**D&L**Technologies

Harness the power of Al A guide to modernizing your workplace



Understanding AI PCs

Modernize with an AI PC Refresh

# The AI PC revolution is reshaping the Modern Workplace

How does this fundamental transformation influence business operations and individual contributions?



#### Understanding AI PCs >

Unravel the basics of AI and its role in PCs core concepts

( / )

### Refresh for AI >

Delve into why AI is an essential need for your everyday work



### Embracing Al >

Discover how AI can become your ally in your work routine



#### Navigating Al >

Addressing your AI challenges and concerns



#### Future-proofing for Al >

Prepare the future workplace in an Al-driven era

Why Dell for Al >

Bring AI to your data with Dell's end-to-end AI solutions

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for Al

GenAl use cases anticipated to be significant within organizations

52% Knowledge management applications<sup>1</sup>

 $42\% ~ {}^{Marketing}_{applications^1}$ 

Code generation applications<sup>1</sup> % 41

39% Design applications<sup>1</sup>

270/ Conversational 3770 applications<sup>1</sup>

1 Source: An IDC Infobrief commissioned by Dell Technologies: Workforce Upskilling for the AI Era, IDC #US51331823, January 2024.





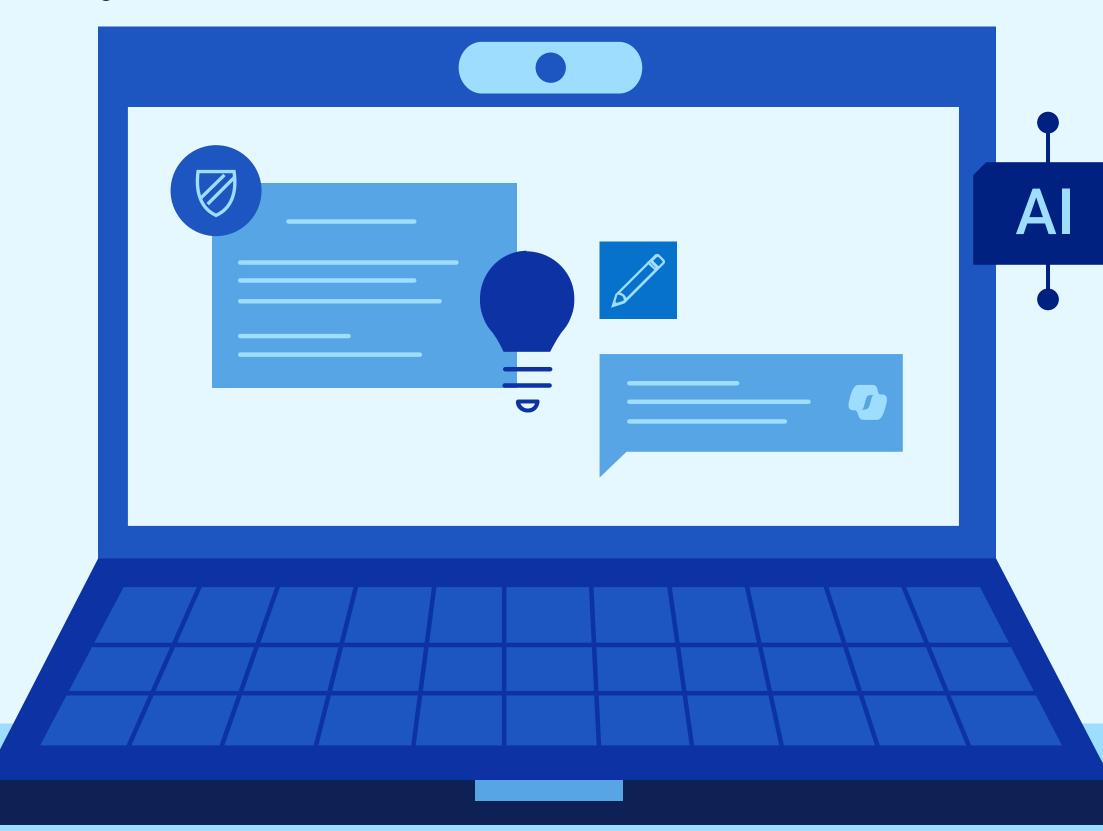
Understanding AI PCs

Modernize with an AI PC Refresh

# Surpass productivity and unlock human excellence with an AI PC

## What are AI PCs?

AI PCs are devices designed with the new PC architecture combining the processing power of the CPU, GPU and NPU. They are designed to run AI workloads locally ondevice for everyday workloads and also allow for AI development, deployment, and fine-tuning.





### **Enhanced AI capabilities**

Achieve AI-level productivity with AI-powered tools to upgrade your work habits



#### Local AI processing

**On-device AI processing without** Internet connection



#### Low latency

Minimize processing time and quick responsiveness for AI tasks



#### **Reduced security risks**

**On-device AI mitigates security** vulnerabilities associated with data transmitted over networks



## Introducing the NPU (Neural Processing Unit)

a built-in AI processor designed to optimize AI workloads while improving PC performance and battery life.







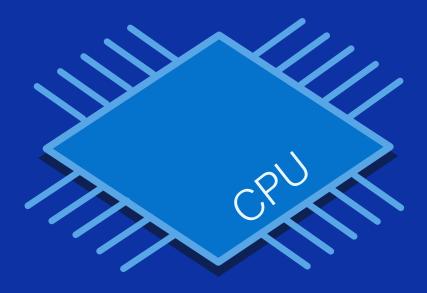
Understanding AI PCs

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# Breaking down the anatomy of PCs to enable AI related tasks

## The roles of processing units

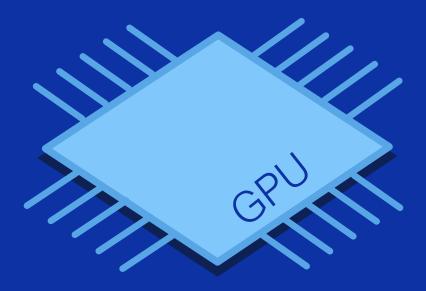
PC performance and its ability to handle various tasks are fundamentally shaped by its underlying architecture – it's essential to allocate the right workload to the right engine at the right time.



#### Brain of the PC

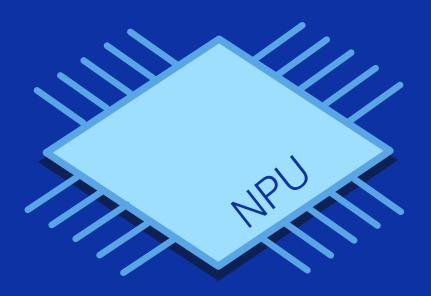
CPUs serve as the brain of PCs, executing general-purpose instructions and managing essential tasks that form the backbone of modern computing.

### Breaking down AI workloads >



### **Designed to render graphics**

**GPUs handle complex graphical** tasks and has found favor in parallel processing tasks.



### **Optimizing Al-intensive tasks**

NPUs have emerged as a driving force behind advancements in AI and offloads AI workloads and computation from the CPU.





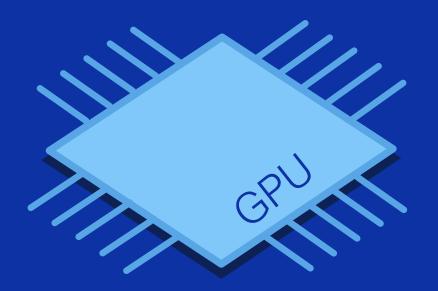


Understanding AI PCs

Modernize with an AI PC Refresh

# Breaking down the anatomy of PCs to enable AI related tasks

## < The roles of processing units</p>



#### **GPU based Al-acceleration**

GPUs are optimized for parallel processing and are commonly used in super computers and data centers for accelerating various AI tasks like deep learning training and inferencing.

This first generation of RT Cores of powerful NVIDIA(R) RTX GPUs accelerated ray tracing by up to 25x compared to previous GPUs, and up to

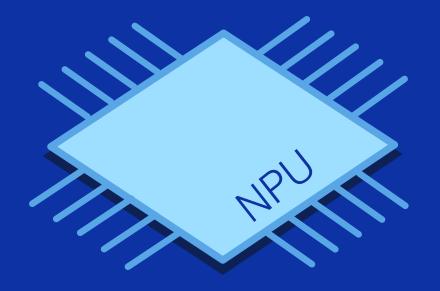
# 30x faster

than CPUs.<sup>2</sup>

2 NVIDIA GPU Guide, GPU Features RT Core, based on NVIDIA Turning GPU Architecture Whitepaper, 2018

- 3 Based on internal analysis and testing, compared to previous generation Intel® Core<sup>™</sup> Ultra processor, September 2024. Select AI-enhanced collaboration features include, eye contact correction, standard blur, portrait blur, automatic framing, calls with audio only, virtual background running on devices with Intel® Core™ Ultra 200V series processor. Results may vary.
- 4 Based on LLMWare testing, November 2024 on Dell devices with Intel® Core<sup>™</sup> Ultra 200V series processor compared to devices with Mac M3 Max processors. Large Language Models include: Ilama, Ilama2, mistral, phi-3, and yi-9b

## Breaking down AI workloads



#### **Delivering on-device AI processing**

The NPU brings a transformative AI experience made to handle the day-to-day AI tasks for faster, better, and efficient performance.

Use up to

42%

less power when using AI-enhanced collaboration effects on Zoom.<sup>3</sup>

# 3x faster

inferencing speed when using running widely used large language models<sup>4</sup>





Understanding AI PCs

# The opportunity to refresh PCs with modern technology has never been greater

In the new era of technology, AI PCs offer a boost in productivity leveraging modern technology ensures the latest collaboration, security, and AI features to safeguard data and enhance user experience.



## Increase productivity with optimized performance.

# 

Improve battery discharge with more efficient hardware components.

Embracing AI in your daily work

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for Al



Minimize maintenance and support cost associated with older devices.





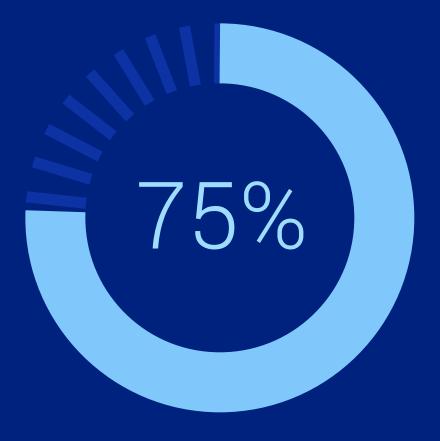


Understanding AI PCs

Modernize wit AI PC Refresh

# Refresh to AI PCs to future-proof your organization

Upgrade to newer hardware, seize the latest AI advancements and ensure future compatibility.



of large enterprises will adopt AI for quality and efficiency.<sup>5</sup>



of business leaders believe GenAI will help them gain a competitive advantage.<sup>6</sup>

- 5 IDC, "IDC Futurescape, Worldwide AI and Automation 2023 Predictions", 2022.
- 6 KPMG, Generative AI: From Buzz to Business Value, May 2023.
- 7 Compared to Windows 10 devices. "day-to-day experience with Windows 11 Pro laptops," Principled Technologies, February 2023. LINK.
- 8 SMB Windows 11 Survey Report. Techaisle, February 2022. Windows 11 results are in comparison with Windows 10 devices.

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## Achieve more with Windows 11

Find new levels of productivity with Copilot and improve security with the most secure windows ever.

42%

faster completion of demanding workloads.<sup>7</sup> 3.1x

reduction in firmware attacks.<sup>8</sup>





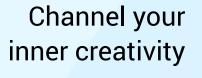
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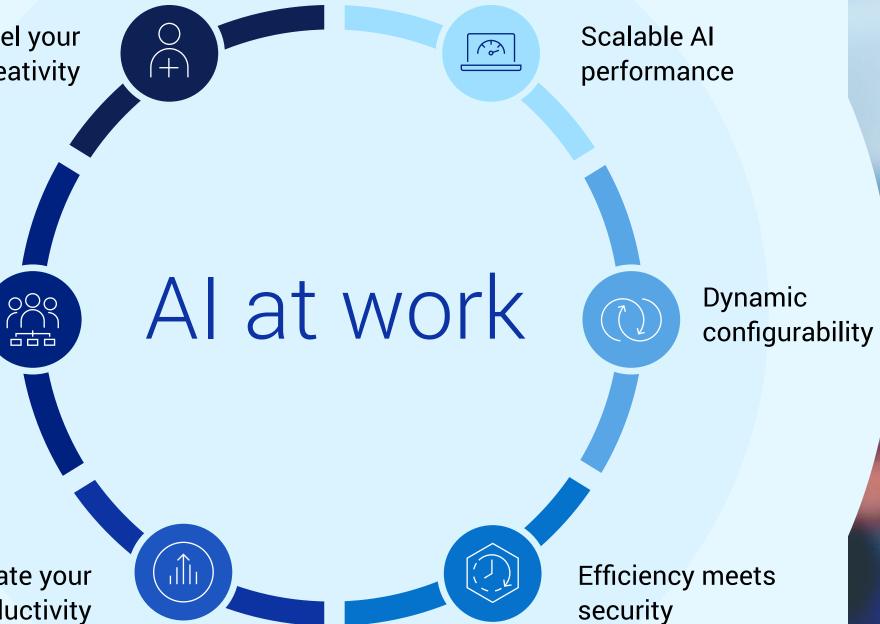
Modernize with an AI PC Refresh

# Transform the way you work with AI by your side

Boost your productivity, creativity, and collaboration to new levels.



Effortless collaboration



Elevate your productivity

# Al end-user >

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for AI

# Al builder >









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Understanding AI PCs

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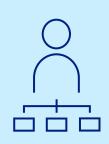
# **AI BUILDER** Unleash data potential and turn it into operational efficiencies

AI Builders are professionals engaged in the field of AI, focusing on designing, building, and implementing AI models and systems.



#### Workplaces

Work spans across various industries including tech, healthcare, finance, automotive, and more.



#### **Job titles**

AI/ML engineers, data scientists, research scientists, software developers with a focus on AI and professors or researchers in academia.



#### **Technological needs**

Require PCs with advanced CPUs, GPUs and NPUs to handle complex computations, large datasets and intensive model training.

Embracing AI in your daily work

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for Al

## Recommended solutions



#### **Dell Pro Max Premium**

Great for utilizing, hosting, and inferencing AI models.



#### **Dell Pro Max Plus**

Designed to accelerate AI and GenAI development, deployment, and fine-tuning.





Understanding AI PCs

Modernize with an AI PC Refresh

# **AI BUILDER** Unlock the power of AI with Dell Pro Max AI PCs

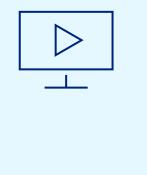
Harness the

power of Al

# Scalable AI performance



Speed up delivery and secure AI development locally on the device with powerful NVIDIA GPUs on the world's #1 workstation brand<sup>9</sup>.

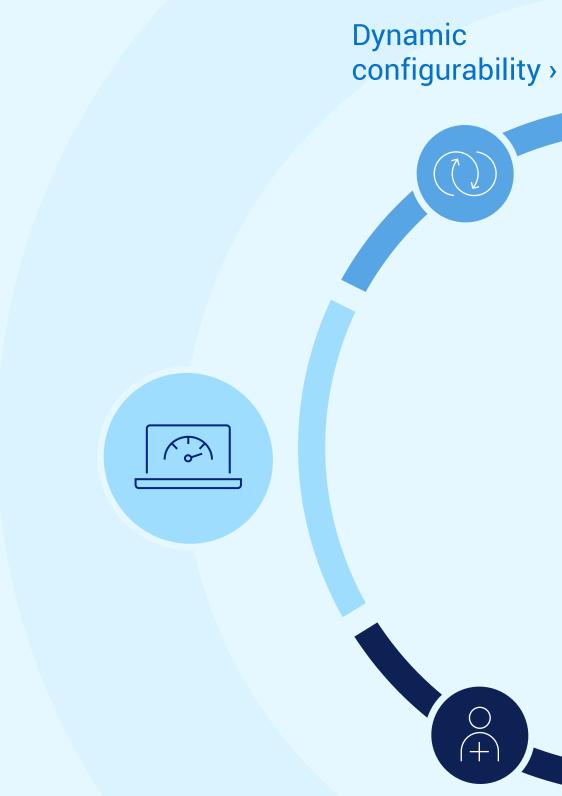


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Dell Pro Max AI PCs are workstations that are perfect sandbox environment devices and entry-level machines for companies to jumpstart their AI journey.

9 Based on IDC Quarterly Workstation Tracker, Q3 2023.







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Introduction

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Understanding AI PCs

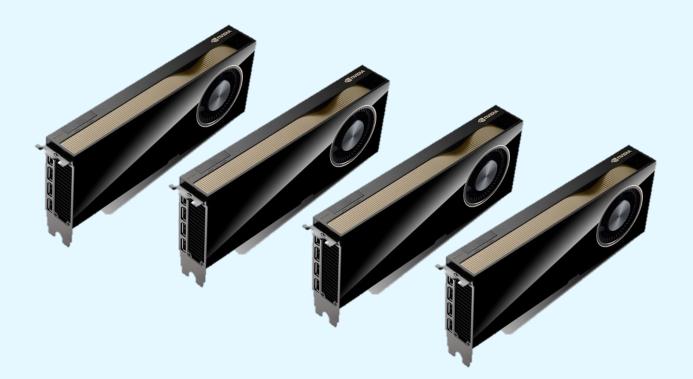
Modernize with an AI PC Refresh

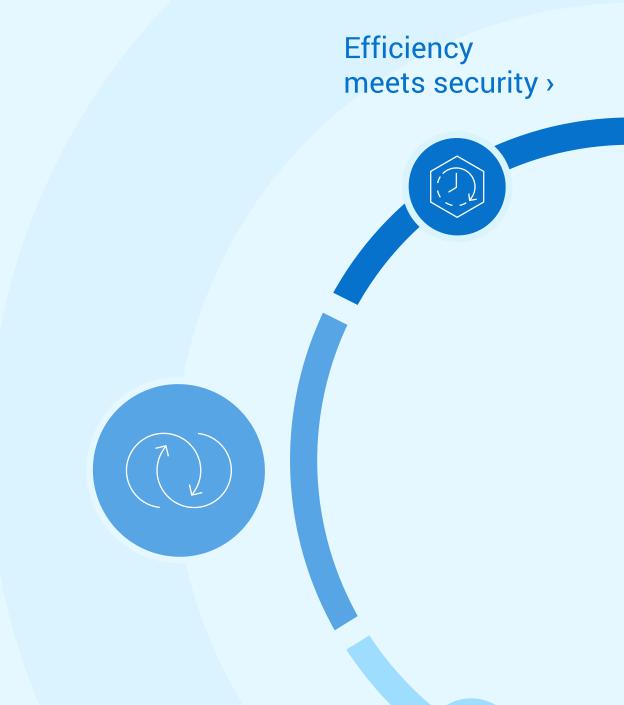
# **AI BUILDER** Unlock the power of AI with Dell Pro Max AI PCs

# Dynamic configurability



Elevate your AI workspace by customizing your Dell Pro Max AI PC with configurations of RAM, storage and GPU with up to **4 NVIDIA<sup>™</sup> 6000 Ada GPUs** in a single workstation.











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Introduction

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Understanding AI PCs

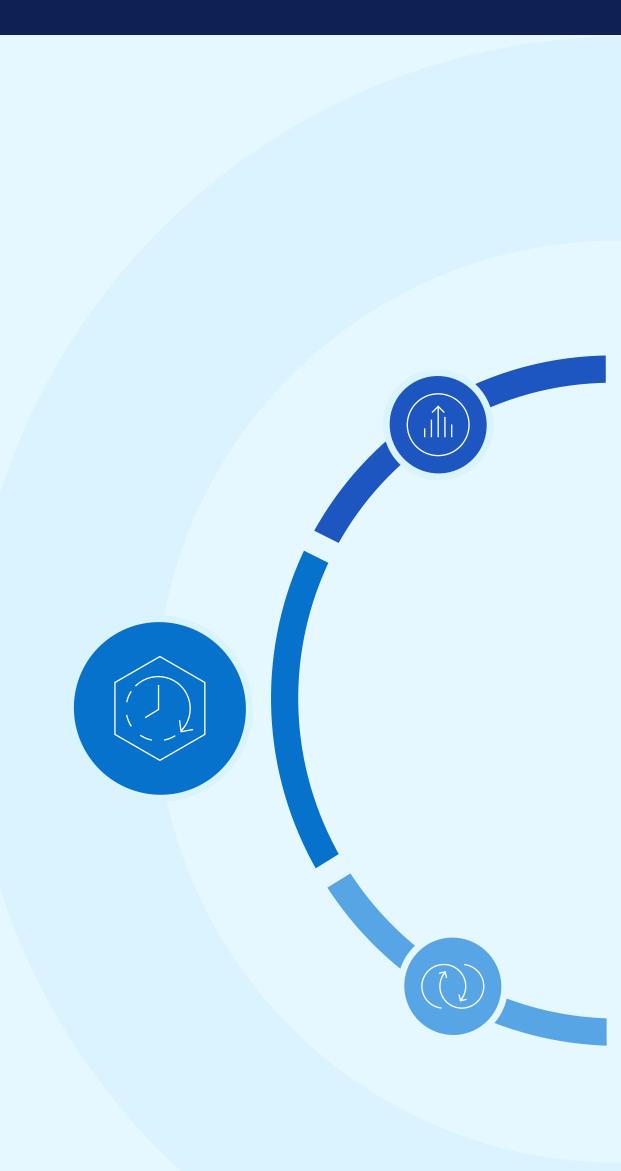
Modernize with an AI PC Refresh

# **AI BUILDER** Unlock the power of AI with Dell Pro Max AI PCs

# Efficiency meets security



Empower data scientists and developers with greater control by **utilizing on-premise** AI development and deployment on Al-ready devices, enabling efficient, secure and cost-effective AI innovation.







Introduction

Understanding AI PCs

Modernize with an AI PC Refresh

# **AI END-USER** Enhance productivity and elevate creative potential

AI End-Users are split between the everyday knowledge workers and the creative power-users that are eager for productive innovation.

| Role:                  |  |
|------------------------|--|
| nformation-processing  |  |
| professionals who      |  |
| nake informed          |  |
| lecisions in their     |  |
| lay-to-day activities. |  |
|                        |  |

Work spans across various industries including tech, healthcare, finance, automotive, and more.



 $\overset{\bigcirc}{\frown}$ 

Knowledge

worker

Power users, creators

#### **Role**:

**Highly skilled** individuals that use advanced computing capabilities to innovate, create content, and solve intricate problems.

Work spans across various industries including tech, healthcare, finance, automotive, and more.

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for Al

# Recommended solutions

#### Workplace:

#### **Technological needs:**

Introduction of AI PCs can significantly enhance productivity, efficiency, and ability to derive insights with large amounts of data.



### **Dell Pro Series**

Boost productivity and efficiency with AI capabilities, optimizing organization, collaboration, and preserving battery life.

### Workplace:

### **Technological needs:**

Demand highperformance computing solutions to effectively utilize AI technologies to push boundaries of what's possible.



#### **Dell Pro Max/Premium**

Designed for Power users, as well as creative, design and other complex compute and graphical tasks.









Introduction

Understanding AI PCs

Modernize with an AI PC Refresh

**AI END-USER** Accomplish more with AI PCs to help you be productive and innovate like never before



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Work smarter, not harder with our new Al-enabled Dell Pro and Dell Pro Max Al PCs

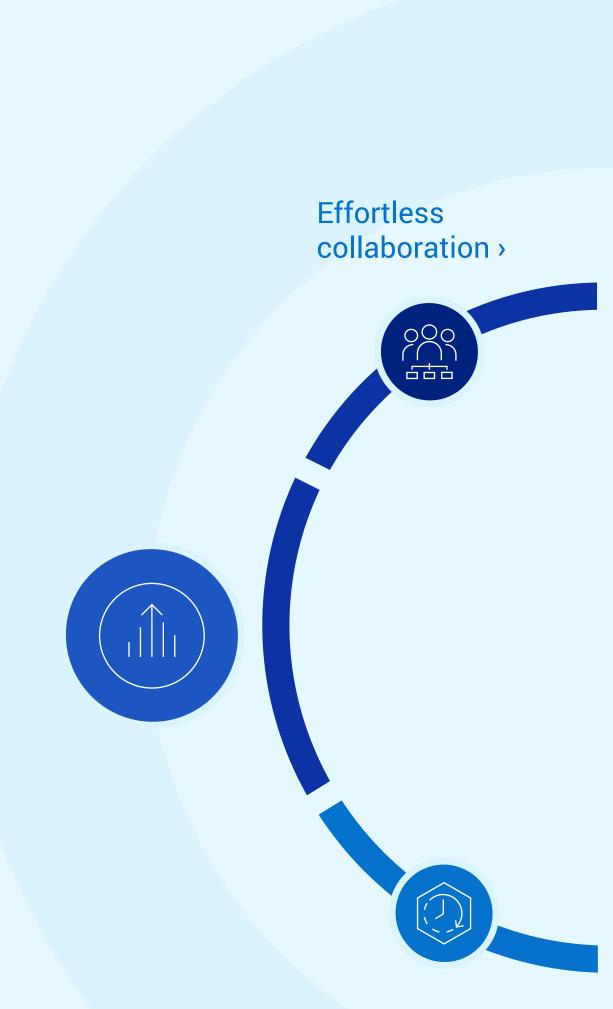
#1 commercial AI PCs worldwide<sup>10</sup>

World's most secure and mangeable commercial AI PCs.<sup>11</sup>

3x faster

Based on IDC Worldwide Ouarterly Personal Computing Device Tracker. Nov 6. 2024 – Units 10 Most secure is based on Dell internal analysis, October 2024. Applicable to PCs on Intel processors. Not all features available with all PCs. Additional purchase required for some features. 11 Validated by Principled Technologies. A comparison of security features, April 2024. Most manageable commercial PCs when comparing the systems management capabilities of Dell Update Processes, Dell Manageability Solution capabilities and integrations with 3rd Party Management Solutions, with competitor update processes, systems management solution capabilities and integrations with 3rd party management solutions. 3rd Party Management Solutions - Microsoft Intune, Workspace ONE, are separate purchases. Intel vPro, to support out-of-band systems management, is an additional system configuration upgrade. Based on Dell internal analysis, April 2024. 12 Based on LLMWare testing, November 2024 on Dell devices with Intel® Core<sup>™</sup> Ultra 200V series processor compared to devices with Mac M3 Max processors. Large Language Models include: llama, llama2, mistral, phi-3, and yi-9b

inferencing speed when running widely used large language models<sup>12</sup>







Understanding AI PCs

Modernize with an AI PC Refresh

AI END-USER Accomplish more with AI PCs to help you be productive and innovate like never before

Harness the

power of Al

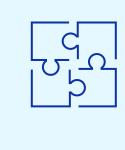


Bridge the language gap with on-device AI when activating live captions to instantly translate 40+ languages into english -- even without internet connection



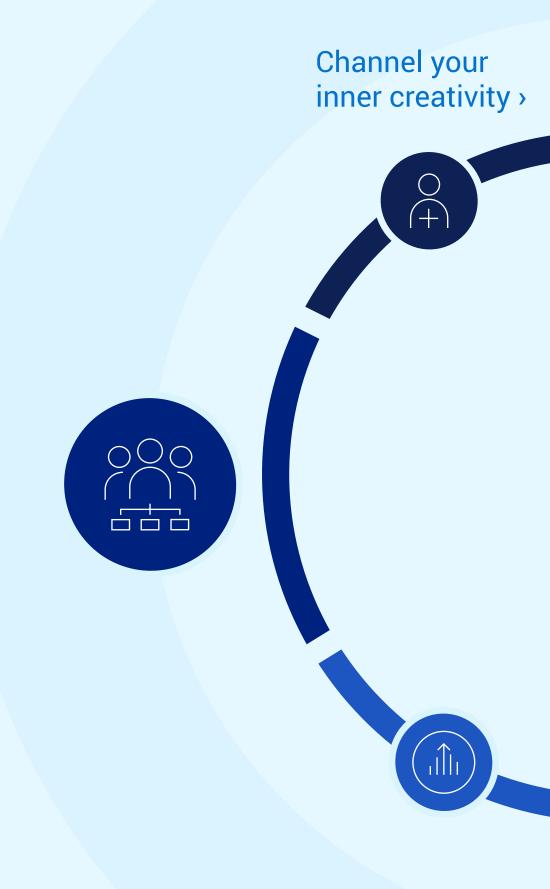
Polish your virtual presence with smart conferencing technology from Windows Studio Effects.

Up to **42%** less power when running calls on Microsoft Teams.<sup>13</sup>



Get a more inclusive experience with integrated AI ASL auto-translations via Omnibridge. Watch now >

Based on internal analysis and testing, compared to previous generation Intel® Core™ Ultra processor, September 2024. Select AI-enhanced collaboration features include, eye contact correction, standard blur, portrait blur, automatic framing, calls with audio only, virtual background running on devices with Intel® Core™ Ultra 200V series processor. Results may vary.





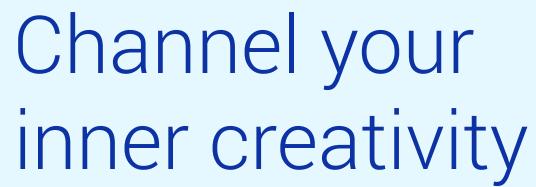


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Understanding AI PCs

Modernize with an AI PC Refresh

AI END-USER Accomplish more with AI PCs to help you be productive and innovate like never before





Turn ideas into reality with **Copilot for** Microsoft 365 and AI applications that help you draft your visions quickly.



Unlock creative possibilities with AI video and photo editing tools with **Cyberlink** 

2.5x enabled.14

Create fully editable custom designs and text

1.9xfaster, even offline with Cyberlink's Promeo Al Magic Designer<sup>15</sup>

14 Based on internal analysis and testing, November 2024. Cyberlink's Power Director AI video editing features running on devices with Intel® Core™ Ultra 200V series processors with NPU hardware acceleration enabled compared to Intel® Core<sup>™</sup> Ultra 200V series processors without NPU hardware acceleration enabled. Results may vary. Based on internal analysis and testing, November 2024. Cyberlink's Promeo Al Magic Designer running on devices with Intel® Core™ Ultra 200V series processors was compared to 15 previous-generation Intel® Core<sup>™</sup> Ultra processors. 16 Based on internal analysis and testing, compared to previous generation Intel® Core™ Ultra processor, November 2024. Results may vary.

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longer battery life when using Cyberlink's PowerDirector AI Background Remover feature, with NPU hardware acceleration

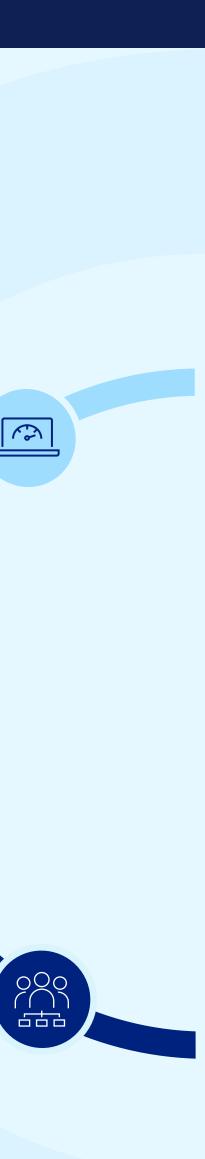
Use up to

49%

less power when utilizing AI editing features like Image Upscale to enhance low-quality images<sup>16</sup>







Harness the

power of Al

Understanding AI PCs

Modernize with an AI PC Refresh

# The AI revolution is shaping industries and bringing potential for transforming the way we work

But diving into AI can feel daunting with all the uncertainties around.

Where do I start? >



At Dell, we have implemented tailored services and solutions to accelerate your AI Journey.

Is it secure? >

Is it sustainable? >







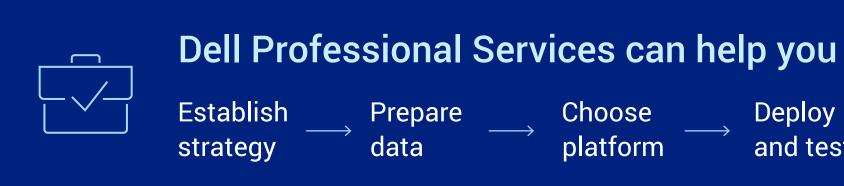
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Understanding AI PCs

Modernize with an AI PC Refresh

# Simplify your Al journey

Take advantage of Dell's expertise with end-to-end AI support and services from inception to expansion and strategic investment in AI technologies.



Implement Microsoft Copilot offerings across your organization with Dell Services >

Tailor GenAI technologies to the needs of end users with Dell Digital Employee Experience Services for GenAl >

Get started with Dell Accelerator Workshop today >

Based on a Forrester, Total Economic ImpactTM (TEI) study commissioned by Dell Technologies, September 2023.

Deploy and test

Operate and scale

Access the latest technologies to quickly transform your IT with flexible payment options with Dell APEX PC as-a-Service

savings in support costs with Dell APEX PCaaS.<sup>17</sup>

Visit Dell APEX PC-as-a-Service >







Introduction

Understanding AI PCs

Modernize with an AI PC Refresh

# Trust and secure your data

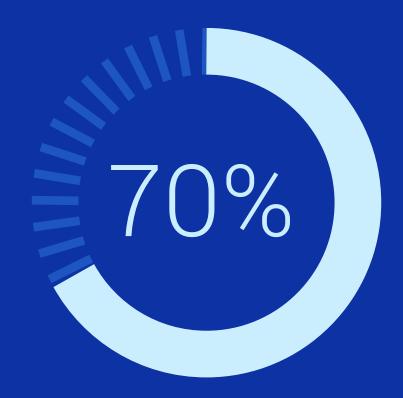
Protect your data and devices with the world's most secure commercial PCs.<sup>18</sup>



Stay secure using our device's built-in defenses with AI-enabled cybersecurity software integrations for advanced threat combat and improved cyber resilience.



Get powerful protection by default with Windows 11. With phishing safeguards, passwordless security, and app control, Windows 11 reported a reduction in security incidents by up to 58%.<sup>19</sup>



Attack surface reduction vs older PCs, according to Intel® and IOActive.<sup>20</sup>

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 on Windows OS. Details at www.intel.com/performance-vpro [intel.com]. Results may vary









Introduction

Understanding AI PCs

Modernize with an AI PC Refresh

# Advance sustainability

Responsibly use AI and take advantage of AI-driven insights for energy and resource consumption.



Use Al-driven insights and data to act on your business and sustainability goals.





**Addressing AI** challenges

Futureproofing for an AI driven world

Why Dell for Al





Put AI to work faster with responsible, right sized AI investments for energy efficient workloads.



Implement secure, private, and ethical AI to prioritize your goals with maintaining data sovereignty.





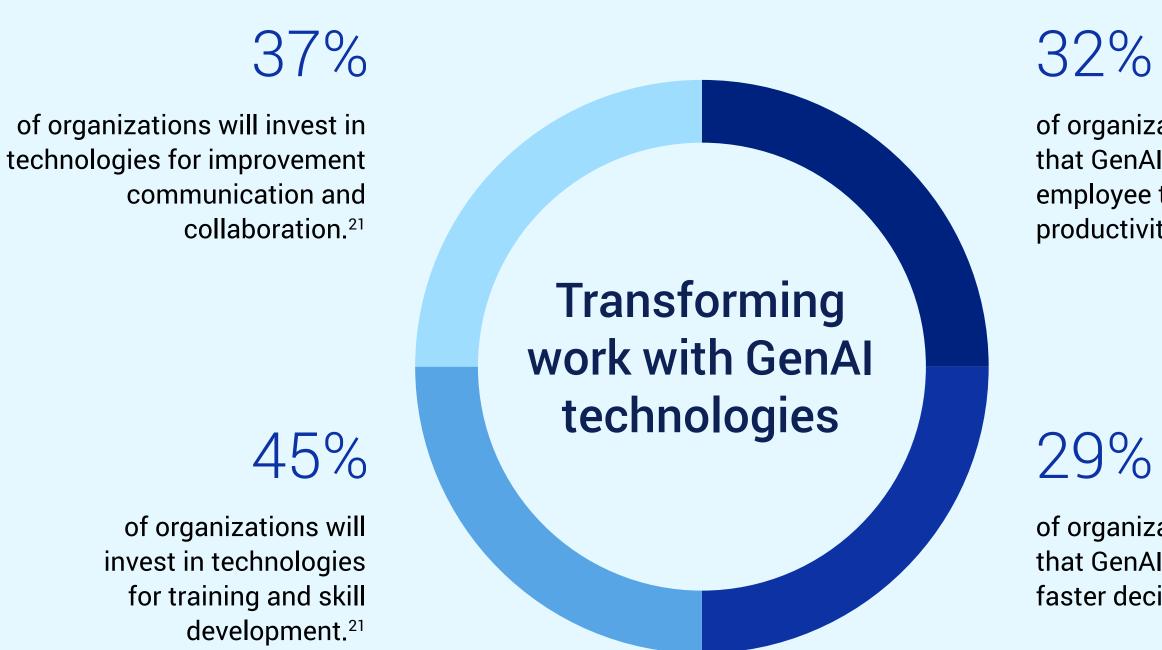
Introduction

Understanding AI PCs

Modernize with an AI PC Refresh

# Unlock the boundless potential of people by choosing to invest in Al

Tap into the full power of your workplace by setting up the right programs and building a strong AI foundation to transform how we work.



21 Based on IDC Workforce Upskilling for the AI Era, 2024

#### Embracing AI in your daily work

Addressing AI challenges

#### Futureproofing for an AI driven world

Why Dell for Al



of organizations believe that GenAI will save employee time and bring productivity gains.<sup>21</sup>

of organizations believe that GenAI will enable faster decision making.<sup>21</sup>





Understanding AI PCs

## **FROM VISION TO REALITY**

# Establishing an Al-ready workplace

## 80%

of workers reported using Generative AI in their lives in some capacity and 63% indicated that they've used it for work.<sup>22</sup>

## 45%

of companies lack a Generative AI policy, exposing them to significant risks such as data breaches, unintended biases by ungoverned AI systems, strategic misalignment and even potential legal complications.<sup>22</sup>

## 3 Steps to AI Workplace Transformation.

# Foster a culture of learning

## Educate and empower your employees

Identify AI evangelists and prioritize workforce upskilling for AI by identifying skill gaps and offering targeted AI, while fostering experimentation within supportive guidelines to spark innovation and demystify AI.

## Craft the Al **∠** blueprint

## Set up governance & ethical guidelines

Develop a robust AI governance framework encompassing policies and standards to align AI developments with organizational objectives, implementing ethical principles, alongside designed roles to oversee AI initiatives for regular compliance.

#### Embracing AI in your daily work

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for Al

# Strategically align Integrate AI into business processes

Gain a competitive edge by promoting cross functional collaboration and dedicated a technical AI expert while investing in tools to ensure effective Al deployment.







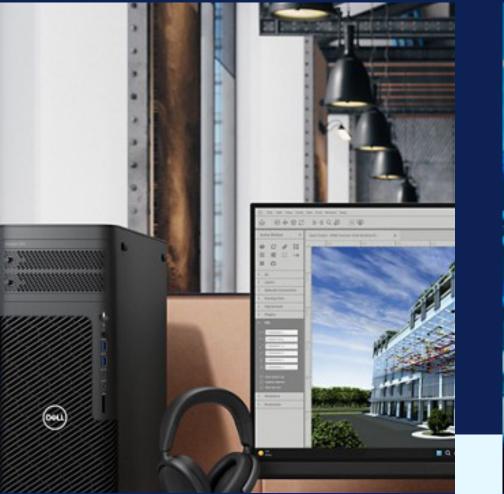


Understanding AI PCs

Modernize with an AI PC Refresh



Dell AI PC Solutions & Ecosystem for Business Workers



Dell Pro Max AI PCs for Developers



### **END-TO-END AI CAPABILITIES**

# Dell has the world's broadest AI solutions portfolio from desktop to data center to cloud, all in one place<sup>23</sup>, with deep partner relationships.

23 Based on Dell analysis, August 2023. Dell Technologies offers hardware solutions engineered to support AI workloads from Workstations PCs (mobile and fixed) to Servers for Highperformance Computing, Data Storage, Cloud Native Software-Defined Infrastructure, Networking Switches, Data Protection, HCI and Services.

Embracing AI in your daily work

Addressing AI challenges Futureproofing for an AI driven world

Why Dell for AI





### Dell Services



### Strategic Al partners







Understanding AI PCs

Modernize with an AI PC Refresh

# Why Dell for Al **Client Solutions?**

Harness the

power of Al



Dell Technologies is the #1 in commercial AI PCs worldwide<sup>10</sup>

Best Designs with powerful fixed workstations with more memory and storage.

Most scalable mainstream business laptops<sup>24</sup>

Based on Dell analysis, October 2022 Based on Dell internal competitive analysis, October 2024

24



## Simplify IT

World's most secure and mangeable commercial AI PCs<sup>11</sup>

With Dell Validated Designs for AI PCs, only Dell delivers seamless cross-silicon optimization, crucial for rapid on-device AI deployment using NPU technology.<sup>25</sup>

Invest in new technology with flexible payment options offered by APEX PCaaS.

# Advance Sustainability

Improve energy efficiency on devices with AI-based features and optimize AI investments through Dell's Professional services to reduce waste and lower energy cost.

**Responsibly retire hardware** with Asset Recovery Services and recover value to invest in new AI PCs.

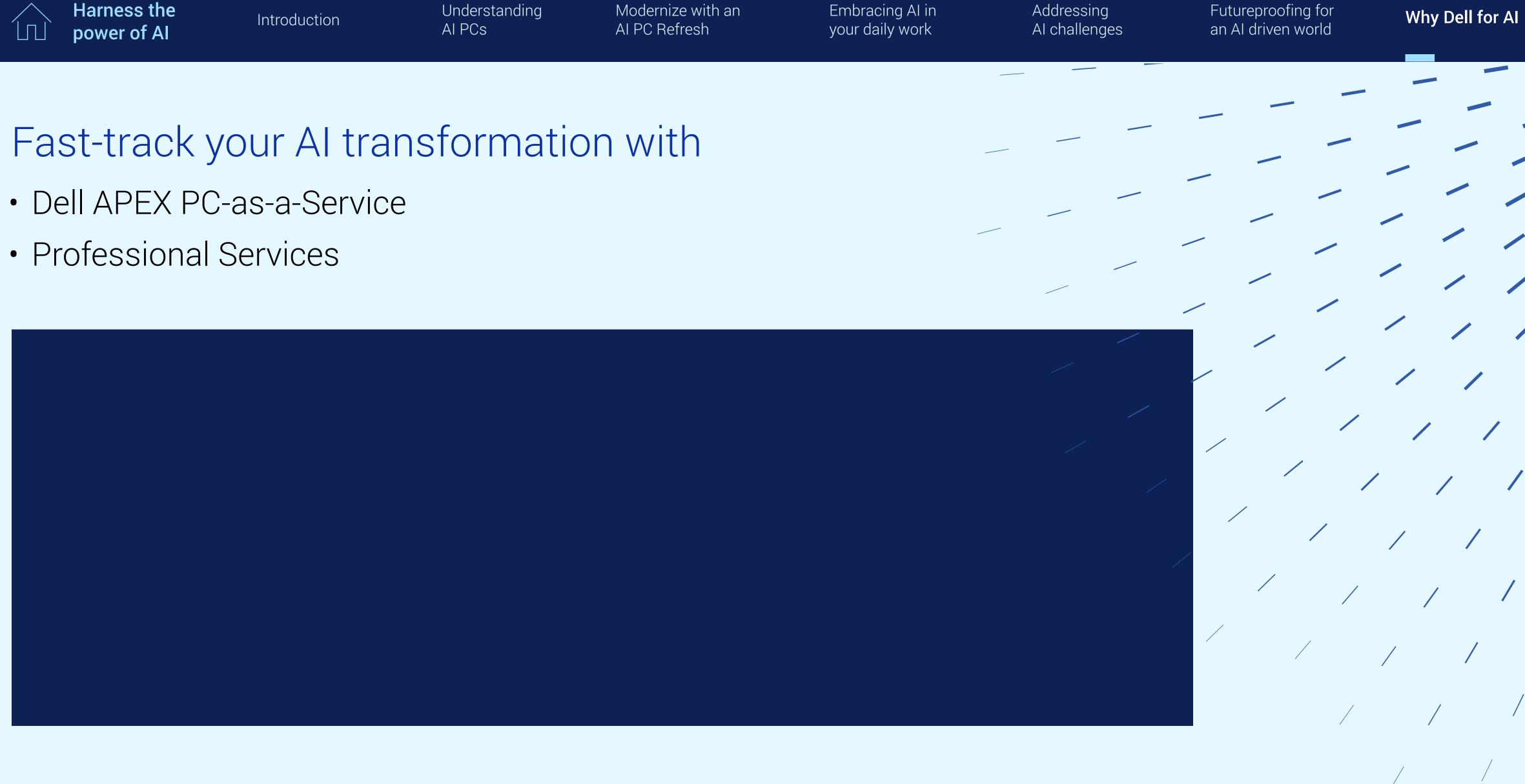








Understanding



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