

Digital Seal Signer for visa

Reliable protection for modern
residence permits

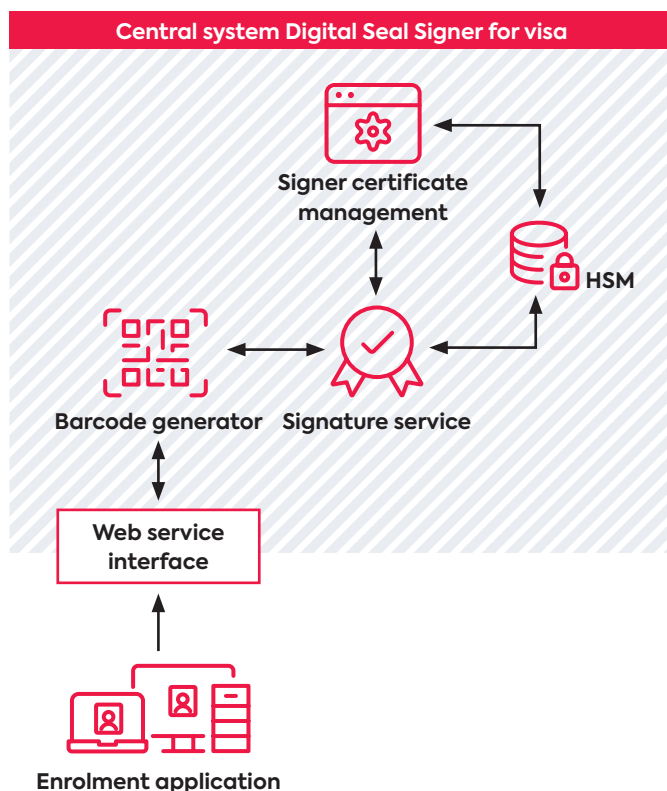


A 2D barcode digitally signs the content of a Schengen visa and ensures the authenticity of the data.

Electronic travel documents are nowadays secured by various optical and electronic features. For non-electronic travel documents, such as a visa, electronic protection has been lacking until now. Measures against manipulation and fraud are currently limited to optical measures, which do not provide adequate protection.

As a countermeasure, the European Commission decided on 30 April 2020 to introduce a mandatory digital seal for Schengen visa. The regulation states that the optical characteristics must be extended by an additional electronic component. Starting 01 May 2022, all visas for the Schengen area must contain a digital seal.

To create this digital seal secunet has developed the Digital Seal Signer for visa (DSS for visa). The DSS for visa is implemented as a web service interface (SOAP or REST). Using this service, enrolment applications can retrieve ready-to-use digital seals as a barcode image from the central system with the required personalization data (date and MRZ of the visa, authorized duration of stay and passport number). Afterwards, this seal is printed on the visa.



Benefits

- Generating ICAO compliant digital seals for visas
- Applying for and managing the associated digital certificates (issued by CSCA)
- Signature and barcode generation with the DSS certificate
- Web service interface for enrolment application SOAP- or REST-based
- Integrated interface for quality assurance of issued seals
- DSS can be used for additional applications, such as vaccine passports (COVID certificates)

Seal structure

The digital seal is a 2D barcode that contains the content of the paper document and is also digitally signed to ensure the authenticity of the data. The digital seal is specified in the technical guidelines of ICAO (Doc 9303-13) and German Federal Office for Information Security (TR-03137).

According to the ICAO Technical Report (Visible Digital Seals for Non-Electronic Documents), ISO-standardized formats for the 2D barcode are permitted, including DataMatrix, Aztec codes and QR codes. However, the EU Commission's decision stipulates the use of DataMatrix. This seal then contains, in addition to the data of the visa, the signature of the signing service including a reference to the signer certificate. Unlike other eMRTD documents, the signer certificate is not included in the seal due to space limitations.

secunet Security Networks AG

Kurfürstenstraße 58 · 45138 Essen · Germany
T +49 201 5454-0 · F +49 201 5454-1000
info@secunet.com · secunet.com

More information:
secunet.com/en/dss