

7 Ways **Facial Recognition** Can Unlock A Secure, Frictionless and Personalized Travel Experience

COURTESY OF A SINGLE, UNIFIED BIOMETRIC KEY





INTRODUCTION

Boarding a plane used to be the exciting start to any journey, even a business trip. But today's airports are busier, more congested and stressful than ever. According to the Bureau of Transportation Statistics, over **821 million passengers** boarded U.S. airline flights in 2016. With demand for air travel expected to **double over 20 years**,² that makes for some very crowded airports.

What used to be a pleasant experience is now marred by long lines, time-consuming security checks, and constant stress. From the check-in counter and the self-service kiosk to the TSA screening lines and boarding lines at the gate, travelers wait in one queue after another.

But what if each passenger had their own **unique biometric key**, allowing them to overcome these obstacles?

With the right technology—like advanced biometric and facial recognition solutions—airports can make an air traveler's journey a more pleasant one once again.

Here are seven ways advanced recognition technologies can provide a secure, frictionless and personalized passenger experience.

¹: United States Department of Transportation, Bureau of Transportation Statistics, May 2017. ² Source: International Air Transport Association (IATA), 2017.

#1 CHECK-IN COUNTER

START OFF WITH FAST, ACCURATE SELF-SERVICE TICKETING.

The U.S. is home to five of the 10 busiest airports in the world. Last year, 59 percent of air passengers used main ticket counters over self-service kiosks or online check-in. That's 410 million people that need to have their IDs checked manually.⁴

As for the 18 percent waiting in line at the self-service kiosks, most kiosks still scan the ID, not the passenger.

Why not streamline the check-in process right from the start?

Advanced facial recognition solutions from NEC can quickly and accurately verify a traveler's identity. A simple scan of the face creates a unique and unified biometric key that allows travelers fast, frictionless check-in for their flights. It can also match them against security watchlists and flight manifests to keep everyone safer and reduce wait times in lines.



Traveler benefit:

Shorter, faster-moving lines mean a simple, frictionless check-in experience in a fraction of the time.

Busiest Airports in the World

1	Atlanta, GA
2	Chicago, IL
3	London, GB
4	Tokyo, JP
5	Paris, FR
6	Los Angeles, CA
7	Dallas, Ft Worth Airport, TX
8	Beijing, CN
9	Frankfurt, DE
10	Denver, CO

⁴: Bureau of Travel Statistics via Statistic Brain.com.

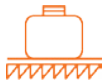


#2 BAG DROP

MAKE BAG DROPS FAST, EASY AND SECURE.

After check-in comes the bag drop. Even passengers using a check-in kiosk face this line. How do handlers know the person dropping the bag is the actual traveler, unless there's another ID check?

Facial recognition technology—like NEC NeoFace's dual-capture facial recognition—can **ensure the identity of the travelers** dropping off luggage by matching passengers with their baggage tags for faster processing. That means baggage handlers can potentially **screen more luggage** and **check fewer IDs**.



Traveler benefit:

Facial recognition eliminates bag drop delays for the traveler, while visually and digitally associating travelers with their bags.



#3 SECURITY CHECKPOINT

MAKE SECURITY SCREENS FASTER AND MORE EFFICIENT.

Our traveler has sped through check-in and bag drop, thanks to facial recognition.

Now comes the security screening. No other step in a traveler's journey is more necessary for safety.

The average wait time at security screenings is 16 minutes in large airports, and that's skewed by "TSA Precheck" and Global Entry programs⁵. Most travelers wait longer, especially when the alert status moves from yellow to orange or red.

With facial recognition, airport security gets fast, accurate identity verification, so they can screen more passengers with fewer personnel.

That means they can focus their attention on addressing potential and actual threats.



Traveler benefit:

Use of facial recognition allows travelers to move through security checkpoints more quickly and with less friction, which significantly reduces travel stress.

⁵: Bureau of Travel Statistics via Statistic Brain.com.

Do security lines get a bad rap?

Four of the top 10 traveler complaints about airports are about security issues.

- Confusing layout / what to do
- Unfriendly, overworked personnel
- Lengthy wait at screening process
- No seating to dress afterward

Facial recognition simplifies the screening process and streamlines operations by providing a unified biometric key for each traveler.

Source: McKinsey Research, Executive Briefing, August 2016.



#4 IN-AIRPORT ENTERTAINMENT

LET TRAVELERS SAFELY ENJOY THE “WAIT BEFORE THE GATE.”

Our travelers are now through security. Facial recognition during check-in, bag drop and security has created a more positive experience, not to mention allowing more time to relax before boarding. Speeding through lines gets passengers to the terminal in a better mood and with more time to browse the shops, enjoy a meal or catch up on email.

Let customers dine, shop and relax before it's time to board their flights. Facial recognition technology can make those experiences faster, more secure and more enjoyable, even in a crowded terminal.

Facial recognition solutions integrate with restaurant and retailer payment systems, letting travelers make secure, fraud-free purchases with just a glance at the camera. At VIP frequent flyer lounges, facial recognition identifies and admits frequent flyers quickly, so they can be on their way. With walk-up kiosks that recognize each traveler, airports can provide personalized information such as up-to-date flight times, distance to gates and time remaining for shopping or dining. The kiosks can even direct travelers to concessions with the shortest wait time.



Traveler benefit:

Facial recognition lets passengers enjoy a meal, shopping and the lounge, with faster-moving lines and a more positive experience.



#5 BOARDING PROCESS

AUTOMATE THE BOARDING PROCESS TO SPEED PASSENGERS ABOARD.

No one likes standing in line, waiting as airline employees scan each paper boarding pass—even after a relaxing time in the lounge.

With facial recognition and unique biometric key technology, airlines can greatly reduce passenger boarding time, while still ensuring tickets and ticket holders match—without requiring yet another manual ID check.

Facial recognition can automate the boarding process, reduce the need for extra gate personnel, and even eliminate the need for paper or mobile boarding passes. Boarding lines move more quickly, while airlines get a more accurate passenger manifest—meaning airlines can ensure more on-time departures and safer flights.

Traveler benefit:



Imagine, no more paper or mobile boarding passes. With facial recognition, slow and uncomfortable boarding lines are a thing of the past. Passengers get to their seats faster and with less anxiety.

DID YOU KNOW?

Congress passed a **mandate for biometric Air Entry / Exit program by 2018**. This program will allow the Department of Homeland Security (DHS) to keep track of all persons entering and leaving the United States.

e-fingerprints and photographs have been used for Air Entry for years. Now, by leveraging biometric keys, facial recognition technology allows airports and airlines to fulfill air exit requirements at the gate.

In 2017 the U.S. Customs and Border Protection (CBP) launched a pilot biometric air exit program in Dulles International Airport. This pilot features NEC's NeoFace® Express and cloud-based NeoFace matching as key facial recognition components, providing a successful air exit program as well as a frictionless customer experience.



#6 CUSTOMS & IMMIGRATION

FORGET LONG IMMIGRATION LINES.

"Welcome back to the United States."

Our passenger has landed and is headed for the immigration and customs queue. Accurate identification of all persons entering the U.S. is critical for public safety, but the process is often slow and stressful. The long, crowded lines at CBP entry points aren't fun for DHS / CBP agents, any more than they are for passengers.

Once again, facial recognition technology provides a quicker, more accurate—and even more pleasant—experience for everyone.

With rapid positive identification of arrivals made possible by biometric keys, facial recognition technology makes the immigration process faster, safer and more secure. And coupled with Air Exit data collected at ports of exit, it makes the Air Entry process more efficient, meaning fewer agents are needed to handle high passenger volumes. Fast, accurate identification reduces wait times and streamlines immigration process.



Traveler benefit:

Facial recognition provides fast, accurate identification, reducing wait times and streamlining the immigration process.

Travelers can quickly move on to collect their bags and make a connecting flight—or just head home.



#7 BAGGAGE CLAIMS

SECURE THE BAGGAGE CLAIM FROM THEFT AND PILFERING.

So far, innovative facial recognition technology has made this trip a safe and pleasurable one. The last stop is the baggage claim.

The U.S. Department of Transportation reports the mishandled bag rate has fallen to an all-time low. Unfortunately, there were still **21.6 million mishandled bags in 2016**⁶. And sadly, **23 percent** of those were **damaged by pilferers or stolen outright**.

NEC's advance recognition systems can monitor baggage claim areas, deter thefts and identify perpetrators using live and recorded video streams. The baggage claim remains safe and secure, reducing the number of security personnel needed to monitor the claim area.



Traveler benefit:

Fewer stolen bags means lower stress for travelers, higher customer satisfaction rates and fewer customer claims.

⁶ SITA Air Transport Industry Insights - The Baggage Report 2017

A not-so-perfect end to a trip?

There were over 21.6 million mishandled bags in 2016, and 23 percent of those were pilfered or stolen.⁶

Facial recognition solutions can monitor the baggage claim and detect and deter baggage thefts.



CONCLUSION

A UNIFIED BIOMETRIC KEY CAN UNLOCK A SECURE, FRICTIONLESS AND PERSONALIZED TRAVEL EXPERIENCE.

For today's air travelers, a once pleasant experience has evolved into a time-consuming and stressful one, marred by long lines and time-consuming security checks. Instead of enjoying themselves, the traveler's experience is now about waiting in one queue after another, from the moment they arrive at the airport until they exit at their final destination.

But it doesn't have to be that way. NEC's advanced recognition solutions are making an air traveler's journey a more pleasant one once again.

NeoFace® Express, a key component of NEC's single, unified biometrics key solutions, provides fast, accurate identity verification through every phase of the passenger journey. It can speed check-in, baggage drop, security screening, retail purchases and boarding lines. And after arrival, NeoFace software makes the immigration process and baggage pickup—and even finding ground transportation—frictionless and less stressful.

With NEC's facial recognition and identification solutions, passenger convenience and security can coexist once again.



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