Everything. Everywhere. All at once.

YOTTA 2024
The Future of Digital Infrastructure

Tobias Hooton CEO

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STELIA

Slide 01

The impact of AI is pervasive across industries and global markets. AI is no longer a future prospect but a present reality, driving unprecedented technological and economic transformation. According to McKinsey's 2023 report, generative AI alone could add $2.6 trillion to $4.4 trillion annually to the global economy across various use cases. This staggering figure underscores the "Everything. Everywhere. All at once." nature of AI's influence.

The presentation will explore AI's rapid integration into business operations, its evolution from data centers to everyday applications, and its potential to reshape the technological landscape. We'll examine the current state of AI adoption, the emergence of new compute paradigms, and the infrastructure required to support this AI-driven future. Understanding these developments is vital for business leaders aiming to capitalize on the AI revolution and maintain competitiveness in an increasingly AI-centric market.

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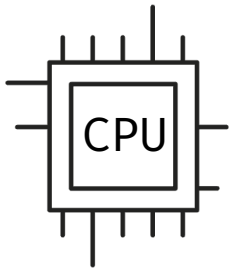
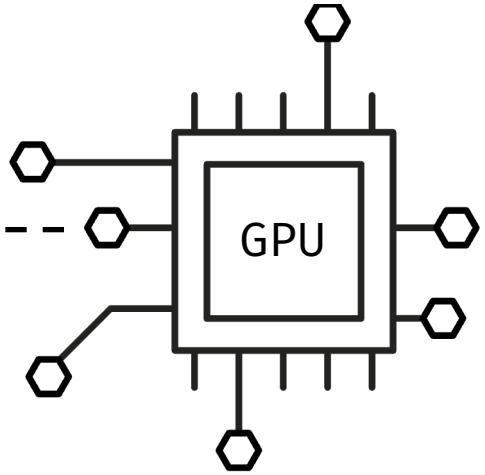
$1T
NEW INDUSTRIAL
REVOLUTION



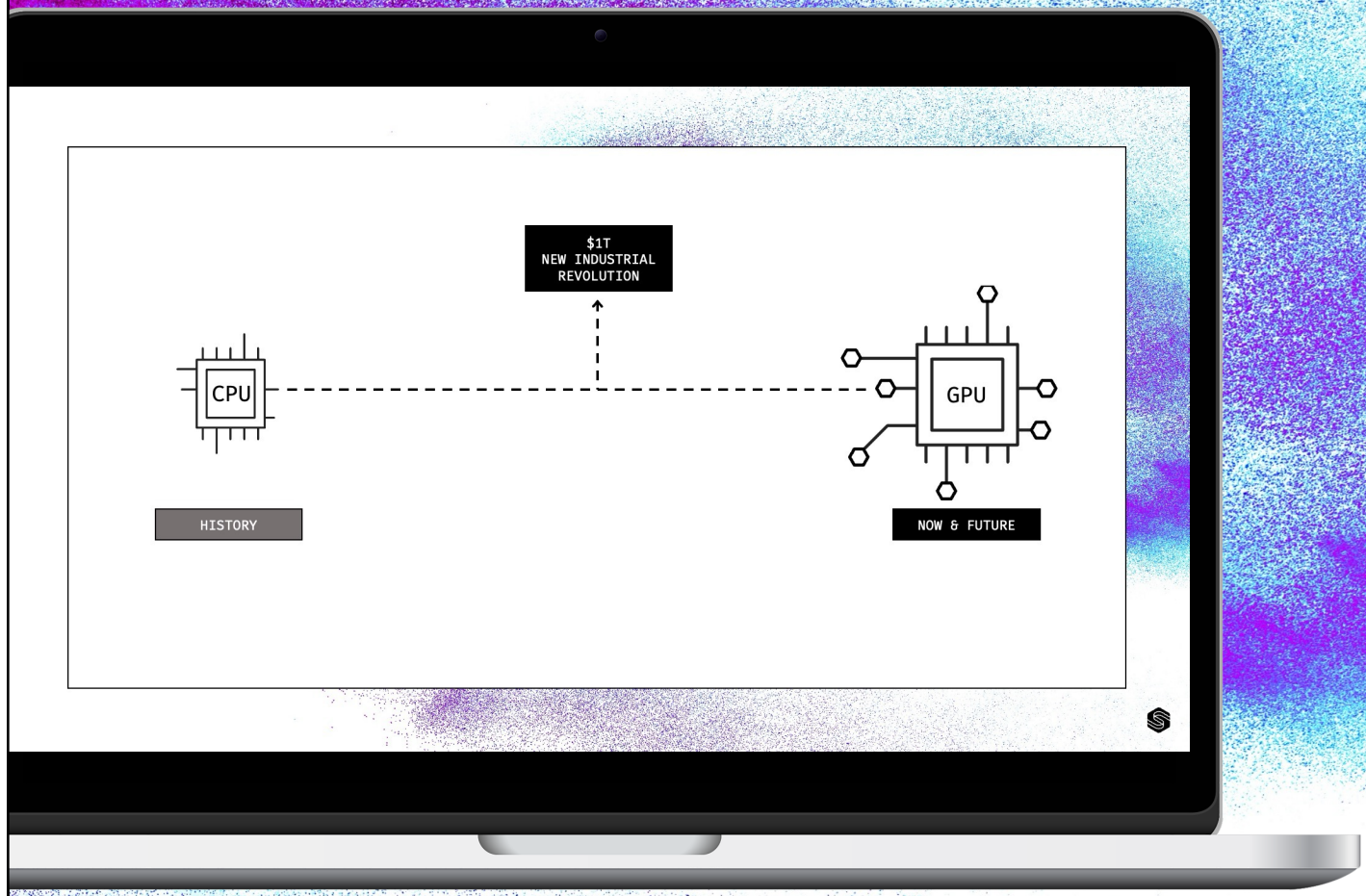


HISTORY

NOW & FUTURE

Slide 02

- The emergence of GPUs (Graphics Processing Units) as a new compute asset class at scale marks a significant turning point in technological advancement. This transition began in earnest around 2020/21, catalysing what can be considered the next Industrial Revolution.
- The world is rapidly realigning from traditional CPU-centric computing to GPU-focused architectures, fundamentally changing how we process data and run AI workloads. This shift is so profound that the current technological landscape will likely be unrecognizable to future generations. The scope of this transformation is immense, representing a $1 trillion general revolution across industries.
- To underscore the magnitude of this shift, consider that NVIDIA, a leading GPU manufacturer, saw its market capitalization surge to over $3 trillion in 2023, largely driven by the demand for AI-capable hardware. This GPU-centric revolution is not just changing how we compute; it's reshaping entire industries, from healthcare and finance to manufacturing and entertainment, paving the way for unprecedented advancements in AI capabilities and applications.



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WE ARE HERE

PHASE 3. UNIVERSAL ENTERPRISE AI ADOPTION

$1T

PHASE 2. AI WORKLOAD DISTRIBUTION

5MW → 100MW

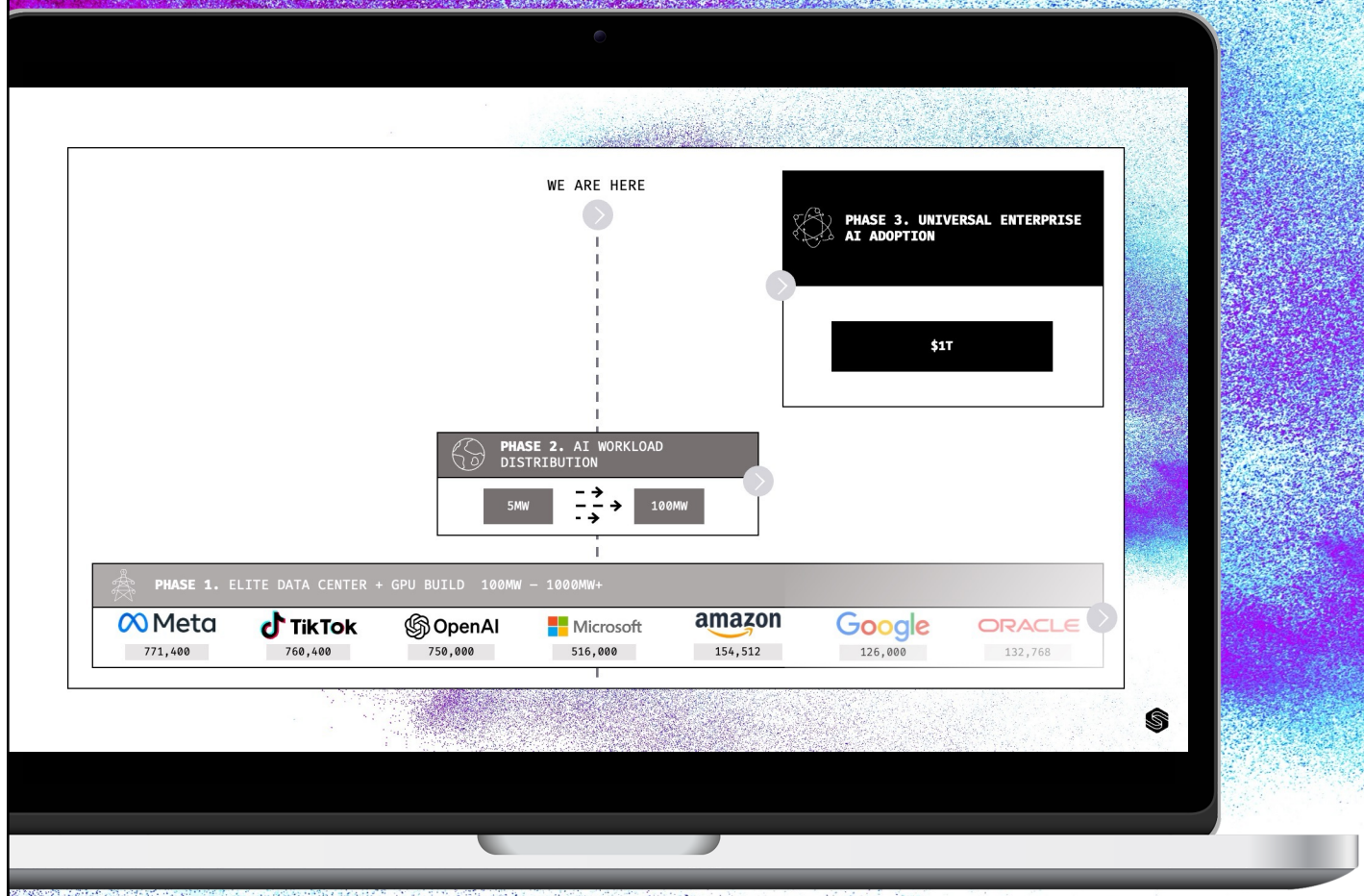
PHASE 1. ELITE DATA CENTER + GPU BUILD 100MW – 1000MW+

Meta	TikTok	OpenAI	Microsoft	amazon	Google	ORACLE
771,400	760,400	750,000	516,000	154,512	126,000	132,768

Slide 03

The phases of AI adoption and deployment show a progression from centralized to distributed AI capabilities. This unfolds in three distinct overlapping stages, each representing a significant shift in how AI is implemented and utilized across the global technology landscape.

- **Phase 1: Inception**
  In this initial stage, hyperscalers are deploying AI infrastructure into massive data centers. These facilities, ranging from 100MW to over 1000MW in power capacity, represent the concentrated epicenters of AI computing power. This phase underscores that "big is going to keep getting bigger," as AI gravitates towards locations with abundant power resources.
- **Phase 2: Distribution**
  The second phase is well underway and sees AI workloads becoming more distributed. Regional cloud service providers (CSPs) and GPU-as-a-Service (GPUaaS) offerings emerge, operating in smaller 5-100MW data centers. This distribution begins to democratize access to AI resources.
- **Phase 3: Enterprise Adoption**
  The final phase is ready to begin and represents the next trillion-dollar market opportunity: widespread enterprise AI transformation. This is where AI capabilities become integrated into businesses of all sizes across various sectors.
- Currently, AI computing power is distributed across many 'supercomputers,' but access is limited to an elite group of model builders and large tech platforms. The challenge and opportunity lie in making this power more accessible to a broader range of enterprises, paving the way for the next wave of AI-driven innovation and economic growth.



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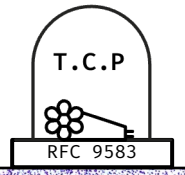
EPOCH 6

AI + M2M + Quantum

next 30 years

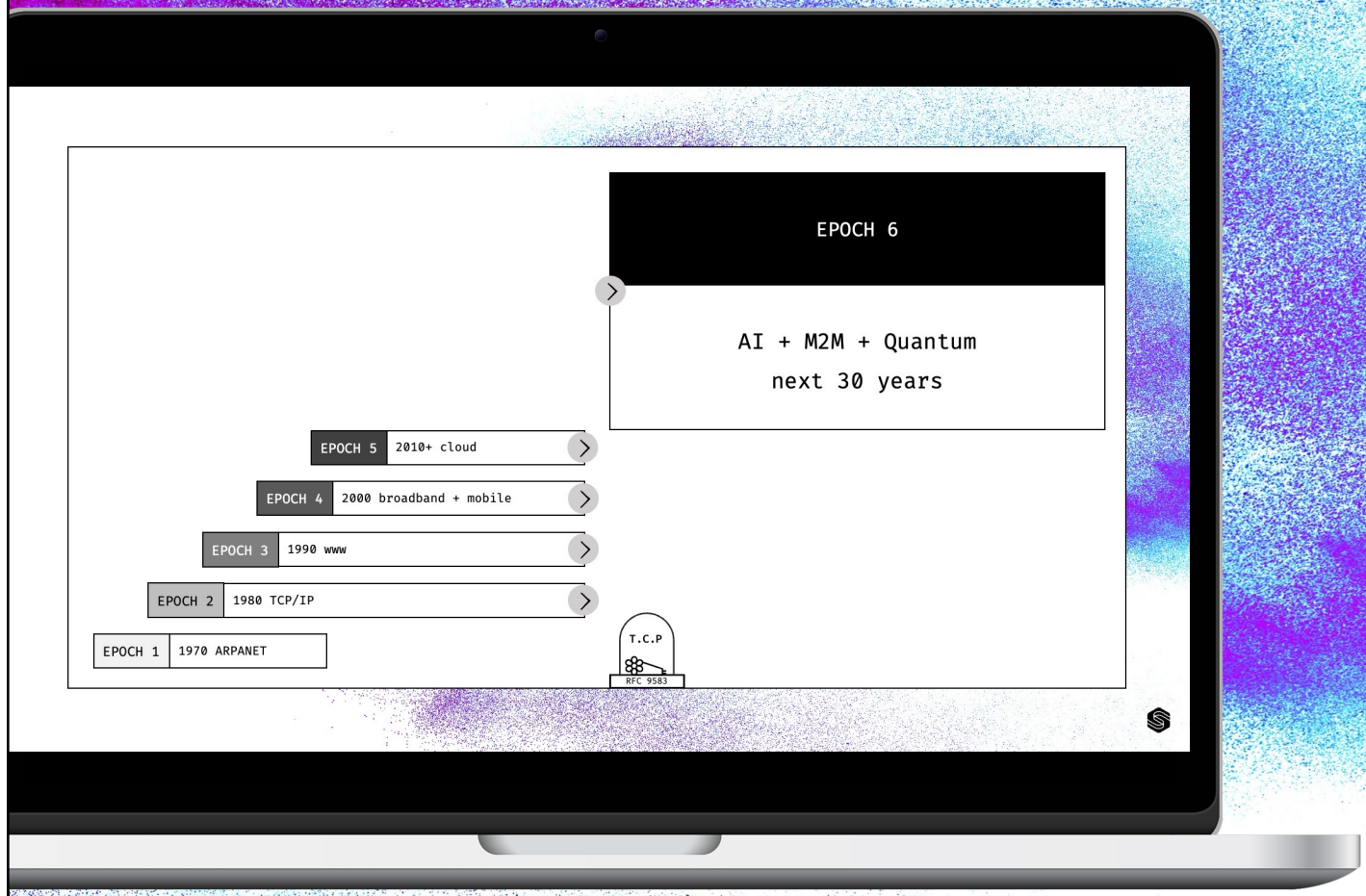
EPOCH 5	2010+ cloud
EPOCH 4	2000 broadband + mobile
EPOCH 3	1990 www
EPOCH 2	1980 TCP/IP
EPOCH 1	1970 ARPANET



Slide 04

Taking a historical perspective on the evolution of the Internet, contextualizing the current AI revolution within a broader technological timeline. By outlining six distinct epochs, it illustrates how we've arrived at the current AI-driven era and what it means for the future.

- Epochs 1-5 trace the Internet's development from its inception to the present day.
- Epoch 6 (AI + M2M + Quantum - present – 2050) represents a paradigm shift. This new era is characterized by three key points:
  - **Unprecedented Innovation:** The technologies driving this epoch are entirely new, redefining computing from the silicon architecture up. For context, the latest NVIDIA GPUs feature billions of parameters, a scale unimaginable just three years ago.
  - **Internet Redefined**: Traditional internet paradigms are being challenged, with academic papers suggesting we're moving beyond conventional web architectures.
  - **New Infrastructural Needs**: Novel technologies are required to harness this new, disparate resource class effectively. These must support not only human-computer interaction but also machine-to-machine (M2M) communication at unprecedented scales.
- This epochal shift underscores the transformative nature of AI and quantum computing - the next decades will see as much change as the entire history of the Internet to date..



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- Globally Available
- AI Native
- New Industry Standard

Slide 05

Stelia emerges as a pioneering force in the AI infrastructure space with three key offerings:

- **Global Data Mobility Platform:** Stelia has developed the world's only globally available data mobility platform, reimagined from the protocol level up. This platform is specifically designed to support the massive capacities and complex use cases that AI represents for enterprise adoption. It addresses the unique challenges posed by AI workloads, including high-volume data transfer and low-latency requirements.
- **Enabling Technology for CSPs:** Stelia's technologies and platform enable Cloud Service Providers (CSPs) to connect and leverage AI resources more effectively. This facilitates the distribution and accessibility of AI compute power beyond the major hyperscalers.
- **New Data Mobility Standard:** Stelia has developed a new standard for data mobility specifically tailored for AI workloads. This standard aims to become the de facto approach for moving and managing the vast amounts of data required for AI operations.

- By addressing these critical infrastructure needs, Stelia is the essential facilitator of enterprise AI adoption. The company's innovations are designed to bridge the gap between the immense potential of AI and the practical challenges of implementing AI at scale across diverse business environments.

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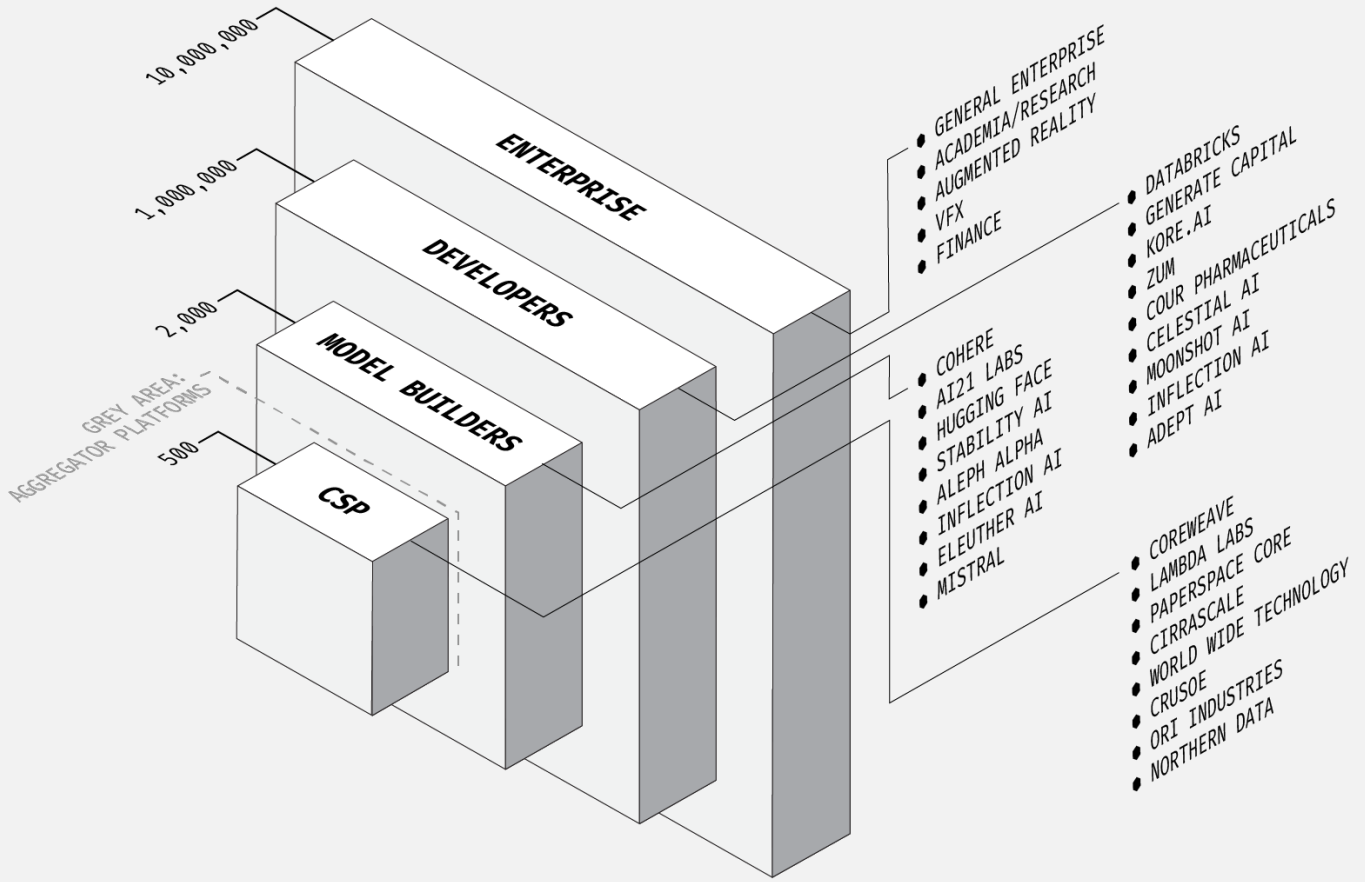
New technologies defining the era of AI, built by Stelia



Slide 06

Stelia has developed a suite of technologies crucial for the AI era:

- **GPU to GPU Communication:** Enabling cross-cluster and cross-continent communication between GPUs, facilitating distributed AI computing at a global scale.
- **GPU Orchestration and Assembly:** Managing and coordinating GPU resources for optimal performance and utilization.
- **GPU to Consumer Connectivity:** Bridging the gap between high-performance AI compute resources and end-users.
- **Remote Storage Access:** Providing efficient access to vast data stores necessary for AI operations.

- Each tier in the graphic is associated with specific industry players and use cases, illustrating the diverse ecosystem of AI adoption and development.
- Stelia is the enabler of "Enterprise AI," addressing the challenges of AI adoption beyond public clouds. This represents a trillion-dollar opportunity in enterprise data transformation. Stelia's expertise in writing code, bypassing kernels, and understanding both network and compute aspects makes it uniquely positioned to tackle the complexities of enterprise AI deployment.
- The concept of a "computeless hyperscaler" shows Stelia's ability to provide hyperscaler-level AI capabilities without the need for massive, centralized compute resources, thereby democratizing access to advanced AI technologies.

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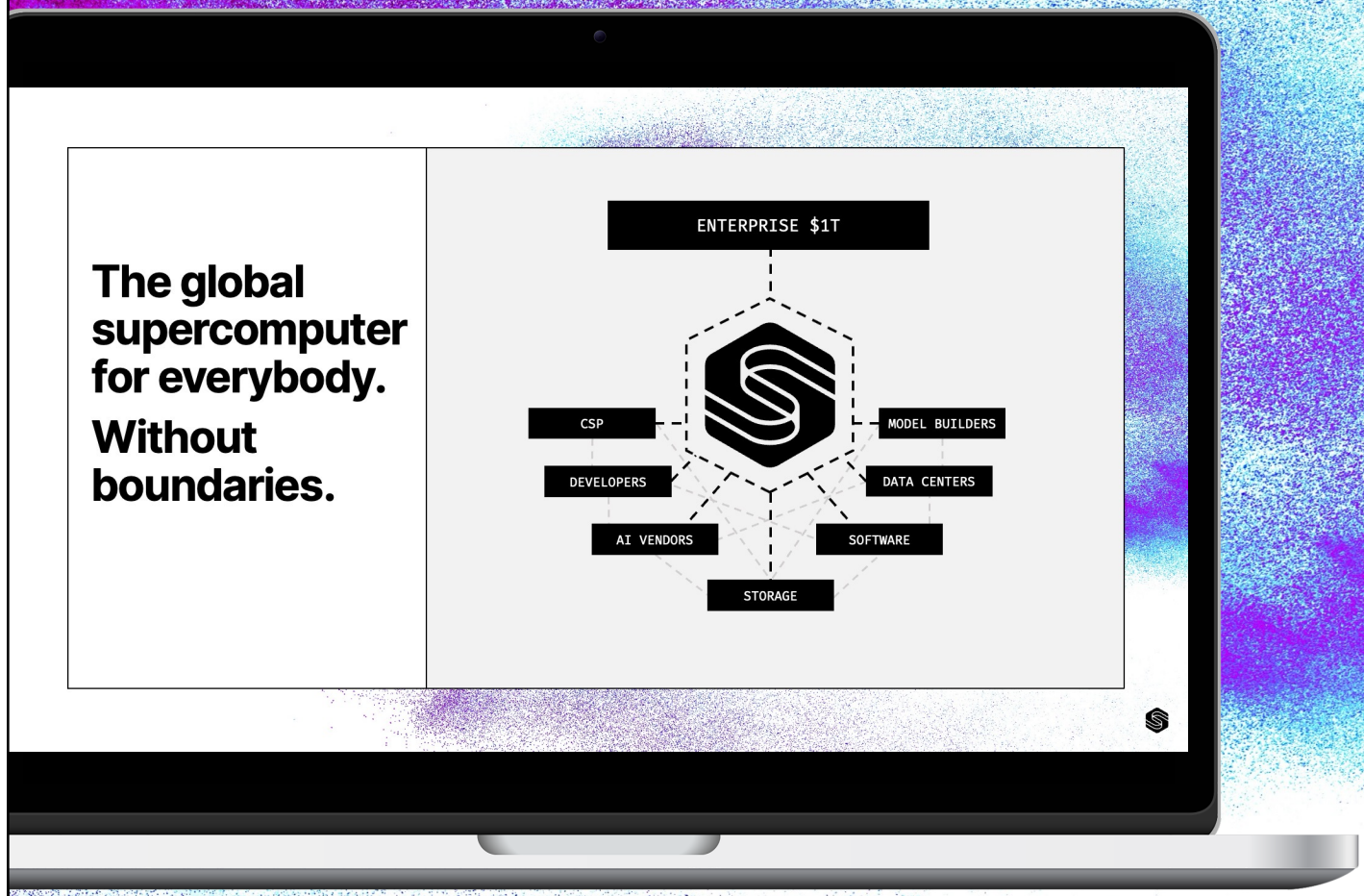
Download deck + speaker notes

Slide 07

Stelia's mission is to actively shape and lead the AI revolution by providing the critical infrastructure and connections needed for widespread AI adoption:

- **Extensive Partner Network:** Stelia has cultivated partnerships with the world's most advanced AI vendors, software businesses, model builders, and infrastructure partners. This network underscores Stelia's central role in the AI ecosystem.
- **Cutting-Edge Compute Partnerships:** Stelia's compute partners are among the most advanced technology businesses globally, highlighting the company's access to state-of-the-art resources.
- **Societal Impact:** AI and advanced compute capabilities will have a meaningful impact on humanity, thus positioning Stelia at the center of this $1T opportunity.
- **Ubiquitous Resource:** Stelia is creating a global supercomputer accessible to everyone, breaking down barriers to AI adoption and utilization.
- **Democratizing AI Access:** By providing this ubiquitous resource, Stelia is making advanced AI capabilities available beyond the traditional centers of tech power, revolutionizing industries and fostering innovation worldwide.



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