COLLABORATION

Benoit Verbaere, SITA
THE CHALLENGES

• How many organizations are needed for each passenger to travel?
• How many destinations can be covered by one airline?
• How many airlines can one airport serve?
Our industry is built on collaboration.
Collaboration for enterprises... and teams

- Cockpit crew
- Cabin crew
- Ramp & Ground crew
- Team at gate
- Baggage handlers
- Cargo handling
- Airline operations
- ATC at Airport
- Airport operations
- Cleaning
- Catering
- Fuelling
- Engineering
- De-icing
Our industry is vast, growing … and evolving

- **4 Billion** Passengers
- **1,400** Airlines
- **26,000** Aircraft
- **3,900** Airports

Passenger and freight volumes expected to double by 2034

- Globalisation, new business models
- Higher passenger expectations
- Technology driven change
NETWORKS & INFRASTRUCTURE
THE CASE FOR A COMMUNITY APPROACH

Each ATI member can deploy their own ICT infrastructure separately

- Duplicate and heterogeneous SDN SDWAN & Connectivity at Airports
- Increased cost and complexity of deployment & operations
- Lack of de-facto orchestration & automation standards inhibiting industry collaboration

OR

Leverage the airport as concentration of ATI operations

- A natural peering and aggregation point
- Shared infrastructure components and services, to facilitate global roll-out of IoT and Cloud applications
- Cost-efficiency and economies of scale to the ATI community
NETWORKS & INFRASTRUCTURE
develop tomorrow’s aviation communication solution through SDN (Software Defined Networking)

- Deploy **shared SDN infrastructure at Airports** and in the Clouds
- **Optimize bandwidth cost and performance** on the network
- **Offer shared “edge” services** to manage applications performance, Security, Wireless / IOT access, local edge processing, service levels,…
- **Transition to new service model**
  - Features **orderable as subscriptions** on a per site / per flight / per seat basis
  - End-to-end **Operations oriented Service Levels**
- **Create a platform to support innovation and ATI Collaboration**
  - **Ease of introduction of new technology** and applications through a standard service framework and blueprints
  - **Enable cross-boundary data integration** and process automation locally and globally
DIGITALLY ENHANCED COLLABORATION AT AIRPORTS
Shared awareness - coordinated action

Industry and real-time sensor data

Holistic digital airport model & AI

Digital interaction technology

Tailored workforce hardware & apps

SITA, Flight AA123 is predicting 30 minutes late on stand, do I have a problem?

Yes, the next aircraft due on stand 10 is BA456 at 14:00 and AA123 will not turn around in time.
MULTI-ENTERPRISE TRUSTED INDUSTRY DATA SHARING

- Flight data
- Aircraft data
- Passenger data
- Baggage data
- Cargo data
- ATCs
- ATI Reference data
- Airport Operational data
- Border agencies
- GDSs
- Freight forwarders
- Agents

- Duplication of data & effort
- Inconsistency & inaccuracy
- No ‘verified master source’
- Lack of trust little/no sharing
Verified data from approved sources

Automatic update and distribution

Permission to access via smart contract

Data sharable for new uses

multi-enterprise trusted INDUSTRY data sharing

Local nodes

Airlines

Airport operators

Airport Operational data

Flight data

Aircraft data

ATI Reference data

ATCs

Cargo data

Freight forwarders

Agents

GDSs

Border agencies

Passenger data

Baggage data

Industry blockchains

INDUSTRY data sharing
New Technologies can enhance collaboration

- **Internet of Things**
- **Artificial intelligence**
  - Computer Vision & Sensing
  - Speech Recognition & NLP
  - Robotics
  - Machine Learning, Decision making
- **Digital realities & virtual interaction**
- **Blockchain & smart contracts**

But where and how should we apply them?