

A Strong Foundation for Business Computing

The new Intel vPro® platform with 13th Gen Intel® Core™ processors helps keep organizations running and workers productive

Today's business climate demands that organizations make smarter technology investments. This applies to all elements of a great computing experience, inclusive of the PC as a primary entry point to the cloud. Considering the productivity gains, the cost of maintaining old technology, and the advances in endpoint security, PC refresh is not a luxury, but a necessity.

For nearly two decades, the Intel vPro® platform has defined capabilities beyond the processor, with a comprehensive platform specification incorporating a wide array of capabilities that deliver the manageability, security features, system performance, and stability that organizations need.¹ Now featuring 13th Gen Intel® Core™ processors, the latest PCs that meet Intel vPro design requirements can deliver personal productivity with business continuity.

Enhanced Architecture

13th Gen Intel Core processors are the next step in performance hybrid architecture, with a new P-core design resulting in better application performance as compared to Intel's first hybrid processors.² The number of P-cores on a given processor varies depending on the specific offering across Intel's mobile and desktop processor portfolio.



On new desktop processors, Intel is increasing the number of E-cores across i5/i7/i9 offerings, enabling higher computing capacity for more complex workloads on commercial desktops and entry workstations.

Two critical automation technologies help deliver real-world performance on 13th Gen Intel Core processors:

- **Intel® Thread Director** assigns the right task to the right core at the right time, based on optimal runtime guidance provided to the operating system³
- **Intel® Dynamic Tuning Technology** manages clock frequencies for P-cores and E-cores, based on operating conditions and system design parameters

These technologies enable optimal performance, energy efficiency, and a great user experience on the latest Intel vPro platforms.



Beyond the Processor

Intel offers networking and I/O solutions that result in a more complete platform. 13th Gen Intel Core mobile processors and desktop chipsets both integrate Intel® Wi-Fi 6E (Gig+), which is ideal for dense environments and for optimizing wireless networks for cloud computing. The 6 GHz band supports additional and wider channels, generating more bandwidth for faster downloads, sharing and collaboration.⁴ Intel® Wi-Fi 6E (Gig+) also allows desktop PCs to be placed in work areas regardless of whether a wired network drop is available.

In addition, the Intel® Connectivity Performance Suite enables users to optimize wireless performance based on traffic type, such as prioritizing video conferencing and collaboration applications while on a busy wireless network.⁵

Mobile users may also adopt Intel® Thunderbolt™ 4 docking solutions to connect peripherals to the PC via a single cable for a more elegant workspace. Modern Thunderbolt docks may even support out-of-band management for Intel vPro notebooks. Finally, Intel vPro mobile and desktop platforms continue to support the 1 Gbps and 2.5 Gbps Ethernet standards for wired connectivity.



An Evo Design

Intel vPro® empowers business productivity

Business Continuity

The Intel vPro platform keeps businesses running with a suite of manageability, stability, and security technologies. The latest version of Intel vPro delivers incremental capabilities for life cycle management, more industry-enabled protection technologies, and a greater ability to minimize computing disruptions, as compared to all previous versions of the platform.

Comprehensive Platform Security

Intel vPro® Enterprise and Intel vPro® Essentials platforms support Intel® Hardware Shield, a suite of security technologies to help protect the entire computing stack.



Above the OS technologies help protect the platform by intercepting threats in concert with antivirus software or by blocking memory safety attacks, while below the OS technologies help protect critical operations such as system management mode (SMM), boot code, and firmware.

Because large enterprises often deploy a zero-trust model, Intel vPro Enterprise on 13th Gen supports additional features. With the Windows 11 2022 release, IT technicians may choose to encrypt selected virtualized operations executing in memory. The latest Intel vPro Enterprise platform also supports kernel protections for Windows virtualization-based security, pending enabling in a future OS release.

The capabilities of Intel® Hardware Shield are designed to either meet or exceed Microsoft Secured-core PC requirements, including an integrated TPM, dynamic root of trust, and OS reporting of SMM protections.

Full Life Cycle Management

Intel manageability technologies, both in-band and out-of-band, help businesses deploy, maintain, and retire Windows devices within their computing fleets.



New with 13th Gen, Intel® Platform Service Record provides tamper-resistant ledgers in enabled Intel vPro PCs. The ledgers collect system wear and tear data useful for making device reliability assessments, refresh decisions, or calculating residual value for a given system.

From deployment to retirement, Intel vPro enables end-to-end sustainability with efficient methods for proactive and reactive maintenance of Windows PCs, all supported by the Intel® Endpoint Management Assistant console. Fully featured Intel vPro Enterprise platforms also support out-of-band system recovery and sanitization.

Platform Stability

The Intel® Stable IT Platform Program supports seamless transitions to the latest Intel vPro Enterprise systems. The program helps businesses minimize computing disruptions over a five-quarter deployment window and provides a validated platform for both the Windows 10 and Windows 11 operating systems.

Intel vPro platforms also support firmware update recovery for BIOS and the Intel® Management Engine, facilitating firmware updates, if necessary, over the PC life cycle.

The table on the next page provides a listing of the 13th Gen Intel vPro platform features reviewed in this section.

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With increased remote collaboration, multitasking, plus user and IT apps competing for computing resources, the Intel vPro platform is vital for keeping organizations running and workers productive. The latest version of the Intel vPro platform provides major productivity, connectivity, and security benefits when compared with 3-year-old PCs. As businesses consider future investments, PC refresh to 13th Gen Intel Core processors can help defend versus the latest computing threats, deploy optimal hardware for Windows 11, and address computing needs for a wide variety of workers across businesses of all sizes.

Intel vPro is the computing foundation that delivers what users want and what IT needs

For more information, please visit www.intel.com/vpro.

Mobile Processors Eligible for Intel vPro® Brands			
Intel vPro® Enterprise			
U-Series	P-Series	H-Series	HX-Series
i7-1365U	i7-1370P	i9-13900H	i9-13950HX
i5-1345U	i5-1350P	i7-13800H	i7-13850HX
		i5-13600H	i5-13600HX
Intel vPro® Essentials			
U-Series	P-Series	H-Series	
i7-1355U	i7-1360P	i9-13900HK	
i5-1335U	i5-1340P	i7-13700H	
i5-1334U		i5-13500H	
Intel vPro® Enterprise for Chrome			
U-Series		P-Series	
i7-1365U		i7-1370P	
i5-1345U		i5-1350P	

Desktop Processors Eligible for Intel vPro® Brands		
Intel vPro® Enterprise and Intel vPro® Essentials		Intel vPro® Enterprise
S-Series (35 W)	S-Series (65 W)	S-Series K SKUs (125 W)
i9-13900T	i9-13900	i9-13900K
i7-13700T	i7-13700	i7-13700K
i5-13600T	i5-13600	i5-13600K
i5-13500T	i5-13500	

13th Gen Intel vPro® Platform Features

Feature	Benefit
Intel® Hardware Shield ⁶	A suite of security technologies that helps protect Windows PCs in Intel vPro® Essentials and Intel vPro® Enterprise platforms
Intel® Virtualization Technology (Intel® VT-x / VT-d)	Accelerates hypervisor and virtual machine switching for OS security services
Intel® Trusted Execution Technology ⁶	Provides dynamic root of trust for Windows or other system software
Intel® System Security Report ⁶	Communicates low-level security configuration to the Windows operating system
Intel® System Resources Defense ⁶	Configurable System Management Mode (SMM) protections required for Microsoft Secured-core PC compliance
Intel® VT-rp ⁷	Hardware-enhanced Windows kernel protection (pending expected enabling)
Intel® Total Memory Encryption-Multi Key (Intel® TME-MK) ⁸	Key 0: Encrypts DRAM to help protect against a physical cold boot attack; Keys 1-15 can encrypt sections of DRAM as directed by the OS
Intel® Platform Trust Technology	Integrated Trusted Platform Module within Intel SOCs, supporting TPM 2.0 Windows requirement
Intel® Boot Guard	Supports cryptographically-verified boot as recommended by Windows security practices
Intel® BIOS Guard	Helps protect firmware residing in non-volatile memory in PCs
Intel® Threat Detection Technology	Provides a hardware assist for Windows security applications such as anti-virus software
Intel® Control Flow Enforcement Technology	Hardware-enhanced protection against Windows memory safety attacks, such as malicious code insertion into applications executing in PC memory
Intel® Active Management Technology ⁷	PC remote out-of-band management with keyboard-video-mouse (KVM) control for efficient system maintenance over Ethernet, Wi-Fi, and supporting Thunderbolt™ docks
Intel® Standard Manageability	DASH compliant PC out-of-band management over Ethernet and Wi-Fi with cloud manageability support for devices outside corporate firewalls; does not support keyboard-video-mouse (KVM) remote control
Intel® One Click Recovery ⁷	Fast remote recovery of a disabled computing endpoint, using either the Windows Recovery Environment, an image stored locally, or an image stored on the corporate network
Intel® Remote Platform Erase ⁷	Method for re-purposing PCs by erasing the disk, clearing the TPM, resetting the Intel® CSME, and resetting UEFI/BIOS
Intel® Platform Service Record ⁶	A set of tamper-resistant ledgers that capture PC wear and tear info such as cumulative operation time and power cycle data, to help inform reliability assessments, refresh decisions, and residual value calculations
Intel® Stable IT Platform Program ⁸	Platform validation that aims for zero hardware changes for 15 months from first availability or until the next generational release

¹ All versions of the Intel vPro® platform require an eligible Intel® Core™ processor, a supported operating system, Intel LAN and/or WLAN silicon, firmware enhancements, and other hardware and software necessary to deliver the manageability use cases, security features, system performance and stability that define the platform. See intel.com/performance-vpro for details.

² Performance hybrid architecture combines two new core microarchitectures, Performance-cores (P-cores) and Efficient-cores (E-cores), on a single processor die first introduced on 12th Gen Intel Core processors. Select 13th Gen Intel® Core™ processors do not have performance hybrid architecture, only P-cores, and have the same cache size as prior generation; see ark.intel.com for sku details.

³ Built into the hardware, Intel® Thread Director is provided only in performance hybrid architecture configurations of 12th Gen or newer Intel® Core™ processors; OS enablement is required. Available features and functionality vary by OS.

⁴ Subject to 6 GHz band availability, operating system support, and router compatibility. Details at intel.com/performance-wireless.

⁵ Intel® Connectivity Performance Suite is available for Windows OS only

⁶ Supported on Intel vPro® Essentials and Intel vPro® Enterprise only

⁷ Supported on Intel vPro® Enterprise only

⁸ Supported on Intel vPro® Enterprise and Intel vPro® Enterprise for Chrome only

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