IP in Aviation

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“----- the fastest regional traffic growth in the world is expected to be in the Middle East, where by 2030 the region’s airlines will represent 11% of world traffic, up from 7% in 2010”
Cisco’s approach is to address these 4 key aviation entities. We believe that IP offers the best communications technology for each of these players.

- A complex interrelated eco-system (With many other players!)
- One that is all too often siloed and in many cases adversarial
- In many instances, built on legacy communications systems and technologies
What is the role of IP in Aviation?

To deliver the services and information that are required to allow the stakeholder to effectively operate their business, securely and profitably

- The Business is typically a complex siloed entity
- A common IP infrastructure offer the opportunity to bring these silos together
The Aviation industry is Fragmented!

In most cases the domains shown have evolved in isolation

In many cases legacy communications technologies provide communications connectivity between the domains (SDH, Copper)

Cisco has been asked to replace these legacy links

What does this mean in the real world?
And where has Cisco contributed?

Working with a Partner eco-system, Cisco has delivered many replacement communications networks

SITA
OBS
Thales
Frequentis
TOPEX
BT
Inmarsat
EADS
The Aviation industry remains Fragmented!

The replacement of the communications links is still largely done in isolation, i.e. 1 for 1 change out.

Few instances of using the IP infrastructure to pull the silos together. But they are emerging!

PENS is one example
Making it happen!
Addressing Business Needs?

Understanding the Business and Partnering with the stakeholder

- CXO and the Board - Vision
- Management - Problems and strategies
- CIO - Communications infrastructure

These are not 1 or the other! They are three parallel simultaneous activities.
Understanding the Business needs

For Cisco this means working with the Customer
- A true Trusted Partner model
- Working across the organisation
- A true open book approach
Understanding the Airport vision and the impediments to achieving them

- Established at Board level
- Drives the evolution of Business solutions
Identifying specific Business Issues and technologies that solve problems

- Detailed Management Level interviews and discussions
- Addressing both problems and assets
IT Master Plan – The roadmap to ensure the evolution of the IP infrastructure

Introducing Cisco knowledge and services that will help the Customer’s IT Network to continue to meet their Business needs

• Working with the CIO and the IT team
• Joint develop the IT master plan
A few example where we have made it happen!
Solving Business Issues – Where are our Passengers?

Dwell Time Analysis (Passenger Services) & Augmented Reality (Retail) – Copenhagen Airport
Airport Service Quality (ASQ) is a comprehensive ACI initiative to help airports in their continuing efforts to improve the quality of service experienced by passengers. Measured KPI's include:

- **Overall Satisfaction**
- Waiting time at security inspection
- Feeling of being safe
- Cleanliness of Terminal
- Ambience

- **Ease of finding your way**
- Value for money of restaurant
- Value for money of shopping
- Value for money of parking
- Speed of baggage delivery

- **Ground transportation**
- Customs Inspection
- Arrival Passport & Visa Inspection

- **Parking**
- Waiting time in check in queue

- **Flight Information screens**
- Efficiency of check-in staff
- Courtesy of check-in staff

- **Walking distances**
- Business / Executive lounges

- **Ease of making connections**

- **Baggage carts**

- **Helpfulness of Airport staff**

- **Restaurant**

- **Shopping facilities**

- **IT / Telco**

- **Availability of washrooms**

- **Cleanliness of washrooms**

- **Thoroughness of security**

How can IP Telephone technologies help an airport improve their ASQ rating?
Delivering on the “vision”

Passenger Communications
- Interactive Kiosks
- Digital Media
- Virtual Concierge
- Internet (Social Media and web)
IoT in Aviation

Chris Dedicote CISCO March 2013-

“----- the Internet of Everything is about adding value through the application of intelligence to data. ”
“IoT is a vision where all manufactured things are connected to each other via wireless or wired communication networks. The movement of travellers, airport staff, and luggage creates an increasing, continuous interaction between smart devices. It also implies sharing of significant amounts of sensitive information.”
IoT for the aircraft will depend on the network

- Ubiquitous wireless
- Security
- Cross domain
- Enabling new business models
Vision – New Business Models – Next Generation IFE&CC

A new approach
- IFE &CC
- Medical services
- Cockpit services
- Crew services
- Maintenance services

IFE Service Provider Model
Cisco Aviation Community

Call to Action
Thank you.