



# Passenger Baggage and Data Management through Common Use Infrastructure

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# OUR GOAL

- ▶ To take advantage of current RFID and mobile technologies to provide detailed information to passengers at every step of their journey (baggage status, wayfinding, dining/shopping options, wait times).
- ▶ To increase revenue at participating airports by providing passengers with up to the minute information, allowing them to spend more time dining and shopping rather than waiting.
- ▶ To encourage passengers to enjoy their journey by allowing them to opt into coupons and promotions based on their location.
- ▶ To provide long-desired passenger information to airports so that they may use that data to better tailor their services and offerings to the travelers passing through their facility.
- ▶ To help airlines provide better, more efficient customer service when bags are misplaced.

# WHY THIS IS NEEDED

- ▶ According to several recent passenger experience surveys, many travelers experience high levels of stress while traveling.
- ▶ These worries are attributed to two main causes – time spent waiting and lack of information provided.
- ▶ It is in the airport and the airlines' best interest to address these concerns to promote a more enjoyable passenger experience and increase passenger numbers.



# HOW IT WORKS – PASSENGER PERSPECTIVE

- ▶ Passengers can sign up at a website online as part of the airline ticket purchase process. The sign up will require them to input contact info, address, high level demographic info, high level travel preferences.
- ▶ They will receive a (can request more than one during sign up) RFID luggage tag (airline-agnostic) that contains their info. This tag will contain similar information to the paper tags airlines currently provide.
- ▶ Passengers can change notification preferences online at the website; notifications would include options for detailed baggage information (“Your bag was loaded onto your airplane,” “Your bag will be delivered at baggage carousel 2 in 15 minutes’), airport maps, security wait times, coupons and promotions for dining/shopping at their current airport.
- ▶ Customers will be prompted to update their information on a yearly basis, though this can be done at any time.

# PASSENGER BENEFITS WITH CARRY ON LUGGAGE

- ▶ While this service is clearly beneficial to passengers who check their luggage, travelers who prefer to carry their luggage on can still take advantage of this service; these travelers can scan their RFID baggage tag at a reader in the airport terminal to get access to wayfinding tools, wait times or other information, and coupons/promotions.



# MOBILE ALERTS

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# HOW IT WORKS – BACK END PERSPECTIVE

- ▶ Airports install RFID reader infrastructure at appropriate points throughout airport (ticket counters, TSA bag scanning, airplane ramps, etc.).
- ▶ Participating airlines must include RFID scans into their processes; ticket agents, bag handlers, etc. will scan bags at appropriate points during the journey.
- ▶ RFID infrastructure will tie into Common Use systems to provide data to those participating airlines.
- ▶ Airlines can only participate if they are currently using Common Use infrastructure and systems at that airport.

# INTERACTION WITH COMMON USE

- ▶ Airlines who wish to participate in this program to offer these services to their passengers must be on Common Use; this is to avoid situations where airports must install multiple airline-specific RFID equipment infrastructures.
- ▶ If the passenger is flying on an airline that is not on Common Use, the baggage notifications will NOT function; passenger could still receive notifications about the airport, coupons, etc.
- ▶ Common Use services are becoming more and more prevalent in US airports to improve operational excellence and to streamline airport processes; this service will encourage airlines to consider joining the Common Use program in order to access useful passenger data and be able to provide better customer service.

# COST MODEL

- ▶ Airports will fund the initial infrastructure costs; RFID equipment is relatively inexpensive and should not come at a huge burden to an airport's planned budgeting.
- ▶ As airlines pay subscription fees for this service, a portion of their yearly fees will go back to the airport to help offset the upfront equipment costs. The rest of their fees will go to the company offering the notification service to cover overhead costs, costs of RFID tags, etc.
- ▶ Airlines have the option to pass along subscription fees to some or all of their passengers (up to airline discretion).
- ▶ The notification company will own customer data, but will provide this to the airlines so long as they are subscribed to the service.
- ▶ Airports will pay a small amount (can be included in Common Use fees depending on airport's Common Use cost model) to access the data from this service.

# WHY SHOULD AIRPORTS INVEST IN THIS?

## THE TOP 3 INVESTMENT PRIORITIES IN 2015 ARE PASSENGER, OPERATIONS AND BAGGAGE



73%

Passenger processing



40%

Operations



39%

Baggage processing

% of airports considering these as 'high priority'

- ▶ According to the 2015 Air Transport Industry Insights Airport IT Trends Survey published by SITA, the top investment priorities for airports are around passenger and baggage processing and improving airport operations. This concept enables the efficiency of all three of these investment areas.
- ▶ Airports across the US are investing in Business Intelligence and data-driven decision-making to improve their operations – this is a huge investment in valuable customer information.

# WHY SHOULD AIRLINES INVEST IN THIS?

- ▶ This is a service airlines can offer to their passengers that has the potential to greatly improve their journey.
- ▶ While airlines currently have access to data about their own passengers, this would give them access to a much greater pool of data that encompasses all travelers.



# WHY NOT A MOBILE APP?

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- ▶ While the majority of travelers rely heavily on mobile technologies, we opted against creating a mobile app due to the fact that this would require passengers to proactively download this app and keep it on their cell phones even while they are not traveling; additionally, many travelers have reported dissatisfaction with having to download many different airport-specific apps to access information for that location. By using RFID data, we will know where travelers are and can push information to them rather than making them figure out where to pull information from.



# COST/BENEFIT ANALYSIS

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Stakeholder	Costs	Benefits
<b>Passengers</b>	<ul style="list-style-type: none"><li>• Potential subscription fees passed on by airlines</li></ul>	<ul style="list-style-type: none"><li>• Access to detailed information throughout journey</li><li>• Reduced levels of stress</li><li>• Access to coupons/promotions to save money during journey</li></ul>
<b>Airports</b>	<ul style="list-style-type: none"><li>• Upfront infrastructure costs</li><li>• Data subscription fees</li></ul>	<ul style="list-style-type: none"><li>• Access to previously inaccessible customer data</li><li>• Encourages airline participation in Common Use program</li><li>• Eliminates the need for airline-specific scanning solutions</li><li>• Upfront costs will be paid back by customer fees</li><li>• Potential for increased non-airline revenues from higher passenger spending</li></ul>
<b>Airlines</b>	<ul style="list-style-type: none"><li>• Common Use fees</li><li>• Subscription fees</li></ul>	<ul style="list-style-type: none"><li>• Provides access to customer data for all airlines, not just their own</li><li>• Don't have to pay upfront infrastructure costs to install RFID equipment</li><li>• Possible revenue stream if airlines choose to charge customers</li><li>• Ability to use this service as a perk for special customers (first class, credit card holders, etc.)</li></ul>

# CLOSING

- ▶ This concept provides added benefits to passengers, airlines, and airports by encouraging the sharing of data amongst all parties.
- ▶ Collaboration between these different parties inspires a smoother, more seamless passenger experience, allowing travelers to actually enjoy their journey and to take full advantage of airport and airline offerings.
- ▶ Airports and airlines will now have access to valuable data about what kinds of people are traveling today, helping them to provide more tailored services and increase revenues on both ends.
- ▶ This model utilizes well-known, relatively low cost, easy to implement, user-friendly technologies.

# THIS PROJECT WAS COMPLETED AS A COLLABORATION BETWEEN:

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