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IT@INTEL

Enterprise Ultrabook™ Devices Move into the Mainstream at Intel

The number of employees choosing Ultrabook™ devices more than doubled in the first year they were offered as a standard option.

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Executive Overview

Intel employees have come to expect a certain level of convenience from their devices, and Intel IT must meet this expectation without compromising security and manageability. After evaluating a variety of mobile computing devices, Intel IT began offering enterprise Ultrabook™ devices as part of our standard hardware refresh program in 2012. Of our nearly 105,000 computing devices at the time, approximately 10 percent were Ultrabook devices. Employees have increasingly selected these devices—which function as both laptop and tablet—over traditional laptops. By 2015, approximately 76 percent were using Ultrabook devices. We've also seen an increase in overall employee satisfaction with their devices.

The enterprise Ultrabook devices Intel IT deploys meet our requirements for remote management, durability, reliability, connectivity, security, peripheral device support, and warranty support.

To determine which devices are best suited for employee productivity and business requirements, we evaluate consumer and business—or enterprise—Ultrabook devices. We consider the following:

- **Integration.** Devices have to integrate into our standard purchasing, support, and deployment process, as well as meet our enterprise requirements for connectivity and security.
- **Use.** Devices have to meet the expectations of highly mobile users without compromising integration.

We find that enterprise Ultrabook devices consistently meet our requirements. With the increasing availability of touch-enabled applications—in fact, with the trend toward applications that require touch capabilities—we accelerated our PC refresh program to avoid a potential decrease in productivity. Enterprise Ultrabook devices can handle our daily workloads and security requirements while also meeting employee expectations for convenience and productivity.

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Definition of an Enterprise Ultrabook™ Device

Ultrabook™ is the name trademarked by Intel to describe a category of thin and light mobile computers that function as both a laptop and a tablet. They have a high level of responsiveness, longer battery life, and are built on Intel's newest platform security technologies.

Intel® Core™ vPro™ processor-based Ultrabook™ devices appeal to employees' sense of style without compromising on the enterprise's need for security. Enterprise-class devices come in a variety of screen sizes and lightweight designs, all with longer battery life. Like standard laptops, embedded security features protect data and network access while keeping threats out, and remote manageability lets Intel IT track and manage devices—even when they are disconnected from the network or powered off. The lighter weight and longer battery life of Ultrabook devices improve employee productivity by offering traditional compute functionality with greater mobility.

A History of Ultrabook™ Device Usage at Intel

Recognizing that one size does not fit all when it comes to providing computing options to employees, Intel IT has always offered several choices and continually evaluated new classes of devices as they've appeared on the market. Our decision a few years ago to offer enterprise Ultrabook™ devices to employees has evolved out of the demand for highly mobile, touch-enabled devices that are both powerful enough and secure enough for business users.

Early Evaluations of Ultrabook Devices

In 2012, we evaluated a variety of mobile devices to determine which were best suited for secure, productive business use. We characterized specific devices, or form factors, based on the following:

- **Integration.** Many devices and technologies, while comfortable and appropriate for personal use, can present security, capability, and integration issues for IT.
- **Use.** Requirements differ between personal and business use, and the user experience designed for personal use may not necessarily be conducive for business use.

We evaluated various devices:

- **Smartphones.** Employees were increasingly using smartphones at work, and at the time, about 25 percent were using them to access corporate data and services.
- **Tablets.** Not many employees were using tablets for business use because mobile PCs provided a higher level of performance, but we anticipated opportunities to deploy tablets for certain user groups as platform capabilities evolved.
- **Ultrabook devices.** Like PCs, Ultrabook devices are available in two classes: consumer-level and enterprise-level. We included both classes in our evaluation to determine their individual business value.

We found that the thin and light form factor of Ultrabook devices provided excellent value to certain employees. Sales representatives, for example, need longer battery life, high-speed connectivity, and security; highly mobile telecommuters often work from multiple locations and benefit from lighter PCs; and facility technicians work in the field, away from power outlets and LAN connections but also rely on enterprise applications and data. All of these employees still require the performance of a PC for their day-to-day work.

Consumer-level devices had fewer security controls compared to enterprise devices. Enterprise devices offered options that supported identity protection and theft prevention, and they met Intel's data security requirements.

Based on these findings, we began offering enterprise Ultrabook devices to early adopters in our standard PC refresh program in July 2012.

Increasing Demand for Touch-Enabled Devices

By early 2013, employee demand for touch-enabled devices was increasing. An internal survey reported that 90 percent of respondents preferred touch-enabled enterprise Ultrabook devices. To keep pace with the rapid changes in the enterprise and IT industry, we developed a long-term plan to maintain business velocity and agility. As we began our migration to Windows* 8, we reviewed how enterprise computing could incorporate touch capabilities over the ensuing three years.

We found the following:

- **Ongoing consumerization of IT.** We found that employees' experience with personally owned devices was driving demand for a similar user experience in the workplace. As consumer touch devices proliferated, we knew we could expect this demand within the enterprise to increase.
- **Increasing touch-enabled applications.** We anticipated a trend in enterprise as well as personal applications becoming touch-enabled. Some of those applications would require, rather than simply accommodate, touch interaction.
- **Decreasing productivity with nontouch devices.** We forecasted that by 2016 many employees would need touch capabilities in order to perform their daily jobs. If we had remained on our deployment schedule at the time, we would have been forced to refresh hardware sooner or risk a loss of productivity.

As shown in Figure 1, these findings led us to accelerate the deployment of touch-enabled Ultrabook devices to prepare for the future demand for touch capabilities. We determined that the initial investment in touch-enabled devices—earlier than previously planned—would lead to extended use of the device in the future.

When we first evaluated enterprise Ultrabook devices for employees, our focus was on highly mobile employees like those in sales and marketing. Since then, the evolution of enterprise Ultrabook computing has made this device a desirable option for the majority of our employees across a variety of roles.

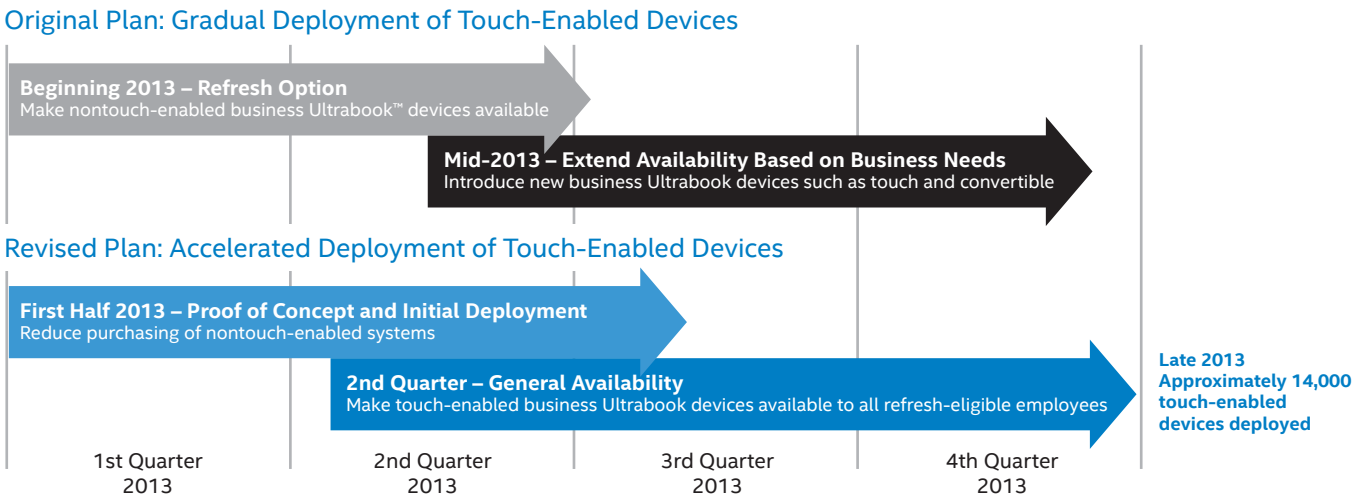

Figure 1. Within a few months during early 2013, Intel IT moved from evaluating Ultrabook™ devices and offering them to early adopters to accelerating deployment to meet the growing demand for touch capabilities.

Business Needs Met by Enterprise Ultrabook™ Devices

- Remote management
- Performance
- Consistency
- Virtualization
- Connectivity
- Security
- Synchronization
- Peripheral-device support
- Warranty support

Ultrabook Devices Remain a Popular Choice for Intel Employees

Intel IT has offered Ultrabook devices as a standard option in our hardware refresh program for several years now. As shown in Figure 2, the number of employees using Ultrabook devices more than doubled in the first year they were available as a standard option. In 2015 approximately 88 percent of employees were using Ultrabook devices, an increase from 10 percent in 2012.

With Intel® technologies, enterprise Ultrabook devices meet the following business needs:

- **Remote management.** The Intel® vPro™ platform supports remote management and information security.
- **Performance.** Intel® Solid State Drives provide responsive performance, longer battery life, greater reliability, and flexibility and scalability of storage. Higher-end Intel® CPUs support compute- and graphics-intensive operations.
- **Consistency.** The Intel® Stable Image Platform Program provides global consistency and reliability.
- **Virtualization.** Intel® Virtualization Technology for Directed I/O allows support for newer virtual client models.
- **Connectivity.** Intel® Wi-Fi adapters support Intel vPro technology and Intel® Smart Connect Technology for flexible, reliable high-performance connectivity.
- **Security.** Intel® Identity Protection, Intel® Anti-Theft Technology, and Intel® Trusted Platform Module meet Intel's security requirements.
- **Synchronization.** With Intel Smart Connect Technology, information such as emails and data stores are constantly synchronized.
- **Peripheral-device support.** To mitigate the fewer number of ports on these slimmer devices, Intel IT equipped conference rooms with Intel® Unite™ technology, which provides wireless display options.
- **Warranty support.** Consistent warranty and ordering support allow us to include enterprise Ultrabook devices in our standard PC refresh program without having to make exceptions.

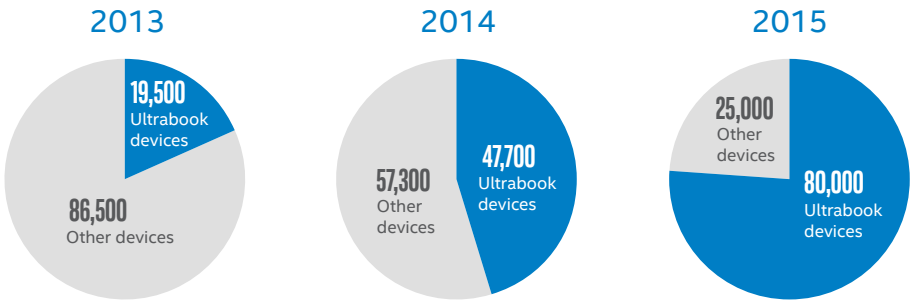

Figure 2. The share of Ultrabook™ devices grew from 18 percent of the devices we deployed in 2013 to 76 percent by 2015.

Conclusion

With the consumerization of IT, our employees have come to expect a certain level of flexibility from their devices that helps them be more productive. We found that enterprise Ultrabook devices meet expectations of speed and reliability in a lightweight form without compromising security and manageability requirements.

Enterprise Ultrabook devices are designed for computing that is powerful enough to handle the daily workloads of most Intel employees. With the sleek, lightweight form, availability in all sizes, and longer battery life, these devices have improved employee satisfaction and have become a popular choice.

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