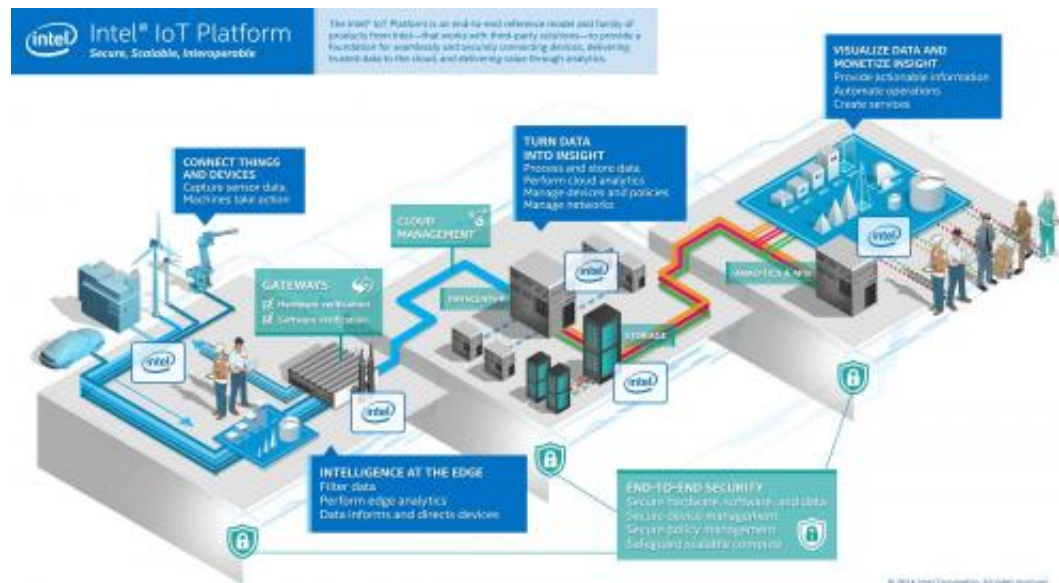# Intel has end-to-end reference model for IoT

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Intel IoT Platform Infographic. Credit: Intel

Intel has declared its move to simplify and unify connectivity and security for the Internet of Things. Earlier this week, Intel announced platform, products and expanded company ecosystem designed to speed IoT adoption and innovation.

Reuters correspondent Noel Randewich said the platform is like a set of building blocks based on the chipmaker's components and software. They are all designed for companies to create smart, connected devices. The platform, called the "Intel IoT Platform," is an end-to- end reference model. The platform unifies gateway, connectivity and security

components for IoT deployments. New hardware and software products are based on the platform. Intel IoT gateways are currently available from seven ODMs with 13 more releasing systems in early 2015.

Doug Davis, vice president and general manager, Internet of Things Group, said that IoT faces "scalability" hurdles. Continued innovation needs some kind of magic sauce for acceleration and Intel has been hard at work for the right ingredients. No company can do it alone, however. New relationships with Accenture, Booz Allen Hamilton, Capgemini, Dell, HCL, NTT DATA, SAP, Tata Consultancy Services and Wipro, said Intel, will help to further solutions on the Intel IoT Platform. The significance of these new relationships is that Intel has an expanded ecosystem of system integrators for moving IoT from infancy to mass deployment. The goal is to move IoT from "pockets of pilots" to mainstream deployments, said Intel, with a repeatable foundation of building blocks that can be customized. Intel said its product roadmap includes API management and service creation software, edge-to-cloud connectivity and analytics, intelligent gateways, and a line of scalable IA processors.

One new product is a pre-integrated technology stack, the Wind River Edge Management System. This will allow customers to quickly build industry-specific IoT solutions and integrate disparate enterprise IT systems. The cloud-based middleware runs from embedded device up through the cloud. The Edge Management System agent enables cloud connectivity to facilitate capabilities such as data capture, rules-based data analysis and response, configuration and file transfer,

The Wind River site presents a view that reflects what Intel means by simplification and acceleration in today's IoT marketplace: "The complexity of solution development has imposed serious barriers to entry into the Internet of Things (IoT) for many organizations. Solutions tend to be highly customized to specific industry applications, adding

costs to the upfront development and ongoing maintenance, as well as to the length of development projects." The Wind River Edge Management System as a cloud-based IoT platform will let developers "leapfrog over building their own infrastructure and custom-coding their own software for the technology stack."

As for security, Intel Security announced its Enhanced Privacy Identity (EPID) technology will be promoted to other silicon vendors. "The EPID technology provides an on-ramp for other devices to securely connect to the Intel IoT Platform," said Intel.

Remarked Reuters' Randewich: "Adding processors, sensors and web connectivity to devices from soccer balls to industrial machinery, an emerging trend dubbed the Internet of Things has become a new battleground for Intel, rival Qualcomm and other technology companies."

Said a Wind River product overview: "From real-time light [rail](#) train tracking to building energy use management to smart meters transmitting utility usage data, connected computing solutions are rolling out worldwide in many different markets, including industrial automation, networking, healthcare, energy generation, and transportation, among others. This momentum toward the Internet of Things (IoT) offers the potential to make data more efficient, cut operational costs, reduce impact on the environment, improve customer satisfaction, and create new revenue streams."

  More information: [newsroom.intel.com/community/i … ity-security-for-iot](#)