Horus Embedded Security

CardOS SmartOTP
One time password generation with CardOS
Great convenience by supporting technical standards

A product for sophisticated requirements.
CardOS SmartOTP offers a simple and highly secure method to calculate One Time Passwords with CardOS smart cards.

Overview
CardOS SmartOTP offers an efficient and user friendly, easy to use software application for generating One Time Passwords (OTP). The calculation is performed securely on CardOS smart cards, based on established standards.

CardOS SmartOTP is a member of the CardOS product family. One Time Passwords, valid for a single login to a server or an application, provide a secure authentication solution.

CardOS SmartOTP offers a simple and user-friendly solution to calculate OTPs on CardOS smart cards and thus allows fulfilling the demand for 2-factor authentication. Following the standard RFC 4226 (HOTP) and RFC 6238 (TOTP) the generated OTP can be applied to a number of standard authentication services.

CardOS SmartOTP is available for all common operating systems.

CardOS SmartOTP, combined with the secure smart card operating system CardOS, offers an efficient and secure solution for the creation of authentication credentials.

CardOS SmartOTP can be used with CardOS cards enrolled for the sole purpose of OTP generation, as well as with cards used for general ID purposes like employee IDs at companies and organizations, student batches and signature cards.

Software Pack
The CardOS SmartOTP provides an easy installation. The graphical user interface of most versions of CardOS SmartOTP can be branded with a customized image.

Description
CardOS SmartOTP provides an effective implementation for OTP generation, according both, HOTP and TOTP. For that purpose the CardOS smart card receives a special OTP application. This application on the CardOS card holds the OTP information shared with the authentication service for which the OTP is to be generated. In case of HOTP this shared information (shared secrets and synchronization information) is stored on the card during card personalization and the synchronization of the user’s card with the authentication service. For authentication with TOTP the generated OTP synchronizes the account details via the GUI of CardOS SmartOTP.

One CardOS card can hold the information for several authentication servers. The CardOS OTP application can not only be stored on a pure OTP card, but as well on a CardOS PKI card holding cryptographic keys and certificates for encryption and signature purposes as well. So the use of e.g. employee batches is possible.

CardOS SmartOTP provides the GUI to start the OTP generation and operates the highly secure on-card OTP calculation. The on-card OTP calculation ensures the most secure OTP generation. The shared secrets used for the calculation are protected by the powerful security mechanism of the CardOS operating system. The ownership of the smart card together with the PIN secured access to the smart card ensure the safe 2-factor authentication.

License
The software license is required in order to install and use the CardOS SmartOTP.

The number of licenses corresponds to the total number of systems on which CardOS SmartOTP is installed. In the case of terminal servers, the number of licenses corresponds to the maximum number of concurrent users for each terminal server.

Current version
• CardOS SmartOTP V21 for Windows
• CardOS SmartOTP V21 for Linux
• CardOS SmartOTP V21 for macOS
• CardOS SmartOTP V10 for Android *

* HOTP only, Supported cards: CardOS DI V5.3 contactless, via smart phones with smart card aware NFC

Technical data
Supported Standards:
• RFC 4226 / HOTP
• TOTP (RFC 6238)

Supported Operating Systems:
• Windows 7 (SP1)
• Windows 10
• Linux
• macOS
• Android

Supported smart card Operating Systems:
• CardOS V5.0
• CardOS V5.3
• CardOS DI V5.3

Supported Smart Card Connectivity:
• PC/SC compatible smart card readers
• NFC: smart card connectivity with CardOS DI V5.3

Supported Languages:
• English

Supported Authentication Services:
• Servers supporting HOTP (RFC 4226) or TOTP (RFC 6238), e.g. Atos DirX Access

Further information for integration
Shared Information for OTP generation needs to be stored in the respective backend authentication service, e.g. Atos DirX Access or other backend service supporting HOTP/OATH (RFC 4226).

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atos.net/cardos

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