

5G at LAX

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#### 5G at LAX – Building for the Future

- LAX is building a wireless future
  - 4G LTE Multi-carrier DAS being deployed now
  - 5G trials being installed now
  - WiFi 6 installed in all new construction
  - WiFi 6 RFP going out in Q4 for remainder of airport
  - Considering CBRS technology trial

#### • Our Motivation

- The need to be faster in rolling out new services and offerings while reducing physical construction
- Deliver greater wireless capacity to improve overall guest experience
- More data, more places, to any device
- Treat wireless as a strategic, foundational asset like runways and terminals



## Landside Operations

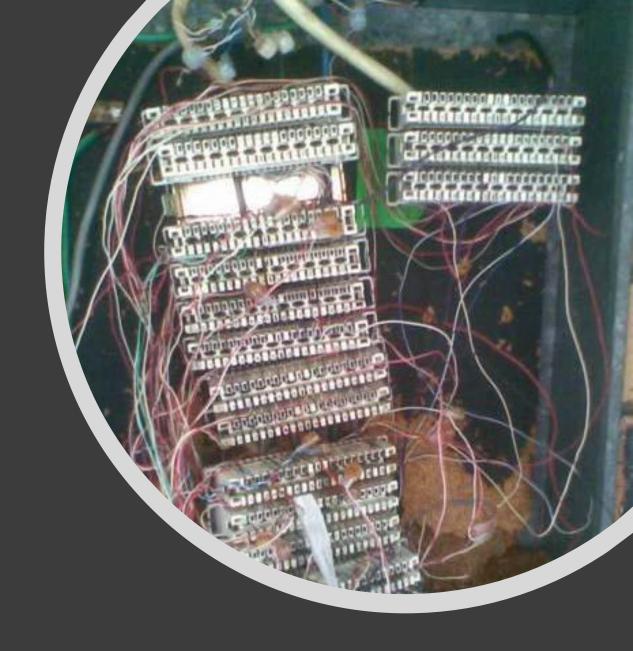
Problems: Old copper cable plant, insufficient WiFi , expense in adding new services

Short-term: High performance WiFi 6 everywhere and fiber to support 5G to enable automation and intelligence

• Ability for airline agents to access safety, security, regulatory, and operational information needed for verification to process pax

Long-term: Move everything to Private LTE network running on LAWA owned CBRS or narrow-band 5G IoT from the cellular carriers

- Dramatically increase number of things that are monitored, as well as new security functions, new cameras, etc.
- Enable further automation of check-in and boarding procedures with biometrics
- Provide opportunity for devices like kiosks, cameras, and displays to be connected wirelessly, reducing IT room space needs
- Creates a flexible communications network to roll-out new capabilities faster and at less cost



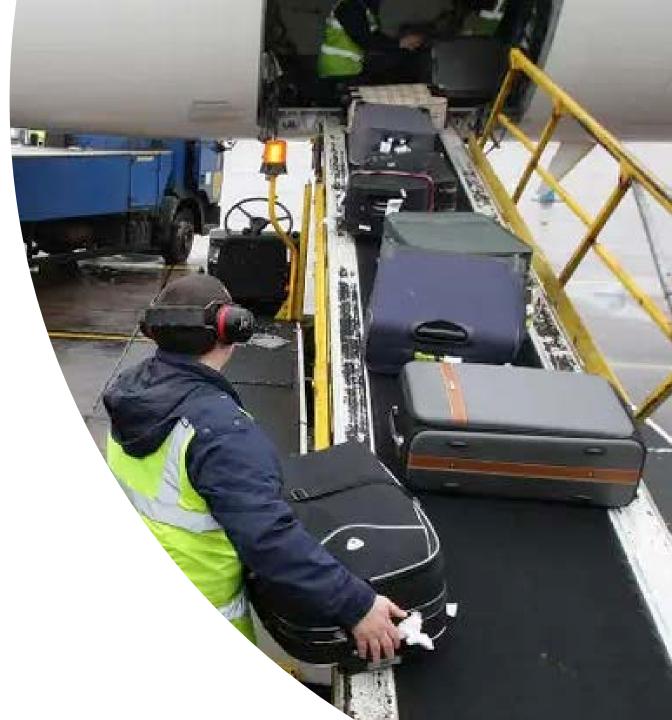
## **Ramp Operations**

Problem: Need for reliable, ubiquitous coverage of aprons to support baggage scanning, mechanics, weight and balance, air crew and LAWA operations

Short-term: All gates will have a cellular DAS remote and all operations areas will either have airline deployed WiFi or LAWA deployed WiFi 6

Long-term: High capacity, low latency 5G cellular and Private LTE on CBRS

- Flight crew can download big flight information and weather data files quickly
- Mechanics can use A/R to "see" problems and effect a repair quickly
- Self driving tugs deliver bags on time, allowing human crew to load





### **Guest Experience**

Problem: Serving more PAX through the same terminals and gates

Short-term: More wireless capacity from Cellular DAS and WiFi 6

- New Customer Loyalty platform will provide real-time information to the traveling public
- Curbside to Airside WiFi and cellular will speed passenger movement and baggage handling

Long-term: Location based services, push data and massive capacity

- Airlines will be able to identify and interact with laggard passengers
- Arriving, unfamiliar passengers, will be given turn by turn instructions through services, baggage claim and routing to rental cars, hotels or shuttles
- Push video information to digital signage instantly
- 5G hotspots and Millimeter Wave devices to support future, high bandwidth applications

# Security

Problem: The need for faster, more integrated response to any airport incident

Short-term: More reliable wireless comms for police, CPB and TSA delivered by WiFi 6 project and DAS build. Improved performance for Mobile Passport at FIS.

#### Long-term: Private LTE on CBRS

- Integration of Private LTE and Police 2-way radios
- Push-to-talk functionality for LAWA staff on their smartphones
- More visual and acoustic sensors
- High resolution video, accessed by smartphones and tablets
- Police dispatched drones to provide "eye in the sky" for any incident

