

WHITE PAPER / PASSENGER TERMINAL DESIGN

RETHINKING PASSENGER TERMINAL SPACE CONFIGURATIONS

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Even as the aviation industry grows and evolves, enhancing the passenger experience remains at the forefront. Airlines are discovering inventive ways to use existing space to meet today's advancing needs.



Before the COVID-19 pandemic led to a 60% loss in global air passenger traffic in 2020, many airports faced increasing terminal space shortages. As air travel rebounds to prepandemic levels, airlines are working to meet new space demands and incorporate lessons learned from the pandemic for safer, more efficient travel.

Airlines now have the opportunity to reimagine their terminal space to better accommodate passenger needs and facilitate better passenger experiences in a postpandemic world.

In some cases, that may mean using existing space differently. Other airlines might choose flexible solutions that enable them to adapt both public and nonpublic spaces to changing conditions. Integration of smart technologies will almost certainly be part of the mix as airlines seek ways to generate revenue and reduce expenses while improving the overall passenger experience.

PUBLIC SPACES

Airport floor plans historically have been highly compartmentalized, with passengers passing through a series of zones where they often end up playing a game of hurry up and wait. Ticketing and baggage check lead to security. Depending on the time remaining before their flight, passengers may linger in dining and shopping venues on the way to the holding area by their departure gate. An airline's aim is to get them to a seat near the gate so they can be close by and ready to board when the time arrives.

The practical result is bottlenecks and congestion as one flight disembarks and another prepares to board. The holding area then empties as arriving passengers make a beeline for connecting flights or the baggage claim area, while the next passenger cohort is often standing by, eager to fill the void.

The question is, how might airlines reduce overcrowding and balance passenger flow without delaying departures or creating undue passenger anxiety? Here are a few ideas worth considering:

TICKETING AND HEADHOUSE

With more passengers checking in for flights on their phones, the need for terminal check-in spaces is changing. Already self-serve check-in and baggage kiosks are taking the place of traditional ticket counters. Some airlines are going a step further by removing both ticket counters and kiosks, and instead deploying mobile customer service agents.

Equipped with hand-held devices, these agents are trained to be proactive, approaching passengers as they enter the terminal area or responding to requests for bag tags or boarding passes. Passengers who are not checking luggage already bypass these areas and head straight to security.

Recognizing that the headhouse is now functioning as a baggage tagging and drop-off area, some airlines are considering other alternatives. For example, curbside baggage check — dramatically curtailed at the onset of the pandemic — may make a comeback, enabling passengers dropped off at the airport to check their bags before entering the building. Airlines may also consider ways to accept luggage before passengers leave the parking garage or airport rail station, further reducing terminal congestion and providing greater passenger convenience.

The flexibility of this approach can be especially helpful to airlines that wish to open routes in cities they do not currently serve. Rather than opening a new ticketing area, they could introduce portable check-in options similar to pop-up restaurants or retail kiosks, either inside or outside the terminal doors.

BAGGAGE CLAIM AREAS

Airlines lease office space in the baggage claim areas where passengers have traditionally reported lost luggage. These spaces may be reduced or repurposed if mobile customer service agents are stationed in the baggage claim area to address lost luggage questions on the spot.

Luggage tracking itself can become a self-serve aspect if tagged bags are paired with scanning technology that allows passengers to track the location and report missing items through an airline app. Not only will they know

ahead of time if their luggage didn't make a flight, but they can also receive alerts that let them know when it arrives at the baggage carousel.

Airlines can also allow passengers to scan their boarding pass upon arriving in the baggage claim area and then dispatch bags using a time-based first-in, first-out approach. This would replace the traditional approach of unloading the entire aircraft and dropping priority bags first, followed by all other checked bags, minimizing the wait time and quantity of people flowing through one space.

NONPUBLIC SPACES

An airline's behind-the-scenes operations also offer opportunities to make better use of space. In almost every case, flexibility is key.

OFFICE SPACE

Airlines tend to house their back-office operations in blocks of conventional private offices, which remain unoccupied more hours than not. Because remodeling priorities have traditionally favored more visible public spaces, airline operational spaces tend to be more outdated. As space needs grow, it might be economically advantageous for airlines to consider how to use this square footage more efficiently.

Rather than assign individual offices and desks to staff, for example, airlines might consider removing office walls and creating open communal office space that can be shared by staff over multiple shifts. Even with social distancing considerations, per-employee space allotments could expand 30% or more in these environments.

Still, considerable space can be saved with an open floor plan approach. An airline that employs six customer service managers may only have two working at any one time. A footprint half its current size might provide all the space these six staffers need.

Some airlines may also rethink the number of employees they need in the office, extending pandemic remote work options. This means that every employee may not need

their own desk in the office. By eliminating walls, airlines can scale space up or down when flights and staffing needs fluctuate.

In some cases, updated back-office floor plans will be able to accommodate significantly more staff than current operations allow. In other cases, a redesign of operational space may result in repurposing a significant amount of existing space as break and locker room space. Some airlines may also be able to lower their lease costs by returning unnecessary space to the airport.

BREAK AND LOCKER ROOMS

As airlines consider the most efficient use of space, they should also consider how to design inclusive spaces for employees. Union policies may dictate an airline's space requirements for gender-inclusive employee break rooms, locker rooms and restrooms. By offering gender-inclusive spaces, airlines could comply with these union requirements, reduce overall space needs and progress an inclusive workspace. Designing for inclusivity from the beginning — instead of waiting for issues to arise — reinforces cultural inclusivity and could help save money on redesigns.

A LAYERED APPROACH TO DESIGN

In both public and nonpublic areas, flexibility will be key as airport space is reimagined. To address changing needs, airlines may consider a more layered approach to designs of these spaces. For example, an open floor plan can be reconfigured with modular panels that are added or removed as needs dictate. High-travel periods or conditions that require heightened vigilance may require special configurations to support passenger health and comfort.

Flexibility will also be essential as airports rely increasingly on biometrics and facial recognition programs to identify travelers. Biometrics systems make seamless travel experiences possible, empowering passengers to check in, drop checked bags, pass through security, board planes and, in the case of international flights, clear customs without a face-to-face encounter to show a physical identification or boarding pass.

Biometrics will have other significant impacts on airport operations. Passengers naturally metered through security, immigration or boarding may experience shorter lines as these technologies speed up boarding pass verification and alleviate congestion. As a result, a wider variety of designs may emerge that focus on passenger amenities, concessions and accessibility that current constraints do not permit.

These, as well as all other procedural changes, have the potential to revolutionize the travel experience in the long term. Initially, however, they will likely create confusion among passengers who have grown accustomed to certain practices.

Reimagined designs must therefore include wayfinding and signage systems to support the procedural changes created by these new processes. Since use of various technologies, including biometrics, may be voluntary, signage is also needed to help passengers understand their options and direct them on how to opt in or out of its use. Airlines should also establish communications and engagement campaigns to keep passengers well-informed.

Airlines in a postpandemic world have two major challenges: creating safe, enjoyable passenger journeys while also improving efficiencies of their own operations. Innovative designs that rethink existing space can lead to creative solutions for these challenges.

BIOGRAPHIES

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