



Technical Data Sheet

GreenShield Mail

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E-mail encryption with BSI approval for VS-NfD, NATO Restricted and EU Restricted

GreenShield Mail is a solution for encrypting and signing e-mails. As an add-in for Microsoft Outlook and IBM Notes, GreenShield enables end-to-end security.

Functionality	<p>Functions for protecting e-mails (end-to-end security):</p> <ul style="list-style-type: none"> • Signing and verifying mails • Encryption and decryption of mails • Key- and certificate management
Features	<ul style="list-style-type: none"> • Key usage from smart card / USB token / softkey** • Generation of certification requests and self-signed certificates* • PIN caching* • Generation of RSA and EC keys • Key escrow (message recovery) • Centralized configuration and management • Several certification authorities can be used in parallel • LDAP / OCSP / HTTP(S) support • HTTP proxy support • Verification of certificates • X.509 certificates and X.509 revocation lists • Efail immunity
Scope of supply	<ul style="list-style-type: none"> • GreenShield add-in for Microsoft Outlook • GreenShield add-in for HCL Notes • GreenShield Core System • PKCS#11 module
Supported standards	<ul style="list-style-type: none"> • S/MIME Version 3.2 / 4 including ECC • PKCS#11 • PKIX • CDSA security architecture • Random from Smartcard / TR2101-1 pseudo random number generator • LDAP / OCSP / HTTP(S)
Evaluation and approval	<ul style="list-style-type: none"> • Verschlusssache – Nur für den Dienstgebrauch (VS-NfD) • NATO Restricted • EU Restricted <p>Approval number: BSI-VSA-10552</p>
Supported email clients	<ul style="list-style-type: none"> • Microsoft Outlook 2010 / 2013 / 2016 / 2019 • IBM Notes 9.0.x, HCL Notes 11

* Not permitted for VS-NfD, EU Restricted and NATO Restricted

** In coordination with the BSI

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<p>Supported algorithms</p>	<p>Asymmetric crypto algorithms:</p> <ul style="list-style-type: none"> • RSA (up to 16384 bit, up to PKCS1#v2 incl. PSS/OAEP) • DSA/DH (up to 2048 Bit) • ECC (up to 571 Bit): NIST and Brainpool curves <p>Symmetric crypto algorithms:</p> <ul style="list-style-type: none"> • DES (56 bit)** • Triple-DES (168 bit)** • RC2 (40 bit, 64 bit, 128 bit)** • AES (128 bit, 196 bit, 256 bit) <p>Hash algorithms:</p> <ul style="list-style-type: none"> • SHA-1*, SHA-224*, SHA-256, SHA-384, SHA-512 • RIPEMD-128, RIPEMD-140, RIPEMD-160** • MD2, MD4, MD5**
<p>System requirements</p>	<p>Client operating system:</p> <ul style="list-style-type: none"> • Microsoft Windows 7 SP1*** • Microsoft Windows 10 (1809) <p>Email server:</p> <ul style="list-style-type: none"> • IBM Domino 8.5 or higher • Microsoft Exchange 2000 or higher
<p>Usage requirements: VS-NfD, NATO Restricted EU Restricted</p>	<p>Smartcards:</p> <ul style="list-style-type: none"> • ePasslet Suite v3.0 on NXP JCOP 3 • ePasslet Suite v2.1 on NXP JCOP 2.4.2 • Electronic service and army identity card, based on CardOS-5 smart card (v4.2,v4.3) • PKIBw card (PKI-8Wv1.7, PKI-BWvL.8), based on CardOS-5-smart card • CardOS V5.0 with QES V1.1 <p>PKI:</p> <ul style="list-style-type: none"> • VS-NfD approval according to BSI-TR-03145 <p>Certificates and revocation lists:</p> <ul style="list-style-type: none"> • CRL or OCSP <p>Middleware:</p> <ul style="list-style-type: none"> • cryptovision SCinterface 8.0.x (PKCS#11 module)

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** For decryption only, supported to ensure compatibility with outdated algorithms

*** Microsoft support discontinued as of 14 January 2020



cv cryptovision GmbH
Munscheidstr. 14
D-45886 Gelsenkirchen

T: +49 209 16724-50
F: +49 209 16724-61

www.cryptovision.com
info@cryptovision.com