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20 Most Promising Wireless Technology Solution Providers

The development of wireless communication has changed the way enterprises operate today. Wireless technology has moved on from being a medium for data transmission between two static devices to a tool that drives smart living. Today, there are wireless solutions for almost every industry including transportation, healthcare, and IT. Employees in enterprises have attained a great deal of flexibility in their workplace due to the proliferation of devices like mobile phones, tablets and other wireless devices. Information can now be shared without the limitations of a physical connection. These devices are slowly phasing out desktop computers, creating a new breed of data—data on the move.

Acting as a crucible of innovation, wireless is witnessing broad technology expansion for IoT implementation and management of burgeoning mobile data traffic. IoT devices will be the primary cause of the growth with the number of connected devices expected to swell to 578 million by 2019.

Similarly, solutions are also being developed for wireless technologies including Bluetooth, sensors, NFC/RFID, and embedded wireless devices.

Today, CIOs find wireless communication as a preferred means of networking for hassle free troubleshooting and maintenance of devices. With more enterprises adopting the BYOD trend, wireless has gained a large footprint in business.

In this edition of CIO Review, we bring to you "20 Most Promising Wireless Technology Solution Providers 2015." The listing features the best vendors providing solutions and services that help address the most pressing challenges. The companies featured here showcase extensive business process knowledge, in-depth integrated and innovative strategies combined with talent base across locations.

A distinguished panel comprising of CEOs, CIOs, CTOs and analysts including CIO Review editorial board has selected the top companies that are at the forefront of tackling challenges in the wireless markets in the U.S.

Company:
Yokogawa Corporation of America (YCA)

Key Person:
Penny Chen
PhD, Principal System Architect, Yokogawa Strategic Technology Market Center (USMK)

Website:
yokogawa.com/us/

Description:
Yokogawa provides worldwide services and solutions for industrial automation, process control, test and measurement, and system integration with award winning customer focus and technical expertise

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Yokogawa Corporation of America
Pioneering Field Wireless Systems for Process Industries

Wireless instrumentation is creating a lot of enthusiasm in process industries across the globe. Their usage in the industrial automation systems offers number of benefits from cost reduction brought by elimination of wiring to better plant information, improved productivity and better asset management. However the introduction of wireless communication to plants should be supported by features such as robustness, real-time responsiveness, and low power consumption. This has restricted the use of wireless communication to limited applications such as data logging and device status monitoring that does not require strict real-time responsiveness. However the introduction of ISA100.11a, a wireless communication standard for industrial automation, in September 2009 has brought the much anticipated change to this scenario. The very next year Yokogawa, headquarter based on Tokyo, released the world's first wireless sensor network technology and the devices based on the ISA100.11a standard. Yokogawa ISA100.11a solutions allow process plant sensors and devices under single wireless infrastructure to address aforementioned challenges. "Yokogawa is committed to the emerging wireless technologies as a way forward in implementing total solutions with wireless sensor networks to enhance the functionality of Distributed Control System (DCS) and plant asset management," Penny Chen, PhD, Principal System Architect, Yokogawa Strategic Technology Market Center (USMK).

Yokogawa's ISA100.11a wireless system saves money by using less hardware to cover larger areas. The company's access points and wireless transmitters cover up to 3 km between devices using their remote antenna option. Yokogawa combines the best of ISA100.11a wireless technology with its design expertise to build a very reliable radio-link feature and calls it "Reliable Radio". It covers 600 square meter area and can support as many as 500 field devices reliably. Furthermore, Yokogawa wireless solution also enhance the network stability over the "Reliable

Radio" full system redundancy technology in order to carry out the high reliable and control application requirement.

Also, the company promotes "Wireless Anywhere" concept to make the wireless network work seamlessly with diverse devices

> **Yokogawa is committed to the emerging wireless technologies as a way forward in implementing total solutions with wireless sensor networks**

and advanced information technologies used at production sites. It will ensure responses in real time by making use of state-of-the-art dual redundant technologies. "Our wireless physical layer (Reliable Radio) and system redundancy technologies ensure a high level of reliability," says Penny. With ISA100.11a Duocast technology, each field device simultaneously sends the same data to two designated access points, ensuring uninterrupted communication in the event of failure at one point. "The redundant gateways and systems further strengthen the reliability of our wireless systems," she adds. Additionally, the use of ISA100.11 standards in Yokogawa's offerings ensures high reliability, application flexibility, network expandability, and compatibility with a variety of wired communication standards such as FOUNDATION™ fieldbus, HART®,PROFIBUS, etc.

The company's wireless technologies find traction across many process industries such as Coal Bunkers, Natural Gas Plants, Oil refinery and upstream, Steel Plants, Water Treatment Plants and more. Going forward, Yokogawa is embarking on to aggressively promote its "Wireless Anywhere" concept to widen the use of ISA100.11a compliant products and related services to achieve the concept of ideal plants. "We will continue to develop field wireless devices for both monitoring and control applications, combine with our industrial partner, and with our customers to assure their long-term growth through ideal plant operations," concludes Penny. **CR**

Penny Chen