

# DIGIPASS<sup>®</sup> for Apps - Face Recognition

## Frictionless Authentication, Optimal User Experience and Quick Deployment with Face Recognition Technology

Today, there is a growing need to balance strong authentication security with end user convenience and usability. Financial Services, Healthcare, Government and other enterprise organizations want more and intuitive authentication options to improve utilization, user experience and reduce the need for helpdesk support. Leading biometric authentication technologies by VASCO, an active member of the international Biometrics Institute, achieve this balance by leveraging something as simple as a “selfie” to accurately and securely authenticate users. DIGIPASS<sup>®</sup> for Apps Face Recognition is a simple, secure and user-friendly feature that utilizes facial data points and next generation liveness detection to accurately authenticate each user. With DIGIPASS for Apps Face Recognition, VASCO supplements a comprehensive portfolio of authentication products with innovative biometric technology.

### SIMPLE. FAST. ACCURATE.

With a simple “selfie,” taken with any modern Android or iOS smartphone camera, DIGIPASS for Apps Face Recognition is able to create a highly accurate and secure biometric template of a user’s face using sophisticated machine learning algorithms. Utilizing DIGIPASS for Apps Secure Channel and Storage, this template is encrypted, securely stored and quickly referenced when user authentication is required.

### HOW IT WORKS

DIGIPASS for Apps Face Recognition uses a simple process to enroll users. The user takes a series of “selfies” and our software does the rest; extracting a highly accurate biometric template from the “selfie,” then encrypting and storing it. To authenticate, the user simply takes a “selfie” and this is compared, one- to-one, with the stored biometric template. A proper match, based on an accuracy score, completes the secure authentication process in the background. This accuracy score can also be supplemented with additional contextual data (i.e. Current location, device identification and operating system) and analyzed, in real-time, by our IDENTIKEY Risk Manager Platform to provide the most accurate assessment of risk and dynamically “step up” authentication security when necessary.

### SECURE CHANNEL

DIGIPASS for Apps Face Recognition leverages a unique encrypted secure channel to ensure the non-repudiation and protection of the data exchange, ultimately providing the highest level of security for templates moving between the client and server.

### FULLY CUSTOMIZABLE

DIGIPASS for Apps biometric options offer organizations the flexibility of using a PIN, fingerprint or face recognition, depending on their unique security needs. It can also be fully multi-modal (i.e. Fingerprint, PIN as well as face recognition). As a result DIGIPASS for Apps biometrics offers a best of breed solution, providing more frictionless authentication choices tailored to meet each organization’s security needs.

### DIGIPASS FOR APPS

DIGIPASS for Apps Face Recognition is available as an optional feature in DIGIPASS for Apps. DIGIPASS for Apps provides a comprehensive feature set that natively integrates application security, two-factor authentication, multi-modal biometrics and electronic signing into your mobile applications. DIGIPASS for Apps elevates trust across secured ecosystems, so you can securely deliver higher value mobile services, improve mobile user experience, and extend consistency for security and the user across multiple channels.



## CLIENT SDK SPECIFICATIONS

Platform	Android	iOS
Development Host (Hardware Requirements)	<ul style="list-style-type: none"> <li>Core 2 Duo CPU @ 2 GHz</li> <li>2GB RAM (4GB recommended)</li> <li>1.5 Go HDD</li> </ul>	Intel compatible Mac
Development Host (Operating System)	All operating systems supported by Android SDK	Mac OS X Mavericks or higher
Development Host (Development Tools)	Core 2 Duo CPU @ 2 GHz	Xcode 6 or greater
Programming languages	Java	Objective-C
Target Host (Minimum hardware requirements)	<ul style="list-style-type: none"> <li>ARMv7-A @ 1Ghz</li> <li>512MB</li> <li>Frontal camera required</li> <li>Equivalent computing power of the Samsung Galaxy S3 or newer</li> </ul>	<ul style="list-style-type: none"> <li>ARMv7, ARMv-7s or arm64</li> <li>iPhone 4s or newer</li> </ul>
Target host (Operating System)	Android 4.1 (API level 16) or higher	iOS 8.0 or higher
Libs Size	~ 25 MB per arch	~ 15 MB per arch
Typical Times *	Face model creation: <10 seconds (including communication to server) Face verification: <10 seconds (including communication to server), (up to +5 seconds depending on the countermeasures enabled)	
Client Payload Size	<ul style="list-style-type: none"> <li>Enrollment: 440 KB</li> <li>Verification: 220 KB</li> </ul>	

## SERVER SDK SPECIFICATIONS

Platform	Windows	Linux
Programming Languages	Examples for C++ and Python. Usability in any language that links to a C Library	Examples for C++ and Python. Usable in any language that links to a C Library
Target Host (Minimum hardware requirements)	<ul style="list-style-type: none"> <li>Intel(R) Xeon(R) CPU E5 @2.50GHz</li> <li>1GB RAM (2GB recommended)</li> </ul>	<ul style="list-style-type: none"> <li>Intel(R) Xeon(R) CPU E5 @2.50GHz</li> <li>1GB RAM (2GB recommended)</li> </ul>
Target Host (Operating System)	Microsoft Windows Server on 64 bit architecture	Linux Kernel x86 3.2 or greater on 64 bit architecture
Library Size	5MB	5MB
Memory Runtime		
• Enrollment	~ 8MB	~ 8MB
• Verification	~7.5MB	~7.5MB
User model size		
• Training	~ 450 KB	~ 450 KB
• Testing	~ 25 KB	~ 25 KB
Computing times*		
• Enrollment	~ 120 ms	~ 120 ms
• Verification	~ 50 ms	~ 50 ms

\* May depend on the configuration (Wi-Fi, 3G, server location, etc.)

## About VASCO

VASCO is a leading supplier of strong authentication and e-signature solutions and services specializing in Internet Security applications and transactions. VASCO has positioned itself as global software company for Internet Security and designs, develops, markets and supports DIGIPASS®, CertiID™, VACMAN®, IDENTIKEY® and aXSGUARD® authentication products. VASCO's prime markets are the financial sector, enterprise security, e-commerce and e-government.

## www.vasco.com

**CORPORATE HQ**  
**CHICAGO (North America)**  
phone: +1 630 932 88 44  
info-usa@vasco.com

**INTERNATIONAL HQ**  
**ZURICH (Europe)**  
phone: +41 43 555 3500  
email: info\_europe@vasco.com

**BRUSSELS (EUROPE)**  
phone: +32.2.609.97.00  
email: info-europe@vasco.com

**BOSTON (NORTH AMERICA)**  
phone: +1.508.281.66.70  
email: info-usa@vasco.com

**SYDNEY (PACIFIC)**  
phone: +61.2.8061.3700  
email: info-australia@vasco.com

**SINGAPORE (ASIA)**  
phone: +65.6323.0906  
email: info-asia@vasco.com