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Wireless

*February 2013
Market Intelligence Report*

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Executive Summary

An electronic survey of *Industrial Networking* readers was conducted in February, 2013, in order to identify usage and application trends of **wireless networking** among the magazine's readership. Detailed survey results are presented on the pages that follow, with key findings summarized below:

- Nearly 57% of survey respondents currently have wireless. 43.2% of respondents do not use wireless. Of the 57% of respondents who have wireless Ethernet the following were the most common types used:

○ Wireless HART	31.6%
○ 802.11b/g	28.6%
○ 802.11n	9.2%
○ Proprietary protocol	9.2%
○ 802.11a	5.1%
○ 802.15.4 (ZigBee)	1%

- 47.5% of respondents have approved initiatives to deploy wireless during the next year. 52.5% do not. Of the 47.5% of respondents who have approved initiatives to deploy wireless in the next year the following initiatives were indicated:

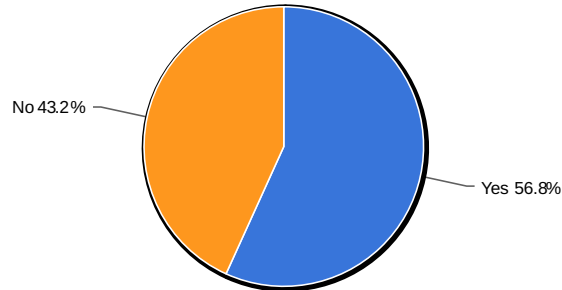
○ Wireless HART	35.8%
○ 802.11b/g	16.1%
○ 802.11n	14.8%
○ 802.15.4 (Zigbee)	4.9%
○ Proprietary protocol	6.2%
○ 802.11a	2.5%

- Respondent's most common uses or intended uses of wireless were monitoring (59.7%), control (27.7%), and alerts/alarms (12.6%).

- The majority of respondents (52.8%) needed their wireless to handle a cycle time of 1 sec or more, 20.8% needed 500 – 999 msec, 15.2% indicated 100-499 msec, 11.2% required faster than 100 msec.

- When asked what sensing their wireless is used for the majority of respondents indicated process variables (76.9%), 5% indicated vibration, and a further 5% indicated presence, 3% said distance, 1.7% security and .8% vision/color.
- Respondents indicated their biggest concern/need for wireless connectivity is reliability/data loss (42%), need for an industrial standard (19.6%), security (18.2%), and sensor power/battery life (11.9%).

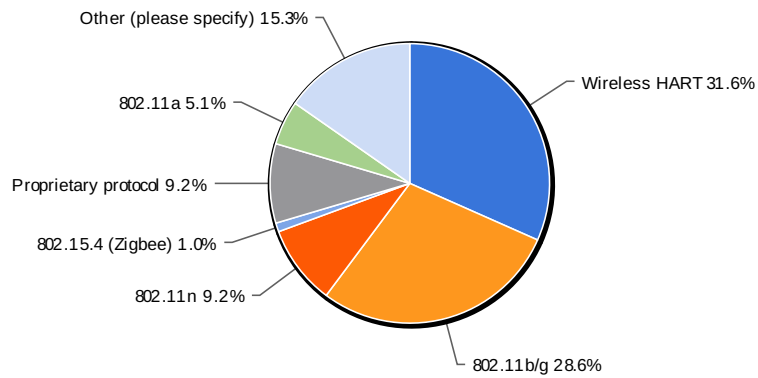
1. Do you currently deploy Wireless in your automation system?



1. Do you currently deploy Wireless in your automation system?

Value	Count	Percent %
Yes	92	56.8%
No	70	43.2%

2. If yes, what type?



2. If yes, what type?

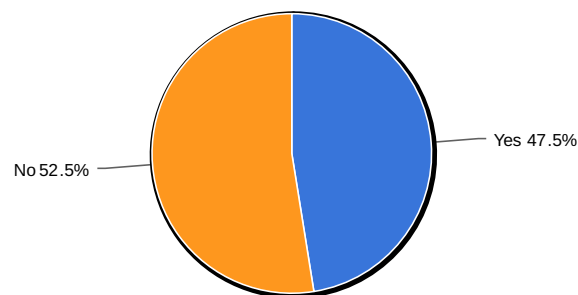
Value	Count	Percent %
Wireless HART	31	31.6%
802.11b/g	28	28.6%
802.11n	9	9.2%
802.15.4 (Zigbee)	1	1.0%
Proprietary protocol	9	9.2%
802.11a	5	5.1%
Other (please specify)	15	15.3%

Open-Text Response Breakdown for "Other (please specify)"

Open-Text Response	Count
Left Blank	1
1XRTT, VHF, HSPA	1
802.11b/g/a/n	1

802.3	1
900 MHz	1
900MHZ & 450 MHz	1
All of the above	1
Both Proprietary and 802.11 b/g/n	1
Ethernet	1
ISA100	3
ISA100.11a	1
Modbus serial	1
none	1

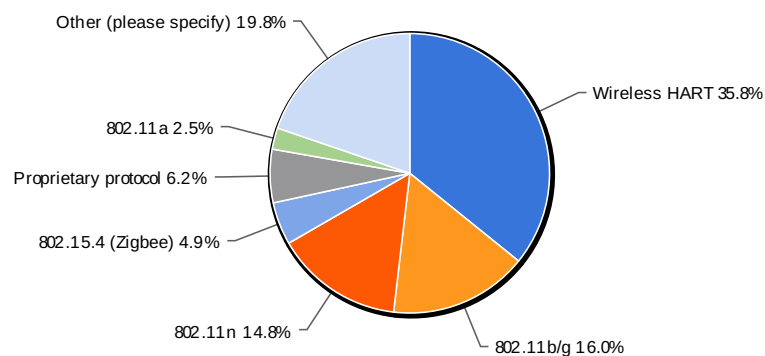
3. Do you have approved initiatives to deploy wireless during the next year?



3. Do you have approved initiatives to deploy wireless during the next year?

Value	Count	Percent %
Yes	75	47.5%
No	83	52.5%

4. If yes, what type?



4. If yes, what type?

Value	Count	Percent %
Wireless HART	29	35.8%
802.11b/g	13	16.1%
802.11n	12	14.8%
802.15.4 (Zigbee)	4	4.9%
Proprietary protocol	5	6.2%
802.11a	2	2.5%

Other (please specify)

16

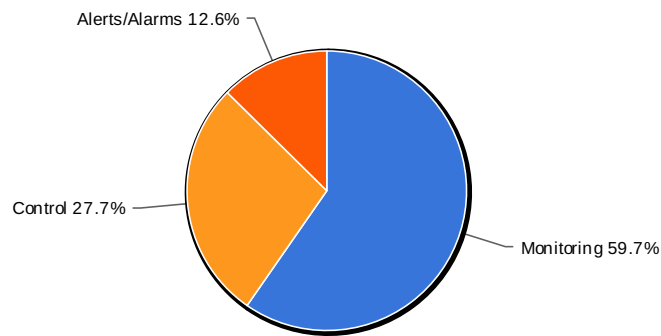
19.8%

Open-Text Response Breakdown for "Other (please specify)"

Count

Left Blank	2
1X, HSPA	1
802.11b/g/a/n	1
900 MHz	1
All of the above	1
DONT KNOW	1
ISA100	3
ISA100.11a	2
Modbus serial	1
Not determined	1
none	1
not specified	1

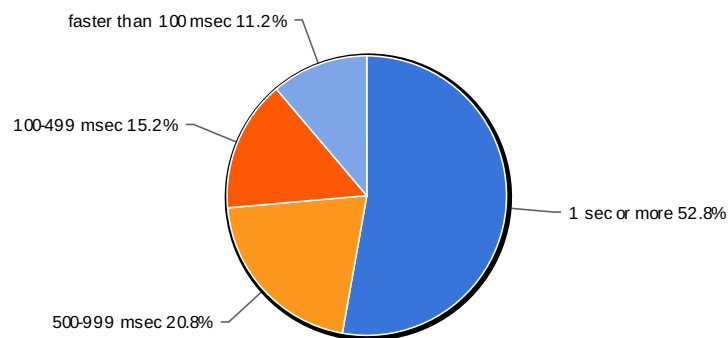
5. You use it/intend to use it for:



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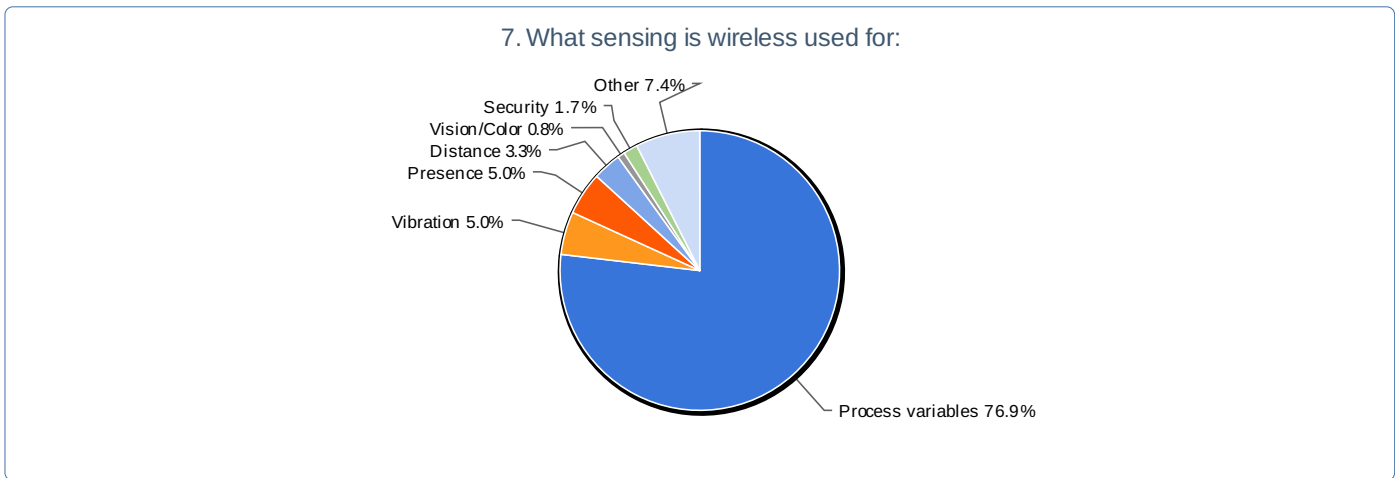
Value	Count	Percent %
Monitoring	71	59.7%
Control	33	27.7%
Alerts/Alarms	15	12.6%

6. What cycle times do you need wireless to handle?



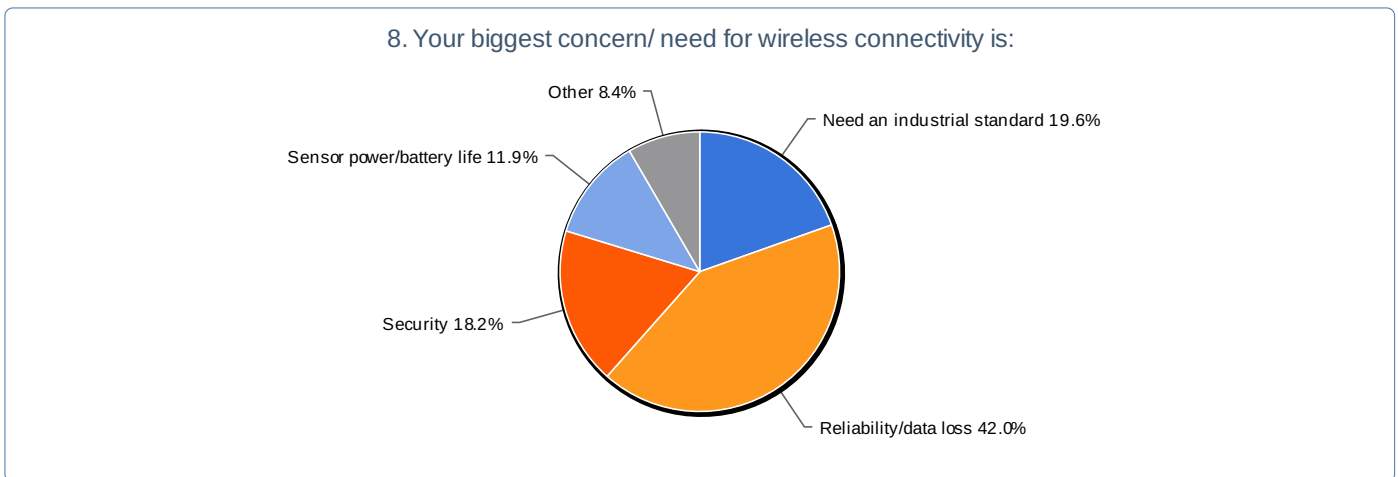
6. What cycle times do you need wireless to handle?

Value	Count	Percent %
1 sec or more	66	52.8%
500-999 msec	26	20.8%
100-499 msec	19	15.2%
faster than 100 msec	14	11.2%



7. What sensing is wireless used for:

Value	Count	Percent %
Process variables	93	76.9%
Vibration	6	5.0%
Presence	6	5.0%
Distance	4	3.3%
Vision/Color	1	0.8%
Security	2	1.7%
Other	9	7.4%



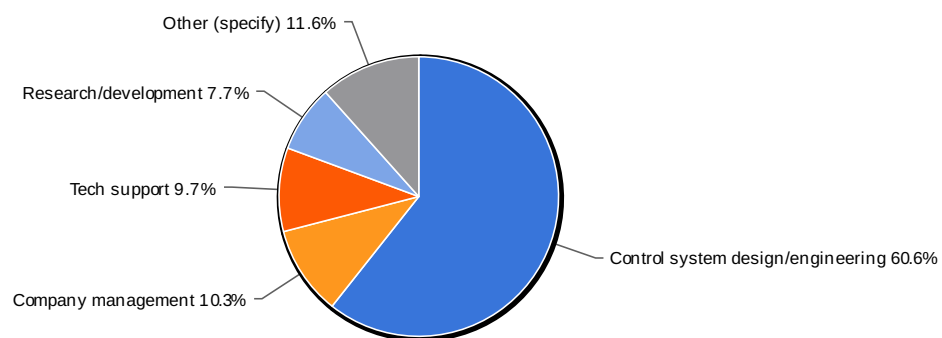
8. Your biggest concern/ need for wireless connectivity is:

Value	Count	Percent %
Need an industrial standard	28	19.6%
Reliability/data loss	60	42.0%
Security	26	18.2%
Sensor power/battery life	17	11.9%
Other	12	8.4%

9. What is your machine builder industry?

Count	Response
2	Air & Gas Compressors
3	Assembly Equipment
17	Chemicals & Allied Products
10	Electric, Gas & Sanitary Services
2	Electronics Pick and Place
3	Engines & Turbines
3	Food & Kindred Products
4	Food Products Machinery
1	Industrial Fans, Blowers, & Air Purification Equipment
2	Industrial HVAC
3	Machine Tools
1	Materials Handling, Conveying Equipment
2	Metalworking Machinery
18	Oil & Gas Field Machinery
4	Packaging Machinery
3	Paper & Allied Products
1	Paper Industries Machinery
16	Petroleum Refining & Related Industries
3	Pharmaceuticals
7	Primary Metal Industries
1	Pumps & Pumping Equipment
3	Rubber & Misc Plastic Products
1	Semiconductor Manufacturing Machinery
18	Systems Integrators & Engineering Design Firms
24	Other (please specify)

10. What is your job function?



10. What is your job function?

Value	Count	Percent %
Control system design/engineering	94	60.7%
Company management	16	10.3%
Tech support	15	9.7%
Research/development	12	7.7%

