BEACON TECHNOLOGY AND THE AIRPORT

Jim Peters, CTO SITA

SITA

Create success. Together

SITA Lab investigates disruptive technologies and engineers air travel industry use cases
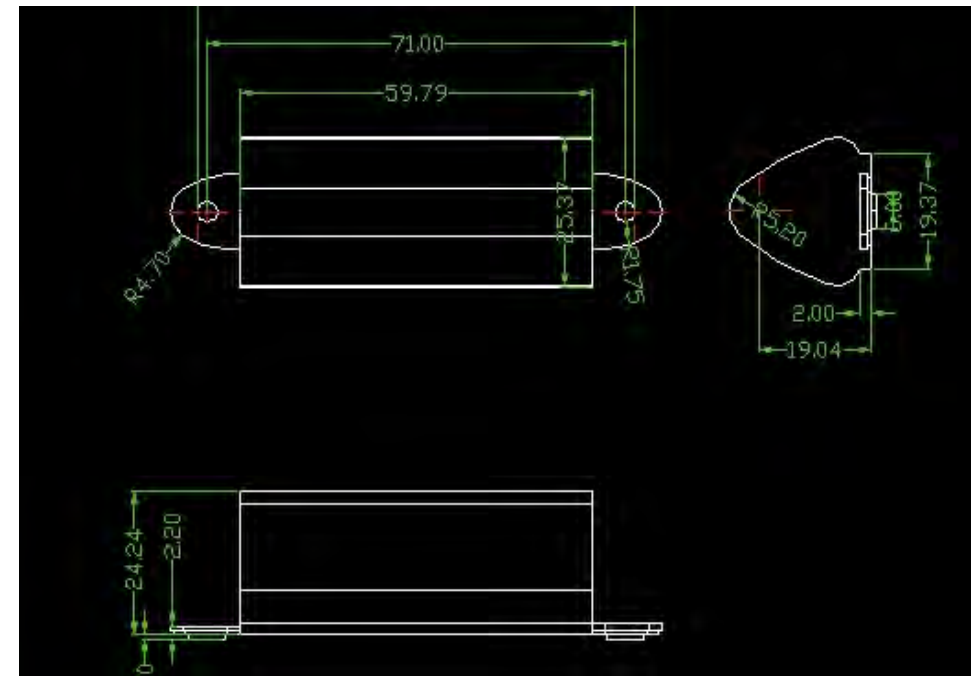
SITA is industry owned. SITA Lab is industry funded

Multiple concurrent projects and trials underway with airports and airlines

Engaged with leading beacon OEMs and smartphone OS companies

SITA Lab has much to share!

- How can beacons improve the passenger experience?

- How can beacons improve my airport operations?

- What's needed for mass adoption?

- What about privacy, security, deployment, maintenance, etc….
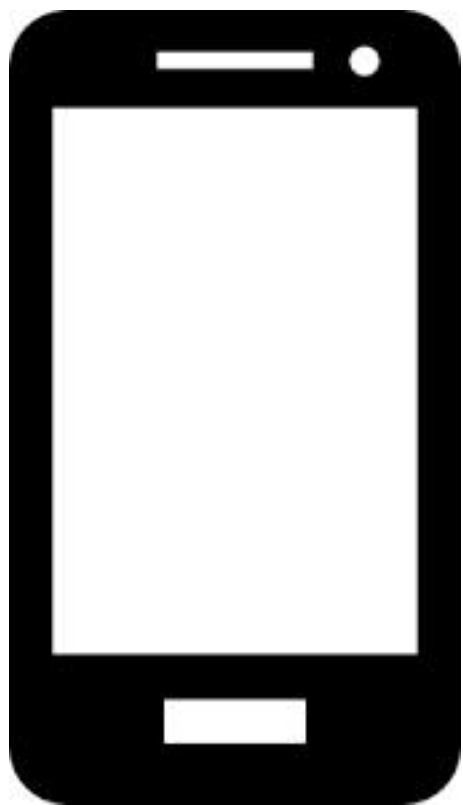
receiver
(smartphone app)

transmitter
("beacon")

Basic Example

You need a transmitter and a receiver

When a receiver detects a transmitter nearby, you can trigger an event

The transmitter is a beacon, and it's continuously transmitting a signal

The receiver is an app on your phone that is looking for a beacon

ENABLING TECHNOLOGIES

BLE

iBeacons placed throughout airport and registered with the "Common Use iBeacon Registry"

APIs

Web services to both access beacons and related web services that provide context to features

APPs

Any app that a passenger choices to manage their travel. Airline, airport, corporate travel, etc.

BI/CRM

An aggregation of data from all touch points (web logs & apps) power better decision making

REQUIRES AN APP

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
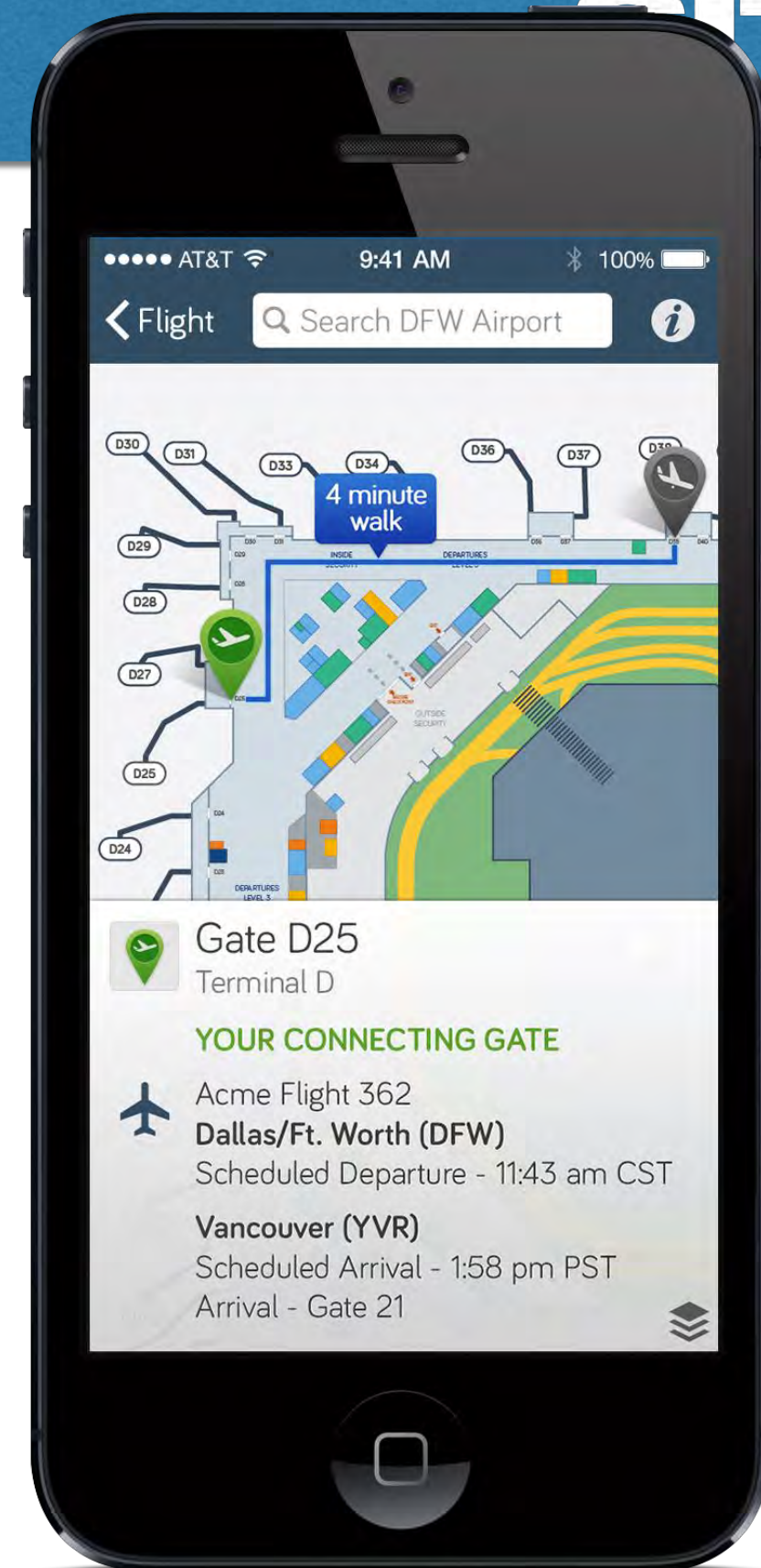
APPLE'S NEW APP DISCOVERY **SITA**

- 2013 WWDC, Apple announced iBeacons

- 2014 WWDC, Apple announced Indoor Positioning (part of core location or maps)

- iOS 8 will boost awareness for airport/line apps

when @airport, @check-in, @gate appears for instant access or download

APPLICATIONS

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On Entry

In Terminal

Shops Dining

Gates

Focus areas

Way points

Lounge

Closest to need

WHERE

WHAT

B2C **B2B**

WHERE

WHAT

Check in

Way finding

Menu Deals

Flight info

Locate assets

Locate PAX

Auto check in

Dispatch
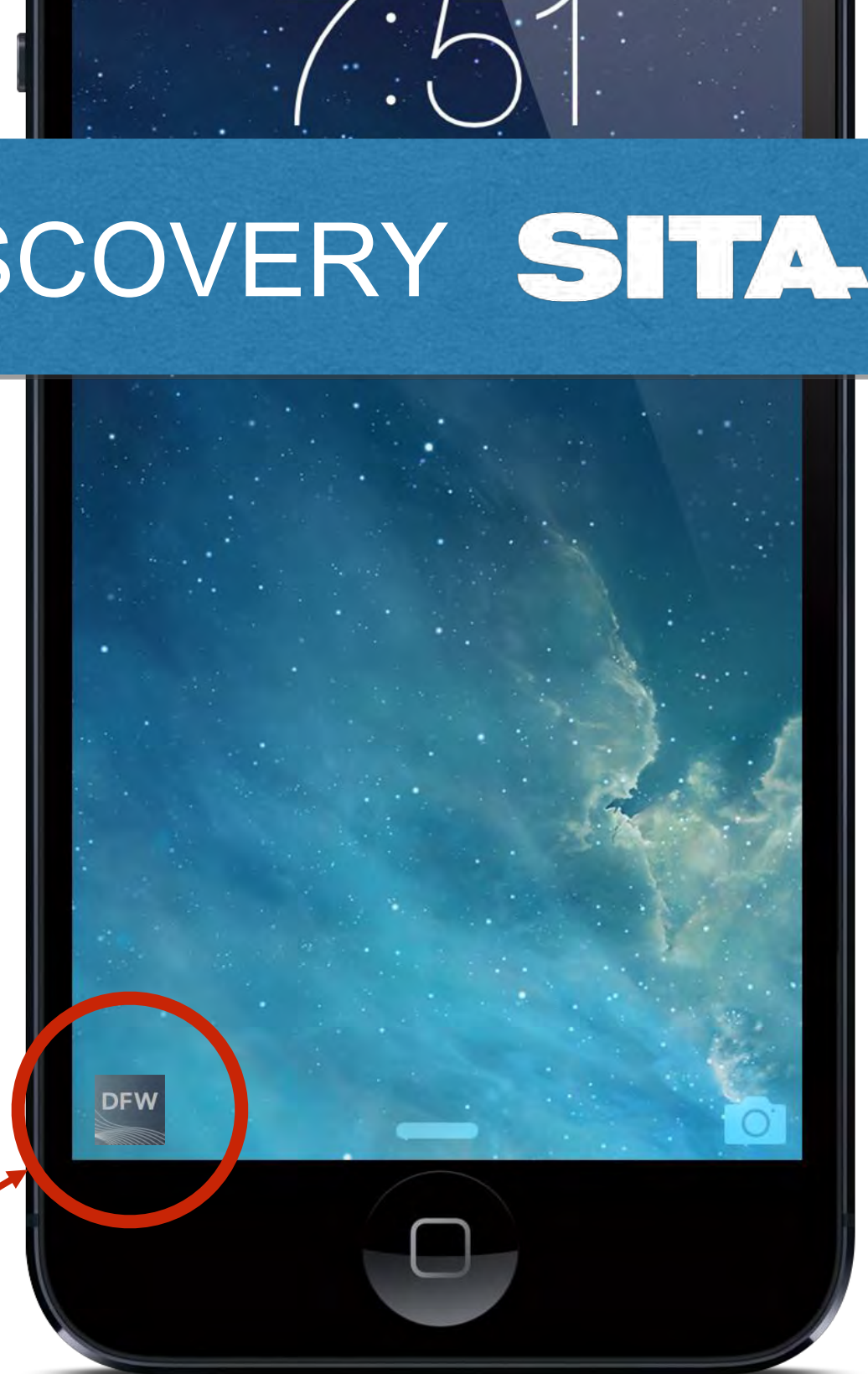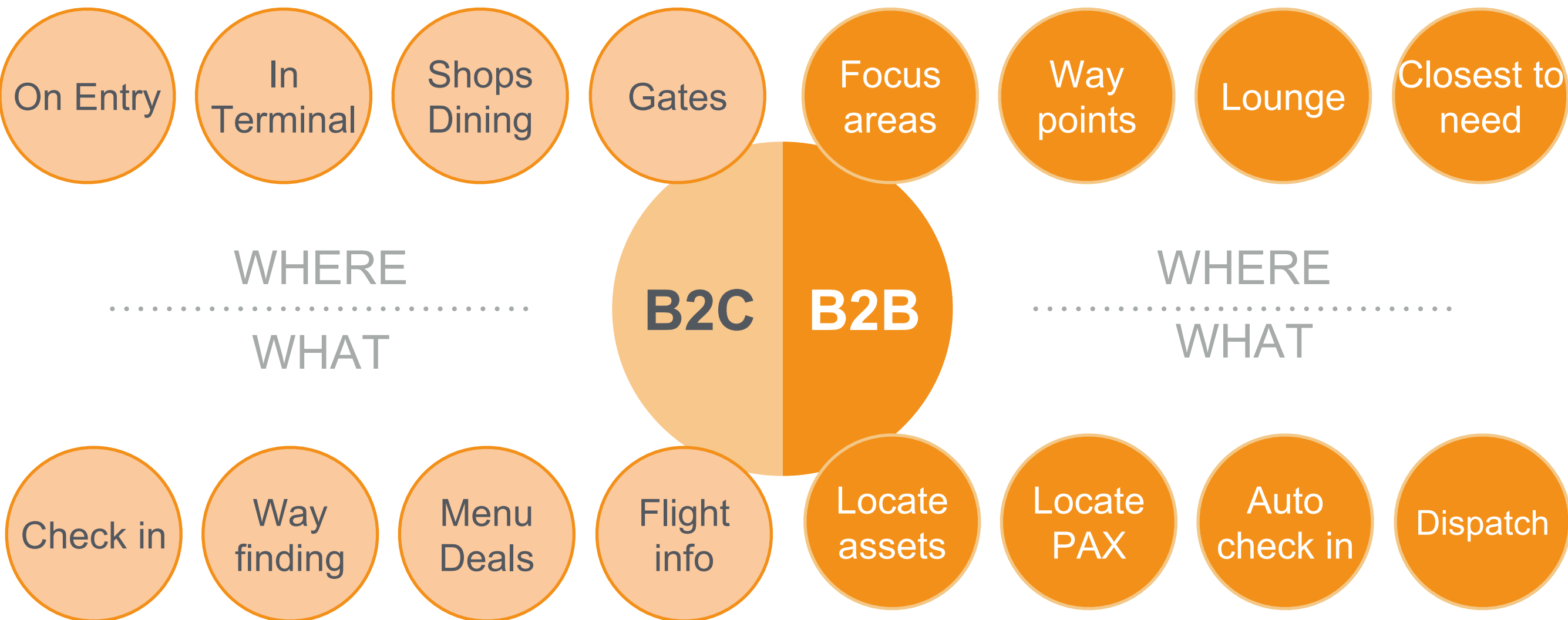
INTUITIVE MAPS COMMUNICATE

Advanced air industry use case focused maps are emerging

Efforts by Google, Microsoft, etc. appear bias toward their business models not airport needs

An objective multi-purpose map is needed
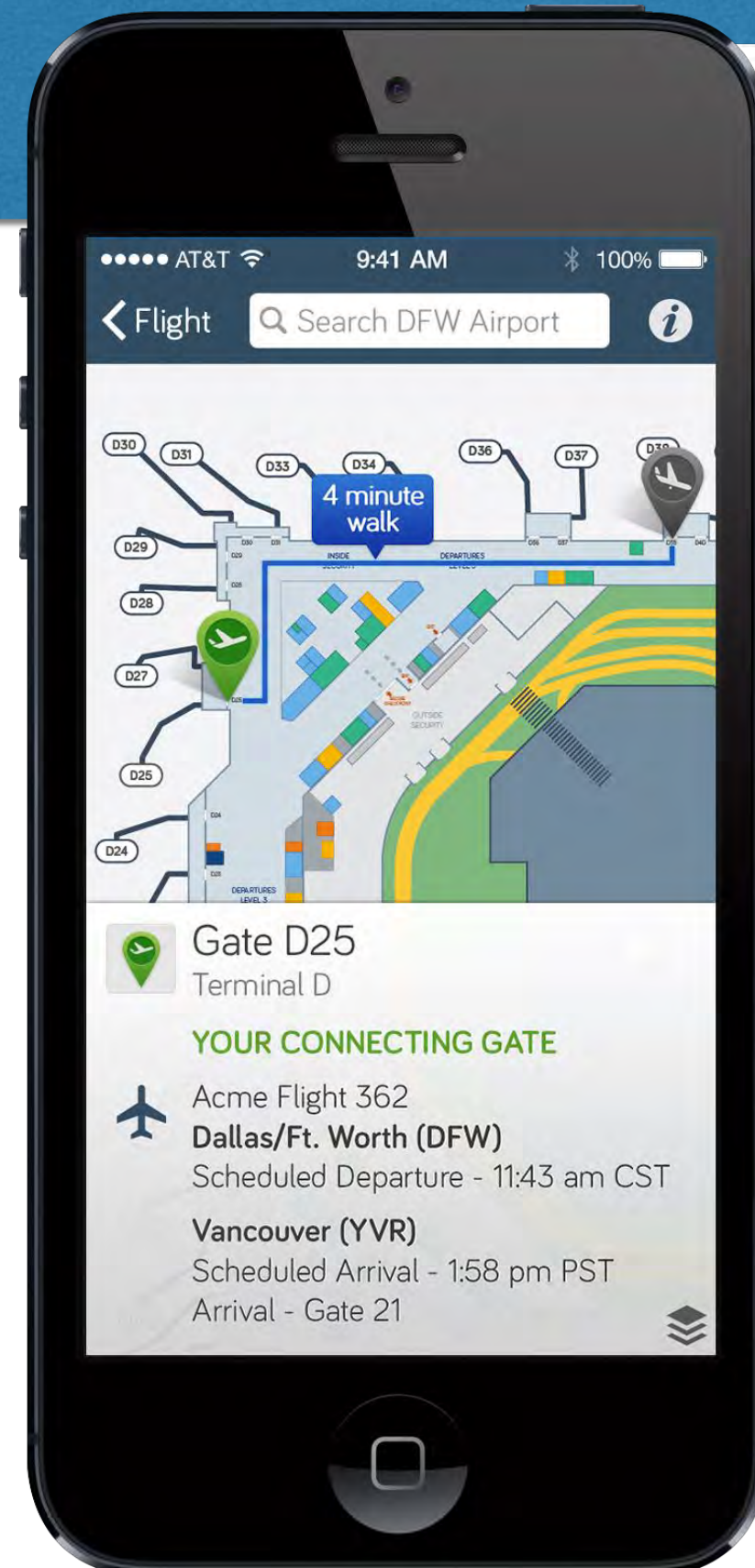
Beacons typically hidden on signs with self adhesive stickers

or securely screwed into things

SIMPLE GLOBAL STANDARD

One UDID for every airports

Majorid is the zone Standard zone numbering (e.g., gate, shop, etc.)

Minorid defines what the beacon represents. (e.g., 1st floor gate F7 in Terminal 3)

Edit beacon data

Core Data   Meta Data   Beacon Image   Show on map

Location   CPH

UUID   1AE18C1C-6C7B-4AED-B166-4462634DA855

MajorId   15   MinorId   1

Power   -20   Interval   100

Name   F7

Beacon Type   Gate

Terminal   T3   Concourse   Floor   1

Airside   ☑   Active   ☐   Public   ☑

Beacon Brand   StickNFind   Model   Beacon Model

Save   Cancel   Delete

The Common Use iBeacon Registry solves the problem of connecting many airports beacons' via a single web service
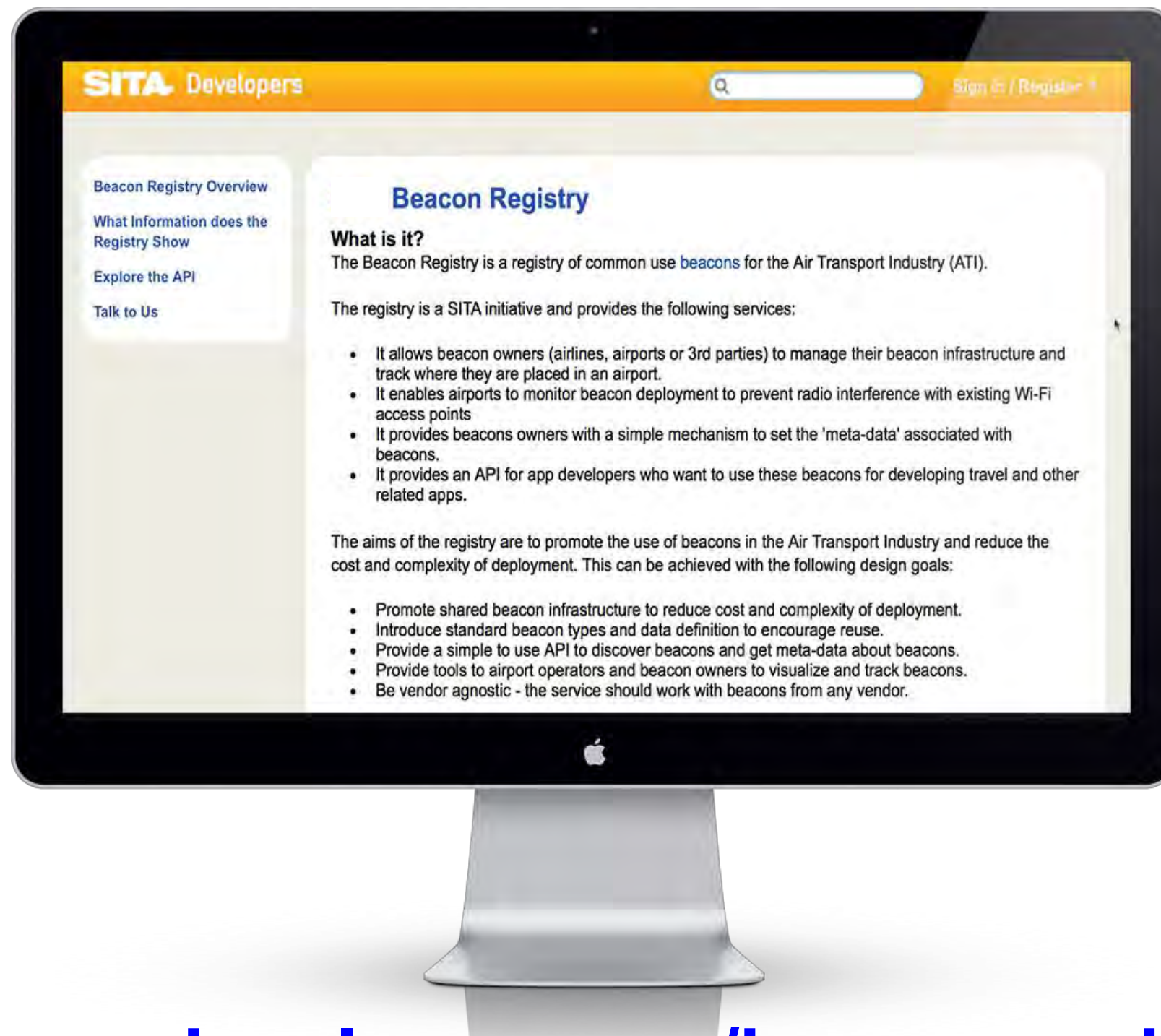

SITA Developers

Beacon Registry

Beacon Registry Overview

What Information does the Registry Show

Explore the API

Talk to Us

What is it?
The Beacon Registry is a registry of common use beacons for the Air Transport Industry (ATI).

The registry is a SITA initiative and provides the following services:

- It allows beacon owners (airlines, airports or 3rd parties) to manage their beacon infrastructure and track where they are placed in an airport.
- It enables airports to monitor beacon deployment to prevent radio interference with existing Wi-Fi access points
- It provides beacons owners with a simple mechanism to set the 'meta-data' associated with beacons.
- It provides an API for app developers who want to use these beacons for developing travel and other related apps.

The aims of the registry are to promote the use of beacons in the Air Transport Industry and reduce the cost and complexity of deployment. This can be achieved with the following design goals:

- Promote shared beacon infrastructure to reduce cost and complexity of deployment.
- Introduce standard beacon types and data definition to encourage reuse.
- Provide a simple to use API to discover beacons and get meta-data about beacons.
- Provide tools to airport operators and beacon owners to visualize and track beacons.
- Be vendor agnostic - the service should work with beacons from any vendor.

www.developer.aero/beaconregistry

PROPOSAL TO INDUSTRY

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- Beacons be treated as common use infrastructure

- Adapt existing common use business model and practices to beacon deployments

- Follow standards / propose & adopt IATA resolution

THANK YOU

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