



Ensuring Safety, Reliability and Compliance

Perimeter-based defenses and threat detection technologies are not enough to defend against modern cyber attacks. Aging medical devices such as imaging equipment, pumps, surgical equipment, implantable medical devices, hospital and home patient monitors, and medical Internet of Things (IoT) edge devices are vulnerable due to a lack of strong cryptographic controls, including: multi-factor authentication, secure boot, secure update, and secure, encrypted communications.

Medical equipment manufacturers and healthcare providers must ensure compliance with HIPAA, HITECH Breach, and cybersecurity standards such as NIST 800-53, Revision 4, IEC 62443-3-3, and FIPS 140-2. Keeping up with these standards as well as emerging standards from the Industrial Internet Consortium (IIC) and Industrie 4.0 can be challenging. New regulations such as GDPR in Europe raise the stakes for non-compliance to more than €20 million per incident. Older protocols such as Modbus, DNP3 and BacNet can be difficult to secure.

In healthcare, risk is measured in terms of loss of life, human safety and reliability of the systems.

While data privacy is important, compromised systems directly impact patient care.

Mocana's Proven Cybersecurity Solution

Used by more than 200 OEMs to protect more than 100 million devices, Mocana's IoT Security Platform is a FIPS 140-2 validated embedded cybersecurity software solution that ensures device trustworthiness and secure communications by giving medical device manufacturers, OEMs and healthcare IT professional an easy way to:

- Harden devices with multi-factor authentication using X.509 certificates and trust chaining
- Secure the boot process to validate the firmware, OS and applications
- Enable secure, cryptographically-signed over-the-air (OTA) and over-the-web (OTW) firmware updates
- Integrate hardware or software-based roots of trust such as TPM, SGX, TrustZone, HSMs, SIMs, and MIMs
- Replace open source crypto software such as OpenSSL.

For more information on Mocana's comprehensive IoT Security Platform and how it can help you secure your critical infrastructure, visit our website at mocana.com or send us an email via sales@mocana.com.