SOLUTION FOR MANUFACTURING

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nac smartly simple

macmon Network Access Control for critical infrastructures: Safeguarding production networks

In production areas, conventional communication systems such as fieldbus, INTERBUS or PROFIBUS are increasingly being replaced by PROFINET, an Ethernet-based data communication system. While this offers economic benefits – as standard components are now used for data exchange – it also hugely increases the potential risk. The increasing networking of production systems, which is partly extending into office workplaces, is causing the complexity and vulnerability of networks to increase.

macmon NAC: For protecting your production networks

- ✓ Integrates all production technology with no risk to the existing network or to production.
- ✓ Enables the requirements of Industry 4.0 to be met.
- ✓ Ensures that maintenance technicians have sponta-neous, dedicated access to production systems.
- ✓ Assists with certification in accordance with ISO 27001 and implementation of BSI baseline protection.
- ✓ Monitors and controls all devices in the network (real-time inventory management).
- ✓ Defines specific data routes and transfer interfaces to provide a better and more targeted protection for technology expertise or production data.

In contrast to office workplaces however, sensitive components in production networks, such as robots, machines and control systems, cannot be protected using conventional means. Antivirus and patch-management software is not available in many cases. Many systems do not have adequate password protection, or operate without any form of login due to realtime requirements. Older systems with known security vulnerabilities are often still in use, as making changes to existing processes requires a costly and timeconsuming commissioning process and always involves production downtimes.

However, effective protection against malware from office IT environments and other attacks is still crucial, as unplanned and unexpected interruptions not only causes economic losses, but often also puts personnel and the environment at risk.

Safeguarding maintenance access

Maintenance and servicing of production facilities is in many cases the responsibility of external service providers. In order to carry out their work, external technicians require access not only to the building or factory floor, but also to the production network, so that they can use laptops or maintenance systems. Maintenance work is often required unexpectedly or even in emergency situations, which means that no precautionary measures or controls by production departments can be envisioned.

A security concept for the production sector must therefore ensure that this maintenance access is safeguarded and must only provide limited and controlled network access.

The solution to a wide range of security requirements is network "sorting". macmon identifies each device uniquely – whether using various system properties or using certificate-based technology such as 802.1X – and then sorts these devices into their respective groups and associated VLANs using predefined rules. External devices are isolated in order to protect the network against unauthorised intruders.

Industry 4.0

The Industry 4.0 project is based on the idea of industrial digitisation. IT and production technology will work together even more closely in future and are reliant on highly flexible infrastructures.

When multiple networks are working together, it is absolutely essential to prevent unwanted access to the networks. The Network Access Control solution from macmon provides you with the following options for efficiently and reliably protecting IT and production networks:

- Centralised, simple network segmentation thanks to the macmon VLAN Manager
- Immediate network overview including interactive graphical topography and reports
- Sophisticated authentication, with or without 802.1X
- Intelligent AD integration with a dynamic set of rules
- Policy-based Guest Service with custom layout
- Easy management of external devices for guests and employees (BYOD)
- Works with network infrastructures from any manufacturer

With this solution, macmon is offering a reliable, tiered network access protection concept for industrial companies, enabling them to efficiently protect their corporate expertise and other sensitive data against unauthorised access, theft and misuse and prevent interruptions in their production systems due to incidents with unknown and unauthorised systems.

macmon secure GmbH – the technology leader for your network security

macmon secure GmbH has been developing network security software since 2003. Its headquarters are located in the heart of Berlin. macmon's Network Access Control (NAC) solution is developed entirely in Germany, but is used across the globe to protect networks against unauthorised access.
macmon secure's customers come from various industries, and range from medium-sized enterprises to large international corporations.
The objective: To offer each and every company a flexible, efficient NAC solution that can be implemented with very little effort but offers significant added value in terms of the company's network security.
macmon secure belongs to the Trusted Computing Group and is an active participant in a number of different research projects.

IT Security Act

The German IT Security Act came into force in July 2015. This law requires operators of critical infrastructures to implement appropriate measures using the latest technology to safeguard the IT systems that they need to provide their important services.

Protect your network with macmon NAC!

Contact

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