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Cyber Security for Government and Industry

June 2019

Market Trends

Business Sector

- Implementation of national security laws

- Convergence of classic IT and OT in utilities' networks

- Cryptography in processes, automatization and central control systems

- Technical protection of cloud solutions and providers

- Solutions in authentication and encryption in context of Internet of Things and Industry 4.0

- New fields of application in the automotive sector

Public Sector

- Separation of critical infrastructures (e.g. cyberattacks)

- Network connectivity and central data-centered technology (e.g. cloud) has to be protected against risks

- Need for high-performance encryption solutions

- Complexity of network scenarios (e.g. 5G, SDN)

- Consolidation of network connectivity and service center

- Highly mobile scenarios and new generation of hardware

- Investments in electronic border control and mobile identity documents

- Demand for modern secure authentication

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Market Opportunities

- Police force 2020 / cooperation of security services (Europe)

  – Consolidation of infrastructures and applications

- Use of intelligent monitoring systems for border control

  – Seamless travelling
  – Need of faster security controls for passengers while increasing security

- Public/private cloud technology, also for classified or highly sensitive data

- Growing market for service providers in the field of information security (e.g. Security-on-Demand)

What will become particularly important until 2025+

– Complete 'cloudification' in contrast to only partial use of cloud services.

– Artificial intelligence will grow beyond a market niche

– Business models of attackers will be professionalized and adjusted to critical infrastructures.

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Public Authorities

Market facts

Authorities work digitally and in networks. Their data – identities of citizens – has to be reliably protected against ever more complex cyber attacks. Administration systems these days must be simultaneously service-orientated, flexible and secure.

The role of secunet

- Safeguarding networks within governmental and state authorities

- Secure mobile workstations for administration

- Secure eGovernment portals

- Identity management

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SINA – Most Successful Crypto Security Solution Made in Germany

- Processing, storage, transfer and full audit trail of classified information

- Secure mobile workstations

- Scalable solutions designed for complex infrastructures

- Central administration capability; suitable for mass roll-outs

- Extensive product range for all use cases

- More than 100,000 installations in Germany and more than 24 other countries

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SINA Implementation Example:
German MoFA Embassy Network

project example

- 230+ locations, central location Berlin

- Supports flexible topologies

- Mobile users can safely connect to network via SINA Workstation

- Online management of crypto components and remote software update

- Easy administration, no training for remote locations operators necessary

- secunet has +10 MoFAs as customers
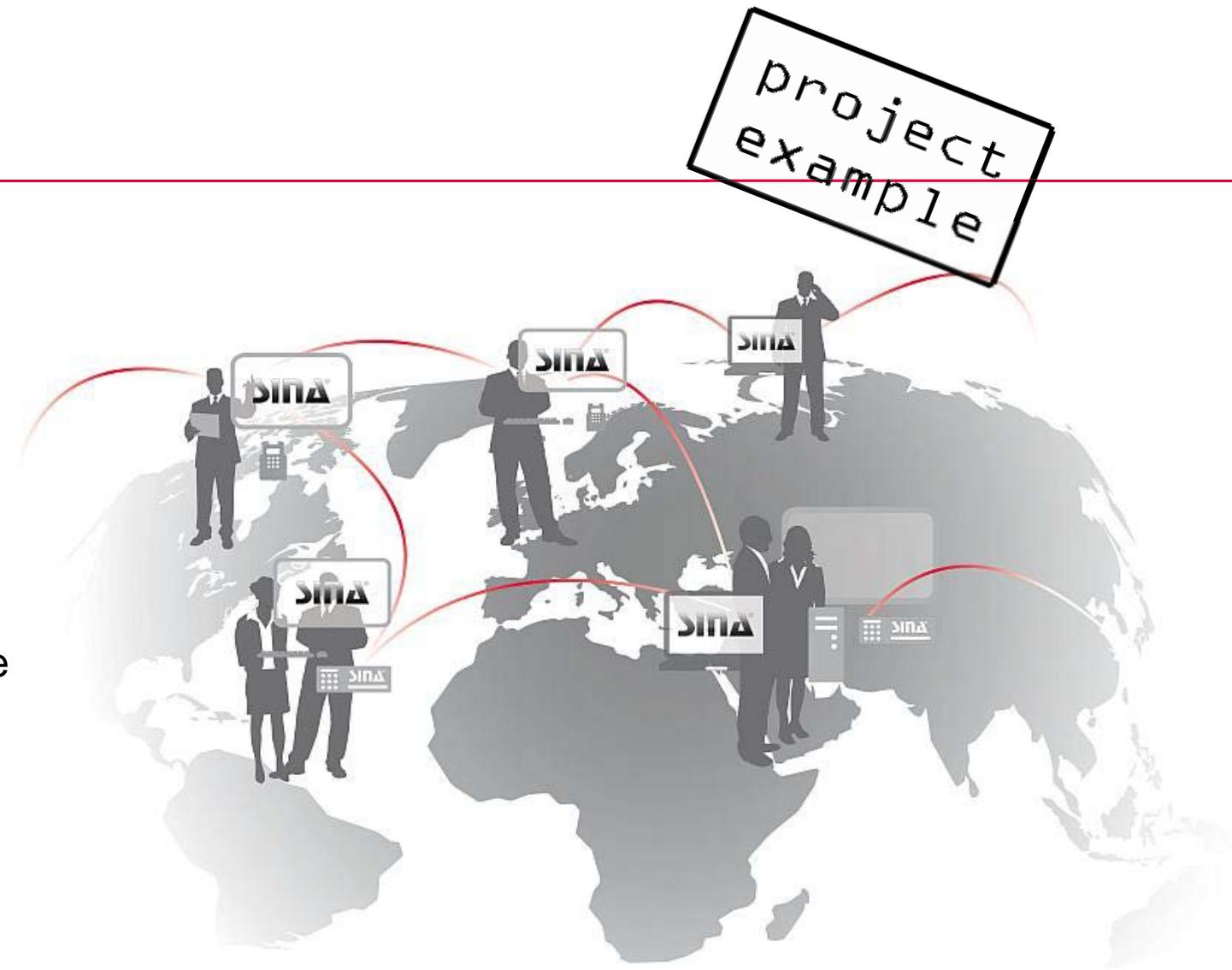
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Homeland Security
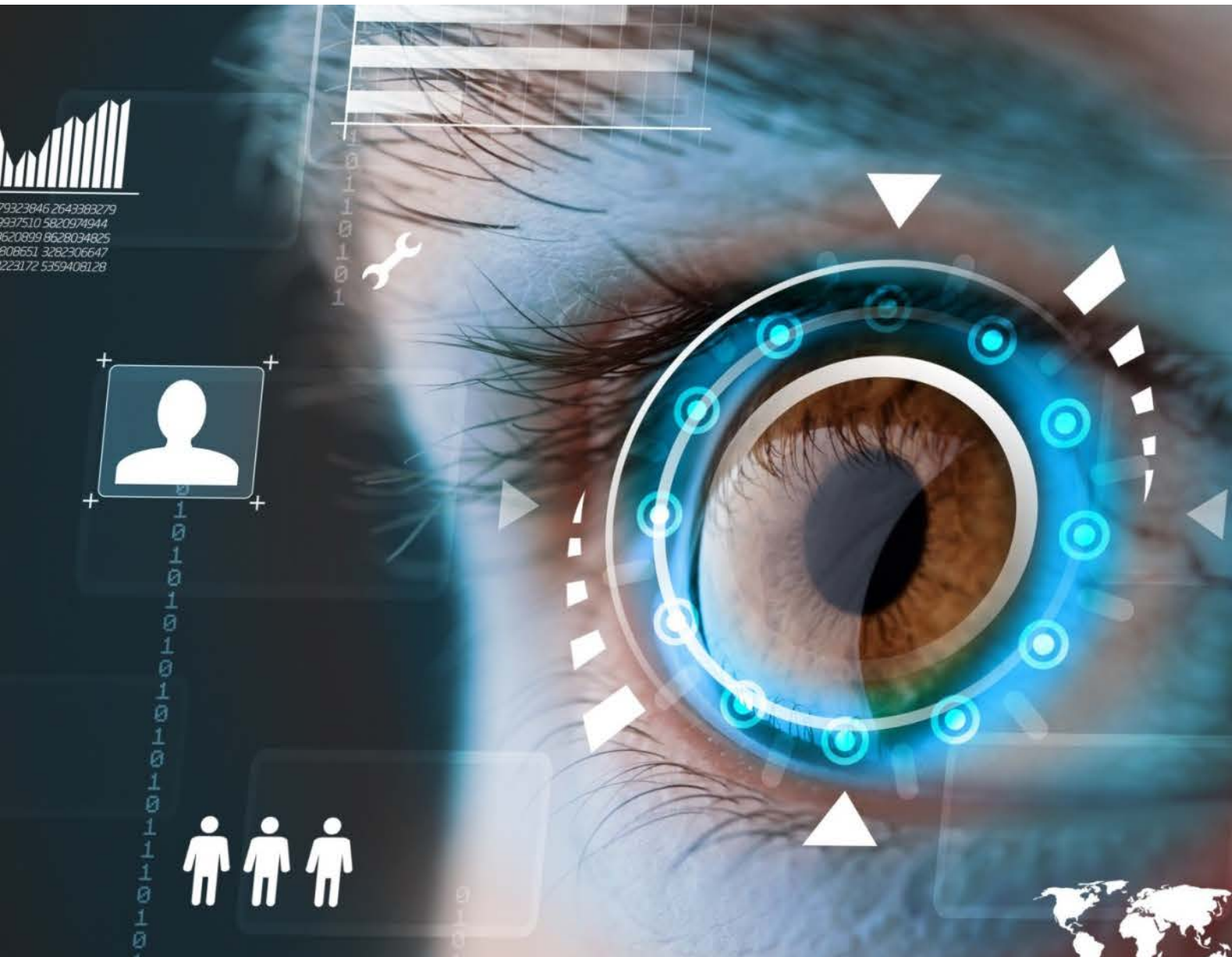
Market facts

In order to protect society from terrorism and crime, unambiguous identification of individuals must be guaranteed. Security authorities must be able to exchange sensitive data securely via the Internet.

The role of secunet

- Security solutions for capturing and processing biometric data

- Mobile, stationary and automated border control systems

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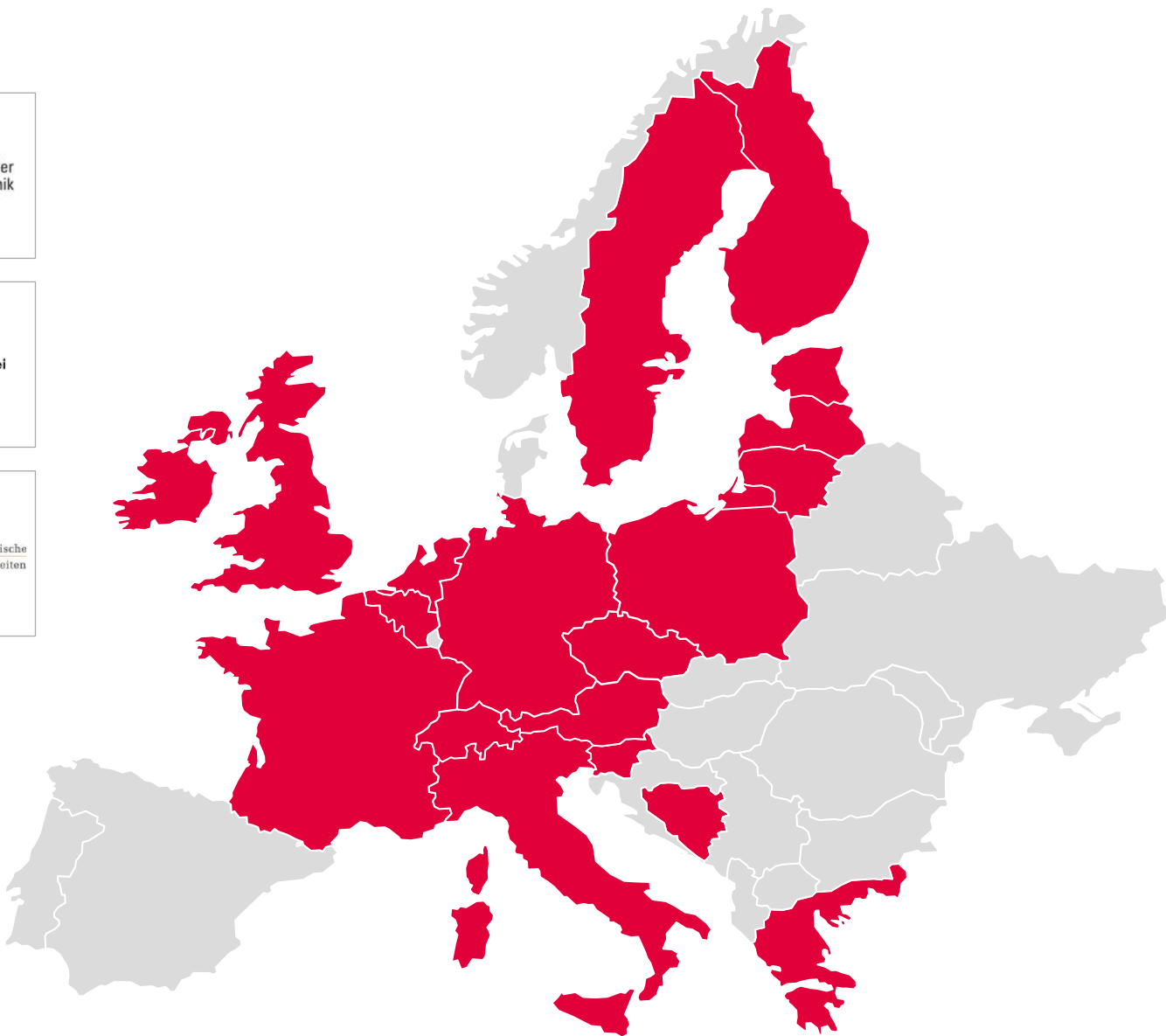# secunets Product Portfolio for Border Control

EES ready
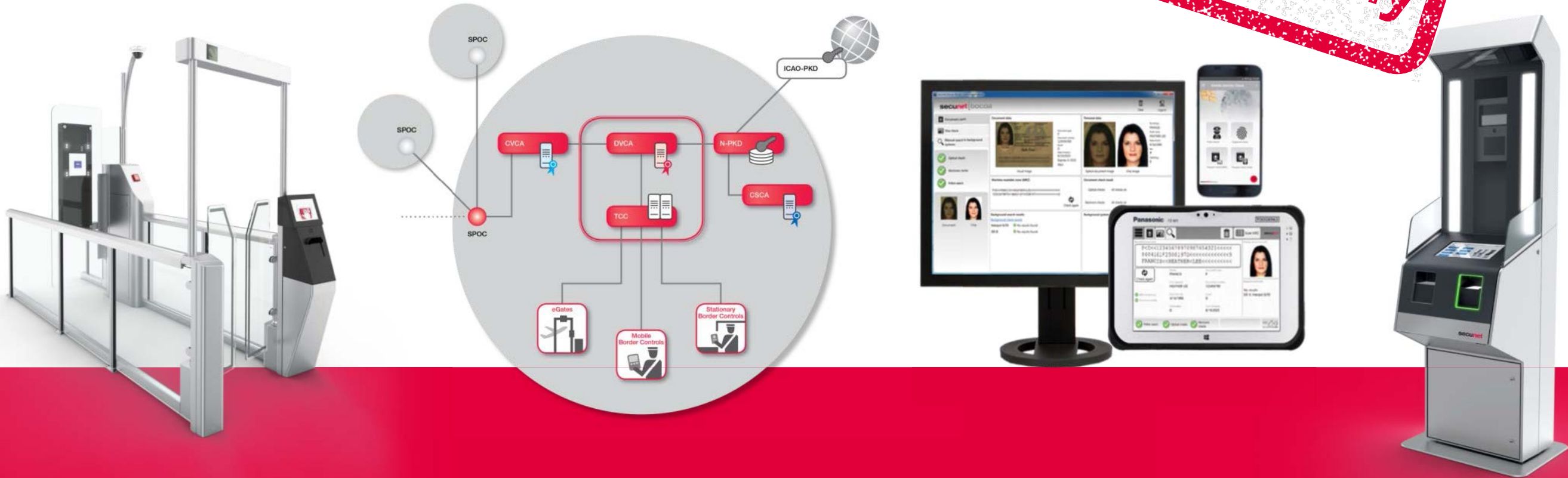
secunet(easygate

secunet(eID PKI Suite

secunet(bocoa

secunet(easykiosk

Selected References in Europe

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Critical Infrastructure

Market facts

Digital networks in industry are a particular target of cyber attacks. Hence IT and OT has a strong influence on security of supply, organizations are obliged to prevent operationally critical IT systems from going down.

The role of secunet

- Secure remote maintenance and system control

- Risk analysis, recommendations for action and individual development

- Security awareness and penetration testing

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Challenges and Security Strategies of Digitalisation

COMPLIANCE

INTERNATIONAL

ISO 270xx

IEC 62443

NIST Framework

NATIONAL

BSI Kritisverordnung [Critical Infrastructure Directive from the Federal Office for Information Security], B3S

IT Security Bill (BSI)

Standards & best practice

INTERNAL

Policies

Guidelines

Concepts

DEVICES & MACHINES

SITES & BRANCHES (DECENTRALISED)

OFFICE IT

SYSTEMS

CENTRAL CONTROL CENTRES

THREATS

Lack of strong authentication

Unencrypted communication

Exploitation of weaknesses

Malware attacks

Uncontrolled Internet use

Inadequate access protection

Challenge: strong networking

Office IT and process IT are equally affected by regulations and threats!

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secunet edge – Protect. Connect. Detect.
Security for Machines "at the edge" of the Network

**Protective wrapping (and more!) for devices, machines and systems**

- Machine life cycle decoupled from that of the IT environment
- Protects machines from external influences and simultaneously increases connectivity

IT and OT security without the side effects and implications

- Network and information security as per the current status of the technology
- Life cycle > 15 years: security updates and SLAs
- Secure connection to internal and external IT services

Modular and flexible, thanks to the secure docker environment

- Expansion of the scope by adding docker applications
- Seamless connection to IoT platforms via platform agents
- Edge computing: local analysis and processing of machine data at the *edge of the network*
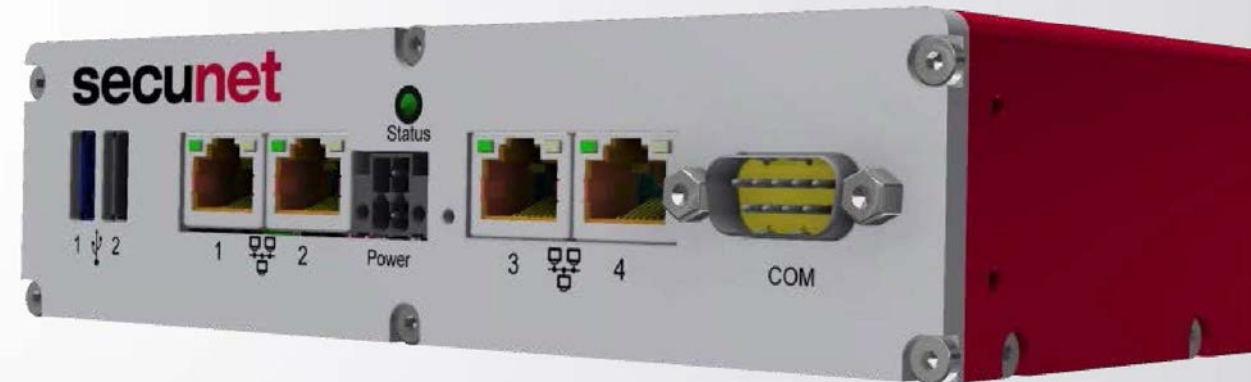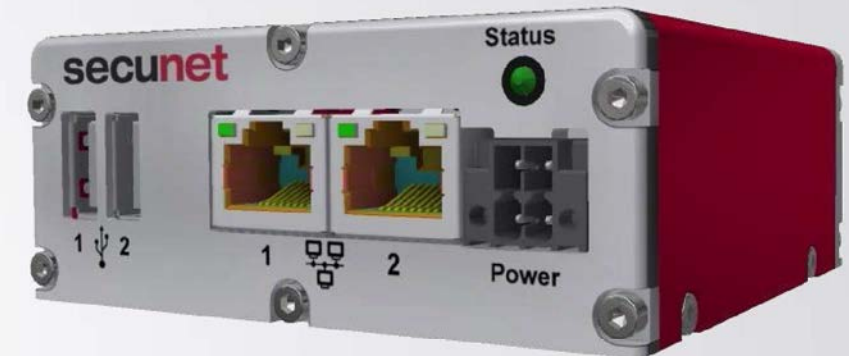
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+ Customer-oriented company structure

+ More than 500 employees at eleven German sites

+ Founded in 1997

+ Listed in the Prime Standard on the German stock exchange

+ Largest shareholder (79%): Giesecke + Devrient GmbH

+ Revenue in 2018: €163.3 million
  EBIT in 2018: €26.9 million

+ IT Security Partner of the Federal Republic of Germany

secunet Security Networks AG	
Public Sector	**Business Sector**
– Public Authorities	– Critical Infrastructure
– Defence	– Automotive & Industry
– Homeland Security	

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