

OpenWay[®]

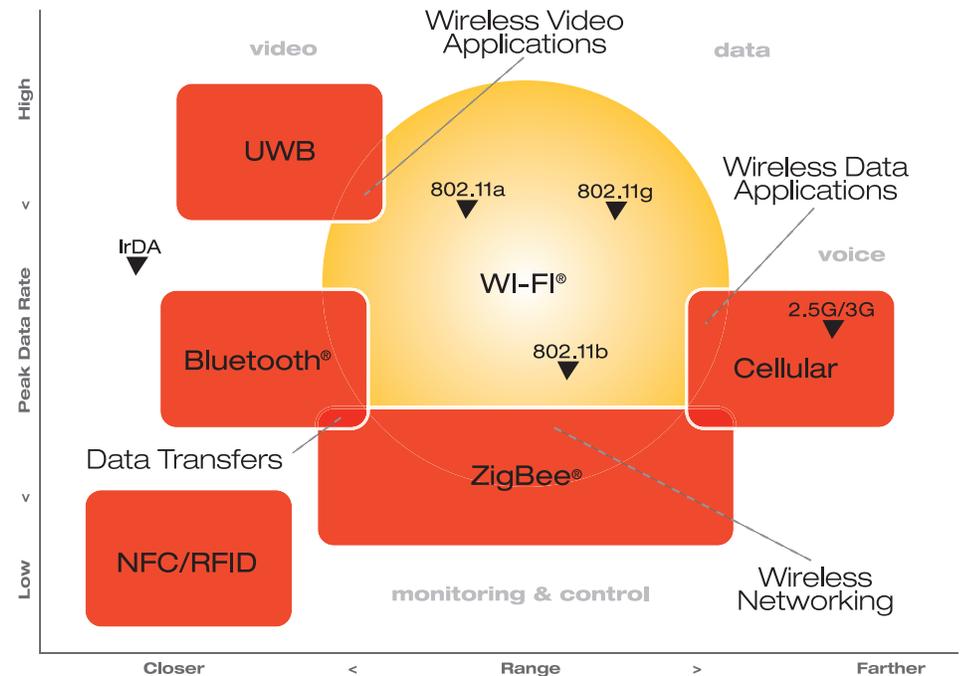
Wireless Networking with ZigBee[®]

Introduction

ZigBee: Wireless Networking Technology

As the smart grid continues to evolve, an interoperable, interconnected system that provides for data transport, presentation and communication is critical to the grid's success. ZigBee is the global wireless language connecting dramatically different devices, allowing them to work together and enhance everyday life. It is the only global wireless mesh communications standard based on the IEEE[®] 802.15.4 protocol, which specifically addresses monitoring, control and sensor applications.

ZigBee is similar to other well-known IEEE standards such as Wi-Fi and Bluetooth. While Wi-Fi and Bluetooth are designed for point-to-point connection to carry large amounts of data, ZigBee is designed for low-power, low-data-rate mesh networks for sensing and control that are secure, reliable, self-forming and self-healing—making ZigBee an ideal choice for smart grid and advanced metering initiatives.



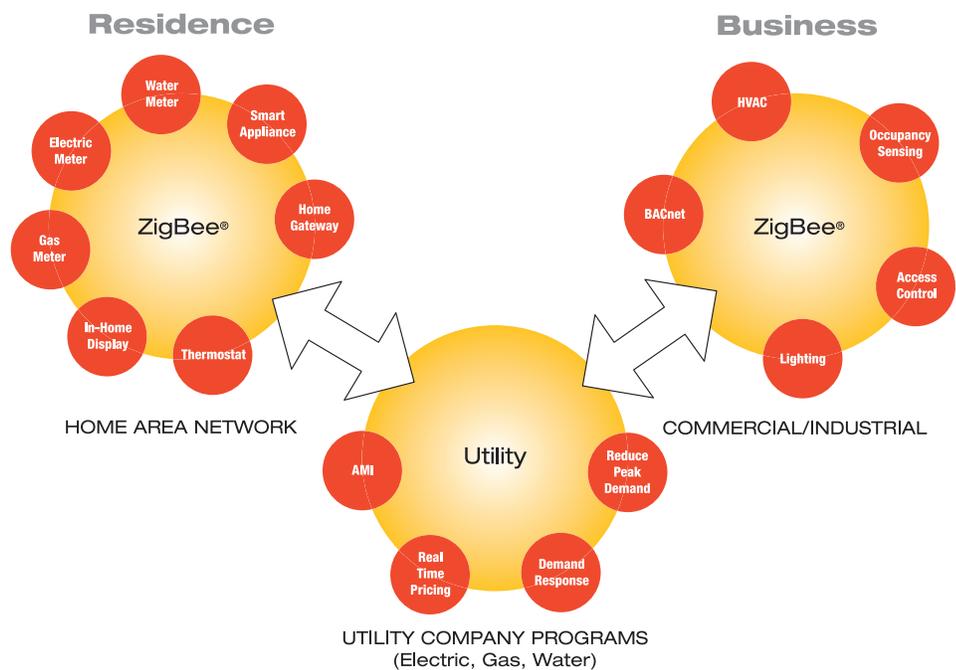
Features

ZigBee Smart Energy

The ZigBee Smart Energy public profile application enables two-way communication between the utility and individual utility consumers. For energy utilities and consumers, ZigBee offers a cost-effective, interoperable technology that enables all consumers to understand, control and reduce their consumption, thereby saving money and resources. Utilities benefit from increased energy management, operational efficiency and improved customer service. Residential utility customers benefit from the additional energy information, automation and demand response of a home-area network outfitted with in-home displays and monitoring tools.

ZigBee Smart Energy helps today's consumer save energy through energy awareness and time-of-use rates, while also enabling future applications such as distributed generation and plug-in electric vehicles. Certified ZigBee Smart Energy products interoperate regardless of manufacturer, allowing utilities and consumers to purchase from a range of providers with confidence.

Learn more about ZigBee Smart Energy at www.zigbee.org/smartenergy.



ZigBee Alliance

As our energy infrastructure evolves, collaboration is paramount to securing our energy independence. The ZigBee Alliance is a global ecosystem of technology companies creating wireless solutions for use in energy, home, commercial and industrial applications. It is a non-profit organization staffed by personnel from the hundreds of alliance member companies. Only ZigBee has multiple suppliers providing the core technology used in wireless solutions for home, commercial and industrial applications.

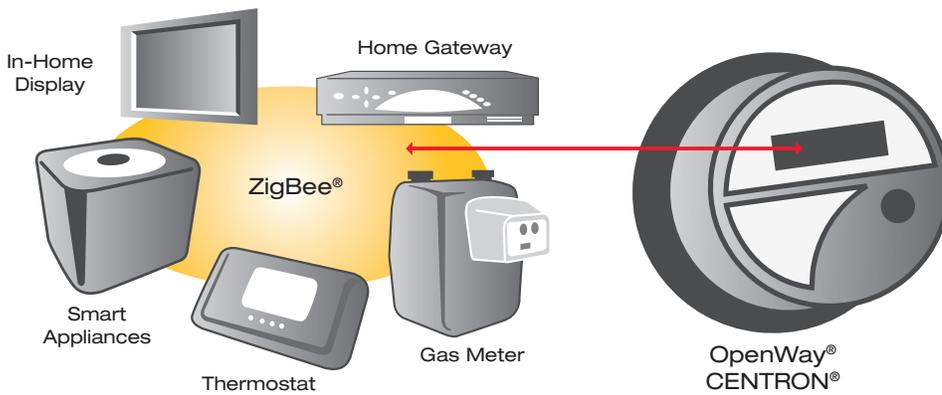
Companies join the ZigBee Alliance to help create, and have access to, the best intellectual property for their wireless networking products, as well as specific applications such as smart energy, home automation, telecommunications, and healthcare. Alliance-sponsored certification and compliance tests ensure ZigBee solutions offer reliable and robust wireless networking technology.

ZigBee and Itron

Itron OpenWay CENTRON® meters and 2.4GZ OpenWay Gas Modules come equipped with ZigBee wireless networking. Both devices are certified as compatible with the ZigBee Smart Energy public application profile. ZigBee Smart Energy offers a standard, interoperable technology for facilitating greater understanding, control and automation to maximize the consumption of energy.

It also enables utilities to leverage the same smart grid or advanced metering network for communicating with both electricity and gas meters.

Itron is a Promoter-level member of the ZigBee Alliance, with a seat on the alliance's board of directors. Several Itron personnel hold key leadership positions within the Alliance. Itron is proud to work alongside other utility and technology leaders as we address the issues facing our industry.



Specifications

Frequency	2.4 GHz
Data transmission rate	256 kbps
Transmission frequency	Continuous (OpenWay CENTRON meter) Once or twice daily (OpenWay Gas Module)
Communication Protocols	ZigBee Pro feature set, ZigBee Smart Energy public profile
Security	AES 128 bit encryption, public key cryptography
Remote update	Yes

About Itron Inc.

Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of intelligent metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas, water and heat meters; data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services. To know more, start here: www.itron.com.



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