White Paper

Empowering Your Workforce with Next-Generation Devices

Sponsored by: Intel

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IDC OPINION

IDC identifies mobility as one of the four pillars of the 3rd Platform, a critical spectrum of technologies that enables businesses to accelerate their digital transformation. The benefits of an always-connected, fully mobilized worker are apparent, but the path to mobile readiness to date has been arduous for many – fraught with long ramps of mobile infrastructures and app ecosystems as well as consideration of BYOD policies, enforcement, and financing.

Organizations that have entered or are entering into mobile maturity could be leaving additional value on the table if they don't also consider how a reassessment of their PC policies could fit into a broader and more comprehensive mobile strategy. With Windows 10 migration in full swing – according to IDC's 2018 *Commercial Device Survey,* 24% of U.S. companies have already completely migrated to Windows 10, and another 49% of U.S. companies expect to do so by the end of the year – an opportunity to update the PC strategy beckons mobile-forward organizations.

With Windows 10, Microsoft sought to address the growing demands of a mobile-first and cloud-first world while ensuring both a secure environment for businesses and a modern user interface for their employees. But for IT managers, the process of settling into an increasingly mobile world has posed the daunting challenge of balancing access and security with changing user requirements. Windows 10 seeks to solve this quandary by offering a unified and secured environment across mobile form factors.

While most organizations have planned out their Windows 10 migration, many may not realize that an OS migration without a corresponding hardware upgrade could be leaving substantial untapped value on the table along the lines of security, device usability and manageability, and employee productivity and utility.

This IDC white paper explores the benefits of migrating to Windows 10 in conjunction with deploying new hardware. For starters, Windows 10 security features can be optimized along with software-level protection through new devices that have the capability to fight advanced security threats comprehensively. Integrated hooks within the latest processors enable biometric identity-based log-ins for multifactor authentication as well as remote management for recovery. These capabilities can help lock down front lines.

In addition, the days of the standard milquetoast black box of yesteryear are winding down. With new and exciting computing form factors such as convertibles and detachables offering users an immeasurably more robust experience, an outdated device strategy could be draining employee productivity and utility. The thinking around modern devices is open to a heterogeneous mix that embraces new features and tools to empower users in new ways.

SITUATION OVERVIEW

The current installed base of commercial PCs has aged. In IDC's 2016 *U.S. Commercial PC and Tablet Survey,* respondents provided age distributions of their companies' PCs. On average, 73.7% of notebooks were older than three years and 21.8% were older than five years. Respondents reported that on average, 77.7% of desktops were older than three years and 24.9% were older than five years. Figure 1 shows the age distribution of PCs at the time of the survey.

FIGURE 1

U.S. Commercial PC Installed Base Age

Q.   What percentage of the notebooks/desktops in your organization are three years or older and five years or older?
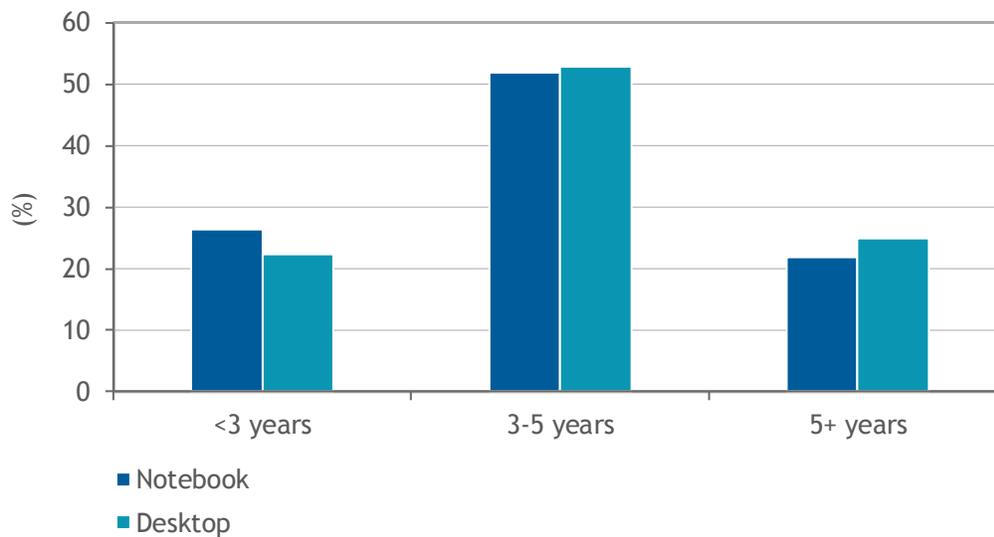
n = 500

Source: IDC's *U.S. Commercial PC and Tablet Survey,* 2016

An aged installed base has been the by-product of a rapidly evolving IT landscape. The advent and ascension of enterprise mobility and other transformative technologies and services have pushed against the limits of planned resources. For many organizations, this means relegating device refreshes to the back of the projects queue.

Yet many IT decision makers (ITDMs) understand that older hardware is generally bad for business. In a survey of U.S. ITDMs fielded in 2016 and sponsored by Intel, respondents believed that PCs four years old or older were costing their organizations on average 37% more in maintenance costs than younger PCs (see Figure 2).

Older PCs cost 37% more to maintain.

FIGURE 2

U.S. Yearly PC Maintenance Cost

Q.   What do you estimate is the average annual cost of maintaining or repairing a device that is younger than four years old or four years old or older?
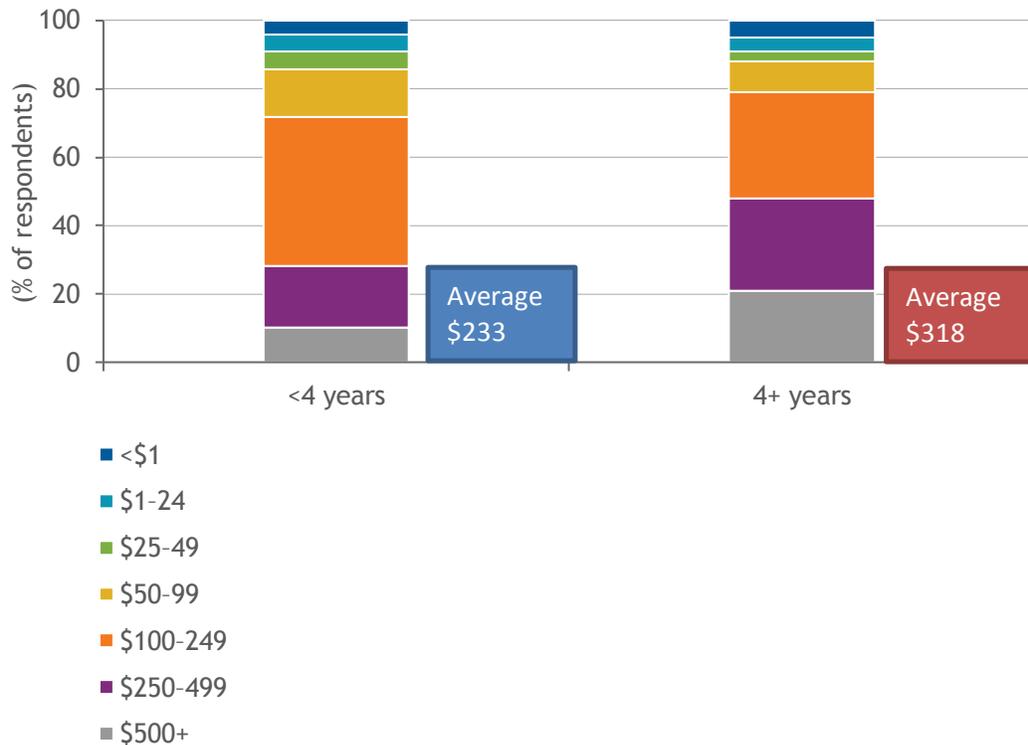
n = 401

Source: IDC's *U.S. Commercial PC Survey for Intel,* 2016

Aged hardware also has other costs in sunk productivity and utility. The PC industry has experienced tremendous design innovation in the past few years, and newer PCs including convertibles, detachables, and touch-enabled notebooks are better equipped to meet the needs of a more mobilized workforce. Forward-thinking organizations should explore updating their PC strategies by leveraging innovative new designs, embracing new employee needs, and addressing increased security requirements.

Leveraging Innovative New Designs

One immediate benefit of an updated PC strategy is the ability to tap into a wonderful new world of devices. IT buyers that haven't undertaken major fleet refreshes in three years will find a bevy of new and exciting options. Newer form factors continue to evolve for new needs, and IDC expects this evolution to only accelerate. In the United States, shipments of convertible notebooks and detachable tablets are forecast to grow at a combined CAGR of 27.4% through 2022, and shipments of ultraslim notebooks are forecast to grow at a 12.3% CAGR. Conversely, the forecast CAGR for traditional notebooks is -21.1%. Figure 3 shows IDC's latest U.S. commercial personal computing device (PCD) shipments forecast.

FIGURE 3

U.S. Commercial Notebook and Tablet Shipments by Product, 2016-2022

- Convertible notebook
- Detachable tablet
- Slate tablet
- Traditional notebook
- Ultraslim notebook
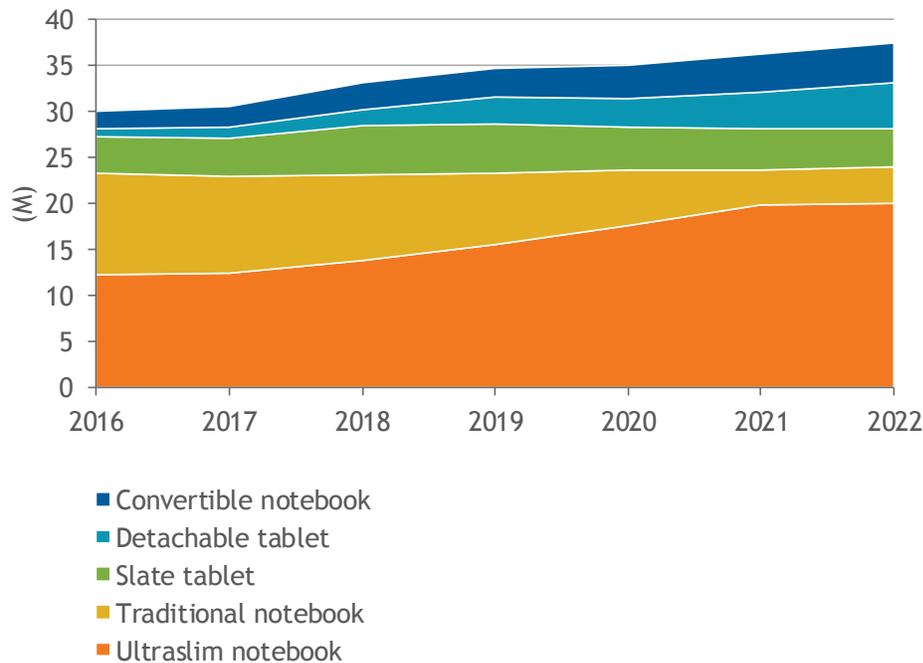
Source: IDC's Worldwide Quarterly PCD Tracker, November 2017

The touch-enablement rate in all notebooks is expected to climb from 9.2% in 2016 to 14.1% in 2022. With mobile applications increasingly making their way into organizations and with PC software becoming evermore touch friendly, bringing in touch-enabled notebooks should boost the end-user experience while signaling technological advancement to employees. Figure 4 shows IDC's forecast of commercial touch notebooks for the United States.

Consequently, for organizations that haven't assessed their device strategies in the past few years, a new generation of notebooks with slimmer designs offering more robust and versatile feature sets awaits in the marketplace.

FIGURE 4

U.S. Commercial Touch Notebook Shipments by Product, 2016-2022
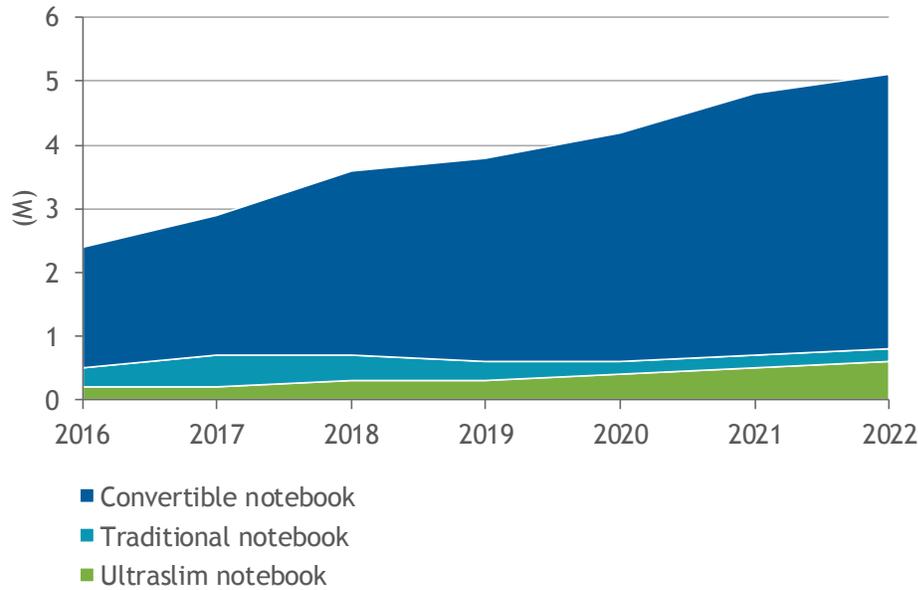
Source: IDC's Worldwide Quarterly PCD Tracker, November 2017

Embracing New Employee Needs

Digital natives make up an increasing portion of the workforce, and they bring with them new expectations and demands for how they get their work done. A company's device choice holds tremendous impact for its employee experience and can convey signals about a company's IT prowess to prospects and candidates. In short, the role devices play in the end-user experience has grown commensurate with the rise of young workers in the workforce, and the old model of IT prescribing a standard box companywide will prove untenable moving forward.

The new generation of workers is held back by the old device practice of one size fits all. These digital natives come to the office on their first day having cultivated a lifetime of compute preferences including preference of device.

In IDC's 2017 *U.S. Consumer PCD Survey,* respondents were asked which device they preferred to perform various tasks. In total, 80% of respondents said they preferred using a PC over a tablet or a smartphone for office productivity — the largest such margin of preference of any device for any of the 20 activities polled. In short, when it comes to uncompromising productivity, the PC is still unassailable.

And yet many organizations will find they are leaving productivity gains on the table by underserving their users with an outdated or one-size-fits-all strategy. When we looked at notebook preference during productivity tasks, we found that the preference for convertibles and detachables skews heavily toward younger users. Convertibles and detachables accounted for a 35.3% preference rate for millennials compared with a 23.5% preference rate for all other respondents. Consequently, while all PCs in general can handle the rigors of the office, modern employees will increasingly clamor for modern devices. Figure 5 shows that notebooks are clearly the device preference for office productivity.

FIGURE 5

U.S. Consumer PCD Preference for Office Productivity

Q.   Which device do you prefer using for each of the following activities (office productivity such as document, presentation, and spreadsheet editing)?
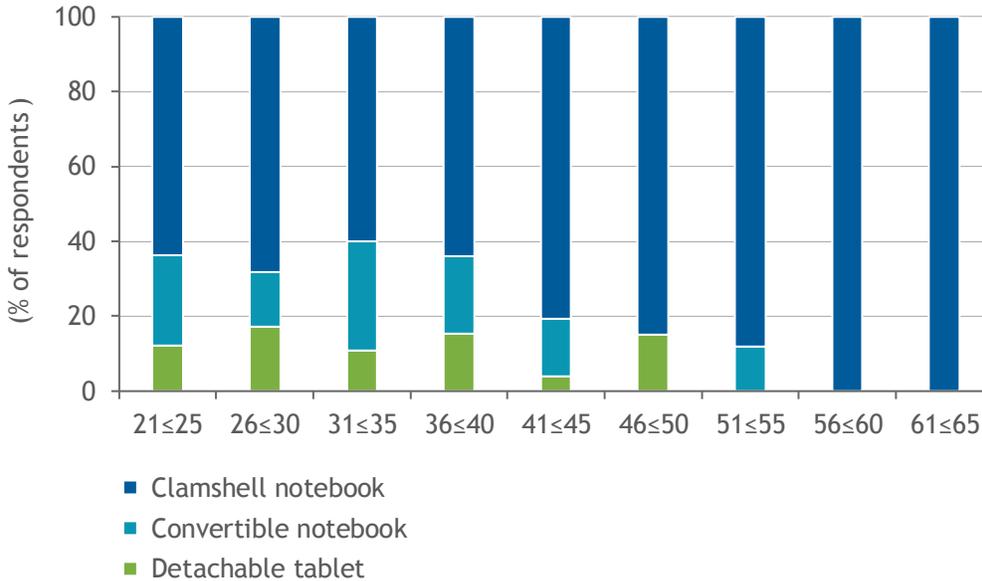
n = 793

Source: IDC's *U.S. Consumer PCD Survey,* 2017

Adapting to a modern workforce means catering to the unique needs of modern workers instead of dictating their needs with rigid hardware standardization. They bring unique and individual compute preferences to their first day of work and want to dictate the terms of their work. A company's choice of device for modern workers plays an important part in this experience, and a one-size-fits-all strategy might constrain the ability to unlock productivity and utility for these employees.

Road warriors might appreciate the thinner designs and longer battery lives available on today's notebooks. Those who spend more time in an airplane seat than in a desk chair might appreciate how the versatility and multimodality of today's convertibles solve the cramped quarters conundrum. Field agents might find that a detachable significantly improves the ergonomics of their workflow.

Even office stalwarts could benefit in the employee satisfaction department with a newer and sleeker device. The desire of many organizations to modernize the office has spurred interest in collaboration spaces and tools, upgrading conference and meeting rooms and unassigned, hot desk seating. Consequently, the modern office dictates that even the modern office worker is on the go. Thin and light designs and longer battery lives allow these workers to operate more freely while onsite.

In short, embracing the needs of a modern workforce means eschewing the old model where IT prescribes to a user how he or she computes. The new model adopts a position that understands that the diversity of an organization's own workforce is most efficiently leveraged with versatility in the device portfolio.

Addressing Increased Security Requirements

In IDC's 2018 *U.S. Commercial Device Survey,* 48% of respondents indicated that security was a top area of IT spend in 2017, and 50% of respondents believed that security would be the top area of spend in 2018 (see Figure 6). Black hat activity continues to escalate, while the black market for confidential information becomes more profitable and efficient. And with table stakes continuing to get higher, security will remain a chief priority for ITDMs in the future.

In the survey of U.S. ITDMs sponsored by Intel, more respondents stated that their company had a PC lost, stolen, or breached in the preceding year than not (45% versus 49%), with survey takers averaging eight incidents of compromised PCs a year. Figure 7 illustrates response rates of survey respondents.

Securing an increasingly complicated corporate ecosystem is challenging, and embracing new technology can come across as a risky proposition on the security front. However, updating to new hardware could actually augment the perimeter fence. While endpoint security has traditionally focused on software-level solutions, the quality of the device powering that software is just as critical. New hardware integrated with Windows 10 helps organizations looking to lock down front lines. Essentially, a hardware-enhanced security solution helps safeguard data beyond firewalls and promotes remote management for recovery in case the operating system is down or the device is powered off.

FIGURE 6

U.S. ITDM Key Concerns

Q.   *Where did you spend your IT budget in 2017? Where do you expect most of your organization's IT budget will be spent in 2018?*
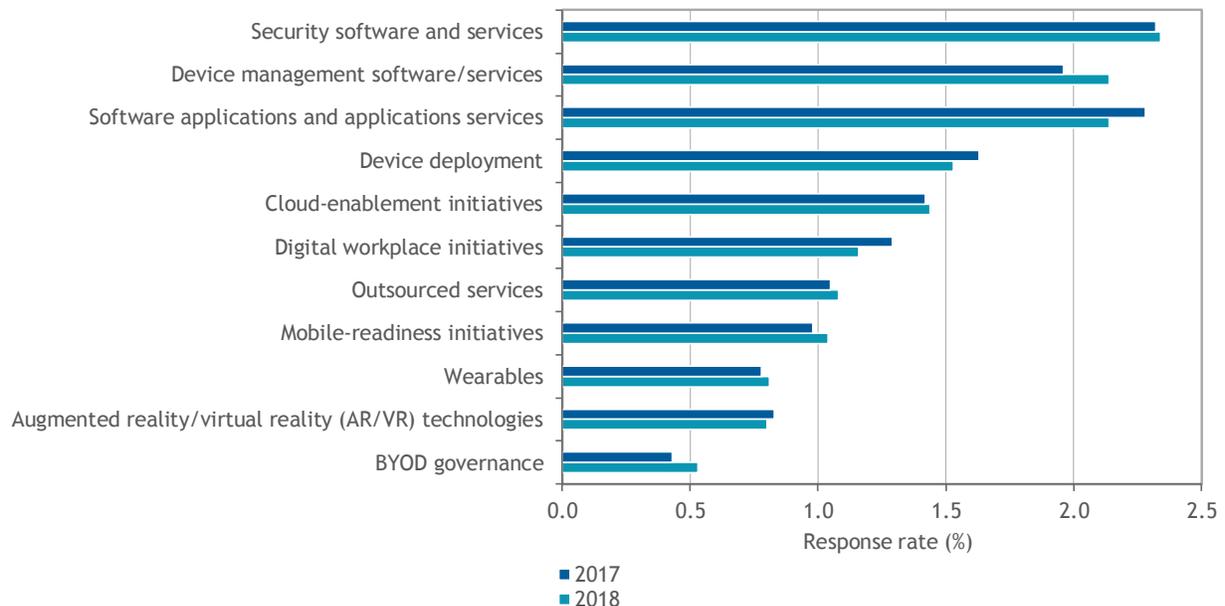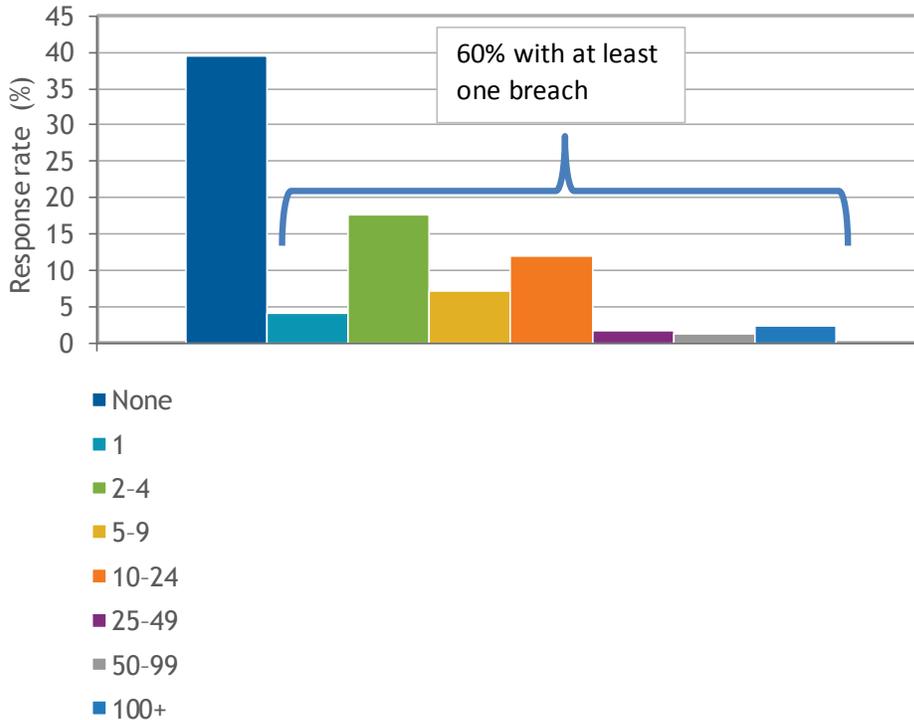

n = 500

Note: Data shows percentage of respondents who rated each as top 3.

Source: IDC's *U.S. Commercial Device Survey,* 2018

FIGURE 7

Incidents in the Past Year

Q.   How many incidents occurred in the past year where someone in your company had a PC stolen, lost, or breached?

n = 401

Source: IDC's *U.S. Commercial PC Survey for Intel,* 2016

INTEL'S 8TH GENERATION CPUs

Next-generation computers powered by the latest 8th Generation Intel Core vPro processors can optimize the investment an organization makes in its Windows 10 migration. These processors include the following:

- **Security.** Intel-powered devices with integrated security solutions can help organizations combat cyberthreats. Integrated hooks with Intel Core vPro processors that include biometric identity-based log-ins and virtualization protection enable a stronger Windows 10.

- **Form factor flexibility.** Intel enables today's workforce to work in new ways. The breadth in design and feature set of Intel-powered PCs should appeal to organizations based on a diverse workforce with individualistic computing needs and preferences. Intel powers a PC, from thin and light to convertible or detachable and high-performance rigs, for most any employee on the corporate network.

- **Manageability.** Managing such a diverse fleet of devices could prove daunting. The Intel vPro platform allows for simple and seamless remote manageability of the fleet, no matter the form factor. Consequently, Intel can power, secure, and manage the fleet of tomorrow's workforce.

CHALLENGES/OPPORTUNITIES

While Intel continues to dominate the PC market (90.8% of all PCs shipped through the first three quarters of 2017 were powered by Intel), its footprint in tablets has been much smaller (12.0%) and its presence is negligible in the phone industry. Organizations looking for a unified approach to devices, management, and support across phones, tablets, and PCs will likely have to assemble the whole chain from disparate solutions and services.

CONCLUSION

The workforce is changing and so too are user expectations of how, when, and where they want to compute. The old model of IT prescribing a fleet of standardized systems to the flock will prove untenable in the long run and is likely draining employee productivity and satisfaction in the interim. Windows 10 brings the corporate user one step closer to a more mobile and cloud-based world.

However, done in the absence of a corresponding hardware upgrade, a Windows 10 migration could drain value from an organization. Instead, forward-thinking ITDMs should view their planned Windows 10 migration as an opportunity to update their organizations' PC strategy. An updated PC strategy leverages new innovative designs and embraces the changing needs of employees and does so with the confidence hardened security can offer. This in turn enables a safer and more modern workforce.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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