

Introduction to ISA100 Wireless

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Introduction to Industrial Wireless

Applications

Monitoring

- Machine health
- Well head
- Remote process
- Leak detection
- Equipment Condition
- Environmental
- Tank level
- Steam trap

Gas detection

Fuel tank gauging

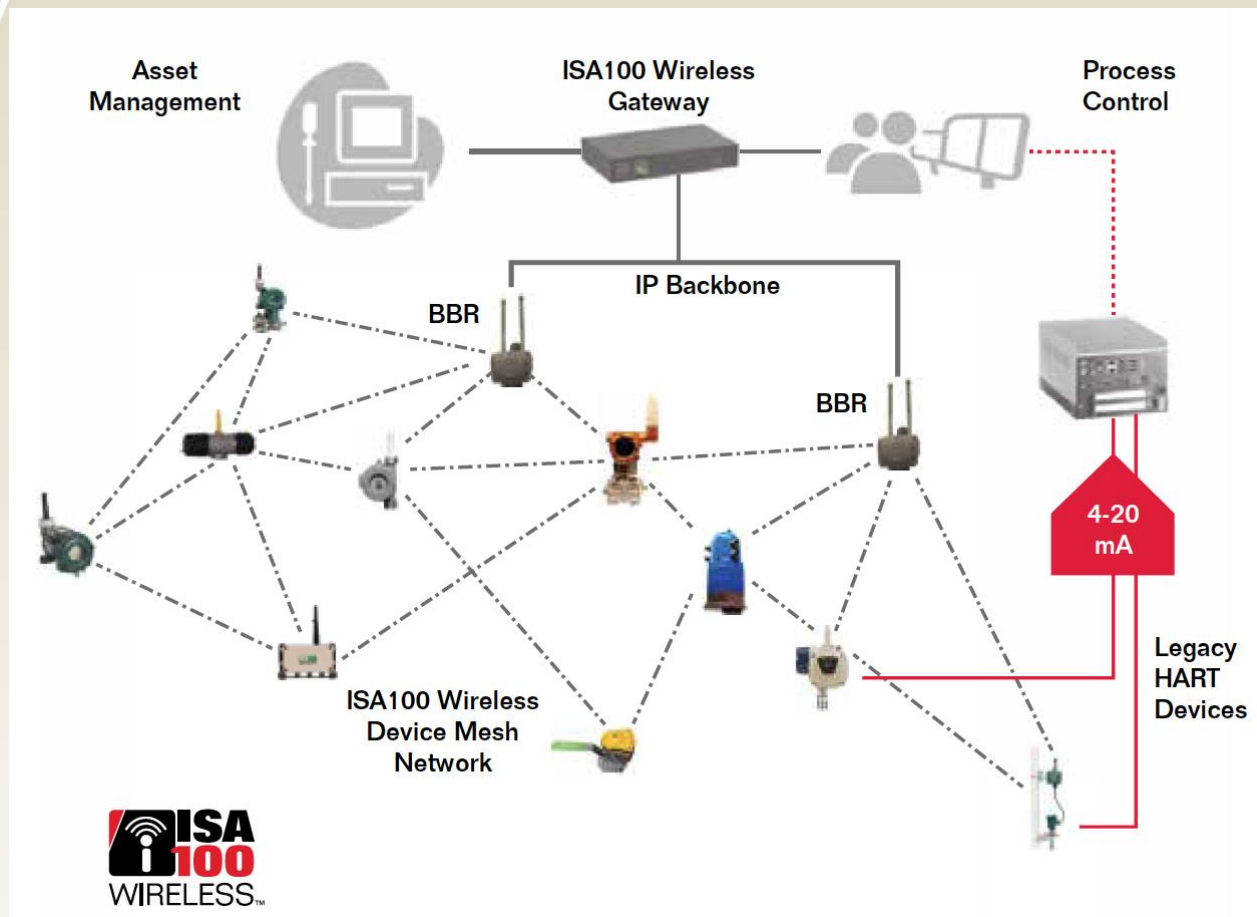
Basic process control

Open loop control

Stranded data capture

Diagnosis of field devices

... and more



Commonly Cited Benefits of Wireless Instrumentation

| | |
|----------------------|--|
| Cost Savings | <ul style="list-style-type: none">• Up to 90% of installed cost of conventional measurement technology can be for cable conduit and related construction• Typically: 1/2 the costs, 1/5 of the time• New and scaled applications are now economically feasible |
| Improved Reliability | <ul style="list-style-type: none">• Wired sensors may be prone to failure in difficult environment• Wireless can add redundancy to a wired solution |
| Improved Visibility | <ul style="list-style-type: none">• Condition monitoring of secondary and remote equipment• Process monitoring, fast additional data for trouble shooting |
| Improved Control | <ul style="list-style-type: none">• Add wireless to existing processes for more optimal control |
| Improved Safety | <ul style="list-style-type: none">• Safety related alarms - end to end SIL2 certifiable |

ISA100 Wireless Background

- International standard IEC 62734 since 2014
- Complies with ETSI EN 300 320 v1.8.1 (LBT)
- End-User Driven Standard - meeting all current and future industrial needs
- Sensor routing or field routers for best performance – Freedom of choice
- Broad Multi-Vendor Portfolio of ISA100 Wireless Devices
- ISA100 Wireless enables SIL-2 Certification
- Ensured Interoperability - best-in-class solutions from best-in-class suppliers
- Readily available ISA100 Wireless Modules and Stacks
- Enable fast-track development and go to market

ISA100 Wireless Solutions

Infrastructure



Independent Gateway

- Honeywell, Yokogawa



Access Point (AP)

- Honeywell, Yokogawa



Integrated Gateway/AP

- Honeywell, Yokogawa, CDS, Nexcom



GW/AP + Recorder

- Yokogawa



Adapter (HART, etc.)

- Honeywell, Yokogawa

Measurement & Control



Temperature

- Honeywell, Yokogawa



Pressure / Flow

- Honeywell, Yokogawa



Level

- Honeywell, Yokogawa



DI/DO, AI

- Honeywell, Yokogawa



Valve Position

- Eltav, Flowserve, Honeywell

Energy Efficiency, HSE & Asset Management



Corrosion

- RCS , Honeywell



Steam Trap

- Spirax Sarco, TLV, Armstrong, Bitherm



Vibration

- Bently Nevada



Gas

- GasSecure, Scott Safety, New Cosmos, Riken Keiki



pH

- Honeywell, Yokogawa

And more...

Online Resources



www.isa100wci.org

<http://www.isa100wci.org/>

- Learning Center with White Papers
- Articles, End-user stories, Forum
- Receiving over 20,000 web views per month
- Full list of certified/registered ISA100 Wireless devices
- And more useful content for you and your business

Linked  [ISA100 Wireless Interest Group](#)

- Latest news, end-user and expert discussions, insights
- 700+ members and growing; please join and invite your peers to join as well!
- Receiving over 5,000 web views per month

Summary

Costs

- Typical conservative cost saving of \$10k per wireless instrument over traditional hardwired installation

Speed

- Project execution in 1/5th of the time relative to traditional wired. Quickest installation time - data in just 1 day

Performance

- ISA100 Wireless enables near real time performance

Choice

- Large portfolio of ISA100 Wireless devices by multiple vendors - Investment protection

Innovation

- Innovative new devices brought to market each year

Questions?

**THANK
YOU**



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