

# Intel Gaining in Mobile and Accelerating Internet of Things

New Mobile Processors, LTE-Advanced Platform and Customer Agreements;

New Initiatives Aimed to Transform Network Infrastructure for Internet of Things

#### **NEWS HIGHLIGHTS**

- Launches 64-bit Intel® Atom™ Processor (formerly "Merrifield") for smartphones and tablets and discloses details of next-generation, 64-bit, quad-core Atom processor for Android mobile devices, code-named Moorefield.
- Highlights growing adoption of Intel® XMM<sup>™</sup> 7160 multimode LTE platform, and introduces Intel® XMM<sup>™</sup> 7260 platform with competitive LTE-Advanced features and performance.
- Announces multiyear agreements with Lenovo\*, ASUS\*, Dell\* and Foxconn\* to expand the availability of tablets and smartphones with Intel® Atom™ processors and communication platforms.
- Details free, full-featured McAfee Mobile Security offering for Android mobile devices and mobile device management extensions for Intel® Device Protection Technology.
- Announces collaborations with Alcatel-Lucent\* and Cisco\* aimed at transforming network infrastructure for the Internet of Things.

BARCELONA, Spain--(BUSINESS WIRE)-- MOBILE WORLD CONGRESS – Intel Corporation President Renee James today detailed the company's expanding portfolio of computing and communications assets for the smallest of devices to the most complex mobile networks. The product portfolio is designed to compete in today's mobile ecosystem and shape the next era of computing, the Internet of Things (IoT).

At an Intel news conference, James introduced two Intel® Atom™ processors, an LTE-Advanced communications platform, and announced multiyear agreements with Lenovo, ASUS and Foxconn to expand the availability of Intel-based mobile devices. With the explosion of mobile and connected devices in the IoT, she also highlighted how Intel is rearchitecting the network infrastructure to reduce costs and make it easier for service providers to deliver improved customer experiences and new services by extracting business value from the vast amounts of data.

"The continued growth of the mobile ecosystem depends on solving tough computing challenges -- unlocking data's potential while securely and reliably connecting billions of devices with leading edge computing and communications technologies," said James. "Today we are announcing leading communications products as well as new computing platforms. As a result, Intel is well-positioned to shape the future of mobile computing and

the Internet of Things."

### New Intel® Atom™ Processors and LTE-Advanced Communications Platform

Intel launched the 2.13GHz Intel Atom processor Z3480 ("Merrifield") that offers the ideal combination of fast, smart performance and long battery life for Android smartphones and tablets. The 64-bit ready SoC delivers best-in-class compute performance for the mainstream and performance segments, and solidly outperforms the competition in compute-intensive application, web application and light media editing performance. Merrifield also delivers best-in-class battery life. <sup>2</sup>

Based on Intel's <u>22nm Silvermont microarchitecture</u>, the new processor also features a PowerVR\* Series 6 Graphics IP core from Imagination Technologies\* and is designed for simple pairing with the <u>Intel® XMM™ 7160 LTE</u> platform. Merrifield is the first Intel Atom SoC to feature the new Intel® Integrated Sensor Solution, which efficiently manages sensor data to keep applications smart and contextually aware even when the device is in a low-power state. Intel expects Merrifield-based devices from multiple OEMs to launch beginning in the second quarter.

James noted that all Intel Atom processors today support a 64-bit computing experience. "Sixty-four bit computing is moving from the desktop to the mobile device," James said. "Intel knows 64-bit computing, and we're the only company currently shipping 64-bit processors supporting multiple operating systems today, and capable of supporting 64-bit Android when it is available." Intel has also delivered 64-bit kernels across operating systems, so customers who choose Intel Atom have a ready foundation for a 64-bit experience as the operating system and applications evolve.

Intel also disclosed new details on its next-generation 64-bit Intel Atom processor, codenamed "Moorefield" for devices expected to be available in the second half of the year. Building on the Merrifield feature set, Moorefield adds two additional Intel architecture (IA) cores for up to 2.3GHz of compute performance, an enhanced GPU and support for faster memory. Moorefield is optimized for Intel's 2014 LTE platform, the Intel® XMM™ 7260, which the company also introduced today.

The Intel XMM 7260 delivers competitive LTE-Advanced capabilities including carrier aggregation (supporting 23 CA combinations in a single chip), category 6 speeds and support for TDD LTE and TD-SCDMA, which expands the addressable market. At Mobile World Congress, Intel is demonstrating the 7260 achieving peak LTE-Advanced Category 6 data rates of simultaneous 300Mbps downlink and 50Mbps uplink with carrier aggregation technology. The 7260 builds on Intel's competitive Intel® XMM<sup>™</sup> 7160 platform introduced in 2013.

Now certified to run on 70 percent of LTE networks worldwide, the 7160 is expanding to connect a range of products spanning smartphones, tablets, 2 in 1s, Ultrabook™ systems and more. Customers currently shipping or planning to launch devices featuring Intel's LTE platforms include Acer\*, ASUS\*, Dell\*, Lenovo\* and Samsung\*, among others.

"We are entering 2014 with a very competitive mobile portfolio spanning application processors and communications platforms that will only get stronger," said Hermann Eul, vice president and general manager of Intel's Mobile and Communications Group, during the

press conference. "Our new Atom processors for Android smartphones and tablets offer leading 64-bit performance and battery life, and the new 7260 platform gives the ecosystem a compelling LTE-Advanced experience."

#### Securing the Mobile Experience and Expanding Availability of Android Apps on IA

James said Intel is leading the effort to guard today's mobile devices with unique data and device protection solutions from Intel Security and McAfee. Notably, Intel® Device Protection Technology (Intel DPT) proactively protects consumers against malware and allows enterprise customers to separate personal and corporate data on Intel-based Android devices. Leading mobile device management providers including AirWatch\*, Citrix\* and McAfee will provide manageability extensions for devices with Intel DPT later this year. Intel expects tablets featuring Intel DPT will begin shipping later this year from leading OEMs including Dell\*.

James also revealed the features of the free, full-featured McAfee Mobile Security offering for Android devices now available. It includes enhanced protection features and, for the first time, unlocks security extensions for Intel-based mobile devices, making it the most comprehensive, free mobile solution for consumers on the market. Specifically, the free McAfee Mobile Security includes anti-virus, app protection, web protection, and call/SMS filter, in addition to anti-theft and contact back-up.

In an effort to accelerate development and availability of applications for Intel-based devices, James announced the <a href="Intel® Integrated Native Developer Experience">Intel® Intel® Inte

## **Expanded Customer Engagements to Accelerate Availability of Intel-Based Mobile Devices**

Signaling the expanding availability of tablets and smartphones powered by Intel Atom processors and connected by Intel communications, James announced three new multiyear agreements with leading device manufacturers for Intel-based mobile devices.

Intel and <u>Lenovo</u> announced plans to introduce new Intel-based mobile devices this year. Both companies will dedicate engineering resources to deliver unique experiences across a variety of smartphone and tablet form factors spanning value to performance market segments. Lenovo also said it plans to incorporate Intel LTE connectivity into some Ultrabook™ and multimode designs.

"We have a strong history of working with Intel to bring compelling, computing experiences to market with products like our K900 smartphone, Yoga line of multimode laptops, MIIX 2 and ThinkPad 8 tablets," said Peter Hortensius, chief technology officer, Lenovo. "We look forward to an even stronger future together – delivering exciting mobile experiences from stylish smartphones to high-performance tablets with Intel inside."

Additionally, ASUS announced it will bring a full portfolio of Intel-based smartphones and

tablets to market this year. The company recently introduced its <u>ZenFone</u> line of smartphones and the unique <u>PadFone mini</u>, both of which feature Intel processors and communications platforms. At Mobile World Congress, ASUS unveiled the ASUS Fonepad 7 LTE (ME3762CL) featuring an Intel Atom processor and Intel LTE connectivity.

Dell and Intel are expanding the long-standing collaboration between the two companies to include a range of innovative tablets that started with the introduction of the Dell Venue line in fall of last year. Intel-based products from Dell will span Android and Windows solutions.

Finally, Foxconn and Intel are teaming up to drive the broader, global availability of high-quality, affordable Intel-based Android tablets. Intel will provide Intel Atom processors and communications platforms for a range of Foxconn products, beginning with tablets, this year.

#### **Transforming Wireless Networks, Fueling Internet of Things**

The explosion of mobile devices and rapid growth in the Internet of Things is driving transformation of the network infrastructure to meet increasing demand for more connectivity and real-time data. Intel is enabling this transformation by delivering standardized hardware and software that apply open standards and high-volume economics to help reduce costs, while accelerating the delivery of new services, capabilities and revenue models for service providers.

In an effort to bring the benefits of a standards-based approach to communications networks consistent with Intel's work in data centers and the cloud, James announced expanded relationships with <u>Alcatel-Lucent\*</u> and <u>Cisco\*</u> to accelerate network function virtualization (NFV) and software defined network (SDN) technologies. By working to optimize these technologies on IA, service providers will be offered a faster and more flexible network that enables them to quickly scale new services.

James also highlighted numerous Intel-based trials with global operators including China Mobile\*, SK Telecom\* and Telefonica\* that are demonstrating the benefits of NFV and SDN for enabling personalized and contextually aware services, improving asset utilization, and simplifying installations and upgrades.

For additional details on Intel's presence at Mobile World Congress 2014 and to view a replay of the press conference, visit: <a href="https://www.intel.com/newsroom/mwc">www.intel.com/newsroom/mwc</a>.

#### About Intel

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<sup>&</sup>lt;sup>1.</sup> Based on WebXPRT\* 2013 and MobileXPRT\* 2013 overall score and SPECint\*\_base2000 internal estimates comparing Qualcomm\* Snapdragon\* 800 vs. Intel Atom

processor Z3480.

<sup>2.</sup> Based on BatteryXPRT\* 2014 comparison of Qualcomm\* Snapdragon\* 800 vs. Intel Atom processor Z3480

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to <a href="http://www.intel.com/performance">http://www.intel.com/performance</a>

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Intel Corporation
Cara Walker, 503-860-6452
cara.walker@intel.com

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