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Corporate Technology

Mobile Multi-Purpose RFID System

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Agenda

Application Scenarios

Technological Challenges

Problem Statement

Solution Approach

Outlook

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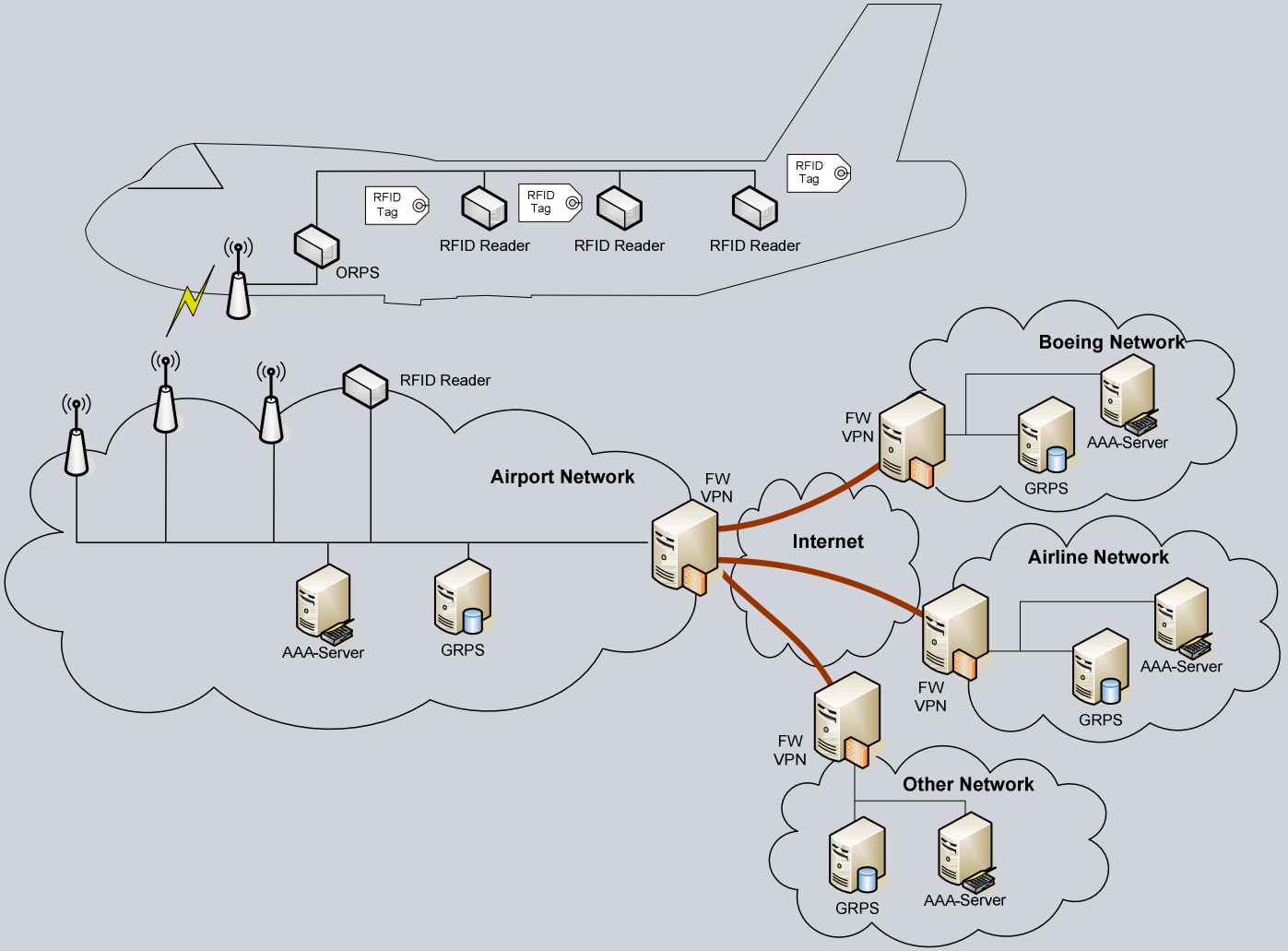
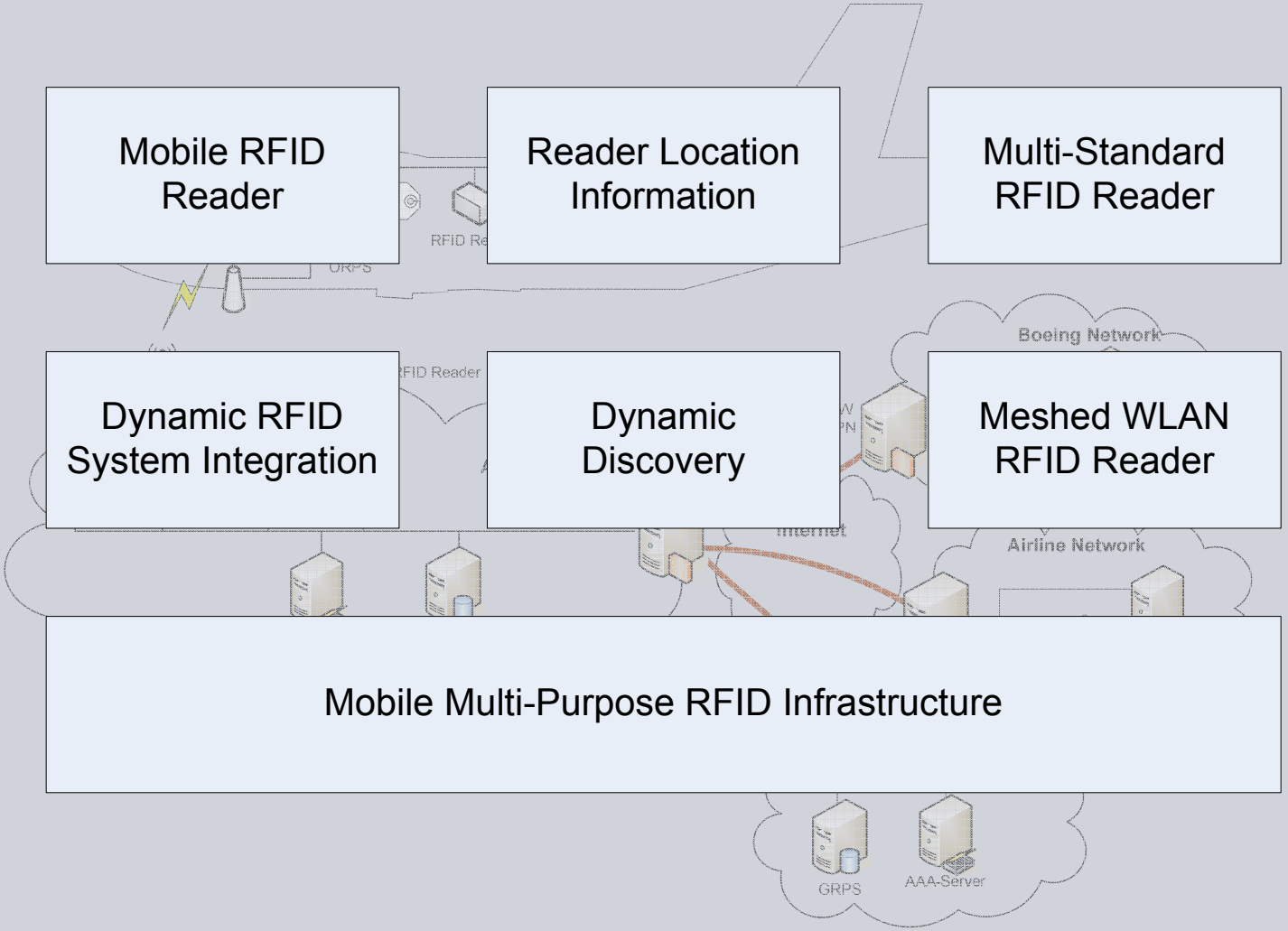
Application Scenarios

System Architecture



Technological Challenges



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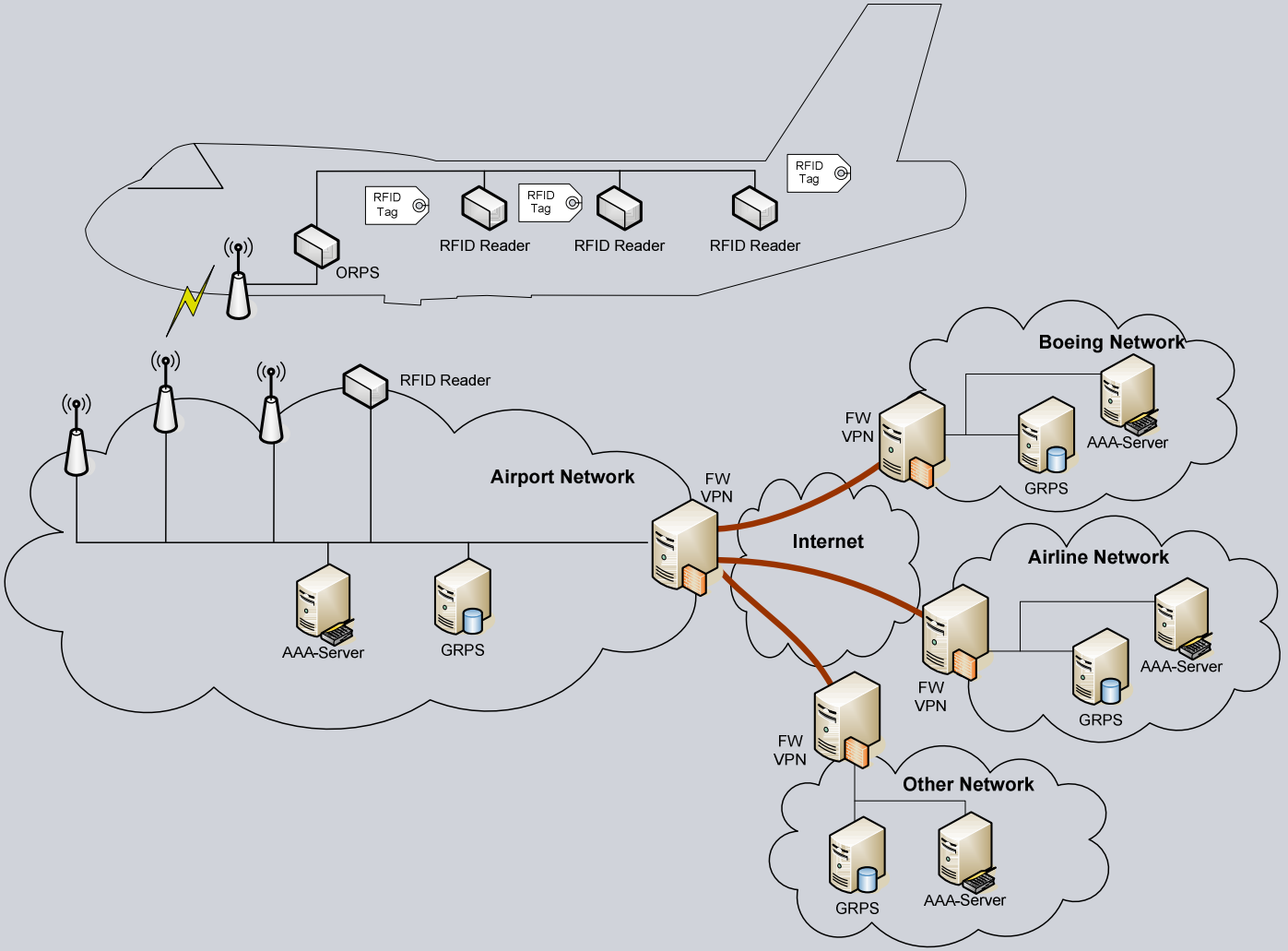
Problem Statement

- Dynamically changing relationships between the reader and processing systems
- RFID tag, the reader system and the processing system may belong each to a different stakeholder
- Different administrative domains
- Relationships change dynamically (landing, takeoff)

➔ Security architecture including all necessary stakeholders

Solution Approach



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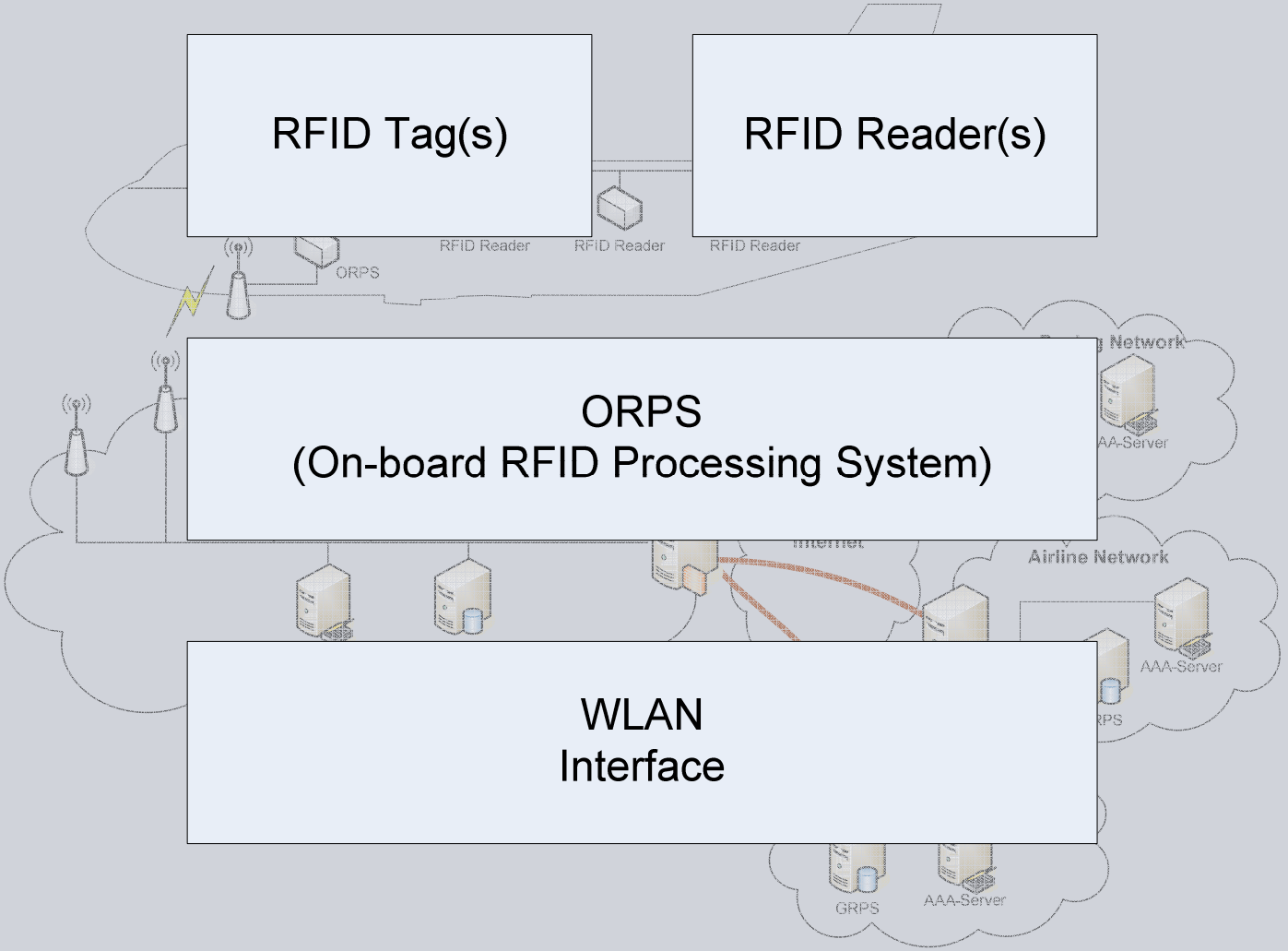
System Overview (1)



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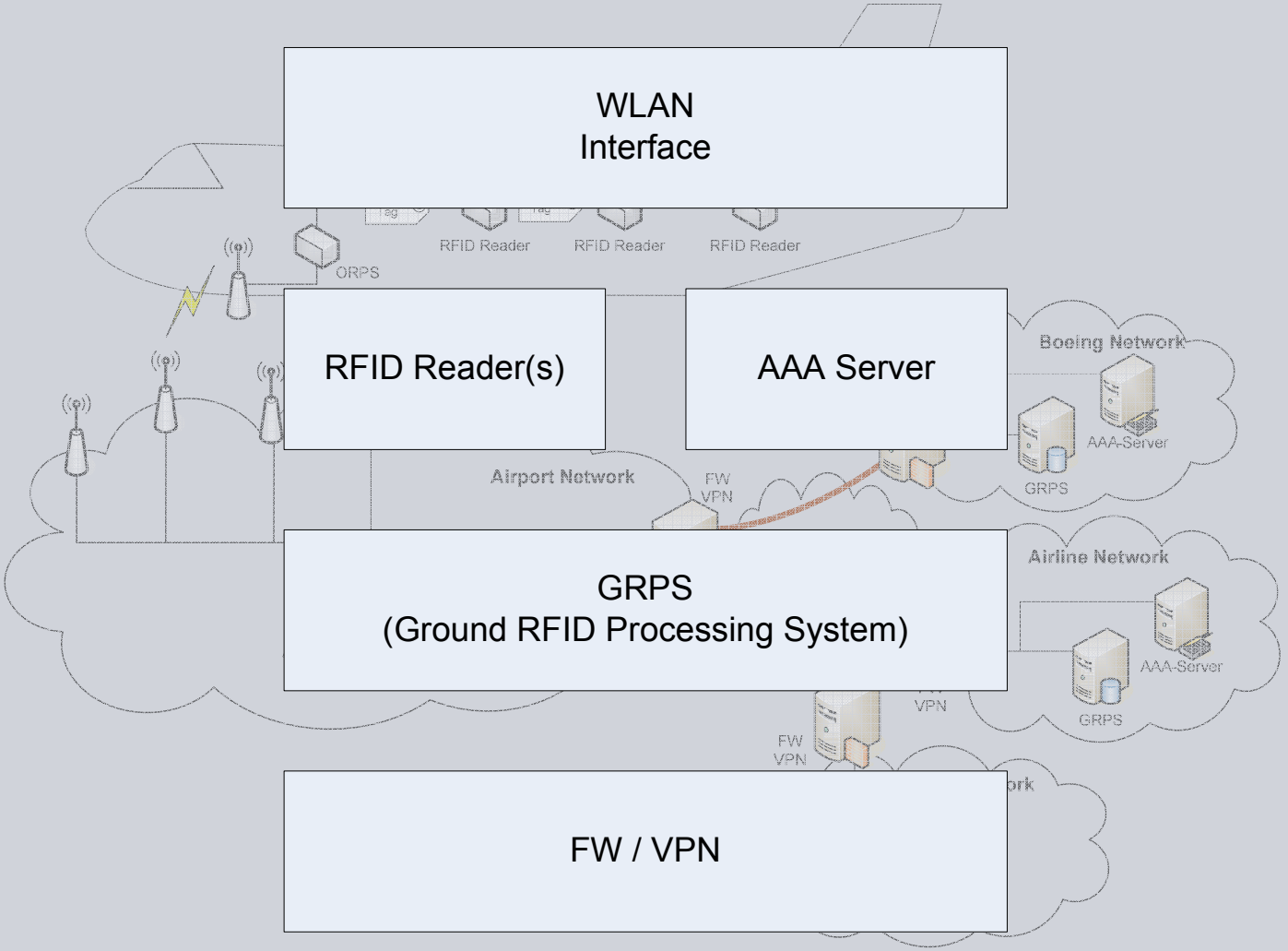
System Overview (2)



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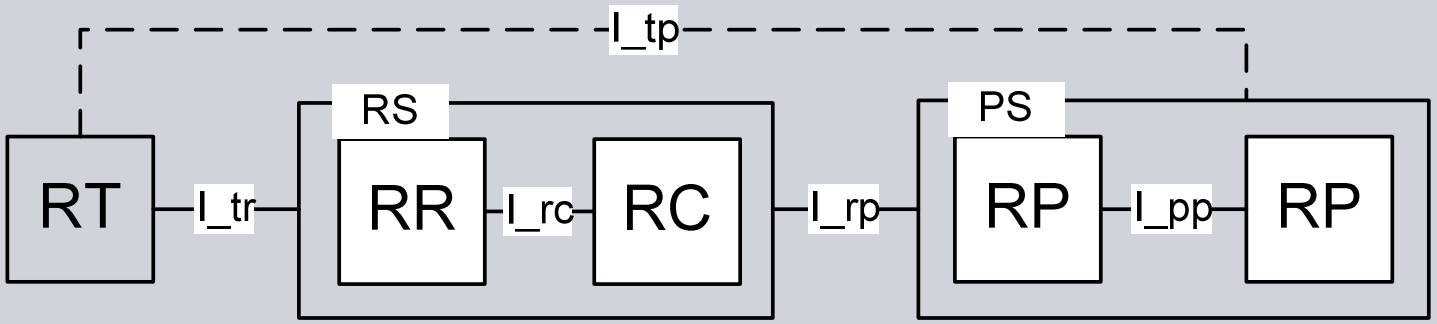
Reference Architecture



RT: RFID Tag
RS: RFID Reader System
RR: RFID Reader
RC: RFID Controller
PS: RFID Processing System
RP: RFID Processing Component

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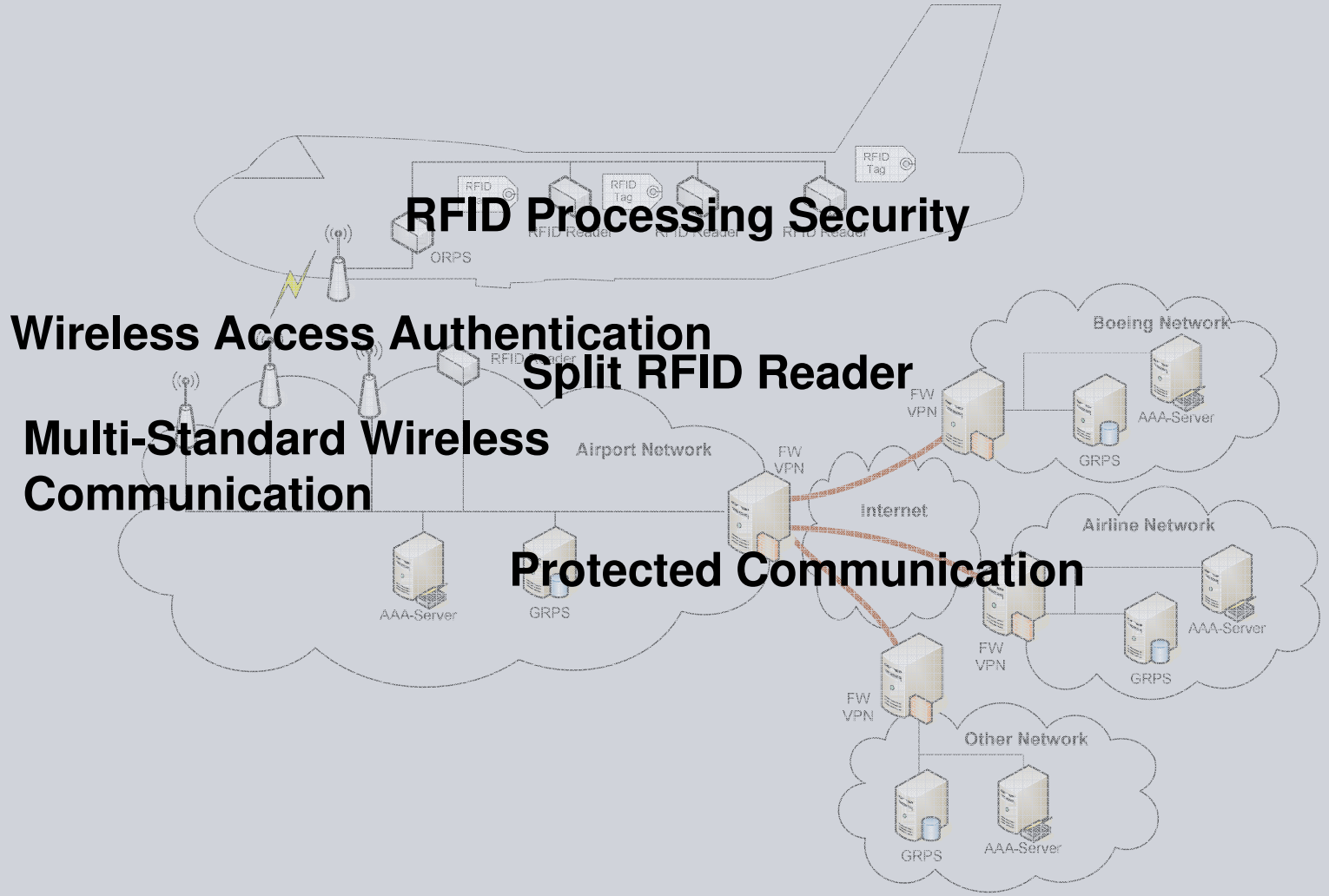
Security Solution Blocks



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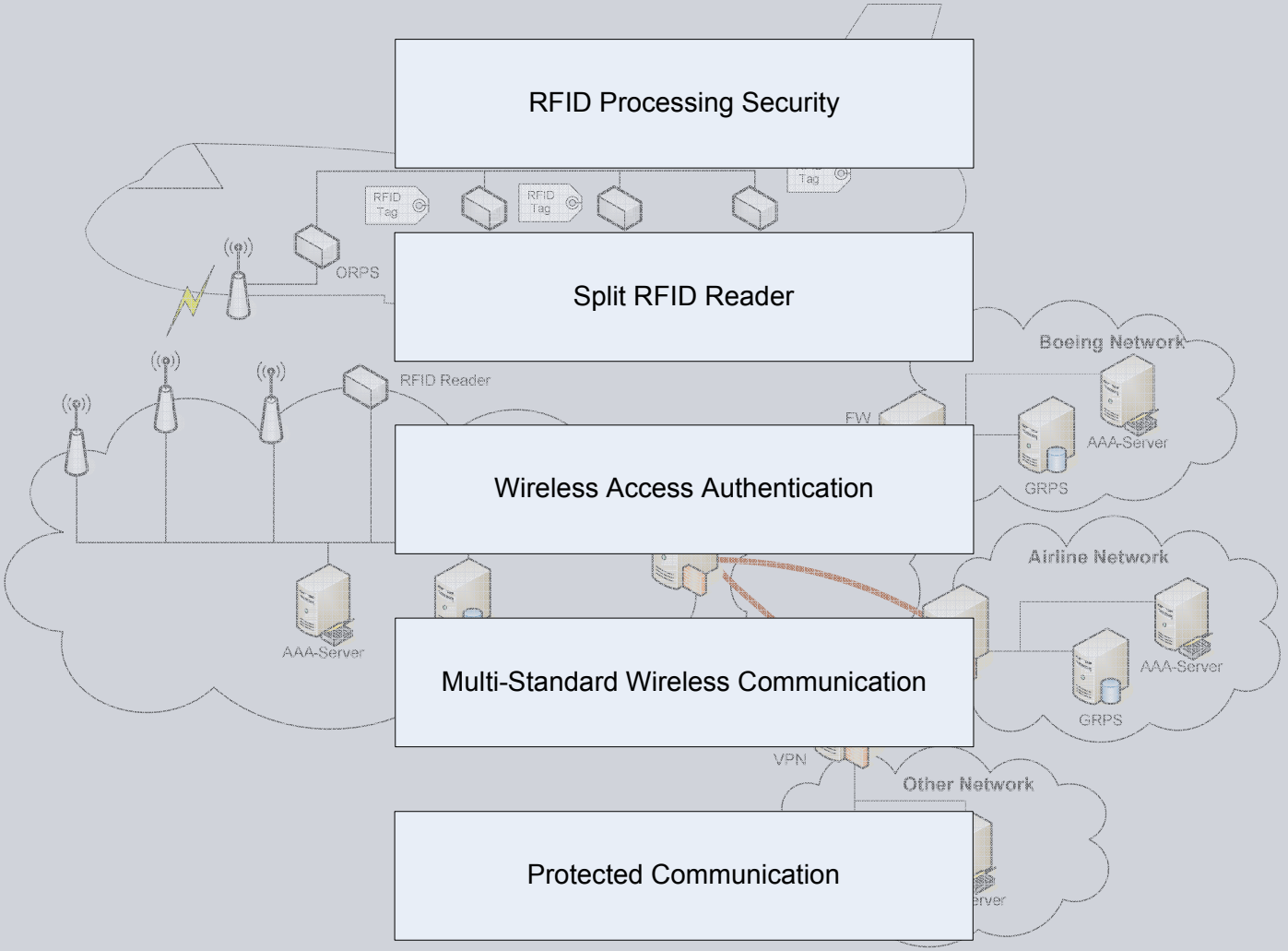
Security Solution Blocks



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Outlook

- Identify technological and regulatory challenges
- Security assessment and threat analysis of the proposed architecture
- Mitigation strategies for the identified problems
- Definition of a security policy
- Investigate if SDR (Software Defined Radio) is beneficial for the proposed architecture

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