Packetcraft Commercially Shipping Bluetooth 5.4 Qualified Software to Licensees

PAwR, a new ultra-low power networking technology in 5.4, enables Electronic Shelf Labels and so much more

SAN DIEGO, CA, USA, October 4, 2023 /EINPresswire.com/ -- [Packetcraft](#), a global leader in Bluetooth® embedded stacks and software solutions built on a mature software framework enabling several hundred million devices, today announced their Bluetooth 5.4 Qualified host and controller software is commercially shipping to semiconductor, product, and test equipment licensees. Packetcraft is the first independent software company to have a Bluetooth 5.4 Qualified solution that includes the host protocol stack and link layer with support for all low

Electronic Shelf Labeling is one of several applications of Bluetooth's new 5.4 PAwR technology that allows multiple devices to advertise and respond with lower energy, more efficiency and more standardized, secure technology.

energy features of the specification including Periodic Advertising with Responses (PAwR) and Encrypted Advertising Data (EAD). Packetcraft expects products from recognizable global brands to enter the market using their software during the first half of 2024.

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>
> *Chuck Trefts, GM, US Operations at Ellisys*

Bluetooth 5.4 specification includes a new ultra-low power networking capability known as PAwR. This new Bluetooth LE logical transport is used to communicate periodic broadcast control and user data to synchronized devices in a particular area. This, for instance, allows bi-directional communication between a hub and thousands of end nodes that only must listen infrequently for information directed to them as they are highly synchronized and correspondingly ultra-low power. Through response slots, PAwR can achieve high reliability acknowledgements confirming message receipt which can be used by the higher layers.

"It's great to see the Packetcraft team earn yet another qualification on the leading wave of this latest Bluetooth technology evolution," said Chuck Trefts, GM, US Operations at Ellisys. "Being early to market can be an enormous advantage and necessitates the timely availability of a stable and reliable test and qualification ecosystem. As a test & measurement company our strategy is to engage, track, and support this ecosystem at the earliest stages, in collaboration with perennial forerunners like Packetcraft, even while new features such as PaWR are being initially defined."

PAwR is enabling high-volume applications including Electronic Shelf Labels (ESL) for the retail market whereby thousands of connected end nodes are synchronized with infrastructure. ESL is growing at a 20.8% CAGR and expected to reach USD 2.9B in 2028 and continue growing to USD 5.2B by 2032. Bluetooth LE now has a power, size, and cost optimized globally standardized solution ideal to support ESL in delivering operational efficiencies in pricing updates, fulfillment, restocking, and inventory management.

Warehouse monitoring devices now have access to standardized technology and syncing of critical organization. Packetcraft's software offers bluetooth solutions.

Packetcraft Inc - world-leading software stacks, solutions and support. Early-access and Bluetooth qualified.

Now that Bluetooth LE has PAwR capability, market innovators across a variety of industries are exploring how their applications can benefit. Packetcraft's CEO has described several use cases that we may see in the future, including:
- Automotive: Efficient and reliable cable replacement, particularly for EV Battery Management Systems (BMS), monitoring 10-15 battery cells per vehicle
- Warehouse Logistics: Monitoring of assets and improved inventory management
- Agriculture: Battery operated sensor networks monitoring environmental conditions such as moisture sensors, with sensors up to a kilometer away from a gateway
- Smart Home: Devices and sensors in the home can share data and notifications even in mixed vendor environments

"Bluetooth 5.4 with PAwR was designed to serve a market need that other technologies have not been optimized to support, and as such, we now have fundamental new Bluetooth wireless capabilities that will further enhance products and services," said John Yi, Founder and CEO at Packetcraft. "We continue to be impressed with customer insights into how they intend to use BLE technologies, from ESL applications that improve retailer ROI, to applications that facilitate low power sensor network communications. We are proud to be commercially shipping our software to licensees including EM Microelectronic."

For a full list of features enabled by Packetcraft's Bluetooth 5.4 Qualified host and controller software, please consult Packetcraft's host and controller product briefs. Bluetooth 5.4 follows the successful early market debut of consumer and hearing accessibility products featuring LE Audio and Auracast™ broadcast audio. Packetcraft is looking forward to supporting the next Bluetooth specification release which anticipates Channel Sounding capability and promises distance ranging accuracy down to 10cm.

For more information about PAwR and to discuss your intended use case, or to more generally inquire about our leading-edge Bluetooth host, controller, and LC3 stacks and software solutions as well as our software test products, please contact Packetcraft at info@packetcraft.com.

About Packetcraft, Inc.
Packetcraft delivers production-ready "baseband to application" embedded software, including full source code, to meet the constant evolution of short-range wireless technologies including Bluetooth® LE and UWB. Packetcraft solutions enable semiconductor and product companies to achieve greater product differentiation with more features and customization. Headquartered in San Diego and comprised of renowned technology architects and engineers who have been keeping pace with the evolution of Bluetooth for decades, Packetcraft is a supplier and partner to some of the biggest names in wireless with a comprehensive portfolio that implements the latest specs, is extensively tested, and is Bluetooth qualified to ensure fast time-to-market and reduced risk. For more information, visit www.packetcraft.com

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