secunet SINA & fragmentiX equipment for digital sovereignty

2025

fragmentiX®

QUANTUM AGE CYBERSECURITY

secunet & fragmentiX background

- secunet is Europe's leading provider for government security solutions
- fragmentiX is globally leading developer and producer of quantum-threat-safe storage solutions and a dedicated and worldwide accredited secunet sales and implementation partner
- fragmentiX is entitled to supply any secunet devices up to classification levels EU SECRET and NATO SECRET
  to the Canadian Government and Canadian Enterprises to protect their digital sovereignty
- fragmentiX has the full support of the Austrian government

secunet

Protecting digital infrastructures

Protecting digital infrastructures

We facilitate digital sovereignty for governments, businesses and society by delivering the most effective IT security solutions

We believe that secure IT infrastructures are the indispensable backbone for data privacy in our connected world.

secunet is Europe's leading cyber security company, protecting digital infrastructures and identities.

Mission

Vision

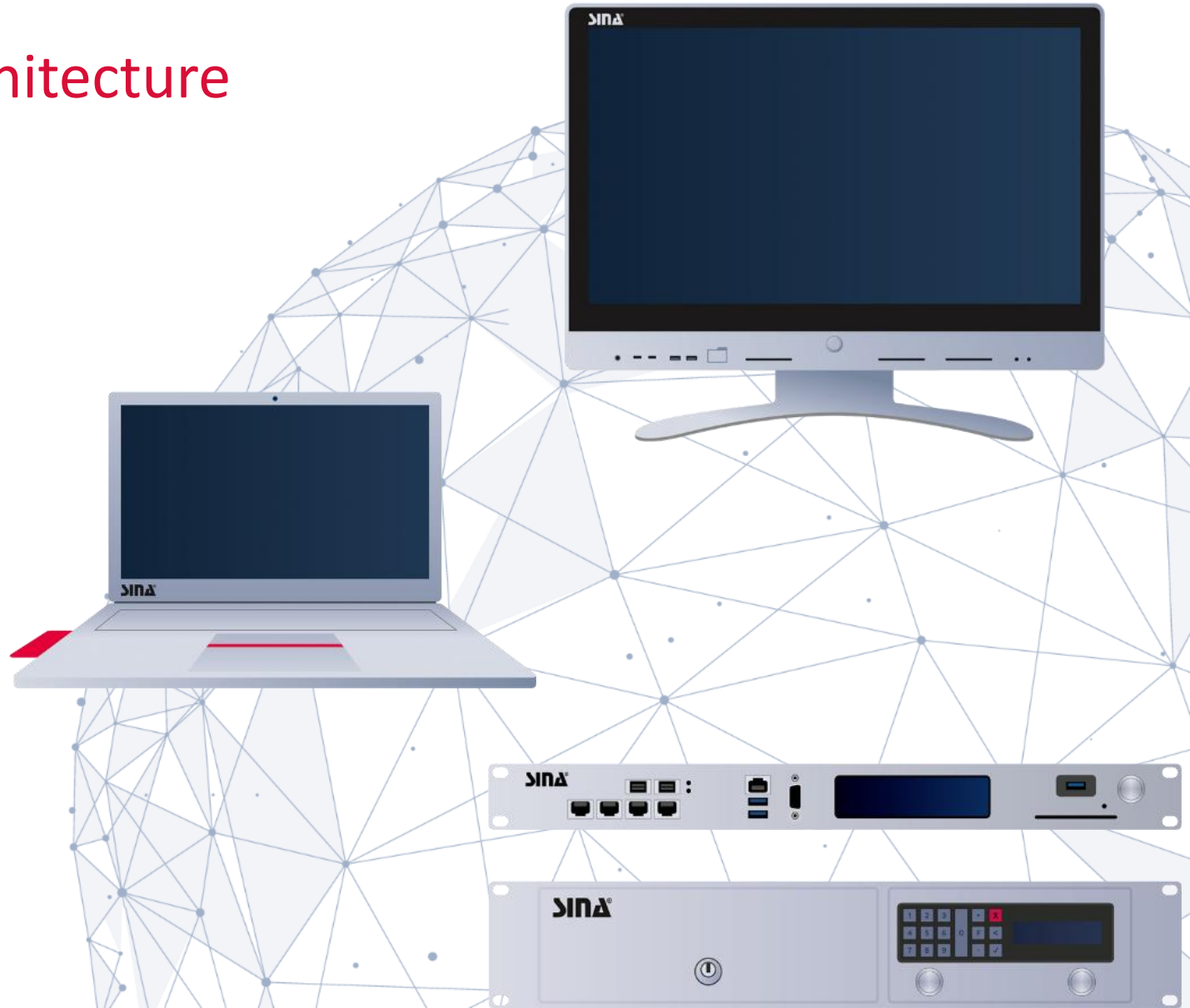secunet

Market leading security architecture

Government-grade network encryption
and ultra-secure clients

More than 250,000 installations in
25 countries worldwide

Approved by German BSI, EU and NATO
for classified communication up to SECRET

Designed for complex national and international
infrastructures

Central security and network management
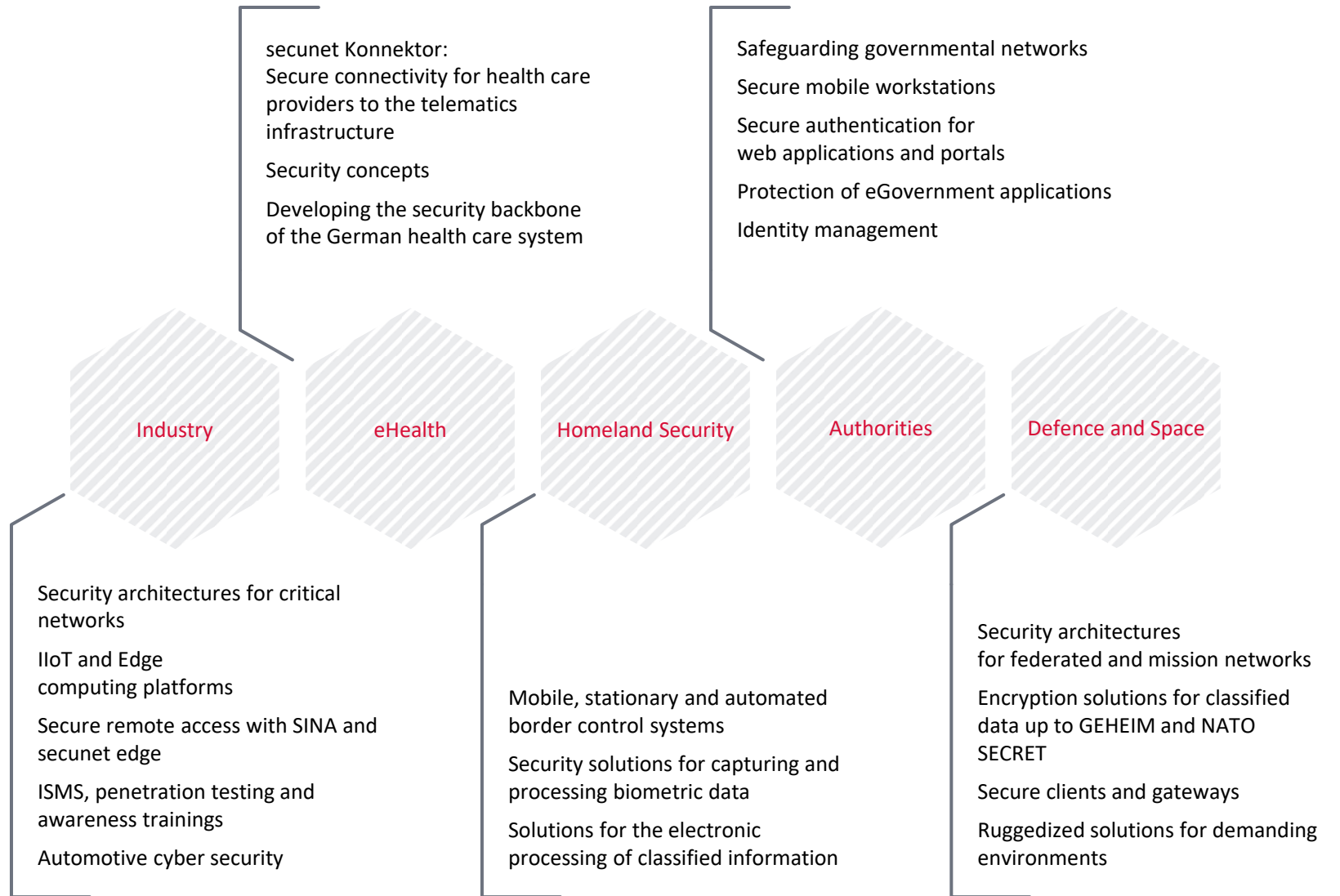
Portfolio and markets

Products

- Government approved encryption solutions
- Biometric ID systems
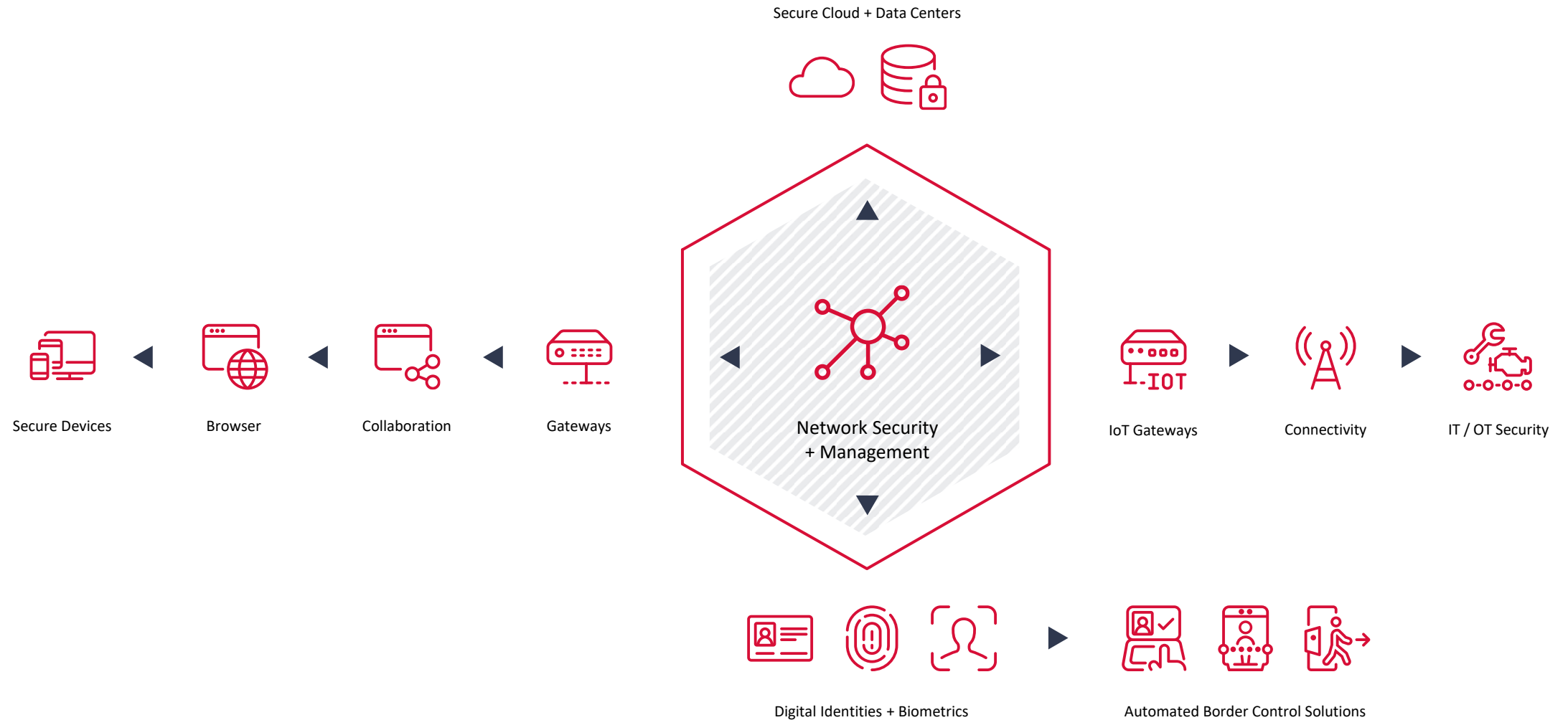- Web application security
- Secure IoT platforms

Consulting

- Security concepts
- IT-Grundschutz / ISMS
- Security design and architectures
- Penetration testing

Services

- Managed Security Services
- Network monitoring
- Implementation services
- Support, maintenance and operation

Industry

eHealth

Homeland Security

Authorities

Defence and Space

eHealth

secunet Konnektor: Secure connectivity for health care providers to the telematics infrastructure

Security concepts

Developing the security backbone of the German health care system

Authorities

Safeguarding governmental networks

Secure mobile workstations

Secure authentication for web applications and portals

Protection of eGovernment applications

Identity management

Industry

Security architectures for critical networks

IIoT and Edge computing platforms

Secure remote access with SINA and secunet edge

ISMS, penetration testing and awareness trainings

Automotive cyber security

Homeland Security

Mobile, stationary and automated border control systems

Security solutions for capturing and processing biometric data

Solutions for the electronic processing of classified information

Defence and Space

Security architectures for federated and mission networks

Encryption solutions for classified data up to GEHEIM and NATO SECRET

Secure clients and gateways

Ruggedized solutions for demanding environments

Cyber security solutions for digital infrastructures

Secure Cloud + Data Centers

Network Security + Management

Secure Devices

Browser

Collaboration

Gateways

IoT Gateways

Connectivity

IT / OT Security

Digital Identities + Biometrics

Automated Border Control Solutions

The future of military multimedia communication

Telephony, messaging and collaboration in high security environments

Approved for communication up to German national SECRET (GEHEIM), in evaluation for NATO SECRET and SECRET UE/EU SECRET

Leading in terms of usability and technology

Scalable architecture, extension as thin client

Award-winning design and usability

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Secure connectivity for IIoT and Edge Computing

Secure connection of machines, local IT infrastructures and IoT platforms

Intelligent edge computing platform based on flexible docker environment

Real-time network monitoring and AI-based anomaly and threat detection

Industry-grade hardware made in Germany

Industry 4.0 enabler: firewalling, retrofitting, remote access, protocol translation
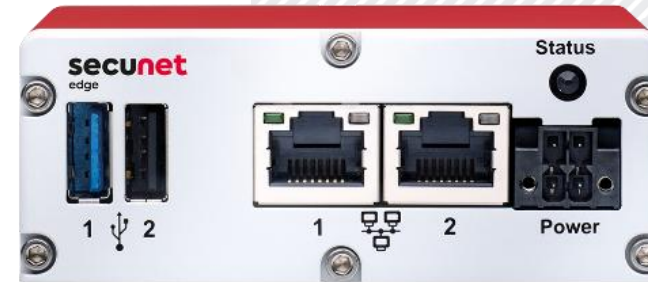
EES-ready border control systems

More than 100 million secure border crossings in 12 European countries

Over 480 secunet easygates installed throughout Europe

Part of secunet border gears product portfolio for modern, future-proof border control infrastructures

18 European countries accelerate their border control processes with secunet products

Secure messaging for government and corporations
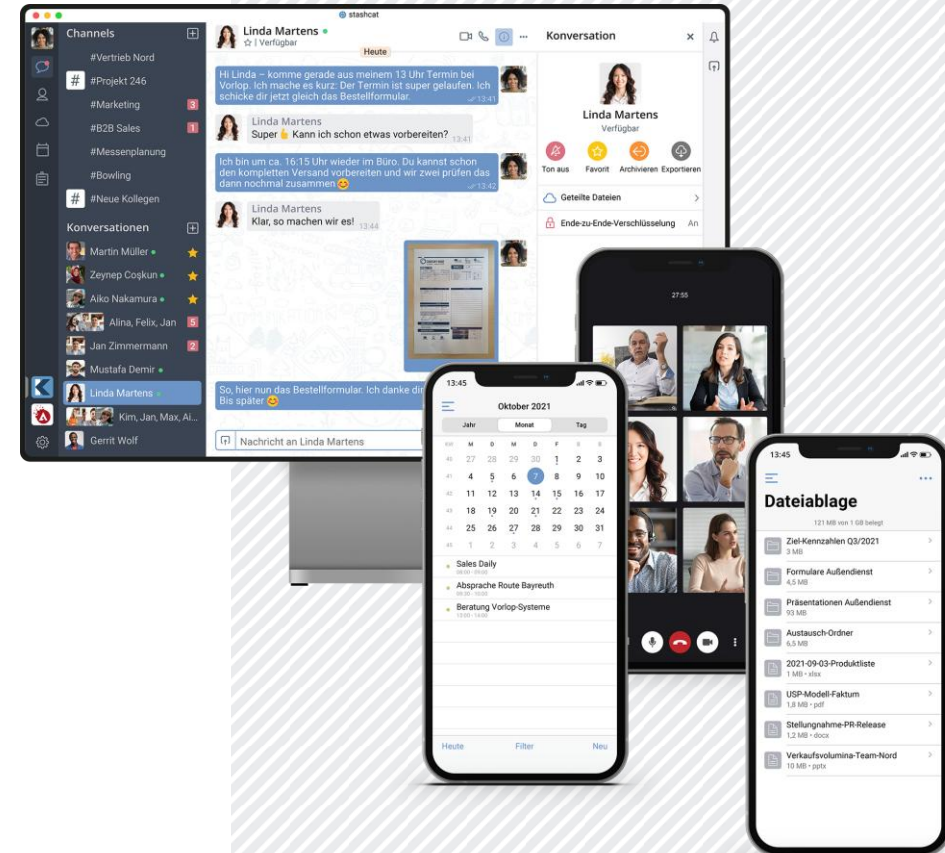
GDPR-compliant messenger as a smartphone app or as a web application.

Integrated video conferencing, calendar, file storage and survey tool.

Designed for the needs of organizations.

Intuitive usability confirmed by top user ratings.

Full control of user and contact data.
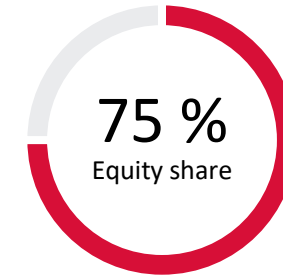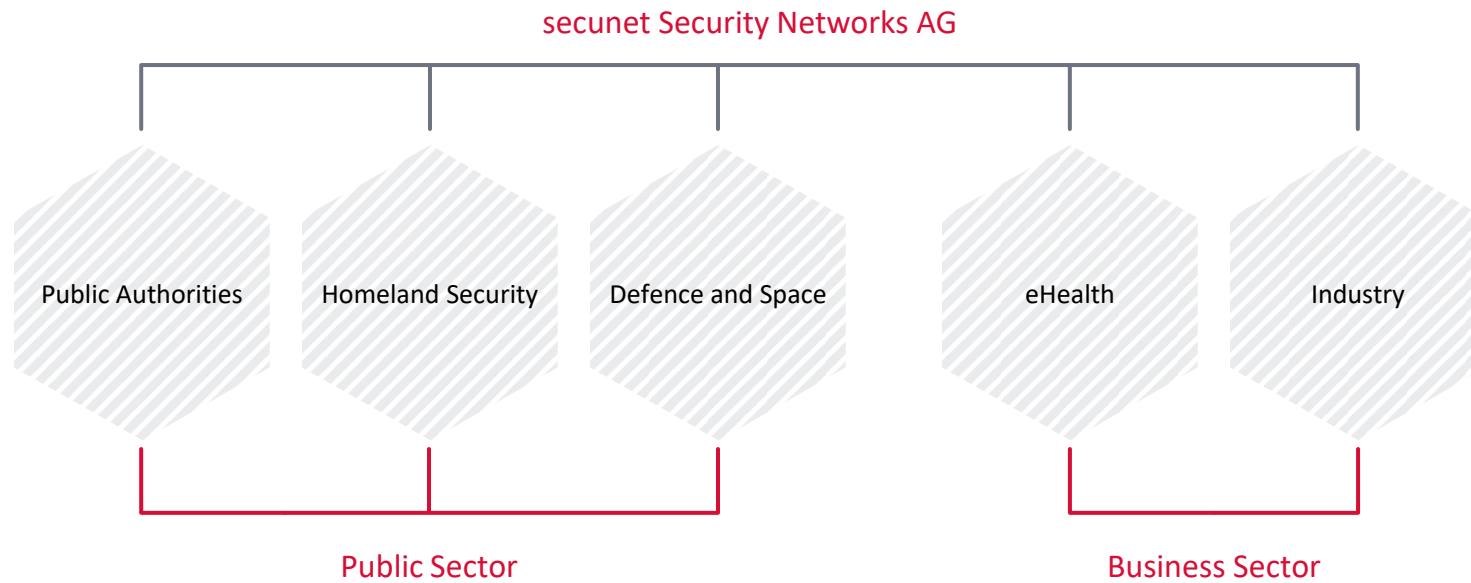
On-premise or cloud operations.

References

We are the IT Security Partner of the Federal Republic of Germany.

secunet 28.04.2025

Company overview

secunet Security Networks AG

| Public Authorities | Homeland Security | Defence and Space | eHealth | Industry |

Public Sector

Business Sector

75 % Equity share

Main shareholder: Giesecke & Devrient

secunet

SysEleven   stashcat
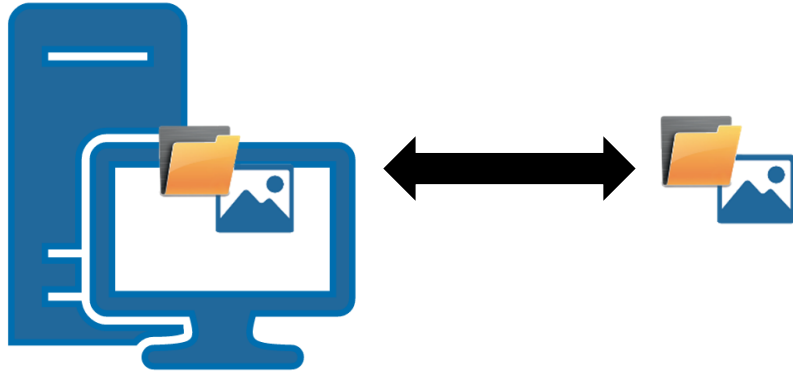
407m Euro Revenue

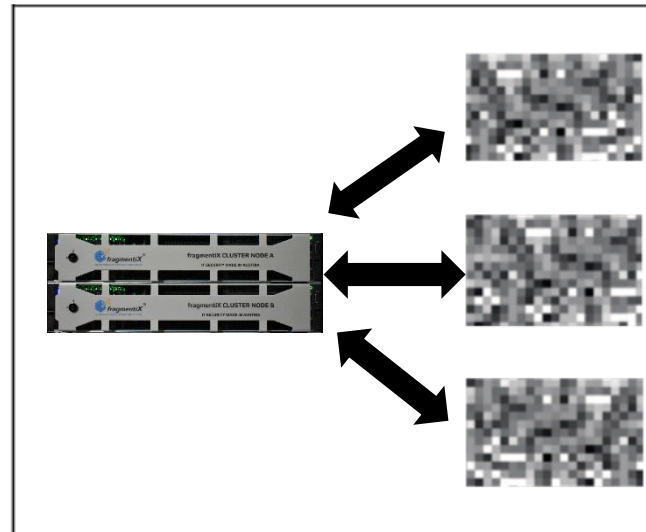**42m** Euro EBIT

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fragmentiX Technology in a Nutshell

LAN / user side:
fragmentiX desktop client software or WebDAV-provided network drives under Windows, MacOS and Linux
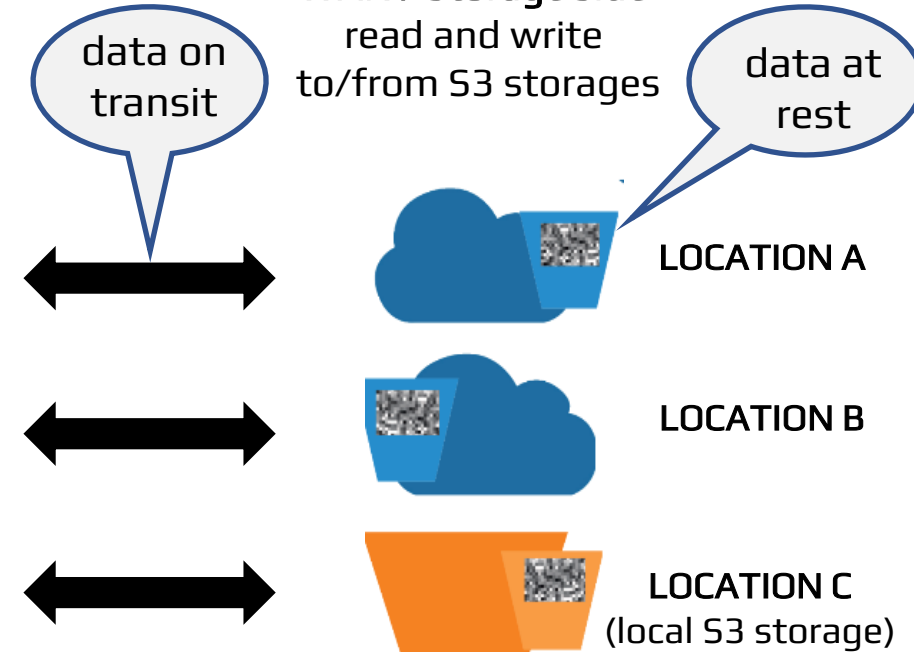or acts as an S3 proxy for applications using S3 directly

fragmentiX Secret Sharing Appliance

WAN / storage side
read and write to/from S3 storages

data on transit

data at rest

LOCATION A

LOCATION B

LOCATION C
(local S3 storage)

Files are saved on a fragmentiX network drive or on a virtual S3 storage

The fragmentiX appliance uses Secret Sharing algorithms to split the data into fragments

Each fragment is assigned to a separate physical storage location in a hybrid/multi cloud
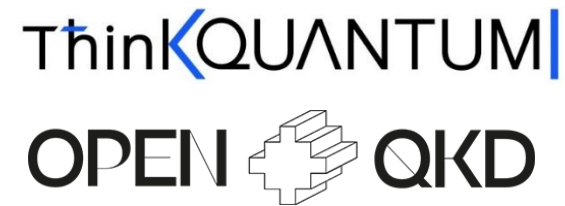
Selected fragmentiX Cutting-Edge Projects

Austria

EU

Global

... + other ministries

CVSTAR

secunet SINA MANAGEMENT

SINA Management is the central configuration and key management tool for all SINA Wirksysteme

SINA Workflow

SINA L3 Box

SINA µSD

SINA Smartcard

SINA L2 Box

SINA Management

Smartphone

SINA Workstation
SINA Terminal

SINA Tablet

SINA Server

secunet SINA MANAGEMENT

- SINA Management is ...

- ... graphically operable

- ... modular

- ... multi-user capable

- ... georedundant

- ... scalable

- ... multi-client capable

- ... role-oriented

secunet SINA MANAGEMENT

- SINA Management contains the following functionalities

- Configuration management

- key management

- PKI (RA, CA, CRL, CMP)

- Smartcard management (write smartcards, issue PIN letters)

- CORE management (D2 container update online)

- Online services (LDAP, Syslog, NTP, SINA Remote Software Update)

secunet SINA MANAGEMENT

- SINA Management is a configuration tool for the security functions of the SINA active systems

- This delimitation makes it possible to provide other administration tools for further tasks.

- systems already available and known to the customer

- Other systems sold by secunet

- Examples of such systems

- Device configuration of (Blackberry) smartphones => BES

- Guest system management of the SINA Workstation, e.g. Windows => SCCM

- Live monitoring => standard network management systems

- Initial software installation of the SINA Workstation => SINA Installserver

- CFS administration of the SINA Workstation => SINA Remote Admin Server

SINA Installserver

SINA Remote
Admin Server

secunet SINA L3 Boxen

- Hardened and evaluated SINA OS operating system, smartcard technology with two-factor authentication and IPSec-based cryptography for standardized all-round protection

- Approval-compliant dimensioned and configured hardware and software with BSI approval from VS-NfD up to and including TOP SECRET

- Different hardware variants and encryption capacities between 30 Mbit/s and 5 Gbit/s can be used flexibly

- Remotely manageable system administration and key configuration via SINA Management

secunet SINA L3 Boxen

- Scalable and dynamic access solution for large networks

- The SINA L3 Box secures data transfer within and between government and company locations and serves as a scalable access solution for connecting a large number of mobile clients.

- The SINA SOLID feature automatically configures very large IPsec networks and increases performance at the highest security level.

secunet SINA L2 Box

- Secure system platform with tamper-proof housing, smartcard technology with two-factor authentication, IPsec-comparable security level

- Approval-compliant dimensioned and configured hardware and firmware

- Most powerful Ethernet encryptor with GEHEIM approval

- Protocol-transparent real-time encryption with line speeds of up to 100 GBit/s for VS-NfD

- Advanced remote administration allows for low-interruption and virtually maintenance-free operation as well as easy integration without changing the network infrastructure

secunet SINA Workstation S

- More than just a VPN client

- From hard disk encryption and interface control for USB devices to the protection of the computer's hardware and firmware, the SINA Workstation offers an efficient overall solution.

- A secure VPN connection, smartcard-based 2-factor authentication and parallel separate workstations create a powerful client.

- A holistic security concept for a VS-compliant, mobile workstation.

secunet WorkStations S, E and H

- Convenient and powerful overall solution

- Holistic solution concept with BSI approval instead of complex individual components.

- Low rollout costs thanks to centralized remote maintenance and remote administration.

- User-friendly: All functions of the familiar applications and apps, such as e-mail, office programs or video conferencing, can be used from anywhere.

secunet SINA Workstation E/H
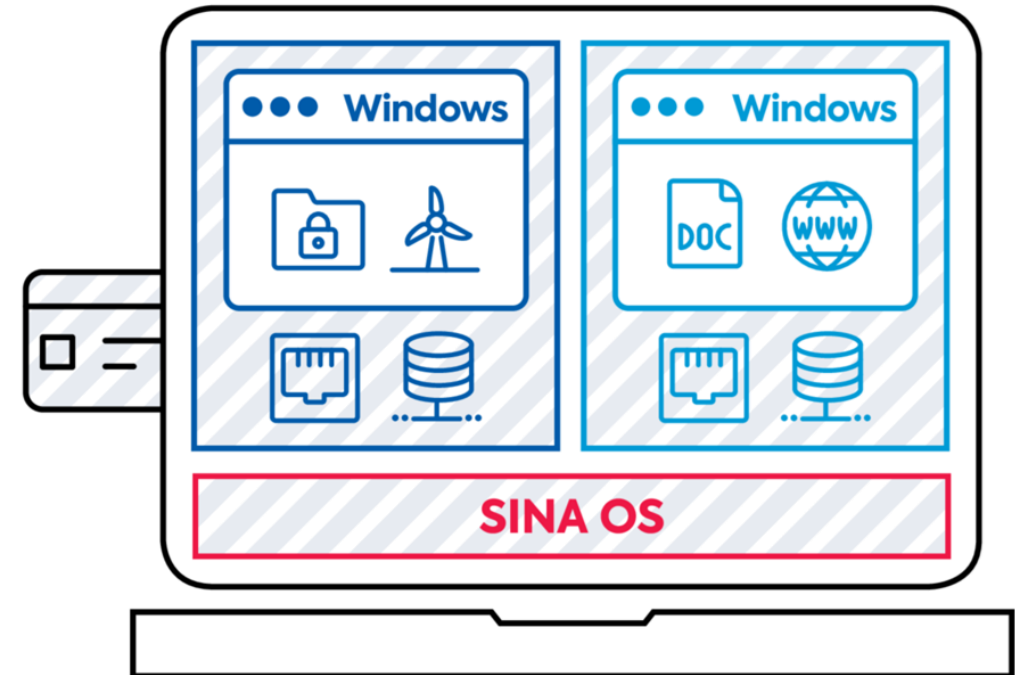
- The powerful all-in-one solution for BSI-compliant, modern day-to-day work with classified information up to SECRET

- Offers optimized hardware platforms for application-specific requirements (stationary and mobile)

- Several strictly separated operating systems with different security levels can be used in parallel

SINA Workstation E/H

- Less effort with modern working tools

- Enables efficient and convenient working with multiple security levels and domains in parallel

- Offers a holistic solution concept with BSI approval instead of various individual components

- Meets application-specific requirements (stationary, deployable, mobile) thanks to optimized hardware platforms (hardened and radiation-protected)

- Low rollout costs thanks to centralized remote maintenance and remote administration

secunet SINA Workstation H

- The all-in-one solution for everyday digital life with security-critical VS content

- From hard disk encryption and interface control to the protection of the computer's hardware and firmware, the SINA Workstation offers an efficient overall solution.

- Meets all VS requirement profiles with BSI approval up to SECRET as standard

- Optimized for modern, media-break-free everyday life with VS content up to SECRET

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sSecunet SINA Workstation H R RW14

- The SINA Workstation H R RW14 is a robust, radiation-protected all-in-one solution for location-independent, VSA-compliant access to VS data up to SECRET and offers members of the armed forces a modern working environment even under extreme operating conditions.

SINA Workstation E/H Client V

- The SINA Workstation E/H Client V is a compact all-in-one solution for user-friendly, VSA-compliant processing of VS data up to SECRET and offers users maximum performance combined with (integrated in) state of the art design.

Digitized everyday working life with VS content up to GEHEIM in stationary and mobile application scenarios

- Status quo of the alternatives to the SINA Workstation H

- Different security domains and levels must be processed on physically separate workstations (swivel chair interfaces)

- Infrastructure and administration costs and effort are high if solutions consisting of individual components are used

- Not very user-friendly (external smartcard reader, low performance, no interoperability with alliance partners)

- Possibly no integrated radiation and weather protection for mobile and robust use
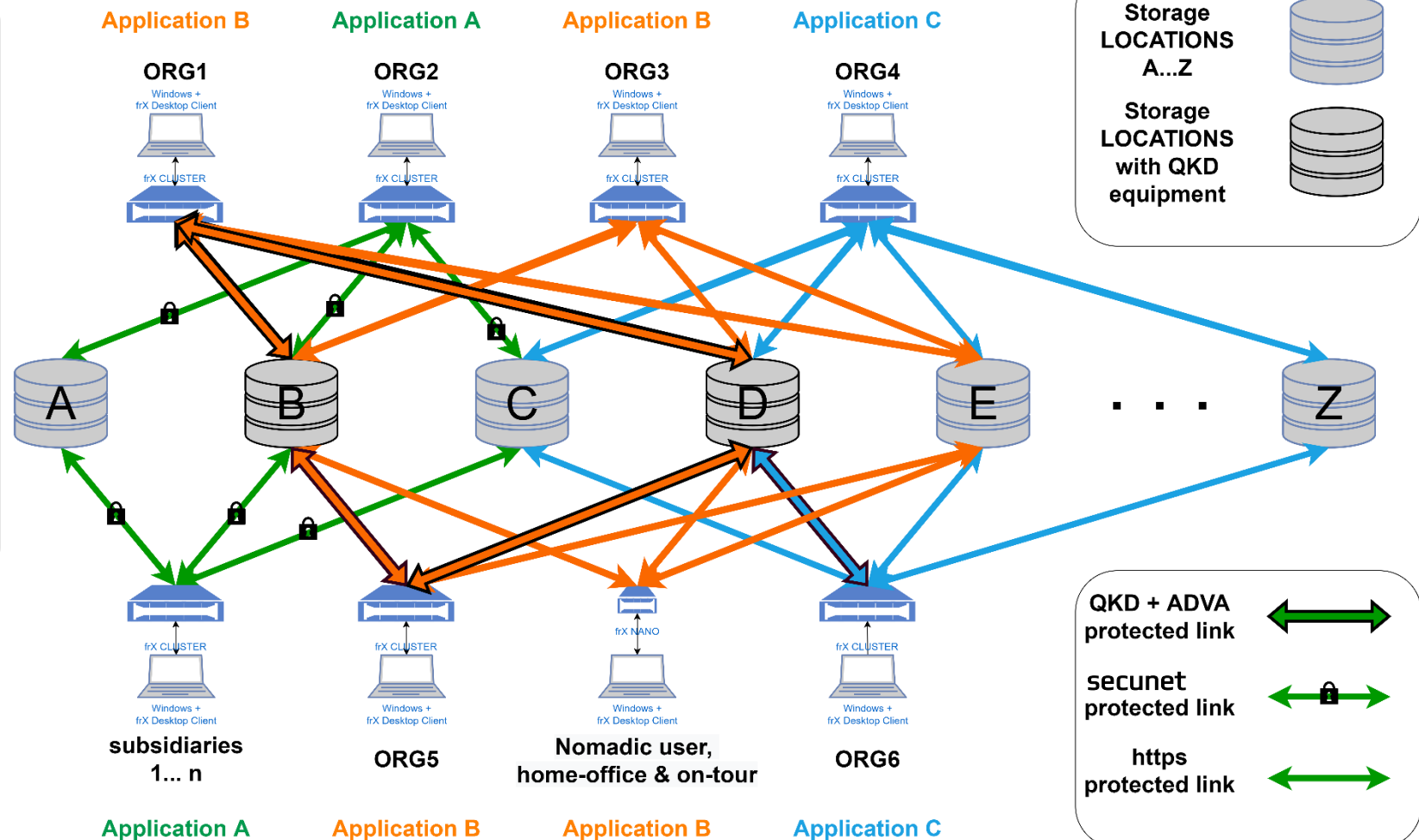
fragmentiX fields of activity

- **Information Theoretically Secure (ITS) storage appliance solutions**
  - fragmentiX CLUSTER e.g. Austrian gov, Italian hospital data exchange, QKD4GOV etc.
- **secunet SINA equipment for handling EU & NATO classified information**
  - Together with fragmentiX Storage Appliances
  - SINA VPN and Laptops for sensitive data handling up to EU/NATO SECRET
- **Trusted Repeater Nodes for long-range QKD & satellite ground stations**
  - EU funded: QKD connect Wien-Graz-(St.Johann) for fragmentiX CLUSTER
- **QKD & PQC based "data on transit"with ThinkQuantum, ADVA/ADTRAN, secunet**
  - Quantum safe connections for sensitive data eg. Bio-Security
- **Container based datacenters (DELL&GROQ) with various energy supply options**
- **Sovereign AI solutions & consulting and services together with DELL and GROQ**
  - Running GROQ infrastructure and helping others to run on premises

fragmentiX/secunet and QKD for Fortune 500 / Gov / Mil
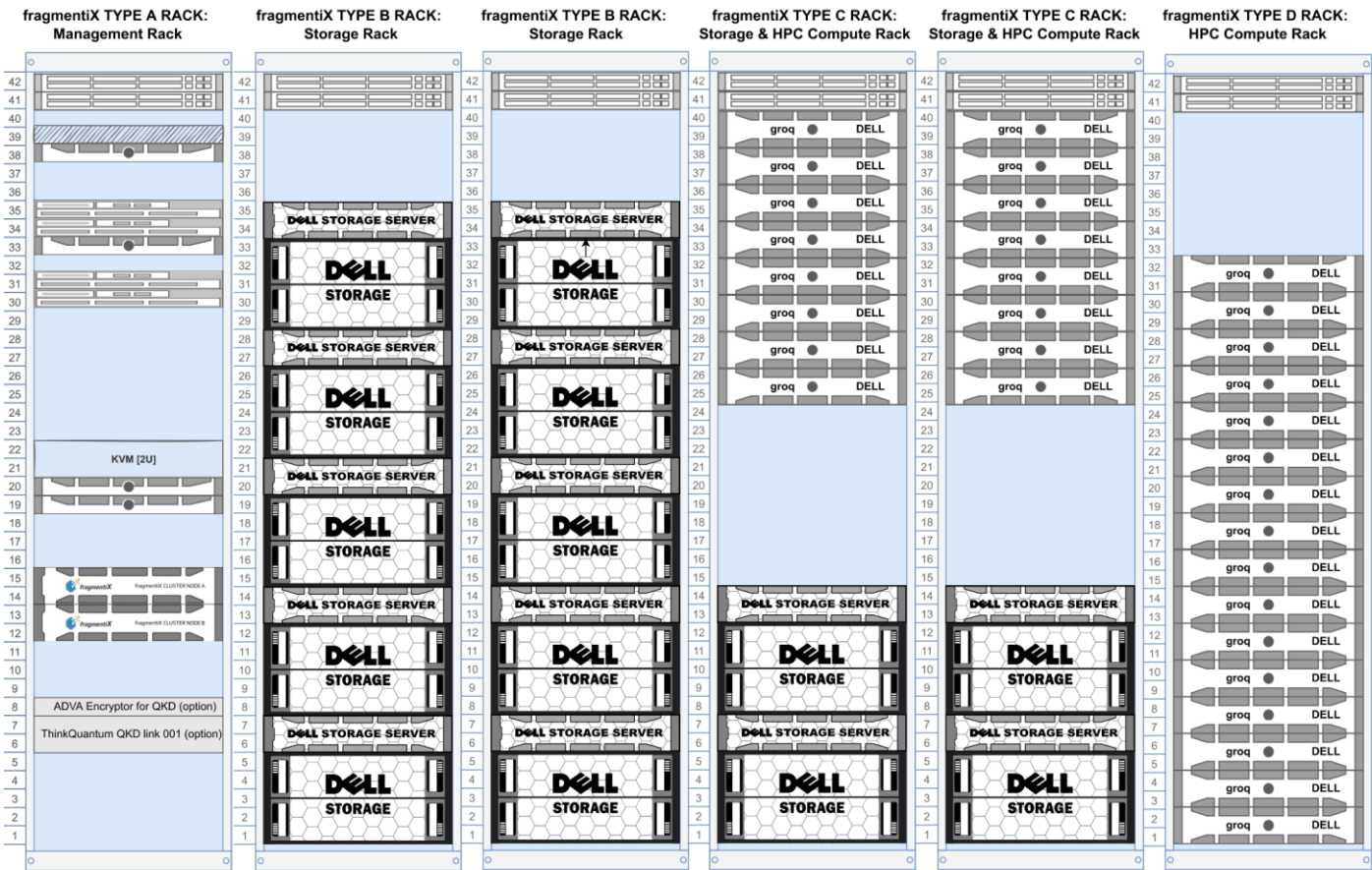
fragmentiX ®
QUANTUM AGE CYBERSECURITY

Application A:
data protection at rest via fragmentiX,
data protection on transit via ADVA encryptors at ORG2 plus subsidiaries and storages A, B, C

Application B:
data protection at rest via fragmentiX,
data protection on transit partly via QKD

Application C:
data protection at rest via fragmentiX
https protected on transit, a single link QKD protected

Application B   **Application A**   **Application B**   **Application C**

ORG1   ORG2   ORG3   ORG4

Windows + frX Desktop Client

frX CLUSTER

Storage LOCATIONS A...Z

Storage LOCATIONS with QKD equipment

A   B   C   D   E   . . .   Z

frX CLUSTER   frX CLUSTER   frX NANO   frX CLUSTER

Windows + frX Desktop Client

subsidiaries 1... n   **ORG5**   **Nomadic user, home-office & on-tour**   **ORG6**

Application A   **Application B**   **Application B**   **Application C**

QKD + ADVA protected link

secunet protected link

https protected link

Container based datacenters with groq inverence

Headquarter & offices

Head office

fragmentiX Storage Solutions GmbH
Wohllebengassse 10/7
1040 Wien
Austria / Europe

Contact us

» Head Office
+43 2243 24203
» sales@fragmentix.com
» www.fragmentix.com

Swiss office

fragmentiX Schweiz AG
Calendariaweg 2
6405 Immensee
Switzerland

Canada office in foundation

fragmentiX Canada Inc.
630, Boul. René-Lévesque Ouest –
bureau 2800 – Montréal QC H3B 1S6
Québec / Canada