ACRP Problem Statement: 470

*Guidance for Identifying and Implementing "Touchless Travel" Technologies at Airports*

**Recommended Allocation:** $400,000

**Tags:** Customer-Experience, Public-Safety, Safety, Security

**Thought Leader Forum on Emerging Issues:** Emerging Issues--Workforce Development

**Research Roadmaps:** N/A

**Staff Comments**

Recommend a budget of $400,000 based on similar ACRP work efforts.

### AVERAGE INDUSTRY RATING BY AUDIENCE SEGMENT

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<tr>
<th>Audience Segment</th>
<th>Average Rating</th>
<th>Number of Responses</th>
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<td><strong>Overall Total</strong></td>
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**AOC Disposition**

The average AOC rating among voting members was **3.9** on a scale of 1 to 5. The issue is evolving, so research is needed. Approved and funded at $100,000 as ACRP Quick Response Project 11-02/Task 39.
Guidance for Identifying and Implementing "Touchless Travel" Technologies at Airports

Summary

Airports are in need of a guidance to identify key touchpoints and implementable technology solutions to institute a "touchless travel" model in order to improve security and safety for passengers, employees, and tenants.

Background

There has always been an interest in moving airports to a "touchless travel" model for enhanced security measures and a smoother passenger journey. With the disruption caused by COVID-19, there is now an additional need to reduce the risk of spreading contagious diseases between passenger, tenant, and employee interactions as well as heavily used shared surfaces such as check-in kiosks, paper boarding passes, concessionaire point of sale units, and manual bag tagging. The need to investigate key points along the airport journey to implement touchless technologies for passengers traveling within highly trafficked areas of the airports and for tenants and employees is paramount. From parking to concessions to the security checkpoint, there is a need to investigate technology solutions that can address these key touchpoints to improve security and safety. Implementing a "touchless" environment within the airport significantly reduce the spread of contagious diseases, limits resources/services interaction of physical hardware surfaces, increases passenger health awareness and confidence, allows for more secure forms of identification, and improves the passenger experience.

Objective

A Guidebook should be developed to evaluate what touchpoints throughout the airport journey could be improved with technologies to reduce the risk of safety and security concerns and identify what solutions are available to meet these goals. This would include replacing legacy physical interactive technologies with those that eliminate or minimize interactions between individuals themselves, as well as between individuals and heavily used surfaces, within the airport environment.

Research Approach

Review and outline the current airport passenger journey as it exists in the industry today

Identify the main touchpoints between passengers, tenants, and employees that create the most risk for security and safety concerns

Research and compile a list of technology solutions to address these at-risk touchpoints

Develop a use case study for a small, medium, and large size airport

Develop best practices and lessons learned

Develop a concept of operations

Recommend technology solutions to support the reduction of interactions for the most at-risk touchpoints
**Cost Estimate/Backup**

$500,000 – There is a lot of research to be done to address reducing interactions at these at-risk touchpoints with the airport environment, as not many of these technologies are considered advanced and have been implemented yet in the U.S. This guidance will also require thorough investigation of the infrastructure required to support these systems as well as any resulting change management, processes, procedures, policies, and staffing that come with implementing new technologies.

**Related Research**

Several individual technology-related ACRP guidance exist, such as ACRP 03-55, but none of them address a holistic approach to addressing "touchless" travel or airports going to a "touchless" model using technology specifically to address disease mitigation.

**Author:** Grant Gray, Sr. IT Consultant, Faith Group, LLC
Airport security can be an area where an airport uses its own funding to address issues, rather than rely on ACRP for guidance. A webinar or TRB annual meeting session might be places to start a dialogue on this topic. An overall airport data strategy would be a useful component.

All airports would benefit from the research and no doubt the research could be accomplished successfully. Airports will be desperate for this information. Yes the problem statement clearly written.

Applicable: This research is needed, as several proposal ideas bounced around this same subject (particularly #492). Several efforts in this area are on-going, including through ACI-NA Achievable: Yes. But this research will need to work carefully with ACI and other on-going efforts.

Implementable: Yes, but this research needs to look at the long-term requirements. As we ramp down from our current state, and many of the requirements are relaxed, how do we ensure that the technologies can ramp down, but still be ready for full use if another such pandemic would occur. Airport finances are tight and we need to consider the long-term. Understandable:

Certainly applicable to all in this pandemic environment. Appears attainable, but how current can it actually be after 6 months on the shelf?

every airport will need to do this - taking into account travelers and airport employees. will need to review every aspect of the airport experience for travelers and also for airport workers to identify ways to reduce touch. This will also include need for ways to identify passengers.

Good aim, approach. This does not need the current pandemic to wind-down, in fact it should be fast tracked as it could inform already in-design construction projects in terms of incorporating the research's guidance.

Good applicability to airports of various sizes, needs a more refined budget request.

Great concept. too many opportunities to touch things.

I appreciate the need for the study but have concerns over the ability of the guidebook to stay current with the continued technological enhancements and improvements.

Innovative. I like the idea and feel it has merit.

Recommend grouping health and pandemic projects into a single project.

Research should expand on biometric technology

The need for Touch-less technologies has gone up drastically with the pandemic. One should take caution and make sure that studies do not overlap systems that may already be in place or are too speculative. Having a guidebook might be beneficial however a feasibility or survey may be more beneficial as items are changing rapidly and may be coming from the point of fear and reaction instead or being proactive. The problem statement should be clearer with more of the technical elements defined. Currently it seems vague with a long timeline and may not be achievable to address the current gap that needs clear concise approaches that could be done in a very timely manner.

This is an interesting study, but I just wonder if the requested amount is a little excessive.

This project will leave Airports with actionable information relevant today and tomorrow. Technology changes rapidly which will need to be considered.
This will be a big topic of discussion and something the traveling public will be looking for in places like airports. In order to develop a safer environment people will be expecting more of this moving forward.

Very important - Airports are in need of a guidance to identify key touchpoints and implementable technology solutions to institute a "touchless travel" model in order to improve security and safety for passengers, employees, and tenants.

Very timely study. More and more touchless technologies are coming on the market. Combine these with smartphones and passengers could easily travel through an airport with minimal contact with surfaces. This definitely could be implemented at most airports.

Very topical right now. Will be tech heavy guidebook. I chose this to stand alone from facility hygiene and health management topics. This is singular focus on the technology.
Idea Number: 470

**Guidance for Identifying and Implementing "Touchless Travel" Technologies at Airports**

Input Provided by ACRP IdeaHub Community

The votes and comments below were provided by the IdeaHub community prior to the idea’s submission as a problem statement.

Idea Link: [http://ideascale.com/t/UKsrZBi4s](http://ideascale.com/t/UKsrZBi4s)

Tags: Customer-Experience, Public-Safety, Safety, Security

Votes:

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Comments:

N/A