

Can We Personalize Our **Everyday Experiences** in Public Venues, **Without Compromising Security?**

How to Create a Secure, Frictionless Experience with Advanced Recognition Biometric Technology



NEC

\ Orchestrating a brighter world



INTRODUCTION

The world has become a busy, complex and crowded place filled with roughly 7.6 billion people, and globalization has virtually erased all borders while creating a confluence where people, trade and economies seamlessly blend.

What if someone's face could become their personal biometric key that unlocks a more personalized experience? What if we could mitigate risks and security threats by identifying criminals and other watch list individuals before they enter a public venue?

NEC's Advanced Recognition Systems technology can enable us to do all of this, while also enhancing the customer experience. The following four examples illustrate how this technology can make our everyday experiences more secure, personalized and frictionless.

Stadiums & Sporting Events

Attending sporting events is a universal pastime enjoyed by people of all ages. From wearing their team colors to showing support for their favorite player, fans of every age are passionate. However, around the world many sporting events have been marred by security threats.

Moreover, fans are also paying higher ticket prices and standing in longer lines—just two of the obvious contributors to fan frustration at large events. Today, fans expect a personalized stadium experience tailored to meet their likes and dislikes. Stadiums face the need to provide a safe venue that can also enhance the fan experience.

HOW CAN NEC'S FACIAL RECOGNITION TECHNOLOGY ENHANCE THE EXPERIENCE FOR SPORTS FANS?

Facial Recognition technology can:

- Allow repeat visitors and VIPs to enter the venue quickly and easily.
- Identify and protect against unauthorized persons trying to enter employee entrances.
- Help protect security screening areas and ticket gates by checking individuals entering the venue against images in predefined watch lists—in real time.
- Send real-time alerts to security staff if a facial match is made, so they can determine whether to closely monitor the offender, or to apprehend and turn them over to law enforcement.
- With face payments, it can speed fans through the concessions line.
- Provide a personalized stadium experience for fans.

By identifying and monitoring persons-of-interest, facial recognition solutions can provide fans a safer, more enjoyable sporting experience.

In a recent Ladies Pro Golf Association (LPGA) event held in Palm Springs, California, NEC implemented a pilot program with its NeoFace® Express facial recognition solution. NEC provided a unique VIP experience for event media and credentialed patrons to create a frictionless entry into various secured environments around the golf course.



Theme Parks

According to Statistica, more than 475 billion people visited theme and amusement parks throughout the world in 2017—and that figure only includes the top 10 chains. In peak seasons, when parks get packed with visitors in high season, top customer complaints go beyond just ticket prices, parking fees and concessions to include slowdowns at the front gate, line jumping and overall crowd control.

For example, at LA-area theme parks, among the most common crimes are purse and backpack snatching, pickpocketing, shoplifting and theft of items from cars. As most park executives agree, the security challenge becomes more daunting during the holidays and peak vacation periods when crowd numbers surge.

HOW CAN NEC'S FACIAL RECOGNITION SOLUTIONS BRING THE AMUSEMENT BACK TO THEME PARKS?

Advanced Facial Recognition technology can:

- Identify season ticket holders for more rapid admittance and as an entry pass to enjoy rides.
- Discourage and lessen "pass sharing fraud."
- Speed visitor movement through queues for rides, as well as speed payments at concessions and merchandise locations.
- Screen park entrants against internal watch lists or those provided by law enforcement.
- Provide monitoring of real-time (and post-event) surveillance feeds.

Facial recognition solutions can bring added peace of mind as they identify and match faces against known offenders on watchlists. And by also increasing the speed of food and ride lines, this technology can help to make a day in the park a fun and memorable guest experience for visitors.

NEC's Integrated Electronic Money Solution

Universal Studios Japan (USJ) has started to address many of these complaints. Noticing heavy foot-traffic trends for restaurants and shops around late afternoon, the idea of using electronic money—"Wonder Money"—helps reduce congestion and stress. Using a preloaded money app, customers can use their smartphones to pay for food or services.



Aviation

Today's typical airport experience is usually plagued with long, slow moving lines, from the ticket counter to the tedious check-in processes and the queues for boarding the aircraft. While it is necessary for airport security to constantly evolve and quickly adapt to ever-changing threats, sadly this safety focus has come at the expense of the passenger experience.

HOW CAN NEC'S ADVANCED RECOGNITION SYSTEMS TECHNOLOGY RESTORE THE PASSENGER EXPERIENCE, WHILE ADDRESSING VERY REAL SECURITY CONCERNS?

NEC's facial recognition technology can:

- Expedite the check-in process by rapidly and accurately verifying passengers' identities.
- Make bag drops safer and more secure by matching baggage tags with a passenger's face.
- Provide faster, more accurate pre-check, using facial screenings which can actually eliminate the need for the ID checkpoint.
- Automate gate management for faster, more secure boarding, without relying on paper or electronic boarding passes.
- Provide faster, more accurate passenger identification at Customs and Immigration checkpoints.
- Monitor all baggage claim areas that employ video streams, both live and recorded.

The deployment of NEC's facial recognition technologies can assist security staff with real-time monitoring of airport crowds, provide accurate facial ID at all check-ins, and monitor passenger baggage more efficiently.



Border Control

Border security is one of our nation's top concerns, and it is more in the news than ever.

Whether by land crossings or international airport arrivals, each year thousands of unauthorized people try to cross our borders with false identification. The intense screening required at border and customs and immigration checkpoints, creates a slow process for those millions of travelers who are lawfully entering the country each year.

Using NEC's facial recognition technology, agents can determine if a traveler's face and passport photo match, assisting security personnel at all checkpoints to identify and monitor suspicious persons or activity and thereby to ensure the borders remain protected. It can do so quickly and efficiently to the benefit of all those legally entering and exiting the country.

NEC's NeoFace® helps Atlanta's airport with new biometric air exit technology:

Hartsfield-Jackson Atlanta airport is using a new facial recognition exit immigration procedure and technology to record when visitors depart the United States. Just before passengers board the plane, a NeoFace® Express device snaps their picture, then digitally compares that photo to the one in the manifest to ensure persons boarding the plane are the same as on their passports.

Conclusion

NEC: HELPING TO BRING THE PERSONALIZATION BACK TO EVERYDAY LIFE—SAFELY AND SECURELY

As the world's population continues to grow and mobilize, NEC's Advanced Recognition Systems solutions are ideally suited to support and strengthen the safety and security of customers anywhere people congregate, while delivering frictionless verification and identification in a variety of settings, such as; stadiums, theme parks, airports, boarder management, ports of entry/exit and other high-demand, high-traffic areas.

Designed to provide facial recognition, biometrics data and video analytics, NEC's world-renowned solutions include facial recognition, video surveillance, analytics, intrusion detection, and other applications that deliver scalable, end-to-end technology that enable improved safety, security and an enhanced customer experience. They offer opportunities to provide secure, frictionless experiences while strengthening public safety at entertainment and sports venues, our national borders, and aviation and transportation hubs.



About NEC Corporation of America

NEC Corporation of America (NEC) is a leading technology integrator providing solutions that improve the way people work and communicate. NEC delivers integrated Solutions for Society that are aligned with our customers' priorities to create new value for people, businesses and society, with a special focus on safety, security and efficiency. We deliver one of the industry's strongest and most innovative portfolios of communications, analytics, security, biometrics and technology solutions that unleash customers' productivity potential. Through these solutions, NEC combines its best-in-class solutions and technology, and leverages a robust partner ecosystem to solve today's most complex business problems. NEC Corporation of America is a wholly-owned subsidiary of NEC Corporation, a global technology leader with a presence in 160 countries and \$25 billion in revenues.



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