# SEAMLESS TRAVEL

Explore the award-winning biometric and AI technology of NEC, unlocking uninterrupted curb-to-gate travel with just a simple smile

## Flying Through the Airport

"**G**etting there is half the fun" goes the old travel slogan, but air travel today can be filled with anxiety and, according to a survey by The International Air Transport Association, most travelers just want to get through the airport as quickly as possible. Good news though: technology is changing all that, and now a simple smile will be all it takes to unlock a frictionless, more enjoyable airport experience.

"The overall vision starts with a seamless journey that allows customers to move effortlessly through security infrastructure at airports, sea ports, land border crossings and beyond without ever having to produce a travel document or boarding pass," says Benji Hutchinson, Vice President of Federal Operations, NEC Corporation of America.

ARRIVAL

# The seamless curb-to-gate experience

Technology today is transforming the airport experience—and just in time. In 2018, more than 4.3 billion passengers took to the skies, with the number of total air passengers forecasted to double by 2036. The new technology doesn't just let airlines, airports and government authorities keep up with increasing passenger traffic. Instead, cutting-edge biometric and Artificial Intelligence (AI) technologies are changing our very experience of air travel, for the better.

The journey first begins when a traveler's image is registered in U.S. Customs and Border Protection's Traveler Verification Service database from their passport or visa. Facial image data collected in the airport environment is encrypted, then destroyed after a designated period of time. For U.S. citizens, this period is short—just 12 hours. Once registration is complete, travelers can then check in to their international flight at an automated, curbside kiosk using facial recognition technology. There's no need to hunt for a paper itinerary or fumble with their phone. Once checked in, they can drop off their bags, again, using just their face. From here, they will navigate to a TSA (Transportation Security Administration) checkpoint, where they will again use their face in place of a passport and boarding pass. Moreover, once inside the terminal, they can proceed to their boarding gate, completing the seamless curb-to-gate experience. It's worth noting that U.S. citizens traveling internationally have the right to opt out of biometric collection in the airport.

"The vision is to extend the concept to hotels, car rental agencies and retailers all along the travel process, which would create efficiencies anywhere that

weary travelers have to wait in lines," says Mr. Hutchinson.

The implementation of biometric and facial recognition technology was initially motivated by security needs as a direct result of the events of September 11, 2001. The Department of Homeland Security, through U.S. Customs and Border Protection, invested in the core security and identity-matching technology and, to date, has used it to identify and prevent the illegal entry of more than 100 imposters at U.S. ports of entry.

This same technology is working behind the scenes in operation centers to further automate systems throughout the airport, like baggage check, and enhance airport security without increasing personnel. Behavior detection, crowd analysis and watch-list screening offer real-time insights, monitoring suspicious activities or a sudden rise in crowd levels. This allows security to be proactive as well as have the ability to quickly dispatch personnel if needed.

Now, its benefits are expanding beyond the customer experience—as an operational benefit to the airline industry, says Mr. Hutchinson. "So now, transportation carriers have the added benefit of offering a seamless traveler journey while also improving their bottom lines through faster boarding and improved customer satisfaction."
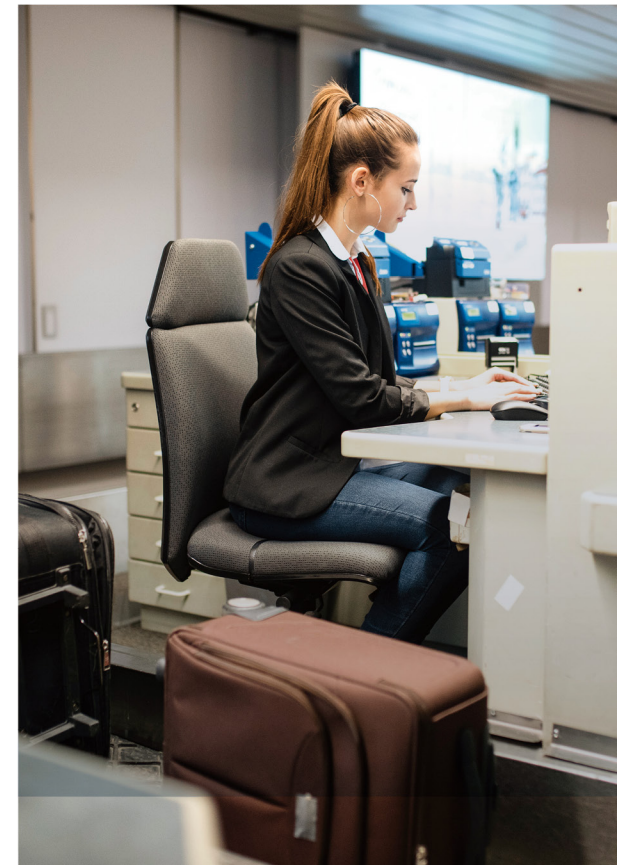
## The Magical Triple A

In its work with the World Economic Forum, Accenture has focused on the "Magical Triple A"—airlines, airports and authorities—tasked with the challenge of getting these entities to work together. Airlines know when passengers buy tickets, check in and go through security, but how passengers

spend the rest of their time between security and boarding is largely unknown, says Jonathan Keane, head of global aviation at Accenture. "But by using new technology the airport can know down to the square foot where a particular person is standing, and with permission, could share this information to drive benefits for everyone."

Besides its core job of security, biometric technology needs to bring personalization to the travel experience, to allow the "Triple A" to "truly understand what customer needs are," says Mr. Keane. "Maybe you have a three-hour layover or just thirty minutes. Maybe you travel frequently; maybe it's your first time. Irrespective of choices, the experience needs to be seamless."

This information would make it easier to alert passengers to gate changes or to warn them, for example, that they're a 15-minute walk from their gate and that boarding has begun. Lack of information ranks among the top ten customer complaints about airports, according to a study by McKinsey. Information would not only relieve passengers' travel anxiety about missing their flights but also would help airlines to close gates on time, or, when flights are delayed, to encourage passengers to stop for a snack or linger over shopping—important generators of airport revenues.

"None of the visions for a seamless travel experience can happen without significant partnership between government and private industry," says NEC's Mr. Hutchinson, who is nonetheless hopeful at the increasing number of public-private partnerships happening in this realm. When the stakeholders do come together, the benefit to travelers, he says, will be "a smooth, seamless journey."

DEPARTURE
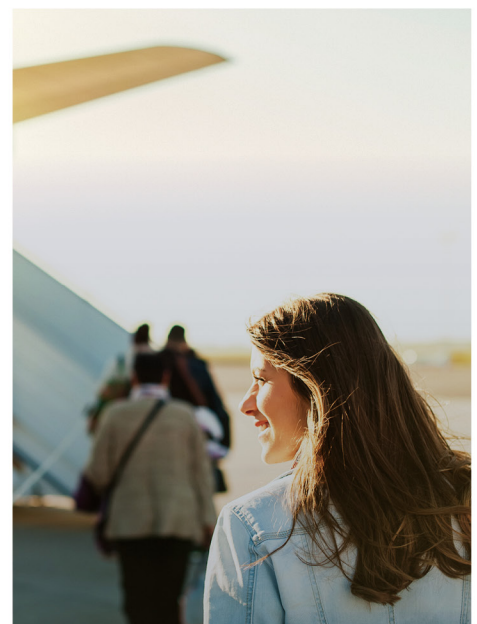


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