# Biometrics-as-a-Service™ (BIOaaS™) Solution

Authentication is the essential building block for a robust security solution.

Fujitsu is transforming the market with its cloud-based identity platform, Biometrics-as-a-Service™. With rapid integration with existing business systems and quick deployment that lowers costs, Fujitsu's BIOaaS™ solution allows customers to choose and blend Biometric modalities. This provides customers with flexibility to deliver the best use case for their requirements.

## Why Biometrics?

Over the years the requirement to control access to data, systems and premises has grown. Today, many organisations rely on passwords, PIN numbers or cards to confirm people's identity for both logical and physical access. This traditional approach poses severe challenges:

- Loss, or theft of cards causes security risks –with the correct combination of PIN and card anyone could be granted access to restricted areas or information.

- Security policies are established to ensure that users do not write down passwords or PIN codes – with no means to ensure users will comply.

- Passwords and PIN codes can be shared or guessed – with no guarantee the person is the authorised user.

There are many areas where identity assurance is important in today's enterprise:

- Staff
  - Physical access and systems access
  - Audit controls for high value items
  - Time and attendance
- Customers
  - eCommerce/mCommerce solutions security
  - Cashless point of sale solutions
  - Secure patient eHealth records

## FUJITSU Value Propositions

Fujitsu's Biometrics-as-a-Service™ solution can facilitate identity assurance, i.e. complete trust in "who" is using the system, in each specific problem space.

Utilising the cloud, a completely new biometric solution, capable of matching millions of records, can be rapidly integrated into existing systems. All while able to support a blend of multiple Biometric modalities, across multiple access channels in any region; and utilise non-traditional Biometrics including Advanced Pattern Matching (APM) systems to increase security.

- Ease of use
  - Our mobile app delivers an exceptional user-experience through a simple user interface
  - Eliminates ID card, token or dependence on PIN numbers
- Cost
  - Reduce operating costs on IT administration, IT helpdesk, etc.
  - Eliminates the cost of replacing stolen or lost cards and tokens
  - Eliminates investment costs for smart cards and smart card readers
- Security
  - Eliminates fraudulent use of smart cards and passwords
  - Certified technology

The Biometrics-as-a-Service solution can be leveraged to not only tie disparate identity information all together across your business; but also enable the integration of different types of Biometrics as best suited to your business needs and risk levels.

Fujitsu has developed and deployed Biometric products and systems for over two decades and is a contributing member on international Biometrics standards committees.

### Challenges

- Identity theft costs global Health Care companies billions of dollars annually.

- Organisations around the world lose an estimated five percent of their annual revenues to fraud

- Account resets are the most common help desk calls

- Many systems are unable to leverage "step up" authentication--to leverage higher levels of trust for high risk transactions

- Most organisations don't have the infrastructure or experience to be able to deploy large scale Biometric solutions quickly and securely.

- Passwords are antiquated, difficult to manage, and too often compromised before or utilised during a breach.

- Passwords are also extracted and stolen in bulk during many breaches. Your users regularly reuse passwords across multiple platforms and sites across the Internet exposing your systems to potential compromise due to another organisation's security breach.

- Case in point, the breach of a major social networking community in 2013 released 50 million user names and passwords into the underground where they were decrypted and leveraged in massive user account takeover campaigns across hundreds of online retailers. This resulted in over $10 million in fraud, lost product, chargebacks and brand reputation damage for just one online retailer.

## Benefits

The ability of the system to process and match multiple biometric types means that you can tailor security levels for user groups within the system, while maintaining a single source of truth for identities. This provides assurance it's the same person accessing different systems under the same credentials.

The use of a centralised architecture means that new biometric captures can be checked against records in the cloud. This delivers a more secure solution through the elimination of field device vulnerabilities.

Utilizing a cloud based model, the solution can be scaled such that you only pay for the size of the system that you need.

## What we offer

- Cloud based Biometrics-as-a-Service solution – the Fujitsu multi-modal Biometrics-as-a-Service solution is a massively scalable and secure solution.
- Vendor agnostic architecture - the ability to use multiple biometric vendors eliminates lock-in and future-proofs organisations in leveraging emerging biometric technologies.
- Mobile device enabled - the BIOaaS™ solution is capable of using and matching against biometrics collected via traditional means as well as smart phones and tablets. This gives enterprises the ability to quickly and easily extend any identification scheme to:
    - In-band-mobile verification: require users to provide biometrics to verify their identity to log in and access certain functions in an application on a phone or tablet.
    - Out-of-band mobile verification: using a different communication or "access channel" to verify the customer's identity. With the use of secure push notifications, a user can be verified via their registered mobile device, in person or via online transactions. This means all types of customer interaction can be secured to the same trust level, avoiding channel shift of fraud to less secure access channels.

## Application scenarios

BIOaaS™ has broad cross-domain potential including enterprise IT security, banking and financial services, retail, healthcare, insurance and education. BIOaaS™ enhances access security to physical locations, resources and applications and can replace higher-cost token based authentication. From the protection of confidential medical records to online and mobile shopping scenarios, when integrated into an identity management solution BIOaaS™ provides high-integrity access control.

## How it works

Biometrics-based authentication uses an individual's physical traits to verify your identity. It is like your own personal password that cannot be forgotten, lost, or stolen. Users no longer need to remember the answers to security questions, nor do they need to carry a separate single-purpose hardware token. Biometrics data is intrinsically connected to a person. It is the "What the person 'is' factor" (biometrics), versus a "what a person 'has' factor" (e.g., token or phone), versus a "What a person 'knows' factor" (e.g., password, PIN). It cannot be forgotten or easily compromised.
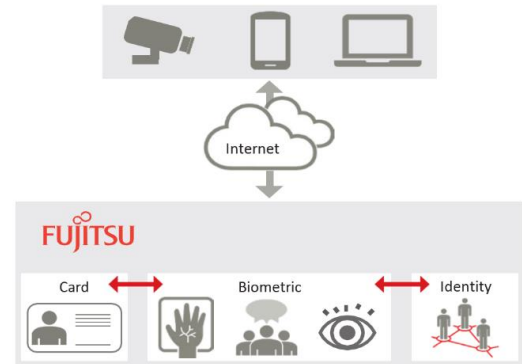


Fujitsu Biometrics-as-a-Service is a flexible and scalable solution that allows customers to choose and blend modalities to develop the best use case for their particular organisation and requirements, permitting rapid integration with existing business intelligence and systems. The vendor agnostic architecture ensures that a facial image, voice or fingerprint captured via a smart phone, tablet, laptop or enterprise capture solution can be matched to a capture from a different device from another vendor.

The biometrics engine is capable of matching a large array of biometric types, with new biometrics being added as they are developed. The system is capable of running from small scale commercial systems to massive national or international deployments.

In addition to existing integration to Microsoft® Office 365™, Active Directory, CA, SalesForce®, Aruba, IBM® ISAM, SAP® solutions and SAML API's the Biometrics engine is flexible enough to be integrated into existing corporate applications via Web Services.

## Why Fujitsu

Fujitsu provides a full array of biometrics consulting, products and solutions in addition to our BIOaaS™offering providing for massively scaled biometric solutions deployed quickly and easily, yet with a global reach. The solution is able to deliver a complete identity management solution as a service, reducing capital expense and accelerating the return-on-investment from years or month to weeks or days.
Fujitsu experience spans consumer-focused devices; large scale financial service solutions, across card-less ATM's cashless payment solutions; to national-scale border management and healthcare systems.

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