

YOU NEED TO COMMUNICATE SECURELY
AND DO NOT HAVE A SEPARATE NETWORK
FOR CLASSIFIED INFORMATION?

OR IS YOUR NETWORK LAGGING BEHIND
THE LATEST SECURITY STANDARDS AND YOU
DON'T WANT TO INVEST IN UPGRADING IT?

THEN LANPCS
IS THE PERFECT
SOLUTION FOR YOU!



LANPCS Card

— Leading the Wave of Principle



What does the LANPCS do?

We **encrypt** any external communication
on the hardware level

You can plug in your PC **anywhere**

There is no fine print, **you will be secure**



How is it done? We remove the risk

No need to build and maintain
red / black segmentation

Interception at the physical layer **is useless**

No risk of mishandling hardware intended
for the red segment



We guarantee your safety

The encryption happens
in **highly secure** network adapter



Constant monitoring of physical intrusion



Security Embedded Hardware

We built all the components

We develop our own firmware

Infection of the host PC
cannot compromise data safety

The encryption is fully independent
from the OS and SW



FIPS 140-2 level 3 compliant, certified for the RESTRICTED level

Proprietary HW adapter

Proprietary embedded OS

Proprietary Encryption Engine

Possibility of implementing
classified Encryption Algorithms



LANPCS can function either in manual or autonomous mode

LANPCS is designed to **protect network communication**. It allows for the use of existing, non-secure communication infrastructure in regular offices in connecting workstations intended for **processing classified information**. There is no need to build or maintain red/black segmentation. **All external communication is encrypted at the hardware level.**

The LANPCS-RG3 is an encryptor in the form of a **conventional network card** that can be used in most workstations, and is able to connect via standard network infrastructure. The solution is built on **its own dedicated hardware platform** for security-critical applications, which has long been under constant development by S.ICZ a.s.. The card encapsulates the security services of the encryptor inside the Trustworthy Computing Platform®, thus guaranteeing **isolation from any external influence**. This protects data transmissions against any kind of attack originating from the outside and also completely eliminates the possibility of an attacker relying on the cooperation of compromised hardware, as the card cannot be accessed from the motherboard.

The security functions of LANPCS-RG3 have been **consistently verified by NÚKIB during the certification process according to Act No. 412/2005 Coll.** as sufficient to protect classified information within **the Czech Republic, EU and NATO.**

Key features

- Built on **specialty developed hardware** designed for security-critical applications
- Platform security independent of HW, OS, other software installed on workstations and LAN
- Option to **centrally manage the station** by separating cryptographic and communication operations
- **Can be integrated into a regular LAN**
 - a fast solution without large investments
- Central management of LANPCS allows the operator to **effectively manage the workstation in real time**, without the need to interact with the LAN/WAN environment
- **Guaranteed distribution of firmware updates** at least once a year
- Planned lifetime of **at least 8 years**
- Manufactured in the Czech Republic by **S.ICZ a.s.**
- Powerful edge cryptographic resources **designed for building large-scale systems** will ensure sufficient performance/throughput of the centers.

Technical Specifications:

Workstation requirements:

- Free PCIe card slot with a height of 56 mm and a length of 168 mm

Technical Specifications:

- Dimensions (L x H x W): 168 x 69 x 12.1 mm (including connector).
- Physical interface: PCI Express 1.1 x1
- Physical network layer: Ethernet 10/100/1000 Mbps (RJ 45 connector/optional optical interface)
- Basic network layer: IPv4, IPv6
- IP security extension: IPsec (RFC: 4301, 4303, 7296)
- Operating temperature:
 - 0 - 45 °C (PC internal temperature)

Supported OS:

- MS Windows and various Linux distributions

Realistic data throughput:

- 80 Mbps
 - (optional 220 Mbps with encryption accelerator)

Operating modes:

- Manual mode
 - (operational configuration stored in the smart card)
- stand-alone mode
 - (operating configuration stored in LANPCS-RG2)

Remote monitoring:

- ICMP, SNMP agent, SNMP trap, syslog
- log transfer to FTP

Internal security functions:

- Physical Radom Number Generator
- independent time
- independent audit
- independent monitoring processor
- FIPS 140-2 level 3 physical resilience

Common Criteria warranties:

- Development and design in accordance with EAL4+ requirements

Cryptographic Resource Class:

- CCI according to the NUKIB standard



Other products of the LANPCS family:

LANPCS Rack — Powerful 1U device. They are used when individual workstations equipped with LANPCS RG3 cryptographic resources or printers connected via LANPCS Box access a single center (or multiple centers) of an information system.

LANPCS Client — OS minimization and maintenance-free. R/O Secure Boot Disk = no residual information.

LANPCS Box — For IoT security. The LANPCS Box certified national cryptographic element protects the network communication of peripheral devices used in common information systems, such as printers, scanners or videoconferencing devices into which PCI-e devices cannot be inserted.