



NEC IDENTITY VERIFICATION PLATFORM ePID

Know Who Your Customers Are

NEC ePID

Know Who Your Customers Are with NEC Identity Verification Platform

In an evolving threat landscape, organisations can no longer rely on passwords, SMSs, or OTPs for web authentication as they can be guessed, compromised or stolen easily. Although smartcards and tokens are more secure, they are not cost-efficient and can cause inconvenience, when lost.

Lack of sufficient identity assurance can lead to non-repudiation problems. To effectively fight the menace of digital fraud, there is a growing need for accurate biometric authentication mechanisms - solutions that can provide the highest levels of security and the ability to prevent fraud and counterfeits.

Transition To A Biometric Authentication Security System

NEC ePID makes transition from an existing password-based security system to biometric authentication security system a breeze. Security systems can choose to keep the existing password system and make biometric as the second factor authentication to:

1



Authenticate application users and authorise transactions both in web and client/server applications.

2



Register and authenticate users with NEC's field proven high-accuracy fingerprint, facial, iris capturing and match algorithm.

3



Seamlessly combine biometric authentication algorithms with proven cryptology and digital signatures for accurate authentication.

NEC ePID, The Most Secure and Accurate Biometrics Authentication Platform

NEC's ePID (**e**lectronic **P**ositive **I**Dentification) is a biometric platform for customer profile to help prevent fraud and counterfeit in today's increasingly digital world. It is a next-generation cloud-centric software that features a seamless combination of biometric authentication algorithms with data encryption and digital signature technologies.

NEC ePID incorporates the five keys to secure authentication, namely: Authentication, Authorisation, Data Confidentiality, Data Integrity and Non-Repudiation to promise the highest security and most accurate biometrics authentication mechanisms. It safeguards sensitive information and privacy of each individual or corporation during a B2C or B2B transaction.

NEC ePID Modules



Customer Touchpoints Kits

NEC ePID Kit (System Development Kit) can integrate with business application and security management software to implement customised biometric-based solution.

NEC ePID Kit is available for software application integration on Windows, Android and iOS platforms.



Core Application

NEC ePID Server implements a microservices architecture running on a Kubernetes platform, a virtual machine platform, or conventional bare-metal servers. The server application provides default data protection for biometric data, along with biometric data management, verification and identification, and visualizes biometric usage statistics at a glance.

How NEC ePID Works

NEC ePID provides end-to-end data encryption that incorporates standard cryptographic algorithms and protocols. It secures biometric data transmission between customer touchpoints and server application. This guarantees data integrity and confidentiality by protecting biometric data in transit and at-rest.

Key Features of NEC ePID

NEC ePID leverages biometric authentication to strengthen security posture. It ensures data integrity and confidentiality during biometric registration to onboard customer and biometric authentication to verify customer. Its key features include:



Cloud-centric

- Kubernetes architecture as a container orchestration platform.
- Microservices architecture structures a collection of independent services performing specific business function
- Containerize application to run consistently and efficiently across different computing environments



Multimodal Biometrics Platform

Delivers multimodal biometric identification and verification with:

- Contactless face and iris - with Presentation Attack Detection (PAD)
- Conventional fingerprint
- Implement NEC's biometric technology ranked top in NIST biometric test



Prospect Touchpoints

Citizen touchpoints (mobile and personal computer) software kit includes:

- Web kit for web application
- Windows kit for thick client application and web application
- Android & iOS kit for mobile application



Data Security & Compliance by Design

End-to-end data protection with standard cryptographic algorithms and protocols to achieve:

- Data Integrity
- Data Confidentiality
- Non-repudiation



Near-Infrared Face Image

Ability to capture face features that are less affected by visible light conditions:

- Improve accuracy in low-light environments
- Minimizing impact of variations of skin tone
- Less sensitive to external conditions



Rapid and Seamless Integration

Easy integration by customers/partners:

- Touchpoint software application integration to achieve biometric capture and QC with NEC ePID kit
- Business software application integration to implement biometric functions via REST API provided by NEC ePID core application



Multiple Deployment Models

Deployment models supported:

- On-premise
- Cloud environment – public, private or hybrid cloud

Why Choose NEC ePID?

Backed with NEC's proven and most accurate biometrics authentication, NEC ePID promises the highest levels of security needed in today's dynamic digital economy. It promises effective prevention of fraud and impersonation to help usher in a new era of e-Commerce. The key benefits of NEC ePID include:



High Accuracy and Reliability

- Robust biometric authentication algorithm with built-in quality checks and feature extraction for consistent accuracy
- Ensures end-to-end data security with runtime encryption, digital signatures, and standard cryptographic protocols to prevent replay attacks and data leaks
- Designed to be hardware-independent, supporting flexible deployment across various platforms and capture devices



Ease of Integration

- Touchpoint software kit available for integration with application software
- Multi-platform support
- Easy integration with existing security management software



Low Cost of Maintenance

- Smooth and easy transition from existing one factor, password-based security system to biometric authentication system
- Supports off-the-shelf biometrics
- No need for smart card, token, or OTP



Scalability and Availability

- Cluster architecture to meet the growing demands
- Strategic resource usage and increased resource availability
- Supports large-scale systems with services distributed country-wide



Commitment to Quality

- Incorporates the standard encryption technology and technique to combat ever-changing cyber threats
- Agility in ensuring compliance with infrastructure security and policies.

Trusted Across Sectors



Financial Institutions

Biometric Use cases:

- Account access and login
- Transaction authentication and authorization
- Customer onboarding
- Fraud Detection



Utilities

Biometric Use cases:

- Customer access and identify verification
- Service activations
- Bill management
- Customer support



Hospitality

Biometric Use cases:

- Membership/Loyalty programs
- Personalized services
- Payment or Purchases authentication
- Access to premium service



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