

## What is UL 2900-1?

With more connected devices than ever, Underwriters Laboratories (UL) understands that there is increasing risk of cybercrime occurring through network connected devices. UL has developed this standard to assess the vulnerability of connected devices to known malware/exploits and protect business from these risks. **The UL 2900-1 certification is UL's global standard for connected device cybersecurity.**

Products undergo extensive testing, including static code reviews, vulnerability assessments and risk mitigation assessments. The Eaton Gigabit Network Card was assessed for SSH, SNMPv3, NTP, SMTPS, DHCP and MQTT via TLS 1.2.

## What is IEC 62443-4-2?

Like UL, the International Electrotechnical Commission (IEC) has developed standards to help safeguard against cybercrime. Within the IEC 62443 standard are several subsections, including IEC 62443-4-2, which specifies guidelines for network component suppliers to enhance security, including account, identifier and authenticator management, password-based authentication, public key authentication, use control, data integrity and confidentiality, as well as backup for resource availability. **Suppliers who follow this set of guidelines will equip operators with the best chance of protecting their networks against cyberattacks.** However, not following the guidelines leaves the network less secure and more vulnerable to malicious attacks.

# Reducing cybersecurity risk is critical. Eaton can help.

Eaton takes cybersecurity seriously. That's why we developed a network card that has enhanced protection built-in. The [Gigabit Network Card](#) was the first in the industry to meet both UL and IEC cybersecurity requirements. The card's UL 2900-1 certification provides customers with confidence that it has been reviewed and tested, and meets the benchmark of this trusted brand. Its certification to the IEC 62443-4-2 standard further underscores [Eaton's commitment](#) to unified global cybersecurity standards. While hardware that lives behind a firewall is thought of as fully protected, that isn't always enough to keep hackers out. The Gigabit Network Card is purpose-built to prevent or minimize the harm that such cyberattacks can cause.

## What's the benefit to customers?

The Gigabit Network Card helps customers power IT infrastructure more securely and with greater resilience:

### Encryption

- ✓ Uses the most current version of Transport Layer Security protocol (TLS)
- ✓ Only secure protocols enabled by default
- ✓ Firmware is signed and encrypted and will not boot if tampered with
- ✓ Secure SMTP for email alerts

### Password management

- ✓ Requires change of password on setup
- ✓ Configurable requirements for password complexity
- ✓ Certificate-based authentication in machine-to-machine connections (no username/password information saved on the client machine and separate certificates for each protocol)

## Beyond enhanced cybersecurity, what does this card feature?

- **Gigabit speed** for compliance with networking equipment and gigabit-only datacenter networks
- **Compatibility** with Eaton Intelligent Power Manager (IPM) v1.61 or higher and a range of Eaton UPSs
- **Remote rebooting** of connected devices with load segment controls, automatically or on a schedule
- **Reduced setup time** and seamless compatibility without changing port settings on the network switch
- **Enhanced UPS capabilities** – The UPS can be linked to other systems with the network card, thereby creating a system that can be used to reduce costs and provide additional functionality
- **Self-setting, real-time clock** with battery backup and linkage to NTP (Network Time Protocol) server ensures accurate reporting of event history
- **Additional memory** allows storage of current and prior firmware versions
- **Zero trust architecture** minimizes cybersecurity vulnerabilities through hardware root of trust, enabling secure boot and complete chain of trust