Inside a Microsoft datacenter

The world runs on data, and the cloud—made up of datacenters around the globe—is its engine. Amid the changing nature of work, education and innovation, datacenters arguably have become the most important infrastructure of the 21st century. Here’s a look at Microsoft’s datacenters and how they deliver worldwide physical and digital security, reliability, sustainable design and operations, and ground-breaking innovation.

**Security**
Microsoft has over 3,500 cybersecurity experts working around the globe 24/7 to protect the Microsoft Cloud and invests over $1 billion USD in physical and digital security and R&D. 90+ data center security certifications ensure that only other cloud providers.

**Reliability**
We believe a trusted cloud is secure, reliable, and aligned with regulatory compliance and data residency requirements. Azure Availability Zones (AZs) protect customer applications and data from datacenter failures with independent power, cooling, and networking.

**Sustainability**
We’re also investing in sustainability at our datacenters, including green design and eco-friendly operations, with the goal of being carbon negative and water positive companywide by 2030.

**Innovation**
New deployments, new services and ground-breaking new facilities—Microsoft is constantly investing in innovation to make the cloud more reliable, efficient and available.

Over 4 million servers across 200+ datacenter regions

60+ datacenter regions launched and announced, more than any other cloud provider.

By end of 2021, every country where we have a datacenter region will include an AZ, and every new datacenter region launched will include AZs.

Microsoft helps secure more than 200,000 customers, across 120 countries.

There is only 1 millisecond of latency across Microsoft’s regional datacenters.

Replace 100 percent of carbon-emitting electricity consumed at datacenters, buildings and campuses with power purchase agreements for green energy.

Eliminate dependency on diesel fuel for power backup using alternatives such as synthetic fuels, long-duration batteries and hydrogen fuel cells.

Divert 90% of waste away from landfills through solutions like Microsoft Circular Centers that repurpose, reuse and recycle servers and other infrastructure components.

Offset historical carbon emissions since Microsoft’s founding in 1975.

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2.5 billion daily cloud-based detections blocked almost 6 billion threats on endpoints in 2020.

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2025
Replace 100 percent of carbon-emitting electricity consumed at datacenters, buildings and campuses with power purchase agreements for green energy.

2030
Eliminate dependency on diesel fuel for power backup using alternatives such as synthetic fuels, long-duration batteries and hydrogen fuel cells.

2050
Offset historical carbon emissions since Microsoft’s founding in 1975.

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