

CAUTIONARY STATEMENT

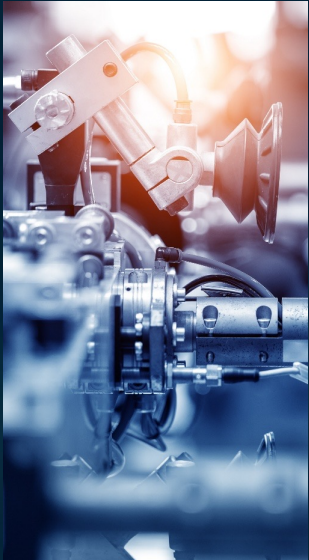
This presentation contains forward-looking statements concerning Advanced Micro Devices, Inc. (AMD) such as the features, functionality, performance, availability, timing and expected benefits of AMD products, product roadmaps, partnerships and collaborations; AI demand; AMD's total addressable markets; and AMD's strategy, which are made pursuant to the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are commonly identified by words such as "would," "may," "expects," "believes," "plans," "intends," "projects" and other terms with similar meaning. Investors are cautioned that the forward-looking statements in this presentation are based on current beliefs, assumptions and expectations, speak only as of the date of this presentation and involve risks and uncertainties that could cause actual results to differ materially from current expectations. Such statements are subject to certain known and unknown risks and uncertainties, many of which are difficult to predict and generally beyond AMD's control, that could cause actual results and other future events to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Investors are urged to review in detail the risks and uncertainties in AMD's Securities and Exchange Commission filings, including but not limited to AMD's most recent reports on Forms 10-K and 10-Q.

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AI Is Transforming Every Industry



HEALTHCARE



MANUFACTURING



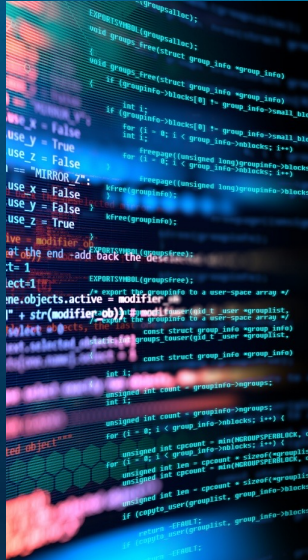
FINANCE



EDUCATION



SCIENCE



SOFTWARE



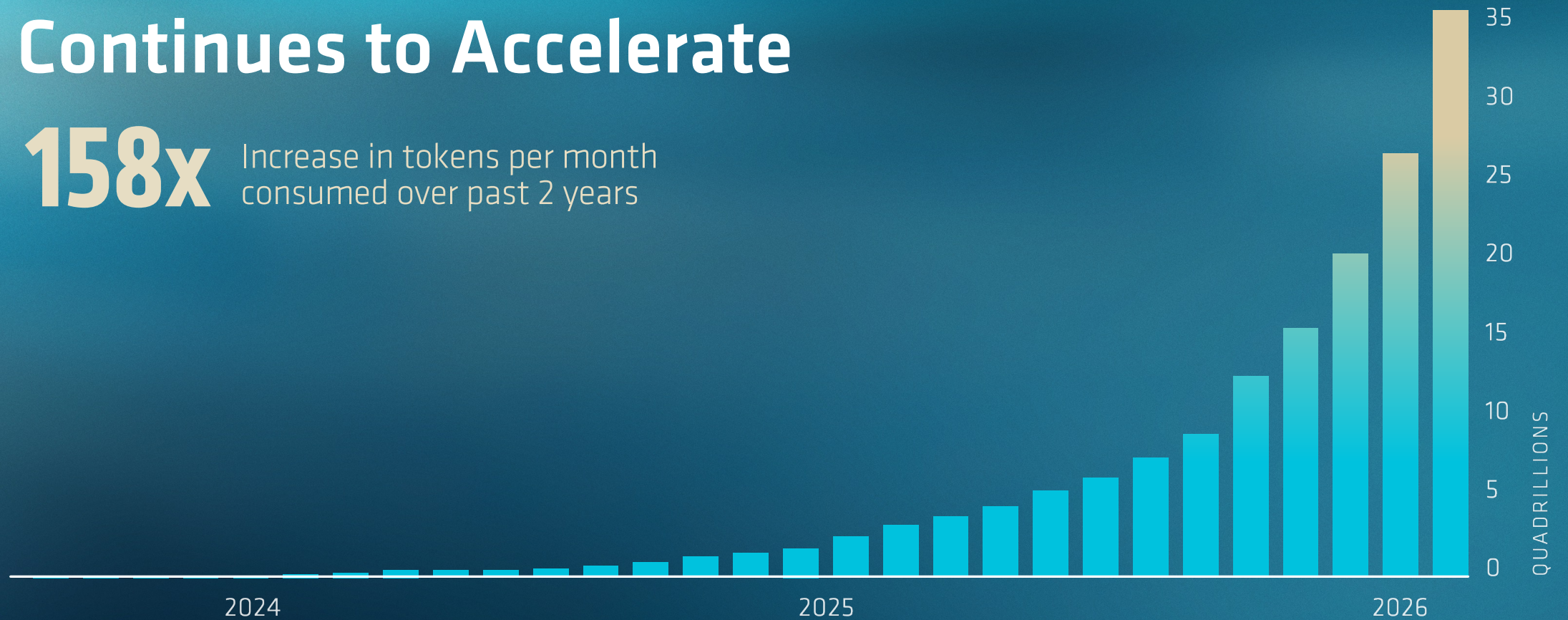
AGRICULTURE



MEDIA &
ENTERTAINMENT

Demand for AI Continues to Accelerate

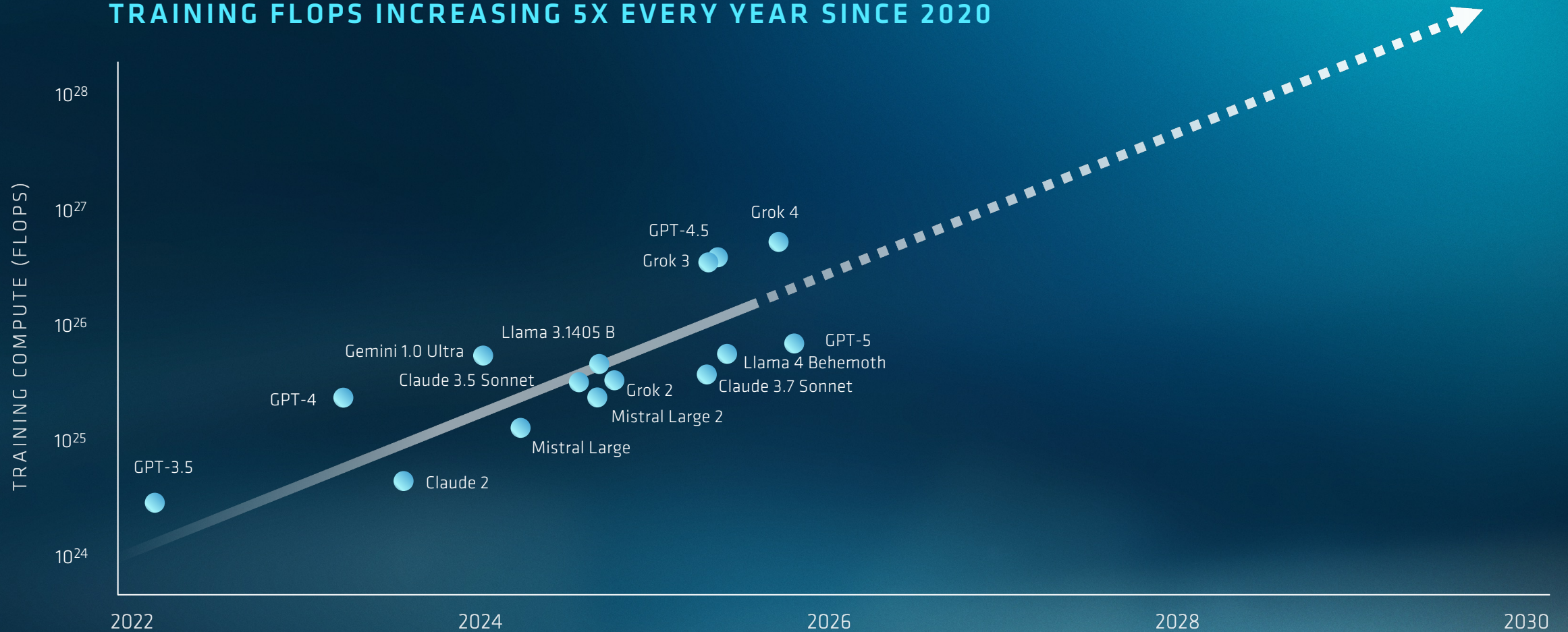
158x Increase in tokens per month
consumed over past 2 years



Source: Exponential View, State of the AI Economy, June 25, 2026

Training Continues to Scale

TRAINING FLOPS INCREASING 5X EVERY YEAR SINCE 2020



Source: Epoch AI, Trends in Artificial Intelligence, February 5, 2026

Training Continues to Scale

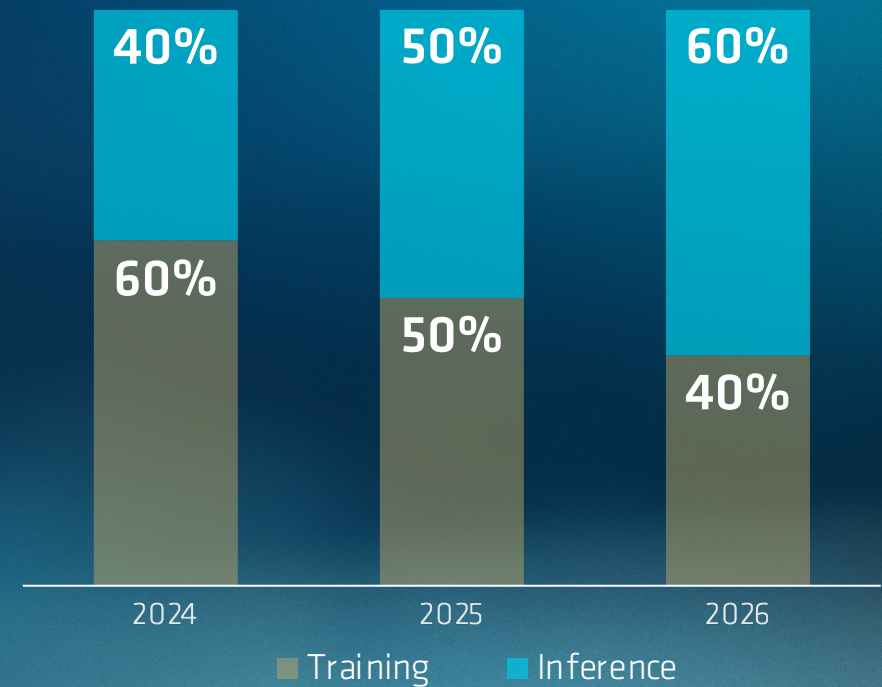
TRAINING FLOPS INCREASING
5X EVERY YEAR SINCE 2020



Source: Epoch AI, Trends in Artificial Intelligence, February 5, 2026

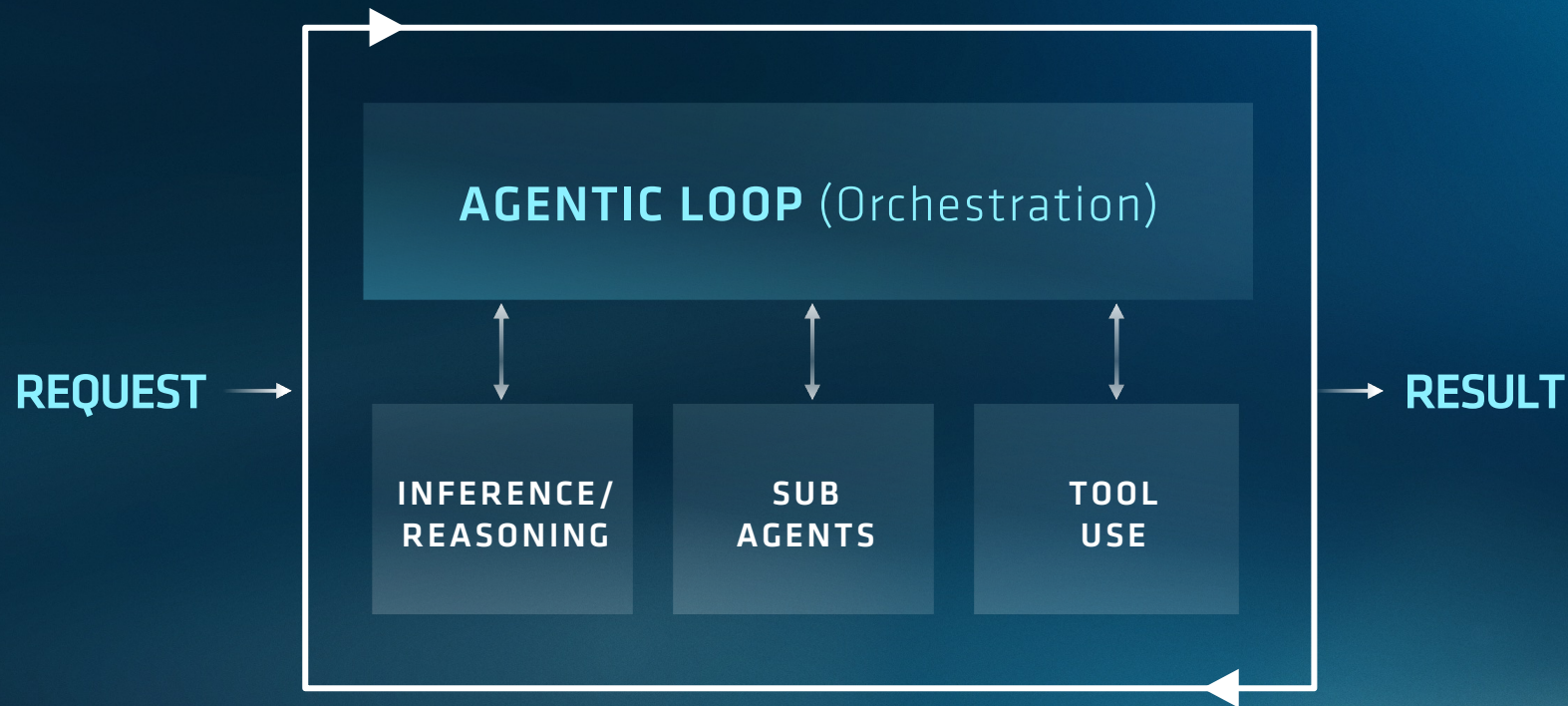
But Inference is Now the #1 AI Workload

TRAINING VS INFERENCE SPLIT



Source: AMD Internal Projections

Agentic AI Further Accelerates Demand for Compute



More Inference

More Agents

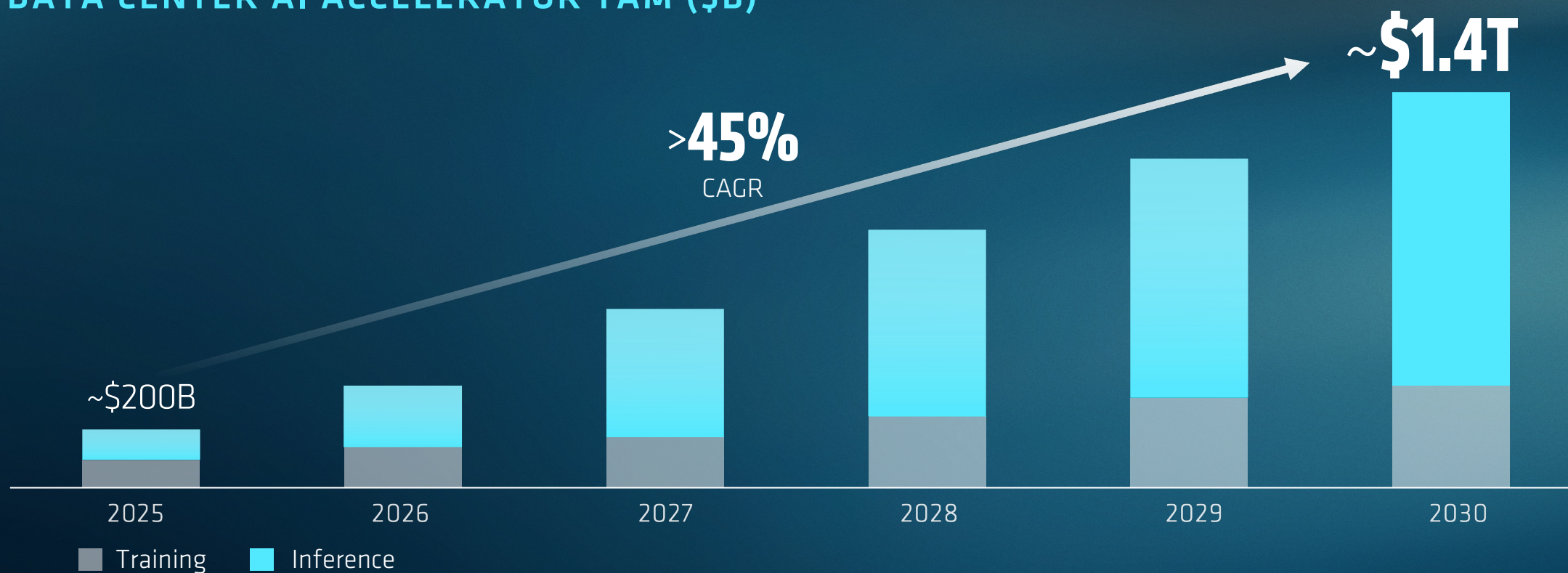
More Tools



More Compute

AI Demand Driving Acceleration in TAM

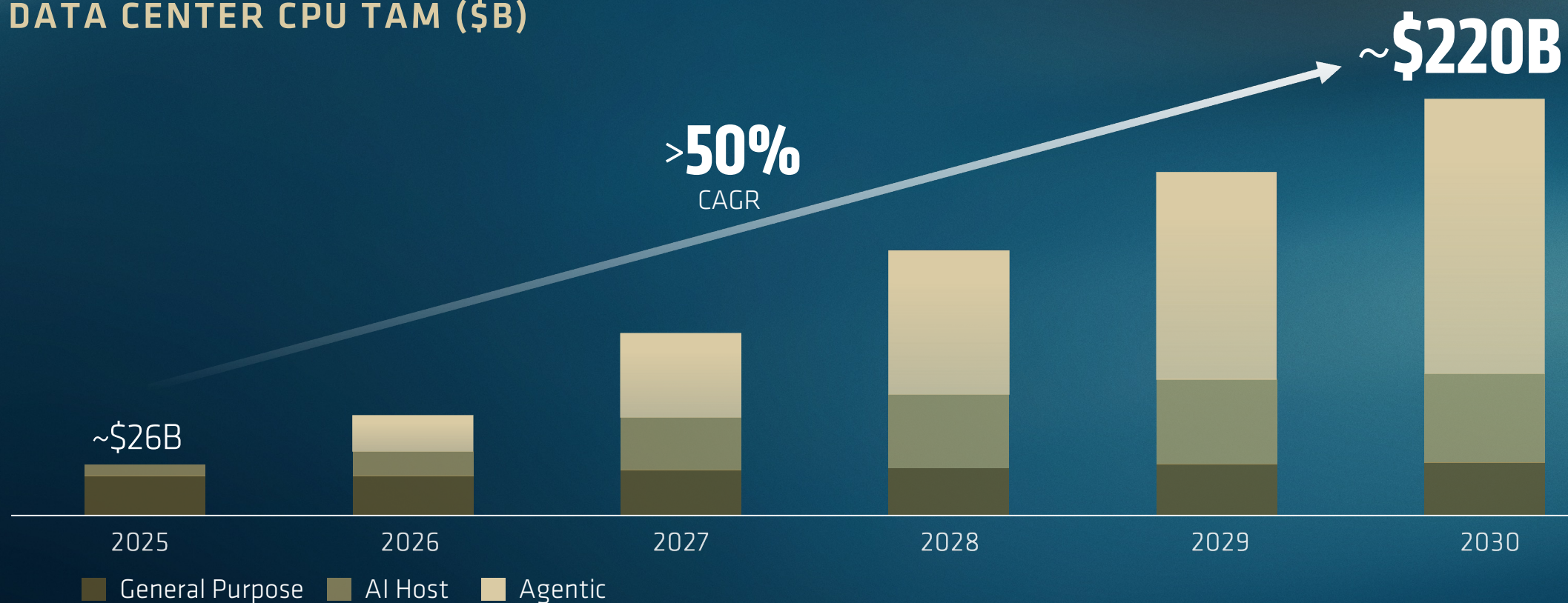
DATA CENTER AI ACCELERATOR TAM (\$B)



Source: AMD Internal Projections

AI Demand Driving Acceleration in TAM

DATA CENTER CPU TAM (\$B)



Source: AMD Internal Projections

AI Will Run Wherever the Work Happens



CLOUD



DATA CENTER

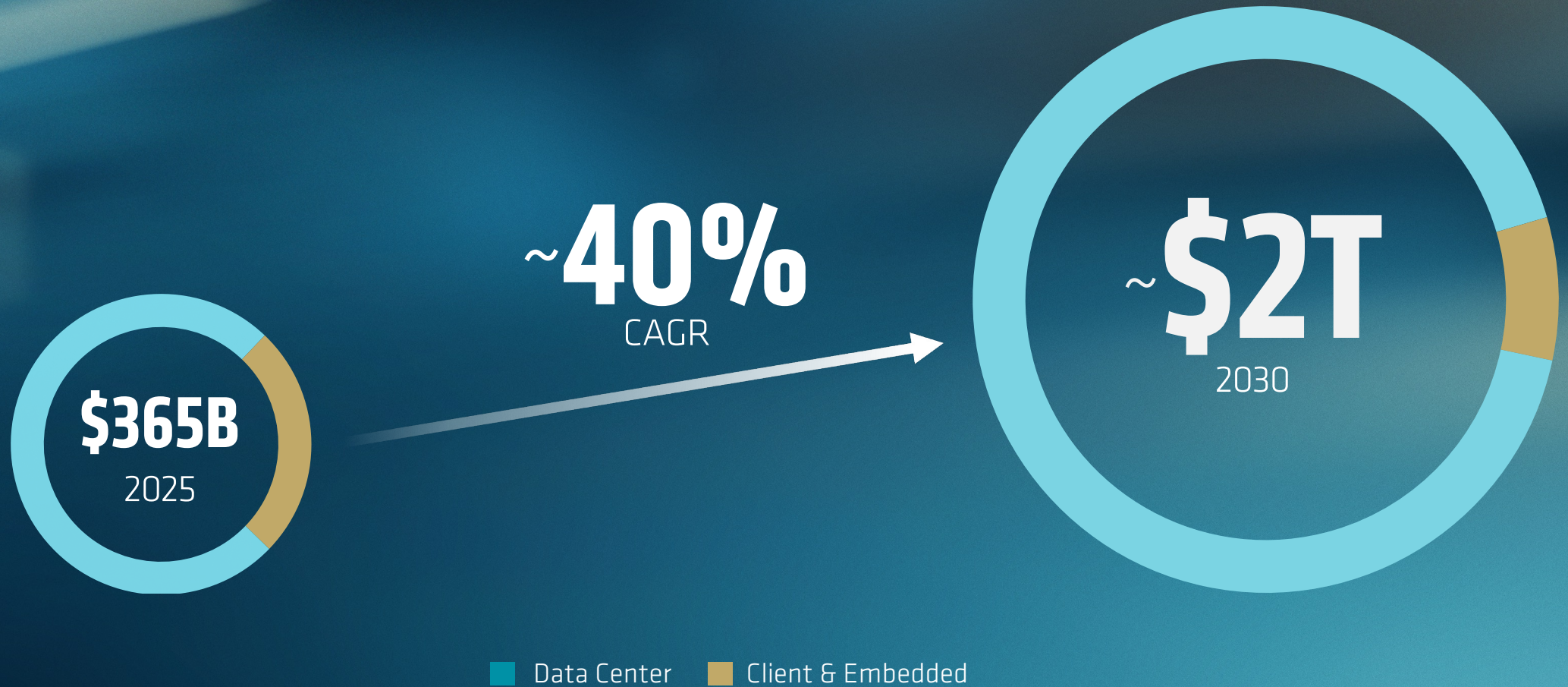


CLIENT



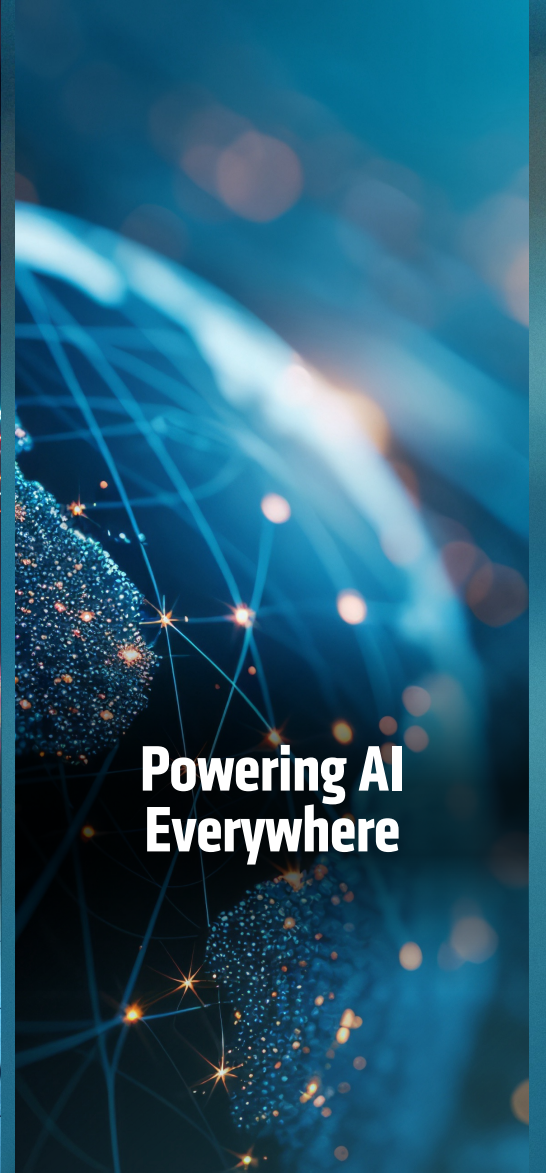
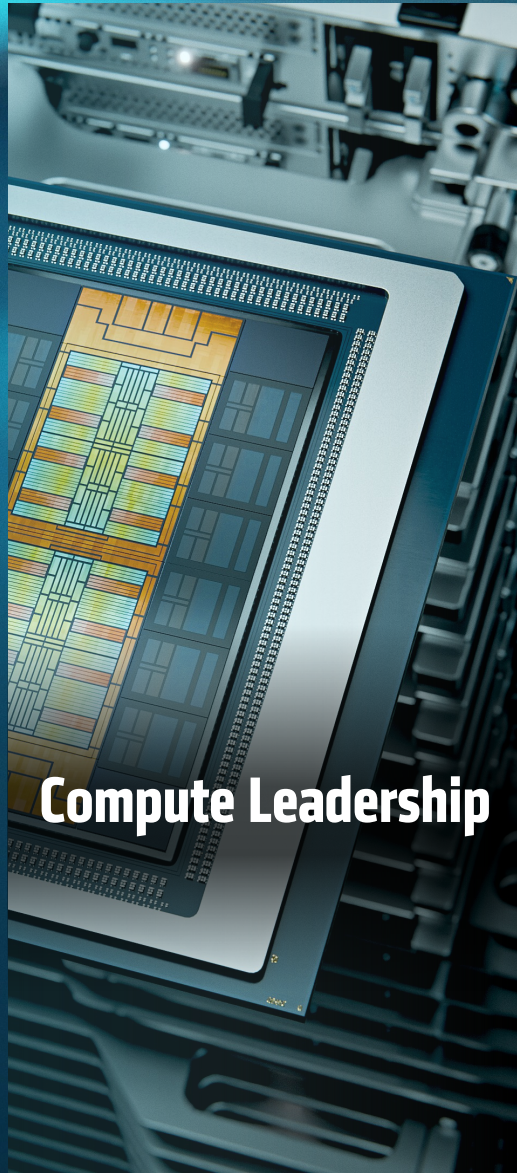
EDGE

AMD Total Compute TAM



Source: AMD Internal Projections

AMD Strategy



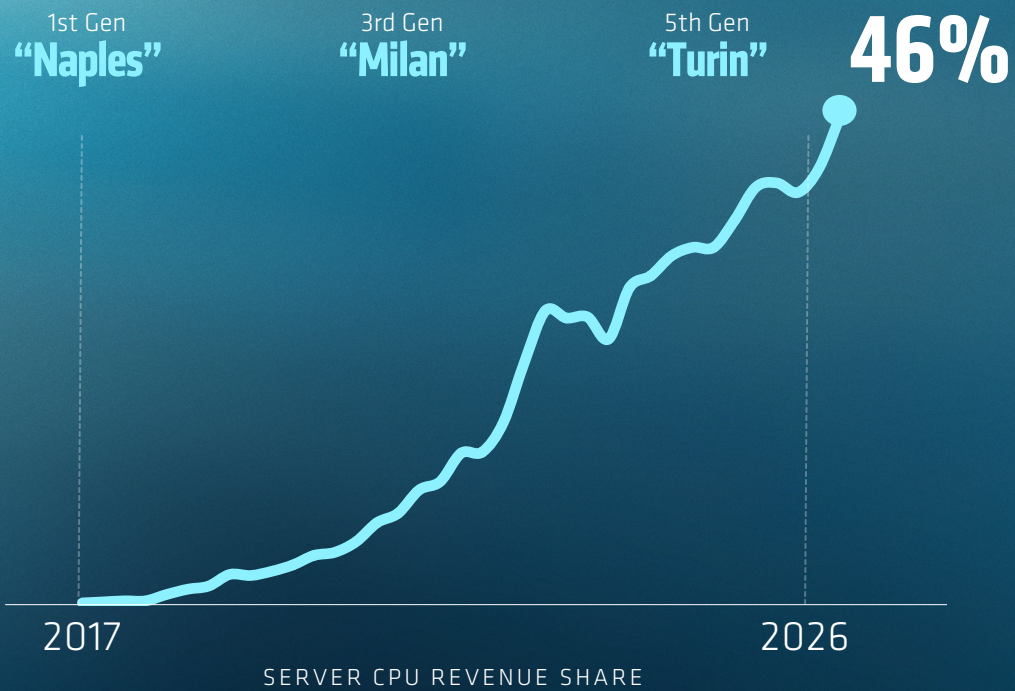
AMD | Advancing AI 2026



AMD | Advancing AI 2026



EPYC Momentum Continues to Accelerate



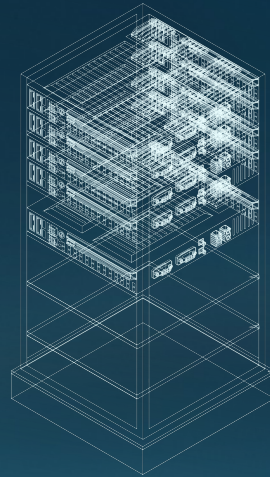
The Industry Standard For Server CPUs

AI	 OpenAI	 Meta		 GENCI Le calcul intensif au service de la connaissance	
Cloud		 Microsoft			
Digital					
Enterprise			 AT&T		
OEM					

AI Leaders Trust AMD Instinct At Scale



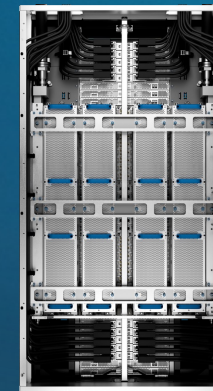
Frontier AI Requires Integrated Rack Architectures



AMD
PENSANDO

Ultra Ethernet
Consortium

ESUN



Leadership Compute
Capability

Open Rack
Architecture

Open Fabric
to Scale AI

Rack Scale Efficiency
& Serviceability

Turnkey
Solutions

LAUNCHING TODAY AT **ADVANCING AI 2026**

AMD  HELIOS

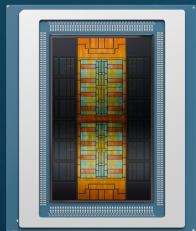
**Rackscale Performance
For At-Scale AI**

AMD Helios™ Delivers Leadership Across All Dimensions

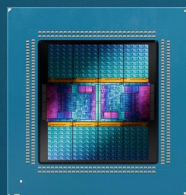
#1 **COMPUTE**
CPU Core Performance
GPU Compute

#1 **MEMORY**
HBM4 Memory Capacity
HBM4 Memory Bandwidth

#1 **NETWORKING**
Scale Out Bandwidth
Scale Up Bandwidth



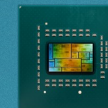
MI455X GPU
5th Generation Instinct



“Venice” CPU
6th Generation EPYC



Salina DPU
AMD Pensando



Vulcano AI NIC
AMD Pensando

AMD Helios Compute Architecture Delivers The Highest Performing GPU With **Instinct MI455X**

40 PF | 20 PF

FP4 & FP8 Flops

432 GB

HBM4 Capacity

23.3 TB/s

Memory Bandwidth

CDNA 5

GPU Architecture

2nm | 3nm

Advanced Process

320B

Transistors

AMD Helios Networking Powers Rackscale Performance

The Only Fully Programmable Networking Solutions Built for AI

Front-End

Salina DPU

Secures Network Traffic

Accelerates SDN and Storage

Scale-Out

800G AI NIC

AMD Pensando Vulcano

Broadcom Thor Ultra

Scale-Up

UALoE

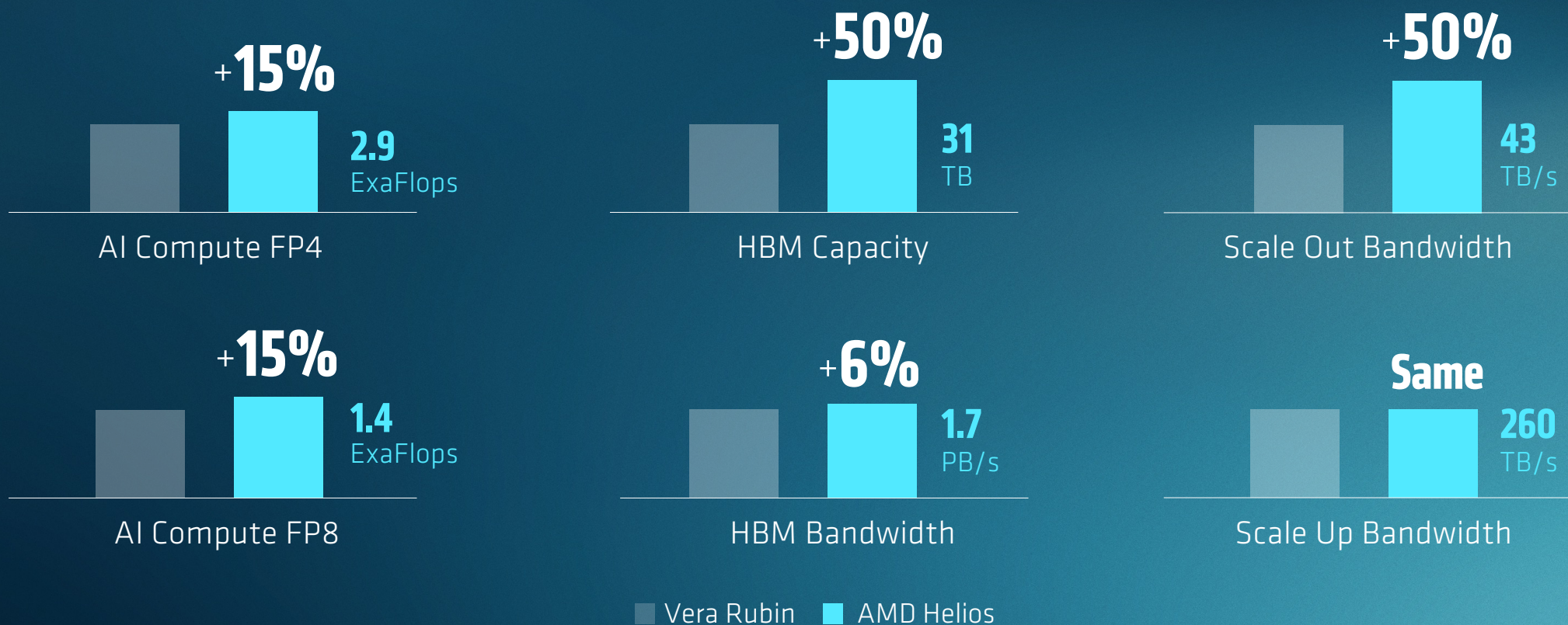
End-to-end fabric reliability

Industry Leading Switching

Ultra Ethernet
Consortium

ESUN

AMD Helios Delivers The Most Powerful Rackscale AI Infrastructure



Dense FP4 Flops

See Endnote: MI400-005, MI400-007, MI400-019

The Most Powerful Rackscale AI Infrastructure

COMPUTE

4,600

CPU Cores

18,000

GPU Compute Units

PERFORMANCE

2.9 ExaFlops

FP4 Compute

MEMORY

31 TB

HBM Capacity

NETWORKING

260 TB/s

Scale Up Bandwidth

AMD HELIOS

AMD 
EPYC

AMD 
INSTINCT

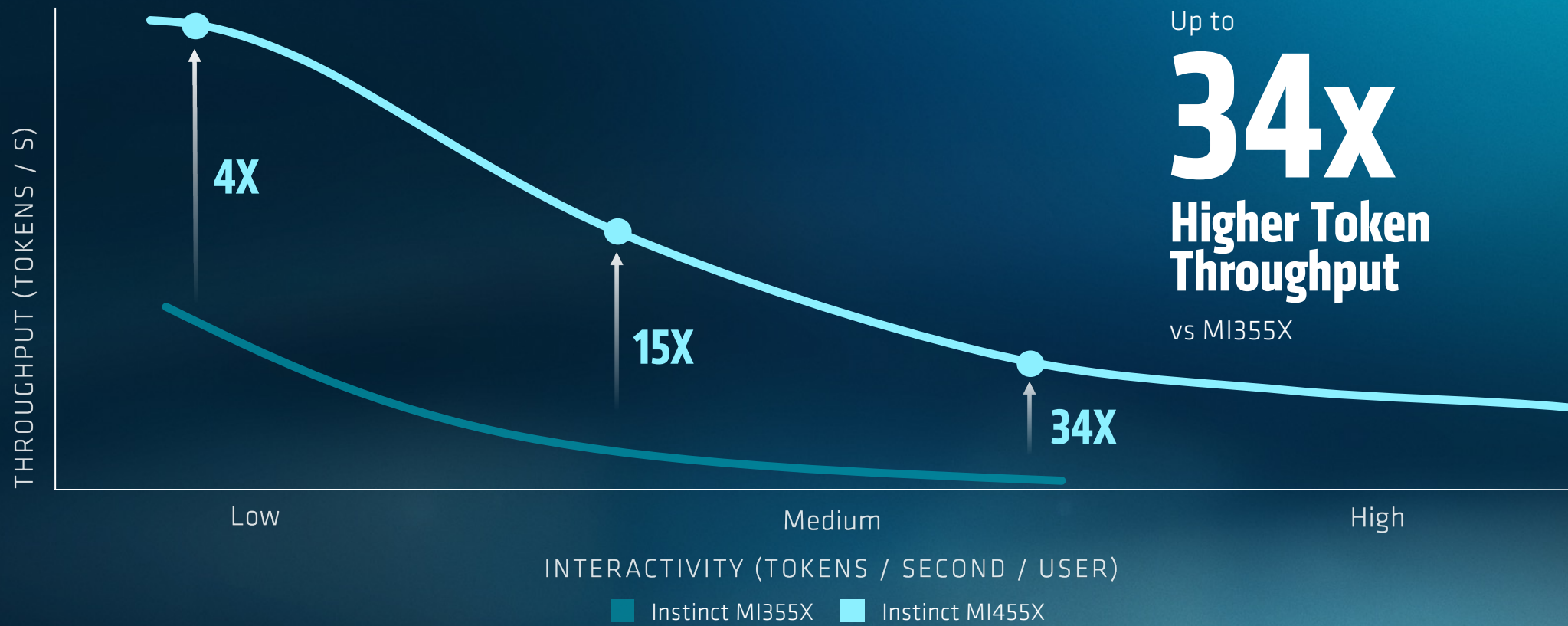
AMD 
PENSANDO

AMD 
ROCm

IN PRODUCTION TODAY

AMD  **×** **ANTHROPIC**

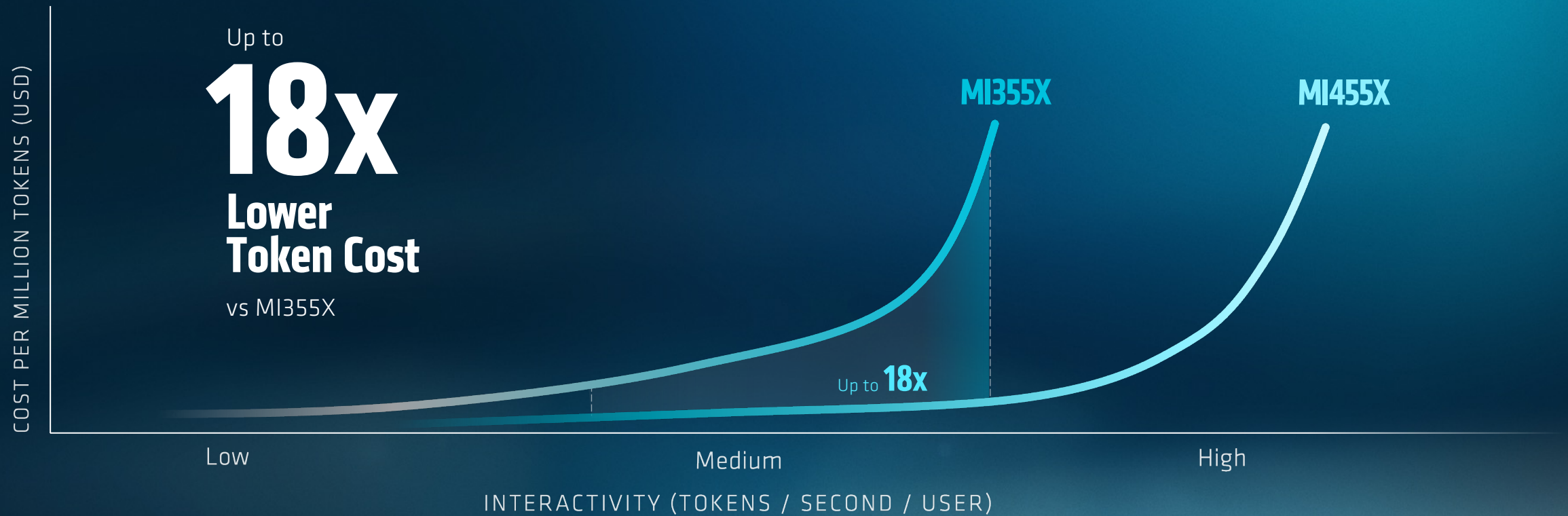
Instinct MI455X Delivers Generational Increase In Inference Throughput



DeepSeek V4 Flash

See Endnote: MI400-020

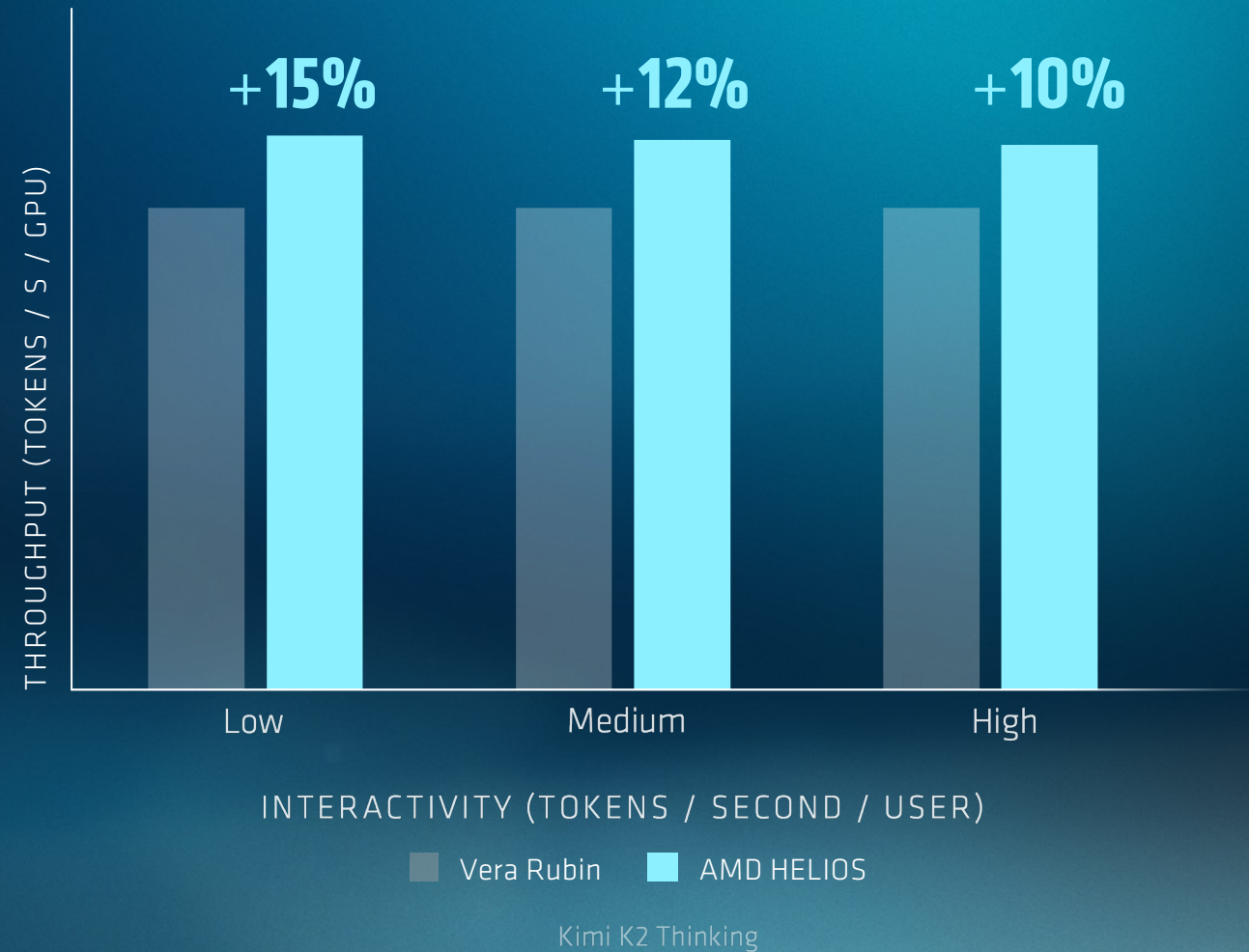
Instinct MI455X Delivers Generational Improvement In Inference Cost



DeepSeek V4 Flash

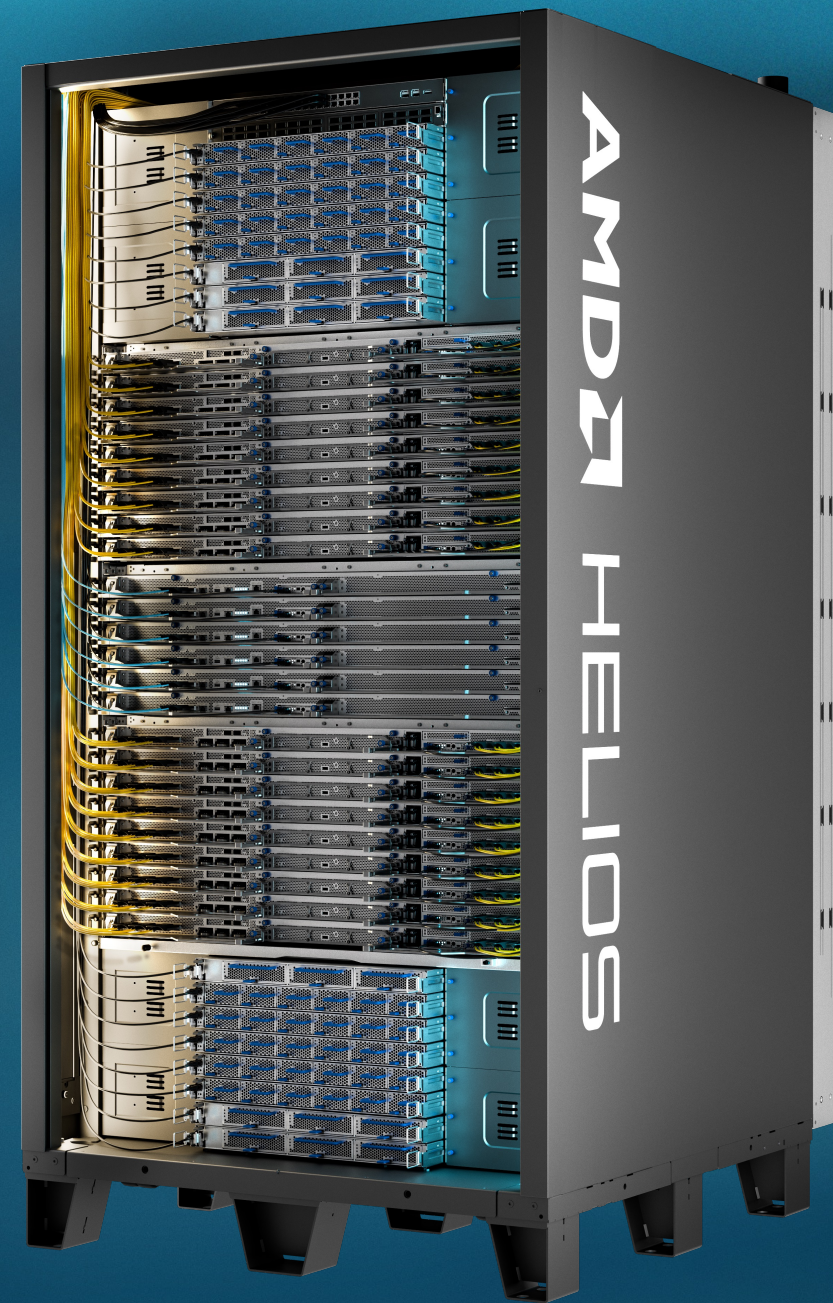
See Endnote: MI400-022

AMD Helios Delivers Industry Leading Rack Scale Performance



Up To 30% More Tokens / \$

Using AMD Helios vs Vera Rubin NVL72



AMD Helios Adopted by Leading AI Companies

AT SCALE AI PARTNERS



OpenAI

Meta

ANTHROPIC



Microsoft

ORACLE

INFRASTRUCTURE PARTNERS

HPE

Lenovo



Bull



wiwynn

HUMAIN
THE END OF LIMITS

IBM

TENSORWAVE

VULTR

Crusoe

Cirrascale

BROADCOM

CISCO

AsteraLabs

Celestica

Aligned

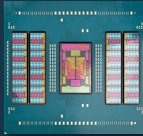
OneCode



AMD  ×  OpenAI

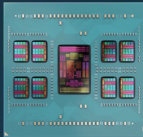
EPYC: 5 Generations of The World's Most Powerful Server CPUs

5th Generation
"Turin"



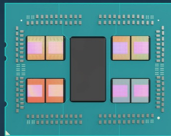
AI OPTIMIZATION

4th Generation
"Genoa"



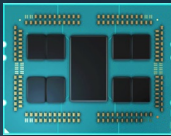
PURPOSE-BUILT DESIGN POINTS

3rd Generation
"Milan"



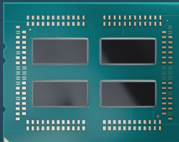
CORE PERFORMANCE LEADERSHIP

2nd Generation
"Rome"



>2X THREAD DENSITY

1st Generation
"Naples"

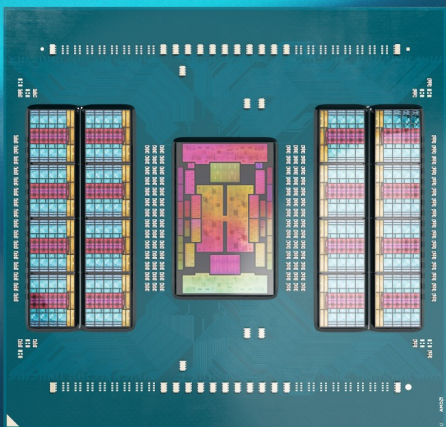


1ST "ZEN" GENERATION

EPYC Delivers

#1

- Core Performance
- Socket Performance
- Thread Count
- Performance/Watt
- Performance/Dollar



EPYC “Turin” The Best Server CPU in Production Today

PERFORMANCE
LEADERSHIP

#1 Performance

DENSITY
LEADERSHIP

Up to
384 Threads
192 Cores

I/O BANDWIDTH
LEADERSHIP

PCIe® GEN 5 @
32Gbps

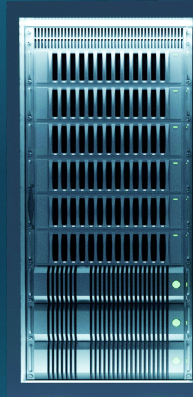
Three Tiers of Agentic AI Infrastructure Driving CPU Demand

GPU SERVERS “HOST NODE”



High frequency cores
with leadership I/O

AGENT CPU SERVERS “SANDBOXES”



Maximum # of performant
cores per watt

GENERAL PURPOSE CPU SERVERS



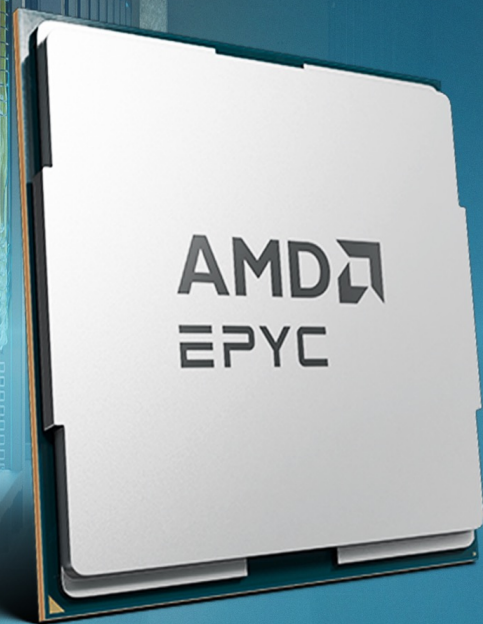
Web Gateway

Caching

Apps

DB & Storage

Diverse balance of performance, core
counts, power, and cost



INTRODUCING
6th Gen AMD EPYC “Venice”
World’s Best Server CPUs
for the Agentic Era



6th Gen AMD EPYC “Venice”

World’s Best Server CPUs for the Agentic Era

PERFORMANCE LEADERSHIP	DENSITY LEADERSHIP	MEMORY BANDWIDTH LEADERSHIP	TECHNOLOGY LEADERSHIP
#1	512 Threads	1.6TB/s	“Zen 6”
1.8x	1.3x	2.6x	2nm 6nm
Est. SPECint® 2026 vs Turin	vs Turin	vs Turin	CPU Architecture Advanced Process



EPYC “Venice” The Best Server CPU Portfolio

GPU SERVERS “HOST NODE”

“Venice” HF
RDIMM / MRDIMM

“Verano”
LPDDR

High Frequency
CPU to GPU Bandwidth

AGENT CPU SERVERS “SANDBOXES”

“Venice” 256c

High Core Count
Low Power

GENERAL PURPOSE CPU SERVERS

“Venice” SP7

High Performance
High Density

“Venice” SP8

Balanced
Performance & Power

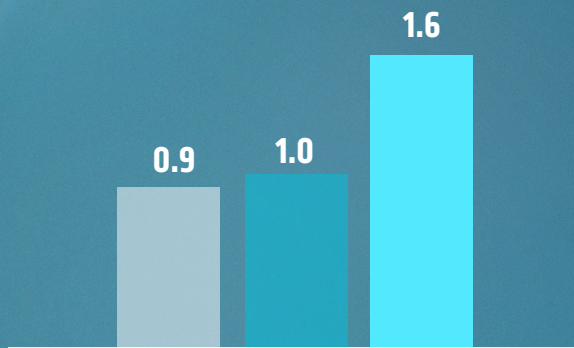
“Venice-X”

Technical
Compute & HPC

AMD EPYC “Venice” Delivers More Tokens, Agents & Performance vs Competition

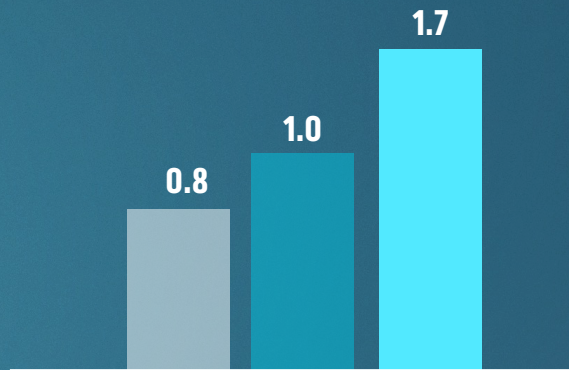
GPU SERVERS “HOST NODE”

Up to **1.8x**
Tokens/second for Frontier Models



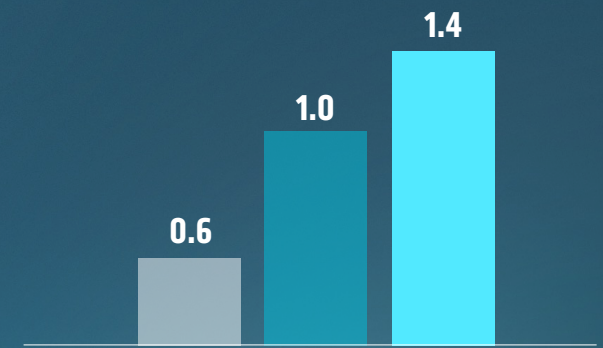
AGENTIC CPU SERVERS “SANDBOXES”

Up to **2.1x**
Agents per Watt



GENERAL PURPOSE CPU SERVERS

Up to **2.3x**
Performance per Watt

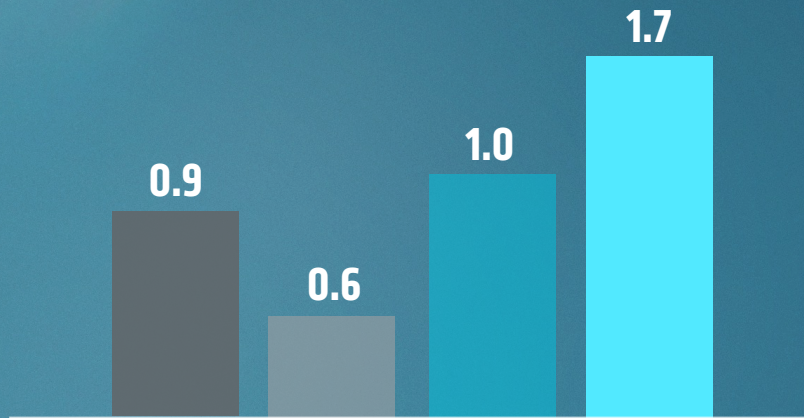


■ 6th Gen Intel ■ 5th Gen EPYC ■ 6th Gen EPYC

AMD EPYC “Venice” Delivers More Agents & Performance vs ARM-based CPUs

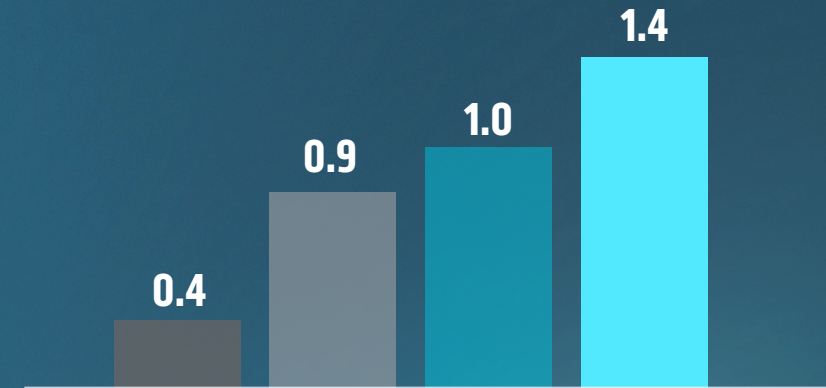
AGENTIC CPU SERVERS “SANDBOXES”

Up to **2.8x**
Agents per Watt



GENERAL PURPOSE CPU SERVERS

Up to **3.3x**
Performance per Watt



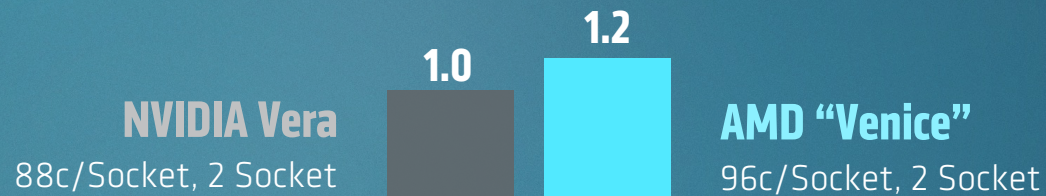
NVIDIA Vera ARM AGI 5th Gen EPYC 6th Gen EPYC

AMD EPYC “Venice” vs Nvidia Vera

Generational Lead Single Core Performance & Throughput

SINGLE CORE PERFORMANCE

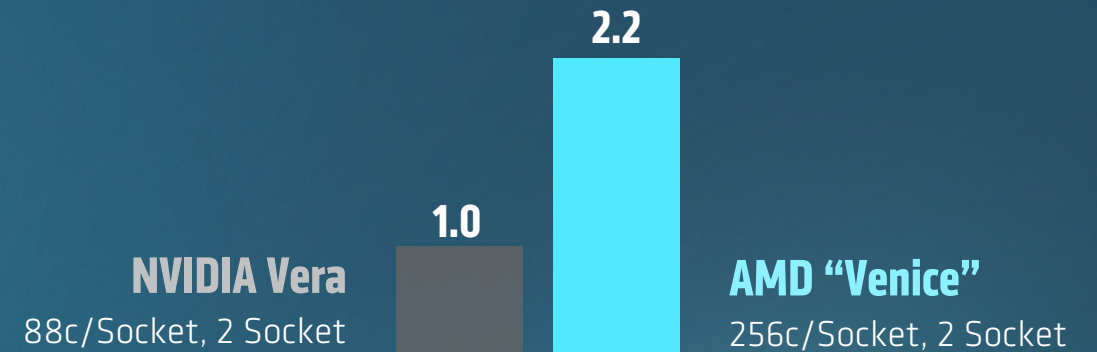
Up to **1.2x**
vs Vera



Est. SPECint® 2026

THROUGHPUT PERFORMANCE

Up to **2.2x**
vs Vera



Est. SPECint® 2026

■ NVIDIA Vera ■ 6th Gen EPYC

6th Gen AMD EPYC “Venice” World’s Best Agentic CPU Racks

Lenovo



24,576
Cores

DELL
Technologies



36,864
Cores

SUPERMICRO



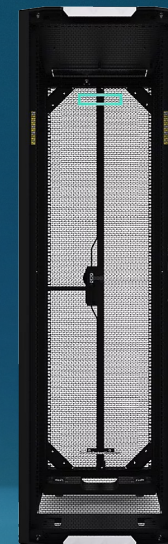
43,008
Cores

GIGABYTE™



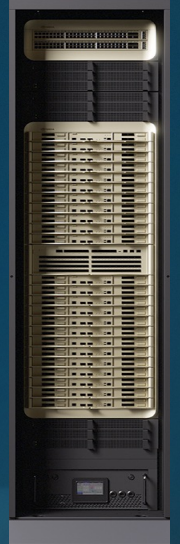
49,152
Cores

HPE



49,152
Cores

“Venice” 256c OEM



22,528
Cores

Vera 88c MGX

AMD EPYC “Venice” In Production Today

HYPERSCALERS



Microsoft

Meta



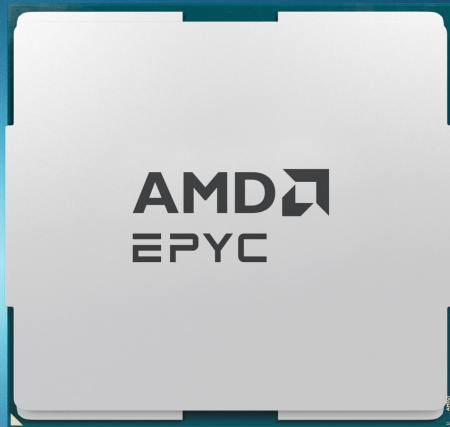
Google

ORACLE

OEM PROVIDERS



HPE



CLOUD INSTANCES & OEM PLATFORMS AVAILABLE STARTING IN Q4

AMD  × ∞ Meta

Inference Market Is Segmenting

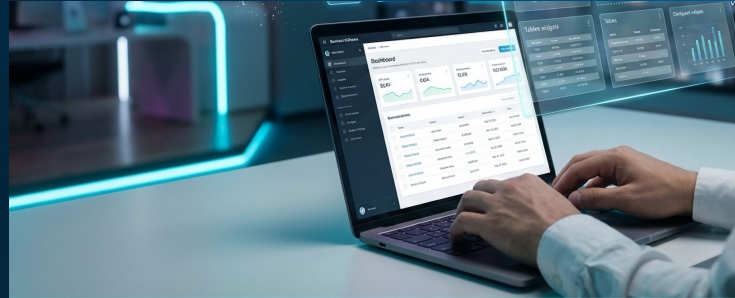


High Batch, Cost Optimized

Offline Tasks

Elastic Workloads

Deep Research



Balanced Throughput & Latency

Chatbots

Copilots

AI Assistants



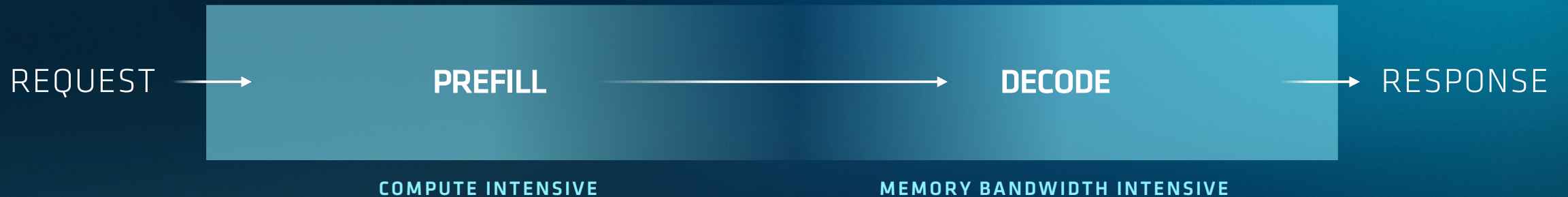
Ultra-Low Latency

Code Completion

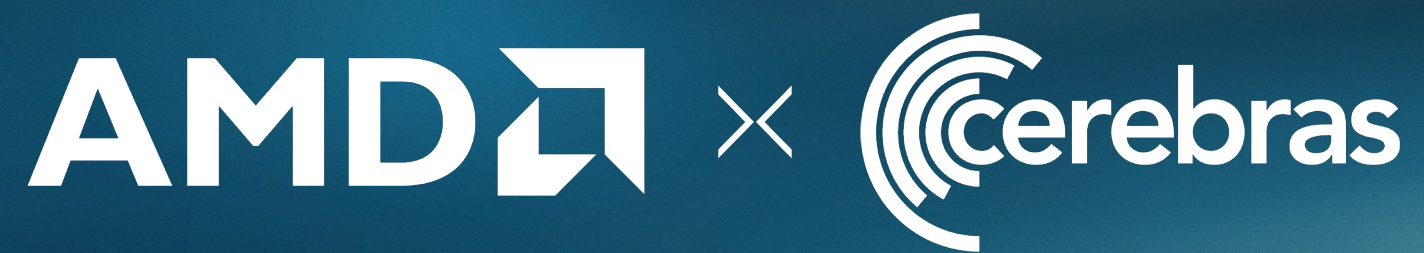
Real-Time Copilots

Agentic Workflows

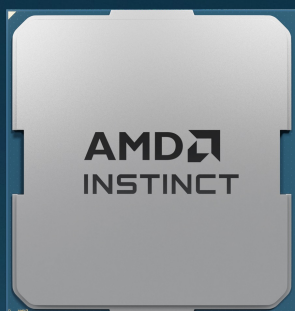
Disaggregated Inference Is Emerging As A Powerful Way To Deliver Ultra Low Latency



INFERENCE WORKFLOW



The Most Powerful Solution For Ultra Low Latency Inference

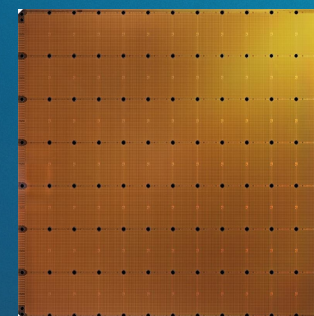


High-Throughput Scalable Engine

432 GB HBM4 Capacity

23.3 TB/s Memory Bandwidth

72 GPU Domain



Wafer-scale, Ultra Low Latency Engine

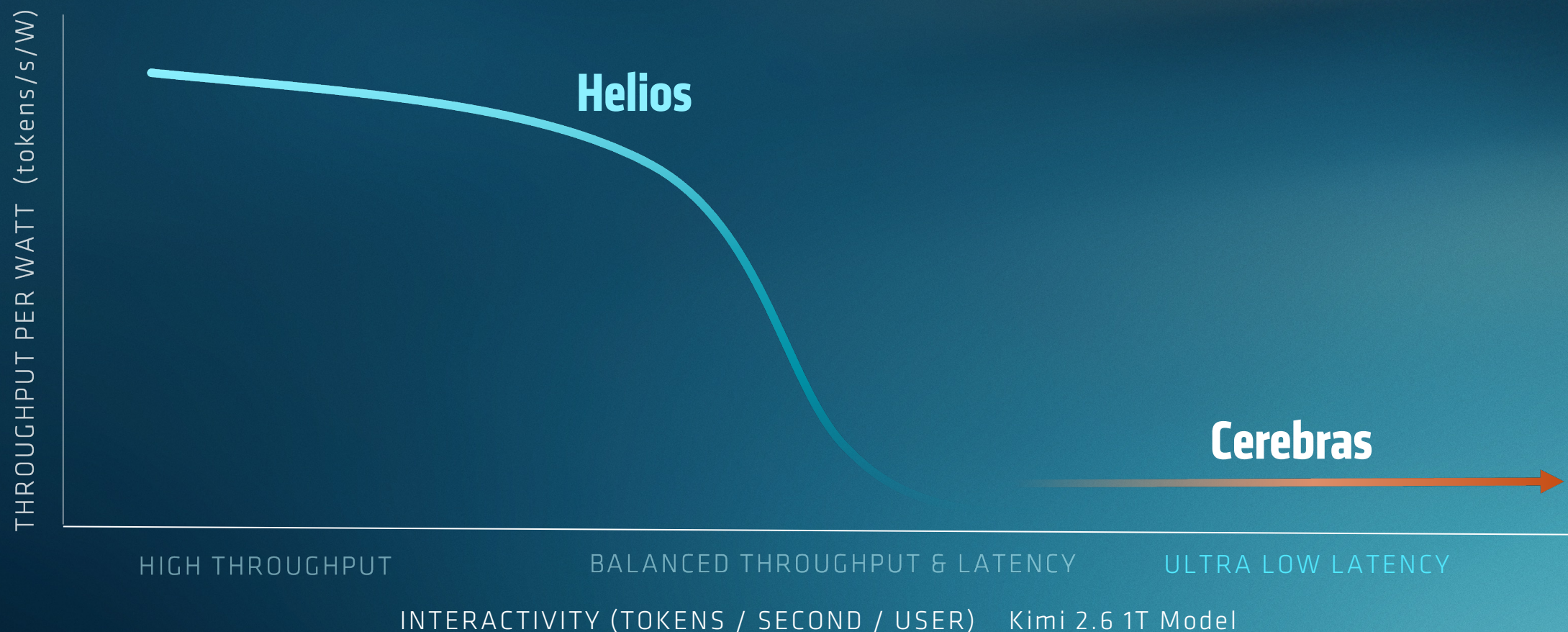
44 GB on-chip SRAM

21,000 TB/s Memory Bandwidth

900,000 AI Cores



Ultra-Fast Inference, Higher TPS/W on Leading AI Models





Ultra-Fast Inference, Higher TPS/W on Leading AI Models



Unlock Higher Throughput Ultra Low Latency Inference

Fastest Tokens In The World
For Leading AI Models



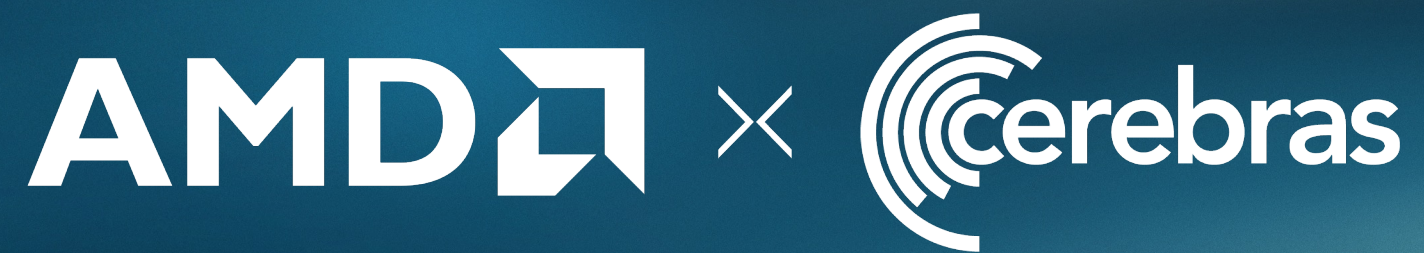
AMD HELIOS AI RACK

+



CEREBRAS

AVAILABLE IN 2H 2026
STARTING IN CEREBRAS INFERENCE CLOUD



AMD | Advancing AI 2026





Accelerating Open Innovation

Relentless Focus on Developers

**Feature
Velocity**

**Performance
Optimization**

**Deep Open Ecosystem
Partnerships**

**Richer Out-of-the-box
Experience**



3M+ Models on Hugging Face
Running out-of-the-box

TOP 10 AI Open-Source Projects
Natively Supported on AMD

>10x Increase in
OSS Contributions

ROCm Strategy and Evolution



Open Source
Driving Rapid Innovation



Abstraction
Enabling Higher Productivity

Open Source Strategy Accelerating Progress

OPEN SOURCE COMMUNITY ENABLING AMD



WORLD'S MOST IMPORTANT WORKLOADS RUN ON AMD



Abstraction Makes Deployment Easy on AMD

Program at Every Level. Leveraging Rich Ecosystem



FRAMEWORKS

Rapid innovation at the highest level

PyTorch · JAX · vLLM · SGLang · TensorFlow · ATOM

PYTHONIC DSLS

Express intent in Python

OpenAI Triton · Gluon · TileLang · FlyDSL

LIBRARIES

Performance with productivity

ALTER · hipBLASLt · HipKittens · RCCL · MoRI

LOW-LEVEL PROGRAMMING

Maximum control and performance

HIP C++ · AMDGPU Assembly

The Next Evolution: “AI Assisted” GPU Programming

AI Assist

Automating GPU Programming

Open Source

Driving Rapid Innovation

Abstraction

Enabling Higher Productivity

AMD
ROCm.AI

 Claude

 Codex

 Cursor

 Gemini

your@agent:~\$

Introducing AMD ROCm.AI AI-Driven Platform for Developers



AI-Driven Development Platform

Accelerating development velocity and performance optimization

AI SKILLS

Popular agents become ROCm superusers

Skills



AI ASSISTED OPTIMIZATION

AI that optimizes workloads

Hyperloom

End-to-end AI Workload Optimization

ROCm CORE

Compilers, tools, libraries, frameworks

Framework Integration



Core SDK

Libraries
Compilers and Tools
Runtime

Accelerating Inference with ROCm.AI

Parallelization & Scheduling

Expert parallelism, DP-attention,
Compute communications overlap

Memory Management

Paged attention, KV cache quantization,
Unified attention (prefill + decode)

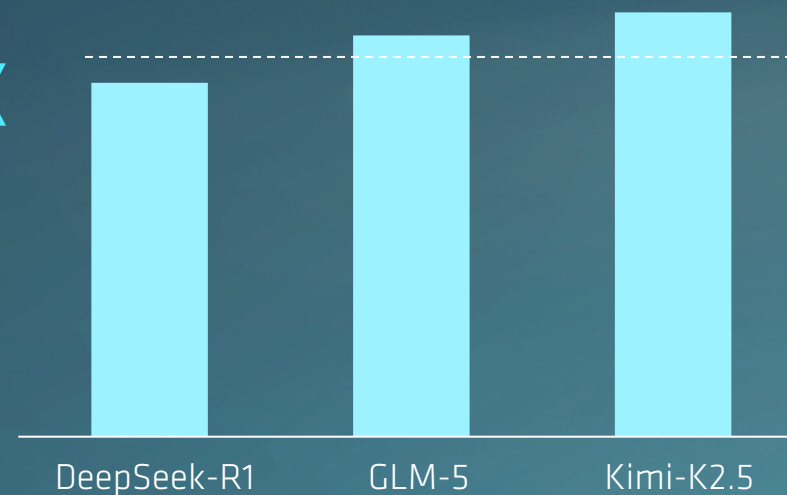
Optimized Kernels

MHA prefill, MLA decode, Block-scale fused MoE

RELEASE-TO-RELEASE IMPROVEMENT INFERENCE

3.3x

average
performance
improvement



ROCm.AI vs ROCm 7

Accelerating Training with ROCm.AI

Parallelization & Scheduling

Pipeline parallelism, Sharded data parallel,
Gradient AllReduce overlap

Memory Management

Activation checkpointing, FP8 mixed precision,
Fused gradient accumulation

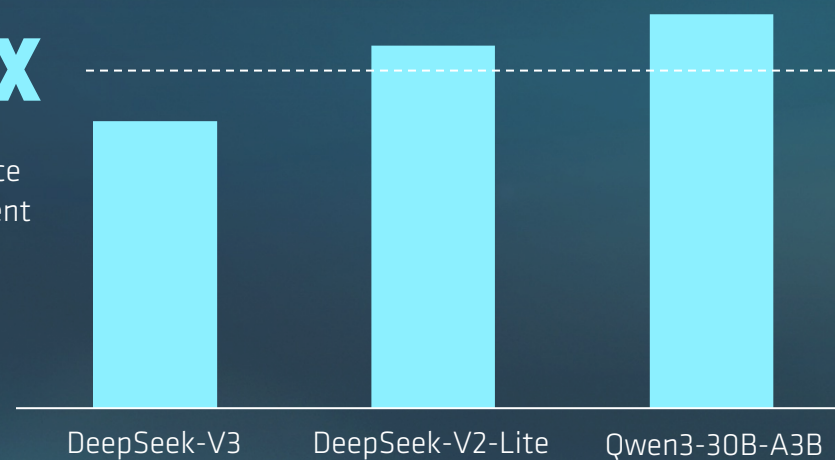
Optimized Kernels

Fused FlashAttention (fwd + bwd),
Grouped GEMM, Fused optimizer step

RELEASE-TO-RELEASE IMPROVEMENT TRAINING

2.4x

average
performance
improvement



ROCm.AI vs ROCm 7

ROCm.AI Delivers Leadership Performance on MI455X

MEMORY

20 TB/s

Measured MLA (Decode, FP8)

3.8x

More Performance

COMPUTE

20 PF

Measured FP4 Compute

3.3x

More AI Compute

SCALE UP NETWORKING

3.2 TB/s

Measured Bandwidth

3.5x

More Scale Up Bandwidth

SCALE OUT NETWORKING

190 GB/s

Measured Bandwidth

2x

More Scale Out Bandwidth

MI455X VS MI355X

ROCm.AI Ready for MI455X Day 0 Support



“PyTorch Core tests run successfully on MI455X, and full support is on track.”

- Jana van Greunen, Engineering Director at Meta, PyTorch



Hugging Face

“We tested the MI455X and love what we’re seeing. Models run out of the box, and 432GB handles 3x more concurrent users.”

- Clem Delangue, CEO, Hugging Face



“vLLM is working well on Helios and we are excited to see what our community can build on top of it!”

- Simon Mo, CEO, Inference



“We are thrilled to have SGLang enabled on day zero on MI455.”

- Ying Sheng, CEO, RadixArk



AMD  ×  OpenAI

AI

Training, Inference, Intelligence



SCIENCE/HPC

Simulations, Discoveries, Impact



AMD
ROCm.AI

Open Software Stack Built for Every Workload

Leadership Platforms Powering AI & HPC Require Breadth of Accelerated Compute

AT SCALE AI TRAINING & INFERENCE

AMD Instinct MI455X

#1 AI COMPUTE
HBM4 MEMORY
NETWORKING PERFORMANCE

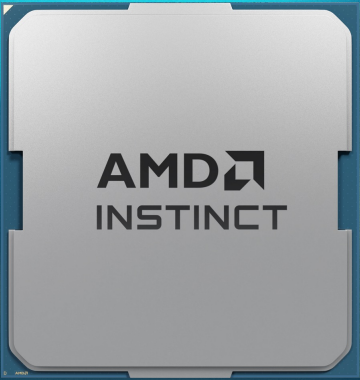
SOVEREIGN AI & HPC

AMD Instinct MI430X

#1 HARDWARE BASED FP64
HBM4 MEMORY CAPACITY
HBM4 MEMORY BANDWIDTH

See Endnote: MI400-005

Source: www.amd.com/en/blogs/2026/agent-ai-needs-rack-scale-cpu-performance-amd-epyc.html



SHIPPING IN 1H 2027

AMD Instinct™ MI430X

Most Advanced HPC & Sovereign AI Accelerator

HPC FP64 COMPUTE

288TF

8.7x

vs Vera Rubin

HBM4 CAPACITY

432 GB

+50%

vs Vera Rubin

HBM4 BANDWIDTH

23.3 TB/s

+6%

vs Vera Rubin

US and Europe's First Exascale Sovereign AI Factories Are Deploying MI430X



 OAK RIDGE
National Laboratory

Discovery



 CINES

 GENCI
Le calcul intensif au service de la connaissance

Alice Recoque



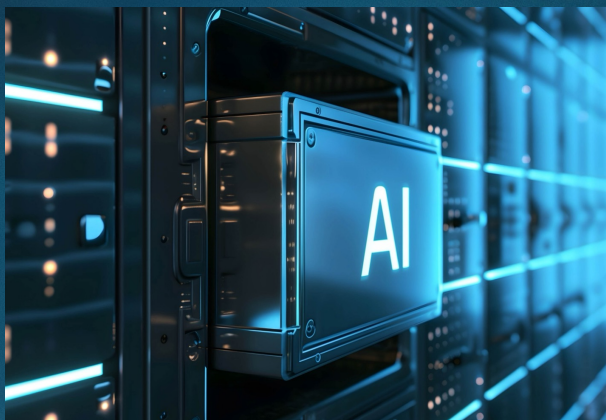
The Future of GPU Development



**Open
Ecosystem**



**Higher Level
Abstractions**



**AI-Assisted
Development**



**ROCm
Everywhere**

ROCm.AI AVAILABLE AUGUST 2026



AMD | Advancing AI 2026



Powering AI Everywhere

ENTERPRISE AI



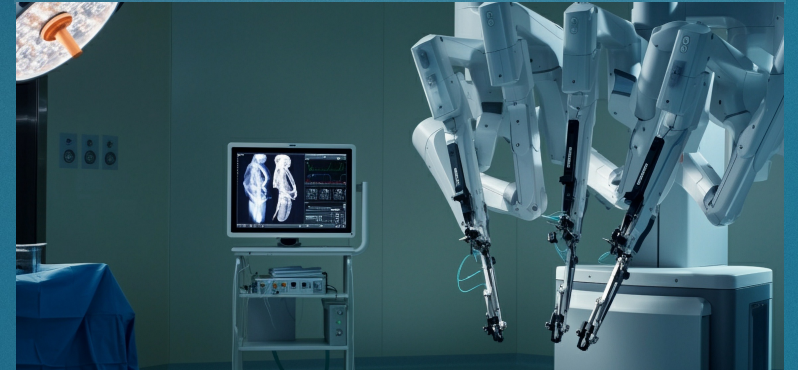
Enterprise
Data Center

PERSONAL AI



Individual Productivity
& Development

PHYSICAL AI



Robotics, Autonomous Vehicles,
Industrial AI, Healthcare

EPYC is the Established Leader for Enterprises



60%

of Fortune 100 Companies
Trust Their Data Center
to AMD EPYC™ CPUs



76%

Cloud VM
Adoption CAGR



8/10

Top Financial
Companies Use EPYC

“AMD Is the Company to Beat
for Enterprise AI Server CPUs”

Gartner®

Source: Gartner, AI Vendor Race: AMD Is the Company to Beat for Enterprise AI Server CPUs (Accessible to Gartner Subscribers), by Warren Peng & Gaurav Gupta, June 10, 2026.

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Enterprise Workloads are Diverse

MEDIA PROCESSING



Thread Count

REAL TIME SERVICES



Memory Bandwidth

WEB APPLICATIONS



I/O Performance

BUSINESS APPLICATIONS



Cache Efficiency

DATA ENCRYPTION



Core Performance



“Venice” Extends Enterprise Leadership



Agentic AI is the Force Multiplier for Enterprise But it Comes with New Challenges for CIOs

95%

of enterprises surveyed
expect to use agentic AI by 2027

CIO Considerations

Cost

Data Governance

Integration

Agentic AI Deployment Will Be Distributed to Address These Challenges

FRONTIER



CLOUD



ON PREM



CLIENT



Agentic AI Deployment Will Be Distributed to Address These Challenges

ON PREM

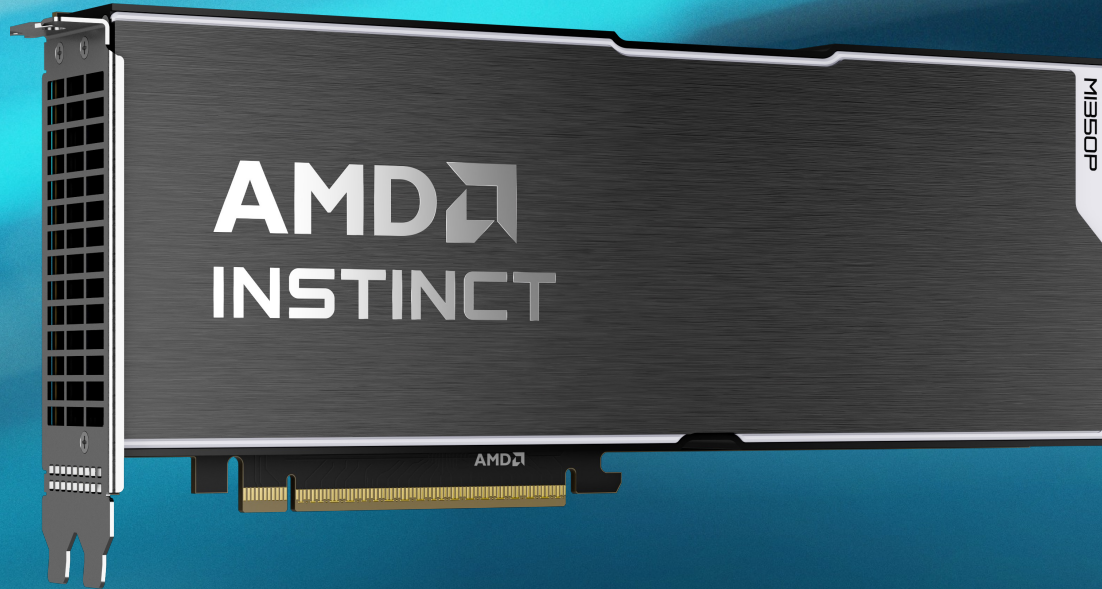


CONSTRAINTS

Power & Cooling

Cost

Ease of Deployment



AMD Instinct MI350P

The Easiest Way to Add AI to Your Data Center

PERF/\$
LEADERSHIP

Up to **4.2x**

Tokens/second/\$ vs RTX Pro 6000

LARGE MODEL
CAPABLE

Up to **260 Billion**

Model parameters @ FP4

STANDARD SERVER
COMPATIBLE

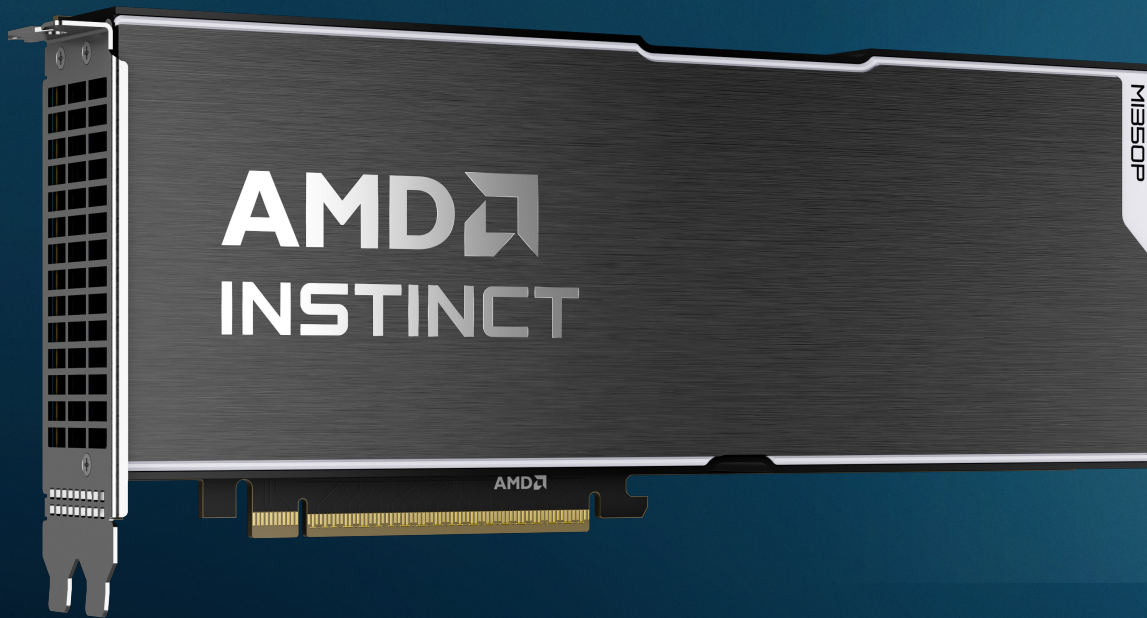
Air Cooled

450-600W TBP

AMD Instinct MI350P

Delivering Higher Productivity

Tokens/Second vs RTX Pro 6000



WORKFLOW AUTOMATION

Llama 3.3 70B Instruct

5.1x

CUSTOMER SUPPORT

Mistral Small 3.2 24B

2.5x

CONTRACT ANALYSIS

GPT-OSS 120B

2.1x

Case Study

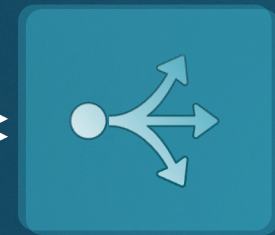
AMD IT Optimizes Costs by Routing to the Right Model



24/7 Autonomous
Threat Detection



Personal Agents
(OpenClaw)



TOKEN ROUTER

Frontier

On Prem EPYC+MI350P
Qwen 72B

On Prem EPYC+MI350P
Gemma 31B

43%

Cost Savings
vs 100% Frontier tokens

2.9x

Faster Responses
vs Frontier

A Complete Ecosystem for Enterprise AI

AI ISVs



Models



Open Software



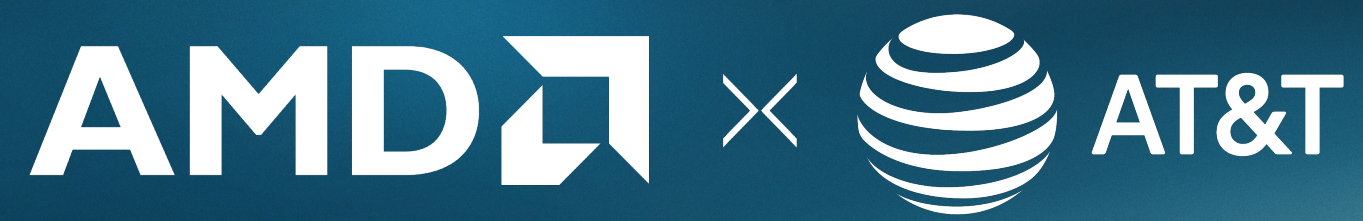
Platform ISVs



OEMs/ODMs









Delivering AI at Scale

>45B

Tokens Per Day

#1

Leadership on 7 Key AI Benchmarks

122

Production RAG+FT Pipelines

40%

Specialized Models on AMD

#1

Announcing OTel 2.0
Trained on AMD

5x

In-year Free Cash Flow
Impacting ROI

AMD Delivers End-to-End Solutions for Enterprise AI

CLOUD



Cloud Instances

ON PREM SERVER

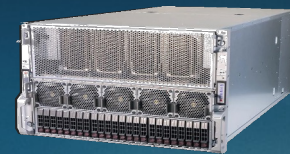
Full
Racks



Instinct PCIe
Cards



OEM Servers

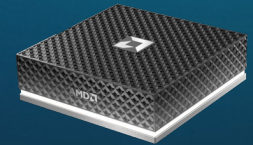


CLIENT

Ryzen AI
Laptops



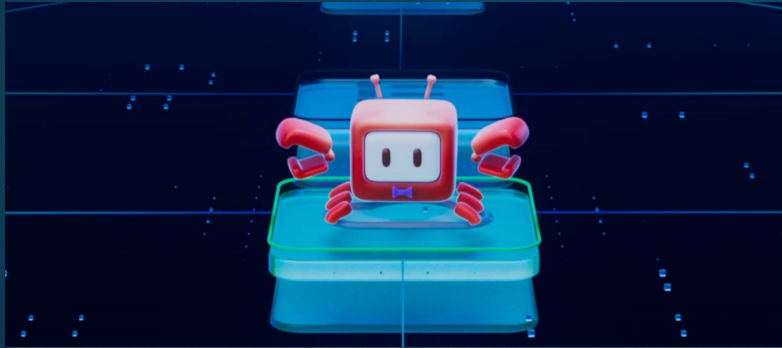
Agent
Computers



Radeon Pro
PCIe Cards



AI Agents Are the Next Great Productivity Multiplier



PERSONAL AGENT

2x

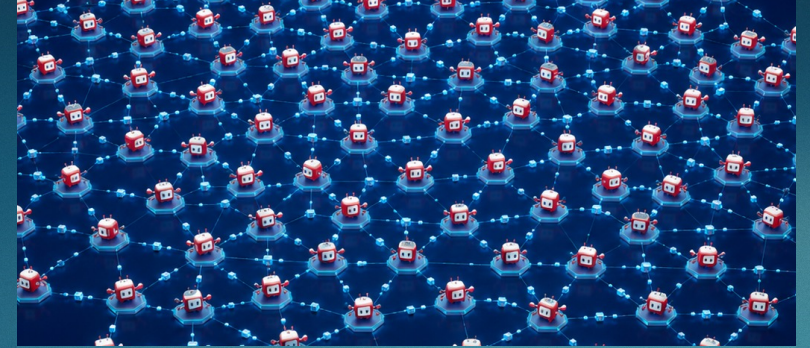
Force Multiplier



AGENT TEAM

10x

Force Multiplier



MULTI-CAPABILITY AGENTS

100x

Force Multiplier

Why Local AI is Taking Off

SECURITY & PRIVACY



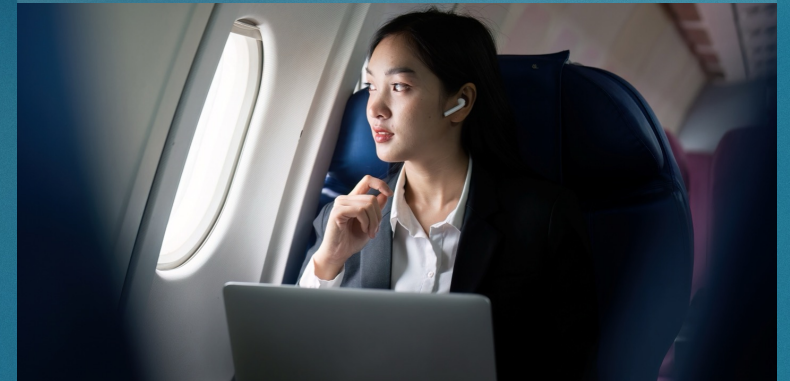
Full control over data and
no third-party handling

“FREE TOKEN” INFERENCE



Optimize recurring
inference costs

RELIABLE ANYWHERE



Continue working
without connectivity

Small Models are Becoming Incredibly Efficient

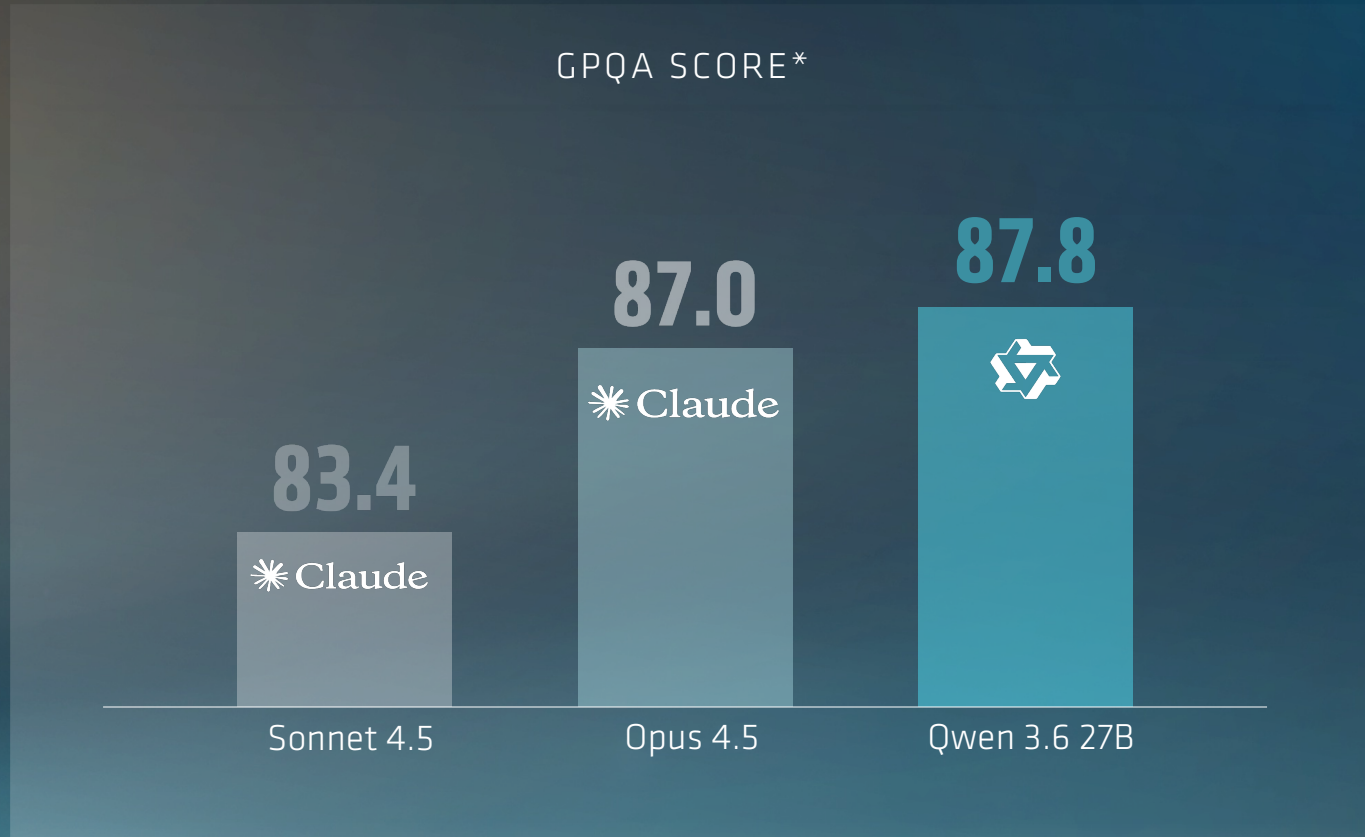
<i>GPT-OSS</i>	
Number of Parameters	120B
GPQA Score* Graduate-Level Google-Proof Q&A	80.1

August 2025

<i>Qwen 3.5</i>	
Number of Parameters	9B
GPQA Score* Graduate-Level Google-Proof Q&A	81.7

March 2026

Smaller Models are Closing The Frontier Gap



Smaller open models can now outperform yesterday's frontier models while using a fraction of the cost.

Efficient Models Unlock Personal AI

Small Efficient Models Can Fit Easily Across AMD Agentic PCs



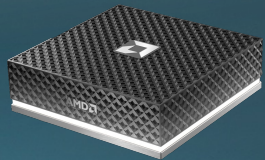
Ryzen™ AI 400

9B

Model Size

24B

Model Size Limit



Ryzen™ AI MAX

27B

Model Size

200B

Model Size Limit



RYZEN AI HALO

DEVELOPER PLATFORM

128GB Unified Memory
200B Models Natively

- + Speed to Productivity
- + Simplicity of Setup
- + Efficiency of Cost
- + Continuous Developer Support

One Software Stack. Every AMD Device.

Write Once. Run Anywhere.



Agent Frameworks

Lemonade · OpenClaw · LM Studio · Ollama · CrewAI

AI Frameworks

PyTorch™ · JAX · vLLM · ONNX

ROCm Libraries

rocBLAS · MIOpen · hipBLAS · Triton ROCm™

Runtime & Compiler

HIP · HIPCC · ROCm-CPU

AMD Silicon

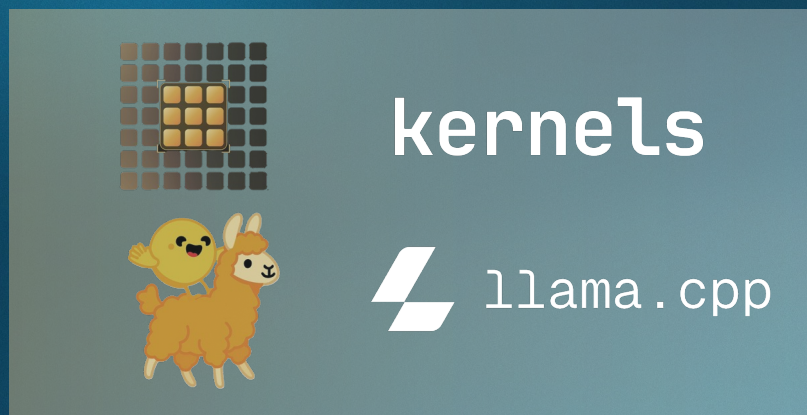
Ryzen™ AI · Radeon™ AI PRO · Instinct™ MI · EPYC™



Deepening our Partnership with the World's Premier Open-Source AI Community



Native Halo support in Hugging Face
with optimized models and workflows



Co-engineered Halo Local AI experiences
+ Toolkits to Accelerate Development



Every Halo Box Ships with
1 Year Hugging Face PRO

A black AMD GORGON HALO mini PC with a textured top and a silver AMD logo on the front sits on a wooden desk. To its left is a smartphone displaying a home screen with weather, Google search, and various app icons. The background shows a modern office interior with a desk, lamp, and window.

Pushing inference further with “GORGON HALO”

Largest unified memory

from **128GB** to **192GB**

Extending AI models

from **200B** to **300B**

Run cloud-scale AI

Locally on Your Desktop

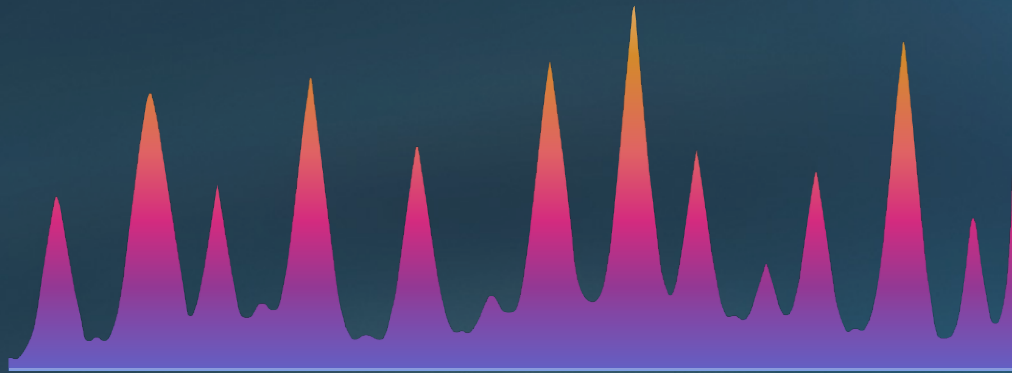




Agents Operate at Machine Speed

Bursty – demand spikes, then idles

INFRASTRUCTURE DEMAND



CHATBOTS

Steady state – always on, at machine speed

INFRASTRUCTURE DEMAND



AGENTIC & PHYSICAL AI





NETWORK INFRASTRUCTURE



TOKENOMICS



AGENT BEHAVIOR



SECURITY

A Full Stack Inside Each Device

- **Cisco** security, network & control
- **AMD** hardware & software

Unified policy & control (Cisco Cloud Control)

Observability (Splunk)

Model & agent security (AI Defense)

Security policy enforcement (DefenseClaw)

Model integration
(MCP Connector)

Model routing & token limits
(Semantic Router)

Local inference
(Lemonade LLM)

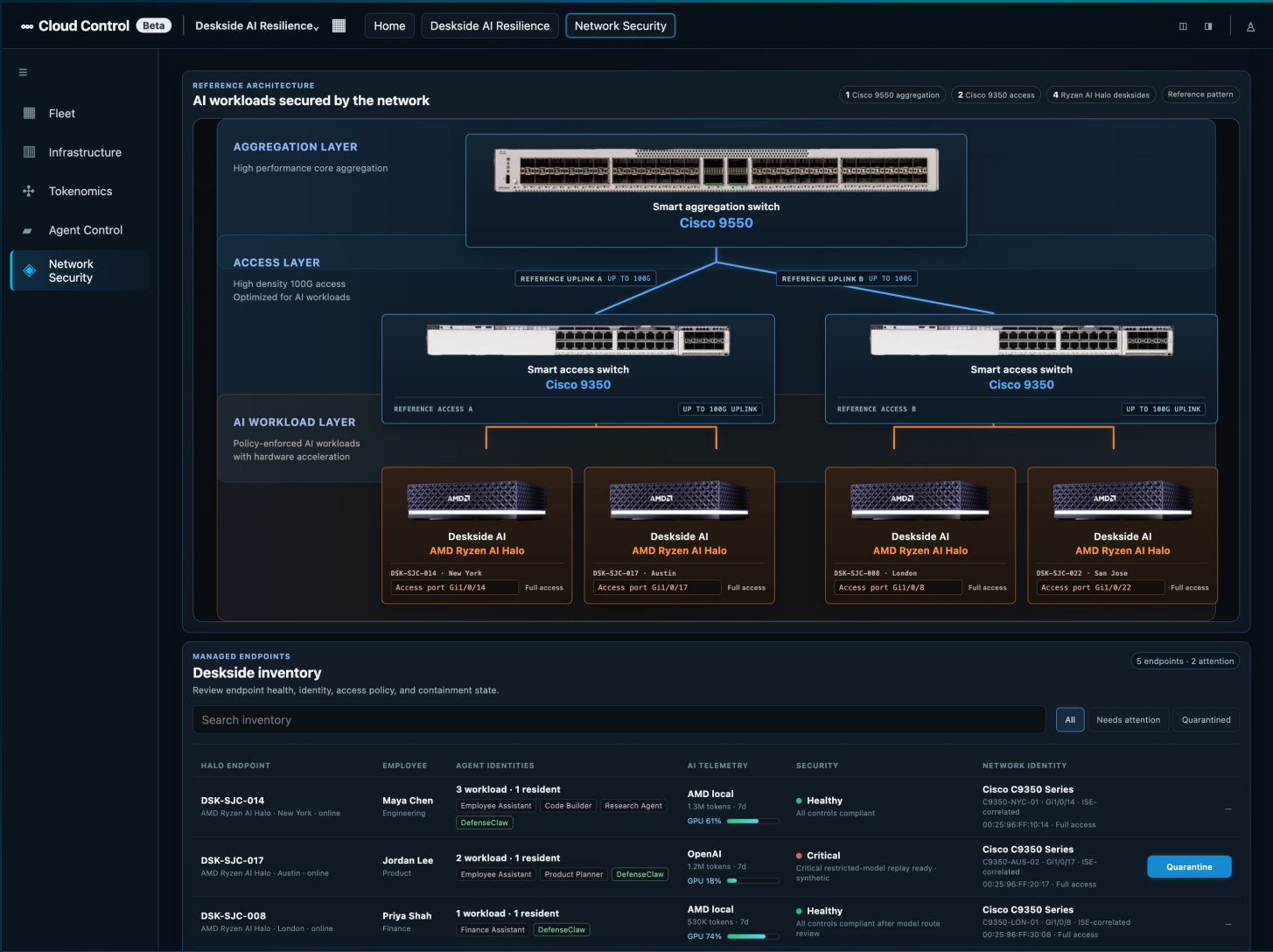
Isolated agent sandbox
(e.g. Axis, etc.)

Dedicated AI hardware (AMD Ryzen AI Halo)

← CISCO SECURE NETWORK →

Security & Governance for Agentic AI

- | Limit agent access to approved resources
- | Apply consistent security policies
- | Identify and isolate activity in real time



Intelligence for Enterprise Inference

- | Gain visibility into AI costs and savings
- | Improve model and token efficiency
- | Identify adoption and usage trends





Powering AI Everywhere

ENTERPRISE AI



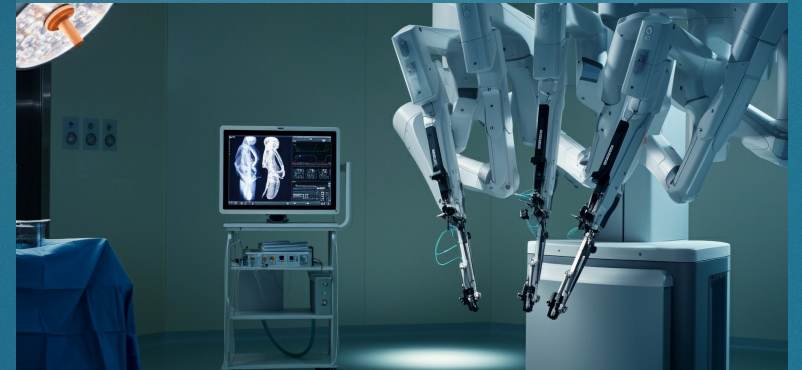
Enterprise
Data Center

PERSONAL AI



Individual Productivity & Development

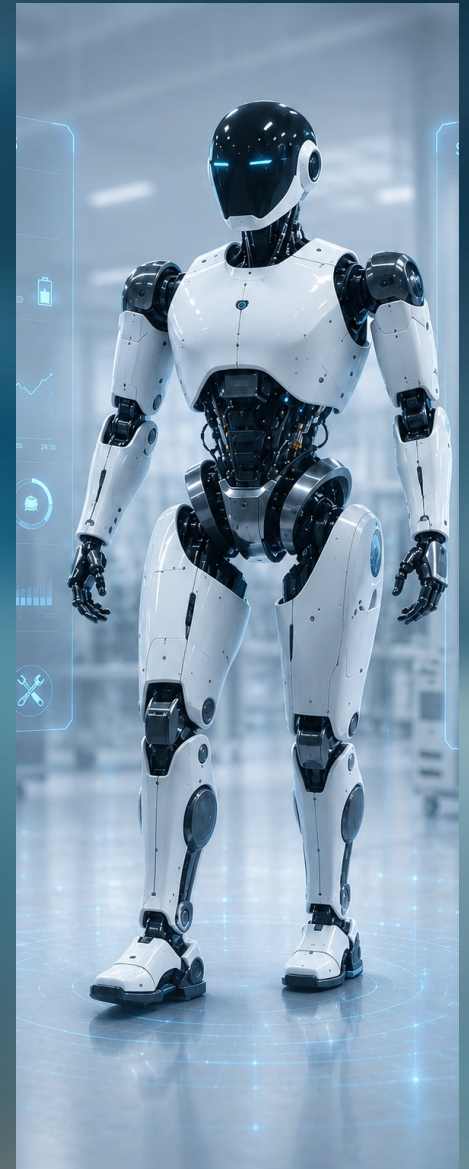
PHYSICAL AI



Robotics, Autonomous Vehicles,
Industrial AI, Healthcare

Physical AI

The Ultimate Application of Agentic AI



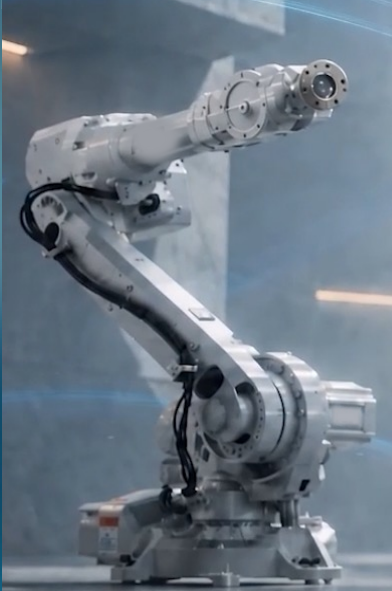
Physical AI that Amplifies Human Potential

From today's deployment to tomorrow's possibilities

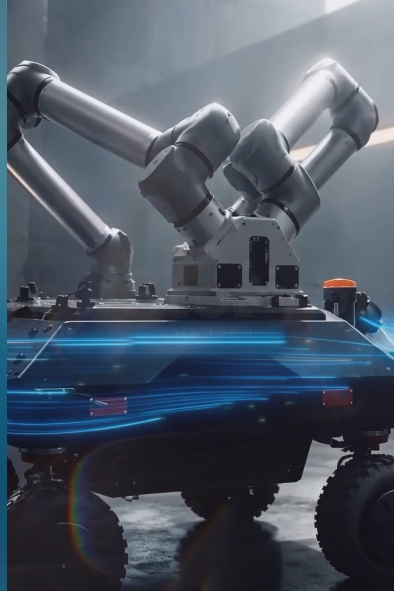
ROBOTIC
SURGERY



SMART
MANUFACTURING



INTELLIGENT
AGRICULTURE



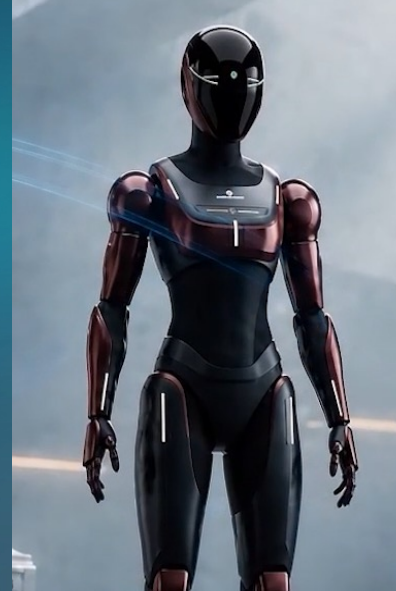
WAREHOUSING



FACTORY
AUTOMATION



MULTI-PURPOSE



AMD is a Trusted Leader in Robotics

Enabling sensing, safety, and control systems for over 20 years

ABB

CASTEC
INTERNATIONAL

DEXORY

FANUC



FOUNDATION



GENERATIVE
BIONICS

INTUITIVE

 **Kawasaki**



Muks Robotics

NUWA NUWA
ROBOTICS

OMRON

REV
ROBOTICS

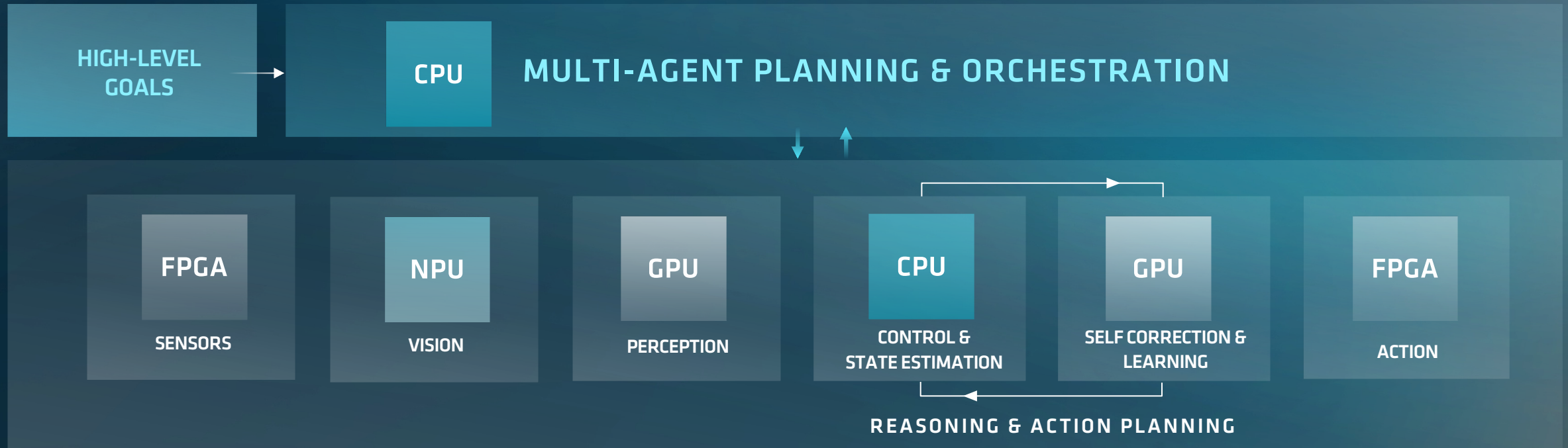
Rexroth
Bosch Group

 **Robotnik**

SICK
Sensor Intelligence

 **UNIVERSAL
ROBOTS**

The Next Era of Robotics is Autonomous

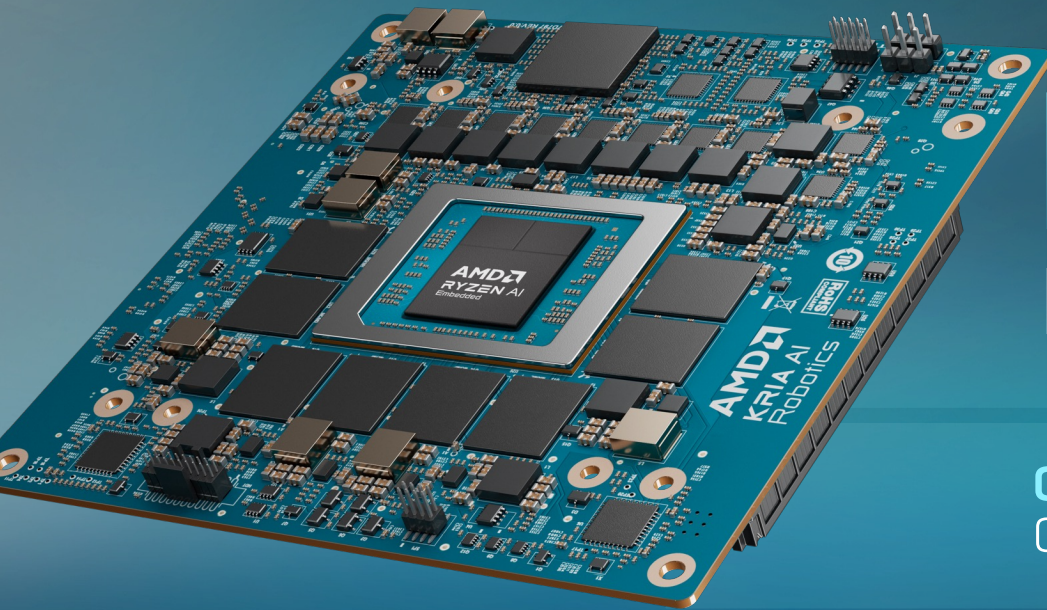


Plans, reasons, learns and adapts to achieve desired outcomes

INTRODUCING

AMD KRIA™ AI System on Module

Powered by Ryzen™ AI Embedded X100 Series



INDUSTRY-LEADING SYSTEM PERFORMANCE

CPU

125 μ s

Deterministic Control

GPU

92 ms

AI Reasoning

NPU

<0.4 ms

Vision Classification

Unified Memory

OPEN STANDARDS
COM-HPC Form Factor

DEPLOY FASTER
Pre-engineered Platform

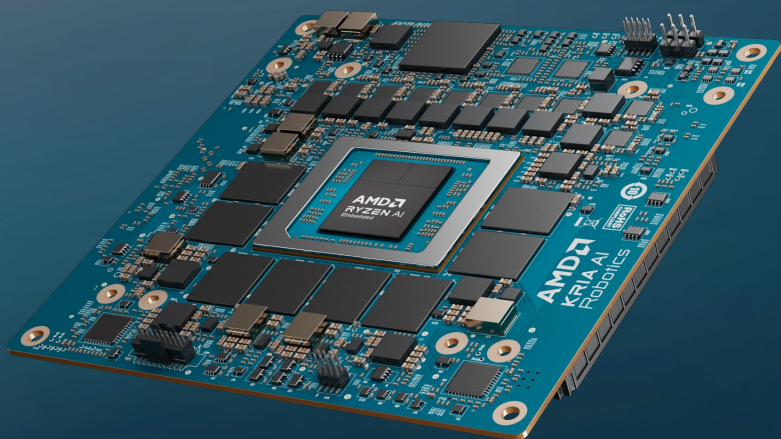


ctrlX OS

rexroth
A Bosch Company

embed
EFFICIENT DEEP LEARNING

Results based on 3rd party and AMD internal testing. 8,000 Decisions per second (125 μ s) obtained by benchmark testing by Bosch using a Bosch Rexroth controller on AMD X100 Series GPU to measure CPU real-time control loop latency. Robot reasoning in <100 ms benchmarking by embedL targeting GPU VLA inference latency (based on Pi0.5 VLA). Vision classification results based on AMD internal testing using mobilenetv3. Results provided by 3rd party organizations have not been independently verified by AMD. Performance and cost benefits are impacted by a variety of variables. Results herein are specific to such 3rd party organization and may not be typical.



KRIA™ AI System On Module

The New Standard for the Robotics Brain

REACTION TIME

3.4x

Better real-time results

AGENTIC AI CAPACITY

2.3x

More Concurrent agents

ROBOT CAPABILITY

1.6x

More CPU Capacity

VS NVIDIA JETSON THOR™



INTRODUCING

AMD KRIA™ AI Robotics Developer Platform

Industry's First Turnkey Open, Fully Integrated Platform

From concept to prototype in days

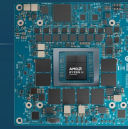
Enabled with Robotics SW Suite
built on AMD ROCm™ and ROS 2

Faster deployment with open
baseboard schematic & FPGA design



Only AMD Delivers the Complete Autonomous Robotics Solution

From Body To Brain



AMD
KRIA AI
Robotics

BRAIN

High-level decision making, communication and human-machine interface

Optimized for inference throughput

AMD
VERSAL
AI Edge Gen 2

SPINE

Time-critical communication coordination between brain and joints

Optimized for reliability

AMD
ZYNQ
UltraScale+

JOINTS

Real-time multi-axis actuation

Optimized for low-latency

AMD
SPARTAN
UltraScale+

SENSORS

Any sensor connectivity

Optimized for real-time sensor ingest and fusion

Advancing the Open Robotics Ecosystem

AI MODELS & SOFTWARE

Arche
type[®]

embedl

Liquid

mimik

Nota AI[®]

OPEN
NAVIGATION

open
robotics

OpenCV

QNX

TRENER

ultralytics

Xaba

ROBOTIC TECHNOLOGIES

ANALOG
DEVICES
AHEAD OF WHAT'S POSSIBLE™

machineering

MAKARENA
LABS

multicoreware

ROBOTECH^{AI}

rexroth
A Bosch Company

SICK
Sensor Intelligence.

Voyant™

VVDN[®]
TECHNOLOGIES

World Wide Technology

HARDWARE PARTNERS

ARBOR

congatec

iBASE

iEi
Integration Co.

kontron

SAPPHIRE

SEAVO[®] | 信 | 步 | 科 | 技 |
SEAVO TECHNOLOGY

INDUSTRY GROUPS

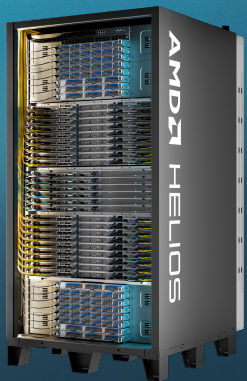
digital twin.
CONSORTIUM

An EDM Association
Community

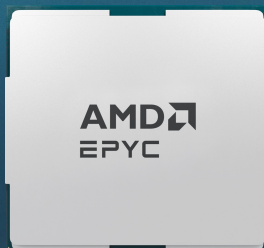
massrobotics

Announced today at Advancing AI 2026

“Helios”



“Venice”



MI430X



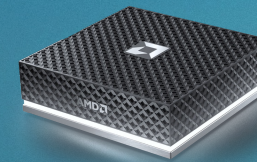
MI350P



ROCm.ai

AMD
ROCm.AI

“Gorgon Halo”
DEVELOPER PLATFORM



Kria AI Robotics
SOM & DEVELOPER PLATFORM



AMD EPYC Leadership Server CPU Roadmap



COMING IN 2028

EPYC “Florence” Extends EPYC Leadership For the Agentic Era

“Florence”

SP7

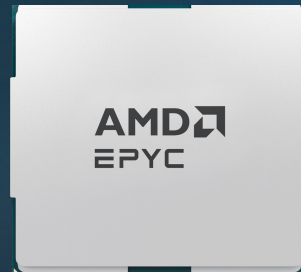


PERFORMANCE

Leadership Core Count and
Performance

“Florence”

SP8



ENTERPRISE

Optimized for Performance
per System \$

“Ferrara”



AI HOST NODE

Optimized for high-
performance AI Host Node

“Fidenza”



AGENTIC “SANDBOX”

Optimized for
Performance/System Watt

AMD Instinct Leadership GPU Roadmap

MI350 Series



Increased HBM3e Capacity & Bandwidth

Block Scaled AI Formats

Optimized Platform Solutions

2025

MI400 Series



Increased HBM4 Capacity & Bandwidth

Expanded AI Formats with Higher Throughput

Standard-Based Rack-Scale Networking
(UALoE, UEC)

2026

MI500 Series



Next Gen HBM4e Memory

Leadership GPU Scale Up Domain

Copper And Optical Interconnect

2027

MI600 Series

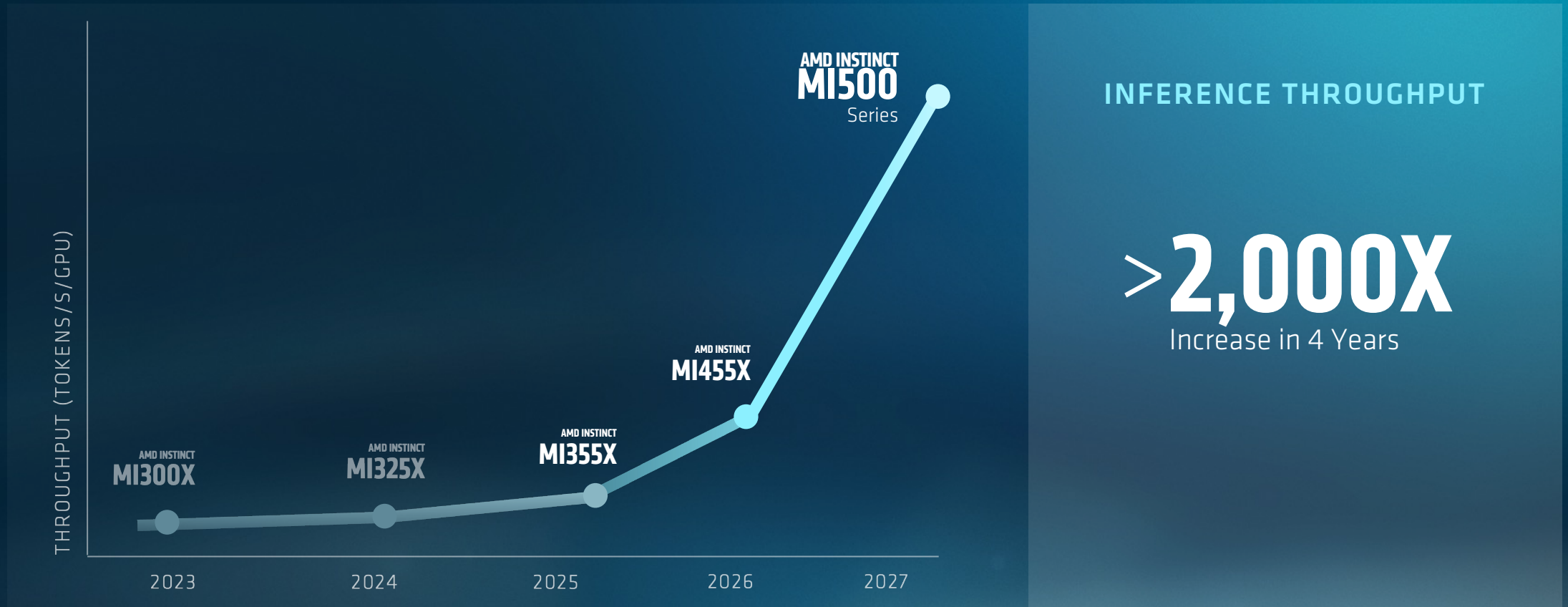


In Development

2028

*All roadmaps subject to change.

Instinct MI500 The Next Leap In AI Performance



Leadership AI Rack Roadmap on an Annual Cadence

AMD HELIOS

AMD EPYC
"Venice"

AMD Instinct
MI455X

AMD Pensando
Vulcano & Salina

AMD HELIOS 500

AMD EPYC
"Verano"

AMD Instinct
MI500 Series

AMD Pensando
"Como" & "Monza"

AMD HELIOS 600

AMD EPYC
"Ferrara"

AMD Instinct
MI600 Series

AMD Pensando
"Palma" & "Levanzo"

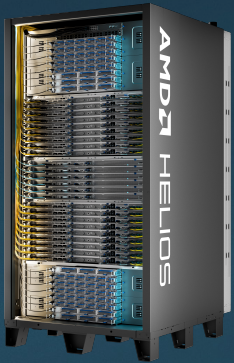
2026

2027

2028

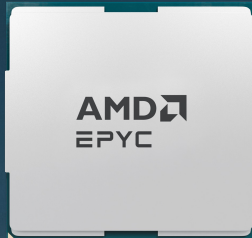
Announced today at Advancing AI 2026

“Helios”



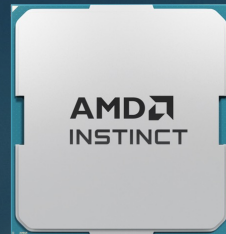
**In Production
Now**

“Venice”



**In Production
Now**

MI430X



**Available
1H 2027**

MI350P



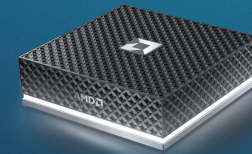
**Available
Now**

ROCm.ai

**AMD
ROCm.AI**

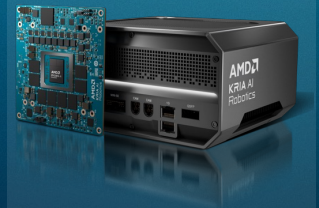
**Available
August**

**“Gorgon Halo”
DEVELOPER PLATFORM**



**Available
2H**

**Kria AI Robotics
SOM & DEVELOPER PLATFORM**



**Available
Q4**



Endnotes

9xx5-266: SPECrate@2017_int_base comparison based on published scores from www.spec.org as of 10/24/2025. 2P AMD EPYC 9965, 192C, 3230 SPECrate@2017_int_base, <https://www.spec.org/cpu2017/results/res2025q2/cpu2017-20250324-47086.html> SPEC®, SPEC CPU®, and SPECrate® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information.

9xx6-001A: SPECrate@2017_int_base comparison based on AMD internal estimates for top of stack 2P 6th Generation EPYC CPU and 5th Gen EPYC measurements and pricing as of 07/22/2026. Preliminary performance estimates based on AMD engineering projections or measurements for respective product launch dates and subject to change. 2P AMD EPYC 9996, 512C total, 600W Default CPU Power, \$14904, 16x64GB 12800 MT/s MRDIMM, AOCC 6.0, performance determinism, SPECrate@2017_int_base 4900, SPECrate@2017_int_base/CPU W 4.083, SPECrate@2017_int_base/CPU \$ 0.329 2P AMD EPYC 9965, 384C total, 500W TDP, \$ 11988, 12x64GB DDR5-6400, AOCC 5.0, performance determinism, SPECrate@2017_int_base 2740, SPECrate@2017_int_base/CPU W 2.740, SPECrate@2017_int_base/CPU \$ 0.229 SPEC® and SPECint® are registered trademarks of Standard Performance Evaluation Corporation. Learn more at [spec.org](https://www.spec.org). Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis.

9xx6-004A: SPECrate@2017_int_base comparison based on AMD estimates for top of stack 2P 6th Gen AMD EPYC 9996 estimated SPECrate2017®_int-base score is 4900 (256C, 600W Default CPU Power, \$14904 1Ku. Highest overall SPECrate2017®_int_base score as of July 22, 2026 is 3240 2P AMD EPYC 9965 (192C, 500W TDP, \$11988 1ku) powered server, <https://spec.org/cpu2017/results/res2026q2/cpu2017-20260518-51509.html>). Highest published 2P Intel Xeon 6980P SPECrate2017_Int_base score as of July 22, 2026 is 2510 (128C, 500W TDP, \$13955 1ku), <https://spec.org/cpu2017/results/res2025q4/cpu2017-20251126-50522.html> 2P Nvidia Vera performance based on AMD internal estimates as of July 22, 2026, estimated SPECrate2017_int_base score is 1459, (88C, 450W TDP, pricing not published), <https://www.amd.com/content/dam/amd/en/documents/solutions/ai/methodology-description.pdf>). ARM AGI performance based on AMD Internal estimates as of July 22, 2026, estimated SPACrate2017®_int_base score is 1944, (136C, 300W TDP, pricing not published) Preliminary performance estimates based on AMD engineering projections or measurements as of July 22, 2026 and subject to change. Pricing not published for Nvidia Vera, Intel pricing from ark.intel.com. Phoronix testing for Nvidia Vera at <https://www.phoronix.com/review/nvidia-vera-benchmarks/>. SPEC® and SPECint® are registered trademarks of Standard Performance Evaluation Corporation. Learn more at [spec.org](https://www.spec.org). Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis.,

9xx6-005A: vCPU support based on thread count, comparing Top of Stack 6th Gen EPYC 9996 CPU with 256 cores (512 threads) and 5th Gen EPYC 9965 with 192 cores (384 threads). In comparison, the highest thread count Intel® Xeon® processor is the Intel Xeon 6990E at 288 threads, and the highest thread count Nvidia CPU is the Nvidia Vera with 88 cores (176 threads). For reference, 6th Gen Intel Xeon CPUs support up to ~0.8x, ARM AGI is expected to support up to ~0.7x, and Nvidia Vera is expected to support ~0.5x the thread count of 5th Gen AMD EPYC CPUs. Intel specifications from ark.intel.com. ARM specifications from <https://www.arm.com/products/cloud-datacenter/arm-agi-cpu#Specifications>. Nvidia specifications from <https://developer.nvidia.com/blog/nvidia-vera-cpu-delivers-high-performance-bandwidth-and-efficiency-for-ai-factories/>.

9xx6-006A: 6th Gen EPYC CPUs can support up to 2.6X memory bandwidth (up to 16 channels of 12,800MT/s DDR5 for 1.6TB/s of memory bandwidth/socket compared to 614GB/s memory bandwidth/socket of 5th Gen EPYC CPUs (9005) with 12 channels of 6,400MT/s DDR5). 6th Gen EPYC CPUs can support up to 2X the IO bandwidth (PCIe Gen 6 supported at 64GT/s per lane, EPYC 9005 platforms support PCIe Gen 5 at 32GT/s per lane) Competitor memory bandwidth/socket: Vera: ~1.2 TB/s ARM AGI = 12 * 8 * 8800 = 844800 = ~0.8 TB/s 6980P = 12 * 8 * 8800 = 844800 = ~0.8 TB/s Intel specifications from ark.intel.com. ARM specifications from <https://www.arm.com/products/cloud-datacenter/arm-agi-cpu#Specifications>. Nvidia specifications from <https://developer.nvidia.com/blog/nvidia-vera-cpu-delivers-high-performance-bandwidth-and-efficiency-for-ai-factories/>. ARM AGI specifications from: <https://www.arm.com/static/az/pdf/product-brief/arm-agi-cpu-product-brief.pdf> 9xx6-007: AI inference throughput comparison based on AMD internal testing as of 6/26/2026, running GPT-OSS-20B at BF16 precision on vLLM with the ZenDNN/zentorch backend, offline serving, 1K input / 1K output, batch size 32, cumulative total token throughput (tokens/sec, higher is better) System configurations: 2P AMD EPYC 9996, 256C, 6th Gen, SMT disabled, 32 channels 128 GiB RDIMM @ 8000 MT/s, NPS1, BIOS WNIV6520N, microcode 0xb501005, Ubuntu 26.04 LTS, Linux 7.0.0-22-generic, vLLM + ZenDNN/zentorch. 2P Intel Xeon 6980P, 128C, Supermicro SYS-222HA-TN, SMT disabled, 24 channels 64 GiB RDIMM @ 8800 MT/s, BIOS 1.4, microcode 0x1000405, Ubuntu 26.04 LTS, Linux 7.0.0-22-generic, vLLM + ZenDNN/zentorch. 2P AMD EPYC 9965, 192C, 5th Gen, SMT disabled, 24 channels 64 GiB RDIMM @ 6400 MT/s, determinism Power, High Performance Mode, BIOS RVOT1003C, microcode 0xb101028, Ubuntu 26.04 LTS, Linux 7.0.0-22-generic, vLLM + ZenDNN/zentorch. 2P AMD EPYC 9755, 128C, 5th Gen, SMT disabled, 24 channels 64 GiB RDIMM @ 6400 MT/s, determinism Power, High Performance Mode, BIOS RVOT1003C, microcode 0xb00211e, Ubuntu 26.04 LTS, Linux 7.0.0-22-generic, vLLM + ZenDNN/zentorch. Results below are in the format of: [processor], [throughput tok/s], [ratio vs Intel Xeon 6980P] AMD EPYC 9996 (256C) 1527.81 1.37x Intel Xeon 6980P (128C) 1113.91 1.000 AMD EPYC 9965 (192C) 823.515 - AMD EPYC 9755 (128C) 765.47 - Results may vary due to factors including system configurations, software versions and BIOS settings.

Endnotes

9xx6-014: Comparison based on published Top-of-stack core counts and CPU W, Default CPU Power for 6th Gen EPYC, and TDPs for 5th Gen EPYC, Intel® Xeon®, and Nvidia Vera for estimated Highest Agents / CPU W across AMD EPYC™ 9956 (400W Default CPU Power), AMD EPYC™ 9965 (500W TDP), Nvidia Vera (450W TDP), ARM AGI (300W TDP), Intel® Xeon® 6980P (500W TDP), and Intel Xeon 6990E+ (450W TDP) powered servers as of 7/22/2026. 2 threads per core (SMT). 1 thread per core for ARM AGI. Agent counts are estimates derived from available CPU thread resources used as a proxy under a consistent theoretical workload. Actual agent capacity and throughput will vary based on workload, model, memory, software, orchestration, and system configuration. Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Intel Xeon TDP from ark.intel.com. Nvidia Vera TDP from <https://developer.nvidia.com/blog/nvidia-vera-cpu-sets-a-new-standard-for-agentic-workloads-in-ai-factories/>. ARM AGI Specifications from <https://www.arm.com/products/cloud-datacenter/arm-agi-cpu#Specifications>

9xx6-015: Comparison based on AMD Internal Estimates and Nvidia published specifications as of 07/22/2026. AMD EPYC 9956 (256C, 400W Default CPU Power) powered server racks are estimated to deliver up to 1.91x the cores per rack at 26% less power and 2.57x the cores / rack W compared to a Nvidia Vera (88C, 450W TDP) based server rack. AMD Rack specifications based on Supermicro Rack configurations and Gigabyte Rack configurations (Model H295-D80-CS1). Calculations reflect Total Sled power including CPU, Memory, Other System W with 15% loss factor. Nvidia specifications from: <https://www.nvidia.com/en-us/data-center/products/vera-rack/> and <https://developer.nvidia.com/blog/nvidia-vera-rubin-pod-seven-chips-five-rack-scale-systems-one-ai-supercomputer/>. Supermicro Rack specifications provided by Supermicro. MGX SMC Rack 1 SMC Rack 2 Gigabyte Vera 88C 450W 9965 192c 500W 9956 256C 400W # 1U sleds 32 24 42 24 # CPUs/sled 8 8 4 8 # CPUs/rack 256 192 144 192 # core/CPU 88 192 256 256 Compute Rack Power Total 185104 144038.88 137461.8 269400 Relative Rack Power 1 0.778 0.743 1.455 Cores / Rack W 0.122 0.256 0.313 0.182 Relative Cores / Rack W 1 2.103 2.571 1.499 Cores/Rack 22528 36864 43008 49152 Cores/Rack 1 1.636 1.909 2.182 Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Results may vary based specific rack configuration used for comparison, including but not limited to wattage limits

9xx6-021: Rack-level general purpose performance comparison within a 100 kW rack power constraint based on AMD analysis as of July 2026 comparing 2P AMD EPYC™ “Venice” 9996 (512 total cores) vs 2P Nvidia Vera (176 total cores, Olympus).. Performance reflects geometric mean across 6 workloads: estimated SPECrate® 2017_int_base, Server-Side Java® Multi-JVM Max jOPS, Web serving (NGINX/WRK), Key-Value store (Redis), In-memory caching (Memcached), and Relational DB (TPROC-C). All platforms use 2-socket nodes. System manufacturers may vary configurations, yielding different results. See <https://www.amd.com/content/dam/amd/en/documents/solutions/ai/methodology-description.pdf> for full derivations and assumptions. TPROC-C workload is an open-source workload derived from TPC-Benchmark™ Standard, and as such is not comparable to published TPC-C™ results, as the results do not comply with the TPC-C Benchmark Standard. TPC, TPC Benchmark and TPC-C are trademarks of the Transaction Processing Performance Council. Preliminary performance estimates based on AMD engineering projections or measurements as of July 22, 2026 and subject to change. SPEC® and SPECint® are registered trademarks of Standard Performance Evaluation Corporation. Learn more at spec.org.

9xx6-022: Model-weight CPU-offload LLM inference output throughput comparison based on AMD internal testing measured on a PCIe Gen 5 x16 host link and estimated projected to PCIe Gen 6 x16 by host-to-GPU link bandwidth, as of 7/13/2026. Comparison is a 6th Gen AMD EPYC 96c HF processor host node (PCIe Gen 6, 5GHz) versus a 5th Gen AMD EPYC 9575F (PCIe Gen 5, 5GHz), with a 6th Gen Intel Xeon 6960P host node as a competitive reference. All measured systems were run 2-socket (full node) with SMT disabled. Workload: Qwen3-30B-A3B, BF16 weights (approximately 61 GB resident), tensor-parallel=1, 1024 input tokens, 256 output tokens, vLLM CPU-offload, median of n=3 iterations, measured on 1x NVIDIA B200. Measured Gen 5 output throughput for the 5th Gen AMD EPYC 9575F was 148.4, 114.8, 93.8, and 61.7 tokens per second at 6, 9, 12, and 20 GB of offloaded weights, with PCIe receive bandwidth pinned at 89 to 95 percent of the Gen 5 x16 ceiling and host DRAM read bandwidth below 10 percent of its 614 GB/s ceiling, establishing the PCIe link (not host memory) as the throughput limiter. Because decode is PCIe-transfer-bound, doubling host-to-GPU bandwidth (Gen 5 x16 at 64 GB/s per direction to Gen 6 x16 at 128 GB/s per direction) projects a 1.8x to 1.9x throughput ceiling for the 6th Gen AMD EPYC 96c HF processor. Measured Gen 5 output throughput for the 6th Gen Intel Xeon 6960P was 104.9 and 82.3 tokens per second at 9 and 12 GB of offloaded weights (median of n=3 iterations, same NVIDIA B200 host and vLLM configuration), versus 114.8 and 93.8 tokens per second for the 5th Gen AMD EPYC 9575F at the same offload points, so the 5th Gen AMD EPYC 9575F delivers 1.09x and 1.14x the 6th Gen Intel Xeon 6960P output throughput (up to 1.1x). Memory configuration was 24x 128 GB DDR5-6400 (AMD) and 24x 64 GB DDR5-6400 (Intel); host DRAM utilization remained below 10 percent throughout, so memory capacity was not the throughput limiter. Preliminary performance estimates based on AMD engineering projections or measurements as of 7/13/2026 and subject to change. PCIe is a registered trademark of PCI-SIG Corporation.

Endnotes

9xx6-036: FFmpeg video encoding and transcoding throughput comparison based on AMD internal testing as of 7/20/2026. 1P AMD EPYC 9996 (256C) delivers up to 2.7x the FFmpeg video encoding and transcoding throughput of 1P Intel Xeon 6980P (128C) Software: FFmpeg encode and transcode workload (raw to VP9, raw to H.264, VP9 to H.264, H.264 to VP9), 1080p source, one encode job per vCPU, KVM, Ubuntu 24.04. Configurations: 1P Intel Xeon 6980P: 1P Intel Xeon 6980P, 128 cores (256 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, Supermicro SYS-222HA-TN, BIOS v1.5, Max performance BIOS profile, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P Graviton5: 1P Graviton5 (AWS m9gd.metal-48xl), 192 cores (192 vCPU), SMT OFF, 768GB memory, Ubuntu 24.04, kernel Linux 6.17.0-1009-aws. 1P AMD EPYC 9965: 1P AMD EPYC 9965, 192 cores (384 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, AMD reference platform, BIOS RVOT1006C, TDP=500W, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P AMD EPYC 9996: 1P AMD EPYC 9996, 256 cores (512 vCPU), SMT ON, 64GB DDR5-8000 RDIMM fully populated, AMD reference platform, BIOS BKC10.3 90RC4, 600W Default CPU Power, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. Data presented: 1P Intel Xeon 6980P 3974348.83; 1P Graviton5 7381741; 1P AMD EPYC 9965 6942536.96; 1P AMD EPYC 9996 10607502.57. Results may vary. Results for AWS Graviton5 were obtained from a publicly available cloud instance. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. Results may vary due to factors including system configurations, software versions and BIOS settings. Starting with the 6th Gen AMD EPYC server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Results may vary. Results for AWS Graviton5 were obtained from a publicly available cloud instance. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. Results may not be directly comparable to physical server configurations due to differences in platform implementation, firmware, operating environment, memory configuration, and system tuning.

9xx6-037: Redis 8.8 Open Source Stable request-throughput comparison based on AMD internal testing as of 7/20/2026. 1P AMD EPYC 9996 (256C) delivers up to 2.9x the Redis 8.8 request throughput of 1P Intel Xeon 6980P (128C) Software: Redis 8.8 Open Source Stable, redis-benchmark SET and GET, one Redis server per 8 vCPUs aggregated, KVM, Ubuntu 24.04. Configurations: 1P Intel Xeon 6980P: 1P Intel Xeon 6980P, 128 cores (256 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, Supermicro SYS-222HA-TN, BIOS v1.5, Max performance BIOS profile, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P Graviton5: 1P Graviton5 (AWS m9gd.metal-48xl), 192 cores (192 vCPU), SMT OFF, 768GB memory, Ubuntu 24.04, kernel Linux 6.17.0-1009-aws. 1P AMD EPYC 9965: 1P AMD EPYC 9965, 192 cores (384 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, AMD reference platform, BIOS RVOT1006C, TDP=500W, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P AMD EPYC 9996: 1P AMD EPYC 9996, 256 cores (512 vCPU), SMT ON, 64GB DDR5-8000 RDIMM fully populated, AMD reference platform, BIOS BKC10.3 90RC4, 600W Default CPU Power, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. Data presented: 1P Intel Xeon 6980P 42636320, 1P Graviton5 50057444, 1P AMD EPYC 9965 76703115, 1P AMD EPYC 9996 124130835.50. Ratio 9996 vs 6980P: $124130835.50 / 42636320 = 2.91$ (rounds to 2.9x). Results may vary. Results for AWS Graviton5 were obtained from a publicly available cloud instance. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. Starting with the 6th Gen AMD EPYC server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Results may not be directly comparable to physical server configurations due to differences in platform implementation, firmware, operating environment, memory configuration, and system tuning.

9xx6-038: NGINX request-throughput comparison based on AMD internal testing as of 7/20/2026. 1P AMD EPYC 9996 (256C) delivers up to 3.7x the NGINX request throughput of 1P Intel Xeon 6980P (128C) Software: NGINX served with wrk load generator (1KB file), one NGINX server per 8 vCPUs aggregated, KVM, Ubuntu 24.04. Configurations: 1P Intel Xeon 6980P: 1P Intel Xeon 6980P, 128 cores (256 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, Supermicro SYS-222HA-TN, BIOS v1.5, Max performance BIOS profile, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P Graviton5: 1P Graviton5 (AWS m9gd.metal-48xl), 192 cores (192 vCPU), SMT OFF, 768GB memory, Ubuntu 24.04, kernel Linux 6.17.0-1009-aws. 1P AMD EPYC 9965: 1P AMD EPYC 9965, 192 cores (384 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, AMD reference platform, BIOS RVOT1006C, TDP=500W, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P AMD EPYC 9996: 1P AMD EPYC 9996, 256 cores (512 vCPU), SMT ON, 64GB DDR5-8000 RDIMM fully populated, AMD reference platform, BIOS BKC10.3 90RC4, 600W Default CPU Power, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. Data presented: 1P Intel Xeon 6980P 10526326, 1P Graviton5 15929450, 1P AMD EPYC 9965 24907610, 1P AMD EPYC 9996 38451232. Results for AWS Graviton5 were obtained from a publicly available cloud instance. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Results may not be directly comparable to physical server configurations due to differences in platform implementation, firmware, operating environment, memory configuration, and system tuning.

Endnotes

9xx6-039: MySQL 8.4.10 online transaction processing throughput comparison (HammerDB TPROC-C, a workload derived from the TPC-C Benchmark Standard. Results are based on TPC-C derived workloads and are not comparable to published TPC benchmark results.) based on AMD internal testing as of 7/20/2026. 1P AMD EPYC 9996 (256C) delivers up to 2.6x the MySQL 8.4.10 online transaction processing throughput (HammerDB TPROC-C) of 1P Intel Xeon 6980P (128C) Software: HammerDB TPROC-C on MySQL 8.4.10, 500 warehouse dataset, users scaled to vCPU count, KVM, Ubuntu 24.04. Configurations: 1P Intel Xeon 6980P: 1P Intel Xeon 6980P, 128 cores (256 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, Supermicro SYS-222HA-TN, BIOS v1.5, Max performance BIOS profile, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P Graviton5: 1P Graviton5 (AWS m9gd.metal-48xl), 192 cores (192 vCPU), SMT OFF, 768GB memory, Ubuntu 24.04, kernel Linux 6.17.0-1009-aws. 1P AMD EPYC 9965: 1P AMD EPYC 9965, 192 cores (384 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, AMD reference platform, BIOS RVOT1006C, TDP=500W, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P AMD EPYC 9996: 1P AMD EPYC 9996, 256 cores (512 vCPU), SMT ON, 64GB DDR5-8000 RDIMM fully populated, AMD reference platform, BIOS BKC10.3 90RC4, 600W Default CPU Power, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. Data presented: 1P Intel Xeon 6980P 15499304, 1P Graviton5 23075914, 1P AMD EPYC 9965 25168617, 1P AMD EPYC 9996 40804653. + Results for AWS Graviton5 were obtained from a publicly available cloud instance. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Results may not be directly comparable to physical server configurations due to differences in platform implementation, firmware, operating environment, memory configuration, and system tuning.

9xx6-040: OpenSSL cryptographic throughput comparison based on AMD internal testing as of 7/20/2026. 1P AMD EPYC 9996 (256C) delivers up to 2.5x the OpenSSL cryptographic throughput of 1P Intel Xeon 6980P (128C) Software: OpenSSL cryptographic throughput workload, KVM, Ubuntu 24.04. Configurations: 1P Intel Xeon 6980P: 1P Intel Xeon 6980P, 128 cores (256 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, Supermicro SYS-222HA-TN, BIOS v1.5, Max performance BIOS profile, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P Graviton5: 1P Graviton5 (AWS m9gd.metal-48xl), 192 cores (192 vCPU), SMT OFF, 768GB memory, Ubuntu 24.04, kernel Linux 6.17.0-1009-aws. 1P AMD EPYC 9965: 1P AMD EPYC 9965, 192 cores (384 vCPU), SMT ON, 64GB DDR5-6400 RDIMM fully populated, AMD reference platform, BIOS RVOT1006C, TDP=500W, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. 1P AMD EPYC 9996: 1P AMD EPYC 9996, 256 cores (512 vCPU), SMT ON, 64GB DDR5-8000 RDIMM fully populated, AMD reference platform, BIOS BKC10.3 90RC4, 600W Default CPU Power, CPPC on, power determinism, Ubuntu 24.04, kernel Linux 6.17.0-35-generic. Data presented: 1P Intel Xeon 6980P 552433496.01, 1P Graviton5 545579628, 1P AMD EPYC 9965 1073669574.93, 1P AMD EPYC 9996 1389064585.24. Results for AWS Graviton5 were obtained from a publicly available cloud instance. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. Starting with the 6th Gen AMD EPYC™ server processor family, AMD uses Default CPU Power to describe processor power consumption, succeeding AMD's historical TDP reference. Default CPU Power reflects total power consumed across the processor's compute and I/O dies for the stated performance target. Default CPU Power and TDP may both serve as processor power references for product comparison, platform planning, and performance-per-watt analysis. Results may not be directly comparable to physical server configurations due to differences in platform implementation, firmware, operating environment, memory configuration, and system tuning.

9xx6-047: SPECrate®2017_int_base per-core comparison based on AMD internal projections and measurements as of 07/20/2026. 6th Gen AMD EPYC delivers leadership 1P SPECrate®2017_int_base per-core performance versus three competing server processors, each at the AMD core configuration noted. Versus NVIDIA Vera: 1P 96C 6th Gen AMD EPYC 9996 score 1350, per-core 1350 / 96 = 14.06, versus 1P 88C NVIDIA Vera score 729.5, per-core 729.5 / 88 = 8.29; 14.06 / 8.29 = 1.70x. Versus Intel Xeon 6980P: 1P 128C 6th Gen AMD EPYC score 1565, per-core 1565 / 128 = 12.23, versus 1P 128C Intel Xeon 6980P score 1255, per-core 1255 / 128 = 9.80; 12.23 / 9.80 = 1.25x. Versus Arm AGI: 1P 96C 6th Gen AMD EPYC 9996 score 1350, per-core 14.06, versus 1P 136C Arm AGI score 972, per-core 972 / 136 = 7.15; 14.06 / 7.15 = 1.97x. Configurations: 6th Gen AMD EPYC (96C and 128C) using AOCC 5.1 with 16x64GB 4R MRDIMM 12800 MT/s; Intel Xeon 6980P using OneAPI with 12x64GB MRDIMM 8800 MT/s; Arm AGI using GCC 13 with 12x64GB MRDIMM 8800 MT/s; NVIDIA Vera using GCC 13 with 8x96GB SOCAMM2. Preliminary performance estimates based on AMD engineering projections or measurements as of 07/20/2026 and subject to change. Results compare AMD internal testing of the listed AMD and Intel systems against testing performed on the listed AWS EC2 Graviton5 bare-metal instance. Cloud instance results may be affected by cloud service configuration, instance availability, regional deployment, hypervisor/Nitro behavior, storage/network configuration, and other cloud provider variables. SPEC® and SPECint® are registered trademarks of Standard Performance Evaluation Corporation. Learn more at spec.org.

9xx6-049: SPECrate®2026_int_base per-core comparison based on AMD internal estimates for the 6th Gen AMD EPYC 96c HF processor and NVIDIA Vera as of 7/22/2026. Preliminary performance estimates based on AMD engineering projections and subject to change. 2P 6th Gen AMD EPYC 96c HF processor, GCC 15.2, estimated SPECrate®2026_int_base score 1210 (6.3 per core). 2P NVIDIA Vera: 88 cores, GCC 15.2, estimated SPECrate®2026_int_base score 925 (5.3 per core). For: ~1.2x the performance / core Nvidia Vera performance from: https://nvdam.widen.net/s/nmw5vblpqd/nvidia_vera_cpu_architecture_whitepaper?nvid=nv-tblg-543584. SPEC®, SPEC CPU®, and SPECrate® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information. Results may vary.

Endnotes

9xx6-050: SPECrate@2026_int_base throughput comparison based on AMD internal estimates for the 2P 6th Gen AMD EPYC 9996 and 2P NVIDIA Vera as of 7/22/2026. Preliminary performance estimates based on AMD engineering projections and subject to change. 2P 6th Gen AMD EPYC 9996: GCC 15.2, estimated SPECrate@2026_int_base score 2070. NVIDIA Vera: 88 cores, GCC 15.2, estimated SPECrate@2026_int_base score 925. For ~2.2x the performance https://nvdam.widen.net/s/nmw5vblpqd/nvidia_vera_cpu_architecture_whitepaper?nvid=nv-tblq-543584. SPEC®, SPEC CPU®, and SPECrate® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information. Results may vary.

EPYC-025D: As of July 2026, 6th Gen EPYC 9996 has 256 cores and 512 threads with SMT enabled which is higher than any other publicly disclosed 1P CPU

EPYC-055D - Mercury Research Sell-In Revenue Shipment Estimates, Q1 2026. Revenue share of 46.2%, unit share of 33.2%.

EPYC-067 - Based on AMD internal analysis and modeling of representative infrastructure workloads underlying agentic AI systems as of June, 2026. Performance comparisons reflect estimated rack-scale throughput within a modeled 100kW deployment and include proxy workloads spanning web services, data infrastructure, and orchestration layers. Results are derived from a combination of AMD testing, third-party data, and projections, and may vary based on system configuration, software stack, and workload mix. See AMD Agentic AI rack-scale performance blog and AMD methodology description for details on assumptions, workloads, and measurement approach.

EPYC-068 - The AMD EPYC server CPU portfolio spans the industry's broadest ranges of data center deployments, from general-purpose enterprise, cloud, telecom, SMB, and HPC systems to emerging AI environments including sandboxed agentic AI deployments and GPU head node servers. AMD EPYC 6th Generation platforms extend this breadth by uniquely combining high core and thread density of up to 512 threads, advanced memory bandwidth of up to 16 channels of 12.8 GT/s MRDIMM support, next-generation PCIe® Gen 6 connectivity, and select SKUs with boost frequencies up to 5 GHz.

GD-181a: All performance and/or cost savings claims are provided by the 3rd party organization featured herein and have not been independently verified by AMD. Performance and cost benefits are impacted by a variety of variables. Results herein are specific to such 3rd party organization and may not be typical.

MI350-81: Testing by AMD Performance Labs as of July 7, 2026, measuring the inference performance in tokens per second (TPS) of a system configured with an AMD Instinct MI355x 8x GPU platform and AMD ROCm 7.0 software vs a similarly configured system using a preview version of AMD ROCm.ai (ROCm 7.2.2 with optimizations such as Optimized Kernels, Parallelism and Scheduling) running GLM-5, Kimi-K2.5, and DeepSeek-R1-0528 models. Stated performance uplift is expressed as a combined average TPS over across the (3) models tested. Hardware Configuration Supermicro AS -4126GS-NMR-LCC (board H14DSG-OD) 8x AMD Instinct MI355X. BIOS AMI v1.4a (2025-04-16), GPU firmware SMC 04.86.11.02, TA RAS 27.69.00.10, TA XGMI 32.00.00.20, RLC43, MEC36, SDMA12, Ubuntu 22.04.2 LTS, kernel 5.15.0-70-generic, amdgpu driver 6.16.6, HOST ROCm 7.1.0 Software Configuration(s) GLM-5 ROCm Docker Image: rocm/sgl-dev:v0.5.8.post1-rocm700-mi35x-20260219 PyTorch Version 2.8.0, SGLang v0.5.8 Kimi ROCm Docker Image: vllm/vllm-openai-rocm:v0.16.0, vLLM version 0.16.0 DeepSeek-R1 Docker Image: rocm/7.0:...sgl-dev-v0.5.2-rocm7.0-mi35x-20250915, SGLang version V0.5.13 vs GLM-5 ROCm Docker Image: rocm/atom:rocm7.2.2_ubuntu24.04_py3.12_pytorch_release_2.10.0_atom0.1.2.post, ATOM v0.1.2.post Kimi ROCm Docker Image: vllm/vllm-openai-rocm:v0.22.0, vLLM version V0.22.0 DeepSeek-R1 Docker Image: lmsysorg/sglang-rocm:v0.5.13-rocm720-mi35x-20260612, SGLang version V0.5.13 Server manufacturers may vary configurations, yielding different results. Performance may vary based on configuration, software, vLLM version, and the use of the latest drivers and optimizations.

MI350-82: Testing by AMD Performance Labs as of July 7, 2026, measuring the training performance in tokens per second (TPS) of AMD ROCm 7.0 software vs a preview version of AMD ROCm.ai (ROCm 7.2.2 with optimizations such as Optimized Kernels, Parallelism and Scheduling,) using Megatron-LM on a system with 8x AMD Instinct MI355x 8x GPUs GPU platform running DeepSeek-V2-Lite, DeepSeek-V3-16B, and Qwen3-30B-A3B models. Stated performance uplift is expressed as the combined average TPS over across the (3) models tested. Hardware Configuration Supermicro AS -4126GS-NMR-LCC (board H14DSG-OD) 8x AMD Instinct MI355. BIOS AMI v1.4a (2025-04-16), GPU firmware SMC 04.86.11.02, TA RAS 27.69.00.10, TA XGMI 32.00.00.20, RLC 43, MEC 36, SDMA 12, Ubuntu 22.04.2 LTS, kernel 5.15.0-70-generic, amdgpu driver 6.16.6, HOST ROCm 7.1.0 Software Configuration(s) DeepSeek-V2-Lite, ROCm 7.2.1 + Primus v26.3 DeepSeek-V3-16B, ROCm 7.2.1 + Primus v26.3 Qwen3-30B-A3B, ROCm 7.2.1 + Primus v26.3 Server manufacturers may vary configurations, yielding different results. Performance may vary based on configuration, software, and the use of the latest drivers and optimizations.

Endnotes

MI350P-001: Based on AMD internal testing (July 2026) on a (1x) AMD Instinct MI350P GPU vs (1x) Nvidia RTX Pro 6000 Blackwell Server Edition, on the OpenAI GPT-OSS-120B (MXFP4) benchmark measuring online serving output-throughput (tok/s) at ISL/OSL 1024/1024 across concurrency levels 1, 4, 8, 16, 32, 64, 128, 256, 512; median of 3 runs per point. Stated result is the per-concurrency ratio reported as the peak of the per-concurrency ratio MI350P GPU served via AIMS ccontainer silogenai/aim-instinct-openai-gpt-oss-120b:0.12.0-rc14; NVIDIA RTX PRO 6000 served via NVIDIA NIM nvcr.io/nim/openai/gpt-oss-120b:2.0.3. Configurations: 8x AMD Instinct MI350P PCIe Card (CDNA4, gfx950, 128 CUs, 144 GB HBM3E, SPX compute / NPS1), vBIOS 113-350P-01-1K1-000A, GPU driver 6.19.13-2353916.24.04, ROCm 7.14.0 (AMD-SMI 26.5.0); host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.7.6, microcode 0xb002162, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic, versus 8x NVIDIA RTX PRO 6000 Blackwell Server Edition, vBIOS 98.02.8D.00.01, GPU driver 595.45.04, CUDA 13.2; host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.6.4, microcode 0xb00215a, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic. Server manufacturers may vary configurations, yielding different results. Results may vary due to factors including system configuration, software version and BIOS settings.

MI350P-003: Based on AMD internal testing (June 2028) on (1x) AMD Instinct MI350P GPU vs (1x) NVIDIA RTX PRO 6000 Blackwell Server Edition GPU on the Meta Llama-3.3-70B-Instruct (FP8) benchmark, measuring online serving output-throughput (tok/s) .. at ISL/OSL 1024/1024 across concurrency levels 1, 4, 8, 16, 32, 64, 128, 256, 512; median of 3 runs per point. Stated results are the peak per-concurrency ratios. MI350P GPU served via AIMS container silogenai/aim-instinct-meta-llama-llama-3-3-70b-instruct:0.12.0-rc6; NVIDIA RTX PRO 6000 GPU served via NVIDIA NIM nvcr.io/nim/meta/llama-3.3-70b-instruct:2.0.6. Configurations: 8x AMD Instinct MI350P PCIe Card (CDNA4, gfx950, 128 CUs, 144 GB HBM3E, SPX compute / NPS1), vBIOS 113-350P-01-1K1-000A, GPU driver 6.19.13-2353916.24.04, ROCm 7.14.0 (AMD-SMI 26.5.0); host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.7.6, microcode 0xb002162, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic || NVIDIA RTX PRO 6000: 8x NVIDIA RTX PRO 6000 Blackwell Server Edition, vBIOS 98.02.8D.00.01, GPU driver 595.45.04, CUDA 13.2; host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.6.4, microcode 0xb00215a, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic Server manufacturers may vary configurations, yielding different results. Results may vary due to factors including system configurations, software versions and BIOS settings.

MI350P-005: Based on AMD internal testing as of 6/23/2026 on an AMD Instinct MI350P GPU running Autonomous Threat Hunting workload. 1,488 threat-detection queries run per model using Gemma-4-31B and Qwen-3.6-35B-A2B (local, on MI350P) and Claude Opus 4.7 (cloud API). Success rate based on the model with best response quality. Average Query response completion time comparison of 2.4 seconds on local LLM vs 7.1 seconds on frontier cloud-only LLM. Response time used as tiebreaker. Cost per user across all queries: frontier cloud-only (all Opus) = \$14.39; hybrid routing (each query to its winning model) = \$8.23. On-prem cost basis \$10,401.72/GPU/yr. Assumes Oracle routing to the winning model. Hardware and Cloud costs based on AMD Internal Estimates and published prices at <https://www.anthropic.com/new/claude-opus-4-7>. 1x AMD Instinct MI350P (CDNA4, gfx950, 128 CUs, 144 GB HBM3E, SPX compute / NPS1), vBIOS 113-350P-01-1K1-000A, GPU driver 6.19.13-2353916.24.04, ROCm 7.14.0 (AMD-SMI 26.5.0); host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.7.6, microcode 0xb002162, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic || NVIDIA RTX PRO 6000: 1x NVIDIA RTX PRO 6000 Blackwell Server Edition, vBIOS 98.02.8D.00.01, GPU driver 595.45.04, CUDA 13.2; host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.6.4, microcode 0xb00215a, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic. Server manufacturers may vary configurations, yielding different results. Results may vary based on configuration, workload, routing accuracy, and token pricing.

MI350P-006: Based on AMD internal testing (July 2026)), on a (1x) AMD Instinct MI350P GPU vs (1x) NVIDIA H200 NVL GPU on the Mistral Small 3.2 24B Instruct (FP16) benchmark, measuring online serving output-throughput (tok/s) comparison at ISL/OSL 1024/1024 across concurrency levels 1, 4, 8, 16, 32, 64, 128, 256, 512; median of 3 runs per point. Stated results are the peak per-concurrency ratios. MI350P served via AIMS container silogenai/aim-instinct-mistralai-mistral-small-3-2-24b-instruct-2506:0.12.0-rc11; RTX PRO 6000 via NVIDIA NIM nvcr.io/nvidia/vllm:26.05-py3. Configuration: 8x AMD Instinct MI350P PCIe Card (CDNA4, gfx950, 128 CUs, 144 GB HBM3E, SPX compute / NPS1), vBIOS 113-350P-01-1K1-000A, GPU driver 6.19.13-2353916.24.04, ROCm 7.14.0 (AMD-SMI 26.5.0); host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.7.6, microcode 0xb002162, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic || NVIDIA RTX PRO 6000: 8x NVIDIA RTX PRO 6000 Blackwell Server Edition, vBIOS 98.02.8D.00.01, GPU driver 595.45.04, CUDA 13.2; host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.6.4, microcode 0xb00215a, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic. Sever manufacturers may vary configurations, yielding different results. Results may vary due to factors including system configurations, software versions and BIOS settings.

MI350P-007: Based on AMD internal testing (July 2026), on a (1x) AMD Instinct MI350P GPU vs (1x) NVIDIA H200 NVL GPU on the Llama 3.3 70B Instruct (FP8) online serving output-throughput per dollar (tok/s/USD) comparison at ISL/OSL 1024/1024 across concurrency levels 1, 4, 8, 16, 32, 64, 128, 256, 512; median of 3 runs per point. MI350P based server internal AMD estimated pricing as \$327,238.40 USD. RTX_PRO_6000 based server public list price reported on OEM website as \$265,928.24 USD as of 7/16/2026. Stated results are the peak per-concurrency ratios: MI350P served via AIMS silogenai/aim-instinct-meta-llama-llama-3-3-70b-instruct:0.12.0-rc6; H200 NVL via NVIDIA NIM nvcr.io/nim/meta/llama-3.3-70b-instruct:2.0.6; RTX PRO 6000 via NVIDIA NIM nvcr.io/nim/meta/llama-3.3-70b-instruct:2.0.6. Configuration: 8x AMD Instinct MI350P PCIe Card (CDNA4, gfx950, 128 CUs, 144 GB HBM3E, SPX compute / NPS1), vBIOS 113-350P-01-1K1-000A, GPU driver 6.19.13-2353916.24.04, ROCm 7.14.0 (AMD-SMI 26.5.0); host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.7.6, microcode 0xb002162, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic || NVIDIA RTX PRO 6000: 8x NVIDIA RTX PRO 6000 Blackwell Server Edition, vBIOS 98.02.8D.00.01, GPU driver 595.45.04, CUDA 13.2; host 2P AMD EPYC 9455 (48-core), Dell PowerEdge XE7745, BIOS 1.6.4, microcode 0xb00215a, SMT Enabled, Ubuntu 24.04.4 LTS, Linux 6.8.0-124-generic. Sever manufacturers may vary configurations, yielding different results. Results may vary due to factors including system configurations, software versions and BIOS settings.

Endnotes

MI400-001B: Based on engineering projections by AMD performance labs in July 2026, to estimate peak theoretical precision performance of an AMD Instinct™ MI430X GPU using FP64 (Vector) datatype vs. NVIDIA Rubin GPU with FP64 (Vector) datatype. Results subject to change when products are released in market.

MI400-004: Calculations by AMD Performance Labs in June 2026, based on published memory capacity and memory bandwidth of AMD Instinct™ MI455X and MI430X GPUs vs. the published memory capacity and memory bandwidth specifications of a NVIDIA Vera Rubin GPU. System manufacturers may vary configurations, yielding different results.

MI400-005: Based on calculations by AMD Performance Labs in June 2026, to determine the peak theoretical precision performance of an AMD Helios Rackscale Solution using peak Matrix FP16, BF16, INT8 datatypes and peak Open Compute Project MXFP6, MXFP8, FP8 and MXFP4 datatypes vs. NVIDIA Vera Rubin NVL72 with NVFP4 Dense datatype with FP8/FP6 datatypes. System manufacturers may vary configurations, yielding different results.

MI400-007: Calculations by AMD Performance Labs in June 2026 based on published memory capacity and memory bandwidth specifications of an AMD Helios rackscale solution vs. the published memory capacity and memory bandwidth specifications of a NVIDIA Vera Rubin NVL72 rack. System manufacturers may vary configurations, yielding different results.

MI400-019: Calculations by AMD Performance Labs in July 2026, based on published scale-out bandwidth of the AMD rackscale solution when comparing specifications vs. published NVIDIA Vera Rubin NVL72 Rack specs. System manufacturers may vary configurations, yielding different results.

MI400-020: Based on measurements and calculations by AMD Performance Labs in July 2026, for the AMD Instinct™ MI455X GPU to determine measured token throughput at high, medium and low interactivity points run on Deepseek V4 Flash with FP4 serving compared to AMD Instinct™ MI355X GPU. System manufacturers may vary configurations, yielding different results.

MI400-021: Based on modelling by AMD Performance Labs and Cerebras in July 2026 to determine tokens per second per kilowatt (TPS/kW) at a comparable interactivity point with Kimi 2.6 1T Model comparing an AMD Helios rackscale solution with Cerebras WSE to a Cerebras WSE-only configuration. System manufacturers may vary configurations, yielding different results.

MI400-022: Based on calculations by AMD Performance Labs in July 2026, on a system configured with AMD Instinct™ MI455X GPU to determine cost per million tokens at high, medium and low interactivity using \$/hr cloud pricing and tokens per second compared to AMD Instinct™ MI355X GPU run on Deepseek V4 Flash with FP4 serving. System manufacturers and \$/hr cloud pricing may vary, yielding different results.

MI400-023: Based on modelling by AMD Performance Labs in July 2026, on an AMD Helios rackscale solution to determine token throughput/GPU at high, medium and low interactivity points using Kimi K2 Thinking with an evaluated ISL/OSL combination of 32K/8K compared to the published modeled specifications for NVIDIA Vera Rubin NVL72 rack. System manufacturers may vary configurations, yielding different results.

MI400-025: Based on AMD Performance Labs estimates as of July 2026, tokens-per-dollar performance was calculated using the Kimi K2 Thinking workload (32K input / 8K output) on an AMD Helios rackscale solution compared to an NVIDIA Vera Rubin NVL72 rack. Results reflect estimated aggregate throughput across low, medium, and high-interactivity operating points and hourly pricing projection of system GPUs based on market conditions. System configurations may vary by manufacturer and may produce different results.

MI400-027 Based on testing and calculations by AMD Performance Labs in July 2026, on systems configured with a single AMD Instinct™ MI455X GPU powered by AMD ROCm.ai vs an AMD Instinct™ MI355X GPU to determine median bandwidth in TB/s using an industry standard Multi-Latent Attention (MLA) benchmark. System manufacturers may vary configurations, yielding different results. MI400-027

MI400-028: Based on calculations by AMD Performance Labs in July 2026, on a system configured with a single AMD Instinct™ MI455X GPU powered by AMD ROCm.ai to determine MXFP4 performance using an ALTER GEMM kernel benchmark compared to the published specifications for a single AMD Instinct™ MI355X GPU. System manufacturers may vary configurations, yielding different results.

MI400-029: Based on calculations by AMD Performance Labs in July 2026, on systems configured with 4x AMD Instinct™ MI455X GPUs and 8x AMD Instinct™ MI355X GPUs, both powered by AMD ROCm.ai, to determine single GPU scale-up networking bandwidth using a common memory bandwidth benchmark with a 16GB transfer size. Median results from five runs are reported. System manufacturers may vary configurations, yielding different results.

Endnotes

MI400-030: Based on testing by AMD Performance Labs in July 2026, on systems powered by AMD ROCm.ai and configured with an AMD Instinct™ MI455X GPU and AMD Pensando™ Vulcano 800 AI NIC and AMD Instinct™ MI355X GPU with AMD Pensando™ Pollara 400 AI NIC to determine bidirectional scale-out networking bandwidth running a bandwidth benchmark. System manufacturers may vary configurations, yielding different results.

MI500-001: Based on engineering projections by AMD Performance Labs in December 2025, to estimate the peak theoretical precision performance of AMD Instinct™ MI500 Series GPU powered AI Rack vs. an AMD Instinct MI300X platform. Results subject to change when products are released in market.

REX-016: Based on the OpenNav Robotics Workload Benchmark commissioned by AMD, published by Open Navigation LLC on July 23, 2026, as measured on the GMKtec EVO-X2 AI Mini PC AMD Ryzen AI Max+ 395 configured to reflect Ryzen AI Embedded X199 specifications (5.1 GHz CPU, 2.9 GHz GPU, 120W TDP, LPDDR5X-7500), vs. the NVIDIA Jetson AGX Thor Developer Kit: <https://opennav.org/news/opennav-robotics-workload-benchmark>

REX-018: Based on the OpenNav Robotics Workload Benchmark commissioned by AMD, published by Open Navigation LLC on July 23, 2026, as measured on the GMKtec EVO-X2 AI Mini PC AMD Ryzen AI Max+ 395 configured to reflect Ryzen AI Embedded X199 specifications (5.1 GHz CPU, 2.9 GHz GPU, 120W TDP, LPDDR5X-7500), vs. the NVIDIA Jetson AGX Thor Developer Kit: <https://opennav.org/news/opennav-robotics-workload-benchmark>

REX-019: Based on the mimik whitepaper “Architectural Fit for Production-Scale Agentic AI on Heterogeneous SoCs” commissioned by AMD, published by mimik on July 23, 2026, based on a modeled sweep of 455 feasible agentic AI workflows across two device classes (X100, NVIDIA Jetson T5000), checking spare CPU, GPU, and memory. For more information see: <https://www.mimik.com/agentix-compute-benchmarking>

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