



Key Industry Players The ASSA ABLOY Group, HID, NXP, Samsung, Bosch, Sony, LitePoint and TTA Establish FiRa Consortium to Drive Seamless User Experiences Using Ultra-Wideband Technology

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FiRa Consortium Ensures an Interoperable UWB Ecosystem Across Chipset, Device and Service Infrastructure Through Standards and Certifications

Beaverton, OR – August 1, 2019 – Recognizing the need for emerging applications to build on a strong foundation that supports interoperability among all categories of devices, four sponsor members – The ASSA ABLOY Group which includes HID Global, and NXP Semiconductors, Samsung Electronics, and Bosch, leading companies in access, secure connectivity and mobile/CE device solutions – today announced the launch of the [FiRa Consortium](#). The new coalition is designed to grow the Ultra-Wideband (UWB) ecosystem so new use cases for fine ranging capabilities can thrive, ultimately setting a new standard in seamless user experiences. Sony Imaging Products & Solutions Inc., LitePoint and the Telecommunications Technology Association (TTA) are the first companies to join the newly-formed organization.

The FiRa name, which stands for “Fine Ranging,” highlights UWB technology’s unique ability to deliver unprecedented accuracy when measuring the distance or determining the relative position of a target. Especially in challenging environments, UWB technology outperforms other technologies in terms of accuracy, power consumption, robustness in RF connection, and security, by a wide margin.

“As an industry consortium, we believe UWB technology can transform the way people experience connectivity, and we’re committed to the widespread adoption of interoperable UWB technologies,” **says Charlie Zhang, Chair of the FiRa Consortium and VP Engineering, Samsung Electronics.**

The starting point for UWB technology is the IEEE standard 802.15.4/4z, which defines the essential characteristics for low-data-rate wireless connectivity and enhanced ranging. It is the aim of the FiRa Consortium to build on what the IEEE has already established, by developing an interoperability standard based on the IEEE’s profiled features, defining mechanisms that are out of scope of the IEEE standard, and pursuing activities that support rapid development of specific use cases.

The unique capabilities of UWB promise to make it an essential technology in many areas including:

- **Seamless Access Control** – UWB can identify an individual’s approach toward or away from a secured entrance, verify security credentials, and let the authorized individual pass through the entrance without physically presenting the credential.
- **Location-Based Services** – UWB offers highly precise positioning, even in congested multipath signal environments, making it easier to navigate large venues such as airports and shopping malls or find a car in a multi-story parking garage. It also enables targeted digital marketing campaigns and foot traffic data. Retailers can present customized offers, government agencies can tailor their notifications, and entertainment venues can personalize recommendations during events.
- **Device-to-Device (Peer-to-Peer) Services** – By providing precise relative distance and direction between two devices, UWB lets devices find the relative location of each other even without infrastructures such as anchors or access points. This allows people to easily find one another in crowded spaces or find items even when placed in hidden areas.

Due to its low power spectral density, UWB offers little to no interference with other wireless standards, so it is well suited for use with other wireless technologies, including Near Field Communication (NFC), Bluetooth, and Wi-Fi. There are also adjacent markets that leverage UWB in other ways, especially automotive. “The FiRa Consortium’s commitment to a complete ecosystem means we will work with other consortia and industry players to develop approaches and define parameters,” **says Charles Dachs, Vice-Chair of the FiRa Consortium and GM & VP Secure Embedded Transactions, NXP Semiconductors.**

FiRa Consortium members will have the chance to influence industry trends, gain early access to technical details, certify interoperable products, expand the UWB ecosystem, and share expertise. **Ramesh Songukrishnasamy, Director and Treasurer of the FiRa Consortium, and SVP & CTO of HID Global says,** “We encourage anyone, from any relevant industry area, who has a vested interest in the success of UWB to join us and contribute to the Consortium’s work.”

Additional FiRa Consortium Member Quotes

- Kazuyuki Sakamoto, Senior General Manager, FeliCa Business Division, Sony Imaging Products & Solutions Inc. says, "We believe that UWB technology will bring the new benefit of connectivity to industries along with other wireless technologies."
- "UWB opens up new and complementary wireless connectivity use-cases," said Adam Smith, Director of Marketing at LitePoint. "We're excited to help establish an ecosystem in which companies can utilize these new technologies by providing a fully-integrated UWB test solution, making it simple to validate the performance of UWB devices. At LitePoint, our mission is to help companies bring cutting-edge UWB products to market and that's why we're pleased to be part of the FiRa Consortium team."
- Yongbum Park, Vice President, Telecommunications Technology Association says, "Device-to-device fine ranging technology without additional equipment is very useful for home or industrial applications. We believe that FiRa technology will change our lives."

To learn more about the FiRa Consortium and the benefits of membership, visit us at www.firaconsortium.org.

About FiRa Consortium

Headquartered in Beaverton, OR, the FiRa Consortium is a member-driven organization dedicated to the development and widespread adoption of seamless user experiences using the secured fine ranging and positioning capabilities of Ultra-Wideband (UWB) technologies.

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About ASSA ABLOY

The ASSA ABLOY Group is the global leader in access solutions. The Group operates worldwide with 48,500 employees and sales of SEK 84 billion. The Group has leading positions in areas such as efficient door openings, trusted identities and entrance automation. ASSA ABLOY's innovations enable safe, secure and convenient access to physical and digital places. Every day, we help billions of people experience a more open world.

About HID

HID Global powers the trusted identities of the world's people, places and things. We make it possible for people to transact safely, work productively and travel freely. Our trusted identity solutions give people convenient access to physical and digital places and connect things that can be identified, verified and tracked digitally. Millions of people around the world use HID products and services to navigate their everyday lives, and over 2 billion things are connected through HID technology. We work with governments, educational institutions, hospitals, financial institutions, industrial businesses and some of the most innovative companies on the planet. Headquartered in Austin, Texas, HID Global has over 3,000 employees worldwide and operates international offices that support more than 100 countries. HID Global® is an ASSA ABLOY Group brand. For more information, visit www.hidglobal.com

About NXP Semiconductors

NXP Semiconductors N.V. enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better, and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy, and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has approximately 30,000 employees in more than 30 countries and posted revenue of \$9.41 billion in 2018. Find out more at www.nxp.com

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions. For the latest news, please visit the Samsung Newsroom at <http://news.samsung.com>.

About Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 410,000 associates worldwide (as of December 31, 2018). The company generated sales of 78.5 billion euros in 2018. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing.

About Sony Imaging Products & Solutions Inc.

Sony Imaging Products & Solutions Inc., a wholly-owned subsidiary of Sony Corporation, commenced its operations on April 1, 2017, and is responsible for consumer-use cameras, broadcast/professional solutions, Sony's medical business, and the FeliCa Contactless IC technology business. Harnessing its cutting-edge imaging technology, Sony Imaging Products & Solutions Inc. strives to deliver new added value and imaging experiences to customers. It achieves this through its appealing, high quality product designs as well as solutions that bring together products and

services.

About LitePoint

LitePoint creates wireless test solutions and services for the world's most innovative wireless device makers, helping them to ensure their products perform for today's demanding consumers. A leading innovator in wireless testing, LitePoint products come out of the box ready to test the most widely used wireless chipsets in the world. LitePoint works with the leading makers of smartphones, tablets, PCs, wireless access points and chipsets. LitePoint is also at the forefront of testing the burgeoning world of connected devices...the Internet of Things. Headquartered in Silicon Valley, California and with offices around the world, LitePoint is a wholly owned subsidiary of Teradyne (NASDAQ: TER), a leading supplier of automation equipment for test and industrial applications. In 2018, the combined corporation had revenue of \$2.1 billion and employs approximately 5,200 people worldwide.

About Telecommunications Technology Association (TTA)

The Telecommunications Technology Association (TTA) is a statutory organization established in 1988 to support the establishment and dissemination of ICT standards as well as to provide testing & certification service for related ICT technologies. In order to proactively respond to the rapidly changing ICT environment, TTA has established international-level testing and certification technology specification by cooperating with over 30 internationally accredited test laboratories to provide world-class testing and certification services. In addition, TTA has contributed to the competitiveness enhancement and industry promotion for small and medium enterprises (SMEs) through the provision of testing and certification service.