NXP Accelerates Mass Development of Voice Controlled Devices with Turnkey Local Commands Solution

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News Highlights

- Local voice control solution eliminates the costs and complexities of cloud connectivity , while helping to protect privacy
- Includes customizable, low latency, far field wake word and commands, noise suppression and echo cancellation
- Complete production ready solution based on the i.MX RT crossover microcontroller (MCU) drastically reduces cost and time to market

BERLIN, Sept. 06, 2019 (GLOBE NEWSWIRE) -- **(IFA 2019)** – NXP Semiconductors N.V. (NASDAQ:NXPI) is at the forefront of voice control trends with the launch of its industry-leading MCU-based solution for far-field voice control and command recognition. The cost optimized, easy-to-use solution addresses demand for embedded, ubiquitous voice control in a broad range of smart home, commercial and industrial markets, while eliminating the need to connect to a cloud-based voice service to help preserve users' privacy.

"NXP's introduction of the i.MX RT106L MCU-based offering makes it possible for original equipment manufacturers (OEMs) to deliver low latency, hands-free experiences to their customers," said Denis Cabrol, executive director for NXP's IoT Solutions. "End users enjoy extremely fast response time, virtually zero setup time, and their data stays private to the device. Manufacturers can select their own wake words and benefit from lower BOM [bill-of-materials] and cloud costs."

Integrated machine-learning-based automatic commands recognition (ACR) technology is achieved locally on the device in partnership with Snips, a pioneer in embedded voice recognition software for businesses, products and services. The solution is built on NXP's i.MX RT106L crossover MCU running FreeRTOS, enabling low latency detection of local commands and wake word(s). The solution also embeds necessary digital signal processing capabilities for far-field operation.

Out of the box, the i.MX RT106L MCU-based solution includes a wake word and four sets of example local commands, enabling developers to quickly create proof of concepts (PoC) to demonstrate and evaluate the addition of voice control to their products. Following successful PoC, OEMs can work directly with NXP to generate models specific to their application.

"Combining the power of Snips Commands with NXP's i.MX RT106L crossover MCU-based local commands solution represents a breakthrough in price and performance, making it easy for brands and manufacturers of smart home and smart appliance products to add voice control without requiring cloud connectivity, removing the need for Wi-Fi and eliminating users' privacy concerns," said Joseph Dureau, CTO of Snips.

NXP's i.MX RT106L MCU-based local commands solution provides OEMs with a turnkey ACR offering and a far field AFE required to implement local voice control. Additionally, the solution's noise suppression, echo cancellation and beam-forming capabilities make it possible to use in acoustically difficult environments. The i.MX RT106L bundles all the necessary voice related capabilities and software at no extra cost. The result is a total system cost that's less than half that of microprocessor- and/or DSP-based alternatives.

NXP is now engaging with OEMs to provide early access to the evaluation and development kit for this solution, and broad market availability is expected to begin in Q1 2020.

See the MCU-based local commands solution in action at IFA Berlin 2019

NXP is demonstrating the new solution during IFA in Berlin, Germany in Stand 1.2-117 (Hall 1.2) at the Berlin Exhibition Grounds (ExpoCenter City) from September 6-11, 2019. More information can be found at www.nxp.com/mcu-local.

About NXP Semiconductors
NXP Semiconductors N.V. enables secure connections 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 automotive, industrial & IoT, mobile, and communication infrastructure 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.

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