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Intel's Next-Generation Communications Platform Key to Accelerated Network Services

Forthcoming Platform to Boost Secure Network Performance, Scale with Needs of the Future

NEWS HIGHLIGHTS

- New communications platform will consolidate packet, application and control processing on Intel® architecture for more efficient processing of multimedia content without sacrificing security.
- Scalable platform to enable faster time to market and lower development costs for equipment manufacturers with better network efficiency for service providers. New platform will further expand Intel's offerings for the network infrastructure.

SANTA CLARA, Calif.--(BUSINESS WIRE)-- Intel Corporation today disclosed several significant features for the company's next-generation communications platform, codenamed "Crystal Forest." Building upon Intel's strong presence in communications infrastructure, the platform will handle data processing across the network more efficiently and securely, while addressing the specialized needs for handling cloud connectivity and content processing.

Each minute of the day, 30 hours of video are uploaded across the network, and by 2015 it is estimated to take 5 years to watch all the video crossing IP networks each second.[1] As these numbers continue to climb, the burden will be on equipment manufacturers and service providers to deliver platform solutions that can cost-effectively manage rapidly increasing traffic without compromising performance and security.

Currently, equipment manufacturers must combine a variety of highly specialized silicon co-processors with different software programming models to handle multiple communications workloads when building platforms for a scalable network – a very complex and expensive endeavor. With Crystal Forest, equipment manufacturers will be able to consolidate three communications workloads – application, control and packet processing – on multi-core Intel architecture processors to deliver better performance and accelerate time to market. They can also develop a scalable product line based on multiple Intel processor options to plan for future performance increases.

"The demand for increased network performance will continue to grow as more smart devices connect to the Internet every day," said Rose Schooler, general manager of Intel's Communications Infrastructure Division. "And with the popularity of social networking and other high-bandwidth services, such as video and photo uploads/downloads, interactive video, crowdcasting and online gaming, service providers will be challenged to efficiently

provision sufficient upstream capacity and manage the spike in network traffic."

Intel's next-generation communications platform, Crystal Forest, is expected to deliver up to 160 million packets per second performance for Layer 3 packet forwarding, making it possible to send thousands of high-definition videos across each network node. Previously, only ASIC or specialized processors were capable of sending more than 100 million packets per second. The Intel ® Data Plane Development Kit, a set of software libraries and algorithms, improves the performance and throughput of packets on Intel architecture platforms to yield more than five times the performance over previous generations of Intel platforms.

Crystal Forest will also utilize Intel® QuickAssist technology, which processes and accelerates specialized packet workloads - cryptography, compression and deep packet inspection included – on standard Intel platforms. Using this technology, secure Internet transactions can be accelerated up to 100Gbps on the platform to give service providers the ability to handle many more secure transactions and without the cost of specialized solutions. The network will also be able to evolve to provide "always-on" secure Internet connections, as opposed to the opt-in connections currently used on select applications or for financial transactions online.

Designed to Grow with the Network

The Crystal Forest platform will enable equipment manufacturers to design more flexible platforms, from small- to medium-sized business firewalls to high-end routers. Service providers, too, can save money by deploying fewer complex platforms, making their network easier to manage and maintain. The Intel platform roadmap plans to deliver annual performance refreshes for several years, so equipment manufacturers and service providers will be able to scale and refresh their designs to meet future network needs. Additionally, Crystal Forest will use a common application programming interface and common drivers so that multiple designs can be implemented in much less time and at much lower development costs.

Full System Simulation of the Crystal Forest Platform

Developers can accelerate software development, testing and integration by utilizing a simulation model of the Crystal Forest platform provided by Wind River Simics*. With Simics, users can model any Crystal Forest target configuration and then run unmodified target software on that model. Wind River Simics enables developers to do BIOS bring-up, operating-system optimization and application development more efficiently.

The new platform is scheduled to be available later in 2012. For more information visit the Intel newsroom.

About Intel

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.

[1] Cisco® Visual Networking Index: Forecast and Methodology, 2010-2015

Intel Corporation
Krystal Temple, 480-552-1760
krystal.temple@intel.com
Danielle Mann, 973-997-1154
danielle.mann@intel.com

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