

# R&S<sup>®</sup>TRUSTED GATE – SOLUTION FOR MICROSOFT<sup>®</sup> 365 TEAMS EDITION

R&S<sup>®</sup>Trusted Gate – Solution for Microsoft<sup>®</sup> 365 Teams Edition provides secure processing of sensitive data in Microsoft<sup>®</sup> 365 and Teams. While in the public cloud just virtual files without actual content are exposed, the original files are stored encrypted and fragmented. In addition all chats and conversations get encrypted.

► Use the benefits of public clouds without losing security and control.

## Collaborate transparently with encrypted files

R&S<sup>®</sup>Trusted Gate – Solution for Microsoft<sup>®</sup> 365 Teams Edition integrates transparently in Teams desktop and web client workflows. Sensitive and confidential enterprise data is encrypted, stored in SharePoint Online or OneDrive for Business and protected from external and internal data theft or manipulation. Encryption covers all files in Teams channels, chats or conversations as well as handling and sharing files in the Teams file section. This solution enables a secure data exchange with external partners directly in Teams via data rooms, even for partners without using Microsoft<sup>®</sup> 365 and Teams.



Product Flyer  
Version 02.00



## Virtual file technology

During any upload of files in Microsoft® Teams a virtual copy of each confidential document, without sensitive content is created. It is only containing metadata like keywords or other classification data from the original document. SharePoint Online, OneDrive for Business and other applications can work transparently with virtual files, without accessing the confidential content. This allows authorized users to keep existing workflows without exposing the content to the public cloud. The confidential content can only be accessed by authorized users and will be transparently decrypted when downloaded.

## Secure and distributed storage

The original files get encrypted, fragmented and then stored in a multi-layer storage system on-premises or in various clouds. Due to fragmentation into small chunks, confidential data cannot be compromised even by complex cryptographic attacks. The chunks can be stored and distributed via a configurable software-defined storage module (SDS). The SDS module enables file storage on different hardware and major cloud providers like Azure (Microsoft®), AWS (Amazon) or GCP (Google). Customers are able to choose inexpensive cloud storage providers even for massive amounts of data without limiting collaboration on Microsoft® 365 and Teams.

## Related R&S®Trusted Gate products

### R&S®Trusted Gate – Mobile Access

Provides a high secure read only access with mobile devices to sensitive internal data. On mobile devices, only a HTML5 browser is required. Sensitive content will never be stored or further processed on the device itself. This service is a standalone solution.

### R&S®Trusted Gate – Mail Control

Provides secure processing of sensitive attachments in emails. Attachments will be extracted, stored encrypted and replaced in the mail by a link. Recipients can access content with defined security rules (full access, read only or no access). This solution contains data exchange and mobile access solutions.

### R&S®Trusted Gate – Secure Data Exchange

Provides high secure data exchange functionality between internal and external project groups and teams. Data can either be synchronized automatically or with manually user interaction between different parties. The exchange data target can be configured as a multi-layer storage system either on cloud or on-premises storage systems.

## High security in the public cloud

With R&S®Trusted Gate customers comply with data protection laws that require certain data to be stored in specific national jurisdictions. Encrypted and fragmented original files can stay within customer-defined regions while virtual files still can be part of a worldwide workflow in the public cloud. Organizations are thus complying with regulatory requirements (GDPR for the storage of personal data of EU citizens in the EU). R&S®Trusted Gate enables implementation of corporate requirements for the protection of intellectual property. In addition, companies are able to distribute chunks across multiple storage systems using the RAID cloud module. This approach supports a multi-cloud strategy for achieving resilience against scenarios like a public cloud security breach or a cloud provider going offline.

## Flexible and scalable deployment options

The software infrastructure of this solution is based on microservices with great flexibility of deployment. R&S®Trusted Gate can run its services in containers with an orchestration system like Kubernetes or can be deployed as a single server app. That provides a higher grade of control, scalability and elasticity. In hybrid environments, critical core services like the key service or the admin service can be deployed on-premises while CPU intensive operations like encryption service can be deployed in the cloud. From an operating point of view, the R&S®Trusted Gate – Solution for Microsoft® 365 Teams Edition is deployed using reverse proxy and therefore provides transparent encryption with existing workflows.

## Secure search in encrypted documents

R&S®Trusted Gate – Solution for Microsoft® 365 Teams Edition provides secure search inside encrypted files for file names, keywords and full text directly in the Teams desktop client and web client – without a security compromise. The search function can be easily accessed with a Teams tab. Encrypted files name and content can only be searched by the R&S®Trusted Gate secure search, so no sensitive data is exposed to any cloud provider.

## Confidentiality and integrity

This solution encrypts documents using Block Cipher Mode (GCM). This ensures confidentiality and integrity. The symmetric document-centric keys (AES 256) are additionally encrypted with asymmetric keys (RSA or elliptic curves). Access rights can be assigned with high granularity for groups and individual users.

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PD 3608.1730.32 | Version 02.00 | December 2020 (sch)  
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