

INSIGHTS FOR I.T. HEROES

Dear I.T. Hero: We Know What You've Been Through — And We're Here to Help

Intel understands the issues that matter most to I.T. heroes as they continue to adapt to a rapidly changing world. Whether you're an I.T. manager in a new start-up or a Fortune 500 company, you're facing the same challenges: You're working to keep your teams' networks secure and costs at bay — without disrupting productivity.

That's why we're introducing **Insights for I.T. Heroes**, Intel's new email newsletter providing the latest information on the power and importance of PC technologies in today's landscape. We'll combine Intel's rich supply of research and expertise with insights from the top I.T. minds in the industry. The stories we'll tell will reveal what I.T. teams can expect in the future, while offering tips and perspectives that will help them thrive now.

Sign up <u>here</u> for future emails.

KEY TAKEAWAYS FROM THE FIRST EDITION OF INSIGHTS FOR I.T. HEROES

- Internal researchers, hackathons, and learning from past security incidents helped forge 11th Gen Intel vPro® platform's new suite of security features.
- Remote manageability, security, connectivity and productivity will continue to be top priorities for I.T. managers. They will also need to keep their I.T. teams safe and out of harm's way.
- Small- to medium-sized businesses need to consider phasing out old PC devices and arming their teams with new ones to keep businesses running and place I.T. operators at the forefront of security innovation.

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The events of 2020 and 2021 — COVID-19, countrywide lockdowns, dispersed workforces and fragmented networks — forced I.T. heroes like you into survival mode.

You had to quickly support, secure and manage an entirely remote workforce; and you had to arm them with the latest collaboration tools and apps needed to keep the business running without skipping a beat. You had to keep a fragmented workforce and network connected. Oh, and you also had to achieve all of this within tight budgets and even tighter timelines.

Despite all of this, you survived. You kept your workforce working. You kept your networks and data safe. And your company is still standing.

While the world may be getting a handle on the pandemic itself, I.T. still needs to secure and manage a dispersed fleet of PCs — and not at the expense of employee productivity and user experience.

The new 11th Gen Intel vPro® platform integrates a suite of transformative technologies that have received extra tuning and testing for demanding business workloads.

Drawing on more than 14 years of extensive development, validation and multiple industry partnerships, the Intel vPro® platform is designed to meet the growing needs of I.T. professionals across four key pillars:

Performance, Security, Manageability and Stability in One Integrated PC Platform



Professional Grade Performance

Equipping employees with PCs – from ultralight laptops to high power workstations – built on the Intel vPro platform amplifies their effectiveness with industry-leading performance tuned for the real world demands of today's professionals.



Multilayer Security

With security that goes beyond software, including built-in features for added protections below the OS, application and data security, plus advanced threat detection, the Intel vPro platform provides comprehensive, multilayer security features.



Complete Management¹

With the Intel vPro platform, I.T. heroes like you can remotely discover, repair and help protect networked PCs – even those outside the corporate firewall or those that can't boot.



Predictable Stability

The demanding design requirements and rigorous testing ensure that all brands of PCs built on the Intel vPro platform deliver a reliable stable foundation for smoother fleet management and allow you to scale with confidence.

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¹ Requires a network connection; must be a known network for Wi-Fi out-of-band management. Learn more at www.intel.com/vpro. Results may vary.



Thousands of hours of rigorous validation by Intel and industry leaders ensures that every device built on the Intel vPro platform sets the standard for business.

The result: the 11th Gen Intel vPro platform gives I.T. the tools to enhance worker productivity, secure business data, remotely manage critical devices and build a fleet on a reliable platform.

In this first installment of **Insights for I.T. Heroes**, Intel's **Stephanie Hallford**, Vice President & General Manager, Business Client Platforms, shares her perspectives on the issues impacting I.T. teams today and how the Intel vPro platform is designed for today's top I.T professionals.

In Her Words: **Stephanie Hallford**, Vice President &
General Manager, Business
Client Platforms, Intel



Hallford on Multilayered Security

The security of our products is one of our most important priorities. We build security into our products, and we encourage our customers and others in the technology industry to do the same. In fact, we strive to design, manufacture and sell the world's most secure technology products.

We do this in a variety of ways: We are proactively looking for vulnerabilities so we can address them before they become an issue. We use Intel's internal security researchers and members of the academic community, on a variety of initiatives, including the BugBounty Program. Last year, 109 of the 231 common vulnerabilities and exposures (CVEs) were discovered internally by Intel employees and none of the 231 vulnerabilities addressed were known to be used in actual public attacks, as was reported by Intel's "2020 Product Security Report" released in March.

Our goal is to be as predictive and proactive as possible, which was one of the main drivers behind our design for the 11th Gen Intel vPro platform. This is our built-for-business PC platform that has an umbrella of exclusive security features for protection above, below and within the OS, right out of the box. Organizations need security in each layer: hardware, BIOS/firmware, virtual machines (VMs), OS and applications. That's what Intel Hardware Shield, which is available exclusively on the Intel vPro platform, delivers.

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"Our goal is to be as predictive and proactive as possible, which was one of the main drivers behind our design for the 11th Gen Intel vPro platform."

Software alone cannot keep up with the new variants of ransomware, cryptomining and memory attacks that target digital security, safety and privacy. Hardware is the foundation of any security solution, which is why Intel continues to deliver new innovations in hardware-based security technologies.

Intel Hardware Shield includes the Intel® Threat Detection Technology (TDT), which is a silicon-level Al-based threat detection that offloads memory scanning and cryptomining and ransomware detection to the GPU to provide security protection while reducing impact on system performance.

We also launched Intel Control-flow Enforcement Technology (CET) for the 11th Gen Intel vPro platform in mobile devices. Control-flow hijacking is fast becoming one of the most dangerous forms of malware attacks that targets system memory. Our Intel engineers invented ground-breaking technology to help shut down this class of attacks that has long evaded software only solutions.² Intel CET protects against the misuse of legitimate code through control-flow hijacking with its hardware-integrated protection that has little impact on the user experience.

Hallford on Complete Management

Managing an entire I.T. department during a global pandemic proved to be a logistical and moral challenge for I.T. managers, especially if they worked for a hospital or health care company. Today, no I.T. manager wants to send their personnel into a hospital that's treating COVID-19 patients. Doing a truck roll is far too expensive. The <u>safety and cost of sending I.T.</u> employees into these remote areas have suddenly become two of the highest priorities for I.T. managers. But they must support essential workers who are doing the critical work and need their PC systems to run smoothly and securely.

Remote manageability has become an increasingly convenient, cost-effective and healthier option for I.T. managers. It gives them the ability to quickly get into a system, manage it and patch it, no matter how close or far away these systems and devices may be. Even if the systems are wired or wireless, inside or outside the firewall or won't even boot, remote manageability is possible. These security patches reduce TCO and help maintain the integrity of every device and system. They also allow I.T. to remotely remediate systems to get them up and running. This kind of wireless remote manageability is only available on Intel vPro platform-based systems.³

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² Intel Control-flow Enforcement Technology (CET) is designed to help protect against jump/call-oriented programming (JOP/COP) attack methods and return-oriented programming (ROP) attack methods, malware known as memory safety issues and which comprise over half of ZDI-disclosed vulnerabilities. Visit www.intel.com/11thgenvpro for details. Results may vary.

³ As measured by December 2020 IO Active study (commissioned by Intel) of in-band software-based remote management functions; out-of-band hardware-based remote management functions; and cloud-based support in thin & light Windows-based PCs. AMT requires a network connection; must be a known network for Wi-Fi out-of-band management. Learn more at www.intel.com/11thgenvpro. Results may vary.



The Intel Endpoint Management Assistant (EMA) is a software tool on the Intel vPro platform that takes advantage of our Intel® Active Management Technology (Intel® AMT) to give organizations the ability to activate through the cloud and for usage on mobile systems. We've seen interest rise dramatically for these remote manageability features because of easier remote implementation, especially by service providers and solution providers.

Hallford on Professional Grade Performance

WFH will always have its challenges. So many of us have been on a video conference call that was interrupted by connectivity glitches or background distractions like a barking dog or noisy kids.

This is stressful for both workers and for I.T., which is why we've been developing the Intel vPro® platform to deliver out-of-box business-class performance. PCs built on the Intel vPro® platform power business-critical workloads, maximize employee productivity, analyze data quickly, simplify connectivity, and extend battery life to help enable the best work out of your organization. These capabilities help us deliver a work experience that boosts productivity and reduces those headaches that are so often beyond our control.

For example, the new 11th Gen Intel® vPro® platform comes equipped with the new Intel® Wi-Fi 6/6E (Gig+), which has been optimized for today's congested Wi-Fi environments.⁴ It has improved bandwidth to support more devices on a single access point and it supports new 160-MHz channels that deliver nearly 3x faster gigabit speeds over wireless.⁵

The result: Intel® Wi-Fi 6/6E (Gig+) gives users the performance they need for video conferencing — because you don't want an employee to have a big presentation over video conference only to experience an embarrassing performance glitch at the moment of truth. The Intel® Wi-Fi 6/6E (Gig+) offers better data protection, stronger authentication and greater encryption with WPA3 security.

But users still need the right tools to manage productivity and collaboration workloads. The <u>Intel Evo vPro Platform</u> provides all the benefits of the Intel vPro platform while delivering the best thin and light laptop experience for business.⁶

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^{4,5} For more information about the data presented, visit <u>www.intel.com/wifi6disclaimers</u>

⁶ In thin & light Windows-based devices, based on 1) unique features and performance testing on industry benchmarks and Representative Usage Guides across 3 key usages: productivity, creation, and collaboration, comparing Intel[®] CoreTM vPro[®] i7-1185G7to AMD Ryzen 7 PRO 4750U and 2) an IOActive study (commissioned by Intel) comparing Intel[®] Hardware Shield security capabilities on 11th Gen Intel Core vPro processors with corresponding competitor technologies. All testing as of December 2020. Intel Evo vPro designs are co-engineered as part of Intel's comprehensive laptop innovation program Project Athena then tested, measured, and verified against a premium specification and key experience indicators to ensure unparalleled user experiences. Visit www.Intel.com/11thgenvpro for details. Results may vary.

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When developing the Intel Evo vPro platform, we faced a challenge: How do we deliver highly mobile users an exceptional experience — responsiveness, long battery life and instant wake, all in a thin and sleek form factor — with the features of the Intel vPro platform that I.T. needs?

The Intel Evo vPro Platform manages to keep both users and I.T. happy with one stylish laptop.

Laptops that meet the strict requirements of the Intel Evo vPro brand have been verified to deliver under one-second wake from sleep and consistent responsiveness — it's 40% more responsive on average than a three-year-old premium business laptop while on battery. It's fast charging — a 30-minute charge provides four or more hours of real-world battery life. — and gives users nine or more hours of real-world battery life. It does this with while providing an amazing visual experience with beautiful and immersive displays.

"The Intel Evo vPro platform delivers the ultimate business laptop experience with business-class enhanced security features and remote manageability. It's built to deliver what I.T. needs and users want."

Hallford on Predictable Stability

When we look at the life cycle of a PC device, we believe it starts the moment I.T. has to load an image, the appropriate software and the appropriate capabilities onto the device and goes all the way to when it has to be "end-of-lifed." I.T. teams need the assurance that they can maintain their PC fleet, scale it with confidence and keep all systems stable, even in variable system environments.

We shouldn't expect I.T. managers to be experts in PC design, especially when they already have so much on their plate. This is why Intel is so exacting when it comes to ensuring the highest possible standards are maintained throughout the PC value chain, from Intel to OEM to I.T. to eventually the end user. And we pride ourselves on our enhanced supply chain security, especially today when I.T. teams need to feel confident that when the device is manufactured, shipped and then delivered to the end user's home, it will arrive intact and secure.

We remain committed to our customers throughout the PC life cycle. The Intel® Stable
I.T. Platform Program (Intel® SIPP) aims to keep hardware components consistent for 15 months from product launch, including the silicon on the motherboard, the design, and each physical component. I.T. can be confident in scaling out their organization, knowing they won't have to worry about revalidation when supplying systems around the globe.

⁷ Measured average responsiveness of premium Windows OS-based designs while performing typical workflows in a realistic environment, compared to 3-year-old premium design. Visit www.Intel.com/11thgenvpro for details. Results may vary.

⁸ Charge attained from OEM-default shutdown level. Visit www.Intel.com/11thgenvpro for details. Results may vary.

⁹ Time taken to drain from 100% to critical battery level while performing typical workflows in a realistic environment. Visit www.Intel. com/11thgenvpro for details. Results may vary.

Moving the Needle Forward

Even though we just debuted the 11th Gen Intel vPro platform in 2021, we are continually developing new tools to help I.T. adapt to this new normal. We will continue to put our focus on delivering business-class performance, hardware-based security, remote manageability and PC fleet stability.

We need a world where I.T. has the most secure and manageable devices in place while their employees continue to work remotely. At the same time, employees need to be happy and productive with the tools that they're using.

Both the <u>Intel vPro</u> and <u>Intel Evo vPro</u> platforms are validated PC platforms that integrate the latest PC technologies in an unrivaled, built-for-business solution to meet the needs of I.T. and employees.

It takes more than just the right tools to give your I.T. operations a strong foundation. With the landscape shifting all the time, this new **Insights for I.T. Heroes** series will bring you the insights every I.T. professional needs to navigate an increasingly fragmented world and how PC technologies will get them where they need to be. <u>Signup</u> today to discover fresh ways to improve your systems' manageability, performance, stability and security every month, and ensure you continue to be an I.T. hero.











