

# Unlocking the Power of Confidential Computing: Securing Data in Use

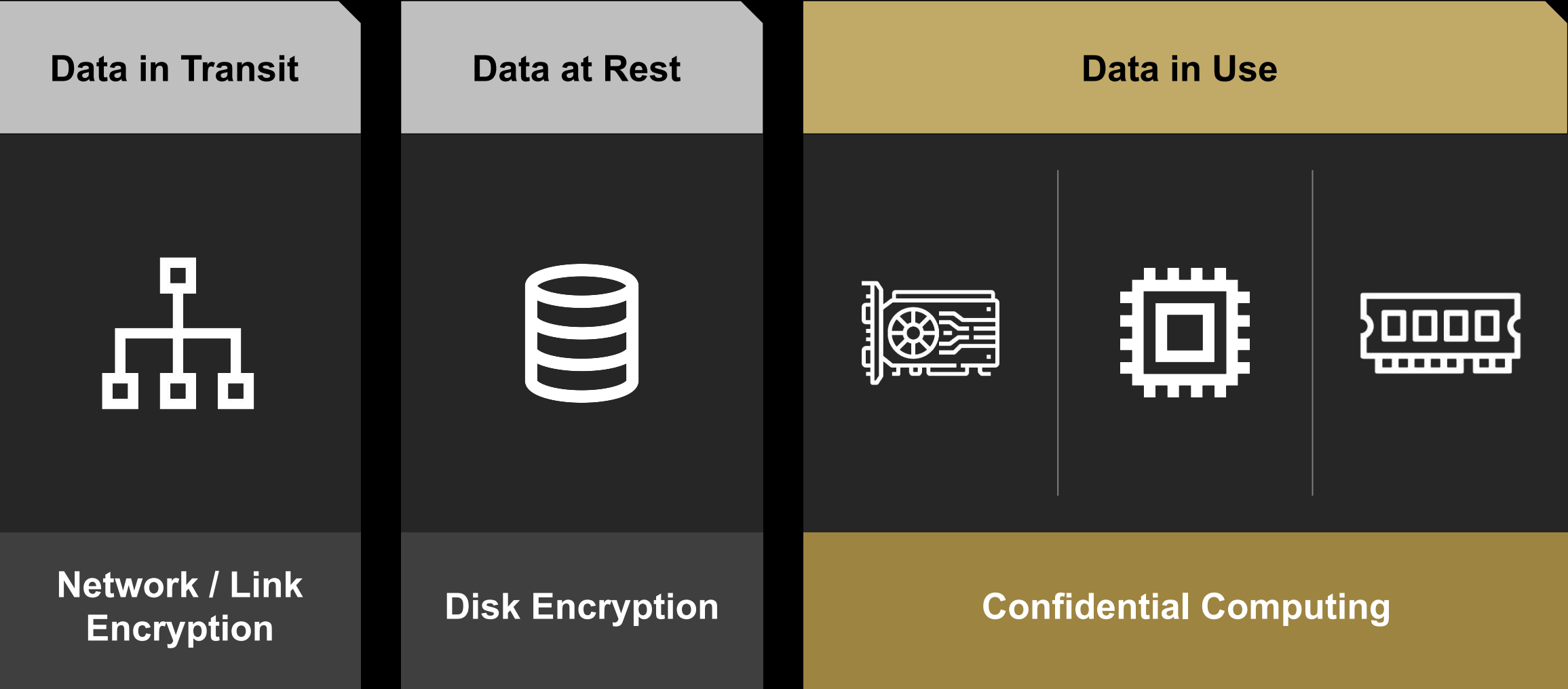
Andrej Zdravkovic, SVP and Chief Software Officer



Montreal, April 15, 2025



# Basics of Data Protection & Confidential Computing



# Unlocking Cloud Opportunities with Confidential Computing

## Traditional Cloud

*Others can see my data*



Unsure & concerned  
about my data

“Can my competitor  
see my data?”

“Can the cloud  
provider see my data?”

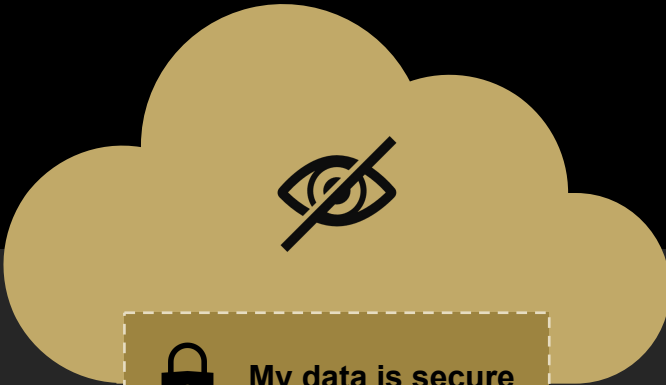
“Where is my data?”

“Is my secret formula  
really safe?”



## Confidential Cloud

*Only I can see my data*



My data is secure

“Complete isolation  
from competitors”

“Even the provider  
can’t see the data”

“I don’t care where my  
data is.”

“Secret recipes stay  
secret”



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# **AI Will Drive Pervasive Confidential Computing**

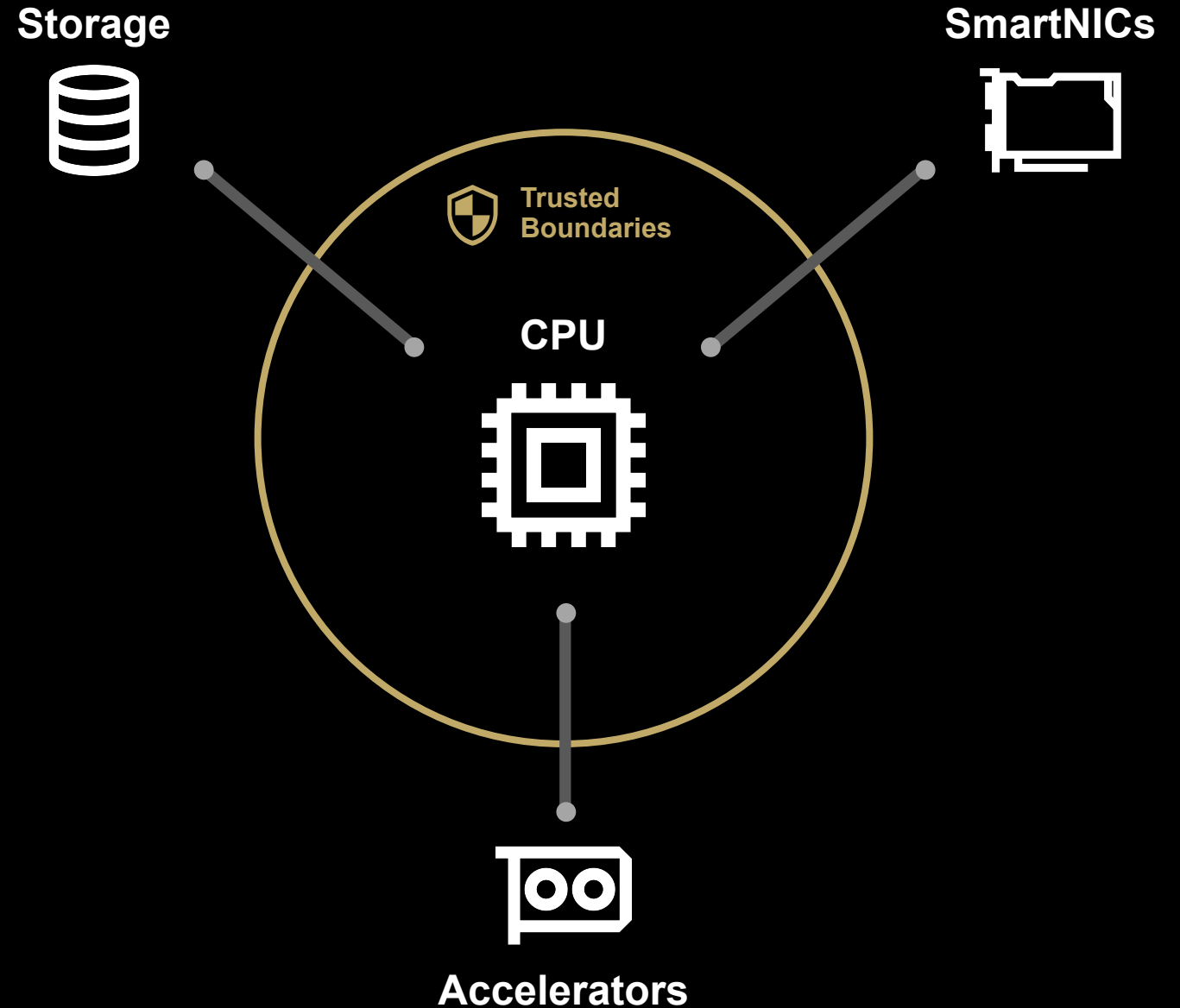
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# Protecting Data, Models And Weights

Critical at Every Phase  
of AI Processing

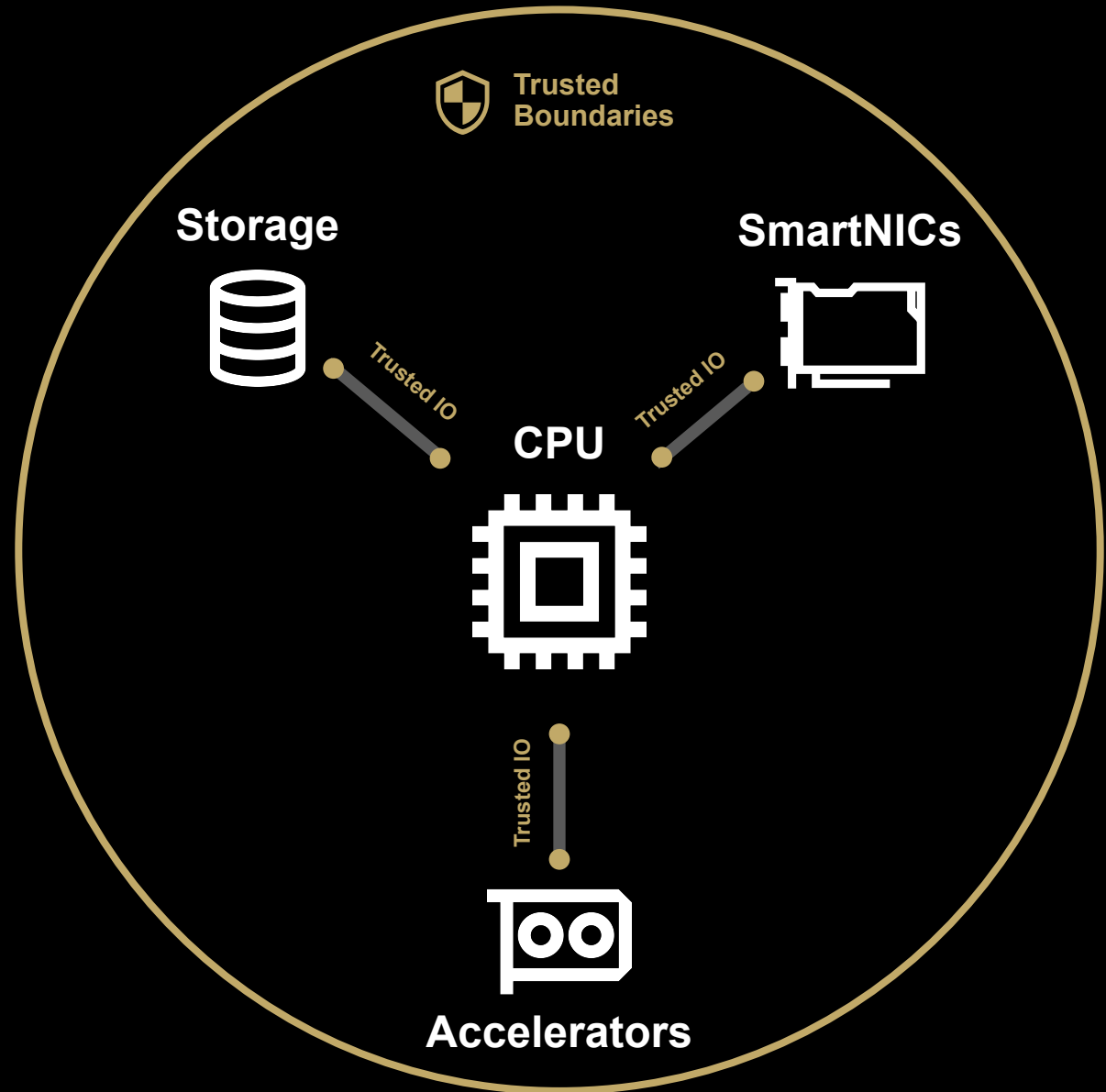


# Challenges of Confidential AI





# Enabling Confidential AI with Standardized Trusted IO



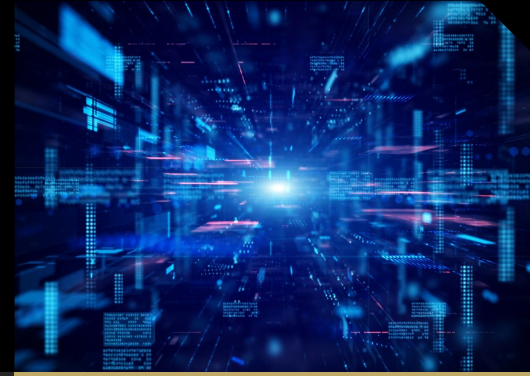
# Why TDISP as Trusted IO for Confidential AI



**Enhanced  
Security**



**Open Industry  
Standard**



**Interoperability**



**Scalability**



**TEE Device Interface  
Security Protocol (TDISP)**



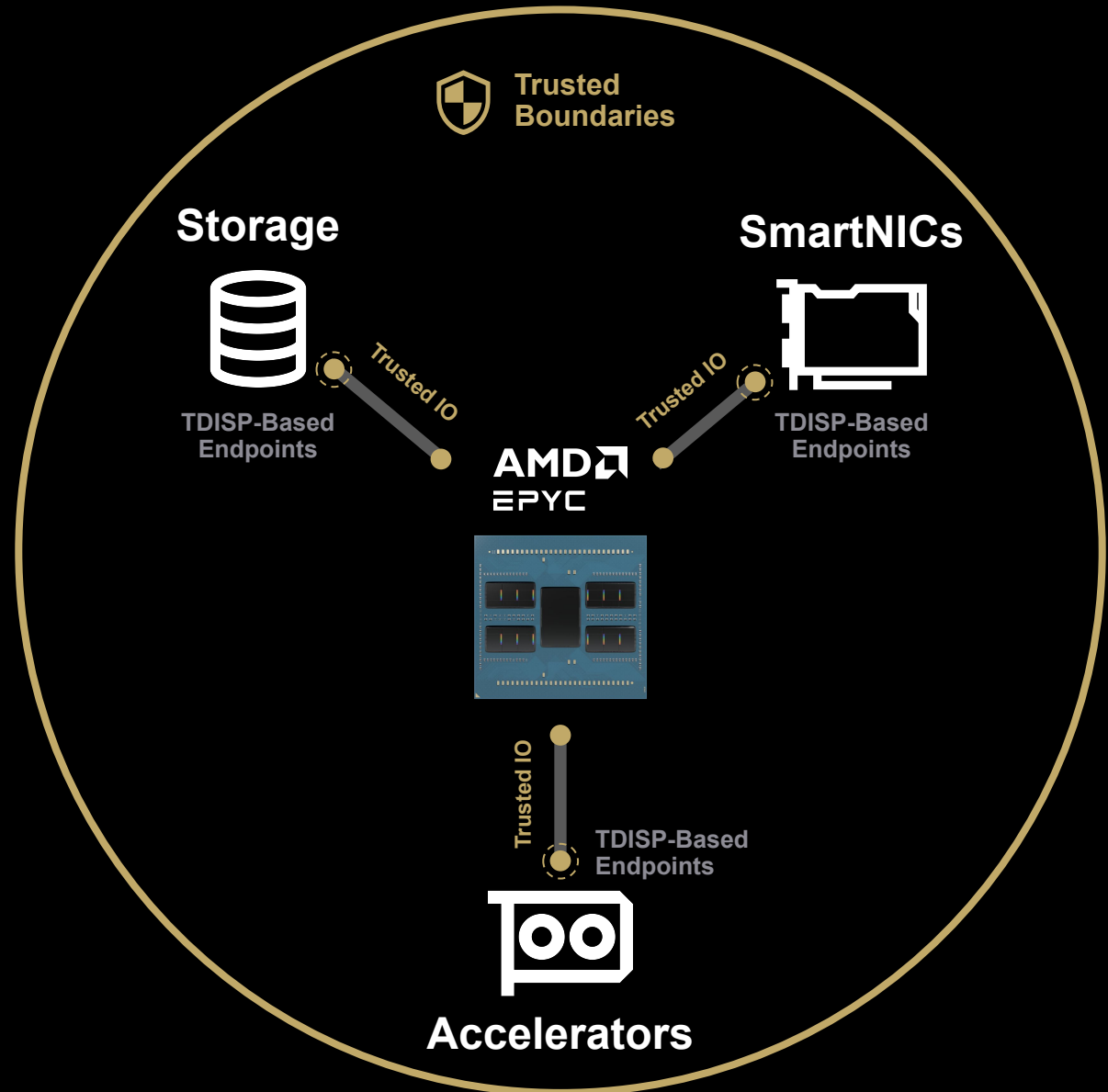
# AMD

## Confidential AI

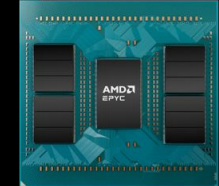
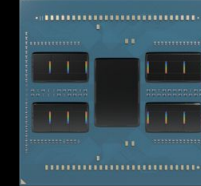
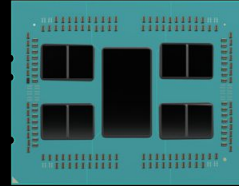
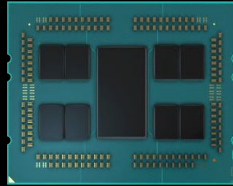
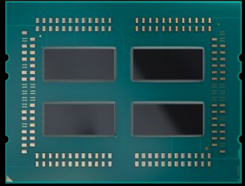
➤ Open Standards and Interoperability

➤ Trust and Transparency

➤ Acceleration of Innovation



# AMD EPYC™ CPU Journey



2017

2019

2021

2023

2024

**1<sup>st</sup> Generation  
AMD EPYC™**

**‘Naples’**

Launched  
AMD Infinity Guard,  
including Secure  
Encrypted  
Virtualization (SEV)

**2<sup>nd</sup> Generation  
AMD EPYC™**

**‘Rome’**

Added SEV Encrypted  
State (SEV-ES)

**3<sup>rd</sup> Generation  
AMD EPYC™**

**‘Milan’**

Introduced SEV Secure  
Nested Paging (SEV-SNP)

**4<sup>th</sup> Generation  
AMD EPYC™**

**‘Genoa’**

AMD published the  
SEV-SNP firmware  
source code

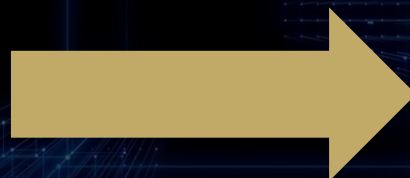
**5<sup>th</sup> Generation  
AMD EPYC™**

**‘Turin’**

World’s first CPU with  
TDISP Trusted IO

# The Next Frontier for Confidential AI

**Confidential Cloud**



**Confidential Computing on  
Edge & Devices**





# Open Standards Provide Critical Ingredients for the Success of Confidential AI



**Interoperability**



**Trust and Transparency**



**Acceleration of Innovation**

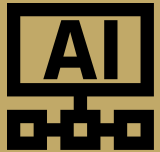


# The Path Forward



**AMD Infinity Guard first to deliver "no code touch"  
confidential computing, foundational for Confidential AI**

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**AMD has a solid roadmap for Confidential AI with  
strong industry collaboration**

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**Calling on the ecosystem to build Confidential AI around  
open standards and trusted supply chain**





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