



Dubai, UAE  
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# IP in Aviation

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EBG Aviation

12 March 2013





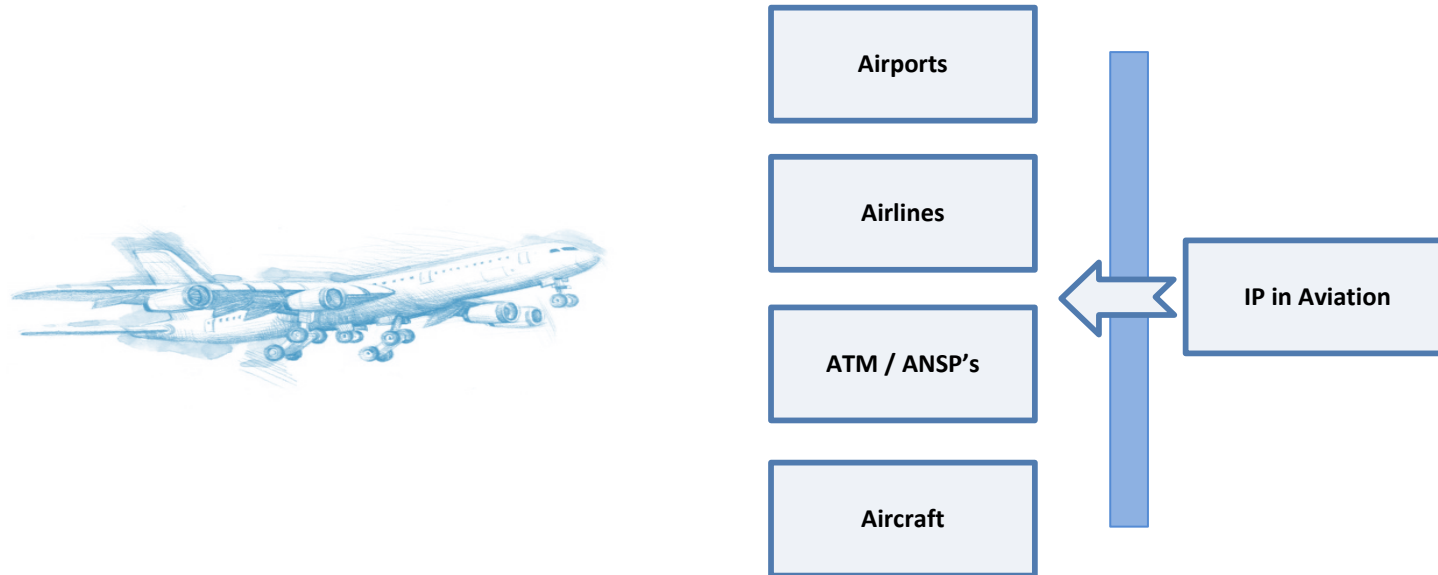
# IP in Aviation

EU Sep 2012-

“ ----- 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”



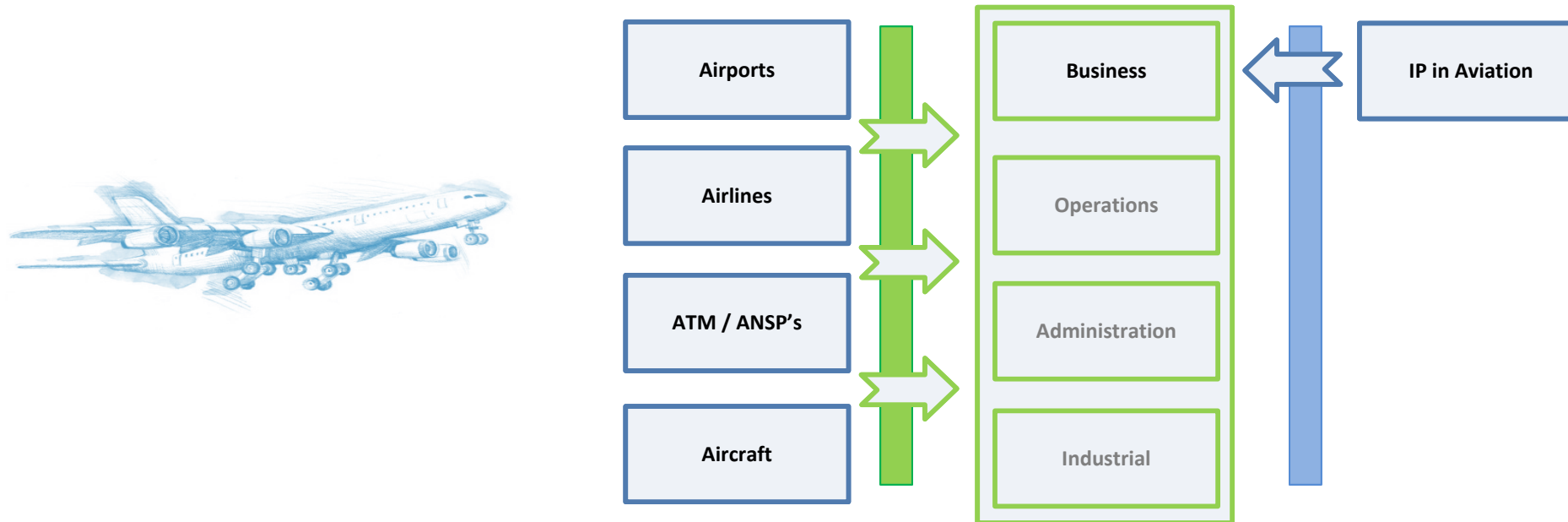
# Where does IP fit into Aviation?



**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

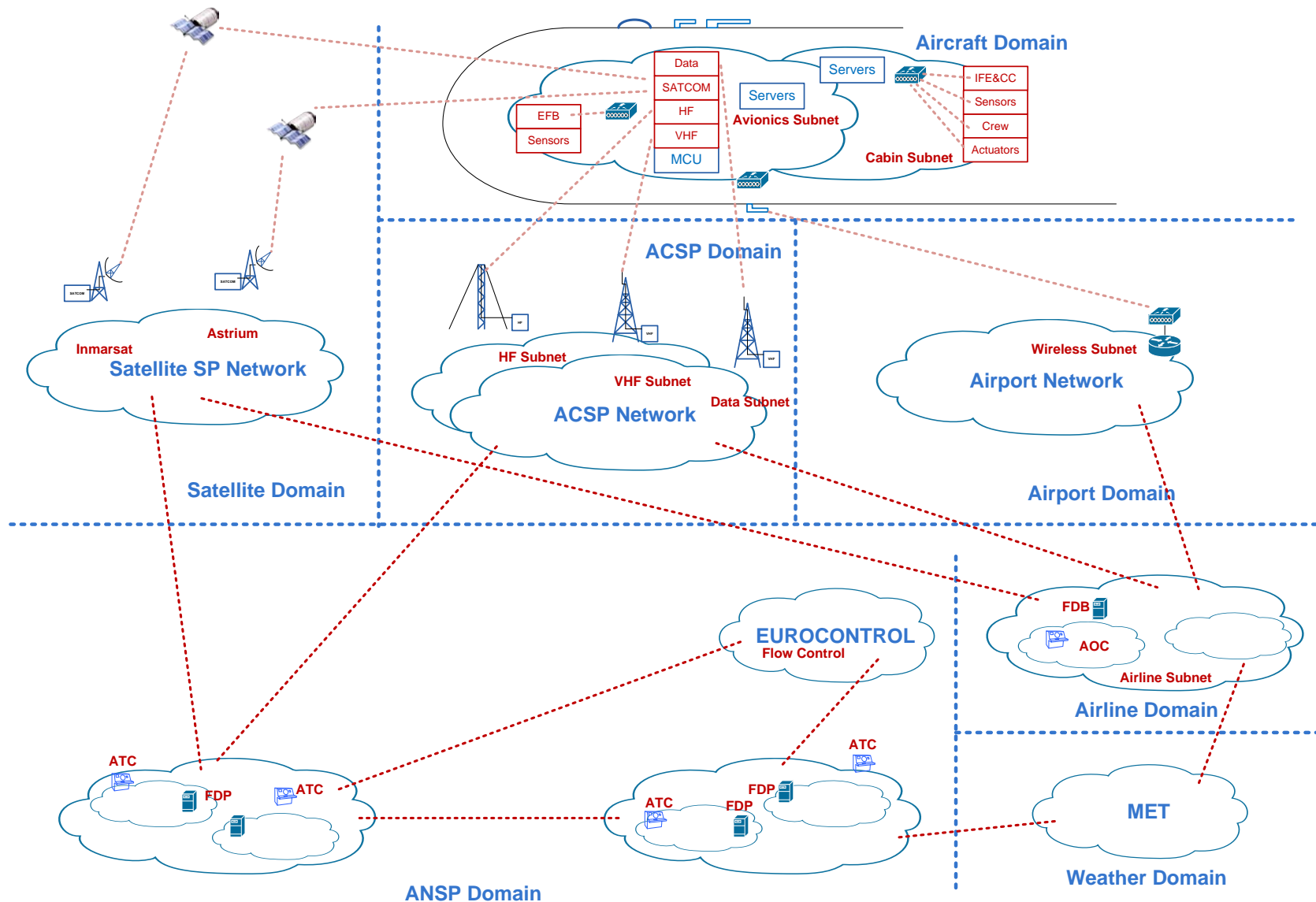
# What does this mean in the real world?

## The Aviation industry is Fragmented!

In most cases the domains shown have evolved in isolation

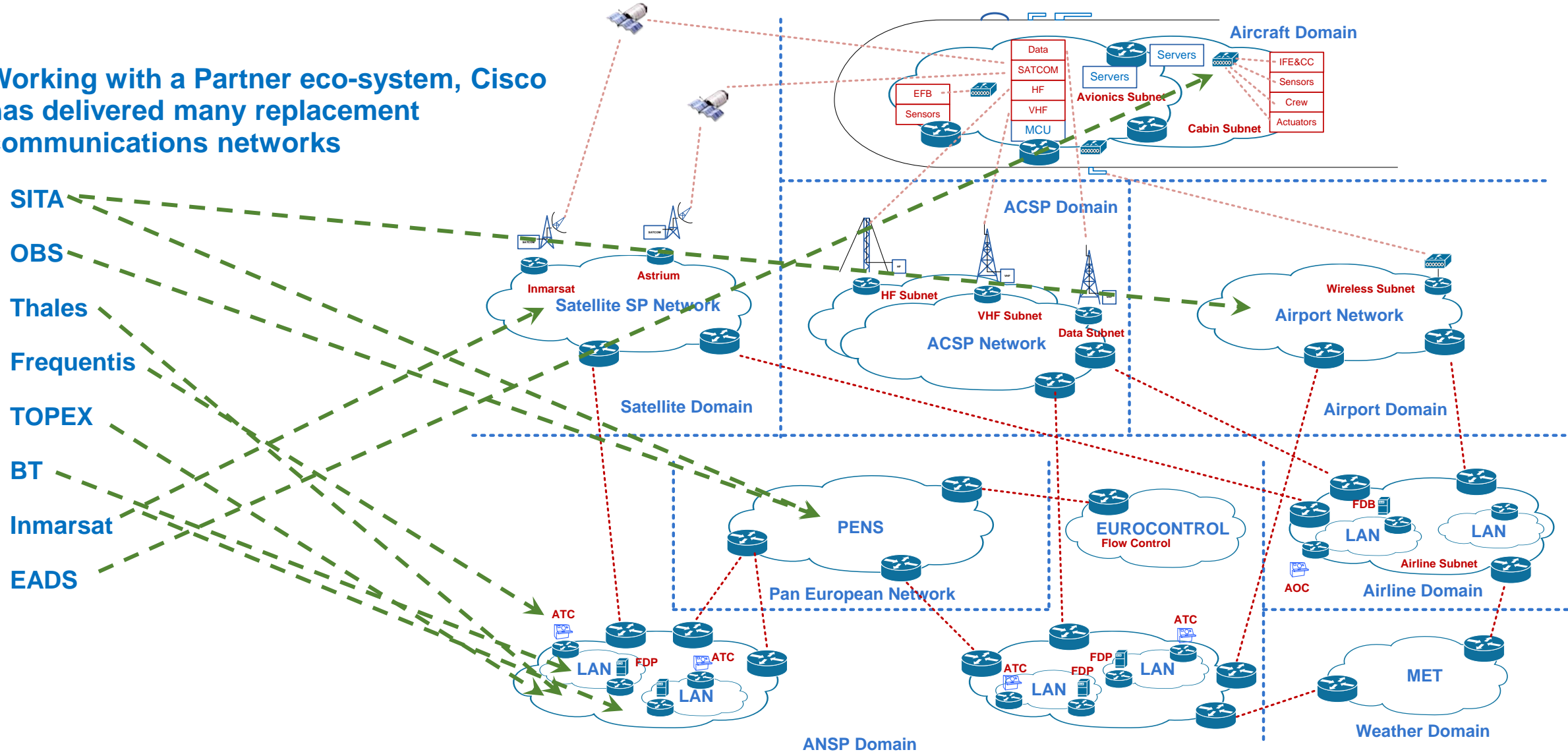
In many cases legacy communications technologies provide communications connectivity between the domains (SDH, Copper)

Cisco has been asked to replace these legacy links



# And where has Cisco contributed?

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





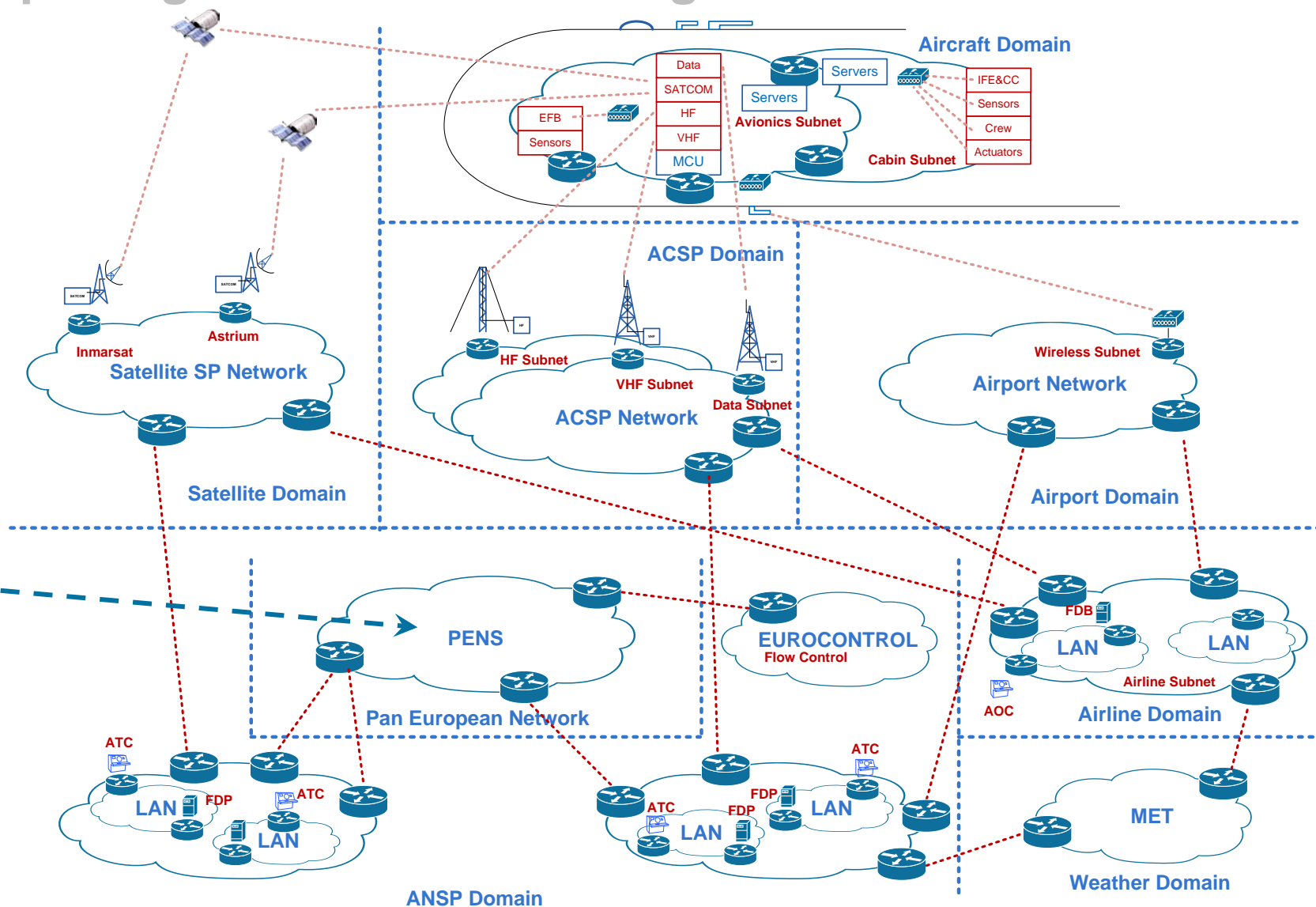
# IP has the potential to help bring the stakeholders together?

## 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!**

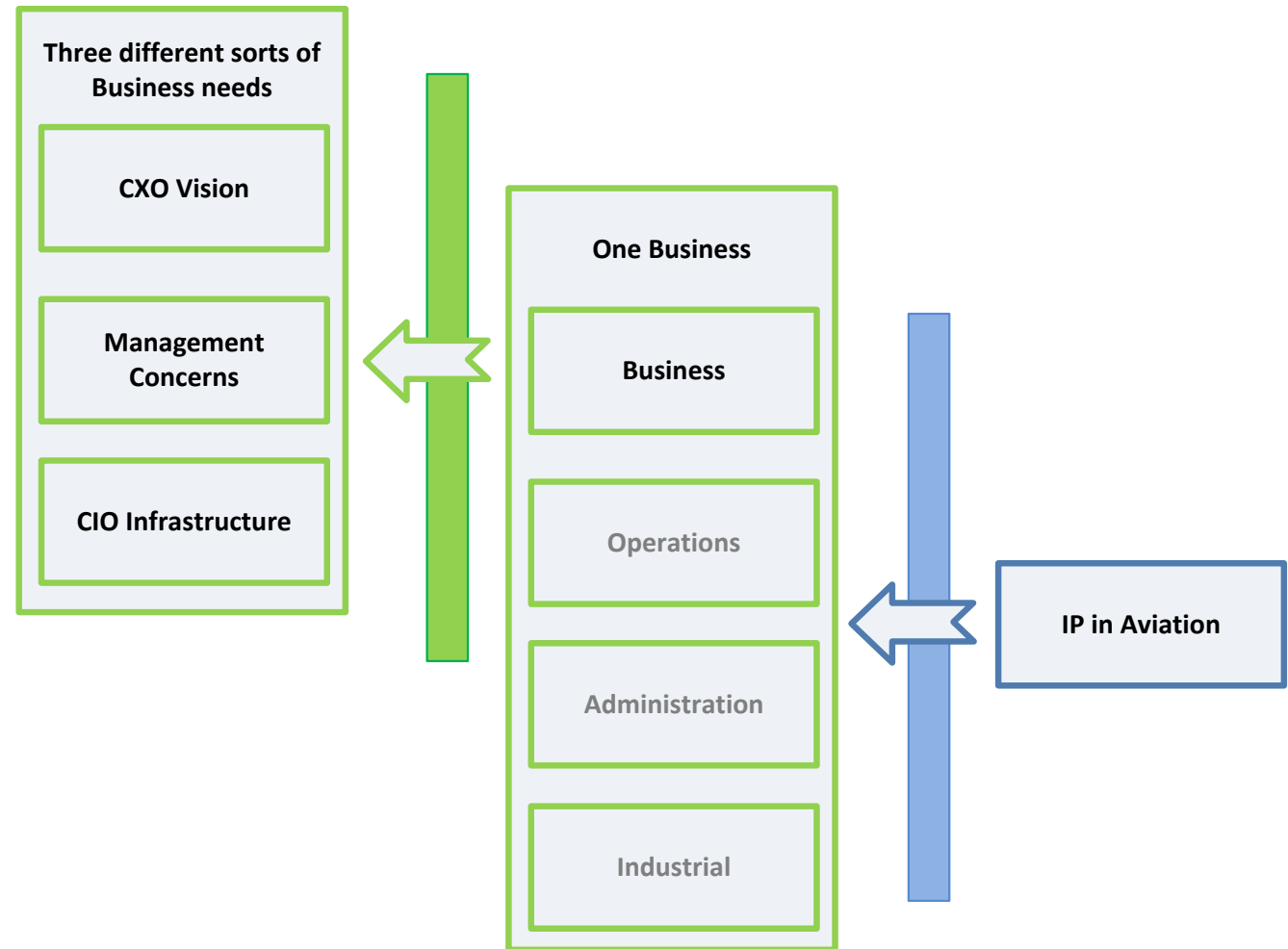


# Addressing Business Needs?

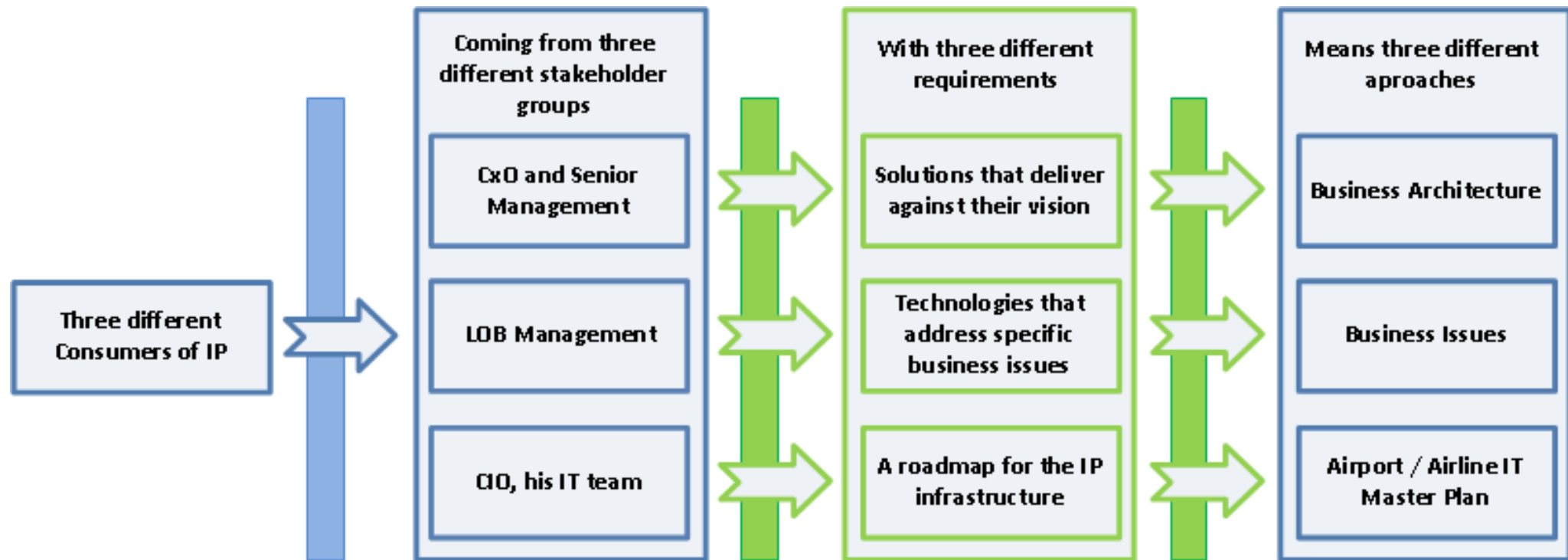
## Understanding the Business and Partnering with the stakeholder

- 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.



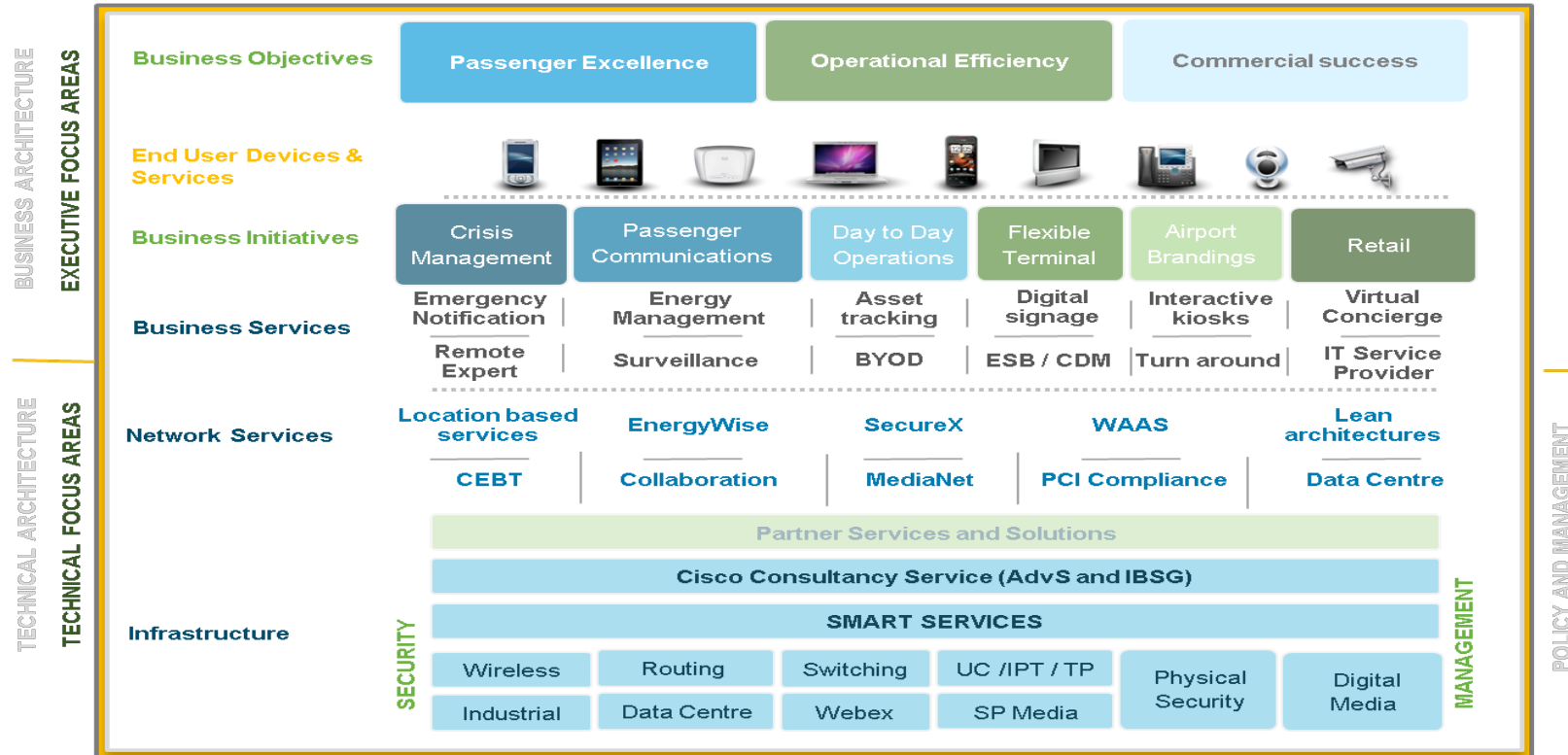
# Understanding the Business needs



## For Cisco this means working with the Customer

- A true Trusted Partner model
- Working across the organisation
- A true open book approach

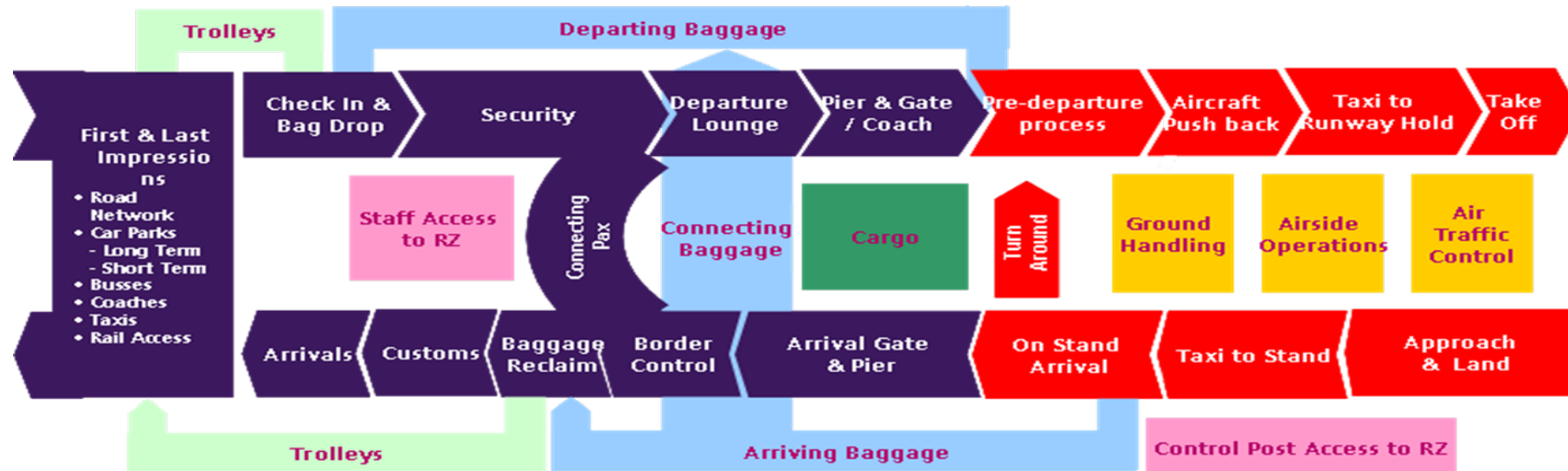
# Business Architectures – The Vision established by the Board



## Understanding the Airport vision and the impediments to achieving them

- Established at Board level
- Drives the evolution of Business solutions

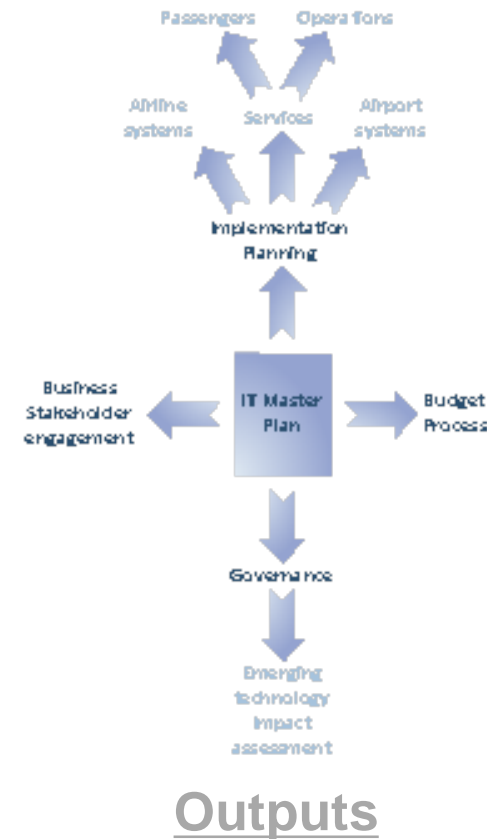
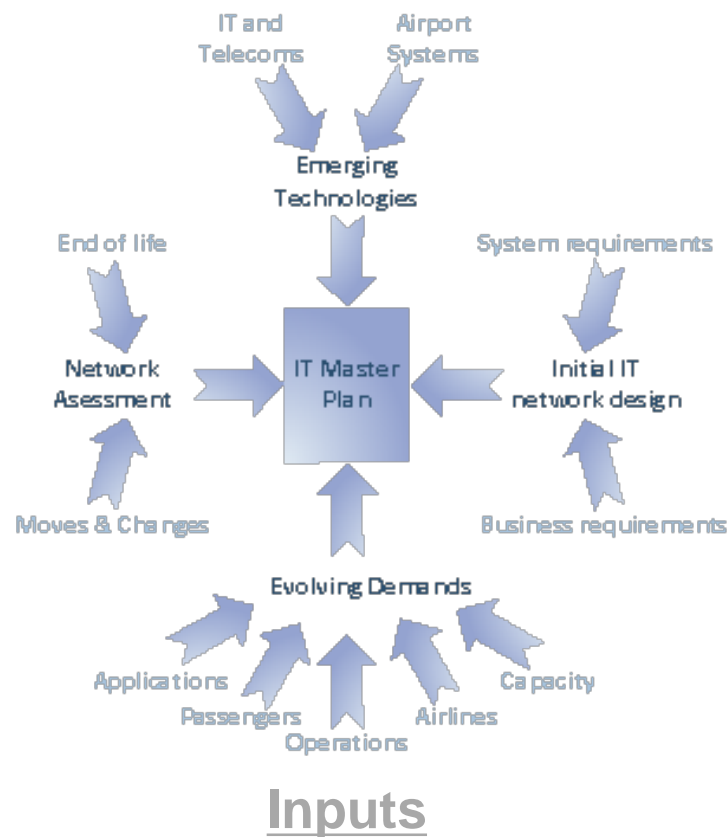
## Business Issues – The Problems faced by Managers



### 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



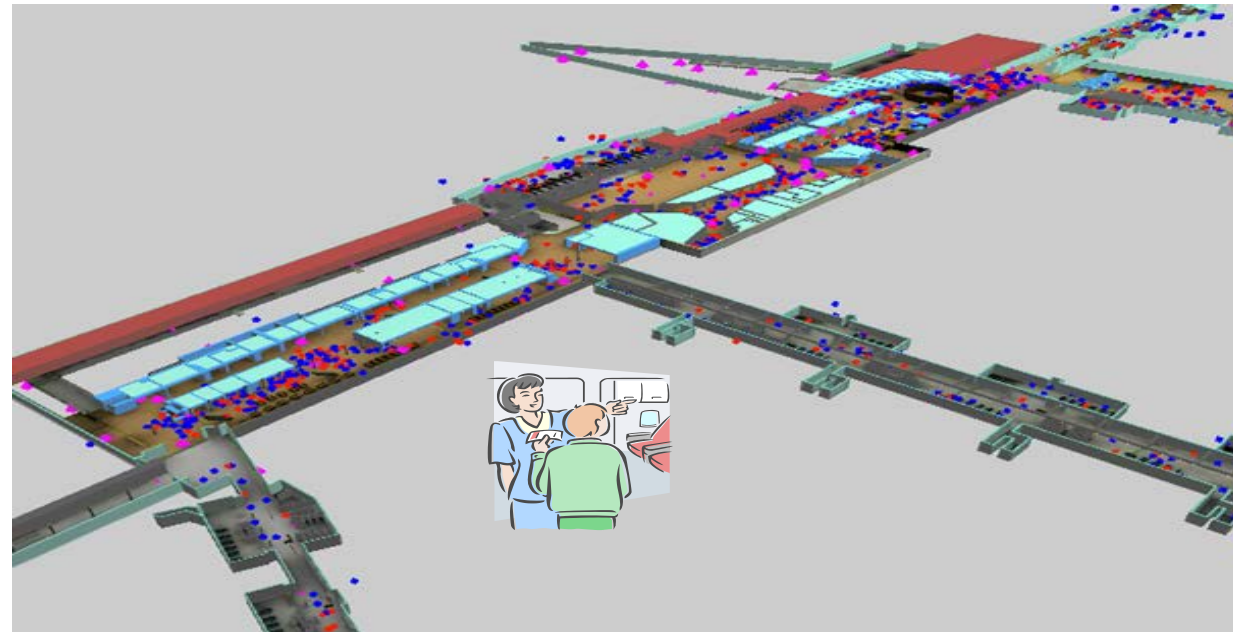
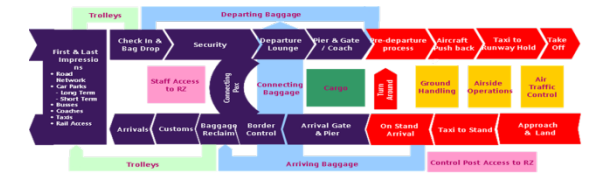
**Introducing Cisco knowledge and services that will help the Customer's IT Network to continue to meet their Business needs**

- 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**



# Solving Business Issues – or How can a phone system keep the toilets clean

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

Ground transportation  
Parking

## Ease of finding your way

Flight Information screens  
Walking distances  
Ease of making connections  
Baggage carts

## Helpfulness of Airport staff

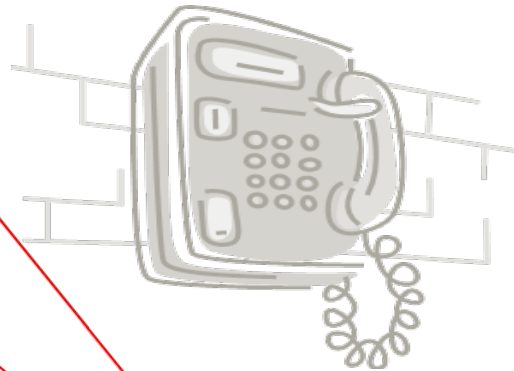
Restaurant  
Shopping facilities

## IT / Telco

Availability of washrooms

## Cleanliness of washrooms

Thoroughness of security



Waiting time at security inspection

Feeling of being safe

Cleanliness of Terminal

Ambience

Value for money of restaurant

Value for money of shopping

Value for money of parking

Speed of baggage delivery

Customs Inspection

Arrival Passport & Visa Inspection

Waiting time in check in queue

## Efficiency of check-in staff

Courtesy of check-in staff

Business / Executive lounges

**How can IP Telephone technologies help an airport improve their ASQ rating?**



# Delivering on the “vision”

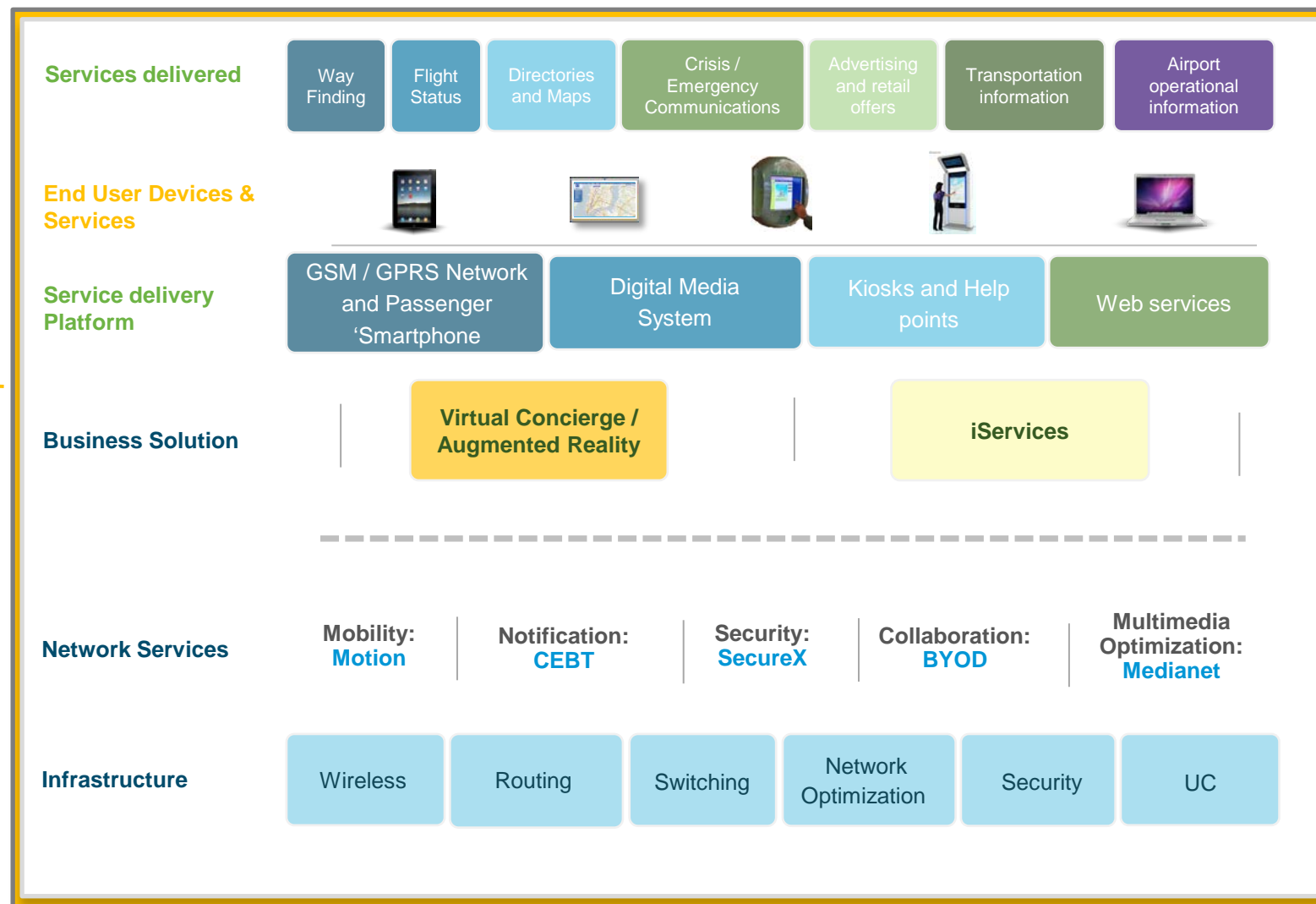


## Passenger Communications

- Interactive Kiosks
- Digital Media
- Virtual Concierge
- Internet (Social Media and web)

BUSINESS ARCHITECTURE  
EXECUTIVE FOCUS AREAS

TECHNICAL ARCHITECTURE  
TECHNICAL FOCUS AREAS



POLICY AND MANAGEMENT



# IoT in Aviation

Chris Dedicote CISCO March 2013-

“ ----- the Internet of Everything is about adding value through the application of intelligence to data. ”



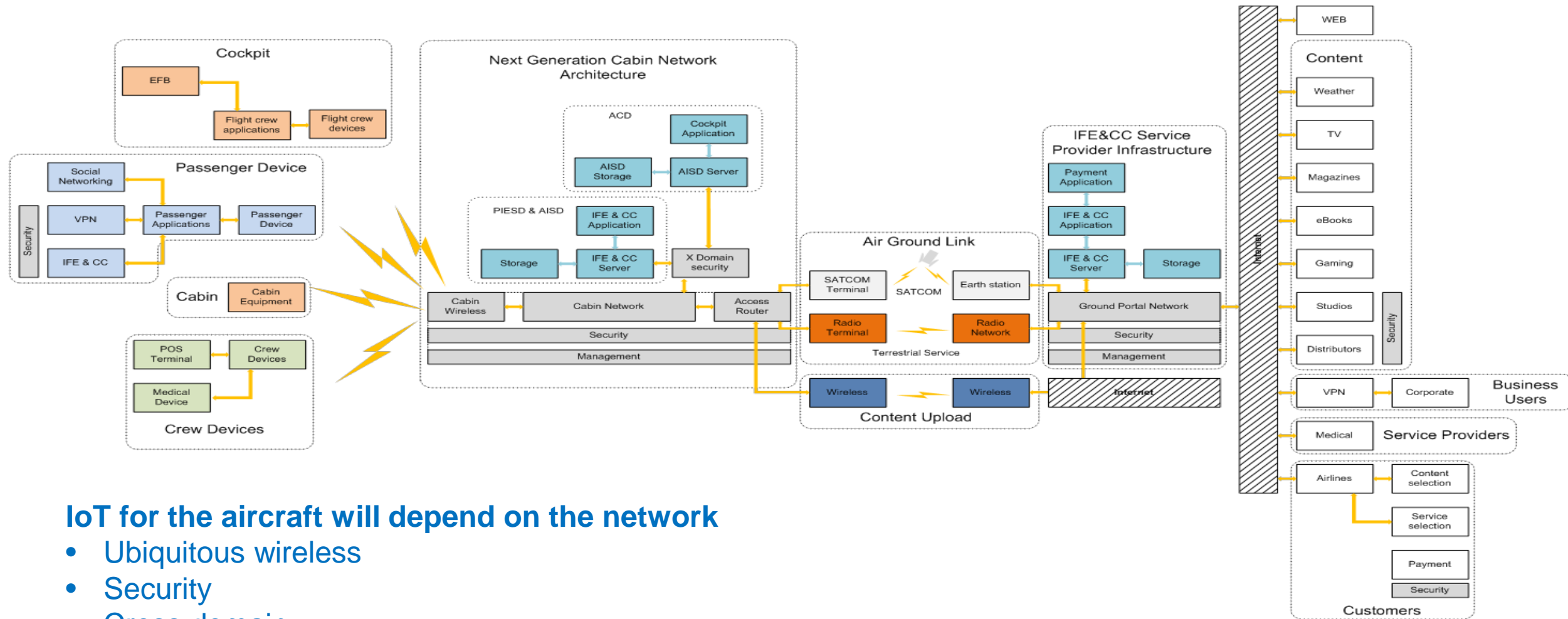
# Next Generation Aircraft Network!

**Press Release - enisa**

Apr 13, 2010

“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.”

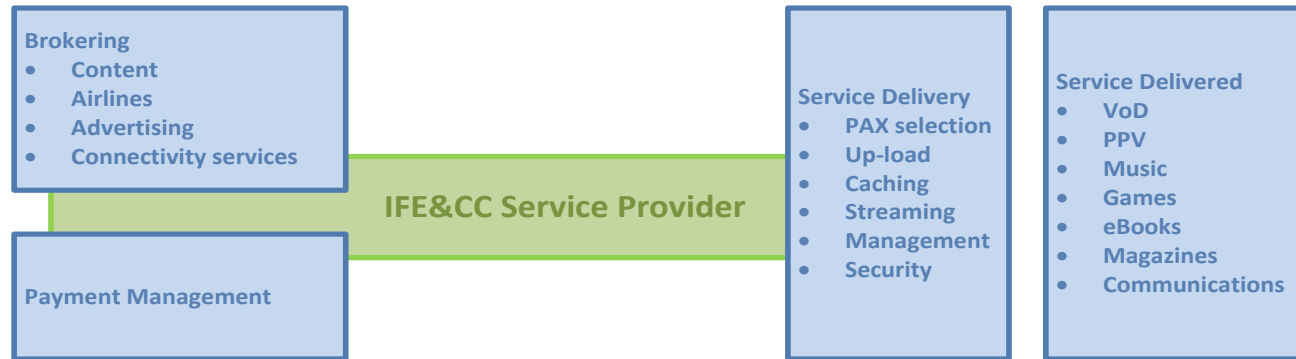
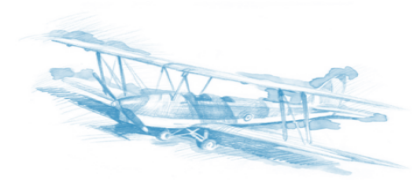
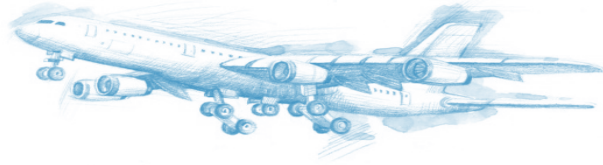
# Vision – The IP enabled Aircraft



## IoT for the aircraft will depend on the network

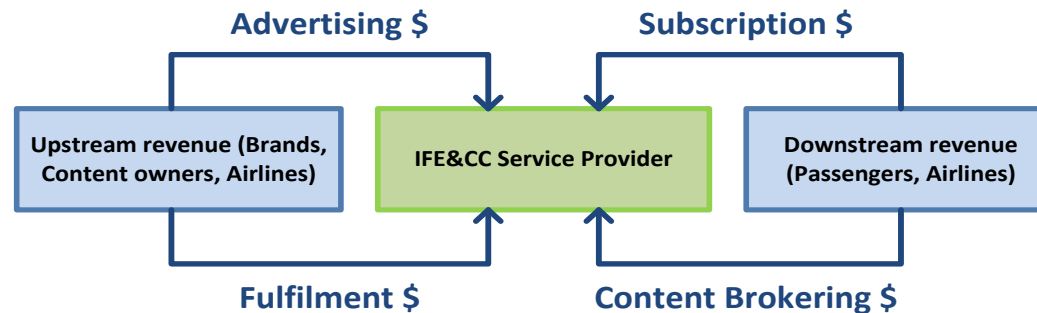
- Ubiquitous wireless
- Security
- Cross domain
- Enabling new business models

# 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

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## Call to Action



Thank you.

