

# Bio Platform with PalmSecure™

## Biometric Authentication for Developers



# Biometric Authentication Tools

## Seamlessly integrate BA into your application

Business is looking to integrate advanced biometric user authentication into their applications. However, such features can add to the complexity, cost, and time on a project.

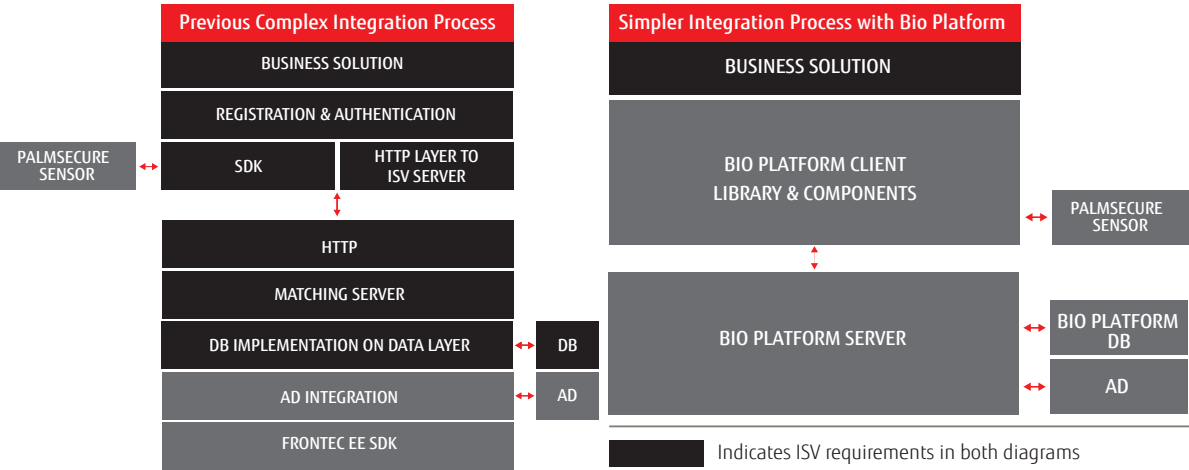
Bio Platform is a middleware platform that speeds up the successful integration of advanced biometric authentication, such as Fujitsu PalmSecure™, into your application. It takes care of the ‘plumbing’ and resolves previously complex problems so your developers can stay focused on core expertise and development milestones, budgets and timelines.

The platform comprises ready-made components and libraries to support multiple application architectures and dramatically reduces the cost, time, and complexity associated with integration of biometric authentication into all types of applications.

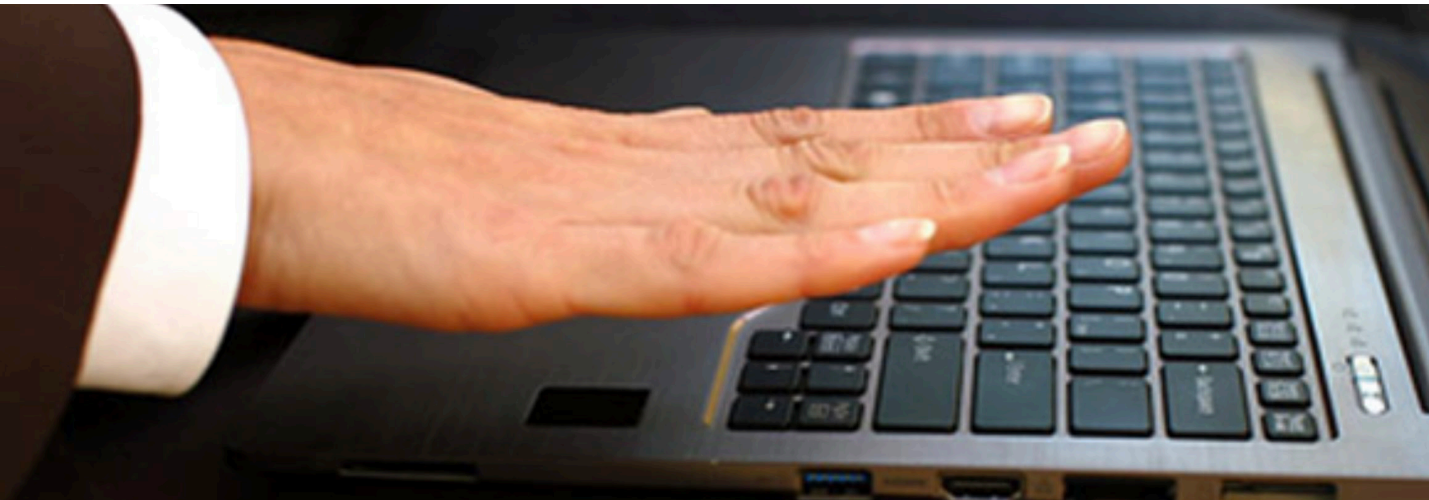
Consider Bio Platform as the tech behind the scenes to help you run agile, intelligent, and scalable business applications with full-blown biometric user authentication. It helps maximise IT efficiency through full utilisation of modern hardware and software architectures to accelerate the delivery of new services to employees and customers.

Previously, developers had to purchase the PalmSecure SDK's, understand them, develop, and then test all components.

With Bio Platform, all complexity and additional effort is removed allowing developers to create compelling and secure applications quickly and efficiently.



Key Features	
UI Library	Reusable UI components for registration, verification & identification
	Compatible with WPF & Windows Forms applications
Authentication Service	REST interface for registration, identification (1:N) and verification (1:1)
	Multiple solutions can share a single instance for a customer (single registration for users)
	Highly configurable for different use cases
	Supports 2 factor authentication (e.g. ID/Password/PIN + Palm)
	Integrated with active directory
	Performance & Scalability <ul style="list-style-type: none"><li>- Supports Active-Active Network Load Balancing with servers synced to a shared database</li><li>- Database failover cluster supported</li></ul>
	Biometric data cached in memory <ul style="list-style-type: none"><li>- Database never becomes a bottle neck</li><li>- Service will operate from cached data if database is down</li></ul>
Management Tool	Monitor performance
	Track successful and failed identification attempts
	Audit logs



## Mitigate risk with Fujitsu PalmSecure™

### Authenticates using vein pattern recognition



As a growing number of organisations adopt faster and more efficient business processes, their staff are finding themselves logging in using multiple devices from location-independent environments. This creates security challenges and has seen growth in biometric-based authentication.

Biometric-based authentication uses an individual's physical traits to verify identity. It's like having a personal password that cannot be forgotten, lost, stolen or easily compromised. While organisations have experimented with various biometric recognition using eyes, faces, fingerprints, voice and signatures, tests show that even these are vulnerable to counterfeit and theft.

That's why Fujitsu has created PalmSecure, a leading biometric authentication system that approves users based on the highly complex and individual pattern of veins within a person's palm.

An individual's vein pattern inside their palm is unique and does not change over time, making it an excellent resource for biometric authentication. It's almost impossible to forge and requires blood flow to work (see benefits in table below).

The Bio Platform middleware enables PalmSecure to be seamlessly integrated into your existing or new applications in a fast and cost-effective way without the need for additional specialists.

#### PalmSecure is extremely secure

The False Acceptance Rate (FAR) assesses the security level of a biometric system. The False Rejection Rate (FRR) is the benchmark for describing the usability of a system. The chart below shows that a palm-based vein system by Fujitsu delivers the best outcomes when compared to other options.

Authentication Method	FAR (%)	FRR (%)
Face Recognition	~ 1.3	~ 2.6
Voice Pattern	~ 0.01	~ 0.3
Fingerprint	~ 0.001	~ 0.1
Finger Vein	~ 0.0001	~ 0.01
Iris/Retina	~ 0.0001	~ 0.01
Fujitsu PalmSecure	< 0.00001	~ 0.01

#### The Benefits of Vein Technology

- Forgery is almost impossible as veins are located under the skin, unique to every individual, consistent across a lifetime, and only detectable when blood is flowing (because the sensor of the palm vein device can only recognise the pattern if the deoxygenated haemoglobin is actively flowing)
- Vein patterns are unique to every individual and contain detailed characteristics for formulation of an algorithm template that delivers exceptionally low "false acceptance rates", making it one of the most desirable biometric authentication technologies in the world
- Vein patterns are not sensitive to environmental issues either such as temperature, aging or cosmetic surgery
- Non-contact authentication is hygienic, easy to use and non-invasive
- The advanced authentication algorithm produces an extremely high level of accuracy and application versatility when compared to other technologies (see table)
- The False Acceptance Rate (FAR) for unauthorised users is 1 in ten million
- The False Rejection Rate (FRR) for users is an extremely low 1 in 10,000

**Contact us**  
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