

# 5G Strategies

# For Airports

Why private wireless networks matter to airports

ACI-NA BIT Committee Workshop

Tampa Convention Center

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Go Allwhere.



# Wireless Networks

## Why are we even discussing the topic?



### SOME REAL LIFE CHALLENGES / USE CASES FROM AIRPORTS:

- We want to become **more autonomous** from service providers for both wireless and wireline
- The digital airport requires a **RELIABLE** and **SECURE wireless service** for all of our stakeholders & things that is **able to scale** with my airport strategy

- The below wing process suffers from **patchy connectivity**. WiFi is **blocked by the wings** and passengers eat up the 4G bandwidth
- Mobile coverage at airfield is **not reliable or not even available**, this requires people continuously to go back to base for new instructions
- My fixed CCTV coverage limits my **situational awareness for the APOC**, I want to expand this in a flexible way
- I need **remote connectivity**, however, fiber costs are prohibitive
- My TETRA contract ends in 3 years, should I **re-invest in this silo?**
- The **Airport busses** lack proper connectivity, for operations and passenger WiFi

### EXAMPLES



#### HELSINKI – VANTAA

What: Full Airfield 4G private coverage  
Indoor 5G coverage

Users: Marshall: Follow me vehicles  
De-Icing operator  
First Responders (vehicles) & APOC  
Passenger help



#### VIENNA

What: Full Airfield 4G private coverage  
Dedicated ramp coverage

Users: Ground handlers  
Airport vehicles



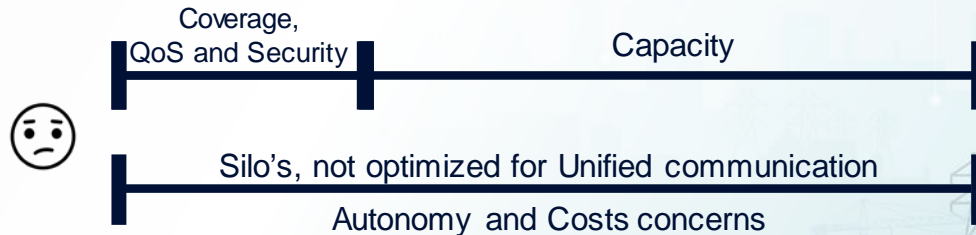
# Wireless services at airports

## Strategy Change: Technology & Business drivers

Go All/where.



Airside & Landside Operational **communication** and **continuity** not optimized



### KEY CONSIDERATIONS FOR A NEW STRATEGY



#### Digital Transformation

Enhanced decision making



#### Investment Protection

Platform with migration path



#### Situational awareness

Go beyond fixed CCTV coverage



#### Autonomy

Reduce 3<sup>rd</sup> party dependency



#### Operational Continuity

Purpose build, Secure, Prioritized services

\* LPWA: Low Power Wireless Access – e.g. LoRA, SiGfOx

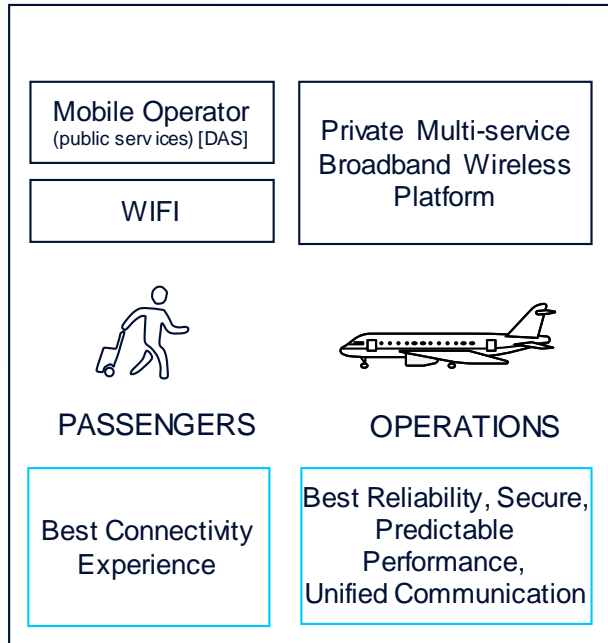
# Wireless Strategy Considerations

## Private services, Technology and Timeline

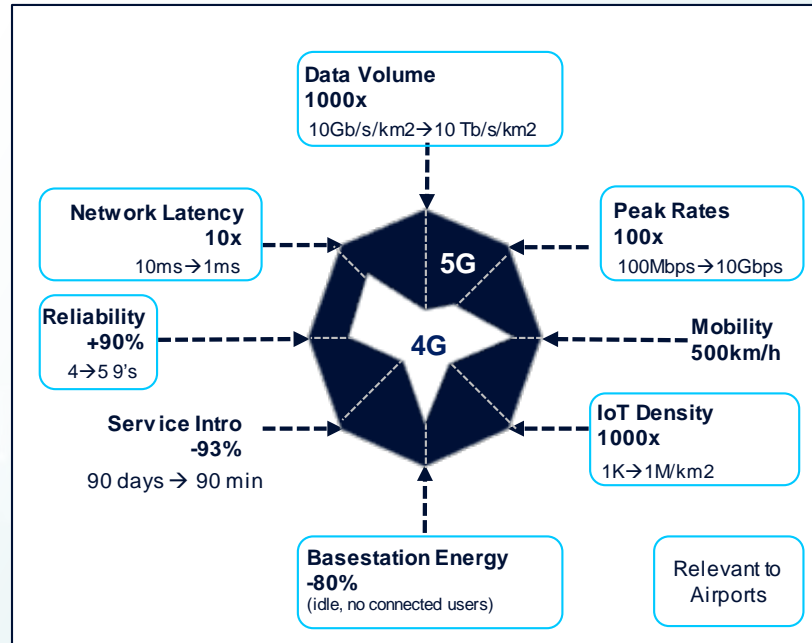


OPTIMIZED WIRELESS

AIRPORT COMMUNICATION



MULTISERVICE TECHNOLOGIES



TIMELINE



Go All/where.

## EXAMPLE USE CASES WITH 5G CHARACTERISTICS

Enhanced Broadband

- Aircraft Telemetry Offload

Ultra Low Latency

Enhanced Reliability

- Vehicle Collision Avoidance
- Automated remotely controlled Gatebridge

IOT Density

Enhanced Reliability

- Asset connectivity [IOT] for improved operational awareness / asset lifetime optimization

## WRAP UP

- Private 4G/5G is the wireless foundation of the digital airport
  - Reliability • Security • OPEX • Awareness • Unified Communication
- CBRS spectrum creates a unique opportunity for airports to build the wireless foundation of the digital airport
  - Both 4G and 5G are multiservice techno's
  - 4G is available today and covers many use cases including low-latency driven
  - 4G allows for an evolution path to 5G
  - 4G and 5G can co-exist
- Private 4G/5G wireless solutions are available to airports without the need to become a wireless expert

Meet us at **BOOTH 1814** for a **\*\*LIVE\*\* Demo!**

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