

Intel vPro®

with 13th Gen Intel® Core™ Processors

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Intel vPro® is the business computing foundation of choice

Intel vPro has the most comprehensive security for your business¹, reducing the attack surface significantly vs. 4 year old devices²

Refreshing to the latest hardware is **no longer a luxury**, it's becoming a necessity

13th Gen Intel® Core™ processors were designed to optimize the way your business computes

Intel vPro brings nearly **2 decades of commercial** expertise to deliver the best computing foundation for ANY business



¹As of March 2023, based on the above and below the OS security capabilities, app and data protections, and advanced threat protections Intel vPro delivers for any sized business, as well as Intel's security first approach to product design, manufacture, and support. ²Based on IOActive's "Intel vPro 13th Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13th Gen Intel Core processors against four-year-old Intel-based PCs. Details at



New on Intel vPro

Professional Grade PCs Built for the Rigors of Modern Business



NEW ~70% attack surface reduction vs 4-year-old devices¹

NEW security vendors enabled with Intel® Threat Detection Technology

NEW virtualization-based security enabled in Windows



Best Hardware for Refresh

NEW testing on IT configurations for a smooth transition to Windows 11

NEW productivity, security and experience benefits vs 3-year-old devices



Equipped to Do it All

NEW Over 2x better productivity vs 3-year-old PCs, +40% vs competition²

NEW higher core counts for more complex workloads

1Based on IOActive's "Intel vPro 13th Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13th Gen Intel Core processors against four-year-old Intel-based PCs. Additional details at www.intel.com/performance-vpro. ² When comparing i7-1370P vs AMD Ryzen 7 6850U using SYSmark 30. For all workload and configuration details, see www.intel.com/Performance index. Results may vary.



Intel vPro® has the most comprehensive security for your business, right out of the box¹



Most comprehensive security for your business - right out of the box

FEATURES

+93%

efficacy detecting top Ransomware attacks¹

+24%

better than software alone¹

Out of box

silicon-based virtualization security unleashed on Windows 11.

JDACT

√ 26%

major security breaches²

+17%

security team efficiencies²

√ 21%

fewer impactful security events²

~70%

attack surface reduction vs 4-year-old devices3

lBased on SE Labs Enterprise Advanced Security (Ransomware) – Intel Threat Detection Technology study published March 2023 (commissioned by Intel), which compared ransomware detection capabilities of Intel vPro system powered by Intel Core against systems powered by AMD Ryzen Pro processors and provides analysis of Intel TDT's response to simulated novel cyberattacks.

2Based on IDC's "The Business Value of Intel Security for PCs" report published March 2023 (commissioned by Intel), which cites greater reported efficiencies around security-related implementations and responses with Intel-based PCs versus other PCs. 3Based on IOActive's "Intel vPro 13th Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13th Gen Intel Core processors against four-year-old Intel-based PCs. Additional details at www.intel.com/performance-vpro.





Detect the Latest Threats at the Highest Efficacy – ONLY on Intel

Intel vPro® is the only
business platform with
built-in hardware security
to detect ransomware
and software supply
chain attacks¹





















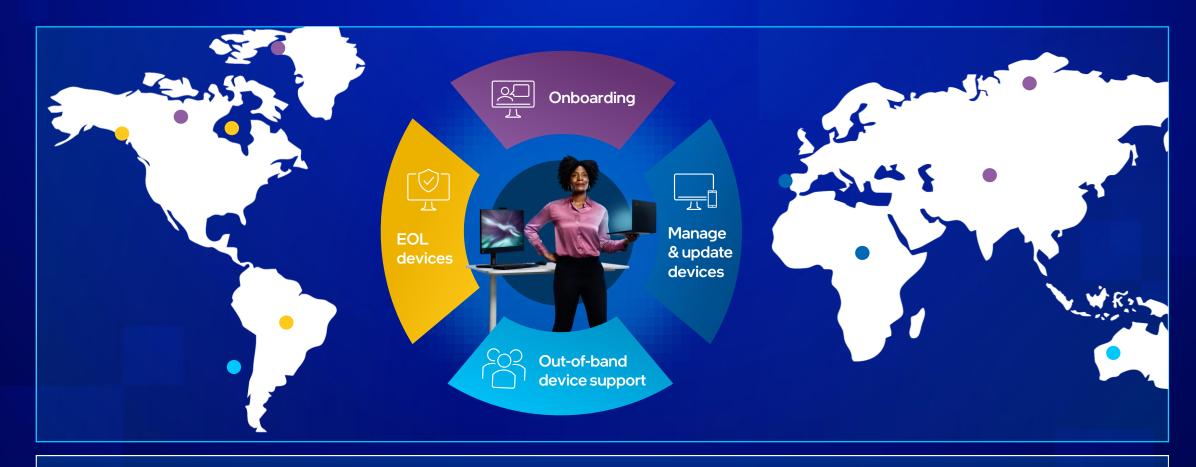
Intel TDT provides up to **7X** boost in scanning performance²

The Intel vPro platform delivers the first and only silicon-enabled AI threat detection for Windows-based systems. Additional details at www.intel.com/performance-vpro

2Based on offload memory scanning to the integrated GPU via Intel TDT API, which results in a 3-7x acceleration over CPU scanning methods as described in Com/performance-vpro for additional details



Intel vPro Provides Modern Manageability from Anywhere



"We're using Intel AMT [Active Management Technology] to check security with service packs, in antivirus and other software. We collect and analyze the information from AMT so we an improve our security risk awareness" – IT Manager, government



Refreshing to the latest hardware is no longer a luxury, it's becoming a necessity

PC Refresh is no longer a Luxury, it's the Smart Choice

Comparison versus 10th Gen Intel[®] Core[™] Processors





SECURITY



EXPERIENCES

Challenges with 3-year-old PCs

Lower performance for modern workloads, a less productive workforce

Reduced set of hardware-based prevention capabilities, increasing the overall attack surface

Not optimized for modern business computing with the latest performance technology



Advantages of new Intel vPro® systems

- √ Hybrid architecture
- ✓ New process technology and more cores
- ✓ New hardware-based AI threat detection capabilities¹
- ~70% attack surface reduction²

- ✓ Intel® Wi-Fi 6E (Gig+)
- √ Thunderbolt™ 4
- ✓ Intel vPro® available in Intel® Evo™ designs
- √ Intelligent collaboration

Intel TDT provides the only silicon-enabled AI threat detection to help stop ransomware and cryptojacking attacks for Windows-based systems.

Based on IOActive's "Intel vPro 13th Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13th Gen Intel Core processors against four-year-old Intel-based PCs. Additional details at www.intel.com/performanceindex.



Ready for Refresh with Intel

~14% lower

5-year cost of operations per PC1

~22% lower

cost of lost productivity, PC security and performance issues1

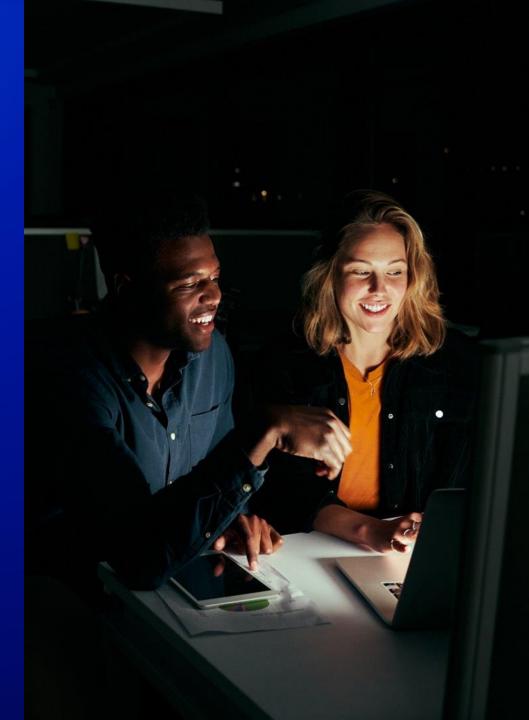
~15% lower

to deliver new PCs1

Along with the ease and reliability with **20 years** of Intel[®] Stable IT Platform Program (SIPP) refresh on eligible Intel vPro platforms

Based on IDC's "The Business Value of Intel Security for PCs" report published March 2023 (commissioned by Intel), which cites a lower reported risk of significant financial impact events occurring through an Intel-based PC compared with other PCs. Additional details at www.intel.com/performanceindex

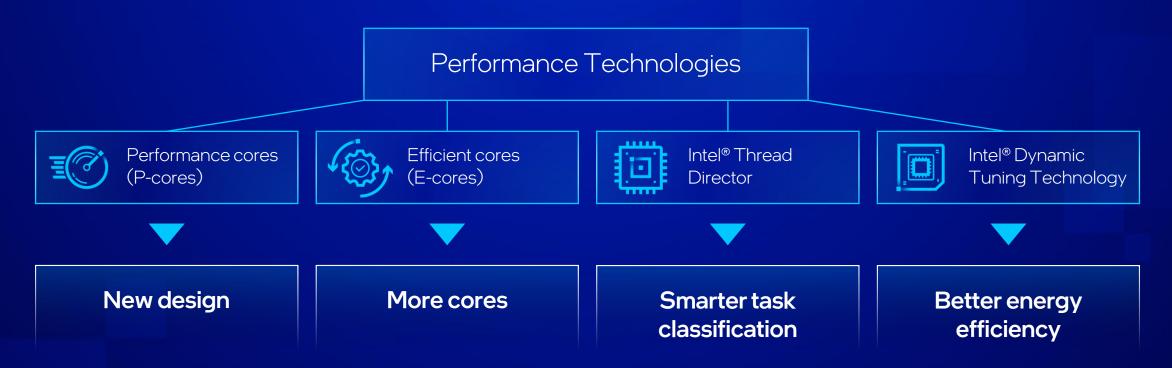




13th Gen Intel® Core™ processors were designed to optimize the way your business computes

Enabling Modern Business Computing

Newly-Enhanced Performance Technologies



Designed for how people work today and the complex workloads of tomorrow

Intel® Core™ i9-13900

Top Bin Desktop 65 W Processor

Gen-over-Gen comparison

Compared vs. prior generation Intel Core i9-12900 7% faster on SYSmark 30

15% faster on UL Procyon

Intel® Core™ i7-1370P

Top Bin Mobile 28 W Processor



Gen-over-Gen comparison

Compared vs. prior generation Intel Core i7-1280P

11% faster on SYSmark 30

12% faster on UL Procyon

Delivering better business application performance vs. prior generation

Intel® Core™ i9-13900



Top Bin Desktop 65 W Processor

Gen-over-Gen comparison

Compared vs. prior generation Intel Core i9-12900 7% faster on SYSmark 30

15% faster on UL Procyon

Intel[®] Core[™] i7-1370P

Top Bin Mobile 28 W Processor

Gen-over-Gen comparison

Compared vs. prior generation Intel Core i7-1280P 11% faster on SYSmark 30

12% faster on UL Procyon

Delivering better business application performance vs. prior generation

Refresh comparison

Compared vs. 3-yr old desktop Intel Core i9-10900 65% faster on SYSmark 30

51% faster on UL Procyon

Refresh Comparison

Compared vs. 3-yr old notebook Intel Core i7-10610U 2.3x faster on SYSmark 30

59% faster on UL Procyon

Delivering superior business application performance vs. 3-yr old PCs



Intel® Core™ i9-13900

Top Bin Desktop 65 W Processor

Gen-over-Gen comparison

Compared vs. prior generation Intel Core i9-12900 7% faster on SYSmark 30

15% faster on UL Procyon

Intel® Core™ i7-1370P

Top Bin Mobile 28 W Processor

Gen-over-Gen comparison

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11% faster on SYSmark 30

12% faster on UL Procyon

Delivering better business application performance vs. prior generation

Refresh comparison

Compared vs. 3-yr old desktop Intel Core i9-10900 65% faster on SYSmark 30

51% faster on UL Procyon

Refresh Comparison

Compared vs. 3-yr old notebook Intel Core i7-10610U 2.3x faster on SYSmark 30

59% faster on UL Procyon

Delivering superior business application performance vs. 3-yr old PCs

Desktop Competitive Comparison

Intel Core i9-13900 vs AMD Ryzen 9 7900

12% faster on SYSmark 30

Mobile Competitive Comparison

Intel Core i7-1370P vs AMD Ryzen 7 6850U

40% faster on SYSmark 30

Mobile Competitive Comparison

Intel Core i7-1370P vs Apple M2

25% faster on CrossMark

Delivering better business application performance vs. competition



Real-World Computing

Data Analyst Collaboration Workflow

Intel® Core TM i7-1370P Top Bin 28 W Mobile Processor

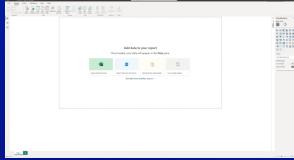




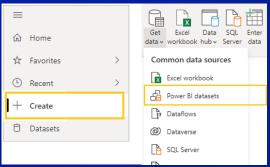
Initiate Microsoft Teams collaboration session



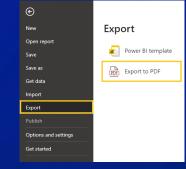
Timed operations



While presenting, open Power BI report



Remove a region and re-render report



Export report to PDF

58% faster

vs. current AMD notebook (Ryzen 7 6850U)

2.8x faster

vs. 3-year old Intel Core notebook (i7-10610U)



Real-World Computing

Content Creator Multitasking Workflow

Intel® CoreTM i9-13900 Top Bin 65 W Desktop Processor





Background Timed Task Video render and export



Foreground Task
Teams call with noise suppression
and background blur



Foreground Timed Tasks
Photo resizing, noise reduction,
and apply blur filters

45% faster

vs. current AMD desktop (Ryzen 9 7900)

2.3x faster

vs. 3-year old Intel Core desktop (i9-10900)



Intel vPro® brings nearly 2 decades of commercial expertise to deliver the best computing foundation for your business



The Broadest Ecosystem to Deliver the Best Commercial Computing Solutions







In-Market Portfolio

Commercial Devices for 2023 Buying Cycle



D¢LLTechnologies

SAMSUNG



Panasonic

acer





Lenovo



Over 170 Intel vPro® devices with 13th Gen Intel® Core™ processors launching in 2023, ensuring a professional grade device for every type of business user

News Summary

Intel vPro® Platform, powered by 13th Gen Intel® Core™ processors

Intel vPro has the **most comprehensive security** for your business¹, reducing the attack surface significantly vs. 4 year old devices²

Refreshing to the latest hardware is **no longer a luxury**, it's becoming a necessity

13th Gen Intel® Core™ processors were designed to optimize the way your business computes, up to 40% faster than comp³

Intel vPro brings nearly **2 decades of commercial** expertise to deliver the best computing foundation for ANY business



¹As of March 2023, based on the unrivaled combination of above and below the OS security capabilities, app and data protections, and advanced threat protections Intel vPro delivers for any sized business, as well as Intel's security first approach to product design, manufacture, and support. All business PCs built on the Intel vPro platform have been validated against rigorous specifications, including unique hardware-based security features. ²Based on IOActive's "Intel vPro 13th Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13th Gen Intel Core processors against four-year-old Intel-based PCs. ³For all workload and configuration details, see www.intel.com/Performanceindez. Results may vary.

Other names and brands may be claimed as the property of others.

Notices and Disclaimers

- All versions of the Intel vPro® platform require an eligible Intel® 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.
- 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.
- 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.
- Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.
- Performance varies by use, configuration, and other factors. Learn more at intel.com/performance.
- Intel technologies may require enabled hardware, software, or service activation.
- Additional details at <u>www.intel.com/performanceindex</u>. No product or component can be absolutely secure.
- Your costs and results may vary.
- © Intel Corporation. Intel, the Intel logo, and other Intel marks are trademarks of Intel Corporation or its subsidiaries. Other names and brands may be claimed as the property of others.

Thank You



Benchmarks and Workflows

SYSmark 30 (v 1.0.0.19) is a benchmark from the BAPCo* consortium that measures the performance of Windows* platforms. SYSmark* 25 tests three usage scenarios: Productivity, Creativity and Responsiveness. SYSmark* contains real applications from Independent Software Vendors such as Microsoft* and Adobe*.

CrossMark (v 1.0.1.88 Pro) is a benchmark from the BAPCo* consortium that measures the performance across Windows, iOS or macOS platforms. CrossMark uses a combination of open source and proprietary workloads to assess system performance scores in the areas of Productivity, Creativity and Responsiveness.

UL Procyon Office Productivity (v 2.1.544.64) is a benchmark from UL that uses Microsoft Office apps to measure PC performance for office productivity work. The benchmark workloads feature relevant, real-world tasks using Microsoft Word, Excel, PowerPoint and Outlook. Office 365 Version 2209 Build 15629.20020.

The Data Analyst Collaboration Workflow is a custom timed test using Microsoft Teams (v 22308.1003.1743.8209) and Microsoft Power BI (v 2.112.603.0). While presenting in a 1x1 Microsoft Teams call, this test measures the total time it takes to perform the following operations: load a Power BI report, re-render after doing a slice, save the report as PDF.

The Content Creator Multitasking Workflow is a custom timed test using Microsoft Teams (v 22308.1003.1743.8209), Adobe Photoshop (v 24.0.0) and Adobe Premiere Pro (v. 23.0.0). While presenting on a Microsoft Teams call: video export using Adobe Premiere Pro is initiated as a foreground task and later moved to background and timed. Filters are applied on a raw image using Adobe Photoshop as a foreground task and timed. The geo mean of the performance ratios of the two operations was calculated and becomes the ratio for the overall workload.

Test Configurations: Desktop

	FOR COMPARISONS WITH 65 W DESKTOP PROCESSORS						
	PROCESSOR	CORES and FREQ	SYSTEM AND BIOS	MEMORY	STORAGE	DISPLAY RES	os
INTEL CURRENT GEN	i9-13900	8P + 16E (32T) 5.2 GHz Turbo	Intel RVP with BIOS 3361.A06	2 x 16 GB G. Skill DDR5-5600 MHz @28-34-34-89			
INTEL Gen On Gen Compare	i9-12900	8P + 8E (24T) 5.1 GHz Turbo	Asus Prime Z690-A Motherboard with BIOS v.2103	2 x 16 GB G. Skill DDR5-4800 MHz @28-34-34-89	Samsung 980 Pro	1000 1000	Windows 11 22H2 Power scheme: High
INTEL Refresh Compare	i9-10900	10 cores (20T) 5.2 GHz Turbo	Asus Prime Z390-A Motherboard with BIOS v.2601	2x16 GB G. Skill DDR4-2933 14-14-14-34	1TB SSD	1920 x 1080	Performance VBS and Defender enabled
COMP CURRENT GEN	AMD Ryzen 9 7900	12 cores (24T) 5.4 GHz max	Asus Crosshair X670E Hero with BIOS v.805	2 x 16 GB G. Skill DDR5-5200 MHz @28-34-34-89			

	FOR GEN-on-GEN 65W DESKTOP COMPARISON USING SYSmark 30						
	PROCESSOR	CORES and FREQ	SYSTEM AND BIOS	MEMORY	STORAGE	DISPLAY RES	OS
INTEL CURRENT GEN	i9-13900	8P + 16E (32T) 5.2 GHz Turbo	Intel RVP with BIOS .712	2 x 16 GB DDR5- 5200 MHz	Samsung PM9A1		Windows 11 22H2 Power scheme: High
INTEL Gen On Gen Compare	i9-12900	8P + 8E (24T) 5.1 GHz Turbo	Intel RVP with BIOS .640	2 x 16 GB DDR5- 4800 MHz	500 GB SSD	1920 x 1080	Performance VBS and Defender enabled

Test Configurations: Mobile

	FOR MOBILE PROCESSOR COMPARISONS						
	PROCESSOR	CORES and FREQ	SYSTEM AND BIOS	MEMORY	STORAGE	DISPLAYRES	os
INTEL CURRENT GEN	i7-1370P	6P + 8E (20T) 5.2 GHz Turbo Max	Intel RVP with 3361.A14	2 x 16 GB LPDDR5- 6000 MHz	Samsung 512 GB SSD (MZVL2512HCJQ-		Windows 11 22H2 (22621_608)
INTEL N-1GEN	i7-1280P	6P + 8E (20T) 4.8 GHz Turbo Max	Intel RVP with 3385.A00	2 x 16 GB LPDDR5- 5200 MHz	(MZVL25I2HCJQ- 00A00)		Power plan: Balanced
INTEL N-3 GEN	i7-10610U	4 cores (8T) 4.9 GHz Turbo Max	Lenovo ThinkPad X13 Gen 1 with N2YET35W 1.24	2 x 8 GB DDR RAM 2667 MHz (soldered)	Samsung 980 Pro 1 TB SSD	1920 x 1280	Power mode: Best Performance VBS, Defender and Tamper Protection
COMP	AMD Ryzen 7 6850U	8 cores (16T) 4.7 GHz max	HP EliteBook 845 G9 with HP U82 v 01.01.07	2 x 16 GB DDR5 4800 MHz	Samsung 512 GB SSD (MZVLQ512HBLU)		enabled
COMP CURRENT GEN	Apple M2	4 big cores + 4 small cores (8T)	MacBook Pro Model A2338	16 GB LPDDR5	Apple 512 GB SSD	2560 x 1600	Mac OS 13.1 "Low Power Mode" = "Never"

Claims Appendix

	Claim#&Statement	Slide # & Title/Details
	Intel vPro® is the business computing foundation of choice Intel vPro has the most comprehensive security for your businesd, reducing the attack surface significantly vs. 4 year old devices? Refreshing to the littlest hardware isno longer a lussury, it's becoming a necessity. 13th Gen Intel® Cor® processors were designed to optimize the way your business computes Intel vPro brings nearly 2 decades of commercial expertise to deliver the best computing foundation for ANY business Intel® Commercial despertise to deliver the best computing foundation for ANY business	Intel vPro is the Business Computing Foundation of Choice
1	Intel vPro has the most comprehensive security for your business	Intel brings multiple vectors of security to the Intel vPro security value proposition with unique offerings tailored for your business, well beyond features only and unlike any other commercial client platform. This includes Intel's security assurance programs: security by design principles, transparency and disclosure of vulnerabilities and a robust Intel Platform Update process, an esteemed bug bounty program as well as internal research through red teams and more. Read more on the results of this program for 2022 here. Beyond this, Intel evolves security capabilities on each platform and brings new innovation and updates to existing features. Learn more at www.intel.com/security . Intel has the first and only hardware-based threat detection of its kind that works to augment security software for high efficacy detection of the latest ransomware, cryptojacking, supply chain style attacks and even zero-day attacks. Intel works with the largest eco-system to enable silicon security features as part of a defense-in-depth strategy. This includes additional scale partners for Intel® TDT capabilities and out-of-the-box feature enablement for OS updates. Furthermore, Intel and Coalfire experts have completed an analysis of hardware security capabilities available on vPro systems against industry security controls (NIST, MITRE, TCG) with 47 built-in MITRE ATT&CK countermeasures. The Intel vPro security promise brings together a comprehensive set of security programs, processes, partners and out-of-the-box enablement as well as new capabilities - all through the broadest, open ecosystem to give any business the breadth of choice and compatibility it needs. Visit www.intel.com/vPro to learn more about these capabilities. No product or component can be absolutely secure.
2	Reducing the attack surface significantly vs. 4 year old devices	The latest Intel vPro® platform has an approximately 70% smaller attack surface compared to four-year-old devices, as measured by IOActive's March 2023 report (commissioned by Intel) analyzing respective attack surfaces of Intel vPro devices powered by 13th Gen Intel Core processors and four-year-old Intel-based PCs on Windows OS. Attack surface refers to the sum of system functionality potentially susceptible to vulnerabilities, pathways or methods—sometimes called attack vectors—that hackers can use to gain unauthorized access to the network or sensitive data, or to carry out a cyberattack. To measure the security improvements from the hardware features, IOActive utilized a metric called Potentially Addressable Mitigation Surface (PAMS). PAMS measures the reduction of the attack surface by the hardware mitigations based on their full deployment and theoretical effectiveness. Research was completed using publicly available documentation. The estimated attack surface of the latest Intel vPro platforms powered by 13 th Gen Intel Core processors is approximately 70% smaller than vs four-year-old Intel vPro platforms. Visit www.intel.com/vPro to learn more. No product or component can be absolutely secure.

	Claim#&Statement	Slide # & Title/Details
	New on Intel vPro Professorad Claude PCs Built for the Rigors of Modern Business The Most Comprehensive Security NEW -70s states and foo instances in 4-year of diseases NEW security ventrous maked in the complete of the comprehensive security in the comprehensive security	New on Intel vPro
3	~70% attack surface reduction vs 4-year-old devices	See Claim #2 above.
4	Over 2x better productivity vs 3-year-old PCs,	As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. 10th Gen Intel Core i7-10610U Based on testing as of 01/10/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3425; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled. Processor: 10th Gen Intel® Core™ i7-10610U processor (CML-U) PL1 set to 15W TDP, 4C8T; tested on Lenovo ThinkPad X13 Gen 1; Memory: DDR4-2667MHz, 2x8GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® UHD Graphics; Graphics driver: 31.0.101.2114; BIOS version: N2YET35W 1.24. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.
5	+40% better productivity vs competition	As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. AMD Ryzen 7 Pro 6850U Based on testing as of 01/10/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3425; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled. Processor: AMD Ryzen 7 PRO 6850U processor, 8C16T; tested on HP EliteBook 845 G9; Memory: DDR5-4800MHz, 2x16GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: AMD Radeon 680M; Graphics driver: 30.0.14060.10; BIOS version: HP U82 v 01.01.07. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

	Claim # & Statement	Slide # & Title/Details
	Intel vPro® has the most comprehensive security for your business, right out of the box!	Intel vPro has the most comprehensive security for your business right out of the box.
6	Intel vPro® has the most comprehensive security for your business, right out of the box.	See Claim #1 above.

	Claim#&Statement	Slide # & Title/Details
	Most comprehensive security for your business - right out of the box +93%	Most Comprehensive Security for your business, right out of the box.
7	+93% efficacy detecting top Ransomware attacks	In recent testing, Intel® Threat Detection Technology detected 93% of top ransomware attacks while competitor systems found none. Based on SE Labs – Enterprise Advanced Security (Ransomware) – Intel Threat Detection Technology study published March 2023 (commissioned by Intel), which compared ransomware detection capabilities of an Intel vPro system powered by Intel Core processor against systems powered by AMD Ryzen Pro processors on Windows OS. SE Labs tested Intel's hardware approach to ransomware detection, using a wide range of ransomware attacks similar to those used against victims in recent months. Systems tested included Intel® Core™ i7-1185G7, AMD Ryzen Pro 5675U, AMD Ryzen Pro 5875U, AMD Ryzen Pro 6650U, and AMD Ryzen Pro 6850U. Visit www.intel.com/tdt to learn more. No product or component can be absolutely secure. Other names and brands may be claimed as the property of others.
8	+24% better than software alone	Intel® Threat Detection Technology has been shown to increase overall EDR ransomware protection efficacy by 24% over software alone. Based on SE Labs – Enterprise Advanced Security (Ransomware) – Intel Threat Detection Technology study published March 2023 (commissioned by Intel), which compared ransomware detection capabilities of an Intel vPro system powered by Intel Core processor against systems powered by AMD Ryzen Pro processors on Windows OS. EDR refers to endpoint detection and response vendor. SE Labs tested Intel's hardware approach to ransomware detection, using a wide range of ransomware attacks similar to those used against victims in recent months. Systems tested included Intel® Core TM i7-1185G7, AMD Ryzen Pro 5675U, AMD Ryzen Pro 5875U, AMD Ryzen Pro 6650U, and AMD Ryzen Pro 6850U. Visit www.intel.com/tdt to learn more. No product or component can be absolutely secure. Other names and brands may be claimed as the property of others.
9	↓ 26% major security breaches	Intel-based PCs have a 26% lower risk of major PC-related security events according to a recent IDC report. Based on IDC's "The Business Value of Intel Security for PCs" report published March 2023 (commissioned by Intel), which cites a lower reported risk of significant financial impact events occurring through an Intel-based Windows PC (Intel PCs) compared with other Windows PCs (other PCs). To understand differences in terms of security capabilities, security risk, staff time requirements, and business and operational impact, IDC surveyed several large organizations across multiple industries based in the United States, Australia, and the United Kingdom that deploy Intel PCs and those that also have experience deploying other PCs. IDC's analysis shows that Intel PCs offer built-in security functionality that enables organizations to maintain more robust and efficient PC security environments by proactively preventing attacks that can cause significant financial impact events, which were reported to have an average potential cost per instance of \$11.43 million for potential lost revenue, remediation costs, and regulatory fines. Study results estimated based on reported information.
		Visit <u>www.intel.com/security</u> to learn more. No product or component can be absolutely secure.



	Claim # & Statement	Slide # & Title/Details
	Detect the Latest Threats at the Highest Efficacy – ONLY on Intel Intel vPro® is the only business platform with built-in hardware security to detect ransomware and software supply chain attacks' Intel TDT provides up to 7X boost in scanning performance'	Detect the Latest Threats at the Highest Efficacy
13	Intel vPro® is the only business platform with built-in hardware security to detect ransomware and software supply chain attacks	The unique Anomalous Behavior Detector from Intel® Threat Detection Technology is the first hardware-based capability to help detect software supply chain attacks on PCs. Intel has the first and only hardware-based threat detection of its kind that works to augment security software for high efficacy detection of the latest ransomware, cryptojacking, supply chain style attacks and even zero-day attacks in Windows-based systems. Intel TDT Anomalous Behavior Detection (ABD) is a hardware-based control flow monitoring and anomaly detection solution able to monitor business apps for early indicators of compromise, leveraging the Intel CPU to build dynamic AI models of "good" application behavior. See www.intel.com/tdt for additional details. No product or component can be absolutely secure.
14	Intel TDT provides up to 7X boost in scanning performance	Crowdstrike found Intel® Threat Detection Technology can boost scanning up to 7x, resulting in faster detection of fileless attacks that are the #1 attack entry method. Accelerated Memory Scanning, a capability of Intel® Threat Detection, is now available in Crowdstrike Falcon. The memory scanning engine integrates Intel Threat Detection Technology accelerated memory scanning (AMS) into the Falcon sensor. Intel TDT AMS optimizes performance on Intel CPUs and offloads computation to the Intel integrated graphics processing unit (iGPU) when present. Recent Crowdstrike testing found a 3-7x acceleration in offload memory scanning to the iGPU via Intel TDT API over CPU scanning methods according to this Crowdstrike blog. Intel does not control or audit third-party data. You should consult other sources to evaluate accuracy.

	Claim#&Statement	Slide # & Title/Details
	PC Refresh is no longer a Luxury, it's the Smart Choice Consideration of the Control of the Con	PC Refresh is no longer a luxury, it's the smart choice
15	New hardware-based AI threat detection capabilities	See claim #7 above.
16	~70% attack surface reduction	See claim #2 above.

	Claim#&Statement	Slide # & Title/Details
	Ready for Refresh with Intel -14% lower 6-year cost of operations per PC -22% lower cost of lost productivity. PC security was development in source -18% lower is deriver row PCs! Along with the ease and reliability with PC years of herber "Sobile IT Platform Pcogne (CBPP)-Platform on engage in their Productivity. PCs platform platform intel control of the PCs o	Ready for Refresh with Intel
17	~14% lower 5-year cost of operations per PC	Intel-based PCs can provide a 14% lower 5-year cost of operations per PC, according to a recent IDC report. Based on IDC's "The Business Value of Intel Security for PCs" report published March 2023 (commissioned by Intel), which cites a lower reported risk of significant financial impact events occurring through an Intel-based Windows PC (Intel PCs) compared with other Windows PCs (other PCs). To understand differences in terms of security capabilities, security risk, staff time requirements, and business and operational impact, IDC surveyed several large organizations across multiple industries based in the United States, Australia, and the United Kingdom that deploy Intel PCs and those that also have experience deploying other PCs. IDC's analysis shows that Intel PCs offer built-in security functionality that enables organizations to maintain more robust and efficient PC security environments by proactively preventing attacks that can cause significant financial impact events, which were reported to have an average potential cost per instance of \$11.43 million for potential lost revenue, remediation costs, and regulatory fines. Study results estimated based on reported information. Visit www.intel.com/security to learn more. No product or component can be absolutely secure.
18	~22% lower cost of lost productivity, PC security and performance issues	Intel-based PCs can provide a 22% lower cost of lost productivity, PC security and performance issues, according to a recent IDC report. Based on IDC's "The Business Value of Intel Security for PCs" report published March 2023 (commissioned by Intel), which cites a lower reported risk of significant financial impact events occurring through an Intel-based Windows PC (Intel PCs) compared with other Windows PCs (other PCs). To understand differences in terms of security capabilities, security risk, staff time requirements, and business and operational impact, IDC surveyed several large organizations across multiple industries based in the United States, Australia, and the United Kingdom that deploy Intel PCs and those that also have experience deploying other PCs. IDC's analysis shows that Intel PCs offer built-in security functionality that enables organizations to maintain more robust and efficient PC security environments by proactively preventing attacks that can cause significant financial impact events, which were reported to have an average potential cost per instance of \$11.43 million for potential lost revenue, remediation costs, and regulatory fines. Study results estimated based on reported information. Visit www.intel.com/security to learn more. No product or component can be absolutely secure.
19	~15% lower time to deliver new PCs	Intel based PCs can provide a 15% lower time to deliver new PCs, according to a recent IDC report. Based on IDC's "The Business Value of Intel Security for PCs" report published March 2023 (commissioned by Intel), which cites a lower reported risk of significant financial impact events occurring through an Intel-based Windows PC (Intel PCs) compared with other Windows PCs (other PCs). To understand differences in terms of security capabilities, security risk, staff time requirements, and business and operational impact, IDC surveyed several large organizations across multiple industries based in the United States, Australia, and the United Kingdom that deploy Intel PCs and those that also have experience deploying other PCs. IDC's analysis shows that Intel PCs offer built-in security functionality that enables organizations to maintain more robust and efficient PC security environments by proactively preventing attacks that can cause significant financial impact events, which were reported to have an average potential cost per instance of \$11.43 million for potential lost revenue, remediation costs, and regulatory fines. Study results estimated based on reported information. Visit www.intel.com/security to learn more. No product or component can be absolutely secure.

Claim # & Statement Slide # & Title/Details 13th Gen Intel Core Processors for Business: Mobile and Desktop Performance Comparisons based on Standard **Benchmarks** As measured by SYSmark 30 on 13th Gen Intel Core i9-13900 vs. 12th Gen Intel Core i9-12900 processor Up to 7% faster Windows application performance genover-gen for desktop computing Based on testing as of 02/17/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory:, 2X16GB DDR5-5200MHz; Storage: Samsung PM 9A1 500GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2; Motherboard BIOS version: NA Processor: 12th Gen Intel® Core™ i9-12900 processor (ADL-S), 16C24T (8P + 8E); Motherboard: Intel RVP; Memory:, 2X16GB DDR5-4800MHz; Storage: Samsung PM 9A1 500GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621. 165 Service pack: 22H2; Motherboard BIOS version: Up to 15% faster Microsoft Office productivity gen-over-gen As measured by UL Procyon on 13th Gen Intel Core i9-13900 vs. 12th Gen Intel Core i9-12900 processor for desktop computing Based on testing as of 01/26/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5600MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2; Motherboard BIOS version: 3361.A06 Processor: 12th Gen Intel® Core™ i9-12900 processor (ADL-S), 16C24T (8P + 8E); Motherboard: Asus Prime Z690-A; Memory: G.Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-4800MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_755 Service pack: 22H2; Motherboard BIOS version: 2103

Claim # & Statement Slide # & Title/Details 13th Gen Intel Core Processors for Business: Mobile and Desktop Performance Comparisons based on Standard **Benchmarks** Up to 65% faster Windows application performance versus As measured by SYSmark 30 on 13th Gen Intel Core i9-13900 vs. 10th Gen Intel Core i9-10900 processor a 3-year-old desktop Based on testing as of 01/26/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5600MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2: Motherboard BIOS version: 3361.A06 Processor: 10th Gen Intel® Core™ i9-10900 processor (CML-S), 10C20T (10P + 0E); Motherboard: Asus Prime Z390-A; Memory: G. Skill DDR4 CL 14-14-14-14, 2X16GB DDR4-2933MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_755 Service pack: 22H2; Motherboard BIOS version: 2601 Up to 51% faster Microsoft Office productivity versus a 3-As measured by UL Procyon on 13th Gen Intel Core i9-13900 vs. 10th Gen Intel Core i9-10900 processor vear-old desktop Based on testing as of 01/26/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5600MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2; Motherboard BIOS version: 3361.A06 Processor: 10th Gen Intel® Core™ i9-10900 processor (CML-S), 10C20T (10P + 0E); Motherboard: Asus Prime Z390-A; Memory: G. Skill DDR4 CL 14-14-14-14, 2X16GB DDR4-2933MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_755 Service pack: 22H2; Motherboard BIOS version: 2601

Claim # & Statement Slide # & Title/Details 13th Gen Intel Core Processors for Business: Mobile and Desktop Performance Comparisons based on Standard **Benchmarks** Up to 12% faster Windows application performance versus As measured by SYSmark 30 on 13th Gen Intel Core i9-13900 vs. AMD Ryzen 9 7900 AMD for desktop computing Based on testing as of 01/26/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5600MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2: Motherboard BIOS version: 3361.A06 Processor: AMD Ryzen™ 77900 processor, 12C24T, Motherboard: Asus Crosshair X670E Hero; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5200 MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_755 Service pack: 22H2; Motherboard BIOS version: 805 Up to 11% faster Windows application performance gen-As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. 12th Gen Intel Core i7-1280P over-gen for mobile computing Based on testing as of 01/10/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel® Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3425; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled. Processor: 12th Gen Intel® Core™ i7-1280P processor (ADL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-5200MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.457; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3688; BIOS version: 3385.A00. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Claim # & Statement Slide # & Title/Details 13th Gen Intel Core Processors for Business: Mobile and Desktop Performance Comparisons based on Standard **Benchmarks** Up to 12% faster Microsoft Office productivity gen-over-gen As measured by UL Procyon on 13th Gen Intel Core i7-1370P vs. 12th Gen Intel Core i7-1280P for mobile computing Based on testing as of 01/10/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3425; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled. Processor: 12th Gen Intel® Core™ i7-1280P processor (ADL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel® Internal reference board; Memory: LPDDR5-5200MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.457; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3688; BIOS version: 3385.A00. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled. Up to 2.3x faster Windows application performance versus a As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. 10th Gen Intel Core i7-10610U 27 3-year-old notebook Based on testing as of 01/10/2023 Full Configurations: Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel® Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3425; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled. Processor: 10th Gen Intel® Core™ i7-10610U processor (CML-U) PL1 set to 15W TDP, 4C8T; tested on Lenovo ThinkPad X13 Gen 1; Memory: DDR4-2667MHz, 2x8GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® UHD Graphics; Graphics driver: 31.0.101.2114; BIOS version: N2YET35W 1.24. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Claim # & Statement Intel® Core™ i7-1370P vear-old notebook

Slide # & Title/Details

13th Gen Intel Core Processors for Business: Mobile and Desktop Performance Comparisons based on Standard **Benchmarks**

Up to 59% faster Microsoft Office productivity versus a 3-

As measured by UL Procyon on 13th Gen Intel Core i7-1370P vs. 10th Gen Intel Core i7-10610U

Based on testing as of 01/10/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP with Intel® Dynamic Tuning Technology (Intel® DTT) enabled at 35W, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung MZVL2512HCJO-00A00 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3688; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Performance with Intel® DTT will vary based on chassis design choices, chassis temperature thresholds, cooling solutions, form factors (physical dimensions), air flow, and ambient air temperatures.

Processor: 10th Gen Intel® Core™ i7-10610U processor (CML-U) PL1 set to 15W TDP, 4C8T; tested on Lenovo ThinkPad X13 Gen 1; Memory: DDR4-2667MHz, 2x8GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® UHD Graphics; Graphics driver: 31.0.101.2114; BIOS version: N2YET35W 1.24. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Up to 40% faster Windows application performance versus AMD for mobile computing

As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. AMD Ryzen 7 Pro 6850U

Based on testing as of 01/10/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung PM9A1 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3425; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Processor: AMD Ryzen 7 PRO 6850U processor, 8C16T; tested on HP EliteBook 845 G9; Memory: DDR5-4800MHz, 2x16GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: AMD Radeon 680M; Graphics driver: 30.0.14060.10; BIOS version: HP U82 v 01.01.07. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Slide # & Title/Details



13th Gen Intel Core Processors for Business: Mobile and Desktop Performance Comparisons based on Standard Benchmarks

Up to 25% faster business application performance versus

Apple for mobile computing

As measured by CrossMark on 13th Gen Intel Core i7-1370P vs. Apple M2

Based on testing as of 01/10/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP with Intel® Dynamic Tuning Technology (Intel® DTT) enabled at 35W, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung MZVL2512HCJQ-00A00 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3688; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Best Performance". VBS enabled, Defender enabled, and Tamper Protection enabled.

Performance with Intel® DTT will vary based on chassis design choices, chassis temperature thresholds, cooling solutions, form factors (physical dimensions), air flow, and ambient air temperatures.

Processor: Apple M2 processor, 8C8T (4P+4E); tested on MacBook Pro (13 inch, 2022) Model A2338; Memory: LPDDR5, 16GB; Storage: Apple SSD AP0512Z 512GB; Display Resolution: 2560x1600; OS: MacOS Ventura 13.1; Kernel Version: Darwin 23.2.0, Graphics: Apple 10 Cores Integrated GPU; BIOS: N/A; GPU Mode: NA; OS Power Plan: System Settings -> Battery -> "Low Power Mode" = never; VBS: N/A; Defender: N/A: Tamper Protection: N/A.



Slide # & Title/Details



13th Gen Intel Core Processors for Real World Computing: Data Analyst Collaboration Workflow

Up to 58% faster report generation while collaborating versus AMD for mobile computing

As measured by Data Analyst Collaboration Workflow on 13th Gen Intel Core i7-1370P vs. AMD Ryzen 7 Pro 6850U

Workflow Description:

- 1. This workflow measures the time it takes to a generate Power BI Report while sharing on a 1:1 Teams call.
- 2. The sequence begins by starting the 1:1 call on Microsoft Teams and sharing the screen.
- 3. The workflow then measures three timed operations; A) Loading a Power BI report. B) Doing a slice and re-rendering report. C) Saving report as a PDF.
- 4. Timed operations are added to create basis for comparison.

Based on testing as of 01/10/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP with Intel® Dynamic Tuning Technology (Intel® DTT) enabled at 35W, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung MZVL2512HCJQ-00A00 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3688; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Balanced". VBS enabled, Defender enabled, and Tamper Protection enabled.

Performance with Intel® DTT will vary based on chassis design choices, chassis temperature thresholds, cooling solutions, form factors (xyz dimensions), air flow, and ambient air temperatures.

Processor: AMD Ryzen 7 PRO 6850U processor, 8C16T; tested on HP EliteBook 845 G9; Memory: DDR5-4800MHz, 2x16GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: AMD Radeon 680M; Graphics driver: 30.0.14060.10; BIOS version: HP U82 v 01.01.07. Power Plan set to Balanced; Power Mode set to "Balanced". VBS enabled, Defender enabled, and Tamper Protection enabled.

intel

Slide # & Title/Details



13th Gen Intel Core Processors for Real World Computing: Data Analyst Collaboration Workflow

Up to 2.8x faster report generation while collaborating versus a 3-year-old notebook

Data Analyst Collaboration Workflow on 13th Gen Intel Core i7-1370P vs. Intel Core i7-10610U

Workflow Description:

- 1. This workflow measures the time it takes to a generate Power BI Report while sharing on a 1:1 Teams call.
- 2. The sequence begins by starting the 1:1 call on Microsoft Teams and sharing the screen.
- 3. The workflow then measures three timed operations: A) Loading a Power BI report. B) Doing a slice and re-rendering report. C) Saving report as a PDF.
- 4. Timed operations are added to create basis for comparison.

Based on testing as of 01/10/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i7-1370P processor (RPL-P) PL1 set to 28W TDP with Intel® Dynamic Tuning Technology (Intel® DTT) enabled at 35W, 14Core (6P+8E); tested on Intel Internal reference board; Memory: LPDDR5-6000MHz, 2x16GB, Dual Rank; Storage: Samsung MZVL2512HCJQ-00A00 512GB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® Iris® Xe Graphics; Graphics driver: 31.0.101.3688; BIOS version: 3361.A14. Power Plan set to Balanced; Power Mode set to "Balanced". VBS enabled, Defender enabled, and Tamper Protection enabled.

Performance with Intel® DTT will vary based on chassis design choices, chassis temperature thresholds, cooling solutions, form factors (xyz dimensions), air flow, and ambient air temperatures.

Processor: 10th Gen Intel® Core™ i7-10610U processor (CML-U) PL1 set to 15W TDP, 4C8T; tested on Lenovo ThinkPad X13 Gen 1; Memory: DDR4-2667MHz, 2x8GB; Storage: Samsung 980 PRO SSD 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Professional 22621.608; Graphics: Intel® UHD Graphics; Graphics driver: 31.0.101.2114; BIOS version: N2YET35W 1.24. Power Plan set to Balanced; Power Mode set to "Balanced". VBS enabled, Defender enabled, and Tamper Protection enabled.

Slide # & Title/Details



13th Gen Intel Core Processors for Real World Computing: Content Creator Multitasking Workflow

Up to 45% faster content creation while multitasking versu AMD for desktop computing

Up to 45% faster content creation while multitasking versus As measured by Content Creation Multitasking Workflow on 13th Gen Intel Core i9-13900 vs. AMD Ryzen 9 7900

Workflow Description:

User is attending a Microsoft Teams call while executing the following timed tasks:

- 1. Video export using Adobe Premiere Pro is initiated as a foreground task and later moved to the background
- 2. Photo editing using Adobe Photoshop including photo resizing, noise reduction, and application of various filters

The geo mean of the performance ratios of the operations is calculated and becomes the ratio for the overall workload.

Based on testing as of 01/26/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5600MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2; Motherboard BIOS version: 3361.A06

Processor: AMD Ryzen[™] 77900 processor, 12C24T, Motherboard: Asus Crosshair X670E Hero; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5200 MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_755 Service pack: 22H2; Motherboard BIOS version: 805

intel

Slide # & Title/Details



13th Gen Intel Core Processors for Real World Computing: Content Creator Multitasking Workflow

34

Up to 2.3x faster content creation while multitasking versus a 3-year-old desktop

As measured by Content Creation Multitasking Workflow on 13th Gen Intel Core i9-13900 vs. 10th Gen Intel Core i9-10900

Workflow Description:

User is attending a Microsoft Teams call while executing the following timed tasks:

- 1. Video export using Adobe Premiere Pro is initiated as a foreground task and later moved to the background
- 2. Photo editing using Adobe Photoshop including photo resizing, noise reduction, and application of various filters

The geo mean of the performance ratios of the operations is calculated and becomes the ratio for the overall workload.

Based on testing as of 01/26/2023

Full Configurations:

Processor: 13th Gen Intel® Core™ i9-13900 processor (RPL-S), 24C32T (8P + 16E); Motherboard: Intel RVP; Memory: G. Skill DDR5 CL 28-34-34-89, 2X16GB DDR5-5600MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_160 Service pack: 22H2; Motherboard BIOS version: 3361.A06

Processor: 10th Gen Intel® Core™ i9-10900 processor (CML-S), 10C20T (10P + 0E); Motherboard: Asus Prime Z390-A; Memory: G. Skill DDR4 CL 14-14-14-14, 2X16GB DDR4-2933MHz; Storage: Samsung 980 Pro 1TB; Display Resolution: 1920x1080; OS: Microsoft Windows 11 Version 22621_755 Service pack: 22H2; Motherboard BIOS version: 2601

	Claim#&Statement	Slide # & Title/Details
	Intel vPro® brings nearly 2 decades of commercial expertise to deliver the best computing foundation for your business	Intel vPro® brings nearly 2 decades of commercial expertise to deliver the best computing foundation for your business
35	Intel vPro® brings nearly 2 decades of commercial expertise to deliver the best computing foundation for your business	Visit intel.com/performance-vpro for details.



	Claim # & Statement	Slide # & Title/Details
	New Summary That of Professor, processor by 10th Cours and Cours in processor Lead of the hast thermal comprehensive security for your faultiness, creducing the attack surface sugnificantly vs. 4 year old devices. Referency by the latent and done son longer alsurury, if a becoming a recessor, in the course of the course	News Summary
37	Intel vPro has the most comprehensive security for your business	See claim #1 above.
38	Reducing the attack surface significantly vs 4 year old devices	See claim #2 above.
39		3-yr-old PC: As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. 10th Gen Intel Core i7-10610U.
	13th Gen Intel® Core™ processors were designed to	Competition: As measured by SYSmark 30 on 13th Gen Intel Core i7-1370P vs. AMD Ryzen 7 Pro 6850U
	optimize the way your business computes, up to 40% faster than comp	Based on testing as of 01/10/2023
		See claims # 26 and #28 for additional details. Results may vary.

	Claim#&Statement	Slide # & Title/Details
	ŀ	Press Pre Brief Recording with Stephanie Hallford and Mike Nordquist
40	Intel vPro is the best business computing platform available today	As of March 2023; by validating business PCs against a rigorous specification defined for each product version, Intel vPro delivers tangible advantages for any business user. Intel develops Intel vPro by combining four key pillars that are critical to business success (performance, security, manageability, and stability) through product design, broad open ecosystem enablement (OEMs, ODMs, OSs, ISVs, etc.), performance optimizations, and validation against strict product specifications unlike any other commercial client platform. Unique features in each version of Intel vPro are tailored to address the needs of corresponding business segments such as large enterprise, medium business, small business (managed and unmanaged), education, and public sector - all regardless of size, maturity, or trajectory. Please see the feature chart on the Intel vPro performance index page for additional details on certain specific features available on the different Intel vPro platforms. All versions of the Intel vPro® platform require an eligible Intel processor, a supported operating system, Intel LAN and/or WLAN silicon,
		firmware enhancements, and other hardware and software necessary to deliver the system performance, security features, manageability use cases, and lifecycle stability that define the platform. Visit www.intel.com/vPro to learn more about these capabilities.
41	The best technology investment for businesses today.	See claim #40 above.
42	Reduce the attack surface by close to 70%	See claim #2 above
43	Intel vPro remains the unrivaled business computing foundation for businesses of all sizes.	See claim #40 above.
44	Only AI based hardware threat detection with higher efficacy of the latest threats.	Intel® Threat Detection is the only Al-based silicon security in deployment across a billion PCs. Intel® Threat Detection Technology can detect the latest threats at the highest efficacy. Based on SE Labs – Enterprise Advanced Security (Ransomware) – Intel Threat Detection Technology study published March 2023 (commissioned by Intel), which compared ransomware detection capabilities of an Intel vPro system powered by Intel Core processor against systems powered by AMD Ryzen Pro processors on Windows OS. SE Labs tested Intel's hardware approach to ransomware detection, using a wide range of ransomware attacks similar to those used against victims in recent months. Systems tested
		included Intel® Core™ i7-1185G7, AMD Ryzen Pro 5675U, AMD Ryzen Pro 5875U, AMD Ryzen Pro 6650U, and AMD Ryzen Pro 6850U. Visit www.intel.com/tdt to learn more. No product or component can be absolutely secure. Other names and brands may be claimed as the property of others.

	Claim#&Statement	Slide # & Title/Details
	F	Press Pre Brief Recording with Stephanie Hallford and Mike Nordquist
45	Our hardware based security capabilities have taken virtualization based security to a game changing level	Visit intel.com/performance-vpro to learn more.
46	7X boost in scanning performance with Crowdstrike	See claim #14 above.
47	Highest bar of what it takes to have a stable platform	See claim #40 above
40	14% lower 5 year cost of operations 22% lower cost of lost productivity, PC security and performance issues 15% faster to deliver new PCs	See claims #17-19 above.
49	Performance benchmark-based and real-world computing workload advantages	See claims #20-34 above.
50	We have the broadest most open ecosystem in the world	See claim #36
51	Intel vPro is the best platform for PC refresh, offering tremendous benefits over 3-4 year old PCs	See claims #20-34 & 40 above.

	Claim#&Statement	Slide # & Title/Details
		Demo
52	VPro performance Demo (no performance claims or numbers shown)	System comparison on MS Teams, Adobe Premier, and Adobe Photoshop on 13th Gen Intel Core i7-1370P vs. 10th Gen Intel Core i7-10610U See claims #21 & 23 above.

	Claim#&Statement	Slide # & Title/Details
		Misc.
53	Intel vPro brings nearly 2 decades of commercial expertise to deliver the best computing foundation for ANY business	See claim #40 above.
54	Best Hardware for Refresh	See claim #40 above.
55	NEW Exceptional productivity, security and experience benefits over 3-year old devices	See claims #20-34 & 40 above.
56	Intel Builds the Broadset Ecosystem to Deliver the Best Commercial Computing Solutions	See claim #36 above.