GEUTEBRÜCK

Connect, simplify, create added value:
Our integration solutions in focus

Excellence together
Switches and video management for critical environments

Introduction

In today's digitized world, the reliable functionality of critical infrastructures (CRITIS) is of crucial importance.

Especially in security-relevant areas such as video surveillance, a stable and secure network infrastructure is essential.

When implementing Geutebrück technologies and integrating barox network switches, it is essential to consider the specific requirements and challenges associated with CRITIS.

This summary highlights the key factors and considerations for ensuring a robust and highly secure network infrastructure in conjunction with Geutebrück systems and barox network switches for video.
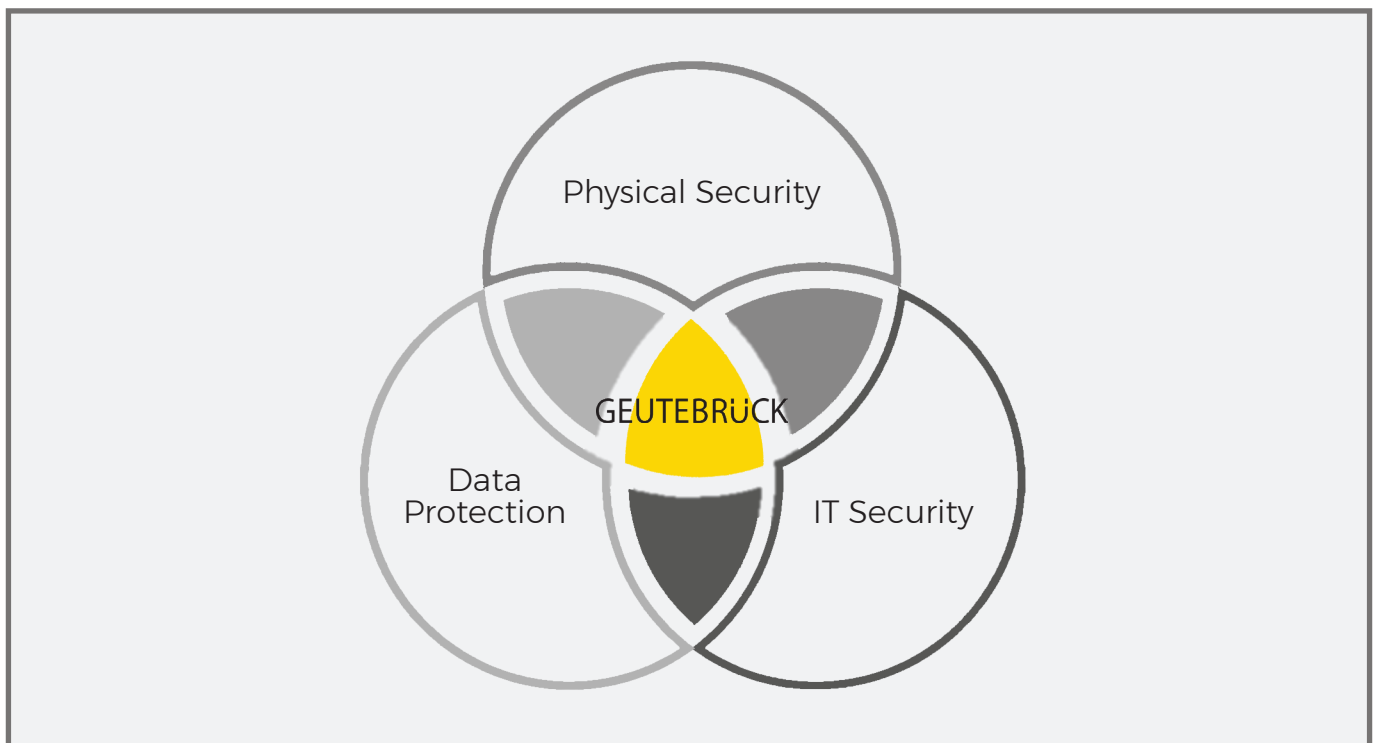
CRITIS - Why barox?

Networks play a crucial role in critical infrastructures as they connect the various components with each other and enable communication.

A network switch is a central element of any network infrastructure that controls data traffic within a local area network (LAN). In CRITIS environments, such as energy supply facilities, financial institutions, transportation systems or healthcare, reliable networks are critical to normal operations.

If a switch does not function properly or is compromised by security incidents, this can have a significant impact on the entire infrastructure.

It is therefore important to include network components such as switches in the risk assessment and security strategies of CRITIS organizations. This includes aspects such as redundancy, monitoring, security policies and update processes to ensure that the network infrastructure is robust and protected.

Advantages:

Geutebrück:

- Provides advanced video management and security solutions for companies and organizations.

- Security Information Management System (G-SIM) enables centralized management and analysis of security data from multiple sources.

- Focuses on the integration of video surveillance, access control and alarms to enable comprehensive security strategies.

- Enables real-time monitoring, analysis and response to potential security threats.

- Helps organizations to implement effective security measures and minimize risks to protect people and property.

barox:

- High-performance Ethernet switches for video surveillance and network security.

- Specializes in reliable PoE and data transmission solutions for demanding security applications.

- Offers robust and durable products that meet the specific requirements of surveillance systems.

- Focused on providing innovative solutions that enable smooth integration and scalability.

- Ensures that security systems function optimally through a reliable and powerful network infrastructure.

Geutebrück – 360° Security

G-Core manages video images and forms the basis for a customizable complete solution. The system can be used as a stand-alone system or expanded to form a large unit by adding several G-Core systems.
As an open platform, G-Core offers numerous integrations with third-party systems. The integration of neural networks allows image data to be analyzed using artificial intelligence. G-Core is characterized by simple handling and intuitive operability.
Rights for user groups and locations can be adjusted to protect sensitive data from unauthorized access.
The blurring of image areas protects employees.
Image and video data is stored in tamper-proof Geutebrück format, which can also be used as evidence in court. Quick retrieval of the database makes searching for video images from multiple sources efficient.

The **G-SIM** management software is the ideal supplement for managing and operating your G-Core systems. Maintain an overview of complex units, whether on site or in globally distributed G-SIM installations.

All information from your Geutebrück system and all third-party systems connected via interfaces is bundled together, making it easier for you to manage your data.
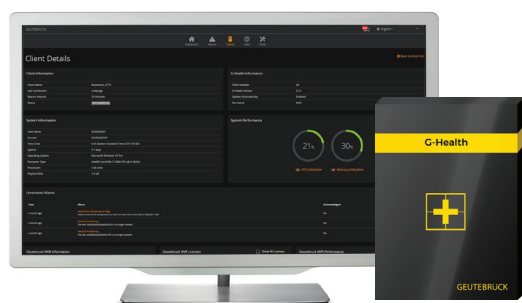
G-Health works proactively and prevents your systems from failing by permanently monitoring their functions.

If a critical condition, such as a camera failure or a database error, is detected, the responsible administrators or maintenance technicians immediately receive a corresponding e-mail or a G-Health alarm in their web interface, stationary or mobile, and thus have the opportunity to react before a failure occurs.

barox – USP

Expertise in security technology

barox specializes in the development of switches, media converters and IP extenders that are specifically designed for the security and transmission of video. Particular attention is paid to critical infrastructures (CRITIS) and their smooth interaction with video and audio management.

barox solutions include:

- **Active camera surveillance:**
  barox offers state-of-the-art technologies for efficient and reliable camera surveillance.
  The products enable precise control and monitoring of security cameras in real time.

- **Active PoE monitoring:**
  Power over Ethernet (PoE) monitoring from **barox** not only ensures your devices are powered, but also enables active monitoring to ensure all PoE devices are working optimally.

- **PoE power management:**
  barox attaches great importance to efficient power management of PoE devices. Our solutions offer precise control and monitoring of PoE power to ensure smooth operation.

- **Active monitoring of the video network:**
  barox offers advanced technologies for active monitoring of your video network. This ensures reliable and interference-free transmission of video data, which is particularly important in safety-critical environments.

barox & Geutebrück stand for innovative security solutions that meet the highest standards in terms of performance, reliability and security. With our expertise, we offer you the certainty that your video security and transmission are in the best hands.
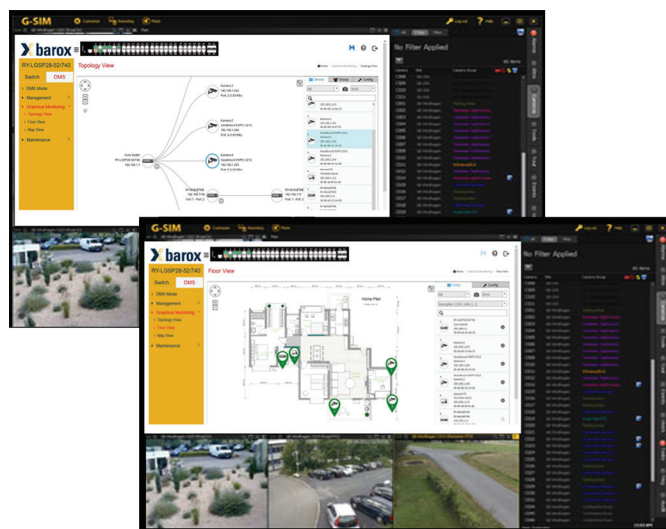
Powerful backplane for uninterrupted video transmission
Highest performance for smooth monitoring
- The switches have extra high backplane performance, which ensures smooth video transmission even when the port is fully occupied.
- Jumbo frames are supported with up to 9600 bytes at 100 MBit to enable optimum data transmission.

Active security features
Protection against unauthorized access and cyber threats
- Private authentication keys allow access to switch management only by authorized PCs and servers.
- Additional cybersecurity functions such as IP address detection, MAC locking, ACL lists, TACACS+, RADIUS server compatibility and multi-user control strengthen the security of the network.
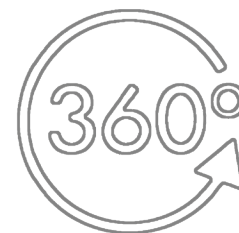
Integration in Geutebrück VMS
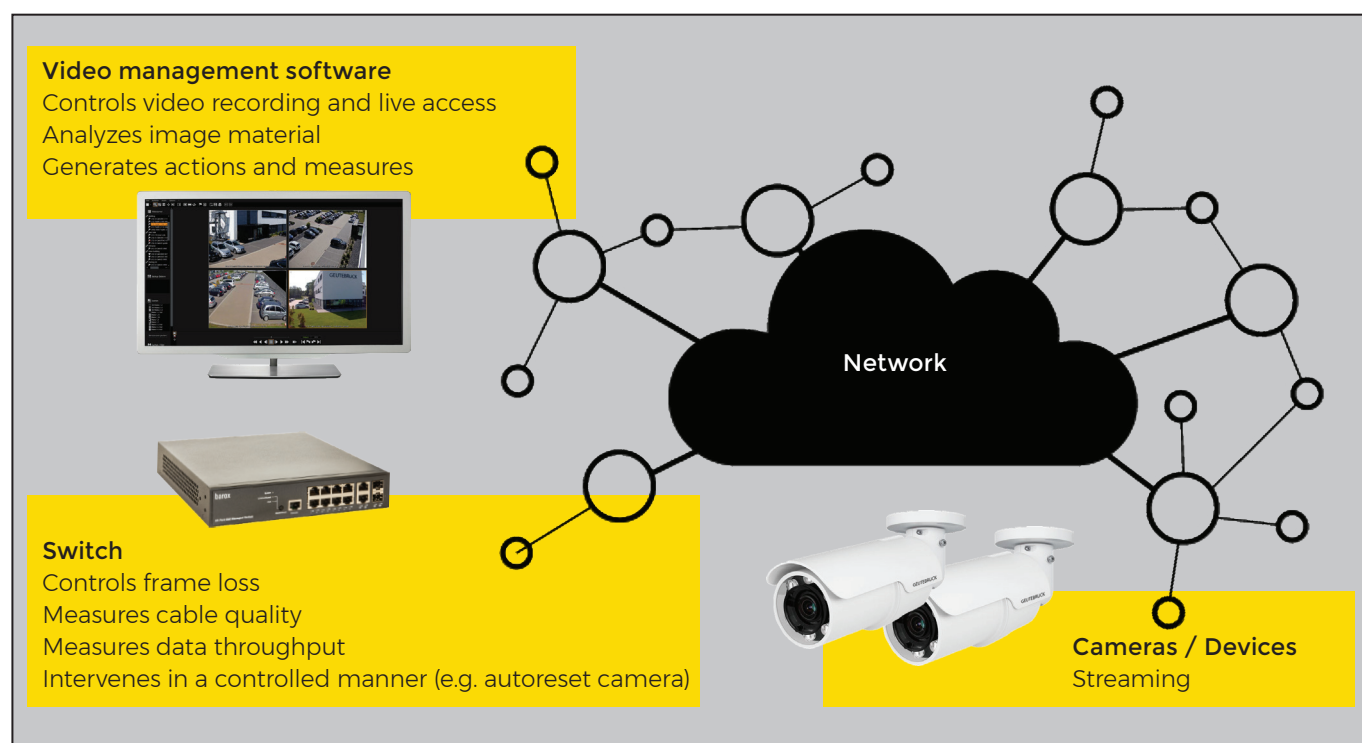Seamless integration for extended functionality
- The switch is actively integrated into the Geutebrück Video Management System (VMS).
- Direct connection of the switch management and the Distributed Management System (DMS) enable efficient collaboration with the VMS.

Geutebrück – 360° Network Monitoring

Security in perfection - Geutebrück & barox - The invisible guardians of your critical environment.

Video management software
Controls video recording and live access
Analyzes image material
Generates actions and measures

Switch
Controls frame loss
Measures cable quality
Measures data throughput
Intervenes in a controlled manner (e.g. autoreset camera)

Network

Cameras / Devices
Streaming

The requirements:

Encryption:
All components should help provide data encryption to ensure that sensitive information is protected from unauthorized access.

Access control:
The VMS and network switches should support access control mechanisms to ensure that only authorized users can access the system and monitoring information.

Data integrity:
The security of stored and transmitted data is critical. Both components must take measures to ensure the integrity of the data and prevent tampering.

Monitoring and alarms:
The VMS should be able to monitor security events and trigger alarms when necessary. Network switches can help detect anomalies in network traffic.

Geutebrück and barox

Geutebrück GmbH is an internationally renowned German provider of unique, intelligent and user-friendly video security software and hardware.

Our customers come from all over the world: museums with priceless values, public institutions and authorities that are of central importance to a country and belong to the critical infrastructure (CRITIS), large cities that ensure the safety of their citizens, or industrial plants that want to protect themselves against burglary, espionage or sabotage or optimize their work processes with video recognition and artificial intelligence (AI).

Geutebrück's product portfolio includes IP cameras, video management systems, intelligent analysis tools, storage solutions and security software. The company places great emphasis on innovative technologies and high-quality products that help customers to effectively fulfill their security requirements.

Geutebrück has earned a reputation for reliability, quality, security and technical expertise in the industry. The company has an international presence with subsidiaries and distributors in various countries. It is committed to providing world-class service and support to its customers worldwide.
Geutebrück continues to pursue a vision of providing innovative security solutions that meet the ever-changing needs of the security industry.

barox Kommunikation GmbH is a German manufacturer of innovative switches, media converters and IP extenders that are developed specifically for the demanding requirements of video and security networks.
The company attaches great importance to innovation, quality, reliability and security of its products in order to meet the increasing demands on modern networks in the CRITIS environment. In addition to advanced PoE management and a high level of user-friendliness, the products are characterized above all by integrated cybersecurity functions to protect the network from attacks and failures. barox is also ISA27001 certified.
The company supplies customers from a wide range of industries, including security technology, industrial automation, transportation, building automation and energy supply.
With its headquarters in Germany, barox strives to offer first-class network solutions that meet the needs of its customers. In addition to providing personalized advice, the company also conducts regular customer training sessions on the solutions it offers.

This could also be of interest to you:

News article: barox provides added value for IP video networks ...
Reference flyer: Protecting critical infrastructure

barox on the web: https://www.barox.de/en/

Talk to us.
We are happy to support you in planning and setting up your system

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