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Intel Accelerates Path to 5G

NEWS HIGHLIGHTS

- Collaborations with industry leaders Ericsson*, KT*, LG Electronics*, Nokia*, SK Telecom* and Verizon* help lay the foundation for 5G.
- 5G mobile trial platform enables faster prototyping.
- New modems and system-on-chips (SoCs) provide robust connectivity for Internet of Things, mobile devices and PCs.

MOBILE WORLD CONGRESS, Barcelona, Spain, Feb. 22, 2016 - Intel Corporation today announced new industry partnerships and products that lay the groundwork for faster, smarter and more efficient 5G wireless networks designed to deliver amazing new experiences throughout daily life.

From embedded devices in athletes' equipment and drones with collision avoidance capabilities, to autonomous vehicles, smart cities and more, connecting "things" to each other, to people and the cloud is placing unprecedented demands on today's wireless networks.

"Billions of increasingly smart and connected devices, data-rich personalized services, and cloud applications are driving the need for smarter and more powerful networks," said Aicha Evans, corporate vice president and general manager of the Intel Communication and Devices Group. "The transition to 5G brings communications and computing together and is a fundamental shift for the industry. It is essential to lay the foundation for future 5G networks now to make amazing experiences of the future possible."

Industry Collaborations

Intel works with mobile ecosystem leaders to set the stage for future widespread 5G commercial availability.

- Ericsson* and Intel are collaborating with mobile operators on 5G solutions and engaging in joint trials, as an extension of the current partnership in network transformation, cloud and IoT.
- KT* and Intel will implement 5G trials in 2018 that develop and verify 5G wireless technology and associated devices, virtual network platforms and joint standardization efforts.
- LG Electronics* and Intel will develop and pilot 5G telematics technology for next-generation cars.
- Nokia* and Intel are collaborating on pre-standard 5G radio technologies and network solutions to enable early implementation of both 5G mobile client and wireless infrastructure, as well as interoperability of 5G radio technologies to meet the device connectivity requirements for future wireless networks.
- SK Telecom* and Intel are developing and verifying 5G mobile device and network solutions, as well as devices for Licensed Assisted Access (LAA) in unlicensed spectrum bands during 2016. Through their continued collaboration on 5G technologies, the companies also showcased advances in radio access network technologies, including anchor-booster cell and massive MIMO to further improve 5G wireless network capacity.
- Verizon* and Intel are conducting field trials for 5G wireless solutions through the Verizon 5G Technology Forum* to demonstrate how millimeter wave spectrum, which is capable of supporting data capacity and speeds an order of magnitude higher than today's cellular networks, is a viable way to deliver high-quality and fast wireless connectivity to homes and businesses.

5G Prototyping

Intel offers platforms and industry collaborations to develop early prototype solutions that accelerate 5G development and readiness.

- Intel's 5G mobile trial platform offers a high-performance development platform for faster integration and testing of 5G devices and wireless access points. Intel is currently working with global operators on 5G development, prototyping and testing with this new trial platform.

Wireless Communications Products

Intel delivers wireless communications solutions for a wide range of smartphones, phablets, PCs and IoT devices.

- Connectivity solutions designed for the IoT:
  - The Intel® Atom™ x3-M7272 solution is a wireless communications platform for automotive applications capable of powering advance security features, such as firewalling and packet inspection.
  - The Intel® XMM™ 7115 modem is designed to support the industry's first wave of devices and applications based on Narrowband IOT (NB-IOT).
  - The Intel XMM 7315 modem combines an LTE modem and application processor on a single chip, supports both the LTE Category M and NB-IOT standards and is ideal for endpoints requiring wide-scale coverage, low power and low cost.
  - The Intel® XMM™ 6255M delivers robust 3G connectivity in challenging environments and at nearly 20 percent smaller than the previous generation, it is the world’s smallest standalone 3G modem. It brings connectivity to a myriad of unconnected devices to enable a quicker transition to future wireless networks.
  - The Intel® XMM™ 7120M LTE modem is ideal for machine-to-machine applications, providing connectivity for a broad range of IoT use cases, including security monitoring, smart metering, asset tracking and industrial automation.
- LTE connectivity for smartphones, tablets and PCs – The Intel XMM 7480 enables compute-intensive experiences such as multiplayer gaming and virtual reality with seamless LTE Advanced connectivity and peak download speeds up to 450 Mbps. Designed for global markets, the Intel XMM 7480 modem supports more than 33 LTE bands simultaneously in a single SKU, more than any other LTE modem, as well as 4x carrier aggregation across TDD and FDD spectrum.