



National Security Systems

Orchestrating a brighter world

NEC



Securing Access Entry and Visitor Safety with Advanced Biometric Solutions

NEC Physical Security Modernization for Government, Military and Federal Agencies



With ongoing international conflicts and heightened criminal activity around the world, the Visitor Management System (VMS) market is experiencing tremendous growth. The VMS global market value is expected to reach \$3.0 billion USD by 2028 compared to \$1.6 billion USD in 2023.¹

To support government, military and federal agencies with improved security, authentication and authorization, NEC's Physical Security Modernization includes a comprehensive suite of solutions backed by 20+ years of investments, research and development. From NEC Digital ID Wallet, Gateless Access Control and Reveal to Biometric Base Access Solutions and NEC Express Vehicle Access, we provide secure, frictionless access for federal buildings, military facilities and more.

The Physical Security Modernization solutions offer a more efficient use of personnel and budget resources because the technology suite can be deployed for a variety of uses across military bases, airports, seaports and border crossings, including:

- Vehicle gate access
- Pedestrian checkpoints, kiosks, and turnstile gates
- Common- or restricted-area access and monitoring
- Office access management
- Secure/classified location access
- Watchlists and real-time threat monitoring

Physical Security Modernization is a cost-effective, scalable solution that automates registration, provides easy access to visitation data and generates reports and analytics.

Benefits include:

- Real-time updates on visitor location and status
- Privacy and Security through user empowerment
- Reduces staff workload
- Seamless interoperability
- Scalability and cost-effectiveness



Self-sovereign identities

NEC's Physical Security Modernization features self-sovereign identities (SSI). The digital identities created in digital ID wallets are decentralized. This technology allows users to self-manage their digital identities without depending on a third-party provider to store and centrally manage the data.

Prioritizing privacy while maintaining security

Before visiting a secure facility, guests pre-enroll within the Physical Security Modernization system. The enrollment process is user-friendly and convenient for the guests to create a digital ID using advanced facial recognition on their mobile phones. Once the guests are verified and access is granted, all information is deleted from the Physical Security Modernization system and only accessible on their wallet.

The NEC Digital ID Wallet eliminates badges and physical identity cards, enhancing the employee and visitor access experience.



Reliable, real-time entry control

Combining the #1 face recognition algorithm² with proprietary person re-identification technology, Physical Security Modernization allows fast reliable entry control at speed for groups of people. After face matching, the technology can accurately identify multiple people in real time, even if people are facing away from the camera or their bodies are occluded.

This innovation allows for the reduction of traditional gates, authentication devices, guarded security gates, elevators or barriers, which reduces bottlenecks and wait times without affecting the security of a site or event. The system enables cleared individuals and a large number of people to be authenticated in real time by using camera images to repeatedly detect individuals and perform face recognition as they pass through a predetermined entry zone. If a person whose face image has not been registered in advance enters the area, an alert can be triggered and displayed on a nearby security monitor, on a handheld device or even above their head.

Physical Security Modernization delivers world-class accuracy, allowing face recognition even when people are wearing masks or not directing their faces toward the camera. This advanced technology removes touchpoints that create friction, queueing and bottlenecks.

Key innovations:

1. Repeatedly detects humans captured on camera in real time. The technology ensures face recognition of multiple individuals in front of the system.
2. Quick and accurate face recognition. Even if the face is slightly hidden behind other people or if only a glimpse of the face is available, this technology can instantaneously recognize the face.
3. The cutting-edge person tracking leverages deep learning algorithms to address the challenges of person re-identification. Once identified, the person's trajectory is meticulously tracked across the scene for seamless continuity even if the person moves.



Frictionless vehicle access

Enhanced vehicle access provides seamless, frictionless access for visitors without leaving their vehicles. Identifying pedestrians or individuals through vehicle windshields at entry points of secure facilities helps to expedite access and eliminate long wait times and lines. It can streamline security operations at entry and exit points at military bases and other locations such as airports, seaports, and border crossings. Use of this efficient, accurate identification solution reduces long vehicle and pedestrian queues, reducing risks from bad actors.

A leading-edge digital ID solution, Physical Security Modernization enhances security, streamlines management, and improves the overall visitor experience.

Technology advancements:

- Operates on-premise or in the cloud
- Provides contactless access
- Allows localized management of user access policies and optional cloud-based remote management
- Detects elevated body temperature (EBT) (added feature)
- Integrates with third-party external systems to identify individuals on security watchlists



NEC continues to set the standard for secure, rapid, and accurate identity recognition solutions, delivering a high security, scalable, frictionless experience.

To learn more about Physical Security Modernization and NEC National Security Systems' advanced security solutions, please visit necnss.com.

Source:

1. "Visitor Management System Market Set to Surge to USD 3.0 Billion by 2028," Research and Markets
2. NEC Face Recognition Technology Ranks First in NIST Accuracy Testing Ranked #1 since 2009 through 2024 in face recognition benchmark tests conducted by the U.S. National Institute of Standards and Technology (NIST).

NEC National Security Solutions, Inc. (NSS), is a leading provider of biometric identity and AI technology for federal government agencies in defense, intelligence, law enforcement, and homeland security agencies. Based in Arlington, Va., NSS deploys proven groundbreaking technology for access control, identity verification, scene processing, advanced analytics, fiber optic sensing, border control and transportation security, among other applications. The company was launched in 2020 as a wholly owned subsidiary of NEC Corporation of America and will operate under a Special Security Agreement (SSA) with the US Government as a FOCI-mitigated entity, free of foreign ownership, control, and influence. It provides full-service solutions for large agencies using the intellectual property and resources of the global NEC brand. The NEC Corporation invests an estimated \$1.01 billion annually in R&D, holds 47,000 patents, and has more than 110,000 employees in 160+ countries. For more information, please visit www.necnss.com.

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