



# Fact Sheet

## **Intel Tackles 'Internet of Things' by Enabling Common, Scalable Platforms**

Intel Corporation predicts that more than 15 billion devices will be connected to the Internet by 2015, and one-third of these connected devices will be [intelligent systems](#) – securely managed machines that autonomously connect to the Internet, execute native or cloud-based applications and analyze the data collected. This network of intelligent systems comprises what is frequently called the "Internet of Things" (IoT), and the explosive growth predicted for this category presents tremendous opportunity along with a host of new IT challenges.

In order to simplify and accelerate the deployment of the IoT, Intel released the [Intel® Intelligent Systems Framework](#) in September 2012. The framework is an evolving set of interoperable solutions designed to enable connectivity, manageability and security across devices in a consistent and scalable manner.

### **A New Approach to Development**

Today, the process for developing connected devices involves the use of proprietary components from a variety of manufacturers. Often missing are the security and manageability features needed to protect and manage the network of devices that connects to each other and the cloud, generating massive amounts of data. This approach to development can be time consuming and costly for system owners who must dedicate resources to design and validate a range of hardware and software requirements.

The Intel Intelligent Systems Framework establishes a set of recipes to reduce the development time for hardware and software integration for intelligent systems. The framework also addresses fragmentation in today's market by creating a standardized and open platform for the ecosystem that is actively building solutions.

### **Creating Value in "Big Data"**

The next step is to unlock data that exists on intelligent systems, often referred to as "big data." This is particularly relevant in such legacy environments as manufacturing where a lot of data is collected, but not necessarily analyzed.

Once analyzed, big data can help businesses increase efficiency, improve productivity and create revenue-generating services, while providing consumers with new and exciting experiences. For example, in a connected store environment, weather data could indicate an approaching storm and change the content on the retailer's digital signage network to adjust pricing of weather-related items such as umbrellas. In a vehicle, the data could be shared between vehicles and the cloud, enabling drivers to receive real-time traffic updates, vehicle safety and maintenance information, as well as other location-based services.

The Intel Intelligent Systems Framework helps make these efficient, productive experiences a reality by establishing a common and scalable recipe to accelerate adoption of connected devices while ensuring they are secure and manageable. Additionally, the framework allows system owners to shift development resources toward converting the massive volumes of data into actionable information.

### **Intel Intelligent Systems Framework**

The Intel Intelligent Systems Framework features several baseline validated components from Intel and ecosystems partners that address connectivity, manageability and security, as well as software and domain expertise from McAfee\* and Wind River\*. Since the Intel Intelligent Systems Framework was first announced, the embedded ecosystem has used it to develop and deploy more than 50 products in the communications, automotive, medical, mobile, industrial and retail industries.

Intel processors supported in the framework include [Intel® Xeon® Processors](#), 2<sup>nd</sup> and 3<sup>rd</sup> generation [Intel® Core™ Processors](#) with Intel® vPro™ Technology and [Intel® Atom™ processors](#). Intel is also working with system vendors, ISVs and systems integrators to form cloud-to-device services that build upon the framework. This ecosystem works closely with the Open Data Center Alliance\* to ensure seamless integration of these devices within the data center and the cloud.

### **New Tools**

In February 2013, Intel announced two software tools designed to reduce costs and time-to-market for products developed in compliance with the Intel Intelligent Systems Framework.

- **Intel® System Studio** – This integrated software development suite combines multiple power and efficiency tools into a single package to simplify and accelerate the development, testing and optimization of embedded and mobile intelligent systems using Intel® Atom™, Intel® Core™ and Intel® Xeon® processors and SoCs. The Intel® System Studio integrated software development suite reduces time and money by discovering errors before they occur, optimizing code to minimize power and maximize performance, and quickly implements fast code through built-in optimizations and software building blocks.
- **Intel® Firmware Support Package** – This firmware solution provides key programming information for initializing Intel silicon in intelligent systems. Previous firmware solutions for embedded devices were highly customized and offered no backward compatibility, creating an inability to scale products to meet rapid growth. The Intel® Firmware Support Package is fast, small, low-cost and easy to customize, making it an ideal solution for the rapidly growing demand for intelligent systems. Additionally, the Intel® Firmware Support Package can be easily integrated into any boot loader of the developer's choice, such as coreboot\*, Wind River VxWorks\*, BIOS, Real-Time Operating Systems, Linux\* and open source firmware.

The Intel Intelligent Systems Framework is available today free of charge to select customers and prospects at [www.intel.com/intelligentsystemsframework](http://www.intel.com/intelligentsystemsframework).

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