NOXFOCUS

LATEST NEWS FROM OUR COMPANY

EDITION 02 / 2021

NOXSYSTEMS
perfecting your sense of security

New location

ANNIVERSARY

20 YEARS OF NOX SYSTEMS

We can now look back on 20 years of innovative thinking and an innovative way of doing things. It has been a very special success story, part of which is also down to you, and we hope to be able to celebrate together with you in the new year.

Shared goals, guiding principles and values and the personal qualities of each individual have made us what we are today – and what we always hope to remain in the future. We are keeping our fingers crossed that we will be able to belatedly celebrate our company anniversary together with you in 2022.

At the same time as the company birthday, our CEO Sven Sauter also celebrates 20 years of service for the company. What started 20 years ago with Sven (who worked primarily in the field of software) and two other employees has really taken off in recent years as a result of our continued efforts to meet all your needs.
We look forward to continuing to work together – and to many exciting new projects over the coming years.

YOUR NOX TEAM

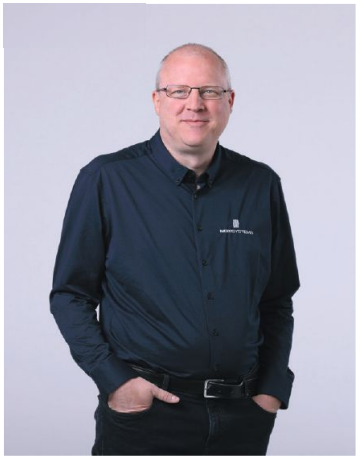
EDITORIAL

DEAR CUSTOMERS, DEAR READERS

Did you enjoy the first edition of our company magazine? We certainly hope so – and we have plenty to keep you interested in the second edition, which contains exciting updates from the worlds of IT security, Wiegand and OSDP. As well as this, we also have information about new software functions that are now available in our NOX Systems. As you won't have seen most of us in person for a long time, we also thought it would be nice to include photos of our team members. And – of course – please do not hesitate to write to us if you have any topics you are particularly interested in and would like us to cover in the future.

We would like to wish you and your families and friends a very happy Christmas and all the best for 2022.

Sven Sauter, CEO & founder



JOB OPENING

VACANCY FOR .NET SOFTWARE DEVELOPER

Are you looking for exciting and challenging projects in a forward-looking company? Do you enjoy working in a dynamic working environment with flat hierarchies and a respectful, appreciative corporate culture? Are you a .NET software developer? Then you are the perfect fit for us! We look forward to getting to know you.

FACT

23,000

centres installed – in Austria, Croatia, Denmark, Finland, Germany, Hungary, Israel, Liechtenstein, Netherlands, Norway, Portugal, Romania, Sweden, Switzerland and in consulates all around the world.

NEWS

WIEGAND AND OSDP

Comparison between Wiegand and OSDP in terms of installation workload and security.

When using a card reader with an OSDP interface on an NOX CMO, the installation workload for the technician is minimal, as there are just four wires that need to be connected. All further adjustments are made via the configuration software. With a Wiegand card reader, all LED's and the buzzer need to be individually actuated with a separate cable, which increases the installation workload accordingly.

For this reason, all relevant card reader manufacturers now also offer their models with an OSDP interface.

This reduces the installation effort involved. However, it is important to note that an unencrypted OSDP connection also offers a lower level of security for the transmission.

In the case of an unencrypted OSDP connection, the access data (card code) is transmitted to the system almost as plain text via the RS485 connection. Anyone who can intercept this data transmission will thus gain access to the card codes of the persons logging in via the card reader. The intercepted card codes can then be relayed back into the connection very easily in order to gain unauthorised access to the system. If this happens, it is not possible for either the NOX CMO or the central to recognise that the code has been re-entered.

For these reasons, we strongly recommend encryption of the data on all systems with OSDP card readers. Here, the card reader and the NOX CMO module are paired. Once this has been done, it is no longer possible for an outsider to analyse the data communication in order to read relevant information.

Encryption for OSDP is available for NOX CMO from firmware version V30.

	Wiegand	OSDP without encryption	OSDP with encryption
Development of the standard	~1970	~2010	~2015
Implemented in NOX	2003	2017	2020
Direct detection of reader failure	no	yes	yes
Direct reader sabotage monitoring	no	yes	yes
Number of cables (with 2 LEDs and a buzzer on the reader)	7	4	4
Number of cables (with 3 LEDs and a buzzer on the reader)	8	4	4
Maximum distance between the controller and reader	30 m	1200 m*	1200 m*
Transmission errors	No detection	Detection and correction	Detection and correction
Recording of transmitted access codes	Possible with special hardware	Possible with every RS485 USB converter	Not possible due to encryption (AES 128)
Re-entry of recorded access codes	Possible with special hardware	Very simple	Not possible due to encryption (AES 128)
Security	Low	Very low	Very high

** with additional surge protection*

NEWS

IT SECURITY

NOX software meets the latest IT security standards.

The NOX software has been developed to satisfy the current IT security standards. To do this, all TCP/IP network data transmissions are encrypted, and the connection is authenticated at the network layer.
In addition, user authentication in the system via user code or username/password is required before the rights assigned to the user can be used.
If the central with the data stored there was to fall into the wrong hands, it would not be possible to read the data stored on the CPU without corresponding authentication.

THE FOLLOWING SECURITY MEASURES HAVE BEEN IMPLEMENTED FOR THIS PURPOSE:

- Use of TLS 1.2 and AES encryption
- Protection against brute force attacks
- Protection against man-in-the-middle attacks
- Optional customer-specific certificates for TLS authentication
- Configuration data is encrypted when it is saved in the CPU
- Validity of system files in the CPU is checked via cryptographic fingerprint
- PC applications are digitally signed

HOWEVER, IN ORDER TO MAXIMISE SECURITY A NUMBER OF CONFIGURATION SETTINGS ARE REQUIRED:

- Use of SL4 (authentication via username and password)
- Use of a password to display/change the configuration
- Use of complex password rules
- Network services restricted to the network interface used in the relevant case
- Activation of only the necessary network services in the system
- No usage of NOX TIO devices with control functions (lack of encryption)
- PC control panel and smartphone interfaces restricted to the necessary functions
- User profiles restricted to the necessary user authorisations
- Use of time profiles to restrict the validity of users

PRODUCT INNOVATION

NEW SOFTWARE FUNCTIONS IN R9

NoxConfig:
Completely reprogrammed in .NET

PC control panel:
Completely reprogrammed in .NET

TPA V3:
Revised design, MJPEG and RTSP Video Streaming (from Win7, Microsoft.NET Framework 4.5 is required)

Remote access:
Remote access to V4 (T30) CPU, NOX One only with V4 (T30) CPU

NOX MNT:
New virtual device for maintenance functions

CMO > V39:
Readers with LCD screens can now display variable texts

SimonsVoss Virtual Card Network (integration of full-featured offline readers): SimonsVoss VCN

New NOX Bus Protocol:
With higher speed, improved reliability and greater security (backwards compatible)

Critical alarms for push notifications: Alarm, user and maintenance log
(limited to a maximum number of days)

INFORMATION

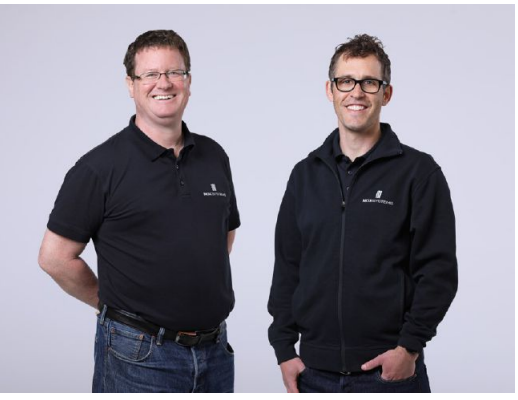
ORDERING MATERIALS

Please allow a long enough lead time when placing your orders for materials, as we are experiencing very long delivery times for some of our electronic components.

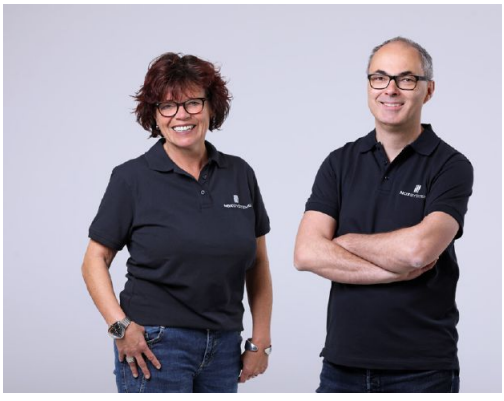
TEAM

Patricia Jenny, Gilbert Kind, Verena Nipp
Manufacturing

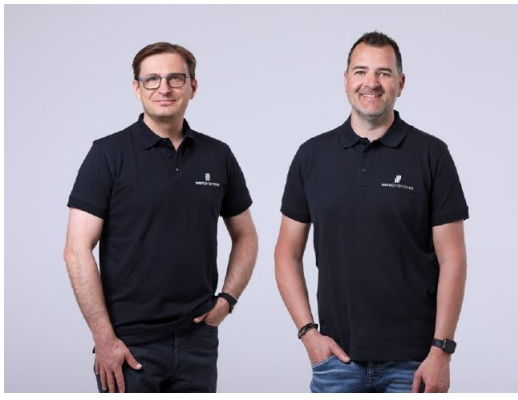
Axel Wachter, Wolfgang Kohrt, Rino Beck, Simon Gassner
Software Engineers



Philipp Büchel, Beni Lenherr
Electronic Engineers



Corina Huber, Peter Manser
Accounting & Export, Compliance & Purchasing



Michael Steurer, Roman Caluori
Technical Support