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International Aviation Trust Framework

The enabler of the digital
transformation of the aviation
system

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Some events

2013 - virtual spying operation directly impacted 75 US airports

2013 – the passport control systems at the departure terminals in Istanbul Atatürk and Sabiha Gökçen airports were shut down

2014 - AAI enterprise resource planning system hacked – loss of personnel data

2015 - LOT Polish Airline – operations disrupted by attack to its flight planning systems

2016 - Vietnam Airlines and Hanoi and Ho Chi Min City airports – 400,000 passengers data vulnerable



Some events

2017 - LATAM Airlines – data encrypted by WannaCry and Ukraine's airport Boryspil lost access to its systems by NotPetya

2018 – Bristol Airport - malware



Cost of cyberattack




- Avg. cost > \$1M
- **53%** of attacks resulted in damages of **\$500,000** and more


Source CISCO, Radware





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MAERSK LINE

 **800 ships**

 **4m containers**

 **80,000 employees**

World's largest container shipping company



KEY FIGURES
The company was subjected to a major cyber attack on **June 27, 2017**



The attack was **collateral damage**

Estimated loss around **\$350 million**

IMPACT

 **699 sites impacted**

 **55,000 customers impacted**

 **7,000 infected servers**

 **Infection spread in 7 minutes**



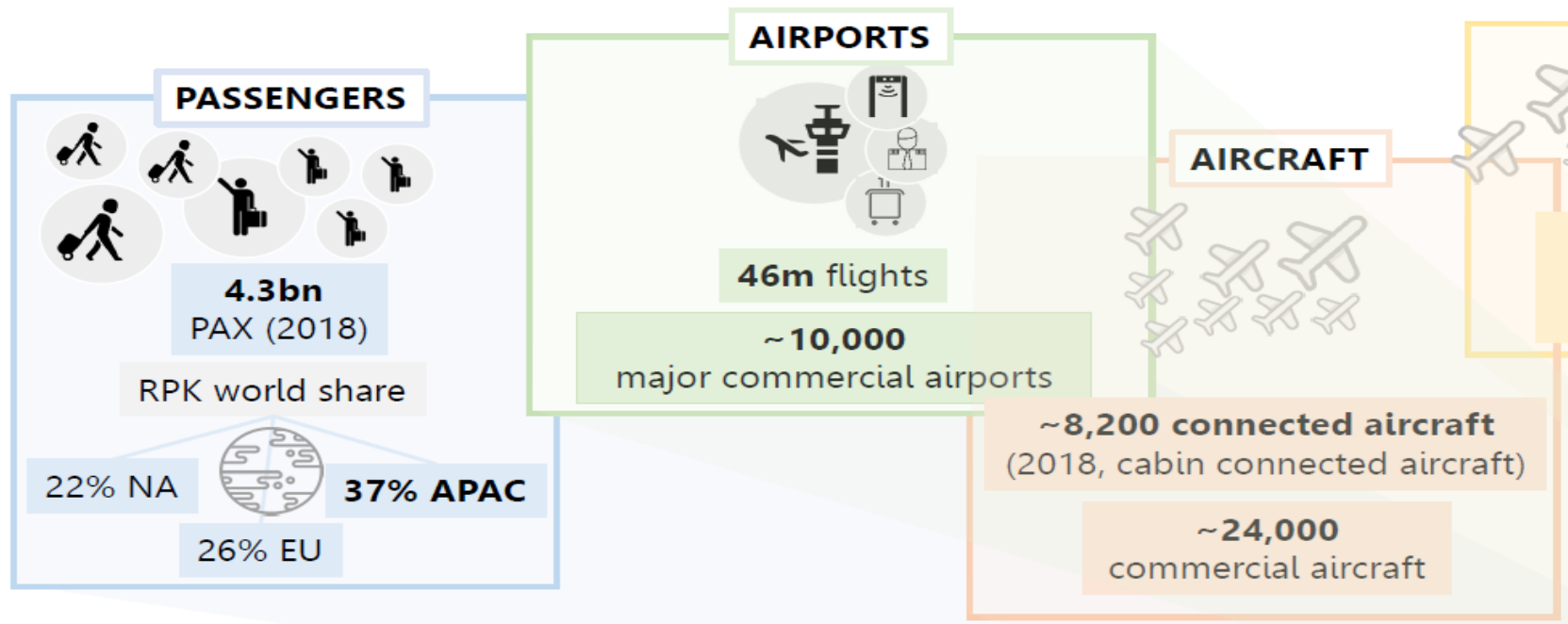
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The attack surface

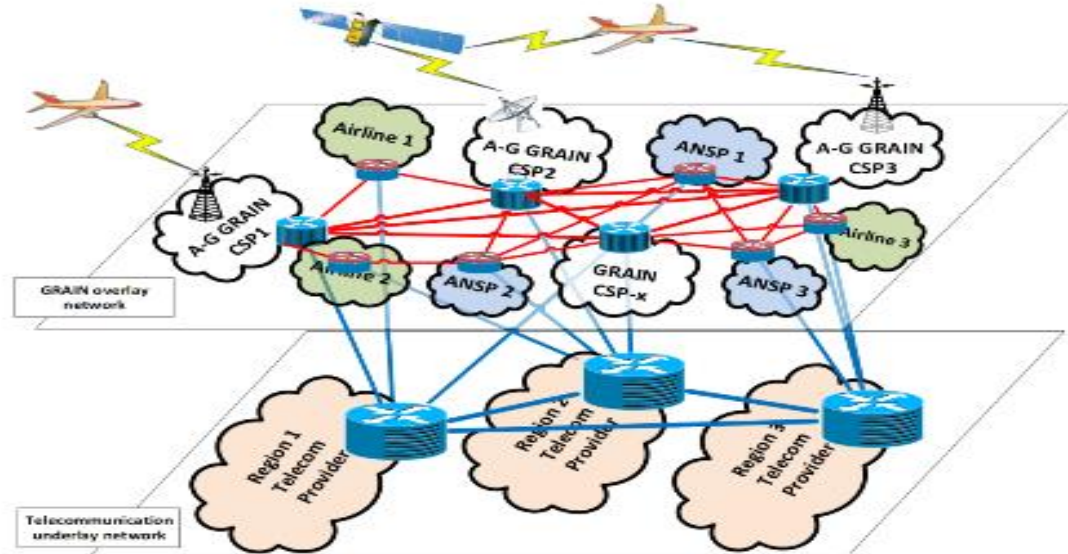


Source: Airbus, ACI, ATAG, EUROCONTROL, IATA, ICAO



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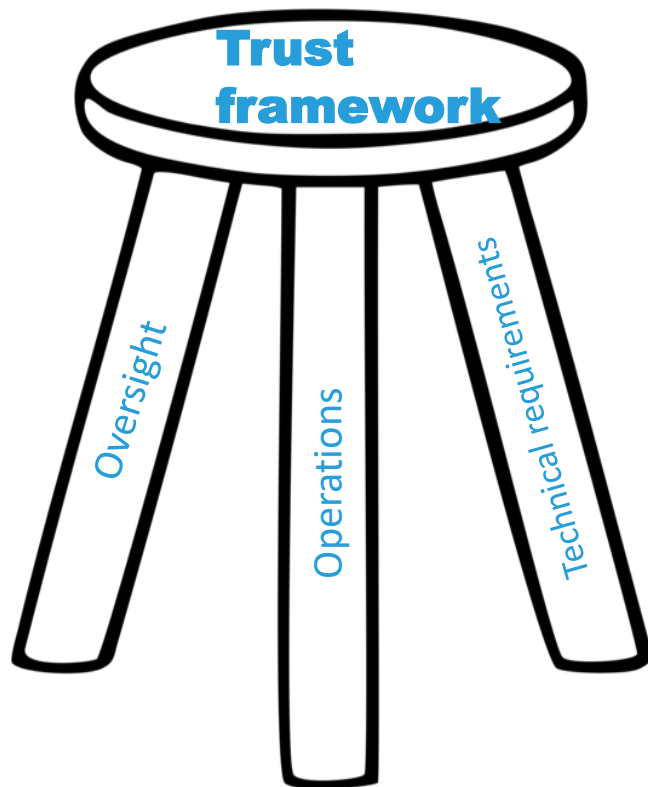


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Safety Risk Analysis (SRA) Risk Chart					
Minimum Capability Level	Novice/Intermediate	Yellow	Yellow	Red	Red
	Proficient	Green	Yellow	Red	Red
	Organized	Green	Yellow	Red	Red
	Integrated	Green	Green	Yellow	Yellow
	Institutionalized	Green	Green	Yellow	Yellow
Total Risks:		Minor	Major	Hazardous	Catastrophic
Safety Impact					
Safety Risk Level	Recommended action				
INTOLERABLE	Take immediate action to mitigate the risk. Perform risk mitigation to ensure that additional or enhanced preventative controls are in place to bring down the safety risk level				
TOLERABLE	Can be tolerated based on the security risk mitigation. It may require management decision to accept the risk				
ACCEPTABLE	Acceptable as is. No further risk mitigation required				

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- Facilitates trusted exchanges between aviation stakeholders through technical requirements, procedures for operations along with oversight for digital identity and connectivity.



Why?

- International aviation is a global industry that needs global solutions
 - Lack of global alignment results in divergence of policies and technology usage and will result in higher operational costs to all members of the aviation community with possibility to impact also the agreed levels of safety.



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THANK YOU!