



TORINO

#GlobalAzureTorino



Tutto quello che avresti voluto sapere.....sulla Region Italiana Microsoft

Tiziano Durante – Italian Region DC Lead



INTR3

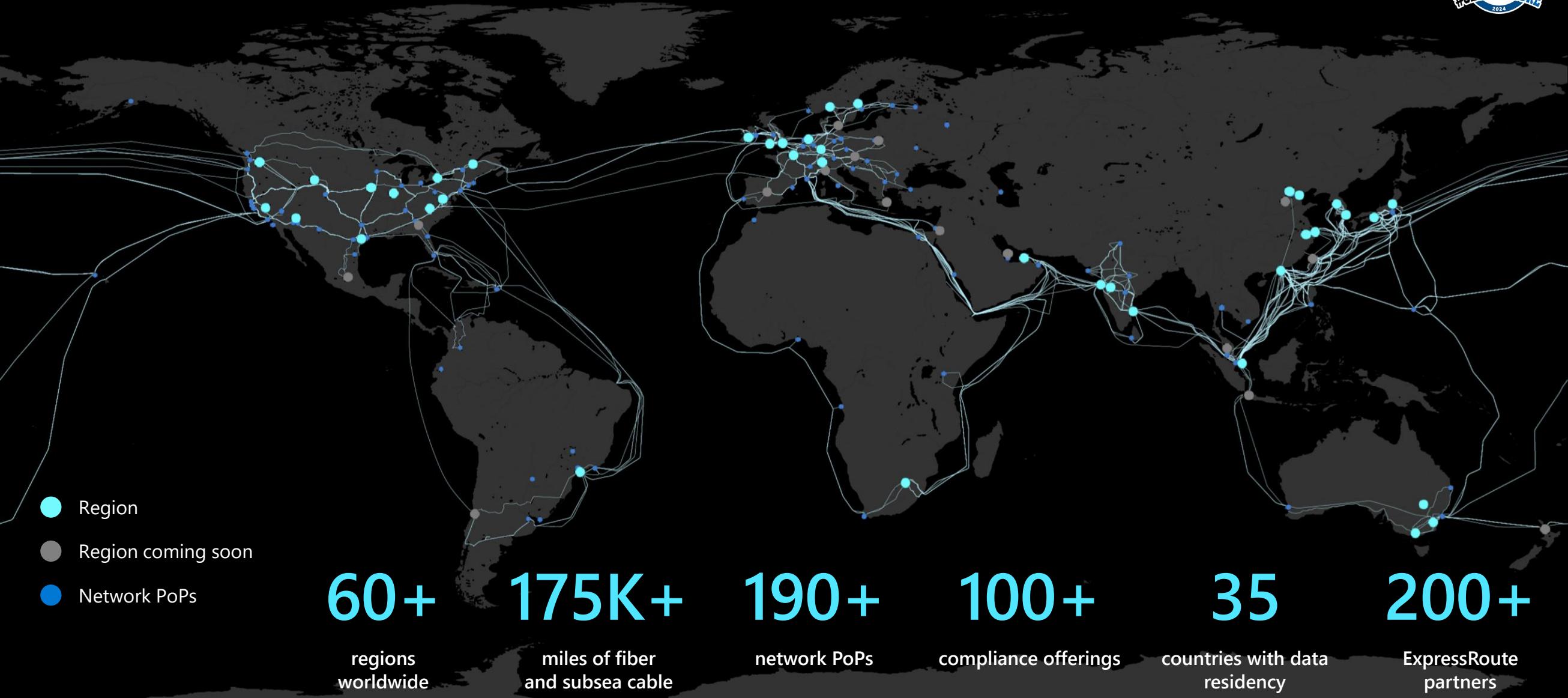


TD SYNNEX



PA EXPERTISE
RETELIT GROUP

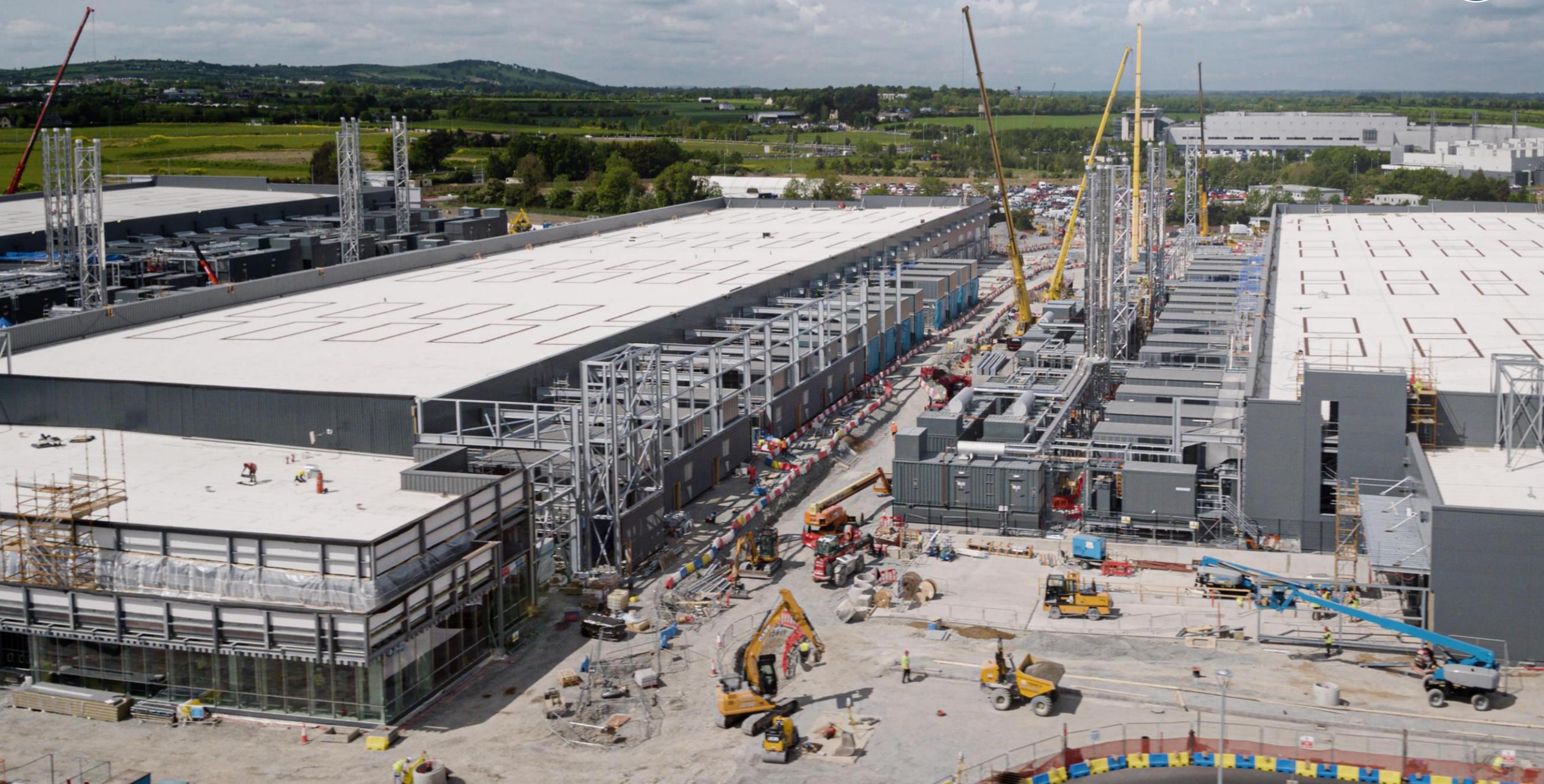
More trusted capability than any provider











Welcome ItalyNorth!



1

Geography

1

Region

3

Zones



Data Residency and Sovereignty



Minimal latency of under 2 ms



VM Uptime SLA – 99.99 (4x9s)



Storage SLA 99.999999999 (12x9s)



Fully Microsoft managed and operated

Azure Availability Zones

When an Azure region supports Availability Zones, the region is composed of three physically-separated zones (each composed of one or more datacenters).

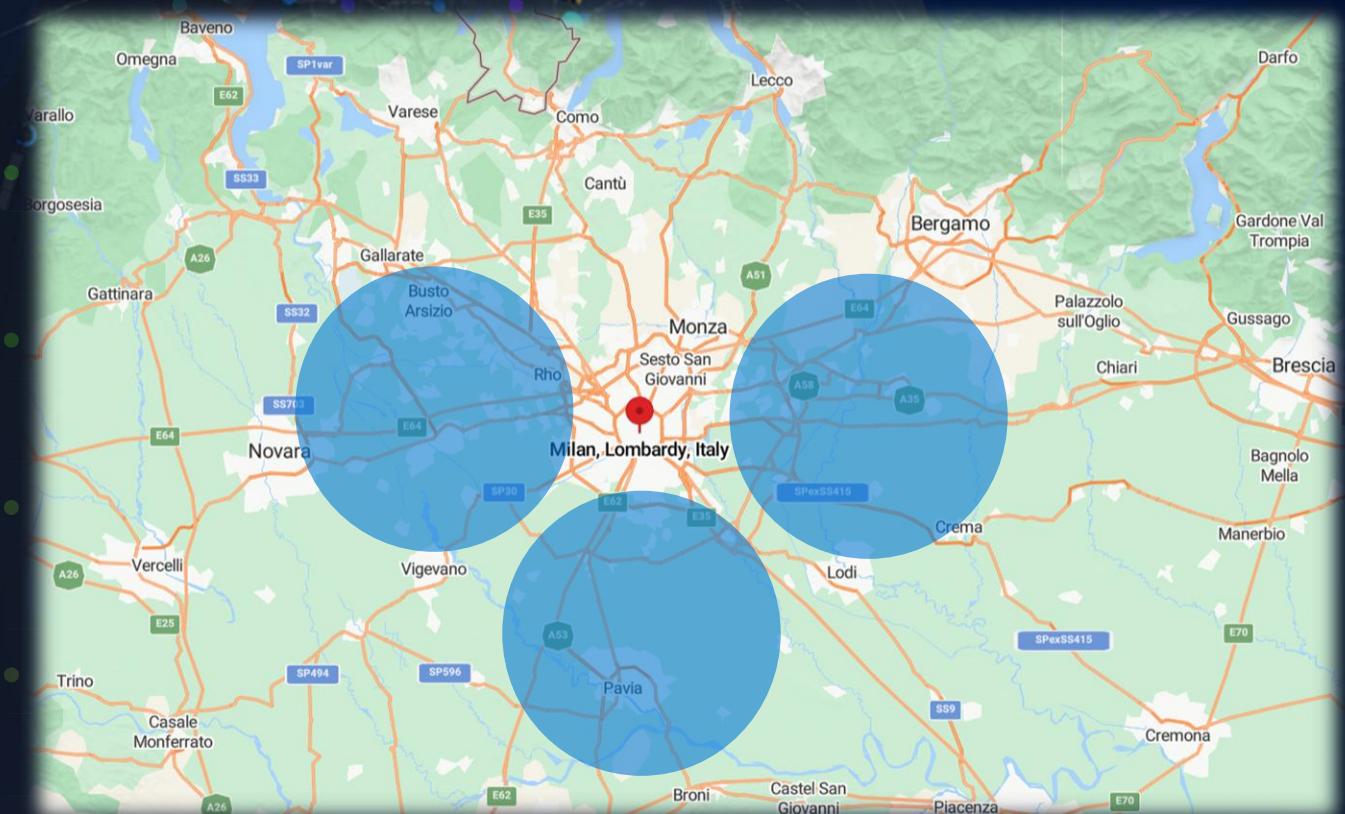
Each zone has completely independent power, cooling, and networking infrastructure

A facility-level failure (such as a datacenter outage) will affect only one Availability Zone within the region.

Three zones is the minimum to support quorum-based workloads (such as SQL, Service Fabric, or MongoDB)

A **latency-defined perimeter** dictates how far apart Availability Zones can be without compromising networking performance.

<= 2ms inter-Availability Zone RTT



● Availability Zones

Security

78 trillion+

security threat signals daily

\$20B

investment in security research and development over the next five years

10,000+

security professionals

Multilayered approach to physical security in our datacenters



Compliance & Privacy

100+ compliance offerings

Data residency

Data sovereignty

Data encryption can be supported on Azure in three ways:

- At rest
- In transit
- In use



Azure Cobalt

The first CPU designed by Microsoft, for the Microsoft Cloud

64-bit Arm-based
architecture



Fastest Arm CPU
of any cloud
provider

128 CPU cores

aka.ms/AzureCobalt

Azure Maia

The Microsoft Cloud AI accelerator optimized for LLM training and inference



aka.ms/AzureMaia

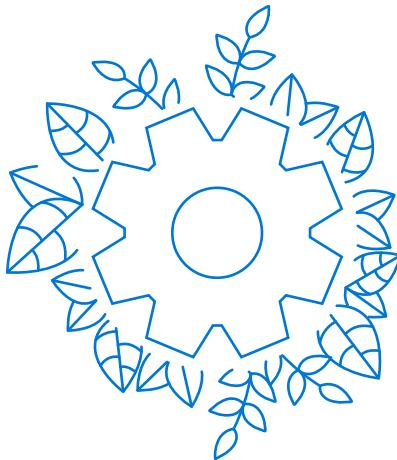
Azure Maia

The Microsoft Cloud AI accelerator optimized for LLM training and inference

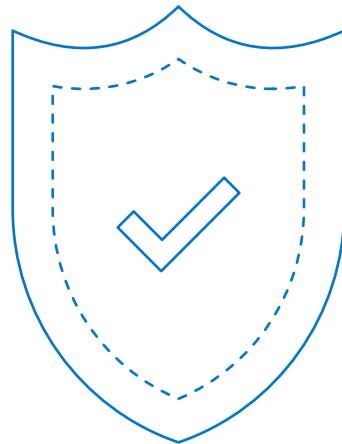


Microsoft's Cloud Infrastructure

Providing the infrastructure you need to run your critical services efficiently and reliably



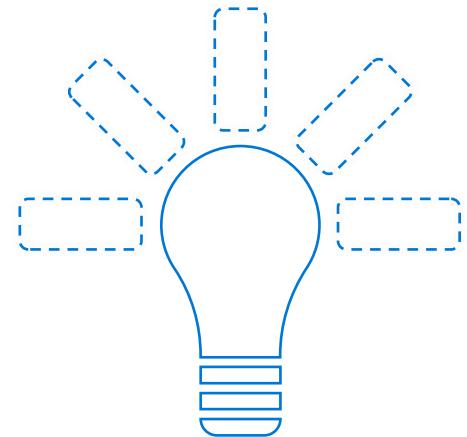
Powering sustainable transformation by reducing energy use, carbon emissions, and water use as well as protecting ecosystems



Operating reliable applications across high availability, disaster recovery, a shared responsibility model, and backup scenarios



Providing a trusted cloud with security across physical datacenters, infrastructure, and operations



Innovating for the future with bold and exciting new technologies for high performance, cloud supply chains, and more

GENERATION



01

02

03

04

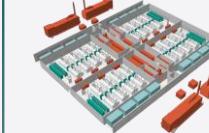
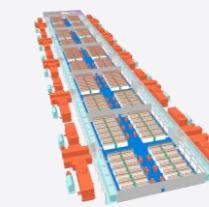
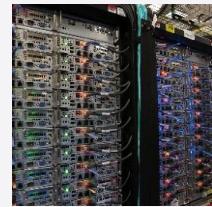
05

06

07

08

09



1989
Colocation

2007
Density

2009
Containment

2012
Modular

2015
Hyper-scale

2017
Scalable form
factor

2018
Ballard

2020
Rapid-deploy
datacenter

2021
Multi-
availability and
sustainability

2.0+

1.5–1.8

1.4–1.6

1.1–1.3

1.17–1.25

1.17–1.19

1.15–1.18

1.15–1.18

1.1–1.12

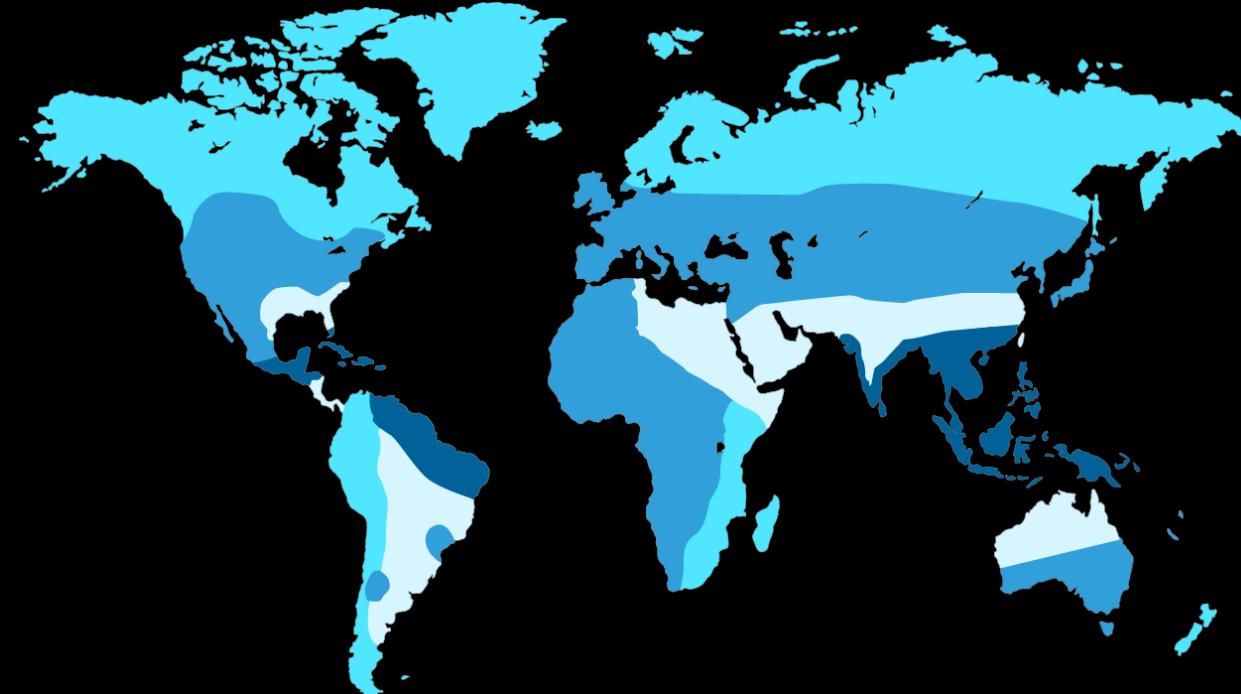
POWER USAGE EFFECTIVENESS (PUE)

Microsoft Emissions Impact Dashboard

Modern Datacenter Cooling

Microsoft datacenters are provisioned for maximum utilization with a thermodynamically engineered layout to optimize for ideal cooling

	Mechanical cooling	High efficiency mechanical cooling	Adiabatic cooling	Free air cooling	
Layout	Open hall, low utilization	High-density layout with containment	High-density layout with containment	High-density layout with containment	
Description	Precision air conditioning to maintain accurate temperature and humidity control	Variety of high-efficiency mechanical cooling technologies selected for a specific location	Indirect Evaporative Cooling	Direct Evaporative Cooling	Using outside air year round for cooling
Power usage	Very high	Medium	Low	Low	Low
Water usage and Water Usage Effectiveness (WUE)	High to medium 2.3 to 2.8 L/kWh	High to none 2.3 to 2.8 L/kWh with water-cooled chillers, 0 L/kWh with air-cooled chillers	Medium 0.8 to 2.1 L/kWh	Low 0.02 to 0.7 L/kWh*	None 0 L/kWh**



Local sustainability investments

CARBON

• **1.12**

Design power usage effectiveness (**PUE**)

In Italy, we plan to **power our backup generators with a renewable biofuel blend that reduces net carbon emissions.**

New Microsoft datacenters are designed to earn **LEED Gold certification.**

WATER

 **0.023** L/kWh

Design water usage effectiveness (**WUE**)

Microsoft will use outdoor air with direct evaporative cooling at our Italy datacenters.

These datacenters use **outside air and zero water** when temperatures are below 29.4 degrees Celsius, **reducing cooling water use to less than 5 percent of the year.**

WASTE

Microsoft Circular Centers can process up to

 **3,000**

servers per month for reuse.

Globally, Microsoft datacenters **reuse 78 percent** of our end-of-life assets and components. **The remaining 22 percent of materials are recycled.**

COMMUNITY

Since 2020, Microsoft has invested

 **\$200k**

to support waste disposal, youth education, and digital skilling for the community.

We're helping to reduce the dropout rate through AI.

Microsoft partnered with Social Techno Impresa Sociale Srl to use AI to reduce the dropout rate in Milan's schools. The AI developed on the Azure platform will identify students and schools at risk and help set up automated and personalized learning paths for the students to get back on track for graduation.

The Foundation of the Microsoft Cloud



Modern Work Customer Data Residency

Exchange Online, SharePoint Online, OneDrive for Business, and Teams



Business Applications

Dynamics 365, Power BI, PowerApps, and Power Automate



Azure Services

Foundational, Mainstream, and Strategic

Physical Data Centers

3 Availability Zones

Call to Action

- Microsoft Datacenter
<http://Datacenter.Microsoft.com/>
- Virtual Datacenter Tour
<https://aka.ms/VirtualDCtour>



#GlobalAzureTorino



TD SYNNEX

INTR3

PA EXPERTISE
RETELIT GROUP

TORINO