

NEC's NeoFace Solutions

Technology Leader

Not all facial recognition technology is created equal. NEC Advanced Recognition Systems (ARS) has broken new ground in the facial recognition arena creating the most accurate technology available. NEC has been a leader in the technology world for over 100 years and in the biometrics game for nearly 40. It is with that breadth and longevity of experience that the NEC NeoFace Facial Recognition Suite was developed and ranks number one for its matching algorithms by National Institute of Standards and Technology (NIST). NeoFace Suite offers customizable solutions for any customer requirement including both front end and back end technology.

Trusted Partner

Agile response to changing requirements is the trademark of a strong industry partner. NEC ARS provides small business agility with large business strength and durability. Our NeoFace Suite offers a full spectrum of front and back end solutions that provide the most powerful facial recognition technologies on the market...built with a standards-based, open architecture that enables our customers to integrate legacy technology or create an entirely new, end to end solution.

Proven Success

The NeoFace matching algorithm received the number one ranking from NIST, and the technology has already been tested and proven in the field. In conjunction with the U.S. Customs and Border Protection and other industry partners, NeoFace Match technology was tested successfully in New York City's JFK and Atlanta's Hartsfield Airports. "Recent successful tests in high traffic security screening venues proved the ability of the system to efficiently and accurately perform one-to-one facial image comparisons," said Amy Rall, Group Vice President for the Department of Homeland Security practice at Unisys Federal. "This solution of NEC facial recognition technology can help make the country safer without disrupting travel or sacrificing travelers' privacy." Not only has NeoFace been proven through successful airport trials, NEC ARS also deployed NeoFace technology at the Otay Mesa border crossing, which despite having an entirely different infrastructure with different requirements, was also a resounding success.

Who is crossing our borders and are foreign visitors vetted?

Who is our enemy; who is our friend – at home, abroad and on the battlefield?

Are we getting the right government services to the right people when they need it?

PEOPLE. PATTERNS. PREDICTIONS.

**THE POWER
OF IDENTITY**

THE POWER OF IDENTITY

THE CHALLENGES

Our world is getting smaller and ever more interconnected. Accurate and fast identification is a critical transaction for both our government and our citizens – discerning friend from foe on the battlefield, managing our borders with actionable intelligence, authorizing federal benefits, and transacting business on a global scale.



Entry and Exit at United States Borders and Ports of Entry

Every day, approximately 100,000 flights take off around the globe with over 3.7 billion passengers projected to fly in 2017. The U.S. accounts for almost 1/4 of that air traffic. Our federal policy, infrastructure, manpower and technology are currently aligned to facilitate vetting individuals as they enter the U.S., but the same alignment is not in place to vet individuals exiting our borders. This allows foreign nationals to overstay visas and continue to live in the U.S. illegally. Addressing this exit challenge requires concerted efforts to align policy (domestic and international), invest in new border infrastructure, and leverage the best of biometric technology to ensure accurate, efficient identity vetting.



Friend or Foe – at Home and on the Battlefield

Despite the best efforts of those fighting our wars and protecting our borders, some enemies manage to thwart even the best defense - terrorists and bad actors who claim anonymity with intent to create havoc, break laws and otherwise infringe on the freedoms and safety of U.S. citizens. Federal law enforcement and DoD agencies have requirements to track and apprehend such individuals; the ability to accurately identify these individuals is critical to mission success. These individuals are often undocumented, so biometric data is critical to establishing their identity. In every case, accurate identity matching enables federal agencies to do their job: protecting the American people from those who seek to harm our way of life.



Providing the Right Services to the Right People When They Need It

Many government organizations are charged with providing services to the citizens of the United States, e.g., issuing passports or visas; providing healthcare or retirement services; conducting census activities; and distributing education benefits. It is the government's responsibility to guarantee secure and accurate transactions with each individual so that neither the national security nor the safety and security of the individual's information is compromised. Culturally, people are becoming increasingly comfortable conducting sensitive transactions online. By pushing into a more digital landscape and relying on the accuracy of biometric identity confirmation, these government organizations can increase the efficiency, efficacy and security of their programs.

FACIAL RECOGNITION TECHNOLOGY ANSWERS THE CHALLENGE

Facial recognition technology has matured rapidly and provides game-changing results to today's identification challenges.

Standoff data collection – data can be collected from a distance without need to corral crowds

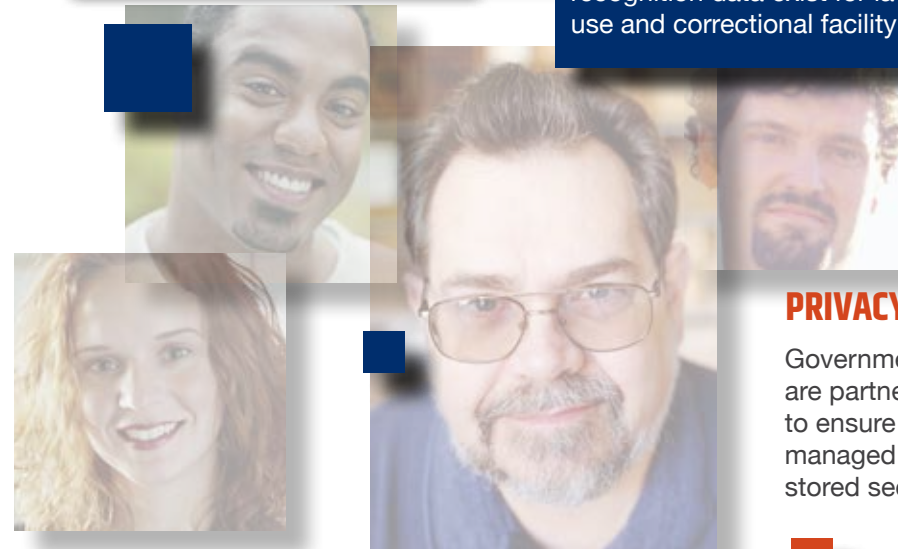
Utilization of poor and low quality data – matches can be made even from partial or distorted images leading to higher success rates of positive identification

Frictionless authentication – data is collected without contact so moving individuals do not need to stop

Interoperable databases – a singular digital record can be generated for each citizen to be accessed across multiple government organizations for faster and more secure government transactions

Matching against watch lists – allows images to be rapidly referenced against watch lists to prevent known threats from moving freely through borders and ports of entry

Existing datasets – Repositories of facial recognition data exist for law enforcement use and correctional facility booking systems



PRIVACY MATTERS

Government and industry are partnering aggressively to ensure identity data is managed responsibly and stored securely.

FACIAL RECOGNITION AS THE SOLUTION

Government organizations are implementing large scale facial recognition systems now. The Department of Homeland Security Office of Biometric Identity Management is creating a database of over 300 million faces to be used for data comparisons. Additionally, U.S. Customs and Border Protection has sponsored multiple trials of the technology at airports and border crossings.

Facial Recognition Technology at Entry/Exit Ports

Where there are infrastructure challenges at the borders and ports of entry, facial recognition can be installed with minimal disruption to traffic patterns or the need for additional queues or checkpoints. Fast and effective, facial recognition also works at a distance which will minimize traffic friction at high-traffic areas. Effective policy that synchronizes data from the Department of State, Department of Homeland Security, Department of Defense and various federal law enforcement agencies will create an iron-clad backbone for the U.S. government to know who is currently on U.S. soil.

Facial Recognition Technology to Discern Friend from Foe

Using facial recognition technology, federal law enforcement and intelligence agents are able to use images captured from a variety of sources such as security cameras and social media profiles to run against government databases. On the battlefield, America's warfighters are able to collect facial images, create local databases and utilize available intelligence to generate positive matches. Collecting these data points and having the technology to accurately match them will give the U.S. government the information it needs to protect the people.

Facial Recognition Technology in Government Transactions

The growing acceptance of facial recognition – both in government and private sector applications – makes it ideal for the government's use to validate individuals' identities when applying for government services. The future of secure government to consumer transactions can be realized by using the right technology and developing the right policy to support responsible data sharing and stewardship.