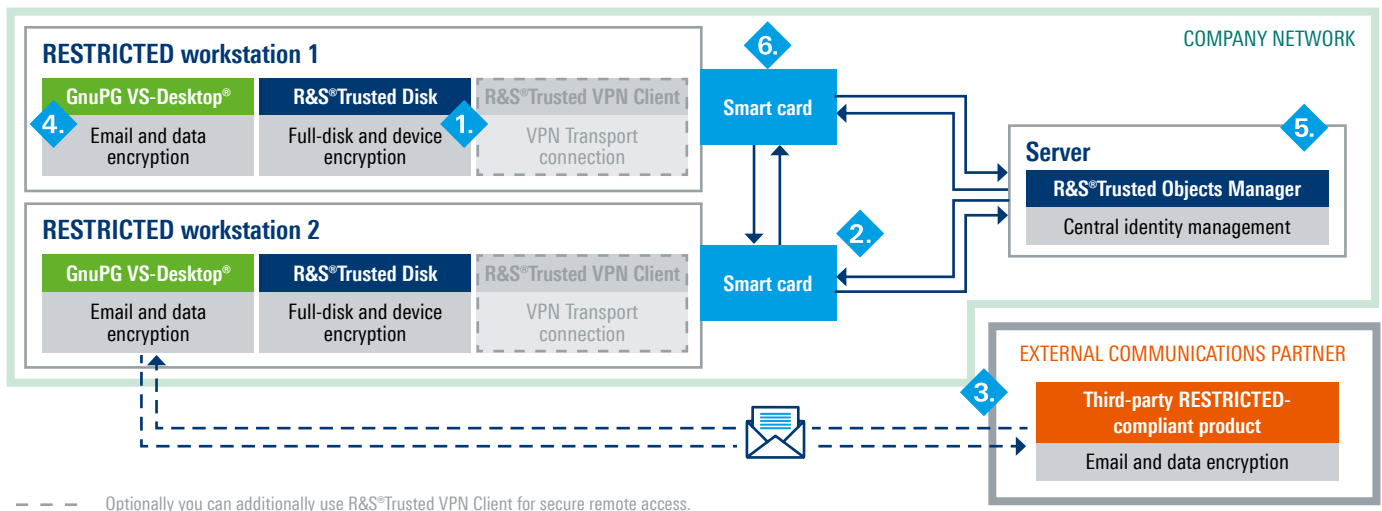# R&S®Trusted Disk and GnuPG VS-Desktop®

GnuPG.com

Seamless encryption of emails, data and hard disks in conformance with "RESTRICTED" classification

The combination of R&S®Trusted Disk and GnuPG VS-Desktop® is a holistic cryptographic solution for storing and sending data with RESTRICTED classification. This approach is based on R&S®Trusted Disk as a full-disk encryption solution. At the application level, GnuPG VS-Desktop® provides end-to-end encryption of emails and data across all programs. Thanks to the use of central identity management, only one smart card is required for authentication. Together the two products form an integrated and convenient solution for users, providing comprehensive and seamless encryption of workstations for data classified as RESTRICTED.

RESTRICTED workstation 1				COMPANY NETWORK
GnuPG VS-Desktop®	**R&S®Trusted Disk**	R&S®Trusted VPN Client	**6.** Smart card	
Email and data encryption **4.**	Full-disk and device encryption **1.**	VPN Transport connection		**5.** **Server** R&S®Trusted Objects Manager Central identity management

Optionally you can additionally use R&S®Trusted VPN Client for secure remote access.

EXTERNAL COMMUNICATIONS PARTNER

3. Third-party RESTRICTED-compliant product — Email and data encryption

R&S®Trusted Disk and GnuPG VS-Desktop® are a perfect match, and you benefit from the following advantages:

1. **Efficiency:** seamless integration into existing system landscape.
2. **Productivity:** just one smart card for hard disk, email and data encryption.
3. **Interoperability:** end-to-end encryption also possible with external communication partners that use third-party products for RESTRICTED data.
4. **Convenience:** Outlook integration for email encryption.
5. **Administration:** All users are managed by a central identity management system, not on individual PCs.
6. **Security:** Key for email and data encryption is on the smart card – not as a key file on PCs. No accidental sending of secret keys possible.

ROHDE & SCHWARZ
Make ideas real

R&S®Trusted Disk: secure full-disk encryption in real time

Laptops in particular, as well as mobile data storage devices such as USB flash drives or portable hard disks, can easily be pilfered or left behind. To keep sensitive data from falling into the wrong hands, you need R&S®Trusted Disk for secure, effective full-disk encryption with official approval for use with RESTRICTED data. R&S®Trusted Disk includes advanced random number generation as well as flexible decryption depending on time or data volume, so you can constantly maintain a high level of security. R&S®Trusted Disk can additionally encrypt external USB data storage devices (such as USB flash drives) in conformance with RESTRICTED classification, and limit access to authorized users.

Central security functions
▶ Secure encryption of internal hard disks and external data storage
▶ Centralized management of users and smartcards
▶ Pre-boot two-factor authentication with smartcard and PIN
▶ Adherence to compliance requirements based on audit logs
▶ Approved for securing classified data
▶ Tamper-proof boot process
▶ Flexible re-key capability

Benefits at a glance
▶ Efficient, trouble-free full-disk encryption maintains workstation productivity
▶ Simple and secure deployment of encrypted mobile data storage devices, even in mixed environments
▶ PIN forgotten? No problem, a new PIN can be set with support from the central management system, even remotely

GnuPG VS-Desktop®: cryptographic protection for encryption of email and data

During transmission, every message passes through many computers and often ends up in unauthorized external databases. To ensure that confidential messages cannot be read by unauthorized parties, you get a package solution for encrypting and signing emails that is approved for use with data classified as RESTRICTED. GnuPG VS-Desktop® prevents unauthorized access by third parties to your digital communications and your data stored in the cloud, including access by telecommunications providers and government bodies. Even if your encrypted emails are intercepted and stored somewhere along the transmission path, they cannot be decrypted by unauthorized persons.

Central functions
▶ Ensuring the confidentiality and integrity of data
▶ Support for the standardized protocols OpenPGP and S/MIME
▶ Integration in Outlook and Windows for extremely simple user guidance
▶ Support for diverse key discovery methods
▶ Options for creating soft tokens or password based encryption

Benefits at a glance
▶ Easy management and authentication of certificates
▶ Use of open source and open standards
▶ Cryptoagility tried and tested over many years
▶ German-speaking development and support team
▶ Federal Office for Information Security (BSI) approved for VS-NfD (RESTRICTED), EU RESTRICTED and NATO RESTRICTED

The combination of R&S®Trusted Disk and GnuPG VS-Desktop® offers:
▶ A RESTRICTED-compliant workstation from a single source
▶ Plug and play, using a smart card as a key for working with RESTRICTED data
▶ High convenience with seamless integration

Ease of use and security go hand in hand because:
▶ Employees continue to work as usual, without being hampered by restrictive security measures
▶ The encryption mechanisms run transparently, providing both high security and productivity

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