ISA Approves Standard for Wireless Automation in Process Control Applications

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On September 9, the Standards and Practices Board of the International Society for Automation (ISA) approved the ISA-100.11a wireless standard, "Wireless Systems for Industrial Automation: Process Control and Related Applications," making it an official ISA standard.

The standard is intended to provide secure, reliable wireless operation for monitoring, alerting, and control applications. It enables robustness with non-ISA-compliant legacy wireless systems, coexistence and interoperability with other wireless devices, and robustness in harsh industrial environments. To meet the needs of industrial wireless users and operators of low-energy fixed, portable, and moving devices, it defines specifications for the protocol suite, system management, gateways, and security for low-data-rate wireless connectivity.

Through the Office of Electricity Delivery and Energy Reliability's National SCADA Test Bed (NSTB) Program, ISA100 Co-Chair Wayne Manges helped develop this standard as part of his work on trustworthy wireless for critical infrastructure. Manges is a program manager at Oak Ridge National Laboratory (ORNL), one of the NSTB participating national labs.

According to Manges, more than"600 end users and equipment manufacturers from around the world" participated in developing the ISA-100.11a standard, which "represents a truly consensus standard created in an open, unbiased forum by a global team of industry experts." Even before final approval, companies were already developing to the standard, Control Engineering Magazine reports.

ISA established this ISA100 committee to address aspects of wireless manufacturing and control systems technology, including wireless equipment and systems, their life cycle and applications, and the environments in which wireless technology is deployed and applied.

Work on the ISA100 family of standards began in 2005. In July 2009, the ISA100 committee voted to approve the ISA -100.11a standard and pass it to the Standards and Practices Board. With board approval, the standard will now be submitted to the American National Standards Institute (ANSI) for approval and the International Electrotechnical Commission (IEC) for consideration.

Preview the standard from ISA.

Read more about ISA100's committee activity.