Cyber security and safety

Data security in smart devices

In today's world, the number of smart devices and systems is growing. With that, the number of reported breaches, unwanted access to sensitive data and interventions in automated systems is also on the rise. Consequently, these negative side effects threaten to slow down increased efficiency and improved maintenance and safety in many fields. Whether it concerns process automation, the smart cities we live in, or our smart meters at home, the question of confidence and data security arises on many fronts.

ABOUT NMI

NMi is the independent Test and Certification institute with a long and proven track record in metrology. Much like the rest of our society, here too software and digital communications have entered and become inseparable and indispensable for the correct operation of measuring instruments such as smart electricity meters. Against that background, NMi has continued to extend its knowledge and innovate its test methods to also include compliance testing for software and communications. Recently we have completed a security assessment for the Smart City of Dordrecht (NL), based on the IEC 62443 and Welmec 7.2.

IEC62443 ASSESSMENT AND CERTIFICATION

The IEC 62443 series – sometimes also known as ISA99 – was originally developed for Industrial Automation and Control Systems. Which have similarities with IoT and Smart Cities. In terms of for instance its architecture and functions, it is very similar. Sensors or instruments detect or measure, communicate that information to "higher intelligence", where a response is generated and commands are given for corrective action. Whether it concerns running an automated industrial plant, or the amount of traffic allowed into a section of a city, both concern monitoring a process and adjusting that when needed.

IEC 62443, in each of its specialised parts, covers all aspects playing a role in Cyber Security. Depending on which particular aspect needs evaluation, a suitable set of requirements is available. These range from design of complete systems, to quality assurance procedures on patch management. The IEC 62443 provides independently verifiable criteria to all types of stakeholders in Cyber Security.

Certification by an independent third party helps prove outsiders certain criteria are met. It convinces potential customers, users and other stakeholders that the product, system or service is fit-for-purpose. Certification stimulates awareness and quality within the certified company or producer of the certified product. Lastly, it eases (regulatory) compliance. Whether it is an official authority, or a stakeholder, certificates issued by independent third parties carry their weight.

WHY NMi?

NMi's experience in smart meters, mobility, the process industry and smart cities offers you a future proof service benefitting suppliers, vendors and (end-)users alike. Combining the expertise from two fields coming closer and closer, this ultimately leads to a high-end tailor made service for your situation.

MORE INFORMATION

If you are interested in the examination of smart devices and/or systems, we are happy to answer all your questions. Please feel free to contact us at nmi@nmi.nl. On our website, you can find more information about our services.