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

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
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<tr>
<td>Cost Savings</td>
<td>• Up to 90% of installed cost of conventional measurement technology can be for cable conduit and related construction</td>
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<td>• Typically: 1/2 the costs, 1/5 of the time</td>
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<td>• New and scaled applications are now economically feasible</td>
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<td>Improved Reliability</td>
<td>• Wired sensors may be prone to failure in difficult environment</td>
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<td>• Wireless can add redundancy to a wired solution</td>
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<td>Improved Visibility</td>
<td>• Condition monitoring of secondary and remote equipment</td>
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<td>• Process monitoring, fast additional data for trouble shooting</td>
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<td>Improved Control</td>
<td>• Add wireless to existing processes for more optimal control</td>
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<td>Improved Safety</td>
<td>• Safety related alarms - end to end SIL2 certifiable</td>
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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

• 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

Linkedin  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 $1/5^{th}$ 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?

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