NetStaX™ ESDK-SECURE

ENABLES CIP SECURITY FUNCTIONALITY FOR THE NETSTAX ETHERNET/IP SCANNER DEVELOPERS KIT

Pyramid Solutions' NetStaX ESDK-SECURE option adds CIP Security features to the base ESDK Scanner Class stack and enables the development of Scanner and / or Adapter devices that can support non-secure (standard) and secure EtherNet/IP connections.
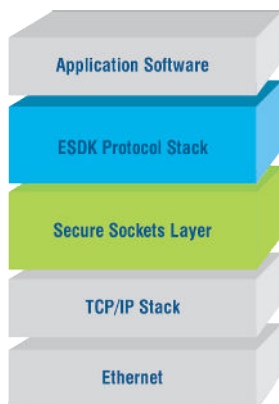
By adding CIP Security to your devices, you ensure they will be able to protect themselves from malicious CIP communications. Without built-in security, your devices have no protection from bad actors attempting to interfere with or spy on EtherNet/IP communications.

Built as a code overlay to base ESDK stack, you will have the ability to build base ESDK products as well as devices that support CIP Security. The ESDK-SECURE option can be purchased as a package with the ESDK or as an upgrade to a compatible ESDK version.

The ESDK-SECURE option comes with 12 months of download access to the latest version and built in phone / email tech support.

Additional services options are available to assist you with EtherNet/IP requirements, design, ESDK and ESDK-SECURE stack integration, pre-conformance testing and more.

This software solution created by our experienced developers has been thoroughly tested to ensure proper functionality and compatibility with EtherNet/IP conformance.

Benefits

- Tested with ODVA CT19
- Adds Secure Connections to the base EIPA EtherNet/IP connections and messaging
- Prevents malicious EtherNet/IP communications and spying
- Pre-built package for easy integration of existing ESDK applications
- Pre-tested with common Rockwell Automation and Siemens EtherNet/IP devices

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Features Include:

Concurrent Secure and Non-Secure Communications

CIP Security Confidentiality Profile

- Device Authentication
- Data Integrity
- Data Confidentiality

CIP Messaging Over TLS

- UCMM Client
- UCMM Server
- Class 3 Originator
- Class 3 Target

CIP IO Over DTLS

- Class 1 Originator
- Class 1 Target

Required CIP Security Objects

- CIP Security Object Revision 4
- EtherNet/IP Security Object Revision 8
- Certificate Management Object Rev 1
- File Object Revision 3
- TCP/IP Object Revision 4

ODVA Conformance

- Tested with ODVA CT19

Security Configuration

- CIP object interface through the network
- Through the API for vendor-specific configuration support
- Platform-specific non-volatile storage through platform interface

Security Related API

- Security configuration by application
- Device private key retrieval
- Secure messaging flag for request and connection origination

SSL Library Interface

- Generic interface allows for porting to the specific SSL library being used
- Example SSL interface implementations are provided for the following SSL Libraries: *
  - » WolfSSL and mbedTLS
    - – Linux
    - – Windows

*Customer is responsible for purchasing and licensing the chosen SSL Library, which is not included