

SANOG 43

blanog

Elsterwerda

Gleis 2

Tapping into the AI-fueled surge in data center capacity demand

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CTO IP Networks APAC

22nd August 2025

NOKIA





Me at the zoo

First video on



2005
April 23



Me at the zoo

First video on



2005
April 23

NETFLIX



2007

Video era





Me at the zoo

First video on

You Tube



2005
April 23

NETFLIX



2007

Video era



ChatGPT



2022
November



Me at the zoo

First video on



2005
April 23

NETFLIX



2007

Video era



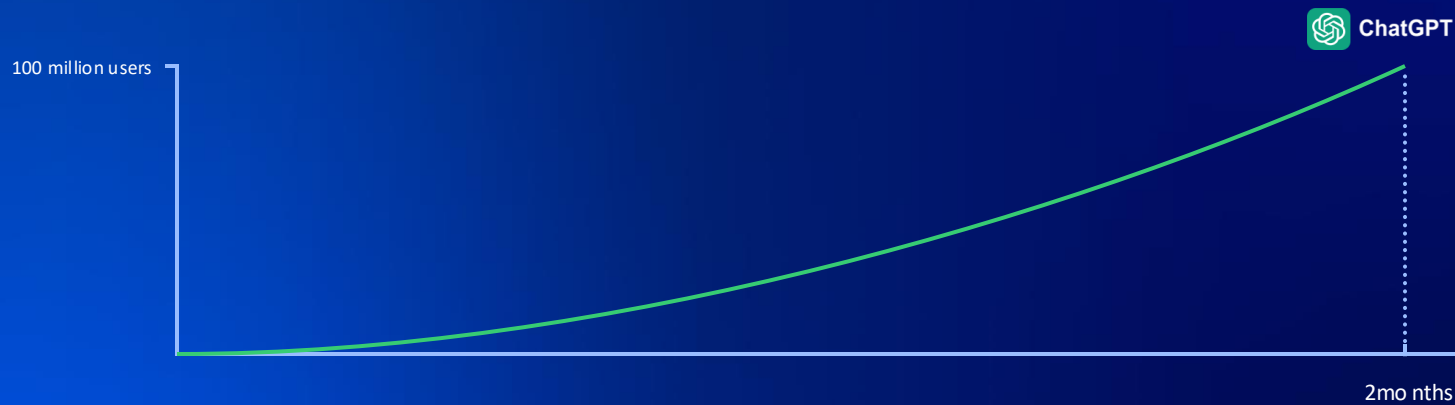
ChatGPT



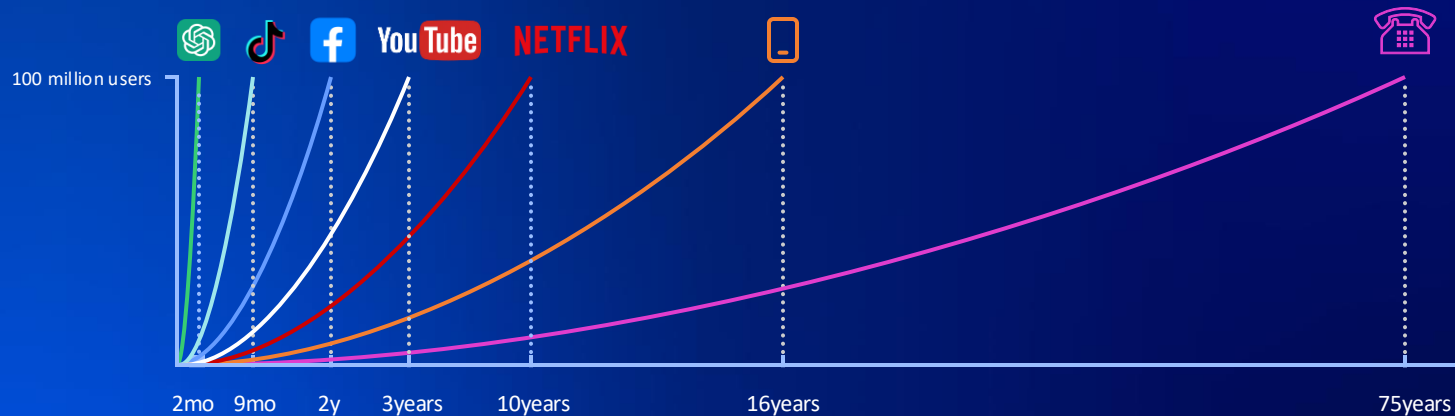
2022
November



AI era



Time to
100 million
users



Time to
100 million
users



65%

of organizations are
already implementing
Gen AI

$\frac{1}{3}$

of all global venture funding
is going to companies in AI-
related fields

\$315
billion

investment planned by
cloud hyperscalers in data
center in 2025

Artificial
intelligence

Machine
learning

Deep
learning

Generative AI Agentic AI

1950s

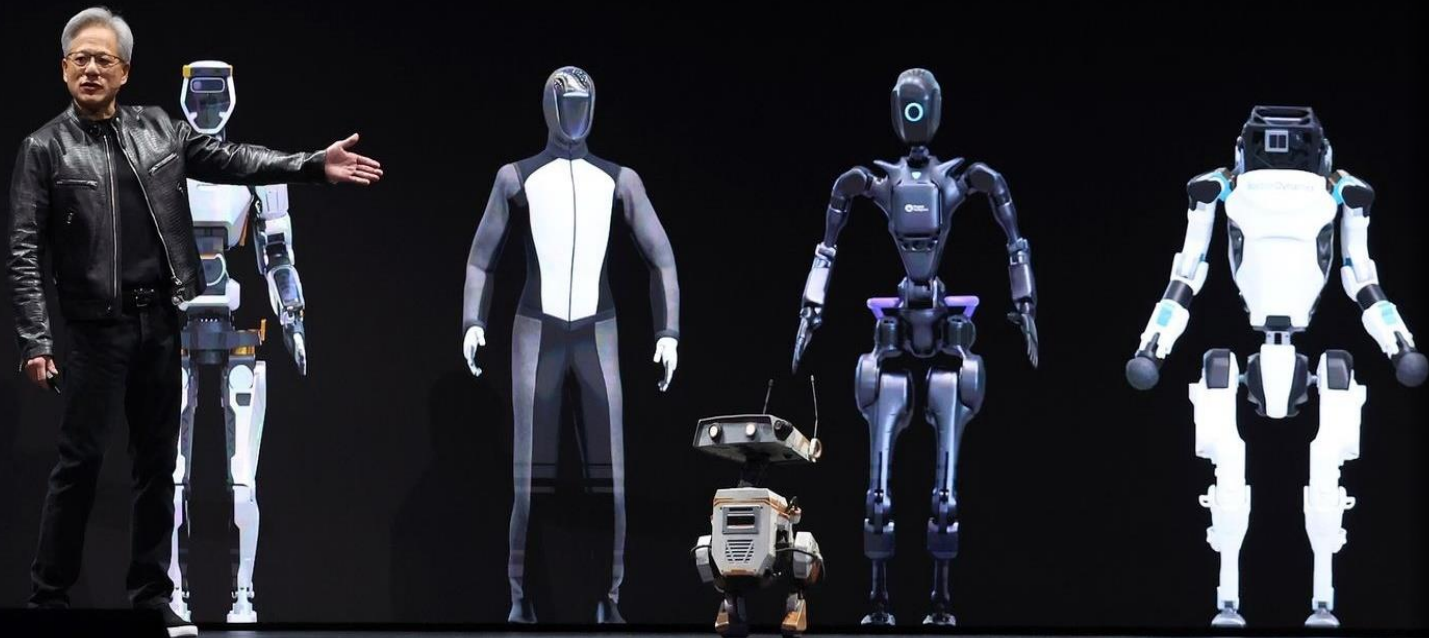
1990s

2010s

2020s

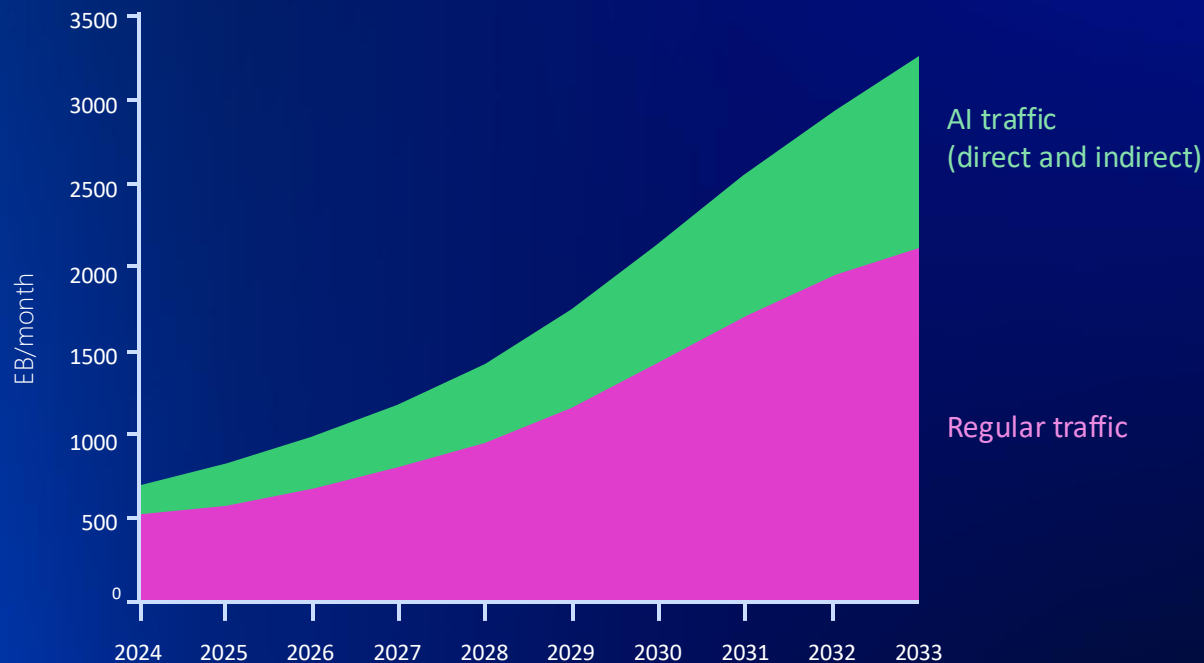
Today

Physical AI



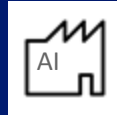


Global WAN AI traffic projections



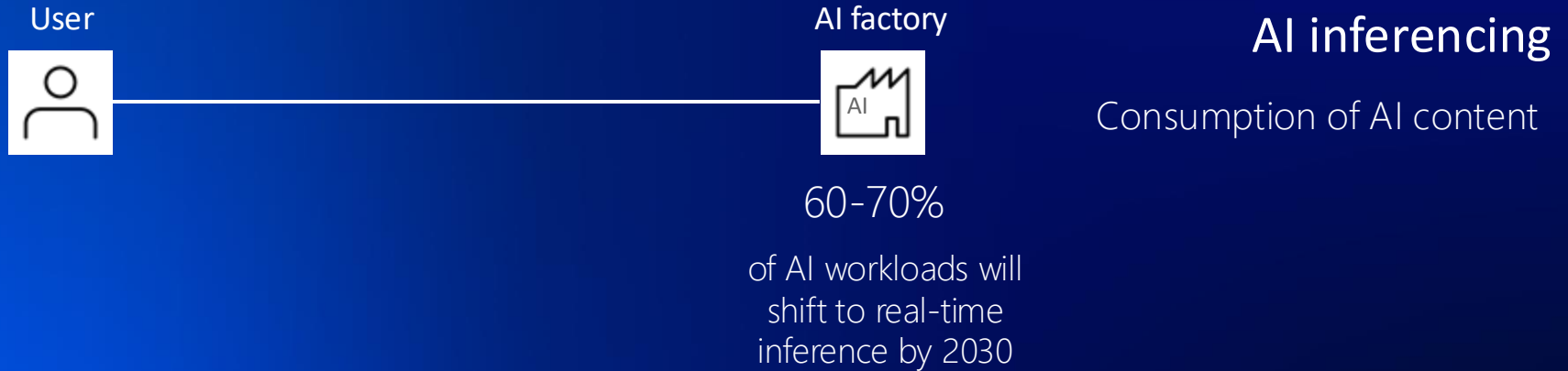
The network-cloud continuum

AI factory

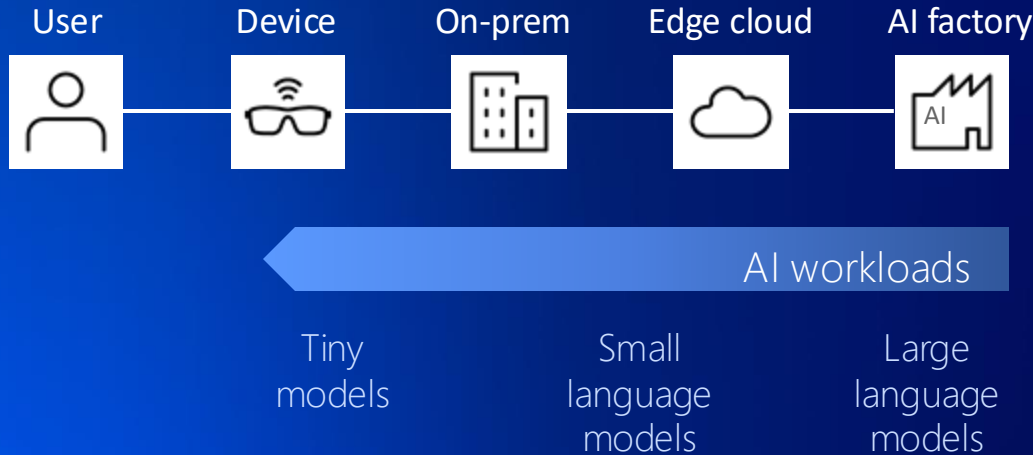


AI training

The network-cloud continuum



The network-cloud continuum

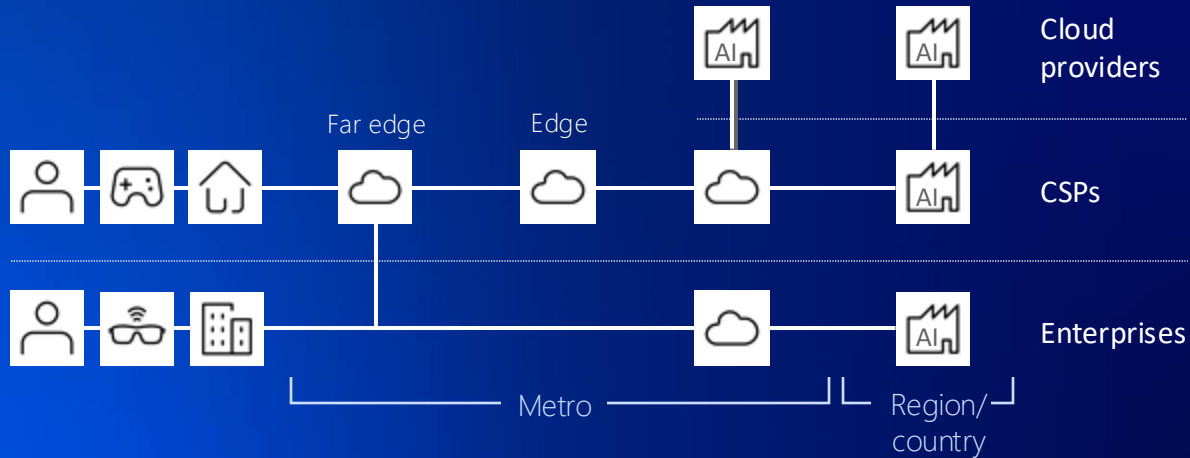


AI inferencing

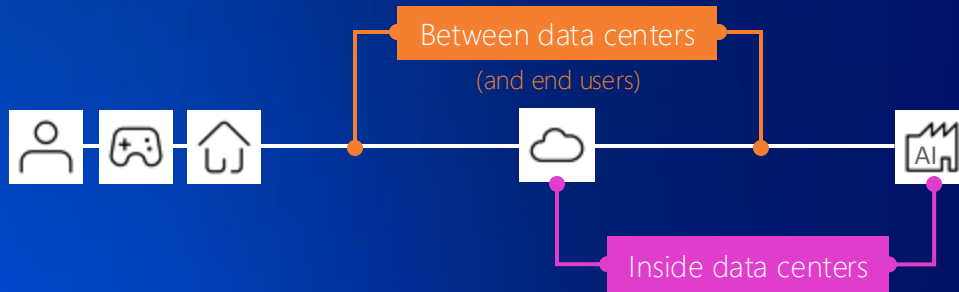
Constraints

- Latency
- Data sovereignty
- Security/Privacy
- Bandwidth efficiency
- Cost of extracting data
- Power availability
- ...

The network-cloud continuum



The network-cloud continuum



The critical role of the network

- ✓Speed and latency
- ✓Capacity and scalability
- ✓Resiliency and reliability
- ✓Security and privacy
- ✓Responsiveness to changes
- ✓Cost-efficiency

The network is critical but the opportunity
does not stop there...

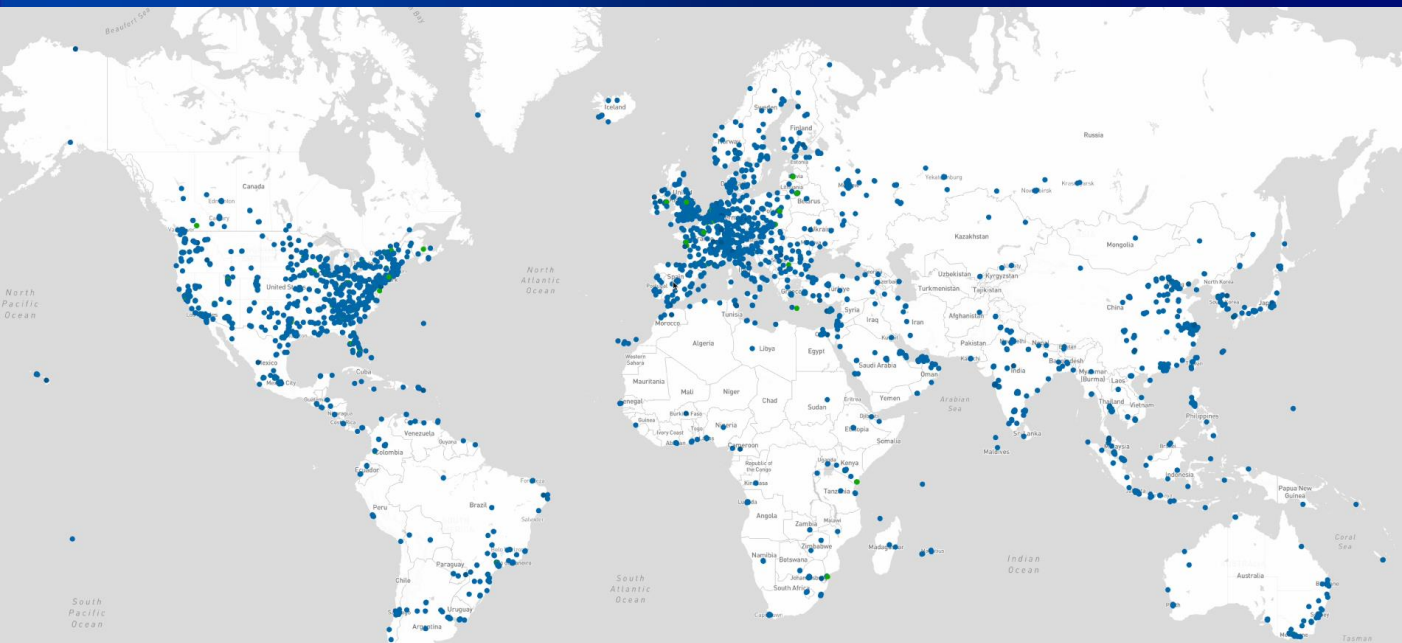
...there is more

What about these data centers?



\$2T Cloud
revenues
22% by 2030
CAGR

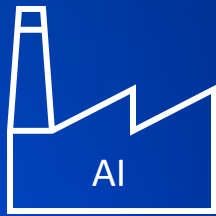
Source: Goldman Sachs Research



9800 data centers
500 new projects

Key drivers of the cloud evolution

Factories



Hyperscalers

\$315B
in 2025



Sovereignty

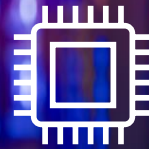


Regulation
Geopolitics
Cyber threats

Data center hot topics



Location



Compute



Energy

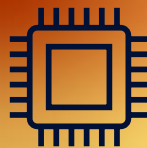


Cooling

GPU



Location



Compute



Energy

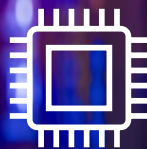


Cooling

GPU
1kW
=>
600kW
per rack
(Rubin Ultra NVL)



Location



Compute



Energy

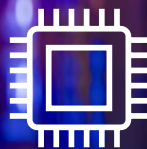


Cooling

Power
consumed by
1000 people = GPU
1kW => 600kW
per rack
(Rubin Ultra NVL)



Location



Compute



Energy



Cooling

The AI super-cycle opportunities abound
for communications providers,
infrastructure providers, utility providers,
facility providers and governments

NOKIA