secunet
GRT platinum edition

Acknowledged Standard Solution

For the Readout of Electronic Identity Documents

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With the Golden Reader Tool Platinum Edition, secunet offers a commercialized further development of the established standard-software, the Golden Reader Tool, for the readout of electronic documents.

Significantly more than 100 states have now added biometric features to their passports,1 with numerous others preparing to issue electronic passports. Every single one of these electronic identity documents (eIDs) has to be readable in compliance with international data formats and high security requirements. The same is true for many other official documents such as national ID documents, electronic residence permits, and visas. To achieve this, standardised solutions are needed that both meet the highest security standards and are practical to use.

Multifunctional technology for interoperable documentsente

On behalf of the German Federal Office for Information Security (BSI), secunet started to develop the Golden Reader Tool (GRT) in 2005. This software application enabled the readout of ICAO-compliant eMRTDs, such as electronic passports, for the first time. This was also an essential step and prerequisite for the worldwide interoperability in the field of eMRTDs based on the requirements of the ICAO and the EU that has been achieved today.

The GRT has already been deployed in the scope of numerous RFID-interoperability tests and today is still acknowledged internationally as a functional reference implementation in the eID field.

The GRT Platinum Edition supports all versions of the Extended Access Control (EAC) protocol, including the latest generation of security mechanisms such as Password Authenticated Connection Establishment (PACE) with no limitation to any given type of official documents.

GRT Platinum Edition—Use Cases

Border Control

ID Documents

Customised Solution

Document Reader
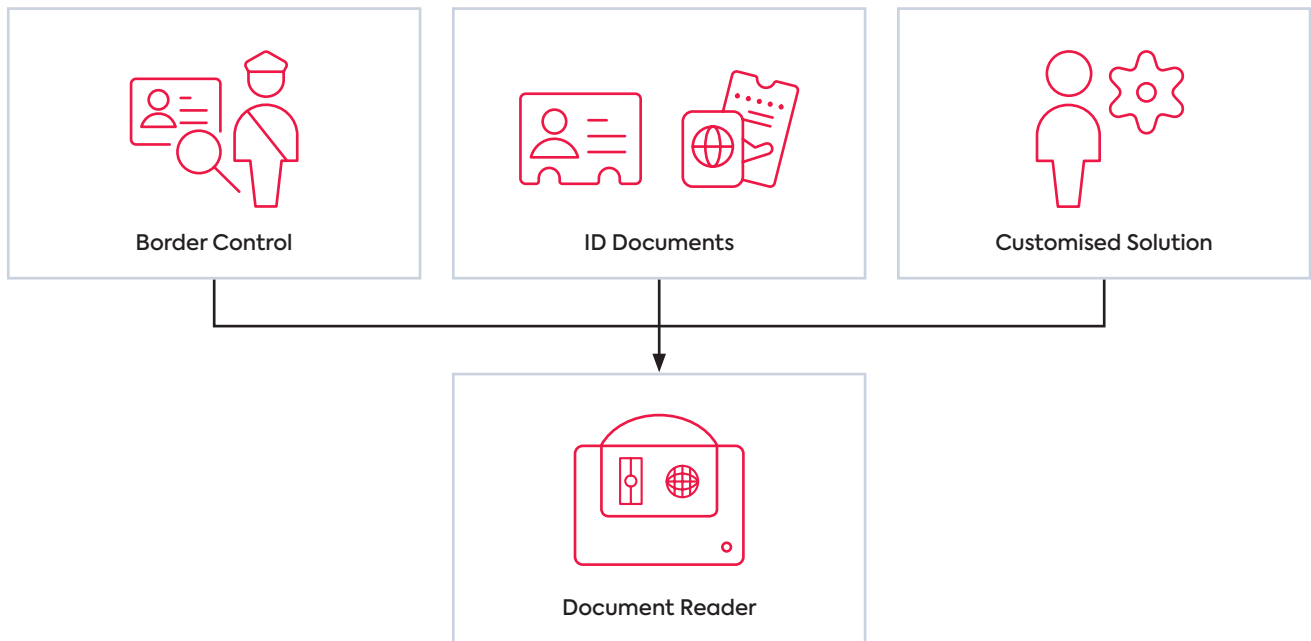
The advantages of secunet's ePassportAPI

The GRT Platinum Edition provides manufacturers of hardware and software as well as public authorities with a high-performance application to test and apply the security mechanisms in the context of eIDs. Compared to the ePassportAPI, the GRT Platinum Edition provides you with a comprehensive visual display of the data to be read out.

Furthermore, GRT Platinum Edition, based on the established middleware secunet biomiddle, also supports biometric application scenarios via clearly defined interfaces. Thus, support of various biometric sensors and full-page passport scanners as well as a multitude of matching algorithms is made possible.

GRT Platinum Edition features an innovative design, based on SnapIns,* which is easily and quickly adaptable to the specific requirements of the user.

Product types

With the GRT Platinum Edition, secunet offers companies and public authorities an optimised licence package based on the latest eID features and security mechanisms. Customer-specific adjustments, e.g. for other biometric areas of application, are available on request.

Benefits

- The software has been tested internationally and is acknowledged as a reference implementation

- Flexible in terms of functionality, design and use case

- Commercialised, with all advantages of a licensed product

- Future-proof and flexible due to its standard-oriented approach

International framework requirements

In order to speed up identity-checks of travellers and particularly to make these identity-checks considerably more secure, many states have introduced electronic passports. A digital photo and optionally two fingerprints of the owner are electronically stored on a RFID-chip. These data are carefully protected by established high security-mechanisms and strict encoding-algorithms, and can be machine-read by authorised instances.

To ensure international interoperability, the International Civil Aviation Organization (ICAO) has developed standards for machine readable travel documents: it has issued comprehensive recommen-

dations regarding, for example, the enhancement of travel documents with biometric features or the protection of biometric data by certain security mechanisms. For EU countries, the requirements regarding biometric data and the respective security features for passports are regulated in the EC Regulation No. 2252/2004. These EU requirements considerably exceed the minimum requirements of the ICAO in Doc 9303.

The German Federal Office for Information Security (BSI) took a leading role within the international standardisation committees at an early stage. Numerous developments are based on the knowhow of the BSI, the Golden Reader Tool being one of them. These solutions today are acknowledged as references worldwide.

Functionalities

Feature	GRT Platinum Edition	GRT 2.x
Application		
Commercially available	✔	—
Different language versions	✔	—
Border control application	✔	—
International Driver's License (IDL)	✔	—
Electronic Vehicle Registration Card (eVRC)	✔	—
Functionality		
Security mechanisms of ICAO (BAC, PA, AA)	✔	✔
Additional ICAO security mechanisms (PACE)	✔	—
EAC v1 support	✔	✔
EAC v2 support incl. PACE, CA Vers. 2, TA Vers. 2 and eID function	✔	—
Integration of the current ePassportAPI	✔	—
Integration in secunet biomiddle	✔	—
Display of datagroups via configurable editors (text, hex, or ASN.1 editor)	✔	—
Unicode compatible text and file support	✔	—
Individually adaptable user interface		
Application-SnapIns	✔	—
Layout variable in size according to runtime (e.g. adaptation to touchscreen-handling)	✔	—
Integration of company-specific logos	✔	—

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