Public clouds in companies: future-proof, necessary and secure

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Agenda

- Challenges: Security vs. usability
- Paradigm shift: Data-centric approach for high security
- Data protection in Public Clouds and collaboration tools using R&S® Trusted Gate
- Global collaboration without worrying about data security
- R&S® Trusted Gate: Product portfolio and its advantages
- Questions & Answers
Challenges:
Security vs. usability
What does Cybersecurity mean?

- On-premises
  - Data
  - Applications
  - Platforms
  - Infrastructure

- Firewall

- External attackers

- Provides authentication and authorization within an organization
- Is mandatory for all processes and workflows
What does Cybersecurity mean?

- Identity Access Management
- On-premises
  - Data
  - Applications
  - Platforms
  - Infrastructure
- Firewall
- WAF
- Hardened operating system
- Perimeter security for applications
- Security for platforms and OS
- Data in motion
- VPN or ethernet encryption; during transport all data is secured

Public clouds in companies: future-proof, necessary and secure
Transition to the Cloud?

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Transition to the cloud?

Public clouds in companies: future-proof, necessary and secure.
Paradigm shift: Data-centric approach for high security
“Identity and Access Management – IAM for short – is the security and business discipline that enables the right people to access the right resources at the right time and for the right reasons.”

*Gartner*

“IAM is a standard and necessary to ensure secure and easy access to resources and applications especially in heterogeneous IT environments.”

*Dr. Bruno Quint*
Data-centric security is a security approach that focuses on the security of data directly, rather than indirectly, over networks, servers, or applications.

- Data-centric security is evolving rapidly as companies increasingly rely on digital information in order to run their businesses.
- Gartner introduces DCAP (Data-centric audit and protection).
Encryption: A security approach

- Data encryption provides data-centric security:
  - Real protection against both, **internal and external attackers**

**The challenges with cloud-encryption:**

1. How can you work with encrypted data without introducing unneeded complexity?
2. How can existing work-processes and its supporting application be carried out?
3. How to search within encrypted documents?
Requirements for a secure cloud solution

- Encrypts all data, documents or videos in the cloud
- Maximum flexibility for secure, global collaboration
- Transparent integration with existing collaboration or cloud environments, such as Microsoft® Office 365™, SharePoint™, Exchange™
- A search function that works securely in encrypted documents
- The ability to collaborate globally while storing data in configurable (cloud or on-premises) locations
R&S® Trusted Gate – Data-centric security

User creates the original file

Uploads the file to the cloud for collaboration

R&S® Trusted Gate

Splits the file in a virtual file (no content, just metadata)

Encryption level

And the encrypted original file

That is stored in multiple chunks

Business level

On Software Defined Storage (SDS) of the user’s choice

Local (on-premises / Cifs, SAN, objects)

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Business workflow – With virtual documents

- Business workflow remains unchanged
- Access to content is controlled via R&S® Trusted Gate
- Transparent access of authorized users
Worldwide workflow performance

- workflow accepted
- permissible region
- access accepted
- Europe
- workflow accepted
- un-permissible region
- access forbidden

Public clouds in companies: future-proof, necessary and secure
Data protection in Public Clouds and collaboration tools using R&S® Trusted Gate
R&S® Trusted Gate – Solution for Office 365™ and Solution for SharePoint™

- Transparent encryption in Microsoft® SharePoint™ and Office 365™
- Existing workflows and applications remain unchanged

User creates a confidential file

R&S® Trusted Gate

Original data remains in preconfigured storage systems.

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Public clouds in companies: future-proof, necessary and secure
R&S® Trusted Gate – secure collaboration with business partners

Public clouds in companies: future-proof, necessary and secure
R&S® Trusted Gate – Infrastructure optimization

- Shared Microsoft® SharePoint™ for multiple offices in regulated countries
- Also works with Microsoft® Office 365™

User creates a confidential file.

Original data never leaves country A.

Upload to a shared infrastructure for collaboration with virtual data.

Original data never leaves country B.

Public clouds in companies: future-proof, necessary and secure.
Global collaboration without worrying about data security
High security of data

Data-centric security brings your most important property into focus: your data
Usability

Simple integration is the key. No solution is ideal if it ends up being so complicated that nobody is able to or wants to use it.
Compliance

Legal regulations do not stand in the way, but can be easily complied with.
R&S® Trusted Gate: Product portfolio and its advantages

Public clouds in companies: future-proof, necessary and secure
<table>
<thead>
<tr>
<th><strong>R&amp;S® Trusted Gate</strong></th>
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<tbody>
<tr>
<td><strong>Solution for Office 365</strong></td>
<td><strong>Data Diode Solution</strong></td>
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<tr>
<td>Seamless integration for working securely and transparently with Microsoft® Office 365™</td>
<td>Secure data transfer between differently classified security areas of companies and public authorities</td>
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<tr>
<td><strong>Solution for SharePoint</strong></td>
<td><strong>DLP Solution</strong></td>
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<td>Encryption of documents for Microsoft® Sharepoint™ and integration of the documents into existing workflows</td>
<td>Prevents loss of confidential data conveyed via emails</td>
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<td><strong>Secure Data Room Solution</strong></td>
<td><strong>Mobile Access Solution</strong></td>
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<td>Data room solution for secure data exchange and collaboration at the highest corporate level</td>
<td>Secure access to confidential content via mobile devices</td>
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R&S® Trusted Gate functions at a glance

**Common features**
- Seamless integration with applications
  - Microsoft® Office 365™ or SharePoint™
- Prevention of data loss
- Monitoring user activity
- Live time tracking of files
- Dynamic, content-based policy
- Audit-proof audit
- Safe full-text search
- Supports GDPR compliance for every cloud

**High Security features**
- Encryption
  - Streaming encryption
  - Virtualization
  - Fragmentation
  - SDS
  - Raid4Cloud
- Crypto Provider
- Key management
- AES 256, Elliptic Curves, RSA
- Group keys, personal keys

Public clouds in companies: future-proof, necessary and secure
R&S® Trusted Gate advantages at a glance

1. Scalable performance
2. Innovative virtualization process
3. High security in the public cloud
4. Simple rollout and management
Questions & Answers

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