



AI-Ready Workstations for Power Users

Accelerate productivity with AI-enabled workstations

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Who this IDC InfoBrief is for

- This IDC InfoBrief caters to decision-makers, C-suite executives, IT managers, and advanced PC users. Specifically, it addresses those responsible for selecting and configuring PCs within organizations — whether in office, home, or hybrid settings.
- Beyond budget considerations, the InfoBrief empowers managers and users to make informed purchasing decisions.
- It emphasizes avoiding suboptimal choices driven by mere cost savings, especially when opting for a general-purpose commercial PC over a specialized workstation, now enhanced with AI.
- The information in this brief is supported by IDC data and analysis, including 10 qualitative in-depth interviews with pre-selected organizations aimed at validating insights and hypotheses about the importance of workstation PCs for power users, as well as the potential contribution of AI to increased productivity for this specific group.

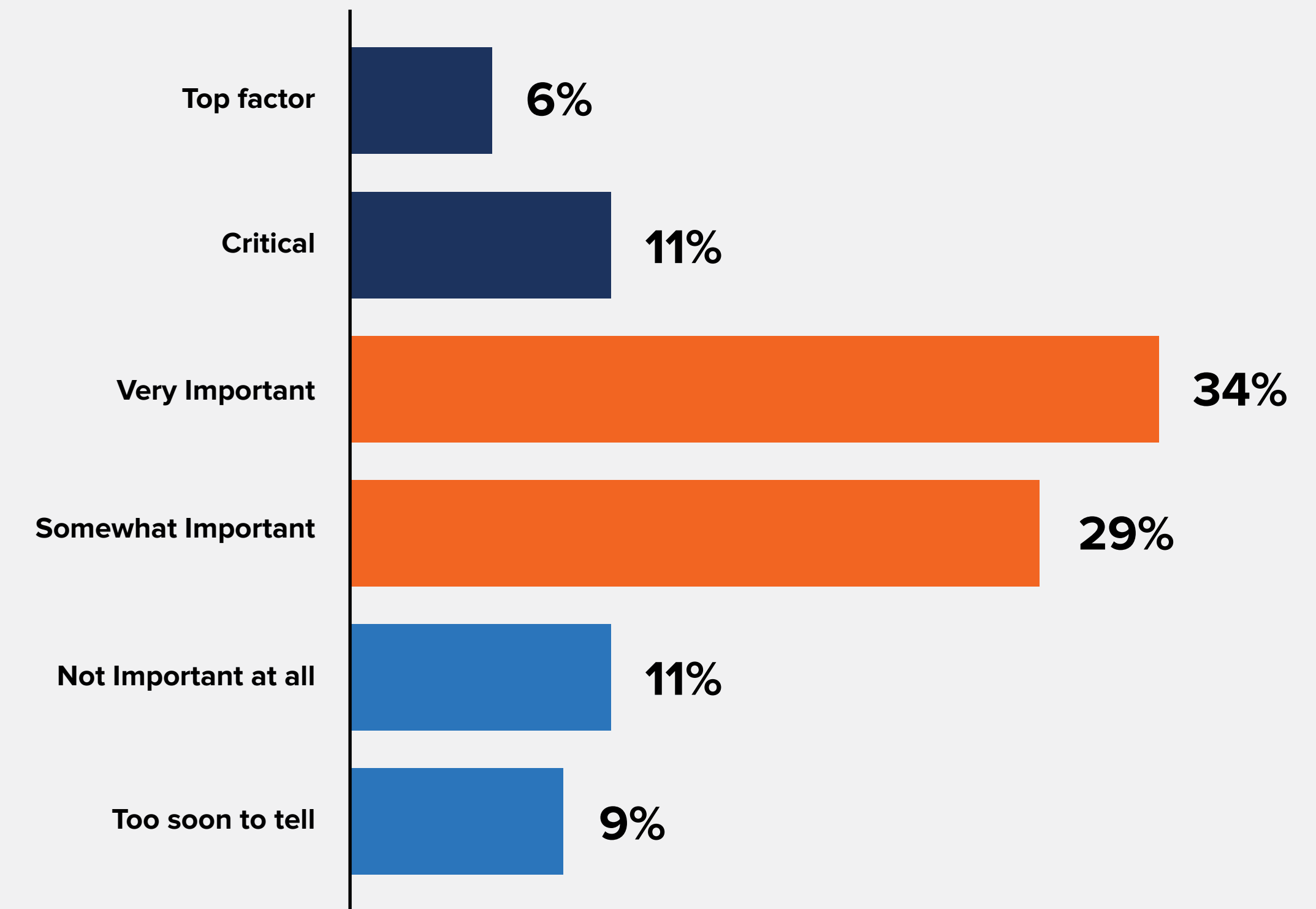
AI everywhere will be the new reality for PCs – Don't miss out on the benefits



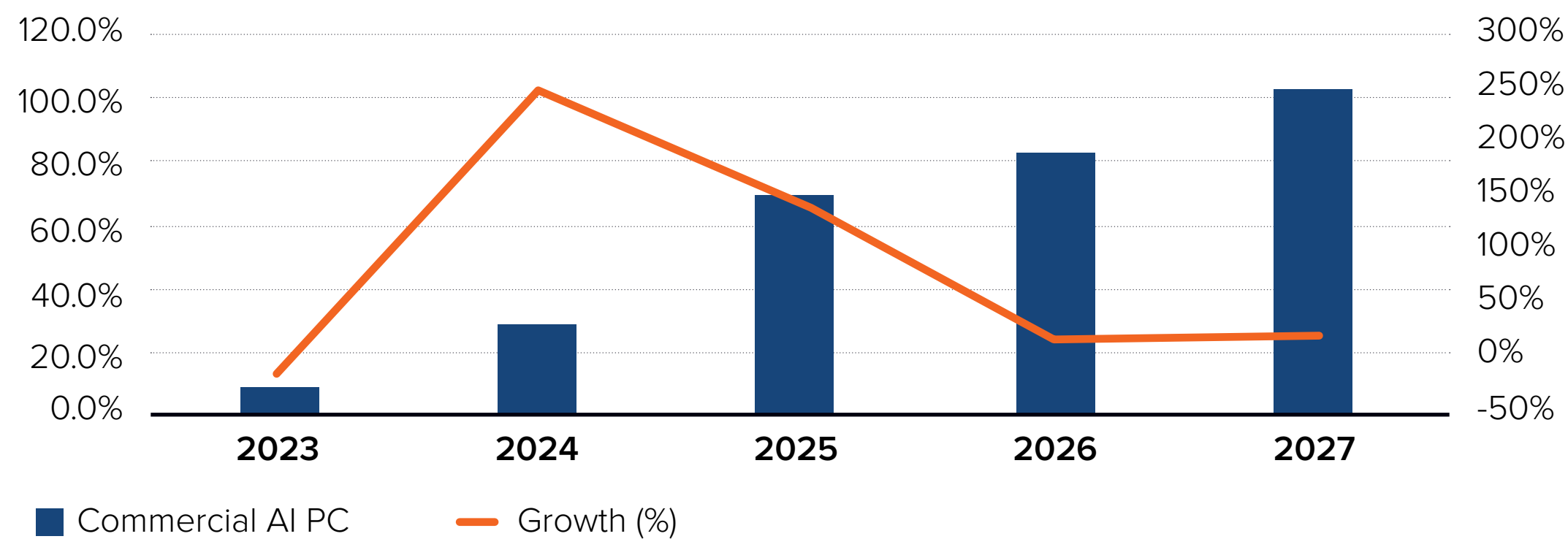
The advent of neural processing units (NPUs) and the widespread incorporation of AI in PCs could bring about fairly substantial changes in the way we use our PCs.

Tom Mainelli, Group Vice President, Device & Consumer Research, IDC

Importance of AI Capabilities in Next PC Purchase Criteria²



Worldwide Commercial AI PC Shipments, 2023-2027 (M)



**AI PC adoption will be a rapid transition:¹
2023–2027 CAGR: 66%**

Who are power users?

- **Analysts, programmers, customer relations managers, data crunchers, finance analysts, and advanced office users** who use the advanced features of their hardware systems to make the most intensive use of their special business applications.
- **Multi-taskers** across collaboration, business, and office applications looking to maximize productivity, particularly when working in a hybrid environment.
- Power users are always **tweaking their machines**. They calibrate displays, enhance audio and video, update their drivers and bios, monitor performance, and tune their configurations to accelerate their most important applications.
- Power users are the focus of this InfoBrief, due to the **key role** they play in their companies and because they are **very demanding** of their devices. In other words, their jobs require the **right hardware**.
 - *Engineers, designers, and scientists are the most demanding in terms of PC compute and power. Workstations are the default go-to devices for this group and hence they are not included in this InfoBrief.*

Which applications do power users most frequently use?



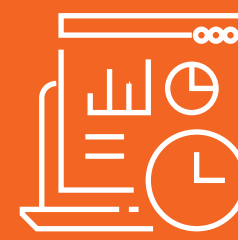
Finance, accounting, and sales applications

Oracle Financials Cloud, NetSuite, Retail Point-of-Sale, SAP, Excel, etc.



Supply chain, logistics, and inventory management applications

SAP Enterprise Asset Management, Supply Chain Planning and Collaboration, etc.



Analytics and business intelligence software

IBM SPSS Predictive Analytics and Cognos, MicroStrategy Analytics, Salesforce Tableau, SAP Analytics Cloud, FICO Analytic Modeler, Microsoft Excel, etc.



Customer relationship, marketing campaign, and advertising management applications

Adobe Advertising Cloud and Magento Commerce Cloud, Google DoubleClick Advertising Solutions and Analytics 360, etc.



Database management applications

Amazon Web Services Aurora and Redshift, EnterpriseDB Postgres Platform, Google Cloud Spanner, Microsoft SQL Server and Azure, etc.



Operations management for systems and infrastructure software

AWS Cloudwatch, Citrix Workspace, IBM MaaS360, System and Workload Automation, Microsoft Endpoint Manager/Intune, etc.

Power users need AI-ready workstations that can deliver when it matters

Generative AI (GenAI) use cases with the most promise¹

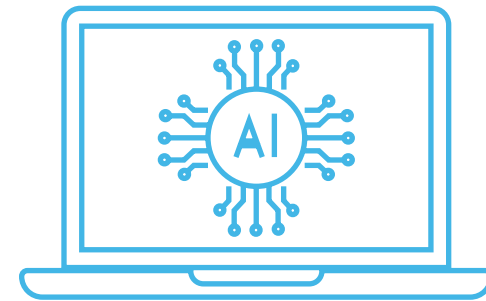


The biggest impacts of enabling GenAI for workforce transformation²



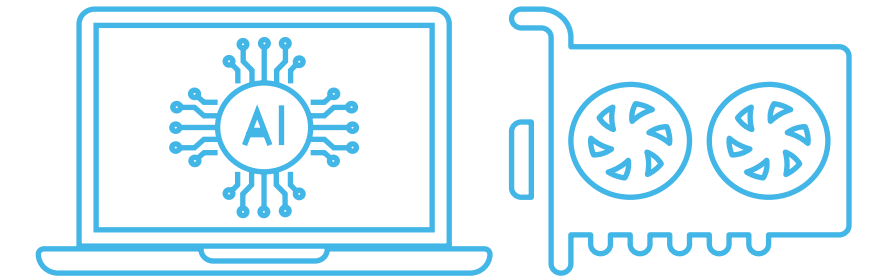
Why is an AI-ready workstation the optimal choice for power users?

AI-Ready Laptop PCs



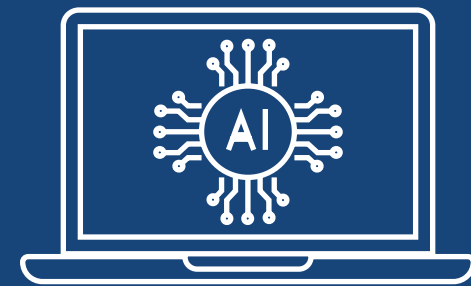
- Features Intel Core Ultra processors with iGPU, NPU, and CPU
- Designed for general business users
- Prioritizes portability, security, and longer battery life, especially with Intel Core Ultra U Processors at 15W TDP (12 CPU cores & 4 GPU cores)
- More budget-friendly for general business use cases
- Warranty covers basic support

AI-Ready Mobile Workstation



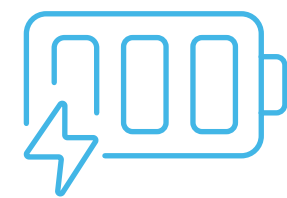
- Also features Intel Core Ultra processors with iGPU, NPU, and CPU
- **Ideal for power users with higher performance demands**
- Built for **optimal performance** and **reliability** with independent software vendor **(ISV) certification**
- **Discrete mobile GPU options and professional grade drivers**
- Offers higher sustained performance, especially with **Intel Core Ultra H processors at 28W TDP**, up to 4 more performance CPU cores and 4 more GPU cores
- Warranty includes **professional service** with a **higher technical support tier**

How does an NPU-enabled workstation benefit your power users?



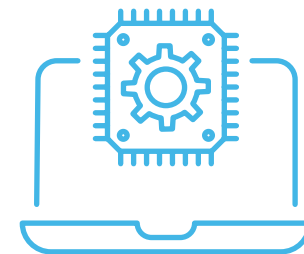
What is an NPU?

A **neural processing unit** is an accelerator circuit that has **dedicated AI processing cores** for power-efficient computing.



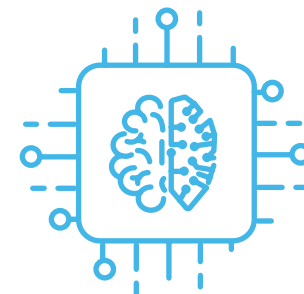
All-Day Productivity

Helps all-day battery life by offloading power hungry tasks such as blur effects on video call from CPU.



Improved System Responsiveness

Moving background tasks such as real-time security scanning onto the NPU helps free up CPU capacity to run demanding productivity applications.



Future-Proof Platform

AI workloads are only just emerging — NPUs enable workstations to be ready to accelerate these as they come to market in the coming years.



Secure and Private AI

Keep AI data and interactions private by running them on the local machine, not in the public cloud.



When it comes to mobility, you want to make sure that your device can handle the work and that you're not going to run out of juice before the end of the day!

Kelly Loosli, Professor and Director, Brigham Young University

Choose the right processor for your power users

Intel Core Ultra Processors H Series vs. U Series

Higher performance without sacrificing efficiency



3x Performance-Core Count

Resulting in enhanced multitasking and overall performance.

2x the Graphics Core Count

Improved graphics performance, smoother content creation, and better user experiences.

2x the Intel Smart Cache

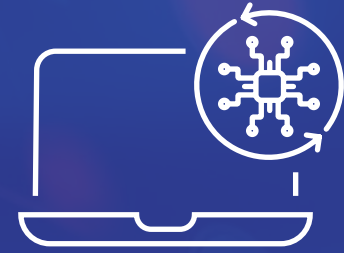
Leading to enhanced system performance, multi-core efficiency, and quicker data access.

28W

Best balance between power and efficiency for increased sustained performance and mobility.

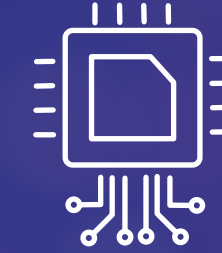
A professional discrete GPU helps power users to deliver impressive results

AI-Driven Optimization



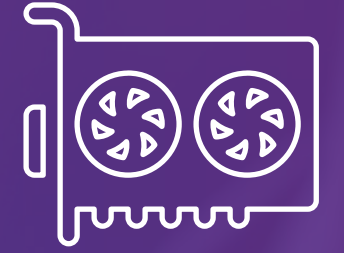
- The dGPU is at the forefront of AI-driven system optimization, balancing power distribution among the GPU, its memory, and the CPU.
- This **optimization** enhances **performance**, ensuring that power users experience **seamless operation** across demanding applications.

Advanced AI Capabilities



- The **NVIDIA RTX 500 Ada Generation laptop GPU** with Tensor Cores provides enhanced performance for everyday demanding tasks.

Certified Professional Drivers



- The dGPU comes with industry-standard ISV certification, ensuring both **performance** and **stability**.
- These drivers are continuously refined to **maximize productivity** and are thoroughly tested for compatibility with both software and hardware, offering power users a reliable and efficient computing experience.

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Business travelers often use ultra-thin, lightweight notebooks that boot up instantly and have long battery life, making them ideal for use in airplanes or on the road. However, these devices lack the GPU and other features that I require for my work. If there's a device that can provide me with the power I require, along with extended battery life and high performance, sign me up!

Carl Storms, Technical Solution Lead, Newforma

The value of investing in mobile workstations



The PC price is only a small portion of the entire total investment of a power user, which includes salaries and software licenses.



Although short-term savings may seem tempting initially, attempting to economize when it comes to their main device risks far more by limiting productivity.



Allocating a tiny fraction of the total investment to a high-quality mobile workstation can result in significant increases in productivity, efficiency, and overall job satisfaction.

Three-Year Cost	Salary	Software License	Device	Total Value	Device Share
Commercial AI Notebook	\$172,344	\$4,680	\$2,117	\$179,141	1.18%
Mobile AI-Ready Workstation	\$172,344	\$4,680	\$2,244	\$179,268	1.25%
Mobile AI-Ready Workstation + dGPU	\$172,344	\$4,680	\$2,361	\$179,517	1.32%

Assumptions

For an account manager or sales representative who utilizes a Windows Notebook with Salesforce and Microsoft Dynamics 365 Copilot for Sales, a firm invests the following:

- The average sales representative salary in the U.S. is \$57,448 per year.*
- The Salesforce mid-tier price is \$80 per user, per month.**
- The cost of Microsoft Dynamics 365 Copilot for Sales is \$50 per user, per month.**
- A Dell Latitude 5450 costs \$2,117, while a Dell Precision 3490 costs \$2,244 and a Dell Precision 3490 with RTX 500 Ada costs \$2,493.***

Hardware Specs:

Dell Precision 3490

Intel Core Ultra 7 165H vPro Enterprise (24 MB cache, 16 cores, 22 threads, up to 5.0 GHz, 28W)

Windows 11 Pro

32 GB: 2 x 16 GB, DDR5, 5600 MT/s

512GB, M.2 2230, Gen4 TLC PCIe NVMe, SSD

NVIDIA RTX 500 Ada 4GB GDDR6

Dell Latitude 5450

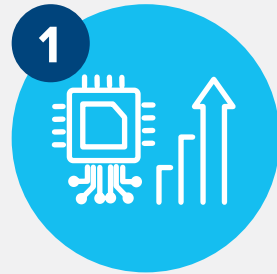
Intel Core Ultra 7 165U vPro (12 MB cache, 12 cores, 14 threads, up to 4.9 GHz Turbo)

Windows 11 Pro

32 GB: 2 x 16 GB, DDR5, 5600 MT/s

512 GB, M.2 2230, TLC, Gen 4 PCIe NVMe, SSD

Essential Guidance



1 AI workloads are growing in importance:

Over half the market views an AI-enabled device to be a very or more important criteria for their next wave of PC investment. Ensure that your investment in mobile workstations for power users includes an NPU accelerator that can handle the increasing demands from new and emerging AI workloads.



2 Avoid false economies:

The hardware cost is a small portion of the overall investment in human resources and software licensing. Do not sacrifice performance to save a few dollars per PC; your power users are worth it.



3 Power users need a powerful platform:

Mobile workstations supporting 28W processors and above are ideal for sustained productivity and can support discrete GPUs with professional drivers.



4 Choose leading brands that feature professional-grade hardware:

Buy from renowned companies that have a partner program and offer world-class localized support. The build quality and durability of workstations — as well as them being ready to install and AI optimized — are other critical considerations.



5 Windows 10 is approaching end of support:

Ensure your plans to refresh your workstation base and migrate to Windows 11 are sufficiently advanced to hit the migration deadline in October 2025.



Message from the Sponsor

The Dell Precision 3000 Series mobile workstations are a cost-effective way to provide the next level of performance, to your power users.

+ Visit Dell.com/Precision to learn more



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The educational gap between the marketing, the reality, and what the customer believes is huge! The most important thing is really getting our hands on these devices, testing them, and running them through what we need them to do. **I am ecstatic with Dell** and what they have been able to do for us on a partnership basis.

A J Wedding, Chief Creative Officer (CCO), Orbital Studios

Intelligent Performance

Mission-Critical Reliability

Immersive User Experiences

DELLTechnologies

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