



News Fact Sheet

Intel Details Strategy for New Generation of Data Centers

INTEL DEVELOPER FORUM, San Francisco, Sept. 11, 2012 – The data center is undergoing a transformation brought on by an unprecedented growth in devices, connectivity and data. To meet this demand, today's data center must deliver better and faster connectivity, more intelligence and innovate to add more services and store more data. IT organizations also have more opportunities to increase their strategic value by taking advantage of big data analytics as well as using high-performance computing tools to deliver better products and services more quickly than ever before.

Today at the Intel Developer Forum (IDF), Diane Bryant, Intel Corporation vice president and general manager of the Datacenter and Connected Systems Group, discussed details on new products and initiatives, and outlined Intel's strategy to embrace customer needs, collaborate with the ecosystem and deliver innovative technology – from computing to fabric – that acts as the building blocks to enable this "new generation" of data centers and devices.

Introducing Intel Cloud Finder

Intel announced today a unique matchmaking program called [Intel® Cloud Finder](#) that promises to speed the search and selection of cloud service providers. While many IT decision makers are eager to adopt the benefits of cloud computing, selecting a cloud service provider can be challenging with myriad factors to consider. Intel Cloud Finder helps to [simplify](#) that process with on-line tools and resources that can reduce a lengthy search process, and share information on best practices and strategies for deploying a public cloud.

Intel has collaborated with leading cloud services providers to offer an extensive assessment of their services against key criteria such as security, usability, quality, availability, technology and the specific business aspects of their offering. At IDF, the program went live to the public enabling enterprise IT decision makers to use the information for research, comparison and procurement of public cloud services for their businesses. The program is well underway with more than 13 of the leading cloud service providers including Applied Innovations, Atos, Dimension Data, Expedient, GoGrid, Joyent, MetaScale, NaviSite, QTS, Rackspace, Savvis, SoftLayer, Tier 3 and Virtustream. It complements the [Intel Cloud Builders](#) program that was introduced over 2 years ago to provide reference architectures for customers wishing to accelerate the build-out of cloud infrastructure. Together, these on-line resources and tools give enterprise IT decision makers the information they need to plan both private cloud build-out and public cloud service adoption into their IT operations.

Big Data: A Transformational Opportunity

A key driver to big data is the "Internet of Things" and the massive amounts of data generated by the 15 billion devices predicted to be connected to the Internet by 2015. The explosive growth predicted for this category presents tremendous opportunity along with a host

of new IT challenges. To address this challenge and simplify the "Internet of Things," Intel today announced the [Intel Intelligent Systems Framework](#), an evolving set of interoperable solutions designed to enable connectivity, manageability and security across devices in a consistent and scalable manner. The framework eliminates the need for hardware and software integration and frees time to focus on unlocking the valuable data that exists on intelligent systems. Once analyzed, big data can help businesses increase efficiency, improve productivity and create revenue-generating services while providing consumers with new and exciting experiences.

Several companies lined up to support the Intelligent Systems Framework including Advantech*, Arrow Electronics*, Avnet*, Axeda*, Dell*, Digi International*, Kontron*, McAfee*, Portwell*, WebHouse* and Wind River*.

Intel also announced today that it is working with Amazon Web Services to take advantage of servers based on Intel Xeon processor E5 family in deliver HPC services for big data analytics in the cloud. Amazon Web Services also discussed how it is allowing customers of different sizes including NASA, Yelp and many others to access their computing cluster, one of the top 500 supercomputers in the world, using their public cloud service to deliver big data analytics.

New 22nm Xeon Processors

Intel today also provided insight into two upcoming Intel Xeon processors that will strengthen Intel's foundation in the data center:

- **Intel® Xeon® processor E5 family.** Intel announced that the next update to the Xeon processor E5 family, formerly codenamed "Ivy Bridge-EP," will be based on Intel's 22nm manufacturing process that includes the world's first production [3-D Tri-Gate](#) transistors, and is expected to be in production in 2013. These processors are aimed to offer best-in-class performance, exceptional energy efficiency and robust hardware-based security features such as [Intel® Secure Key](#).
- **Intel® Xeon processor E7 family.** Based on Intel's 22nm manufacturing process, the next generation of the Intel Xeon processor E7 family, formerly codenamed "Ivy Bridge-EX," is expected to be in production in 2013. The additional benefits expected with this processor family include increased performance, new advanced reliability features as well as enhanced hardware-based security features such as Intel® Secure Key and [Intel® OS Guard](#).

Securing the Cloud

At IDF, several solutions providers are demonstrating hardware-enhanced security and compliance solutions using to [Intel® Trusted Execution Technology](#), including Citrix, EMC, HyTrust, McAfee, RSA, Trapezoid, VMware and Virtustream.

Companies are finding value in using Intel® TXT-based solutions built into Intel Xeon processor-based platforms to better protect data and infrastructure. For example, Veyance Technologies, the exclusive manufacturer and marketer of Goodyear Engineered Products, has selected Virtustream, a leading enterprise cloud solutions provider, to run its global SAP production environment, consisting of over 3,000 users. Data protection and meeting compliance requirements were key criteria for Veyance's selection of Virtustream's xStream cloud platform that uses Intel Xeon processor-based platforms and Intel® TXT to better protect their sensitive data.

Open Data Center Alliance: Pace of Cloud Adoption Continues to Increase

The [Open Data Center Alliance \(ODCA\)](#), of which Intel is technical advisor, released the results of its 2012 member survey that shows that member cloud adoption is scaling 15 percent faster than previously forecast, with more than half of the members surveyed intending to run

over 40 percent of their IT operations in the private cloud by 2015, and a quarter running over 40 percent of their operations in the public cloud. Enterprise Resource Planning (ERP), human resources, finance, and sales and marketing are among the applications driving broad member adoption. The survey also showed that 13 percent of members surveyed have already made purchase decisions based on ODCA requirements, well ahead of the alliance's expectations. They are expected to be joined by over two thirds of alliance members who plan to integrate ODCA usage models into purchasing decisions within the next 24 months. To date, the ODCA has published 16 usage models covering security, automation, transparency and other areas.

The Fabric of the Data Center

As HPC and the cloud continue to grow, new innovation is required to keep pace with demand. Fabric integration that enables bandwidth scalability, power and system density will help remove bottlenecks and ensure the seamless flow of data in cloud and HPC workloads.

After acquiring the assets of Cray, QLogic and Fulcrum, Intel is uniquely positioned to meet this challenge with fabric technology innovation and CPU platform integration. These assets deliver world-class interconnects, fabric management and software, high radix and low radix switch products, Ethernet products and platform expertise. Intel is already shipping its QDR HCA and switch systems that were acquired from Qlogic, uniquely optimized for HPC.

Intel also announced today the availability of the Seacliff Trail customer reference board for Software Defined Networks (SDN). Seacliff Trail uses the SDN-optimized Intel® Ethernet FM6764 switch silicon, which provides unprecedented frame parsing capabilities and programmable pattern matching tables at ultra-low latencies. The [Intel® Ethernet FM6764](#) supports OpenFlow v1.0 with support for extensions such as VxLAN and NVGRE. Along with the Seacliff Trail Reference design, Intel will provide a software framework from Wind River to assist customers in developing SDN solutions.

Intel and Micro Servers

At IDF, Intel showcased its leadership, strong industry support and momentum in the micro server category, with demonstrations from Dell, Supermicro and Tyan based on the Intel® [Xeon® processor E3](#), and from Quanta based on the Intel® Atom™ processor S series (formerly codenamed "Centerton"). In collaboration with its customers, Intel has also been using micro server evaluation labs to encourage developers to test their software on a range of Intel-based micro servers, allowing them to take advantage of software compatibility across IA product lines.

Intel (NASDAQ: INTC) is a world leader in computing innovation. The company designs and builds the essential technologies that serve as the foundation for the world's computing devices. Additional information about Intel is available at newsroom.intel.com and blogs.intel.com.

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