

NanoMCP

Securing Multicast Communications in Industrial Control Systems

Features and Benefits

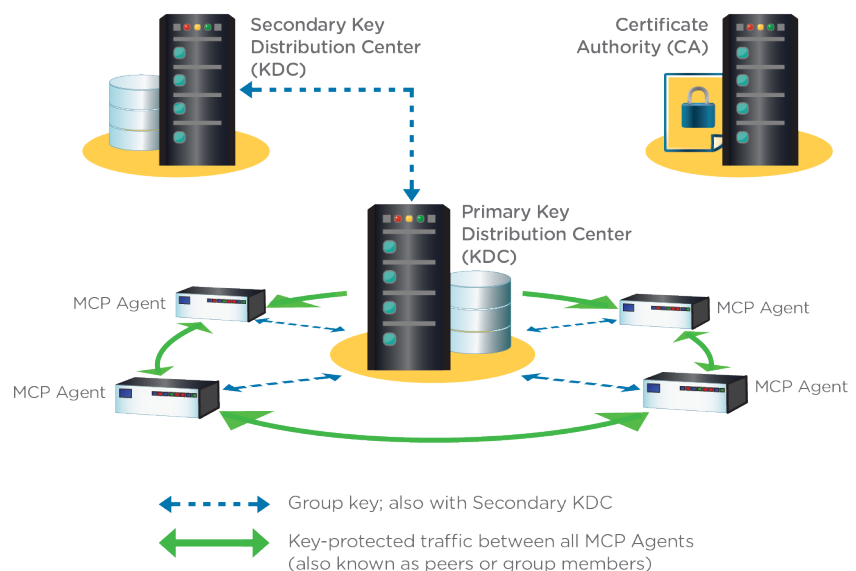
- Small footprint, high performance
- Speeds integration and testing of complex cryptographic functions
- FIPS 140-2 Level 1 validated (optional)
- NSA Suite B cryptography support (upgrade option)
- High Availability(HA) configuration for the KDC
- Key Distribution Center (KDC) on Microsoft Windows Platforms
- MCP Agents for Windows and QNX Platforms
- GDOI standards based member and group key management over IKEv1
- IPSec-based traffic encryption
- OS- and platform-agnostic for easy portability
- Threadless architecture, synchronous and asynchronous
- Guaranteed GPL-free code
- Expert development support from Mocana engineers

Mocana NanoMCP is a high-assurance, efficient, flexible solution for securing multicast communication between controllers and devices in industrial control systems such as SCADA (supervisory control and data acquisition) systems, DCS (distributed control systems), PLCs (programmable logic controllers), and production equipment such as robotics, manufacturing control, material processing, and factory automation.

NanoMCP extends IPsec and IKEv1 to the multicast scenario and implements the GDOI (Group Domain of Interpretation) standard to establish security associations among several group members. GDOI alleviates the need to negotiate secrets between every client pair in the group. Leveraging the Mocana NanoSec™ code, NanoMCP is ideally suited for multicast traffic: very frequent, small, UDP messages between controllers and devices.

NanoMCP includes the following components:

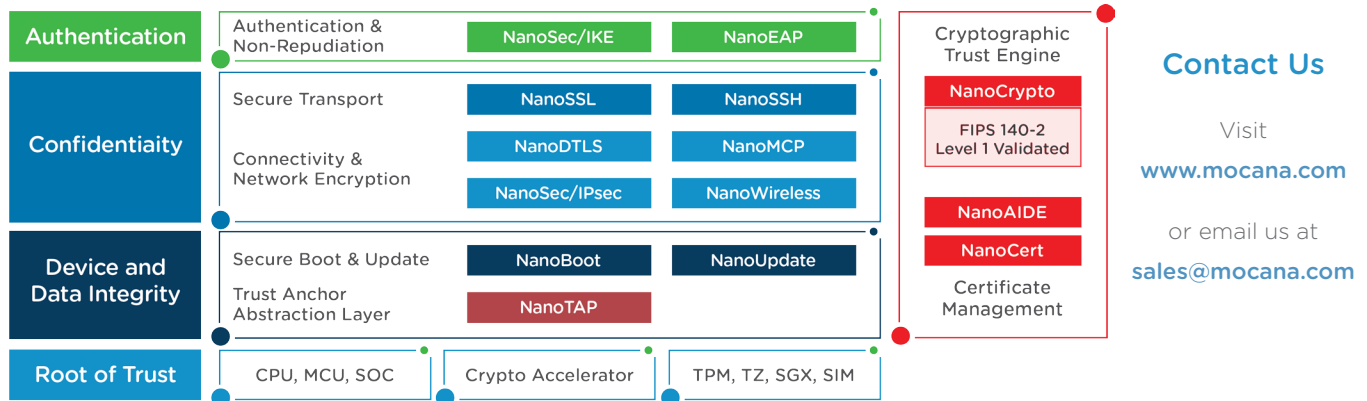
- KDC (Key Distribution Center) server that runs on Microsoft® Windows® Server 2008/2012—distributes the common secret key to every MCP agent (client), enabling clients to talk directly to each other.
- MCP agent binary with installer for Microsoft® Windows® clients. As with the KDC, the MCP agent runs as a Windows service and writes information to the standard logs available through the Windows Event Viewer.
- SDK for integrating NanoMCP agents into clients with a variety of operating systems, such as QNX® and VxWorks®. The SDK approach lets you customize the MCP agent for any operating environment (OS-CPU combination) without modifying existing applications.



Mocana's IoT Security Platform

NanoMCP is part of the Mocana IoT Security Platform, designed to secure all aspects of any connected device. As a device designer, you can choose only the components you need for your particular project or standardize company-wide on Mocana's platform, future-proofing your investment with this broad, cross platform, flexible and extensible security architecture.

Mocana's Comprehensive, Full-Stack IoT Security Platform



Protecting the Emerging Opportunity

Ultra-Secure DNA. We've been providing "MIL-spec" security technology for the most demanding, mission-critical applications for over a decade.

Scales from Device to Cloud. We provide an end-to-end, full-stack solution that enables device makers, service providers and end-users to assure security for IoT devices, services and ecosystems.

Byte-Efficient Code. Our code fits into tiny memory footprints where other implementations simply can't.

Open Source Free. Our platform contains absolutely no open source code, so you can be confident your intellectual property won't accidentally become public domain because of open source contamination.

Platform Independent. Mocana's security modules are CPU-architecture and platform independent. Mocana's platform supports over 35 operating systems, and 70 processors and trust anchors, today.

Easy to Use, and Re-Use. Mocana's platform modules are accessed via an extremely powerful, but simple and easy-to-use API. Our platform abstracts vendor specific requirements and makes it easier to plug your product into our software modules without extreme integration difficulties. You don't need to be a crypto or protocol expert, because we handle the complexity. And you can standardize security and re-use code across product lines and projects.

Dramatically Speeds Development Cycle and Reduces Risk. Getting security right can be hard, and getting it wrong can be costly. Mocana makes it easy to make your products secure. Mocana's platform modules are pre-integrated and exhaustively tested, enabling your development team to focus on what's really important—the unique added value of your product.

About Mocana

Mocana provides high-performance, ultra-optimized, OS-independent, high-assurance security solutions for any device class. Mocana's award-winning cryptographic solutions are used in the most stringently constrained and life-critical systems by Fortune 500 companies, world-leading smart device manufacturers, and government agencies. For more information on Mocana and our solutions, please visit www.mocana.com or contact us at sales@mocana.com.