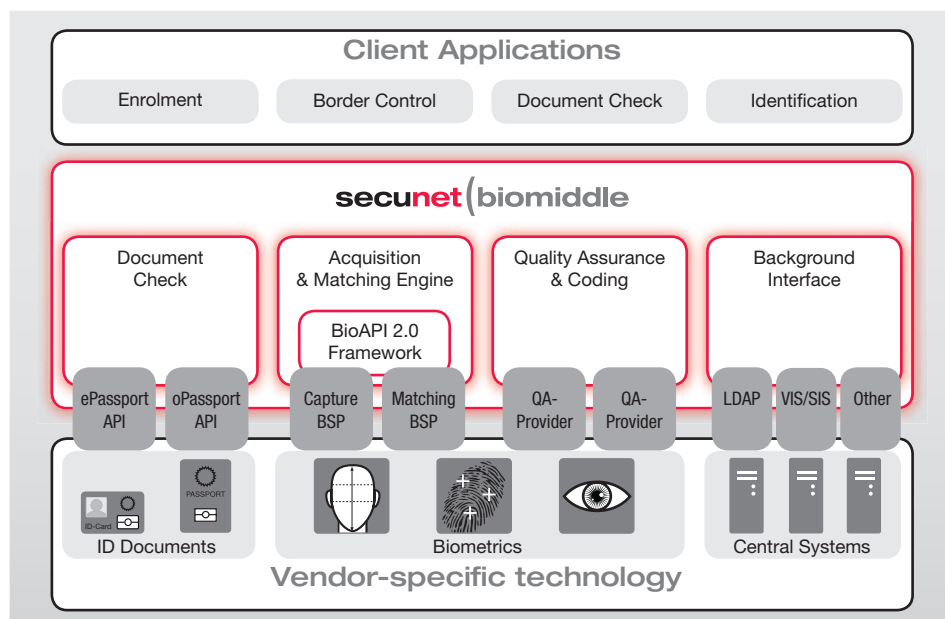


secunet (biomiddle)

Middleware for Biometric Systems and Electronic ID Documents



Benefits:

- » **Modular and standard compliant** through BioAPI 2.0, ePassportAPI and SOAP
- » **Suitable for all leading technologies and manufacturers**
- » **Easy integration into existing systems and applications**

secunet biomiddle is a flexible and easily expandable platform for biometrics and eID-applications. By making use of internationally standardised interfaces, secunet biomiddle enables modular use of biometric technologies also in complex application scenarios. The partial exchange or the upgrade of partial components in the entire system is thus possible at any time. secunet biomiddle communicates with client-applications via a service-oriented interface; this makes the middleware independent of system platforms and programming languages. **As a joint project with the German Federal Office for Information Security (BSI), secunet biomiddle is internationally recognised as the reference implementation and preferred architecture for use of biometrics in eID-documents.**

Modular architecture

The modules of secunet biomiddle combine and provide the functions of the respective area and, thus, allow for access to ID documents, biometric capture, matching and verification components as well as to external systems. The base technologies used are integrated into the middleware with a plug-in mechanism. This way, secunet biomiddle can integrate the best possible technology available on the market into the various applications. Thus, solutions exactly meeting the individual requirements of the respective application emerge. Due to the exchangeable plugins, the flexibility and expandability of the entire system is maintained.

Approved by public authorities

secunet biomiddle is a joint project of secunet and the German Federal Office for Information Security (BSI) and is the internationally preferred architecture and reference implementation for using biometrics in the scope of eID documents. The middleware has become established in many administrative capture and border control projects, both in Germany and beyond.

Easy integration into existing applications

secunet biomiddle communicates with client-applications via a service-oriented interface; i.e. the functions can be provided, or rather accessed

through the network, irrespective of system platform and programming language of the application. Due to the service-oriented interface, several applications can also access the imbedded hardware- and software-components at the same time and without capacity-contention.

Clearly defined interfaces

Biometric hardware- and software-components are imbedded and used by secunet biomiddle via an integrated BioAPI 2.0 framework according to ISO/IEC 19784-1. The interface and the behaviour of these so-called Biometric Service Providers (BSP) are clearly defined through the standard. Hence, each technology for which a BSP exists or for which a BSP is feasible can be used.

Electronic ID documents are read out by secunet biomiddle via the BSI-specified ePassportAPI. As an integral component of the Golden Reader Tool (GRT), it is internationally recognised as the reference implementation for reading out and verifying electronic ID documents. secunet biomiddle also supports reading out and verifying of optical features of the passports based on the performance of the passport-reader used.

Quality algorithms and background systems are integrated into the middle-ware via a mechanism based on BioAPI 2.0 in secunet biomiddle.

In control infrastructures, secunet biomiddle can cooperate with PKI-systems such as a Terminal Control Centre (TCC). Here, master lists of the ICAO PKD and EAC-keys compliant with BSI TR-03129 are used. Additionally, customised solutions, like using smart cards, are possible too.

Target platforms

secunet biomiddle runs under Windows XP, Vista and Windows 7 as well as Linux.

Selection of supported devices and moduls

Passport reader	Models
L-1 Identity Solutions	B5000 Document Authenticator
3M/Rochford Thompson	RTE 8000, 3M AT9000
Cross Match Technologies	D SCAN Authenticator CF
Desko	FP 500
Bundesdruckerei	Visotec 300/500/600
Regula	70x4, 83x3
Biometric sensors	
Cross Match Technologies	Verifier 320, Guardian, Patrol
Dermalog	ZF1, LF10
UPEK / AuthenTec	TouchChip, TouchStrip, Eikon
Fujitsu	MBF200
Any webcam	Windows DirectX basiert
Biometric algorithms	
NIST	NBIS
Cognitec	FaceVACS
VIS-BMS	USK Kit 1-4
NEC	NeoFace, NeoFinger

EasyPASS: Biometric border control with the ePass

secunet supported the German Federal Office for Information Security and the Federal Police in the pilot-project EasyPASS for biometric-based border control processes. assengers walk through automated biometric control gates which are supervised by border officials. The advantages are obvious: waiting periods at the border control counters are shortened and more passengers can be processed. Border officials can focus on checking suspicious persons. The German Federal Office for Information Security assigned secunet to take over the planning, implementation and evaluation of this pilot scheme and to provide the central component, the software platform secunet biomiddle. Part of the project was also the integration of the complete system, consisting of double door systems, checking devices for documents, biometric components and the control-application for border officials. After the successful completion of the pilot-phase, secunet opened EasyPASS for everyday use at the airport. The system is now being used as a standard border control process.

Austria opts for secunet in two ways

The Austrian Foreign Office has ordered secunet to equip every Austrian agency abroad with hardware and software for biometric collection-systems for EU-visa applications. Key element of the solution is secunet biomiddle. secunet also provides both the applications for capturing the application-data and biometric features and the hardware for collecting fingerprints.

Additionally, the Austrian Ministry of the Interior (BMI) opted for using secunet biomiddle as a strategic platform in the electronic border control and in the application-process for electronic residence-permits. Thus, secunet will support Austria in the implementation of all biometric application over a long term: in fact, the 500 foreigners' registration offices are being equipped with secunet biomiddle for collecting the applications for electronic residence-permits, in order to be able to capture fingerprints and facial images with a high level of quality. The middleware is the base platform in the border control process in Austria. It connects the Austrian border control stations with the national Public Key Infrastructure which provides certificates for the verification of electronic ID documents. Thus, all kinds of stationary and mobile ID-verification can be implemented in Austria in the future.

More information:
www.secunet.com/en/biomiddle



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