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Promoting the use of IP for Smart Objects

Adoption of Wireless In Industrial Automation

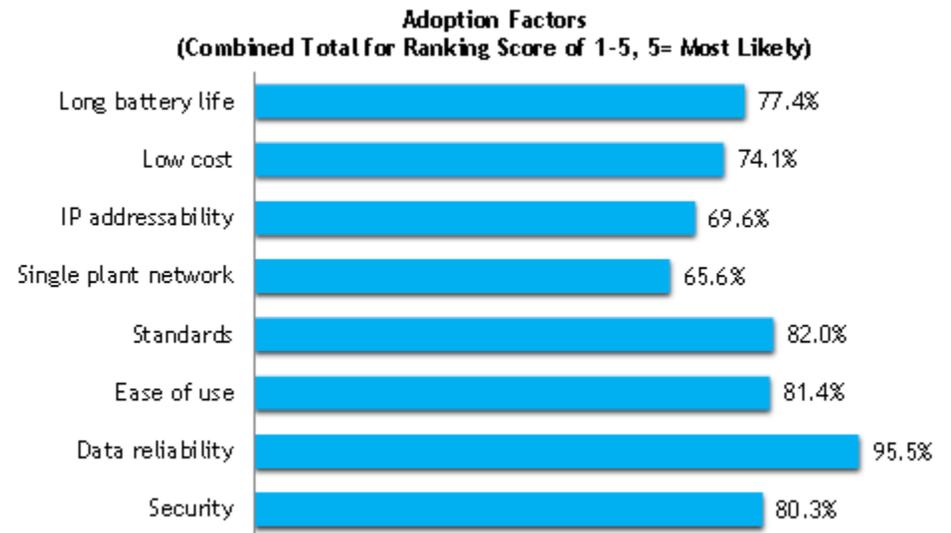


OnWorld conducted polls and published results based on interviews with 105 plant managers, process integrators and system engineers

Results are clearly indicative of industrial end user's concerns

IPv6 addressability is a major factor for adoption of wireless technologies employed in industrial automation

IPv6 addressability is tightly coupled with future extensibility of industrial wireless standards based products



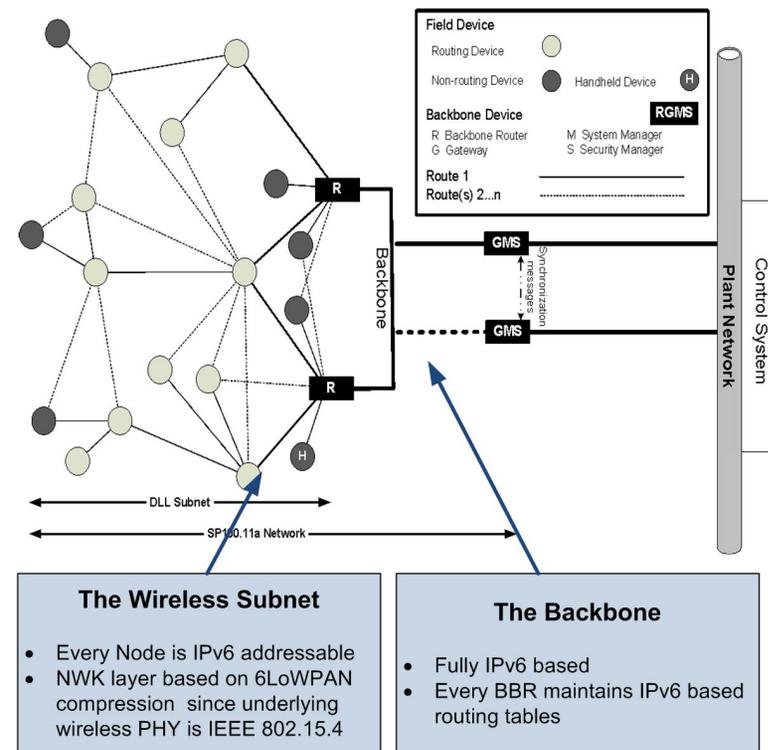
The ISA100.11a Standard – IPv6 Based Technology



ISA100.11a is the first of the ISA100 universal family of open wireless standard targeting industrial automation

Architected for:

- Process monitoring and control
- Predictive machine maintenance
- Modular, object based application layer hosts a wide variety of applications



IP Addressability



IETF RFC4944 (6LoWPAN) compression employed throughout the wireless subnets

Addressing scheme

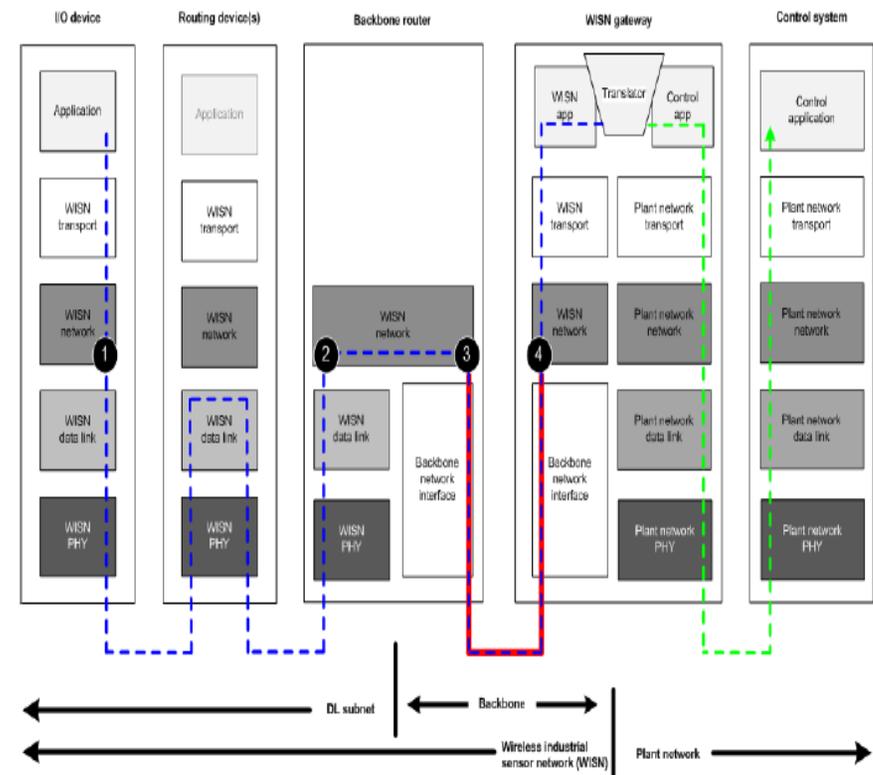
- EUI-64 (64 bits)
- IPv6 (128 bits)
- Short address (16 bits IEEE 802.15.4)

Backbone router responsible for:

- Address translation
- Packet expansion
- Routing of IPv6 packets on the backbone

ISA100.11a allows for Application PDUs as large as 1280 bytes

Fragmentation/de-fragmentation mechanism with optional packet recovery mechanism





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The IPSO Alliance will extend the reach of IP into “Internet of Things”