

NIS2 compliance with Procontrol ProxerNet6

NIS2 Cybersecurity Briefing

Information Security) was created and entered into force in 2024 in response to the increased cybersecurity threat . Security 2). NIS2 creates a comprehensive security approach to prevent and mitigate damage caused by cybercrime , protect critical sectors, and protect personal and business data.

Self-developed software and hardware, Hungarian product!

Procontrol Electronics Ltd. offers modern solutions that meet the requirements of the NIS2 standard. We are happy to support the transition of your existing system, please let us know your needs.

- I. **Our ProxerNet6 WebAccess building management system software complies with the NIS2 standard. It meets both basic and high-end needs.**

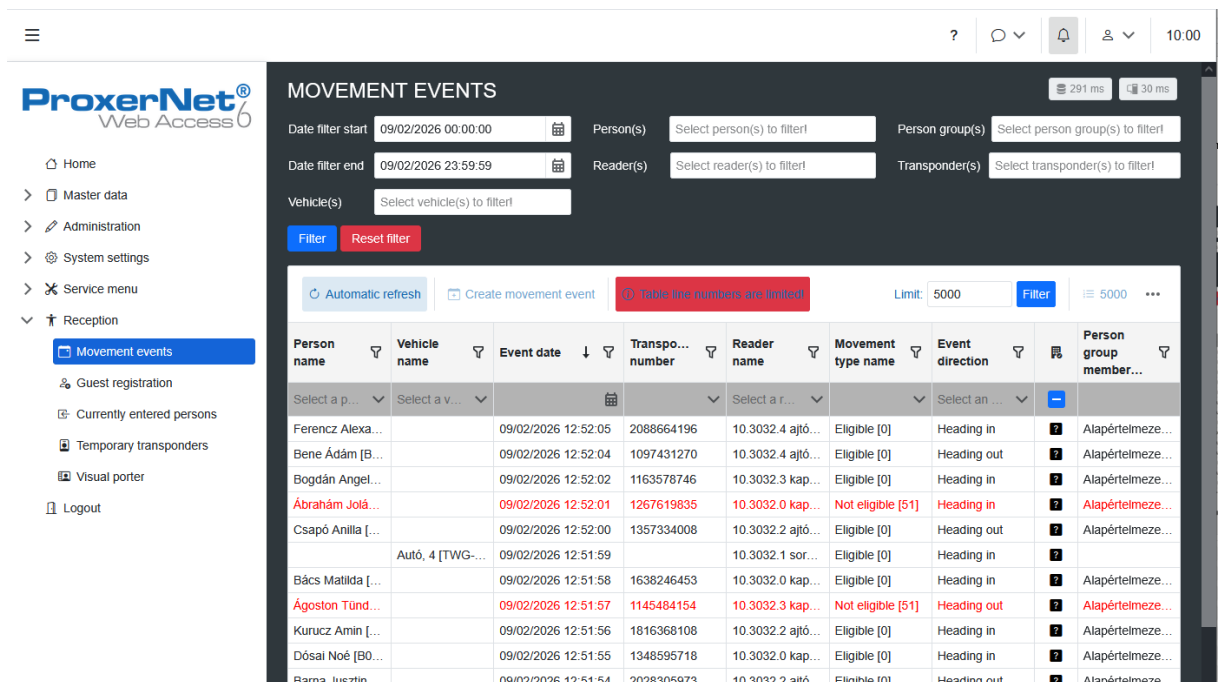
ProxerNet6 software developed by Procontrol Electronics Ltd. is a modular building surveillance application that allows the company's employees and vehicles to enter, register guests, store employee documents, and create evacuation lists - using NFC, RFID proximity, biometric and other electronic high-tech devices and a computer, even using a smartphone as an access card.

The DEMO version of the ProxerNet6 software is available at the following link:

<https://proxernet6.demo.proxernet.hu/>

Username: demo

Password: demo



The screenshot displays the ProxerNet6 Web Access interface. On the left is a navigation menu with options like Home, Master data, Administration, System settings, Service menu, Reception, and Movement events (which is currently selected). The main area is titled 'MOVEMENT EVENTS' and features several filter fields: Date filter start/end, Person(s), Reader(s), Vehicle(s), Person group(s), and Transponder(s). Below the filters are 'Filter' and 'Reset filter' buttons. A table of movement events is shown with columns for Person name, Vehicle name, Event date, Transpo... number, Reader name, Movement type name, Event direction, and Person group member... The table contains several rows of data, including entries for Ferencz Alexa..., Bene Ádám [B..., Bogdán Angel..., Ábrahám Jolá..., Csapó Anilla [...], Bács Matilda [...], Ágoston Tünd..., Kurucz Amin [...], Dósal Noé [B0..., and Barna Jusztin... The table also includes a 'Limit: 5000' setting and a 'Filter' button.

Person name	Vehicle name	Event date	Transpo... number	Reader name	Movement type name	Event direction	Person group member...
Select a p...	Select a v...			Select a r...		Select an ...	
Ferencz Alexa...		09/02/2026 12:52:05	2088664196	10.3032.4 ajtó...	Eligible [0]	Heading in	Alapértelemeze...
Bene Ádám [B...		09/02/2026 12:52:04	1097431270	10.3032.4 ajtó...	Eligible [0]	Heading out	Alapértelemeze...
Bogdán Angel...		09/02/2026 12:52:02	1163578746	10.3032.3 kap...	Eligible [0]	Heading in	Alapértelemeze...
Ábrahám Jolá...		09/02/2026 12:52:01	1267619835	10.3032.0 kap...	Not eligible [51]	Heading in	Alapértelemeze...
Csapó Anilla [...]		09/02/2026 12:52:00	1357334008	10.3032.2 ajtó...	Eligible [0]	Heading out	Alapértelemeze...
	Autó, 4 [TWG-...	09/02/2026 12:51:59		10.3032.1 sor...	Eligible [0]	Heading in	
Bács Matilda [...]		09/02/2026 12:51:58	1638246453	10.3032.0 kap...	Eligible [0]	Heading in	Alapértelemeze...
Ágoston Tünd...		09/02/2026 12:51:57	1145484154	10.3032.3 kap...	Not eligible [51]	Heading out	Alapértelemeze...
Kurucz Amin [...]		09/02/2026 12:51:56	1816368108	10.3032.2 ajtó...	Eligible [0]	Heading in	Alapértelemeze...
Dósal Noé [B0...		09/02/2026 12:51:55	1348595718	10.3032.0 kap...	Eligible [0]	Heading in	Alapértelemeze...
Barna Jusztin...		09/02/2026 12:51:54	2028305973	10.3032.2 ajtó...	Eligible [0]	Heading out	Alapértelemeze...

The software works with web clients. The system can run on your server, even on a virtual machine.

ProxerNet6 architecture: web-based software, with Microsoft .NET9 server environment. Database engine Microsoft SQL or PostgreSQL can be selected. Docker It is also available in a virtualized environment and is easy to install.

II. Communication security on the entire data line, encrypted system

About the communication security services and encryption of Procontrol's self-developed ProxerNet6 WebAccess building management system software:



In the Procontrol access control system, all data from the card to the database is transmitted encrypted:

1. **Card - Reader:** Mifare Encrypted management of Desfire cards (AES128 encryption and authentication)
2. **Between Reader and Controller :** depending on the card reader type
 - o PCSWS – Procontrol-specific serial line communication protocol (AES128 encryption and authentication)
 - o OSDP v2 – generic serial line communication protocol (AES128 encryption and authentication)
3. **Between controller and server software (ProxerNet):** HTTPS – general TCP/IP network communication protocol (TLS encryption and authentication), and through it PCSWS
4. **Between Server Software (ProxerNet) – Database (Microsoft SQL Server):** TDS – Microsoft-specific TCP/IP protocol (TLS encryption and authentication)

III. In the list above, each tier offers both AES128 encryption and authentication:

- encryption: recoding data into a seemingly unreadable format: protection against message interception
- authentication : encryption key changes regularly between devices : protection against message replay

IV. NIS2 requires the use of readers capable of copy-protected, encrypted communication.

Mifare is available in the **Procontrol ProxerX3 series** RFID reader types suitable for encrypted, copy-protected handling of Desfire cards (AES128 encryption and authentication)

e.g. Proxer13-HF, Proxer13-FF;

Proxer23-HF, Proxer23-FF;

Proxer53-HF, Proxer53-FF.



With the above readers, you can even use your smartphone instead of an access card!

V. NIS2 requires the use of copy-protected, encrypted ID cards and transmitters.

The **Unicard Sec2** card is an encrypted, copy-protected, secure card, which is part of the ProxerSec Highly Secured system.

Order a **ProxerSec** Highly Secured RFID system, order your system with Unicard Sec2 encrypted cards and readers!

The 125kHz cards used in large numbers in Hungary only provide basic security. If the protection of your facility, building, office, or paying access control system is of paramount importance to you and you do not want to lose the expected revenue, choose an encrypted, copy-protected system!


If Mifare Desfire NFC compatible If you choose a smart card as your access card, the ProxerSec system with an exceptionally high level of security becomes available. This is an encrypted, copy-protected programmable card, which gives you the opportunity to build a professional line of defense!

Unicard Sec2 is made with encryption programming for Mifare Desfire from a smart card. The Mifare A special entry is recorded on the internal, encryptable data storage of Desfire EV2 cards, which ensures that the identification data written on the card cannot be read or intercepted, thus the card cannot be copied. You can order encryption when building your access control system, or even later. To establish the security level, the cards and their readers must be reprogrammed.


If you order the encryption programming option for the cards later, the Mifare card will be reclassified as a Unicard Sec2 card, which is the basis of the ProxerSec High Security RFID system.

VI. GDPR data management

With the GDPR module built into the software, you can ensure proper data management.

>  Type definitions

 GDPR settings

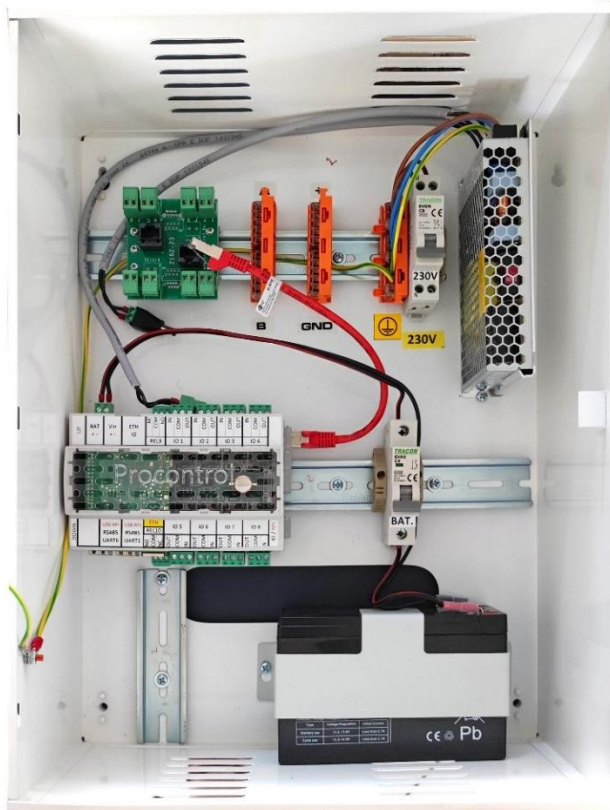
 License settings

Ask for our offer.

VII. Procontrol ProxerIO door control electronics, UniGate R100 secure door controllers

UniGate R100-8 ver4 2161-23 access control controller, gateway controller, includes ProxerIO door control electronics, UPS, in wall-mounted metal box, controls 8 doors, 16- to 32 readers

Inside: ProxerIO 8IO-2R-CPU5 2161-23_R5 access control electronics, input and output controller



We are constantly improving our systems. Please indicate your needs.

Robert Kovacs
managing director
Procontrol Ltd.