assessments, training and other purposes.

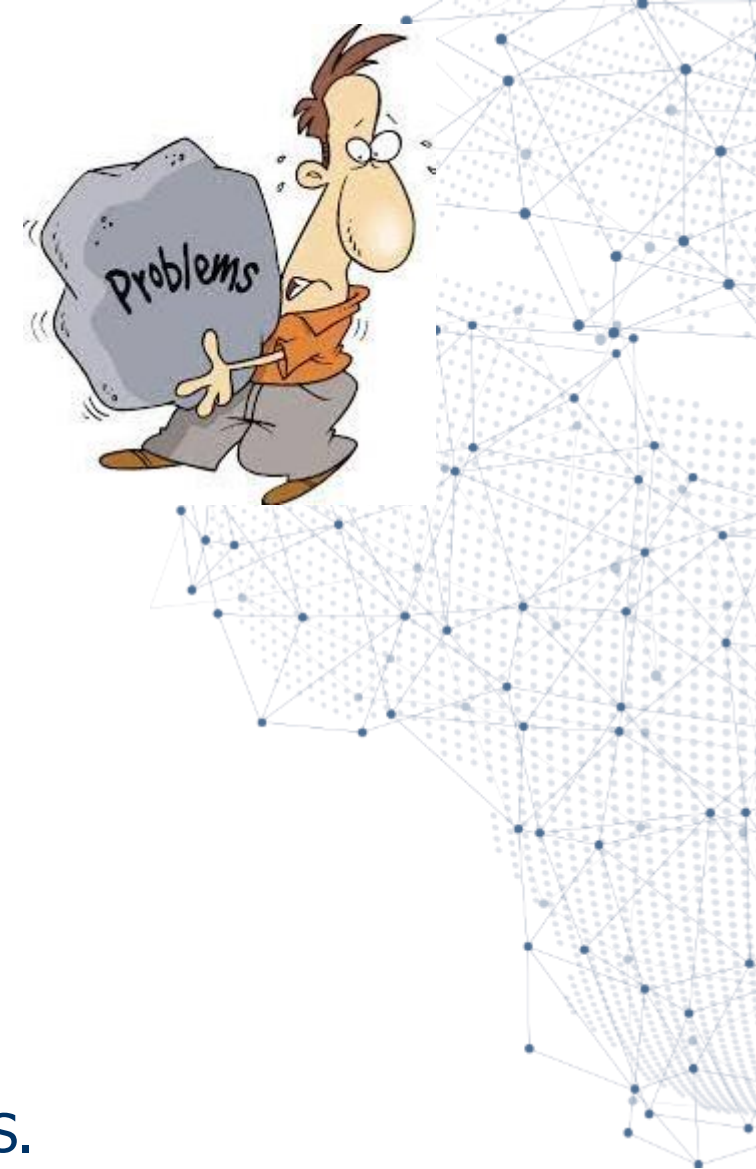
Mapping architecture



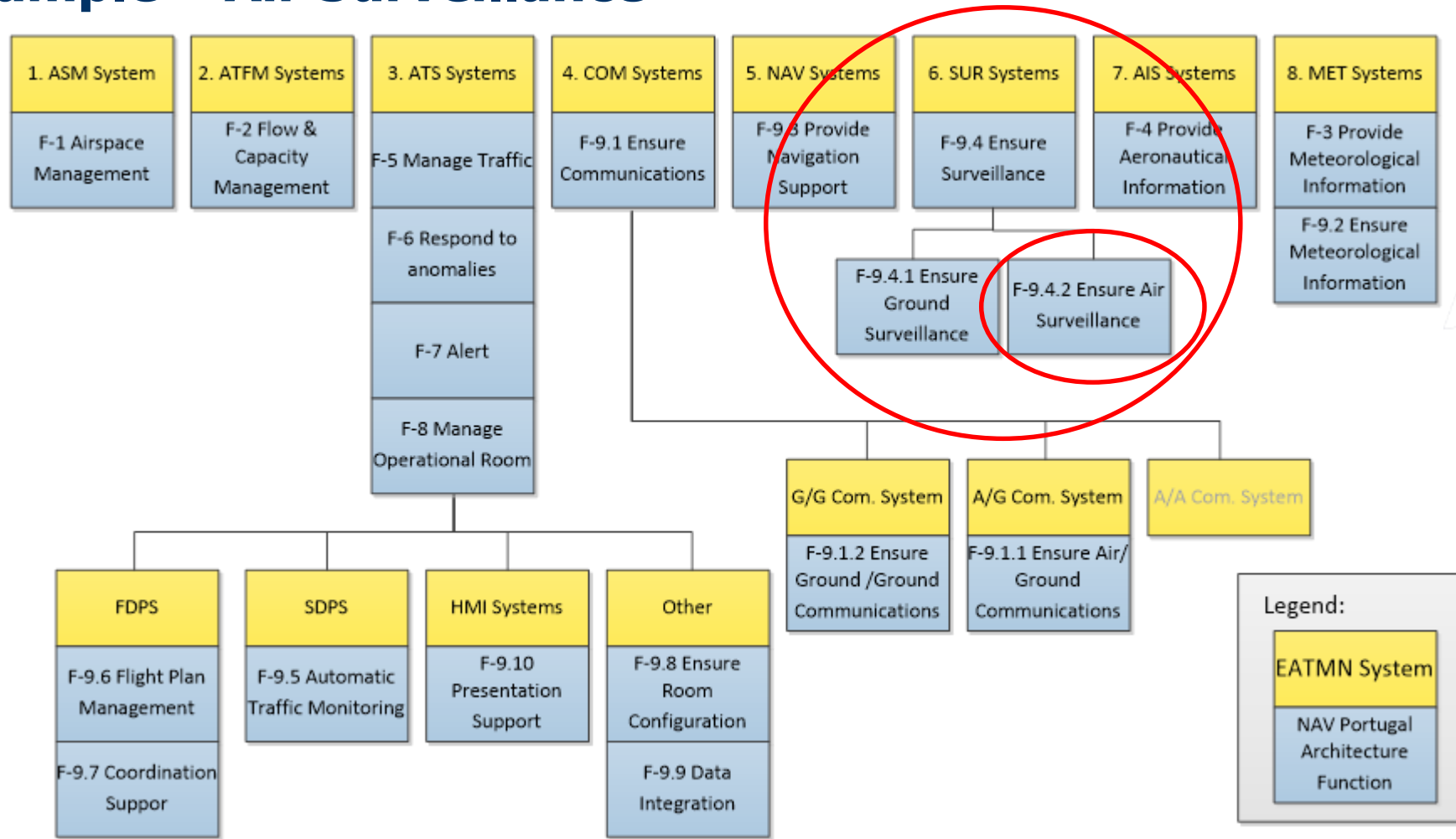
Issues

Problems found:

- Regulation addresses Systems and Constituents used for the provision of functions and services.
 - Verification (by service provider) -> at function or service level. Covers People, Procedures and Equipment in the service providers environment.
- What are the references industry should use for DoC or DSU?
 - Conformity -> with applicable regulation / standards?
 - Suitability for Use -> compliance with specified requirements?
- What is the scope of the SUR systems? Does it include the SDPS?
 - No, according to regulation 552/2004
 - Yes, according to regulation 1207/2011, yes – article 2 (1) c)
- Is the HMI part of the corresponding systems, or part of ATM?
What about MET systems?
- Some functional systems are spread over several systems, e.g. ATIS.



Example – Air Surveillance



Scope of Verification

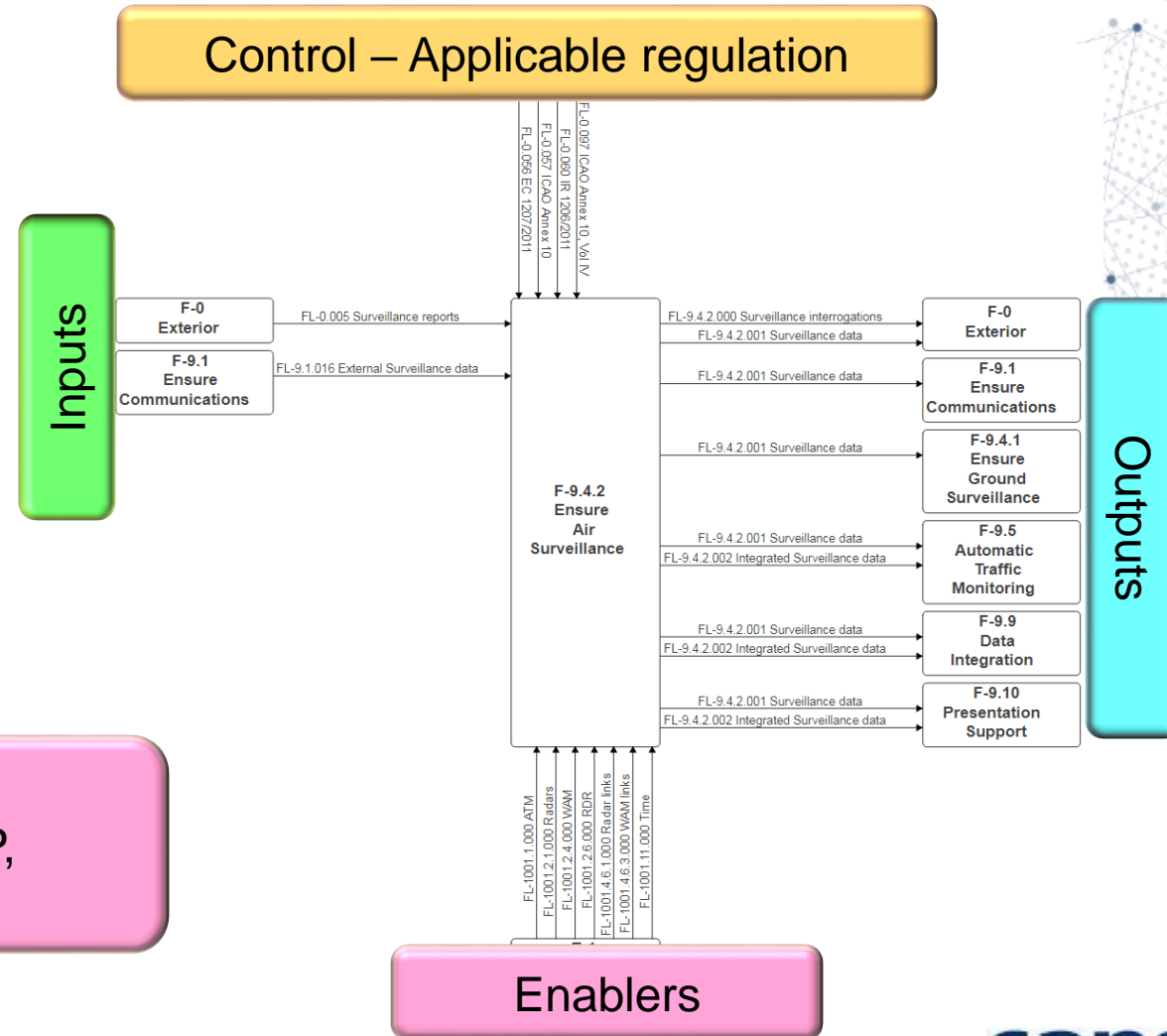
The model gives list of:

- Data flows
- Equipment
- Applicable regulation

Provides list of interfaces:

- Internal
- External (Interoperability).

Radar X, WAM Y, Tracker Z,
DME N, VOR O, ILS P, TX O, RX P,
VCS Q, Server A, FDPS B, ...



Experience

Verification of Systems done at function level since 2016.

Verification document lists:

- All existing systems and constituents (what is the difference?)
- All interfaces between this function and others, including the outside world

Verification document defines:

- How essential requirements for a function are ensured
- What minimum documentation should be included in the technical file
- Plan to replace older systems and constituents

Adding new equipment, replacing or upgrading existing systems should require very little or no change to existing procedures.

The verification document only requires a revision and adaptation of the systems and constituents lists.

Concerns

Since long ANSP have in place processes to ensure systems are fit for purpose. ICAO documentation and standards are used to define and develop systems. In 2004 regulation appeared requiring additional “paper work” to demonstrate “interoperability”, and systems continued to work together as before.

- Regulation 2017/373 and 1035/2011 require a safety argument before putting a change (systems) into operation.

Can it not cover verification of the system(s) correct implementation?

- Regulation 2018/1139, referring to 552/2004, requires declarations and technical files.
- In a call for tender supplier provides a compliance list. ANSP performs FAT and SAT anyway to verify compliance. Regulation requires additional paper work: DoC or DSU from suppliers.

What is the added value of DoC and DSU?

Discussion





Thank You!

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