



# ExpressID AFIS



### FROST & SULLIVAN

Global Technology Innovation Award  
Winner of the Year, January 2009

### ERNST & YOUNG

Entrepreneur of the Year, February  
2009

### FVC 2004, FVC 2006

### MINEX - NIST

The fastest fingerprint matcher (AFIS) on the market uses Innovatrics server-side matching algorithm and client SDK. The solution is hardware independent.

## IDEAL PERFORMANCE FOR LARGE-SCALE FINGERPRINT RECOGNITION SYSTEMS

ExpressID AFIS is a software package that powers Automated Fingerprint Identification Systems (AFIS) for large-scale identification projects. ExpressID AFIS enables accurate searches for fingerprints in databases and identifies individuals based on fingerprint matches. ExpressID AFIS is integrated into identification applications for many important institutions around the world including national and state governments, banks, hospitals, retail establishments, and many corporate entities.



LINUX compatible



### ExpressID AFIS Enterprise

Single server architecture  
Up to 3 million fingerprints



### ExpressID AFIS Government

Scalable cluster server architecture  
More than 3 million fingerprints

## CORE FEATURES

- **Rapid implementation** — matching server can be run as Windows/Linux Service and client SDK can be quickly integrated into existing solution
- **Matching speed** — Innovatrics engine can match 50,000,000 fingerprints per second on one matching server
- **Scalability** — matching performance and registration speed increases linearly as new matching servers are added
- **OS compatibility** — fully compatible with 32 and 64-bit versions of Windows and Linux based operating systems
- **Fault tolerance** — redundant data storage for high availability and maximum data security in case of hardware failure
- **Load balancing** — smart workload distribution guarantees optimum resource utilization across servers in the matching cluster
- **Hot plug** — matching servers can be added to cluster with no downtime or interruption
- **Exhaustive search** — every database search is performed exhaustively comparing every fingerprint. The exhaustive search does not create data loss and ensures significantly better accuracy than standard classification and indexing algorithms
- **Records categorization** — tag-based organization effectively assigns users into separate groups. This reduces the search domain based on attributes such as male/female, age or region
- **Database independence** — supports all common databases through ODBC interface
- **Sensor independence** — can work with any scanner capable of providing a raw fingerprint image
- **High security** — SSL/TLS connectivity for secure communication, AES-256 based data encryption
- **Mobile or PC client capability**

ExpressID AFIS is the fastest solution on the market, providing 50,000,000 matches per second and can be installed on “off-the-shelf” computer hardware making it a cost-effective and powerful fingerprint recognition system for large-scale identification.

## APPLICATIONS

### Civil ID

- **Government** » Prevent duplicate registrations at document issuance (ID card, Driver’s license, Passport, Election)
- **Border control** » Identify against watch-list

### Customer ID

- **Banks** » Prevent duplicate registrations at credit issuance
- **Hospitals, Banks, Retail** » Prevent identity fraud
- **Sport events, Banks** » Identify against watch-list





ExpressID AFIS – is designed for developers and system integrators that need to provide large-scale fingerprint identification that is standards-compliant, high-performance and cost-effective.

## Key Components

The ExpressID AFIS solution has two core components: the matching server and client SDK.

### MATCHING SERVER

Stand-alone server software which can be run manually or as a Windows/Linux Service. The server listens to requests via web services from clients. It takes the fingerprint template and compares against the entire database before returning the “best matching candidates” (scored). Supported OS are Windows and Linux both 32 and 64-bit versions.

### CLIENT SDK

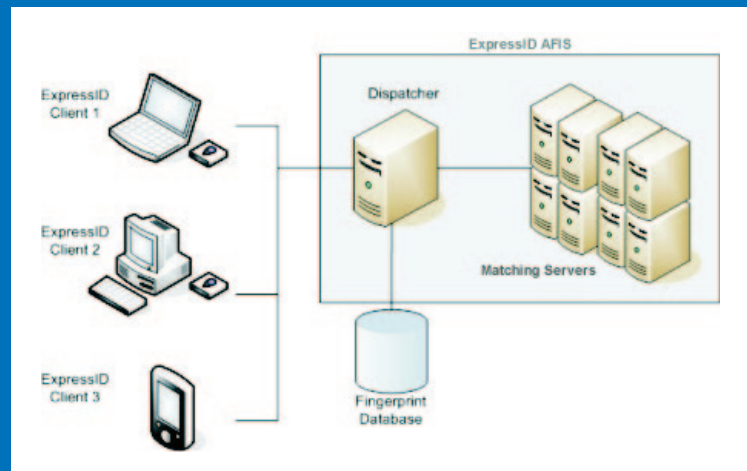
Innovatrics SDKs are fully compatible with ExpressID AFIS. SDKs contain variety of functions such as connecting to pre-selected fingerprint scanners, extracting template from the fingerprint image, and calling matching and registration functions on the matching server.

### EXPRESSID AFIS INCLUDES:

- ExpressID Matching Server
- IDKit PRO SDK for client
- ANSI & ISO SDK
- IScanners SDK for connection with supported fingerprint scanners
- Documentation
- Samples in C, C++, C# and Java
- SQL scripts to create tables in Oracle, MySQL, MS SQL, PostgreSQL Server databases
- Innovatrics License Manager



An example client application using the ExpressID AFIS client SDK.



The ExpressID AFIS receives the template from the client and compares it to all stored fingerprints in the database.

## INNOVATRICS

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