



**ASIA-PACIFIC TELECOMMUNITY**

**15th APT Policy and Regulatory Forum (PRF-15))**

**3-5 August 2015, Singapore**

**Document**

**PRF-15/INP-34**

*3 August 2015*

**SITA**

## **Emerging Technologies in the Air Transport Industry**

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# Emerging Technologies in the Air Transport Industry

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Asia Pacific, SITA

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Create success. Together

# CONTENTS

- Who we are
- What do we do
- Industry Trends
- Innovation in the Air Transport Industry (ATI)

# SITA – Who we are

- Non commercial Cooperative Society established in 1949 for members in the ATI
- Object of the Society:

To foster all telecommunication and information processing matters directly or indirectly connected with the transmission and processing of all categories of information required in the operation of the air transport industry, and to study the problems relating to them, with the aim of promoting in all countries safe and regular air transport.

# SITA is not a PTT/Telco

- Not for profit cooperative society for ATI members
- Non commercial, non political, impartial
- Do not own network facilities
- Lease network facilities and capacity from other services providers
- Do not operate or provide services to the public
- Closed user group/private network for SITA members in the ATI, government and NGOs only

# INDUSTRY LEADERSHIP

- Nearly every passenger trip relies on our technology
- SITA supports almost every airline and airport in the world
- Specialists in air transport IT
- 100% owned and driven by industry

**2000+**

Strong global  
service team

**65+**

years industry  
experience



WE CONNECT

**13,500**

air transport  
industry sites

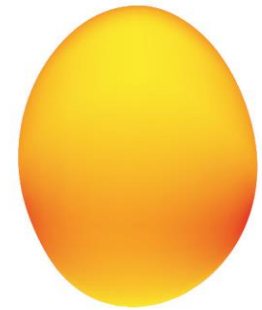
**200**

Countries and  
territories served

**1,000**

Airports –  
presence

# COMMUNITY OWNED, COMMUNITY DRIVEN



430

SITA members



35+

AIR TRANSPORT CIOs

on SITA's Board  
and Council

100%

Owned by and dedicated  
to air transport

30+

Customer Advisory  
Board members

# SOLUTIONS ACROSS ALL SECTORS



Airlines



Airports



Aircraft



Governments



Ground  
Handlers



Air  
Traffic  
Control



Aerospace



Travel  
Distribution





# THE BUSINESS WE RUN



## **Communication & Infrastructure**

Global and local services for  
all air transport sectors



## **Airport**

Passenger, baggage, operations



## **Passenger**

Passenger management  
and distribution



## **Government**

Border management



## **SITA OnAir**

In-flight connectivity  
Air-ground, operations, eAircraft



## **CHAMP Cargosystems**

Cargo management, community  
integration, eCargo



## **SITA Bureau Services**

ANSP Billing  
& revenue management

# WORKING GLOBALLY AND LOCALLY

- One of the most international companies on earth
- A strong local presence
- Service staff on hand to help

**4500** SITA  
staff

**>140**  
nationalities  
represented

**>135**  
Countries have  
a SITA presence

**47%**  
Service-focused staff

**>70**  
different  
languages  
spoken



# INDUSTRY TRENDS

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# THE FUTURE IS PERSONAL

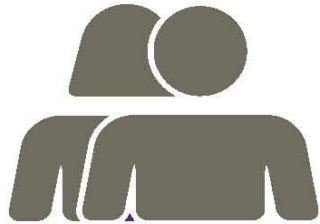
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## THE CONNECTED TRAVELER IS EVERYWHERE

A new era of continuous engagement?





97%

OF PASSENGERS CARRY AT LEAST ONE  
MOBILE DEVICE WHEN TRAVELING

18% of passengers carry a smartphone, tablet  
and laptop



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# PERSONALIZATION THROUGHOUT

On the move, at the airport, in-flight

Strong mobile investment from all stakeholders



**100%**

OF AIRLINES INVESTING  
IN MOBILE SERVICES



**84%**

OF AIRPORTS INVESTING  
IN MOBILE SERVICES

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# INNOVATION



# VISONARY INNOVATORS

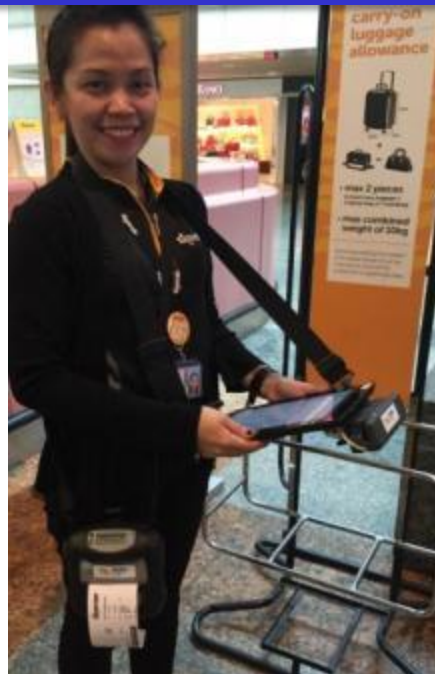
- Committed resources and funding for the industry's future
- SITA Lab – engine of innovation
- Collaboration with customers, partners and industry bodies





# Innovations for the Air Transport Industry: Wearables, Mobiles, Beacons

SITA Labs



# Next 2-10 years: Wearables!



- scanning on the go





# Google Glass & Smart Watch

Sixth Sense | Virgin Atlantic Trial

APIS Data

-BRANSON/RICHARD

-P/12345678

-Expiry 123321

-Nationality US

-DOB 12345

-Sex M

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# Mobile Check-in agent with Tablets



**tigerair**

Destination		Passenger Details	
SYD	Sydney	Name	WONG, JUAN YU, MR
Flight	1115 TT 604	Sex	Male
1340 TT 606		Age	24
1935 TT 612		PartType	ADT
		Status	Not Checked In
			Travelling with Infant
		Infant	
		Status	

**Flight Details**

Flight	TT	NR	Class	SYD	Gate	Boarding
						2020

**Check-in List**

To Check-in: Checked in PMS List

Passenger Name	Passenger Details
KF40GB	AKTONAS/ANGELA MS
S7N1XM	ATHANASIADIS/D MR
3E87HE	AVDIC/AMEL MR
L76CVZ	BEHRENS/MONIKA MS
V76782	BELL/KARLEE MS
SV7E8Q	BENKIRANE/OTHMAN MR
U9562T	BISHOP/STEPHEN MR
U2P5YE	BOAK-SMART/S MS
R536HS	BORDIGNON/SERGIO MR
H4D58C	BURROTTI/VINCENZO MR
VECTVH	CHEN/XUEQING MRS
24CKR1	CHOO/AYAMI MRS
WZP3VE	CHUNG/HYOSUN MS
H4D58C	CONRADO/ERRICO MR
16Q633	COTTER/EDWIN A MR
QDSNQH	CUSACK/S MS
K46295	DANDACHI/FAEK MR
H4D58C	DE FELIPPIS/R MR
L6ZQTP	FROST/ATALINA MRS
LC729X	GALLAGHER/SUSTINE MS



**Retrieve Booking**

By Booking Ref

Surname	Booking Ref

RETRIEVE BOOKING

By Destination

Kuala Lumpur	MH 0606

RETRIEVE BOOKING

By Frequent Flyer Card

Surname	Enrich Number

RETRIEVE BOOKING

By e-Ticket

e-Ticket

RETRIEVE BOOKING

**malaysia**

Flight	Destination	Time
0614	Kuala Lumpur	11:58
0642	Kuching	12:44
0606	Kuala Lumpur	13:33
0624	Kuala Lumpur	15:25
0608	Kuala Lumpur	17:33
0616	Kuala Lumpur	19:10
0610	Kuala Lumpur	21:20

11:56 Thursday October 30

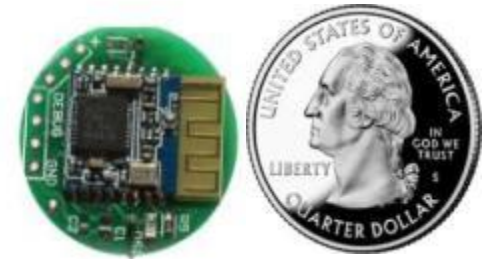
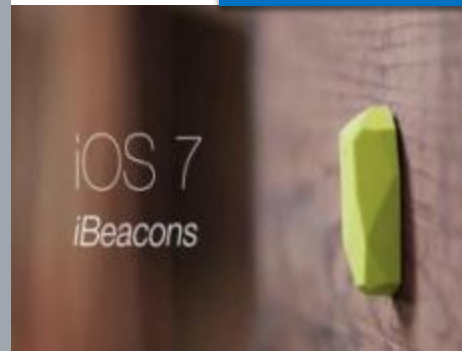
Zetra BT CUTE

SITA Cloud

# Introducing Beacons

## Beacons are :

- Small, cheap (\$10-\$40 USD), ultra low power (2-9 year battery) easy to mount
- Broadcast content over Bluetooth (BLE)
- Works with all smartphones and tablets
- Wake up every 1/10 of a second allowing transfer of real-time information
- Actions include real-time notifications, indoor navigation, assets tracking and much more based on location



SNF PRO  
3 Year Beacon

SNF EXTEND  
9 Year Beacon



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# REQUIRES AN APP

(bluetooth on and service opt-in)

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apps require web services:

schedule & actual flight info

airport info

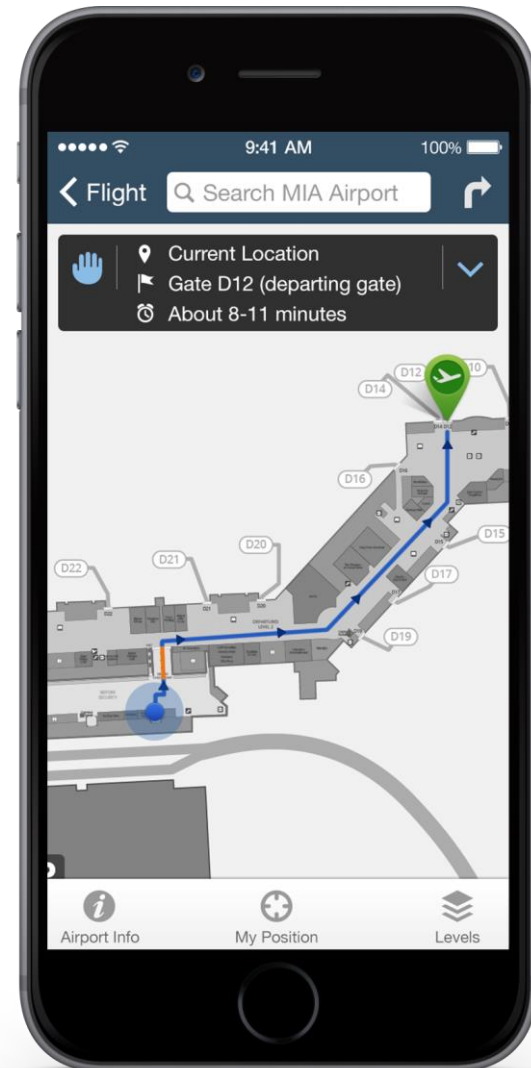
shops, restaurants, services, descriptions, hours of ops, etc

walk times

wait times

terminal maps

product & service search

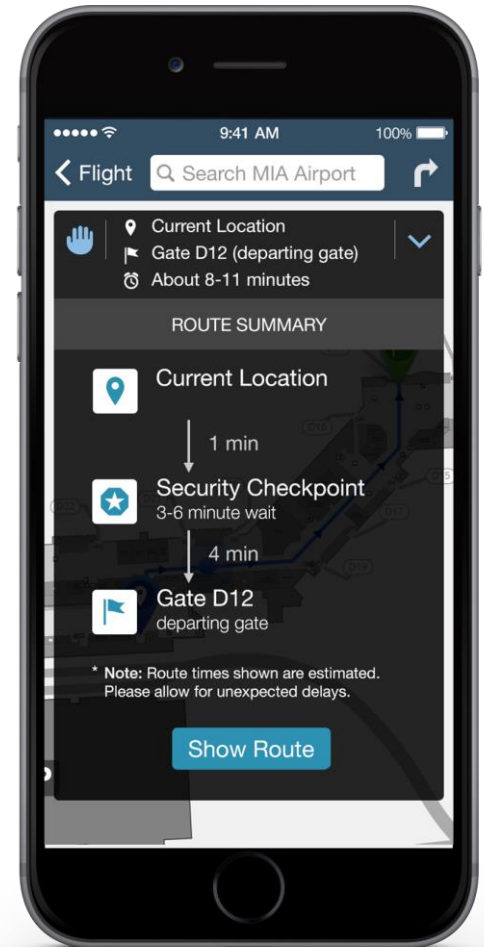
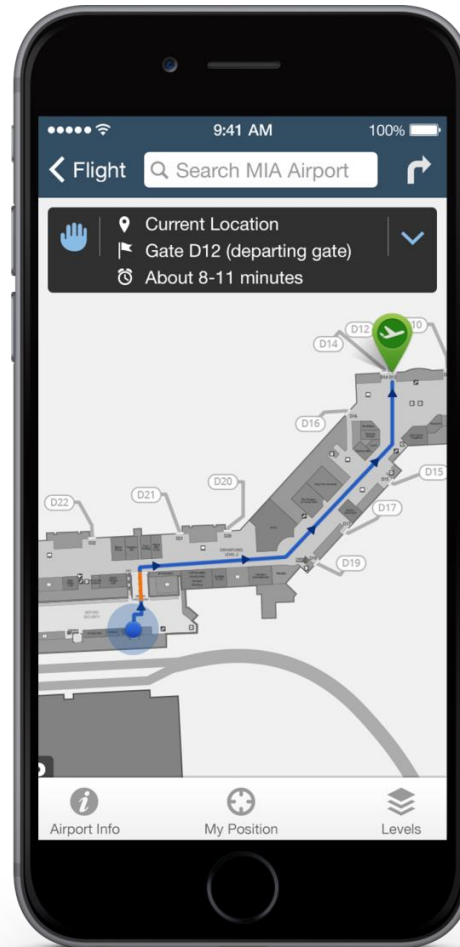
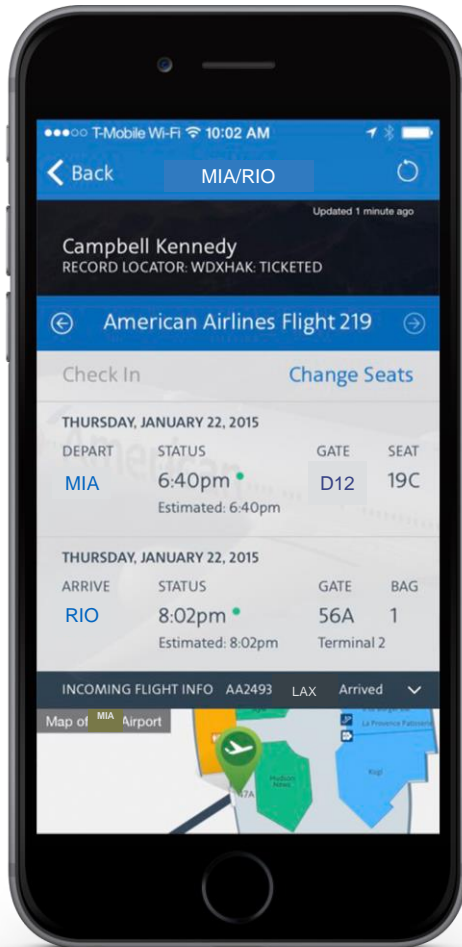




# Location Based Services

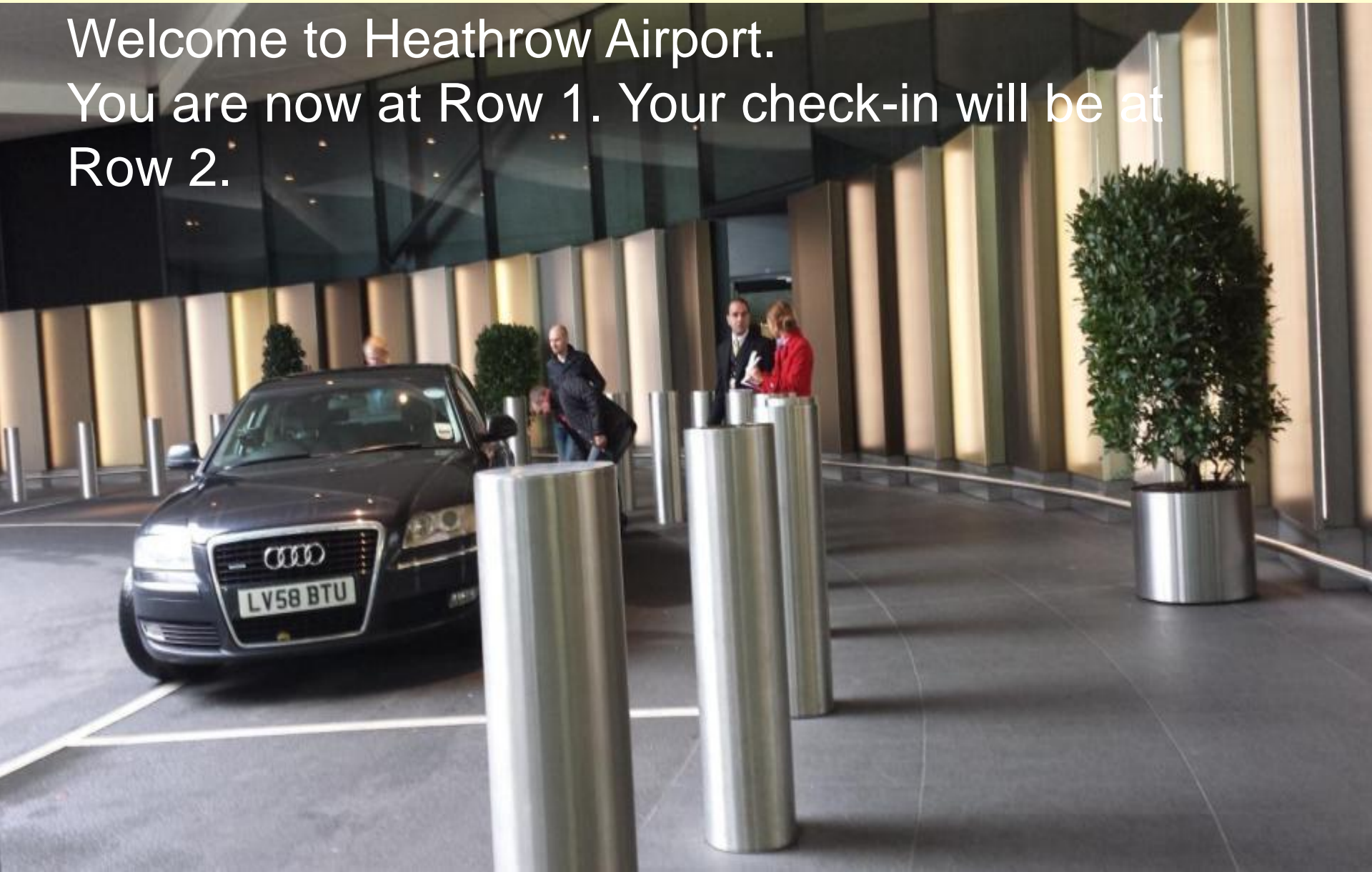
## Passenger view

- Where I am ?
- Where I need to go?
- How to get there?



**Beacons can be used as a trigger to display information,  
launch a mobile app or transact with a server**

Welcome to Heathrow Airport.  
You are now at Row 1. Your check-in will be at  
Row 2.



Beacons can promote retail or services. In CPH, a restaurant offered passengers a free glass of wine for a meal purchase

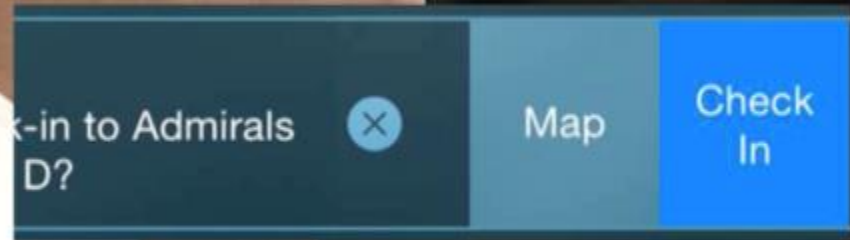
*“53 minutes to GATE open. Walk time from here is 7 minutes. Why not come in for a meal?”*





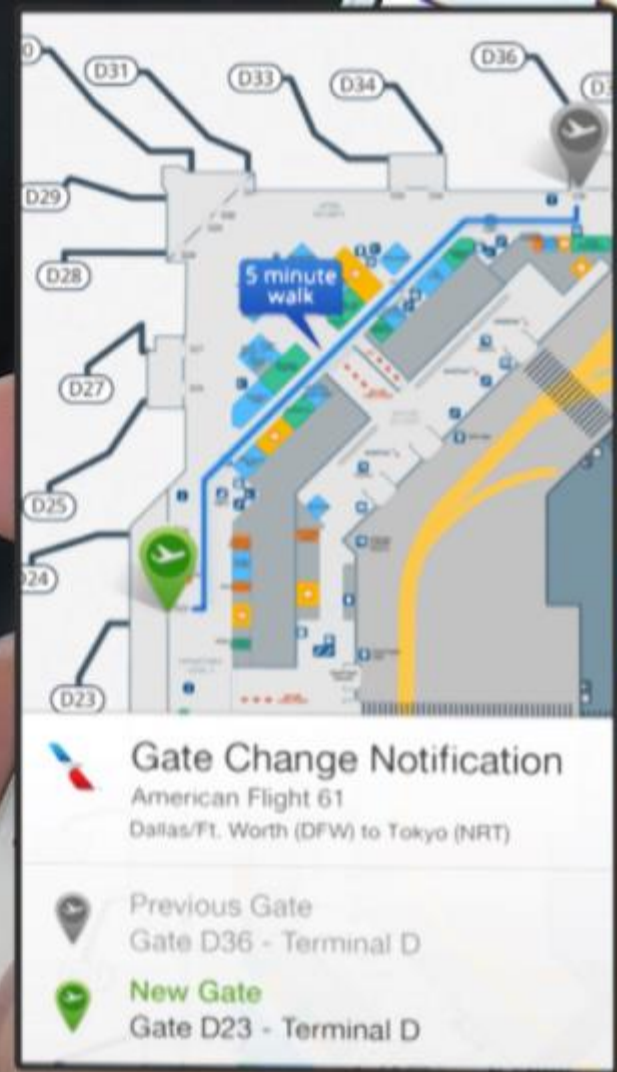
We know you just passed security,  
interested in stopping by  
the Admirals Club?


Beacons are location aware, and can  
be integrated with way finding.  
They can also trigger interaction with  
application server for airport  
services.



- Enriched way finding experience for passengers
- Gate change event can use beacons to provide relative direction. The beacon registry can offer updated flight and date information

Here's a handy map to your new gate.





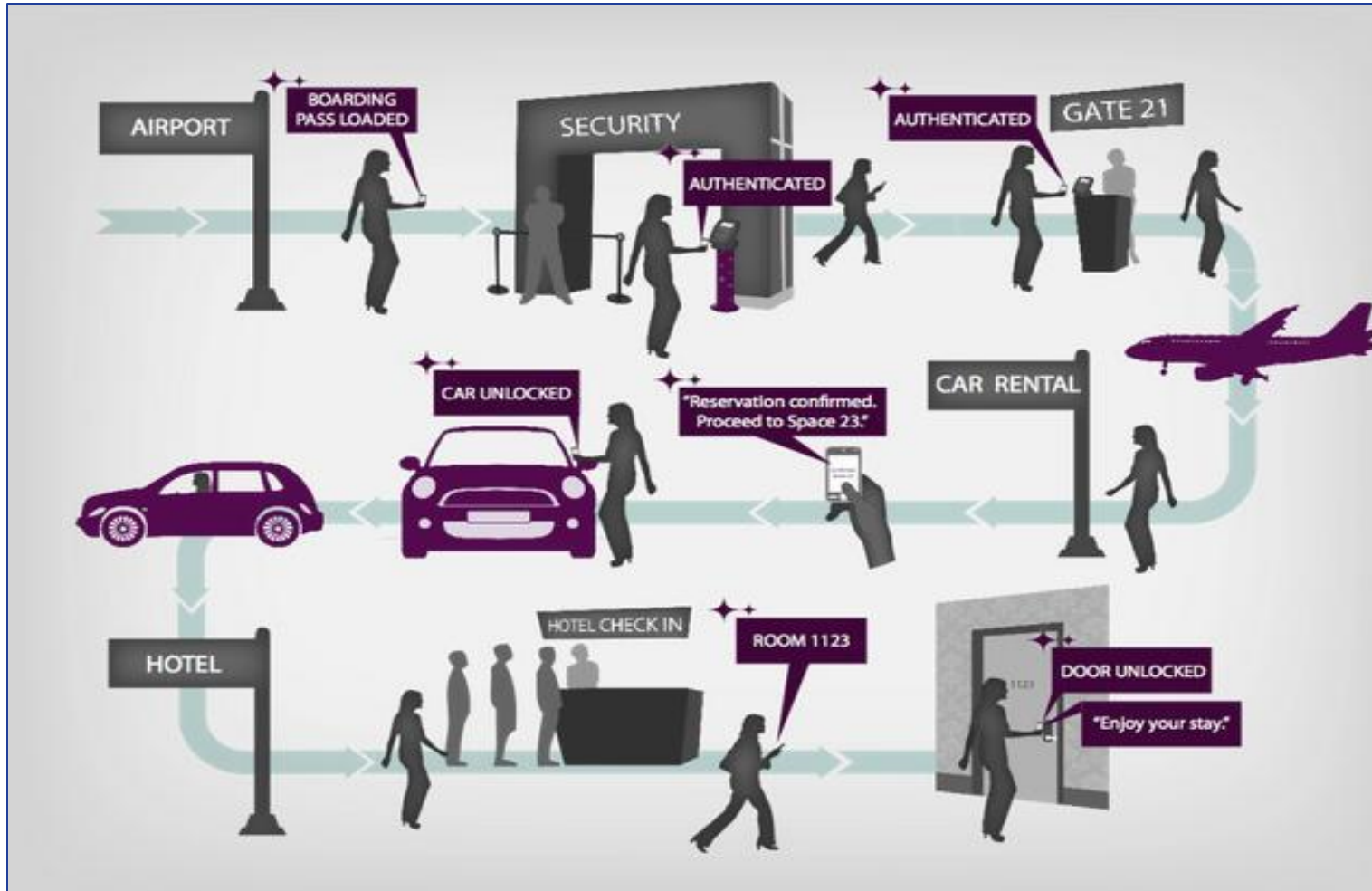
**By 2018, 44% of airlines world-wide plan to use beacons, compared with 9% that have experimented with the technology currently.**



The Future Is Here?



# NFC, wallets and travel



<http://www.cnet.com/news/hilton-to-replace-hotel-room-keys-with-smartphones>



# Wall Street Journal – 15<sup>th</sup> July, 2015

**“Technology Will Speed You Through the Airport of the Future”**

**“Car-parking robots, tracking beacons and facial recognition systems aim to make travel relaxing”**

## Screenshot from WJS online




From robots to facial recognition systems, airports are employing programs to provide efficient service to customers. WSJ's Scott McCartney and Tanya Rivero discuss. Photo: AP

## Screenshot from WJS online

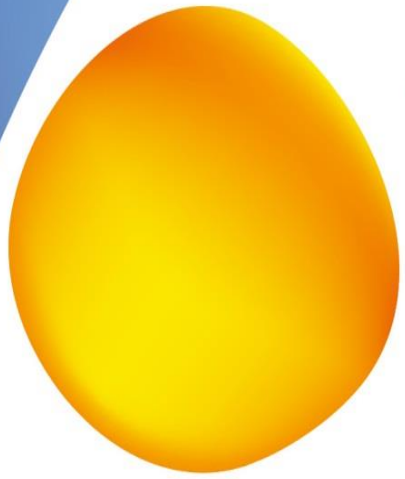


'Ray,' the car-parking robot at the Düsseldorf Airport, in Germany, delivers cars to the curb after passengers land and increased garage capacity by 32%. PHOTO: ANDREAS WIESE



Wearables with biometric authentication, drones, robots.... the list goes on....

Can Regulations catch up?



THANK YOU

