# Boosting productivity and security with modern devices: A comparative study

We examined how migrating to Dell Latitude 7430 and OptiPlex 7400 PCs preloaded with Windows 11 Pro and Microsoft security features could affect day-to-day productivity

As companies navigate the era beyond pandemic responses, 74 percent of U.S. companies are moving toward a permanent hybrid work model.[1] And whether you're restructuring the office to strengthen team bonds or trying to keep distributed workforces engaged and informed, powerful and secure technology is central to those efforts. An employee's device shouldn't hold them back with delays while they perform everyday tasks or use demanding apps; instead, it should enable productivity with minimal interruptions to workflow.

When we compared a Dell™ Latitude™ 7430 laptop and Dell OptiPlex™ 7400 all-in-one (AIO) desktop to their two-year-old counterparts, we found that they delivered stronger performance on a host of productivity and content creation benchmark tests. Additionally, our hands-on testing revealed better performance from the Dell business PCs running Windows 11 Pro and preloaded with Microsoft security features, including Virtualization-Based Security (VBS), compared to the previous-gen Dell business PCs running Windows 10 Pro. This makes Dell Latitude 7430 and OptiPlex 7400 PCs and Windows 11 Pro excellent choices for organizations that want to improve employee productivity and hybrid work model experiences without compromising security.
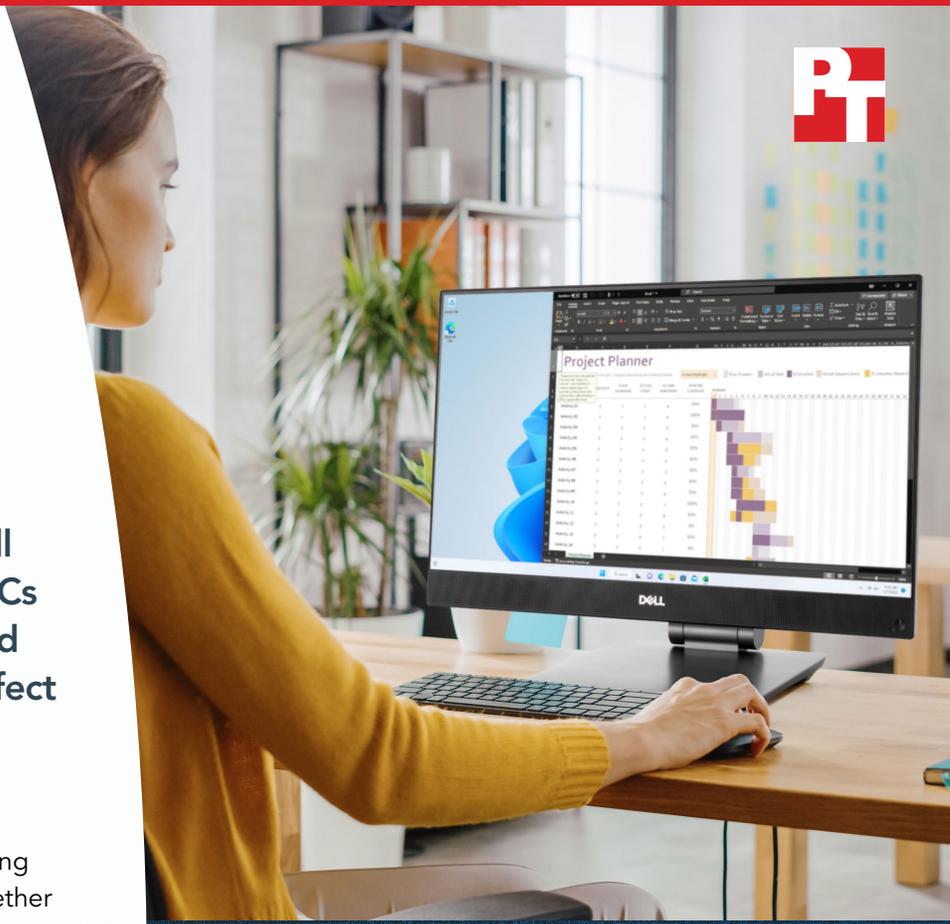
Use Microsoft 365 productivity tools more effectively

Up to **46.3% higher scores** on Procyon Office Productivity Benchmark*

Stay comfortable with comparable or cooler surface temps under load

Up to **4.2°F cooler** during a sustained Cinebench R23 workload**

Protect system memory without slowing performance

Up to **3.2x higher scores** on 3DMark Time Spy*

*Latitude 7430 (Windows 11 Pro with Microsoft security features enabled) vs. Latitude 7410 (Windows 10 Pro with Microsoft security features disabled)

**Latitude 7430 (Windows 10 Pro) vs. Latitude 7410 (Windows 10 Pro)

How we tested

We put four devices to the test:

Two laptop PCs

- **A Dell Latitude 7430** laptop powered by a 12th Gen Intel® Core™ i7-1265U processor

- **A previous-gen Dell Latitude 7410** laptop powered by a 10th Gen Intel Core i7-10810U processor

Two all-in-one PCs

- **A Dell OptiPlex 7400 AIO** desktop powered by a 12th Gen Intel Core i7-12700 processor

- **A previous-gen Dell OptiPlex 7480 AIO** desktop powered by a 10th Gen Intel Core i5-10500 processor

About the Dell Latitude 7430 business laptop

Available as a traditional laptop or as a 2-in-1 with a touchscreen, the 14-inch Latitude 7430 laptop features 12th Gen Intel Core processors, up to 32 GB of memory, up to 1 TB NVMe SSDs, and up to a 58Wh battery. Dell says that the device includes features to empower collaboration everywhere, multitasking for hybrid environments, and "a stunning front-of-screen experience."[2] For more information, visit https://www.dell.com/en-us/shop/laptops-ultrabooks-and-tablets/latitude-7430-laptop/spd/latitude-14-7430-2-in-1-laptop.

About the Dell OptiPlex 7400 AIO desktop

This desktop comes equipped with 12th Gen Intel® Core™ processors. Users can configure the OptiPlex 7400 AIO PC with as much as 64 GB of memory, up to 2TB PCIe NVMe SSDs, and Intel Integrated Graphics. According to Dell, it has designed its AIO desktop to enhance communication with Intelligent Audio, reduce eye strain with a non-touch panel, and integrate into workspaces with a compact, ergonomic design.[3] To learn more, visit https://www.dell.com/en-us/shop/desktop-computers/optiplex-7400-all-in-one-desktop/spd/optiplex-7400-aio.

The Dell OptiPlex 7400 pictured throughout this report on a fixed pedestal is the one we tested with. Other adjustable monitor stands, articulating arms, and VESA mounts are available through Dell.

To show the potential benefits of upgrading from two-year-old Dell PCs to newer ones, we ran our tests in two phases:

Phase 1	Phase 2
Benefits of newer hardware	**Benefits of Windows 11 Pro on Dell PCs with newer hardware and Microsoft security features**
We compared: **Dell Latitude 7430 and OptiPlex 7400 PCs running Windows 10 Pro with Microsoft security features enabled** vs. **Dell Latitude 7410 and OptiPlex 7480 PCs running Windows 10 Pro with Microsoft security features enabled** – We ran eight industry-standard benchmarks. We measured surface temperatures while the PCs were under load. See results (page 4) ▶	We compared: **Dell Latitude 7430 and OptiPlex 7400 PCs running Windows 11 Pro with default Microsoft security features enabled** vs. **Dell Latitude 7410 and OptiPlex 7480 PCs running Windows 10 Pro with default Microsoft security features *disabled**** – We ran a subset of Phase 1 benchmarks. We measured battery life on both Dell Latitude laptops. **We also tested the previous-gen Windows 10 Pro PCs with Microsoft security features enabled. These results were similar to results from our Windows 10 Pro PCs with Microsoft security features disabled testing. See the science behind the report for these results.* See results (page 10) ▶

In both phases, we used a variety of industry-standard benchmarks to demonstrate the performance that users might expect from these Dell business PCs. The benchmark scores and surface temperatures we report reflect the specific configurations we tested. Any difference in the configurations you test, as well as browsers, screen brightness, network traffic, or software additions, can affect these results. For more information on these Dell business PCs and our testing parameters and procedures, see the science behind the report.

PHASE 1

Improve user experience and productivity with newer hardware

While opinions may vary on just how productive hybrid work environments are, it's clear that they've become more common in the last three years. For example, since the start of the pandemic, the number of Microsoft Teams meetings has increased by 153 percent—with 20,000 survey respondents in 11 countries admitting to multitasking during those meetings by reading and sending emails, working on overflowing to-do lists, and conducting online searches.[4] These are compute-intensive tasks that strain under-powered PCs.

In this phase of testing, we looked at how hardware can affect system performance and user experience. To control for variances in operating system versions, we installed the same OS, Windows 10 Pro, on all the devices, ran eight industry-standard benchmarks, and conducted thermal testing.

Performance benchmarks

Compute-intensive benchmarks—such as Cinebench R23, 3DMark, Procyon® Video Editing, and Procyon Photo Editing—are a controlled way to compare overall PC performance during taxing tasks, even if users are not editing photos or videos every day. For example, higher benchmark scores here can translate to speedier response times from demanding productivity apps, financial analysis programs, product development and design software, or scientific simulations. As Figures 1 through 6 show, compared to the older PCs, we saw better performance in all of these tests from the Dell Latitude 7430 laptop and Dell OptiPlex 7400 AIO desktop.

Cinebench R23 (single core)
Overall rating | Higher is better

Laptop PCs	
Dell Latitude 7430 laptop*	1,761
Dell Latitude 7410 laptop**	1,074

*Windows 10 Pro, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, 10th Gen Intel Core i7-10810U

63.9% higher score

AIO PCs	
Dell OptiPlex 7400 AIO desktop*	1,901
Dell OptiPlex 7480 AIO desktop**	1,200

*Windows 10 Pro, 12th Gen Intel Core i7-12700
**Windows 10 Pro, 10th Gen Intel Core i5-10500
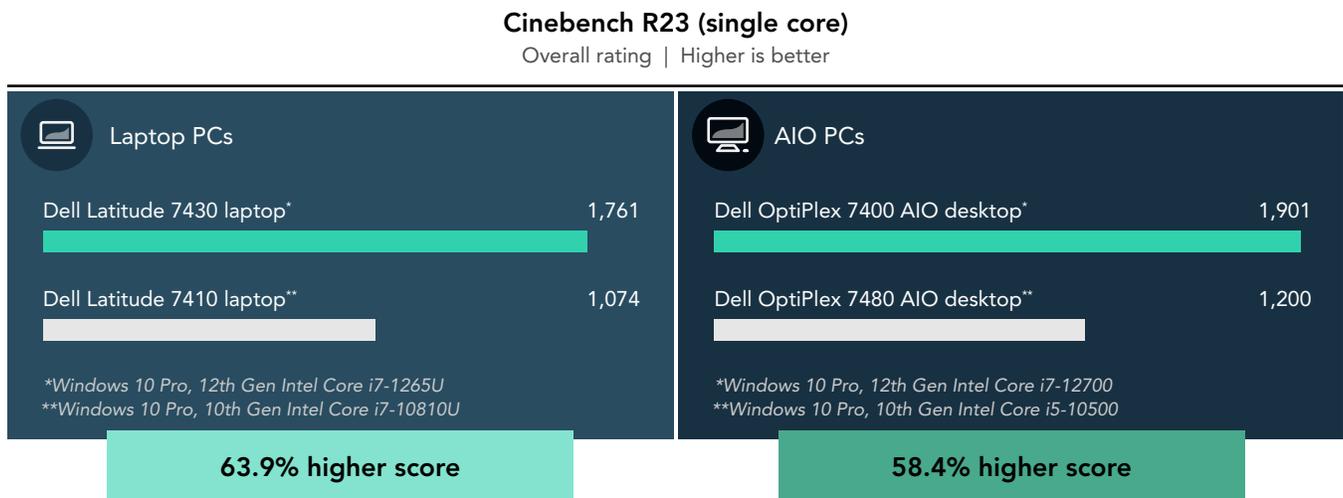
58.4% higher score

Figure 1: Cinebench R23 single core ratings. Higher is better. Source: Principled Technologies.

Cinebench R23 evaluates how well device hardware runs under high CPU load.[5]

Cinebench R23 (multi-core)
Overall rating | Higher is better

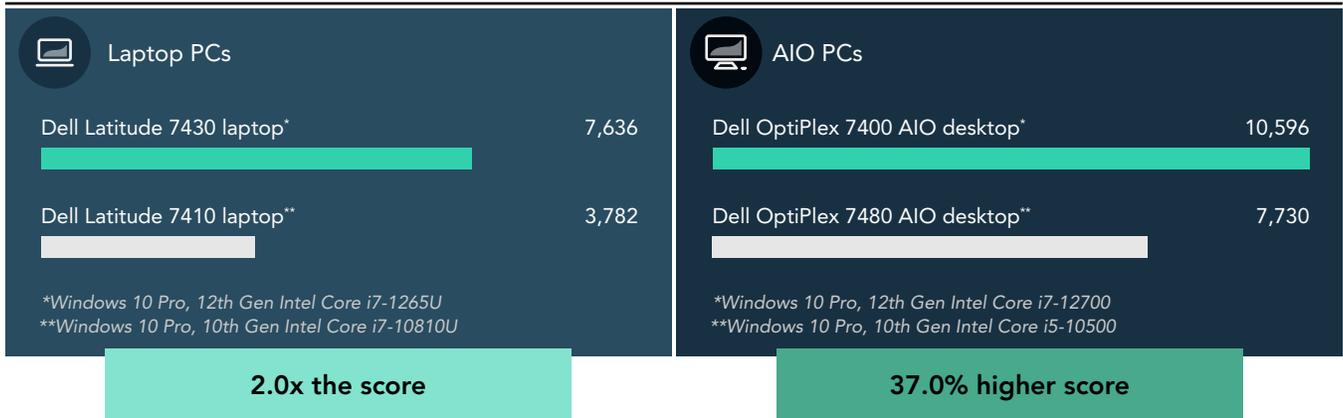| Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	7,636	Dell OptiPlex 7400 AIO desktop*	10,596
Dell Latitude 7410 laptop**	3,782	Dell OptiPlex 7480 AIO desktop**	7,730
*Windows 10 Pro, 12th Gen Intel Core i7-1265U		*Windows 10 Pro, 12th Gen Intel Core i7-12700	
**Windows 10 Pro, 10th Gen Intel Core i7-10810U		**Windows 10 Pro, 10th Gen Intel Core i5-10500	
2.0x the score		**37.0% higher score**	

Figure 2: Cinebench R23 multi-core ratings. Higher is better. Source: Principled Technologies.

3DMark Fire Strike
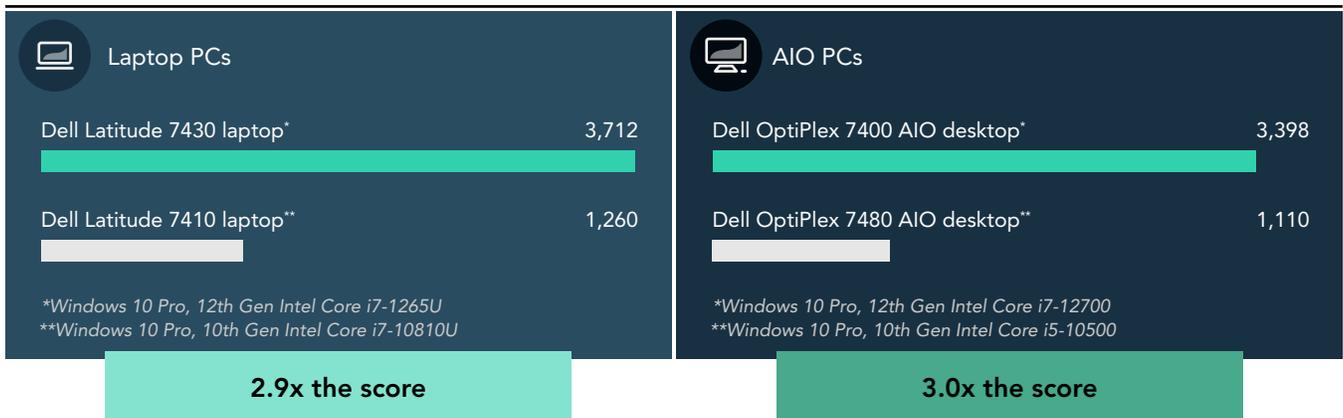Overall rating | Higher is better

Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	3,712	Dell OptiPlex 7400 AIO desktop*	3,398
Dell Latitude 7410 laptop**	1,260	Dell OptiPlex 7480 AIO desktop**	1,110
*Windows 10 Pro, 12th Gen Intel Core i7-1265U		*Windows 10 Pro, 12th Gen Intel Core i7-12700	
**Windows 10 Pro, 10th Gen Intel Core i7-10810U		**Windows 10 Pro, 10th Gen Intel Core i5-10500	
2.9x the score		**3.0x the score**	

Figure 3: 3DMark Fire Strike ratings. Higher is better. Source: Principled Technologies.

3DMark Time Spy
Overall rating | Higher is better

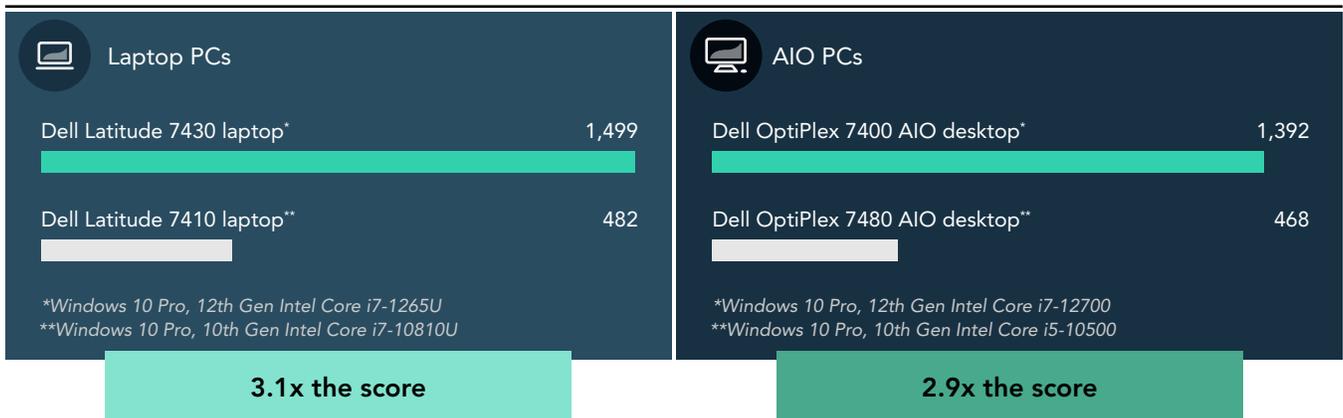| Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	1,499	Dell OptiPlex 7400 AIO desktop*	1,392
Dell Latitude 7410 laptop**	482	Dell OptiPlex 7480 AIO desktop**	468
*Windows 10 Pro, 12th Gen Intel Core i7-1265U		*Windows 10 Pro, 12th Gen Intel Core i7-12700	
**Windows 10 Pro, 10th Gen Intel Core i7-10810U		**Windows 10 Pro, 10th Gen Intel Core i5-10500	
3.1x the score		**2.9x the score**	

Figure 4: 3DMark Time Spy ratings. Higher is better. Source: Principled Technologies.

3DMark assesses how well a device's hardware can perform during resource-intensive gaming.[6]

Procyon Photo Editing Benchmark
Overall rating | Higher is better

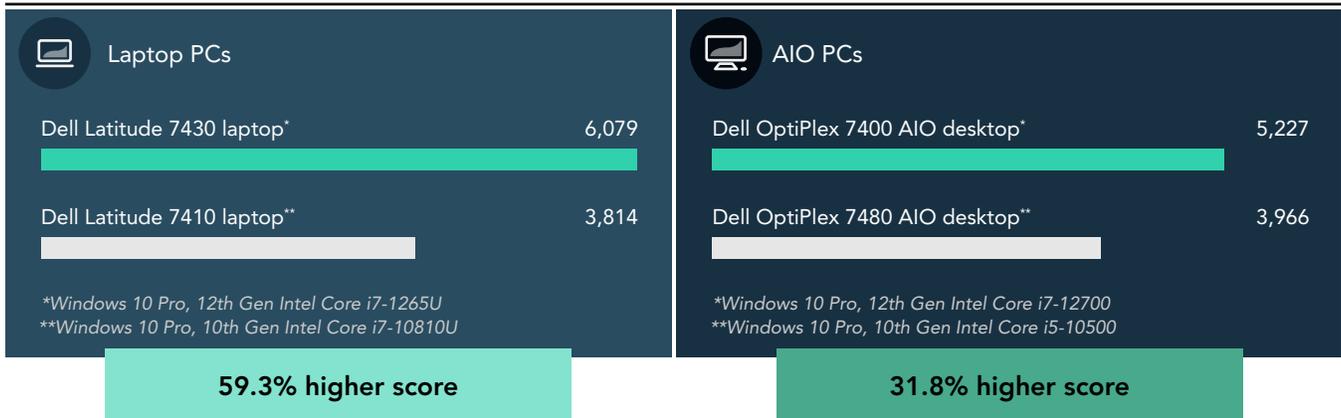| Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	6,079	Dell OptiPlex 7400 AIO desktop*	5,227
Dell Latitude 7410 laptop**	3,814	Dell OptiPlex 7480 AIO desktop**	3,966
Windows 10 Pro, 12th Gen Intel Core i7-1265U ***Windows 10 Pro, 10th Gen Intel Core i7-10810U*		*Windows 10 Pro, 12th Gen Intel Core i7-12700* ***Windows 10 Pro, 10th Gen Intel Core i5-10500*	
59.3% higher score		**31.8% higher score**	

Figure 5: Procyon Photo Editing Benchmark overall ratings. Higher is better. Source: Principled Technologies.

Procyon Video Editing Benchmark
Overall rating | Higher is better

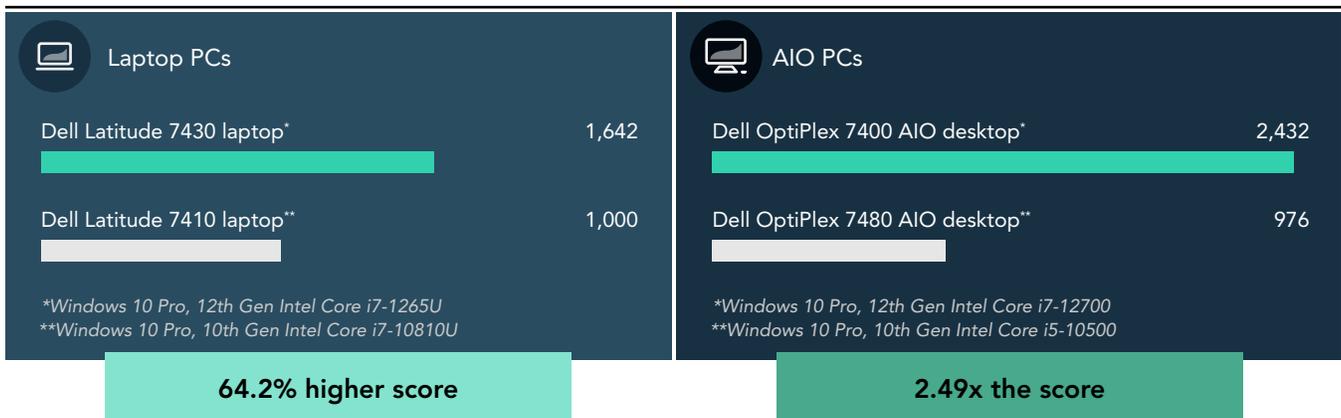| Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	1,642	Dell OptiPlex 7400 AIO desktop*	2,432
Dell Latitude 7410 laptop**	1,000	Dell OptiPlex 7480 AIO desktop**	976
Windows 10 Pro, 12th Gen Intel Core i7-1265U ***Windows 10 Pro, 10th Gen Intel Core i7-10810U*		*Windows 10 Pro, 12th Gen Intel Core i7-12700* ***Windows 10 Pro, 10th Gen Intel Core i5-10500*	
64.2% higher score		**2.49x the score**	

Figure 6: Procyon Video Editing Benchmark overall ratings. Higher is better. Source: Principled Technologies.

Productivity benchmarks

The productivity benchmarks we ran—Procyon Office Productivity Benchmark and WebXPRT 4—help give an idea of how a device's response times might help or hinder an employee's daily workflow. A more responsive device can minimize wait times, while a less responsive PC might interrupt users' focus and hamper their workflows. Figures 7 and 8 show higher performance scores from the newer Dell Latitude 7430 laptop and Dell OptiPlex 7400 AIO desktop.

Procyon Photo Editing Benchmark utilizes Adobe® Lightroom® Classic and Adobe Photoshop® to test photo editing performance.[7]

Procyon Video Editing Benchmark demonstrates device performance during an Adobe Premiere® Pro workflow.[8]

Procyon Office Productivity Benchmark

Overall rating | Higher is better

Laptop PCs

Dell Latitude 7430 laptop* 6,378

Dell Latitude 7410 laptop** 4,586

*Windows 10 Pro, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, 10th Gen Intel Core i7-10810U

39.0% higher score

AIO PCs

Dell OptiPlex 7400 AIO desktop* 6,622

Dell OptiPlex 7480 AIO desktop** 5,108

*Windows 10 Pro, 12th Gen Intel Core i7-12700
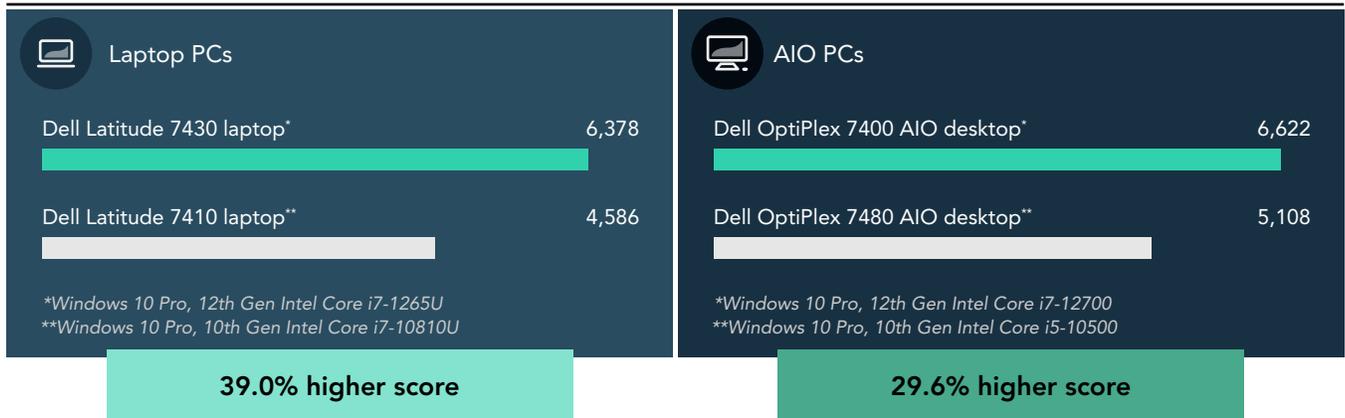**Windows 10 Pro, 10th Gen Intel Core i5-10500

29.6% higher score

Figure 7: Procyon Office Productivity Benchmark overall ratings. Higher is better. Source: Principled Technologies.

WebXPRT 4
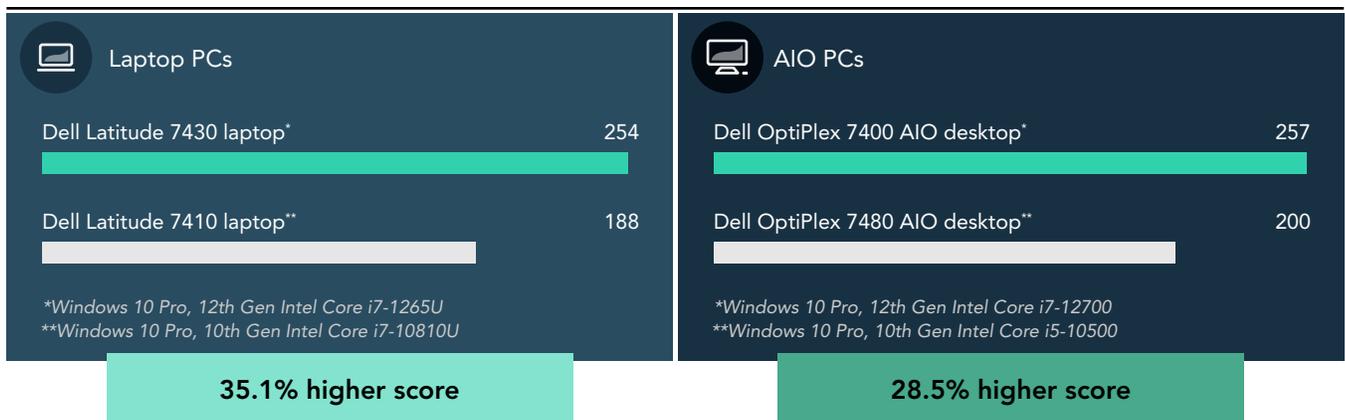
Overall score | Higher is better

Laptop PCs

Dell Latitude 7430 laptop* 254

Dell Latitude 7410 laptop** 188

*Windows 10 Pro, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, 10th Gen Intel Core i7-10810U

35.1% higher score

AIO PCs

Dell OptiPlex 7400 AIO desktop* 257

Dell OptiPlex 7480 AIO desktop** 200

*Windows 10 Pro, 12th Gen Intel Core i7-12700
**Windows 10 Pro, 10th Gen Intel Core i5-10500

28.5% higher score

Figure 8: WebXPRT 4 ratings. Higher is better. Source: Principled Technologies.

How does migrating help your organization?

IT decision-makers:

- Increase employee productivity with PCs that perform well and are more responsive

- Improve employee satisfaction with PCs that provide a superior user experience

Employees:

- Get more done with a PC that performs well on a variety of productivity tasks

- Collaborate and communicate effectively with a more responsive PC
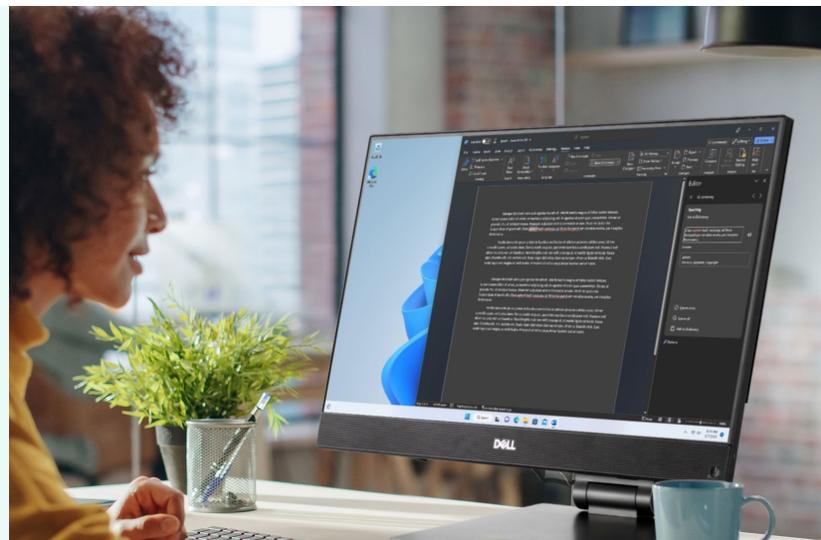
Procyon Office Productivity Benchmark uses Microsoft 365 apps to measure aspects of workday performance that affect business user experience.[9]

WebXPRT 4 measures browser performance with tasks that mirror real-world user activity.[10]

Thermal testing

High-performing PCs can enable you to process more data, run demanding applications, and multi-task with several open programs or browser tabs. While this performance can help throughout the workday, it could also cause devices to generate more heat. Users may experience discomfort from hot surface temperatures or, worse, performance degradations. Ideally, devices would offer higher performance while maintaining cool temperatures.

To measure the temperature of the devices we tested, we stressed each system by running the Cinebench R23 benchmark for 30 minutes and then taking top and bottom thermal readings. The Dell Latitude 7430 and OptiPlex 7400 PCs delivered better performance scores (Figure 9) with cooler or comparable thermals at two hot spots (Figures 10 and 11).
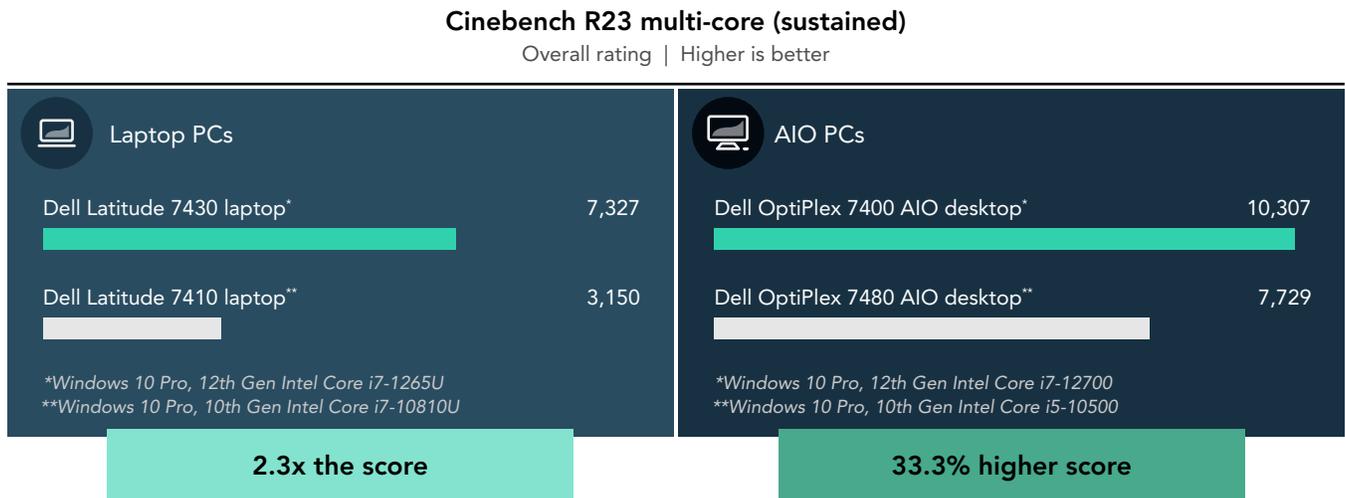
Cinebench R23 multi-core (sustained)
Overall rating | Higher is better

Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	7,327	Dell OptiPlex 7400 AIO desktop*	10,307
Dell Latitude 7410 laptop**	3,150	Dell OptiPlex 7480 AIO desktop**	7,729
Windows 10 Pro, 12th Gen Intel Core i7-1265U		*Windows 10 Pro, 12th Gen Intel Core i7-12700*	
**Windows 10 Pro, 10th Gen Intel Core i7-10810U*		**Windows 10 Pro, 10th Gen Intel Core i5-10500*	
2.3x the score		**33.3% higher score**	

Figure 9: Cinebench R23 multi-core ratings on a workload we ran for 30 minutes. Higher is better. Source: Principled Technologies.

Hottest top surface point temperature
°F (°C) delta from room temperature | Lower temps are better

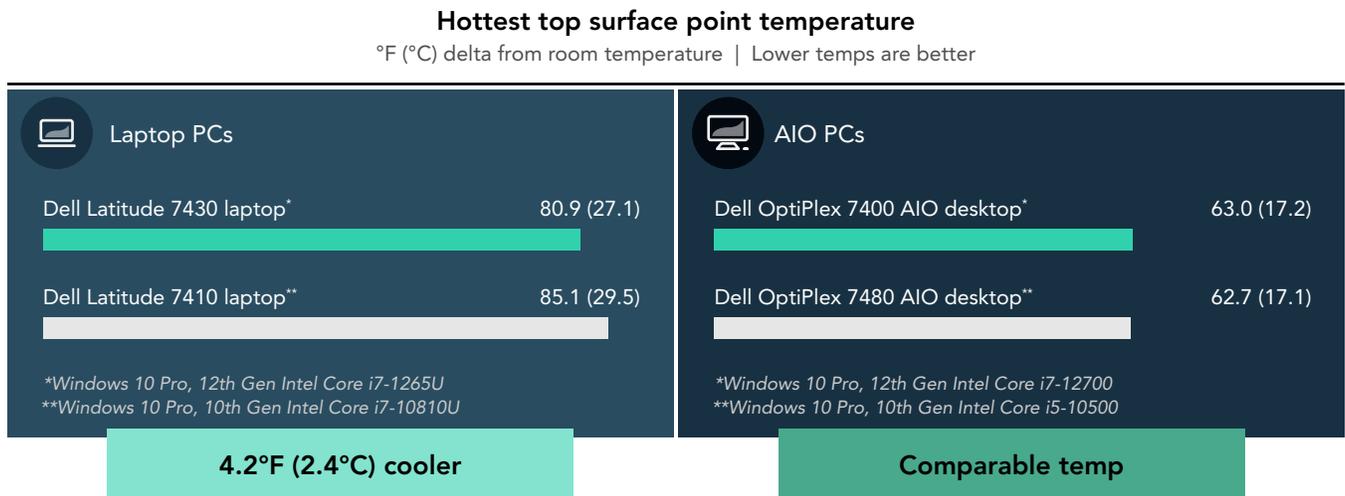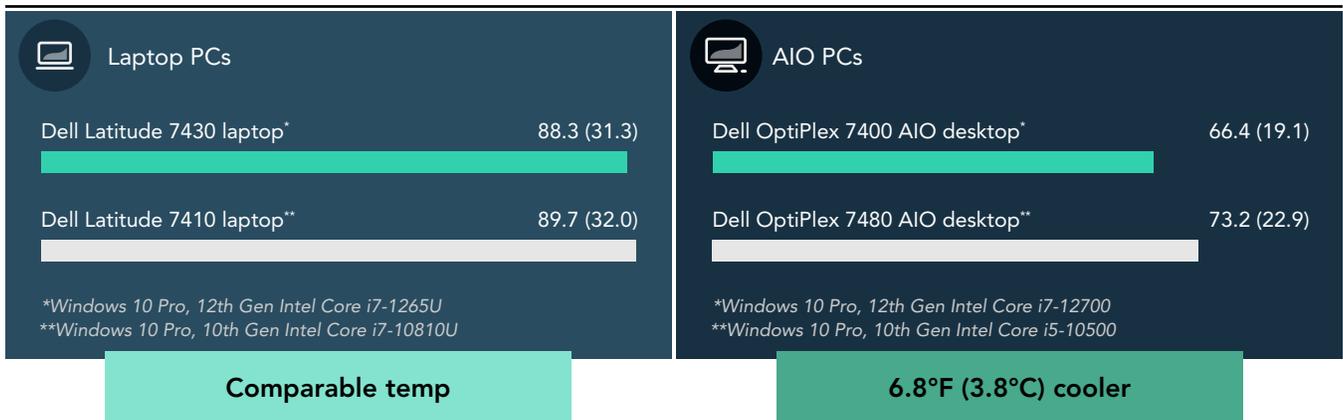| Laptop PCs		AIO PCs	
Dell Latitude 7430 laptop*	80.9 (27.1)	Dell OptiPlex 7400 AIO desktop*	63.0 (17.2)
Dell Latitude 7410 laptop**	85.1 (29.5)	Dell OptiPlex 7480 AIO desktop**	62.7 (17.1)
Windows 10 Pro, 12th Gen Intel Core i7-1265U		*Windows 10 Pro, 12th Gen Intel Core i7-12700*	
**Windows 10 Pro, 10th Gen Intel Core i7-10810U*		**Windows 10 Pro, 10th Gen Intel Core i5-10500*	
4.2°F (2.4°C) cooler		**Comparable temp**	

Figure 10: Average temperatures after running Cinebench R23 (multi-core) for 30 minutes. Lower temps are better. Source: Principled Technologies.

Hottest bottom surface point temperature
°F (°C) delta from room temperature | Lower temps are better

Laptop PCs	
Dell Latitude 7430 laptop*	88.3 (31.3)
Dell Latitude 7410 laptop**	89.7 (32.0)

*Windows 10 Pro, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, 10th Gen Intel Core i7-10810U

Comparable temp

AIO PCs	
Dell OptiPlex 7400 AIO desktop*	66.4 (19.1)
Dell OptiPlex 7480 AIO desktop**	73.2 (22.9)

*Windows 10 Pro, 12th Gen Intel Core i7-12700
**Windows 10 Pro, 10th Gen Intel Core i5-10500

6.8°F (3.8°C) cooler

Figure 11: Average temperatures after running Cinebench R23 (multi-core) for 30 minutes. Lower temps are better. Source: Principled Technologies.

As our benchmark results show, when running the same OS, the Latitude 7430 and OptiPlex 7400 offered several significant performance improvements over their previous-gen counterparts. They also delivered higher Cinebench R23 multi-core scores under a taxing workload while keeping surface temperatures cooler than or on par with the previous-gen devices. Whether your workforce requires laptops or AIO desktops, employees stand to benefit from the performance improvements of the Dell Latitude 7430 laptop and OptiPlex 7400 AIO desktop.

Improve security and performance with Microsoft security features and Windows 11 Pro on newer Dell PCs

Over 70 percent of desktop and laptop users choose Microsoft Windows PCs, making them the mostly widely used in the world.[11] This makes them a tempting target for malicious actors, who may try to obtain privileged access to sensitive information such as credentials and encryption keys through kernel-level attacks. To combat this problem, Microsoft introduced the Virtualization-Based Security (VBS) feature as in Windows 10. In Windows 11 Pro, VBS comes enabled by default as a part of Microsoft's enhanced operating system security efforts.

In this phase of testing, we determined how security, hardware, and OS can affect system performance and the user experience. We ran a subset of the Phase 1 benchmarks and conducted battery life testing.

Note: Below, we show test results from Dell Latitude 7430 and OptiPlex 7400 PCs running Windows 11 Pro, where we left VBS enabled, and two-year-old PCs running Windows 10 Pro with VBS disabled. As an extra comparison point, we ran a third set of tests with VBS enabled on the two-year-old PCs. We didn't see significant performance differences between the previous-gen devices when we enabled or disabled VBS. To see this comparison point, visit the science behind the report.

Performance benchmarks

Although users may be concerned about sacrificing performance for security, the results of our testing show that the Dell Latitude 7430 and OptiPlex 7400 PCs we tested with VBS enabled delivered better performance than their two-year-old counterparts with VBS disabled. This means that users on Windows 11 Pro Dell PCs can do their best work with business-ready performance and built-in security features (see Figures 12 through 16).
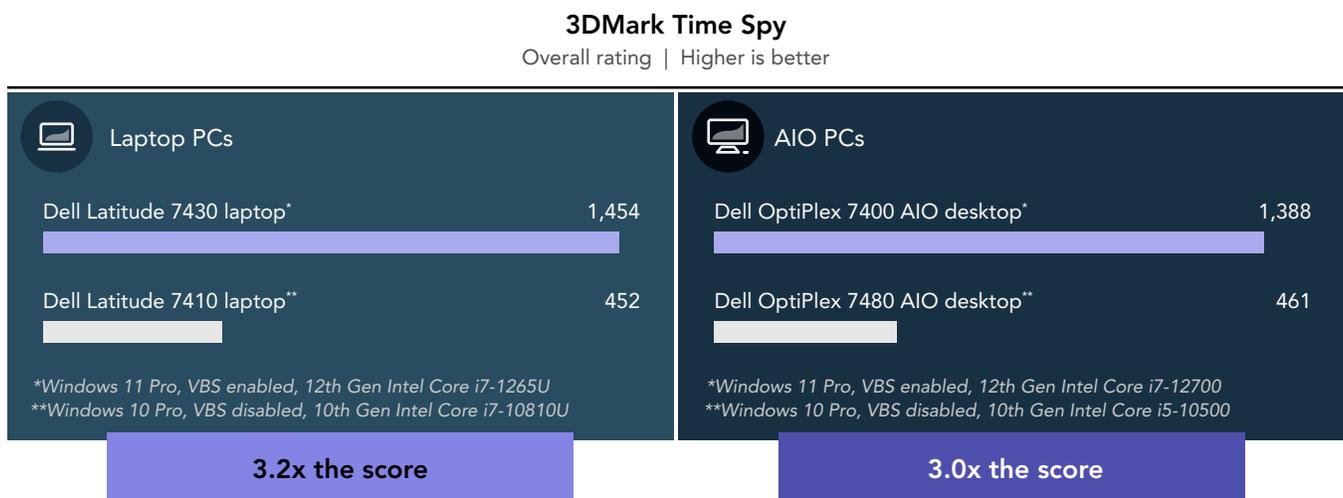
3DMark Time Spy
Overall rating | Higher is better

Laptop PCs	
Dell Latitude 7430 laptop*	1,454
Dell Latitude 7410 laptop**	452

*Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U

3.2x the score

AIO PCs	
Dell OptiPlex 7400 AIO desktop*	1,388
Dell OptiPlex 7480 AIO desktop**	461

*Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-12700
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i5-10500

3.0x the score

Figure 12: 3DMark Time Spy ratings. Higher is better. Source: Principled Technologies.

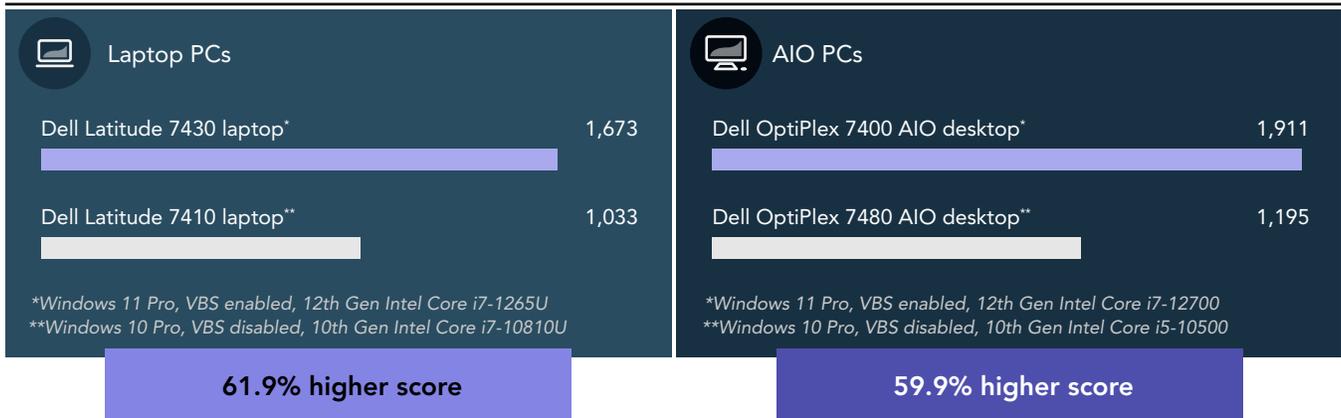## Cinebench R23 single core
Overall rating | Higher is better

Laptop PCs

Dell Latitude 7430 laptop* 1,673

Dell Latitude 7410 laptop** 1,033

*Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U

61.9% higher score

AIO PCs

Dell OptiPlex 7400 AIO desktop* 1,911

Dell OptiPlex 7480 AIO desktop** 1,195

*Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-12700
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i5-10500

59.9% higher score

Figure 13: Cinebench R23 single-core ratings. Higher is better. Source: Principled Technologies.

Cinebench R23 multi-core
Overall rating | Higher is better

Laptop PCs

Dell Latitude 7430 laptop* 7,537

Dell Latitude 7410 laptop** 3,497

*Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U

2.1x the score

AIO PCs

Dell OptiPlex 7400 AIO desktop* 10,315

Dell OptiPlex 7480 AIO desktop** 7,692

*Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-12700
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i5-10500

34.1% higher score

Figure 14: Cinebench R23 multi-core ratings. Higher is better. Source: Principled Technologies.

About out-of-box Microsoft security features

The Dell business PCs we tested came with Microsoft security features enabled by default. According to Microsoft, VBS isolates a secure portion of memory away from the rest of the OS to host security solutions, "providing them with greatly increased protection from vulnerabilities in the operating system, and preventing the use of malicious exploits which attempt to defeat protections."[12] Microsoft Hypervisor-Enforced Code Integrity (HVCI), or Memory Integrity, both helps create the virtual environment and protects it.[13]

Procyon Photo Editing Benchmark
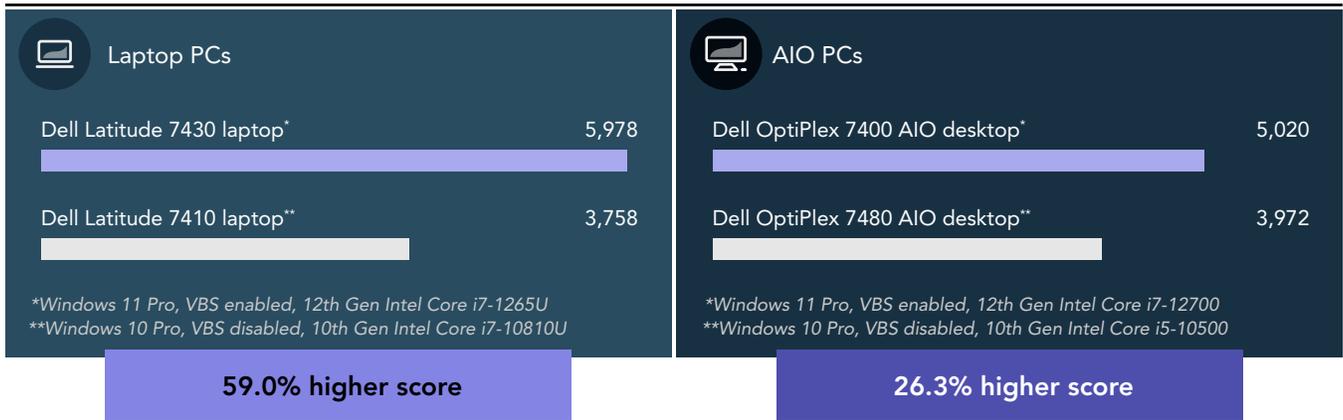Overall rating | Higher is better

Laptop PCs

Dell Latitude 7430 laptop*   5,978

Dell Latitude 7410 laptop**   3,758

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U*

59.0% higher score

AIO PCs

Dell OptiPlex 7400 AIO desktop*   5,020

Dell OptiPlex 7480 AIO desktop**   3,972

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-12700
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i5-10500*

26.3% higher score

Figure 15: Procyon Photo Editing Benchmark overall ratings. Higher is better. Source: Principled Technologies.

Procyon Video Editing Benchmark
Overall rating | Higher is better

Laptop PCs

Dell Latitude 7430 laptop*   1,733

Dell Latitude 7410 laptop**   1,009

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U*

71.7% higher score

AIO PCs

Dell OptiPlex 7400 AIO desktop*   2,056

Dell OptiPlex 7480 AIO desktop**   987

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-12700
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i5-10500*

2.0x the score
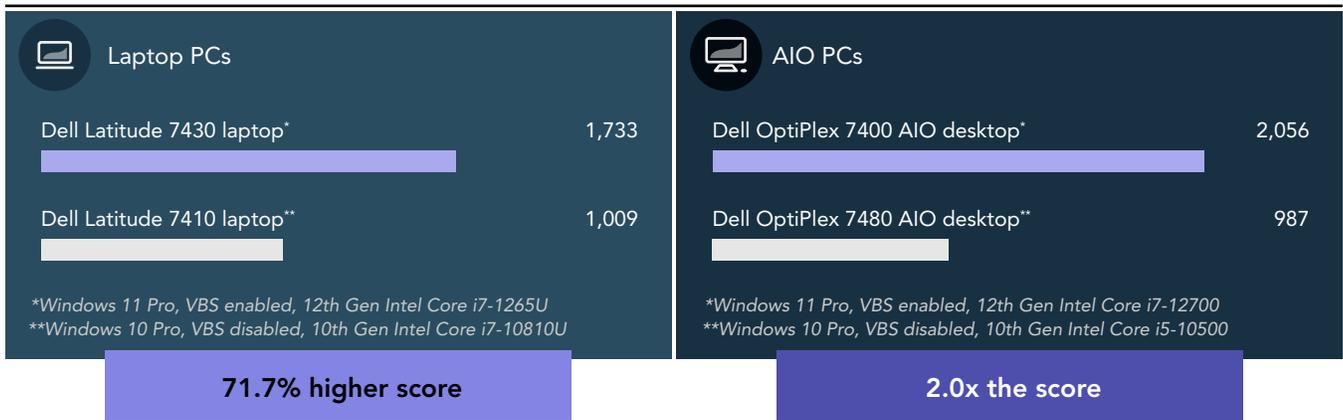
Figure 16: Procyon Video Editing Benchmark overall ratings. Higher is better. Source: Principled Technologies.

Productivity benchmark

As Figure 17 shows, compared to the older PCs running Windows 10 Pro with VBS disabled, we saw better performance from the newer Dell Latitude laptop and Dell OptiPlex AIO desktop PCs running Windows 11 Pro with default Microsoft security features in place. So, organizations don't have to sacrifice kernel-level security for productivity or vice versa.

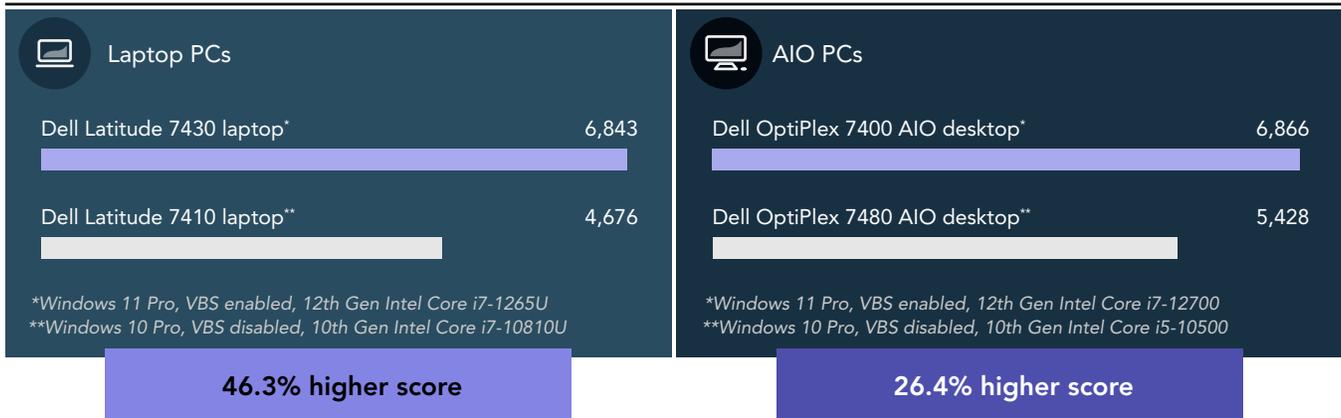**Procyon Office Productivity Benchmark**

Overall rating | Higher is better

Laptop PCs	
Dell Latitude 7430 laptop*	6,843
Dell Latitude 7410 laptop**	4,676

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U

46.3% higher score

AIO PCs	
Dell OptiPlex 7400 AIO desktop*	6,866
Dell OptiPlex 7480 AIO desktop**	5,428

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-12700
**Windows 10 Pro, VBS disabled, 10th Gen Intel Core i5-10500

26.4% higher score

Figure 17: Procyon Office Productivity Benchmark overall ratings. Higher is better. Source: Principled Technologies.

How does migrating help your organization?

IT decision-makers

- Improve security with default kernel-protection protection that doesn't negatively impact PC performance

Employees

- Work securely and effectively with Dell business PCs preloaded with Windows 11 Pro and default Microsoft security features

Battery life testing

Hybrid or remote workers who value flexibility could bounce between a home office, coffee shop, school carpool line, or doctor's office—sometimes all within the span of a single day. When their devices have a longer battery life, they can worry less about where to plug in and reduce distracting battery warnings, making room to increase focus on work-related tasks, wherever the day takes them.

In Phase 2 of our testing, we ran the MobileMark 2018 benchmark on the Dell Latitude laptops, which measures how long a device could run on battery while using common productivity and creativity apps. Figure 18 shows that the Latitude 7430 with Windows 11 Pro and VBS enabled ran for over nine hours—a 58 percent increase compared to the previous-generation Latitude 7410 running Windows 10 Pro with VBS disabled.

MobileMark 2018 battery life
Time (hours:minutes) | Higher is better

Laptop PCs

Dell Latitude 7430 laptop*   9:23

Dell Latitude 7410 laptop**   6:00

Windows 11 Pro, VBS enabled, 12th Gen Intel Core i7-1265U
Windows 10 Pro, VBS disabled, 10th Gen Intel Core i7-10810U
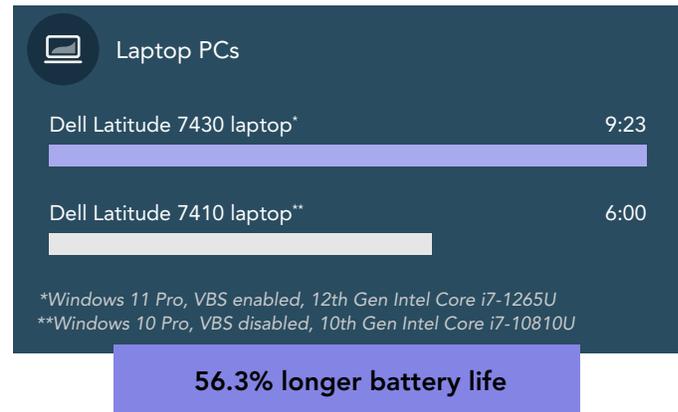
56.3% longer battery life

Figure 18: Battery life, in minutes, according to the MobileMark 2018 benchmark. More time is better. Source: Principled Technologies.

While users may worry about security features impeding performance, our results show that Dell Latitude 7430 and OptiPlex 7400 PCs running Windows 11 Pro with VBS enabled delivered higher scores than their Windows 10 Pro counterparts with VBS disabled under several workloads. Additionally, the Dell Latitude 7430 laptop running Windows 11 Pro with VBS enabled also delivered more than a workday's worth of battery life, while the Latitude 7410 laptop running Windows 10 Pro with VBS disabled achieved just under six hours of battery life. (To compare Latitude 7410 running Windows 10 Pro with VBS-enabled and-disabled performance scores, see the science behind the report.)

Along with longer battery life, the improved responsiveness of the Latitude 7430 and OptiPlex 7400 PCs equipped with Windows 11 Pro could make for a smoother user experience that might increase productivity—all with added protection from kernel-level attacks with Microsoft security features left on.

SUMMARY

Enjoy better PC responsiveness and peace of mind with Dell business PCs preloaded with Windows 11 Pro and Microsoft security features*

	Dell Latitude 7430 laptop	OptiPlex 7400 all-in-one desktop
Use Microsoft 365 productivity tools more efficiently based on higher Procyon Office Productivity Benchmark scores	**46.3%** higher score[†]	**26.4%** higher score[‡]

	Dell Latitude 7430 laptop	OptiPlex 7400 All-in-One desktop
Get faster CPU workload processing capabilities based on higher Cinebench R23 benchmark scores	**61.9%** higher single-core score[†] **2.1x** higher multi-core score[†]	**59.9%** higher single-core score[‡] **34.1%** higher multi-core score[‡]

	Dell Latitude 7430 laptop	OptiPlex 7400 All-in-One desktop
Complete compute-intensive tasks in less time based on higher Procyon Photo and Video Editing Benchmark scores	**59.0%** higher photo-editing score[†] **71.7%** higher video-editing score[†]	**26.3%** higher photo-editing score[‡] **2.0x** higher score[‡]

	Dell Latitude 7430 laptop	OptiPlex 7400 All-in-One desktop
Protect system memory without slowing performance based on 3DMark Time Spy benchmark scores	**3.2x** higher score[†]	**3.0x** higher score[‡]

	Dell Latitude 7430 laptop	OptiPlex 7400 All-in-One desktop
Boost on-the-go productivity based on MobileMark 2018 results	**9¼ hours** of battery life[†]	**N/A**

|	Dell Latitude 7430 laptop	OptiPlex 7400 All-in-One desktop
Stay comfortable with comparable or cooler surface temps during a sustained Cinebench R23 workload	**Up to 4.2°F** cooler[§]	**Comparable** temp[¶]

* Latitude 7430 and OptiPlex 7400 (Windows 11 Pro with VBS enabled) vs. Latitude 7410 and OptiPlex 7480 (Windows 10 Pro PCs with VBS disabled)
† Latitude 7430 (Windows 11 Pro with Microsoft security features enabled) vs. Latitude 7410 (Windows 10 Pro with Microsoft security features disabled)
‡ OptiPlex 7400 (Windows 11 Pro with Microsoft security features enabled) vs. OptiPlex 7480 (Windows 10 Pro PCs with VBS disabled)
§ Latitude 7430 (Windows 10 Pro) vs. Latitude 7410 (Windows 10 Pro)
¶ OptiPlex 7400 (Windows 10 Pro) vs. OptiPlex 7480 (Windows 10 Pro)
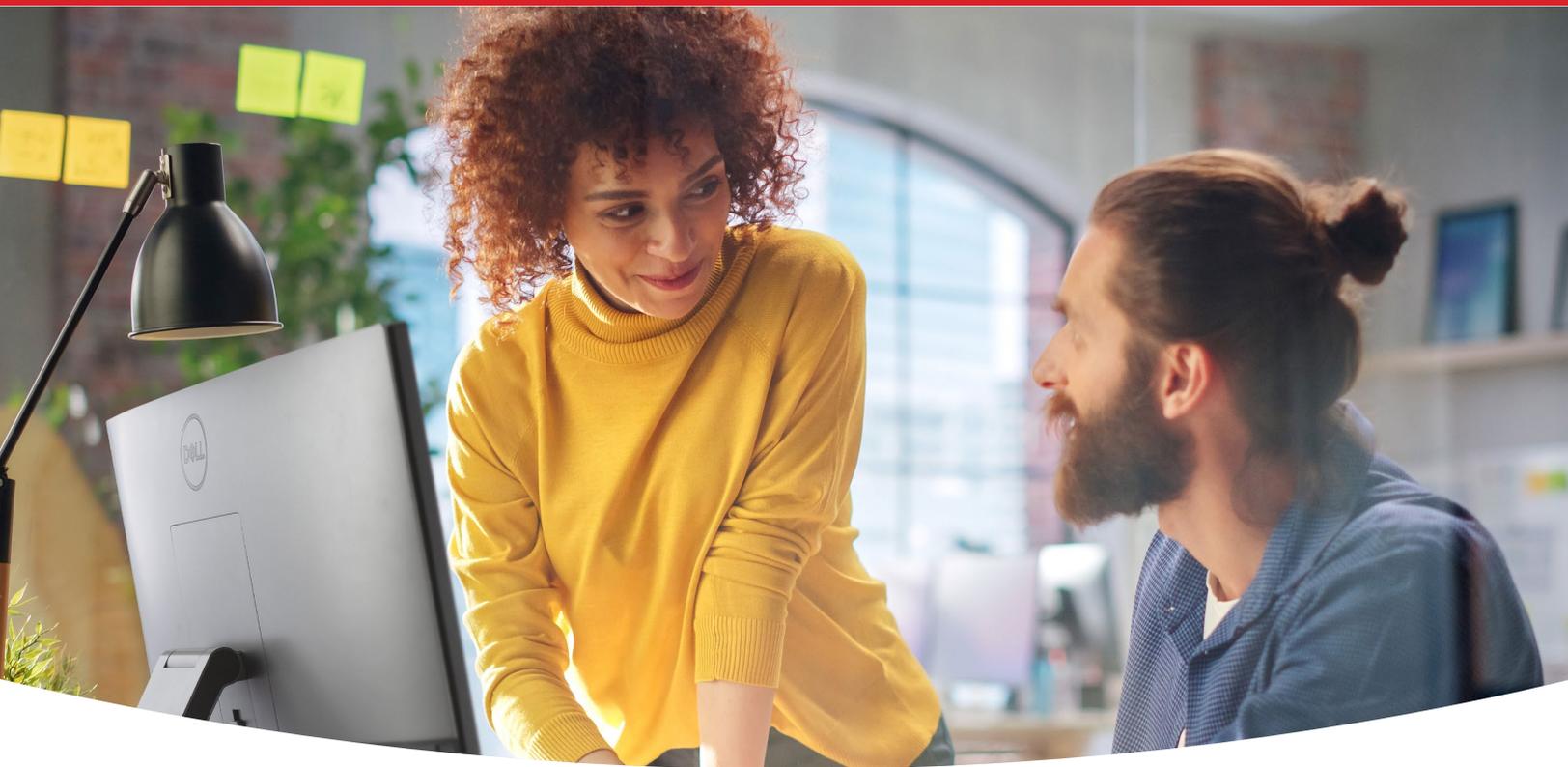
Conclusion

To set up organizations for success now and in the future, company-provided technology must empower employees to finish work without delay and reduce security vulnerabilities. If your company is considering a Dell business PC refresh, our first phase of testing demonstrates that updated hardware in Dell Latitude 7430 laptops and Dell OptiPlex 7400 AIO desktops can deliver better performance while users perform workday tasks, use compute-intensive applications, or multi-task. Our second phase of testing shows that the Latitude 7430 and OptiPlex 7400 PCs we tested—equipped with Windows 11 Pro and default Microsoft security features enabled, including VBS—outperformed their two-year-old Windows 10 Pro counterparts with VBS disabled. Any decision to refresh employee devices can be daunting, but with Dell Latitude 7430 laptops and Dell OptiPlex 7400 AIO desktops running Windows 11 Pro, employees can benefit from more responsive systems preloaded with kernel-level security.

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Read the science behind this report at https://facts.pt/Ospu1XG ▶

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