

## IoT + Big Data Insights: Data Has a Story to Tell

Aug. 19, 2015 — In today's connected world, every device, every decision and every ambition leaves a unique digital footprint. From smart grids to cars, retail to healthcare, the opportunities to create new experiences and extract breakthrough insights are endless.

At the 2015 Intel Developer Forum (IDF) in San Francisco, Intel's Diane Bryant, senior vice president and general manager, Data Center Group, and Doug Davis, senior vice president and general manager, Internet of Things Group, participated in a Mega Session to discuss the enormous opportunity, and great complexity, generated by the Internet of Things (IoT) and big data analytics. They also discussed how Intel is working with the ecosystem to deliver end-to-end solutions that will capitalize on the potential of IoT and big data.

### The Edge of Possibilities

Through innovative technologies and platforms, Intel is putting the ability to create new experiences and extract breakthrough insights directly into the hands of both developers and end users.

- **Industrial Robotics:** In the next 10 years, industrial robots are expected to take on a much bigger presence in their human interaction and learning capabilities. Davis showcased off-the-shelf robots controlled by Intel® RealSense™ technology. Intel interns used the Intel RealSense software development kit to send data and commands to the robots via hand gestures. The project took only three weeks and demonstrated the potential of future IoT innovators.
- **Intel® IoT Developer Program:** The latest updates to the Intel IoT Developer Program, including the Intel® IoT Commercial Developer Kit, provide more comprehensive tools, libraries, resources and community experts in a single kit to quickly turn innovative ideas into prototypes and commercial IoT solutions.
- **Wind River Helix™ App Cloud:** Wind River\* Helix App Cloud provides a software development environment in a cloud-based platform that makes it possible to develop applications for IoT, independent of device operating system and hardware complexity. Beyond the ability to safely, securely and easily access their development environment from anywhere, developers can customize and maintain their connected devices throughout the IoT product lifecycle – from design to operation. App Cloud will be part of the Intel IoT Developer Program.

### Solving Real-World Problems with Data

- The recently announced revolutionary memory technology 3D XPoint™ will power new Intel DIMMs for system memory markets in Intel's next-generation data center platforms. Intel DIMMs will offer memory-like performance at significantly lower cost than equivalent amounts of DRAM.
- Intel is committed to advancing open data and analytics platforms, from the device to the data center, to enable every organization and individual to unlock the intelligence in big data. To that end, Intel is releasing "Discovery Peak," an integrated stack of big data analytics and cloud software to the open source community. "Discovery Peak" is designed to accelerate the

development of cloud-native applications, simplify their deployment in on-premises and public clouds, as well as deliver hardware-enhanced performance and security for analytic workloads.

## End-to-End Solutions

Intel has been a driving force in technological transformations before – from the PC to the data center to storage to networking – and has done so through open platforms and solutions that are flexible for every type of innovation.

- **Collaborative Cancer Cloud:** Intel and Oregon Health & Science University announced the Collaborative Cancer Cloud (CCC), a personalized care platform that allows hospitals to share patient genomic data for lifesaving discoveries. Key technology components of the CCC will be opened sourced and portions will be made available first to the developer community in Q1 2016. Hospitals and research institutions of all sizes could use the key technologies to advance cancer research and personalized treatment planning. They can also apply it to any diseases that are discoverable with DNA, including Alzheimer's, diabetes and more. Intel and OHSU plan to partner with two other large cancer institutions in Q1 2016.
- **Security across the Network:** Intel Enhanced Privacy ID (EPID) technology helps improve interoperability in securing IoT solutions by providing a baseline of security across the network. As a result, the ecosystem can enable different solutions to securely connect with one another and drive the Internet of Things to scale. Intel recently announced that its EPID technology is being licensed by IoT sensor and microcontroller vendors including Atmel\* and Microchip\*.
- **Intel® IoT Platform:** The Intel IoT Platform is an end-to-end reference model and family of products from Intel that work with third-party solutions to provide a foundation for seamlessly and securely connecting devices, delivering trusted data to the cloud, and delivering value through analytics. The Intel IoT Platform provides scalable, reusable building blocks and defines a true end-to-end system that extends from the device to the cloud and back.

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