Intel Corporation
2200 Mission College Blvd.
Santa Clara, CA 95054-1549

Backgrounder

Intel Intelligent Systems Transform Everyday Experiences

Computing technology is enabling amazing experiences, enhanced productivity, better safety and improved efficiency for businesses and consumers every day. From cars that recognize drivers to supermarket displays that help shoppers plan dinner menus, computing devices are becoming more connected, context-aware and adaptive to human needs.

These computing experiences are possible because of a new category of embedded systems called "intelligent systems." Electronic devices that were once disconnected and served a single purpose have given way to securely managed intelligent systems that autonomously connect to the Internet, execute native or cloud-based applications, and analyze data collected.[1]

According to IDC, the market for intelligent systems is increasing rapidly. More than 1.8 billion intelligent systems exist today, and the number is expected to grow to 20 billion over the next decade. Although intelligent systems comprised just 19 percent of major electronic system units shipped in 2010, that number is projected to grow to more than one-third of all systems sold by 2015.[2]

Intel is leading the intelligent systems transformation with innovative solutions across the spectrum of computing, from retail to automotive systems to communications solutions. Intel-based intelligent systems can help traffic flow more freely; assist shoppers in making informed purchases; enable doctors to treat patients even when separated by hundreds of miles; and reduce energy consumption and waste.

Intel Intelligent Systems Framework and Big Data
Today, connected devices often lack the security and manageability features needed to protect and manage the network of devices that connect to each other and the cloud. Intel predicts that by 2015, more than 15 billion devices will be connected to the Internet, totaling more than a trillion connections. This network of intelligent systems comprises what is frequently called the "Internet of Things" (IoT), and there is tremendous value to be extracted from the enormous volume of data, or "big data," produced from the IoT.

The Intel® Intelligent Systems Framework is an evolving set of interoperable solutions intended to simplify and accelerate the deployment of the IoT. The framework is designed to enable connectivity, manageability and security across these intelligent systems in a consistent and scalable manner. Since the Intel Intelligent Systems Framework was announced in September 2012, the embedded ecosystem has used it to develop and deploy more than 50 products in the communications, automotive, medical, mobile, industrial and retail industries.

In February 2013, Intel announced two new software tools designed to reduce costs and time-to-market for products developed in conjunction with the Intel Intelligent Systems Framework: the Intel® System Studio 2013 integrated software development suite and the Intel® Firmware Support Package.

Powering Intelligent Systems

Intelligent systems possess high-performance compute capabilities needed to manage and analyze data and transform it into valuable business intelligence. Intel processors, including the low-power Intel® Atom™ processor, graphic-rich Intel® Core™ processor, and high-performance Intel® Xeon® processor, provide energy-efficient performance to handle the explosion of data created by millions of intelligent systems.

In addition to processor technology, Intel brings together essential solutions for intelligent systems, including security, manageability and network connectivity.

Connectivity

The number of connected intelligent systems is expected to grow by 400 percent to 20 billion devices or more over the next 10 years. As such, data traffic is expected to grow by as much as 200 times in the next decade, with increasingly rich data adding to network demand.[3] Network operators and enterprise users need to handle increasing traffic while minimizing cost per bit, and simultaneously provide the high-value services that customers will want.

Intel delivers increasing performance per watt to ensure that Intel processors will simplify the connectivity of intelligent systems and enable businesses and network operators to move intelligence to the network edge. Intel provides connectivity solutions for heterogeneous networks including wide area networking, Wi-Fi and cellular communications.

Security and Manageability

Whether intelligent systems are working with personal or enterprise data, security is top priority. With millions of devices connecting to the network, often in remote locations, intelligent systems must also be reliable, highly available and easily upgradeable to maximize return-on-investment and keep total cost of ownership low.

- The 3rd Generation Intel Core processors deliver improved security with new features such as Intel® OS Guard to detect and prevent malware and Intel® Secure Key to protect media, data and assets from loss. Additional security is achieved through continued support for Intel® vPro™ Technology and Intel® AES New Instructions.
- The 3rd Generation Intel Core processor family continues to feature Intel® Active Management technology (Intel® AMT) for remote diagnosis and management of problems and repairs without the need for often costly on-site service visits. This is especially valuable to retailers with large quantities of point-of-sale machines in numerous stores, where the ability to remotely diagnose and quickly mend problems over the network prevents interruptions to consumer transactions.
- Wind River* provides embedded operating systems and middleware including security and manageability solutions for intelligent systems.
- McAfee* provides security solutions to protect the entire solution stack from boot through runtime for authentication, encryption and device integrity.

Intel Intelligent Systems Continue to Transform Experiences
The proliferation of devices, data and connections to the cloud brings a new era of elevated consumer experiences and business productivity; consequently, intelligent systems will continue to demand more performance to bring richer experiences to our daily lives.

Intel is working with industry leaders across many market segments to create a seamless fabric of cloud-connected intelligent systems. Intel is working with such retailers as HSN*, Kraft Foods* and Macy's* to create technologies that deliver immersive and personalized experiences for consumers. In the automotive industry, Intel is working with Toyota*, Hyundai,*, Kia* and BMW* to develop intelligent in-vehicle infotainment systems that allow travelers to interact in a more personal way and to remain connected to the content and devices they carry with them throughout their daily lives.
More information about Intel Intelligent Systems is available at newsroom.intel.com.

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.

<div align="center">– 30 –</div>

[1, 2]Industry Developments and Models, Intelligent Systems: The Next Big Opportunity, IDC 2011
[3.] Cisco VNI 2011, Informa Internet Traffic and Service Forecasts 2010 – 2015