AIRPORT DIGITAL API ECOSYSTEM

AIRPORT INFORMATION DELIVERED BY AIRPORTS

January 2019
AIRPORT DIGITAL VALUE CHAIN

- **Establishing the Airport Digital Ecosystem** – facilitate the exchange & use of airport data/information

  1. Improved service and customer satisfaction to passengers
  2. Enabler of travel industry digital initiatives
  3. Allows airports to get more value from their digital assets
  4. Facilitate industry operational efficiency
  5. Potential new commercial proposition for airports

Need to create value for stakeholders. Developers want a central API portal for standardized airport APIs – they don’t want to access multiple airport API portals. Airports create a more collective value in providing an airport API ecosystem.
EXPLOITING THE VALUE OF COMMONALITY

• Industry API Ecosystems Examples
  – Banking
  – Healthcare
  – Transportation

• Benefits
  – Value from Digital Assets
  – Interoperability
  – Operational Efficiency
OPENBANK INDUSTRY API EXAMPLE

Source: Google
HEALTHCARE APIx EXAMPLE

Apigee Health APIx

An Accelerator for Digital Healthcare

The Apigee Health APIx solution makes it easy for healthcare providers, including hospitals and clinics, to connect with app developers and health data partners to build new FHIR-based digital services. It simplifies and accelerates interoperability and innovation by providing services that are ready for immediate use as well as cloud infrastructure to boost real-time and external innovation.

This solution is built on Apigee Edge, an enterprise-grade platform for managing, authoring, and scaling APIs. It is FHIR-agnostic, enabling healthcare companies to easily ingest health data from internal, external, or open-source FHIR-ready partners.

The Apigee Health APIx solution provides mobile and web developers and digital teams with access to:

- A purpose-built developer portal with FHIR-ready APIs, including claims, patient, medications, and condition APIs. Explore documentation and test your APIs.
- An open-source project with preconfigured API services for open FHIR APIs.
- Pre-integrated OAuth2 security framework and other key security functions.
- A reference implementation with a gallery of FHIR-enabled ideas for inspiration.

Try the portal:

Try the portal to find ready-to-use FHIR services for FHIR APIx in the health APIx developer portal powered by Apigee.

Source: Google
TRANSPORT FOR LONDON APIs

TfL's journey in publishing Open Data

- **2007**: Launch of embeddable widgets for real-time travel news, map and journey planner.
- **2009**: Special area for developers launched on TfL website.
- **2010**: London Datastore launched, additional TfL real-time feeds.
- **2011**: 100% registered developers for TfL open data.
- **2012**: Over 1,000 registered developers. Live bus arrivals API launched. Journey Planner APIs launched.
- **2013**: 30 data feeds. Hundreds of apps on the market. Shakespeare Review finds TfL data saves up to £25m annually for passengers.
- **2017**: Over 5,000 registered developers.

TfL open data is now being used in over 600 apps which are changing the way people use the TfL and wider London transport network.

**Number of apps using TfL data 2012-2016**

Apps using TfL include journey planners, mapping tools, booking and scheduling tools and analytics engines.

*Source: Transport for London*
HOW WOULD AN AIRPORT API ECOSYSTEM WORK?

ACI-NA Airport Digital Ecosystem
(working with API Management Provider & API Suppliers)

Airlines  3rd Party Users

API Management Provider

API Third Party Service Providers
(Supplying APIs)

Source: Google
API ECOSYSTEM SERVICE COMPONENTS

Available to all stakeholders (Airports, Developers, and 3rd Parties)

**Service Component 1**
Repository for ACRIS documents and standards

**Service Component 2**
Airport API Directory for Open APIs, Airport API Sandbox

**Service Component 3**
Airport Information Marketplace
Specific common APIs (e.g. airport maps)

Data Value Task Force
Airport Business & Commercial Agreement with ACI-NA (optional – participating airports only)

**Airports**: Business Agreement required with Airports & ACI-NA

**Developers/3rd Parties**: Free online registration required to access Open APIs
COMPONENT 1 – ACRIS REPOSITORY

- Repository for ACRIS documents and standards on the API Ecosystem website
COMPONENT 2 – API DIRECTORY FOR OPEN APIs & AIRPORT API SANDBOX

What is an Airport API Directory?
A repository providing information, standardization, and categorization of APIs.
An API Directory is **not a search engine** for airport APIs. There is no value for developers.

What is an Airport API Sandbox?
API Sandbox is an environment that testers can use to mimic the characteristics of the production environment.
## COMPONENT 2 – API DIRECTORY FOR OPEN APIs & AIRPORT API SANDBOX

Airport API Industry Portal/Directory/Catalog/Library is...

Not a search engine for airport APIs – No Value to Developers

<table>
<thead>
<tr>
<th>Transportation</th>
<th>Description</th>
<th>Auth</th>
<th>HTTPS</th>
<th>CORS</th>
<th>Link</th>
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<tbody>
<tr>
<td><strong>ADS-B Exchange</strong></td>
<td>Access real-time and historical data of any and all airborne aircraft</td>
<td>No</td>
<td>Yes</td>
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<td>Yes</td>
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<td><strong>Amadeus</strong></td>
<td>Real-time data of any marine and inland vessel equipped with AIS tracking system</td>
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<td><strong>Amadeus Travel Innovation Sandbox</strong></td>
<td>Aeronaautical information in digital media produced by the Department of Airspace Control (DECEA)</td>
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<td>Yes</td>
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<td><strong>Community Transit</strong></td>
<td>TransitLink API</td>
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<td><strong>Graphhopper</strong></td>
<td>API for travel search</td>
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<td><strong>Icelandic APIs</strong></td>
<td>Open APIs that deliver services in or regarding Iceland</td>
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<td>Yes</td>
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<td><strong>Izzi</strong></td>
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<td>The open API for building cool stuff with transport data</td>
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<td><strong>Refuge Restrooms</strong></td>
<td>Provides safe restroom access for transgender, intersex, and gender nonconforming individuals</td>
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<td><strong>TRANSCO</strong></td>
<td>Travel disaggregation</td>
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</tbody>
</table>

Links to Schiphol Airport Developer Portal

https://developer.schiphol.nl/login
COMPONENT 2 – API DIRECTORY FOR OPEN APIs & AIRPORT API SANDBOX

Open Airport API – Dashboard

Concessions Locator – API Portal

Creating an Airport API Ecosystem

Need to provide information, standardization, and categorization

An API Directory is NOT just a link of Airport APIs – Need to Provide Value
COMPONENT 2 – API DIRECTORY FOR OPEN APIs & AIRPORT API SANDBOX

Airport API Ecosystem Now Provides Value for Developers

https://apatel-eva-acina.apigee.io/index/
COMPONENT 3 – AIRPORT API VALUE OF DATA FOR SPECIFIC APIs (E.G. AIRPORT MAPS)

The value of specific APIs needs to be discussed and is optional for airports to participate

- Revenue share for participating airports
- Can be region specific (e.g. ACI-NA)
- Exploiting the value of ‘common’
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NEXT STEPS

• Continue work with the ACI World IT Standing Committee (WAITSC)

• Provide the Airport Digital Ecosystem Service to airports

• Establish a Task Group to explore the opportunity of data commercialization
  – Members from the ACRIS Working Group
  – Airport Commercial
  – Business Development