Express Logic Adds IPsec to NetX Duo

Express Logic, a worldwide leader in royalty-free, real-time operating systems (RTOS), has extended its NetX Duo TCP/IP IPv4/IPv6 dual stack with support for the IPsec protocol. IPsec (Internet Protocol Security), a protocol suite for securing network communications, has become the defacto standard for securing connected devices in consumer, medical and industrial markets.

IPsec encrypts and authenticates each packet of a communication session. NetX Duo with IPsec support (NetX/IPsec) creates a virtual channel between two networks within which packets traveling in the channel are encrypted for security and signed for authenticity. NetX/IPsec also:

- Establishes mutual authentication between sender and receiver at the beginning of a session and negotiates cryptographic keys to be used during the session,
- Implements the IKE version 2 (IKEv2) protocol to negotiate security parameters and exchange encryption keys without the need for human intervention, and
- Defines Traffic Selectors that detail the type of data packets to be protected, while allowing others to simply pass through without security protection.

NetX/IPsec can secure transactions between two hosts (e.g., a medical record transmitted from a handheld patient-monitoring device to the physican’s workstation), a host and a network (e.g., a remote access session from a hotel room to the company headquarters) or a network to a network (e.g., a gateway device to network traffic between a local and main office). IPsec protection requires no changes to existing NetX applications because all encryption and authentication is done at the network layer, which sits below any application code or API references.

“Our customers have always sought to provide the highest degree of security whether the products they offer are for consumers and medical personnel or for transportation and industrial settings,” commented William E. Lamie, President of Express Logic. “Now, by adding IPsec, they can secure their NetX Duo transmissions without having to change their application coding at all—a feat that represents significant savings in development hours.”

NetX/IPsec is fully integrated with NetX Duo, both in IPv4 and in IPv6 modes of operation. NetX/IPsec includes 3DES, AES encryption, HMAC-SHA1, and HMAC-MD5, with frameworks that allow the user to integrate their hardware cryptographic engine or software crypto library with NetX/IPsec operation.

Shipping and Availability

IPsec is available for NetX Duo, in full source code form, royalty free, with project licenses starting at $12,500.

For more information about Express Logic solutions, please visit the Web site at http://www.expresslogic.com [1], call 1-888-THREADX, or e-mail inquires to info@expresslogic.com **[2]**.

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