Data exchange profiles: SNAM's point of view

Loris Conte

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snam.it

- **DE profiles**

- **Document based DE**

- **Integrated DE**

- **Interactive DE**

- **Conclusion**

Commission Regulation (EU) 2015/703 exchange profiles

Document based

- Data wrapped in a file and then exchanged

- Protocol: AS4

- Data format: EDIG@S-XML
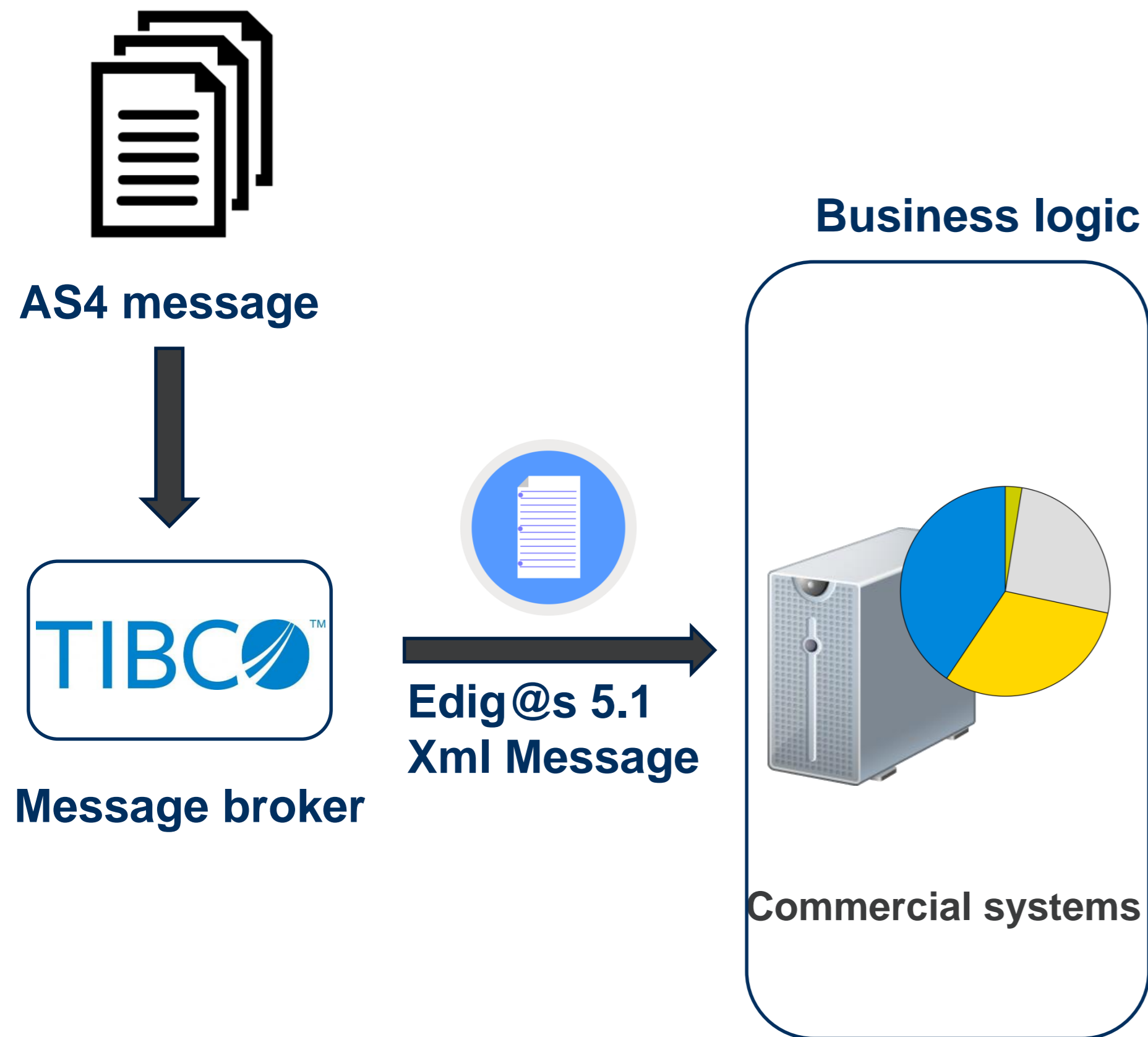

Integrated

- Data exchanged directly between applications

- Protocol: HTTP/S-SOAP

- Data format: EDIG@S-XML

Interactive

- Data exchanged through a web application via a browser
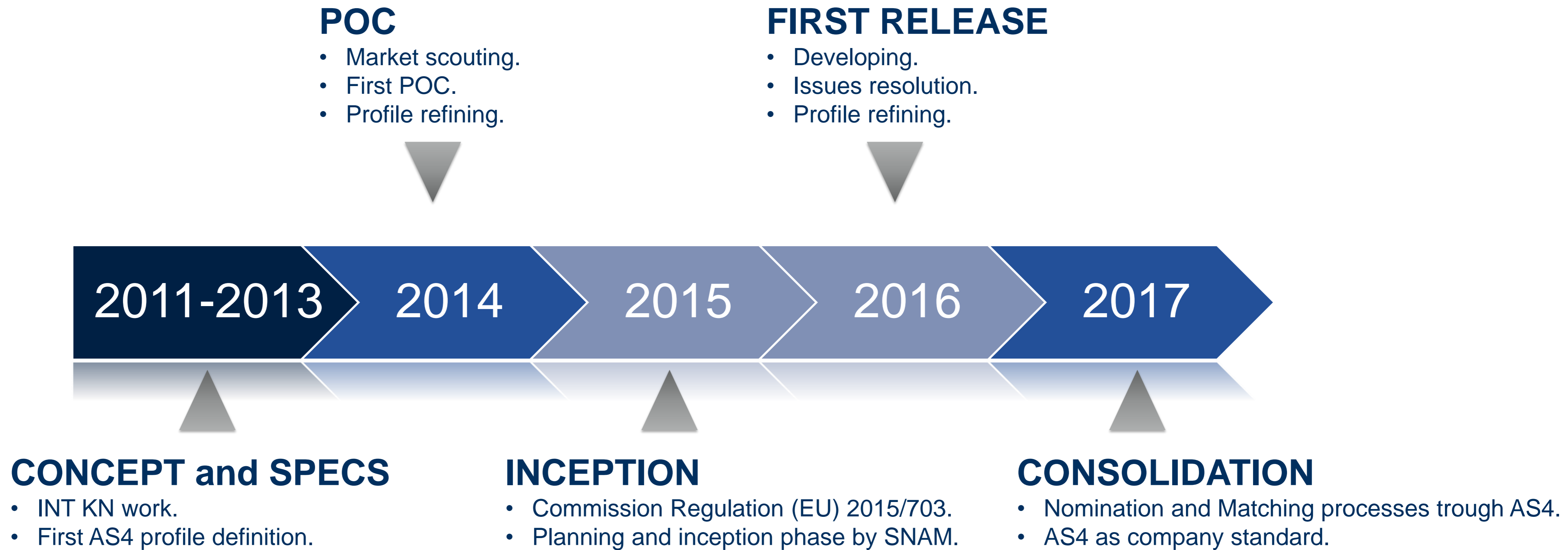
- Protocol: HTTP/S

Document based data exchange

AS4 message

Message broker

Edig@s 5.1 Xml Message

Business logic

Commercial systems

- Document based data exchange is a sound, reliable and secure protocol.

- The CNOT states that AS4 must be used for Nomination and Matching processes.

- Our ICT systems manage AS4 and edig@s:
  - NOMINT
  - NOMRES   **Nomination processes**
  - ACKNOW
  - ALOCAT
  - DELORD   **Settlement and matching processes**
  - DELRES

Document based: the story so far…

POC
- Market scouting.
- First POC.
- Profile refining.

FIRST RELEASE
- Developing.
- Issues resolution.
- Profile refining.

| 2011-2013 | 2014 | 2015 | 2016 | 2017 |

CONCEPT and SPECS
- INT KN work.
- First AS4 profile definition.

INCEPTION
- Commission Regulation (EU) 2015/703.
- Planning and inception phase by SNAM.

CONSOLIDATION
- Nomination and Matching processes trough AS4.
- AS4 as company standard.
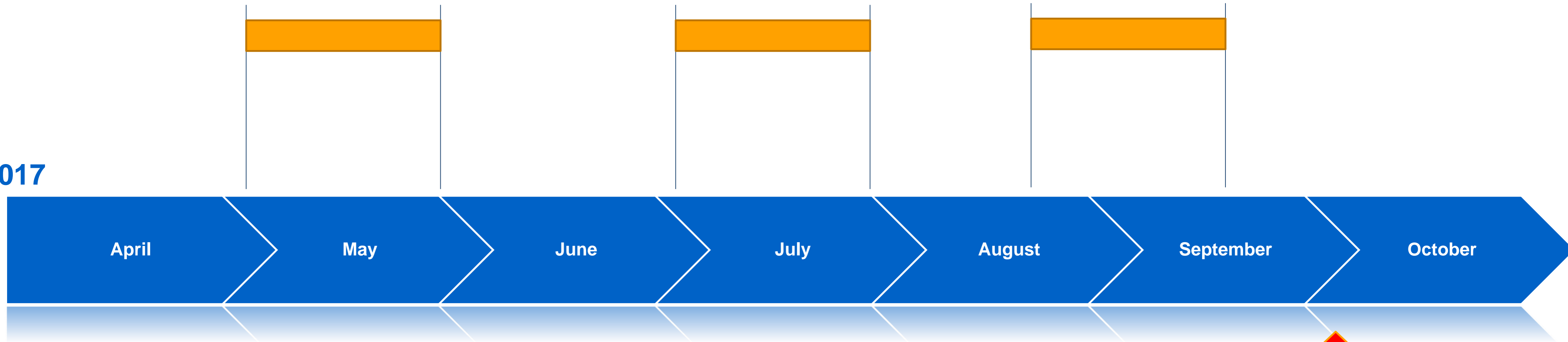
Document based as company standard

1° Accreditation window

2° Accreditation window

3° Accreditation window

2017

| April | May | June | July | August | September | October |

Switch to AS4 for shippers and TSOs for Nomination and Matching processes

Request

Response

SNAM servers
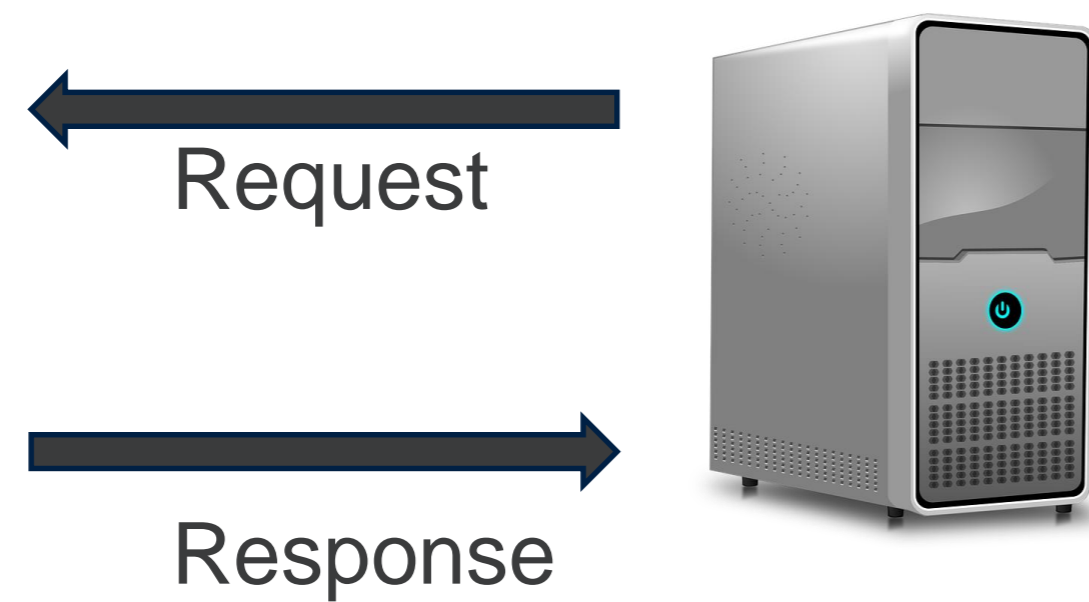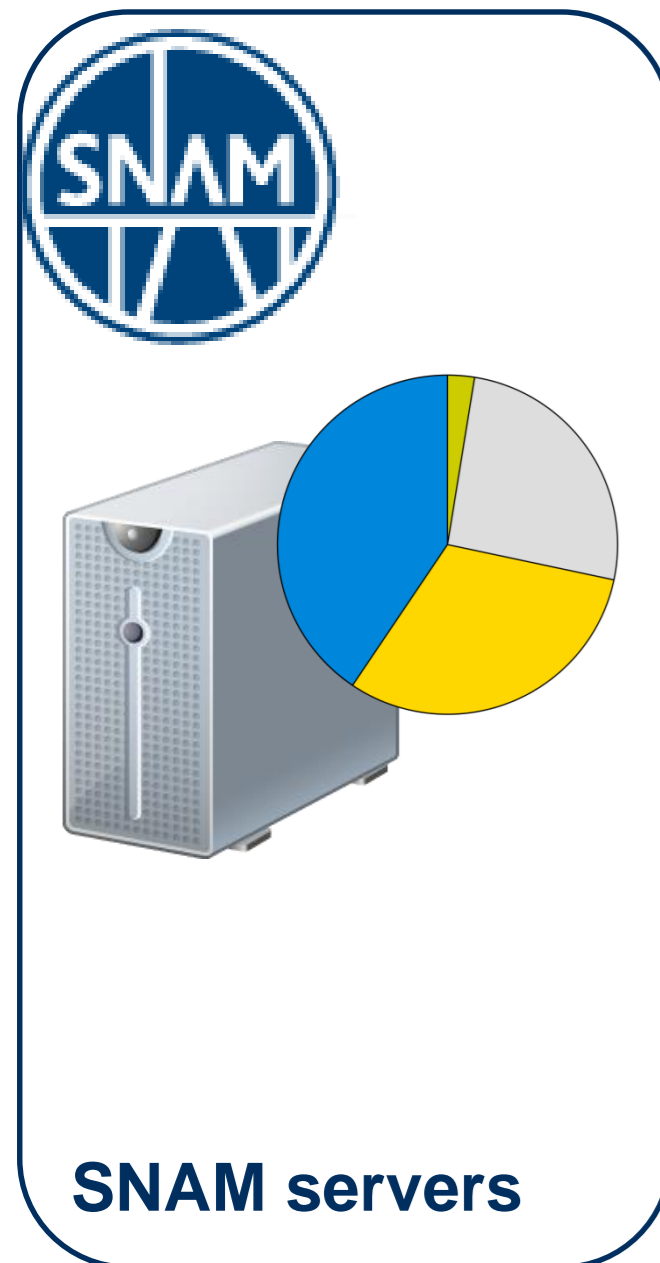
- Integrated data exchange is used for on-line transactions (M2M).

- Suitable for request-response integrations with modest security requirements, such as:

  - Transparency.

  - UMM (Urgent Market Messages).

  - ...

- Snam is already using some specifications (HTTPS, SOAP, WS-Security). The others will be used as technical specifications for new deployments.

Interactive data exchange

- Interactive is a specification for human2machine interaction.

- Suitable for web apps with different security levels, a good choice for a back-up solution (e.g. AS4 unavailable).

- The profile is usefull because it obliges the usage of certain technologies as:
  - HTTP/S.
  - HTML5.
  - 2 factors authentication.
- It will be used as SNAM technical specs.

SNAM Websites

Summary

Profile	Technology	Application field	Audience	Maturity
Document based	• HTTP/S • AS4 • Edig@s XML	• Capacity and Allocation • CNOT	• TSO • Shippers	High
Integrated	• HTTP/S • SOAP • REST • XML • JSON	• Transparency • Point-to-point communication • UMM	• TSO • Shippers • ACER/ENTSOG • Other stakeholders	Medium
Interactive	• HTTP/S • HTML5	• Public information • Back-up solutions	• TSO • Shippers • Public access	Medium

Conclusion

- The common solutions are a good foundation for data exchange standardization.

- AS4 is becoming the standard for secure and reliable communications in the gas industry.

- We need to define business case for interactive and integrated profiles, except for AS4 which is well defined.

Q&A