



intel ai

# 創新技術 AI加速

Bring AI Everywhere

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Enhance device  
and network security



Reach new  
customers



Sell and upsell more  
successfully



Lower  
operational costs



# AI is helping businesses focus on what's important



Create new  
products and  
services



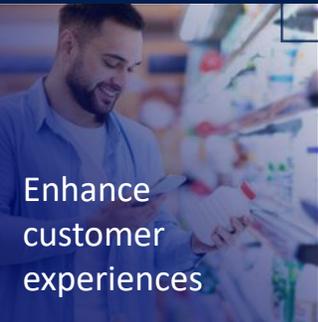
Enrich  
workplace  
collaboration



Boost product  
yield



Better detect  
fraud and risk



Enhance  
customer  
experiences



Improve worker  
productivity

intel ai



Every  
company

will be  
an

AI  
company

# Scalable Systems

Build, optimize and run AI at any scale

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## AI PC

broadest AI SW ecosystem



AI PC  
Light inference



## Edge AI

Flexible, edge node  
reference architectures



Node  
Fine-tuning, inference



## Data Center & Cloud AI

Open, scalable systems &  
reference architecture



Super Cluster  
Training, Tuning, Peak Inf.



Cluster  
Light Training, tuning, Peak Inf.



Mega Cluster  
Large Scale Training & Inference

# Intel® AI Portfolio

Scalable AI computing platforms



## AI Software & Services

intel ai  
Software

intel Tiber AI Cloud

OpenVINO™

1  
oneAPI

Open-source & end-to-end AI workflows; enterprise software products



AI PC



New AI experiences in productivity, creativity & security



Edge AI



Intelligent compute for real-time data processing and actioning



Data Center & Cloud AI



Scalable systems powered & connected by open and accessible compute stack



## AI Networking

intel  
ETHERNET

Scalable cloud-to-edge-to-client networking for seamless AI experiences



# New AI PC Era Powered by Intel® Core™ Ultra Processors

The Biggest Architecture Update  
In 40 Years Driving the Future of  
Computing at All Organizations

### Creator: Photo & video search & editing

Faster, more natural filters, higher quality previews & faster export times with automated, quicker searches.



### Mainstream gaming

New AI features for in-game, 3D animation for added realism, transcription & chat translation.



# AI on the PC

“Eliminating the mundane”

### Collaboration/streaming

New AI capabilities for next-gen video conferencing, streaming and collaboration, preserving battery life.

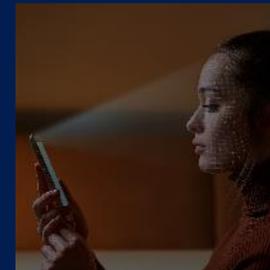


### Productivity

AI assistants for writing, creating, coding and offline features, like text & grammar prediction.

### Accessibility

AI-assisted audio-visual capabilities for diverse user needs, making it easier to create and be productive on the PC.



### Creator: Text to image

New AI effects & features for creating images with just a few descriptive words – marketing, advertising, design.

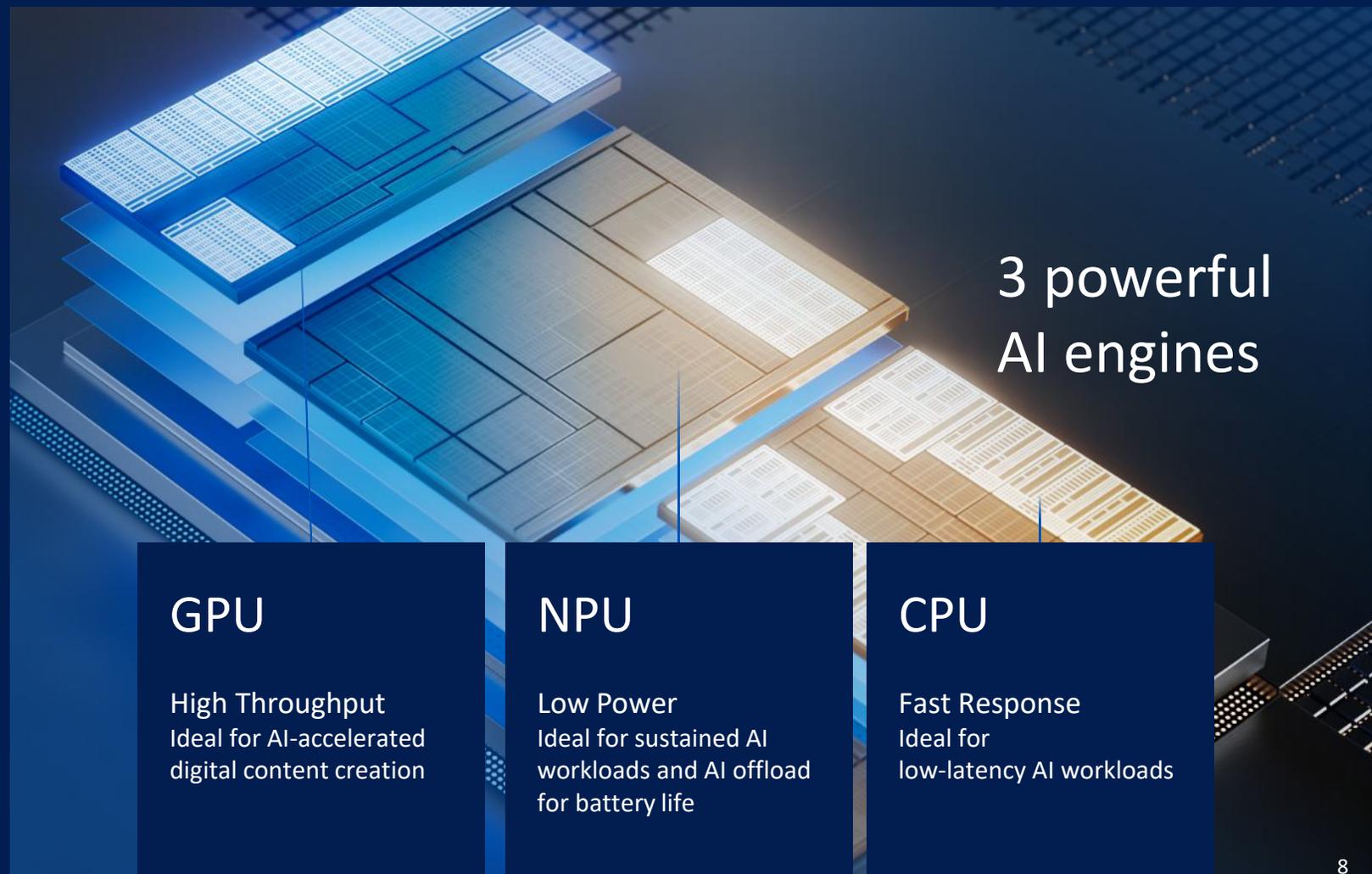
With over 100 ISVs and 300 AI features, the Intel® Core™ Ultra offers a comprehensive AI PC experience with improved power & performance vs. prior generation<sup>1</sup>

1. Intel Dec. 14, 2023, AI Everywhere event [news release](#). AI features may require software purchase, subscription or enablement by a software or platform provider, or may have specific configuration or compatibility requirements. Details at [intel.com/AIPC](https://intel.com/AIPC). Results may vary.

# Boost worker productivity with **new AI software and features** on PCs with Intel® Core™ Ultra processors

Performance for AI and a large ecosystem of apps

300 AI-enabled features from 100+ software vendors



# AI PC Acceleration Program

Accelerating adoption of AI with global ecosystem

## Enabling AI

[intel.com/aipc](https://intel.com/aipc)

100M+

PCs through  
2025

100+

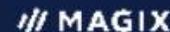
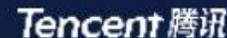
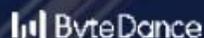
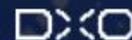
ISVs

>300

AI-accelerated  
features

3X

AI apps and frameworks  
than the competition





## Introducing Intel® Core™ Ultra Processors for Business Users

Up to

**47%**

better office  
app productivity  
vs 3-year-old PC<sup>1</sup>

Up to

**36%**

processor  
power reduction  
gen-over-gen for  
video conferencing<sup>2</sup>

Up to

**2.2x**

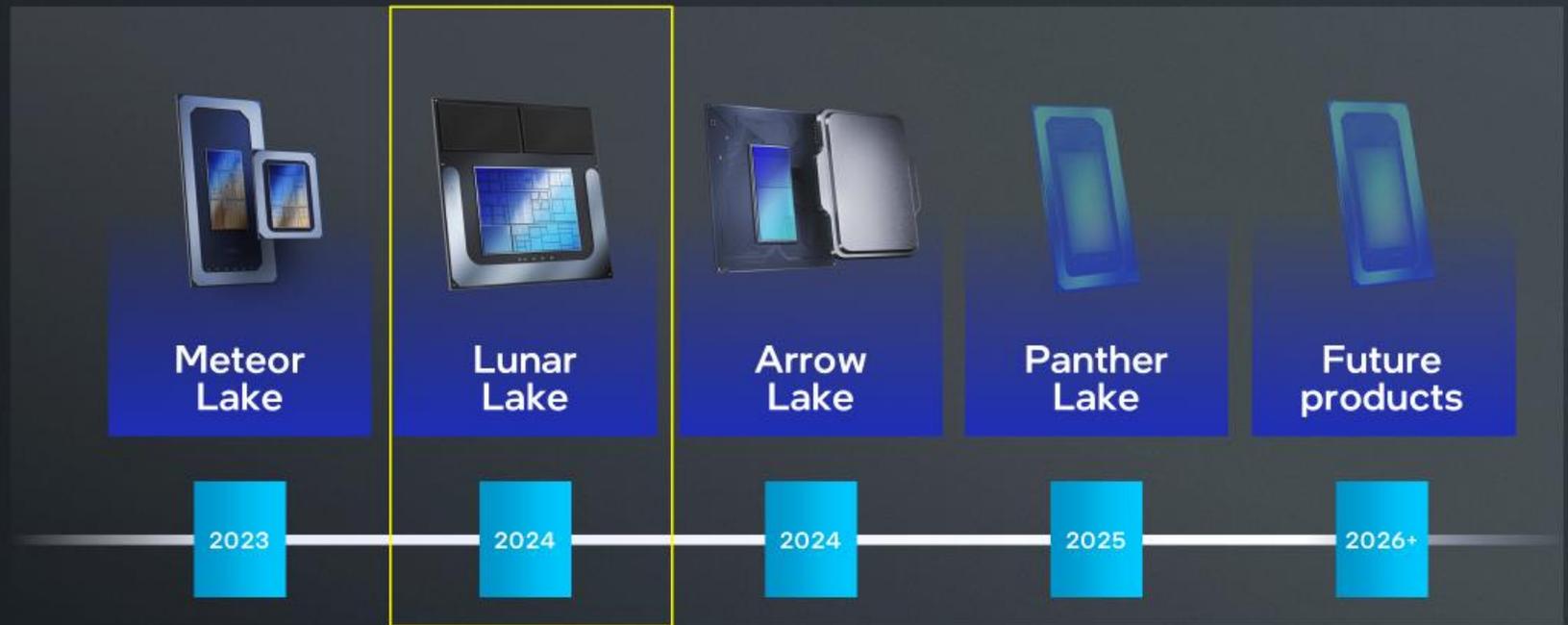
AI performance  
gen-over-gen  
for video editing<sup>2</sup>

1. Intel® Core™ Ultra 7 165H vs. 11th Gen Intel® Core™ i7-1185G7

2. Intel® Core™ Ultra 7 165U vs. 13th Gen Intel® Core™ i7-1365U

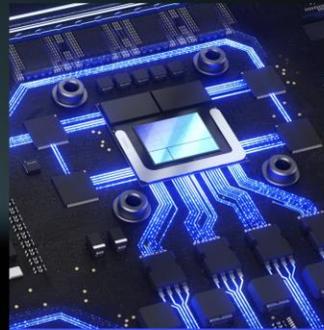
See [www.intel.com/PerformanceIndex](http://www.intel.com/PerformanceIndex) for workloads and configurations. Results may vary.

# Our AI Client Roadmap



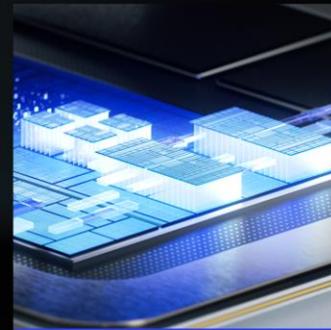
# Lunar Lake

Flagship SOC for the next gen of AI PCs



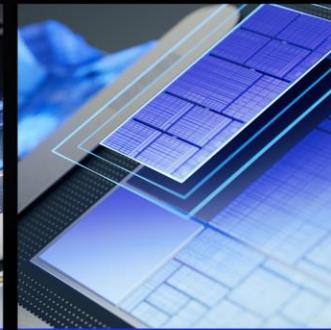
**Breakthrough  
x86 power  
efficiency**

Up to 40% lower  
SoC power<sup>1</sup>



**Exceptional  
core  
performance**

Similar ST perf at  
half the power<sup>1</sup>



**Massive  
leap in  
graphics**

Up to 1.5X better  
graphics<sup>1</sup>



**Unmatched  
AI  
compute**

Up to 120  
platform TOPS

<sup>1</sup>Versus Intel's previous gen. For more information, go to [Intel.com/PerformanceIndex](https://www.intel.com/PerformanceIndex).

Lunar Lake

# Unmatched AI Compute

Up to 120 platform TOPS  
across CPU, GPU, and NPU

<b>NPU</b>	Up to <b>48 TOPS</b>	Dense vector & matrix math	AI assistants & creation
<b>GPU</b>	Up to <b>67 TOPS</b>	VMX & DP4a	Gaming & creator AI
<b>CPU</b>	Up to <b>5 TOPS</b>	VNNI & AVX	Light AI workloads



# OpenVINO™

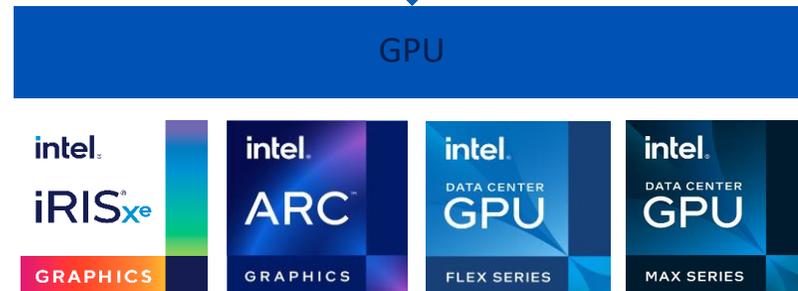
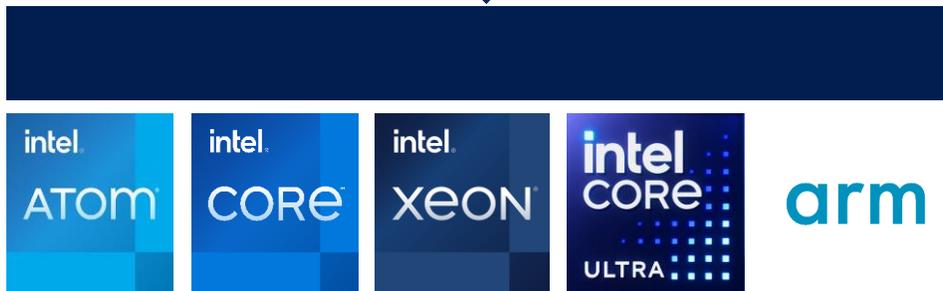
## DEVELOPER JOURNEY





# OpenVINO™

Optimized Performance



Windows

Linux

macOS



# What's New in the 2024.0 Release?



## Model

TensorFlow sentence encoding models with OpenVINO™ Tokenizers

New and noteworthy models validated: Mistral and StableLM-3b

Mixture of Experts (MoE) support

JavaScript API



## Optimize

Activation-aware Weight Quantization

KV-cache support

More OpenVINO features integrated with Hugging Face ecosystem, with direct model compression in INT4 format

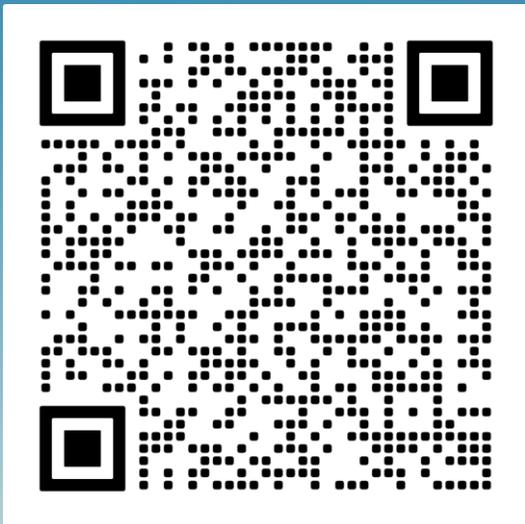


## Deploy

ARM threading library, multi-core ARM platforms support

NPU plugin in the PIP package

OVMS for multi-batch inputs and Retrieval Augmented Generation (RAG)



Try It Yourself  
[openvino.ai](https://openvino.ai)

