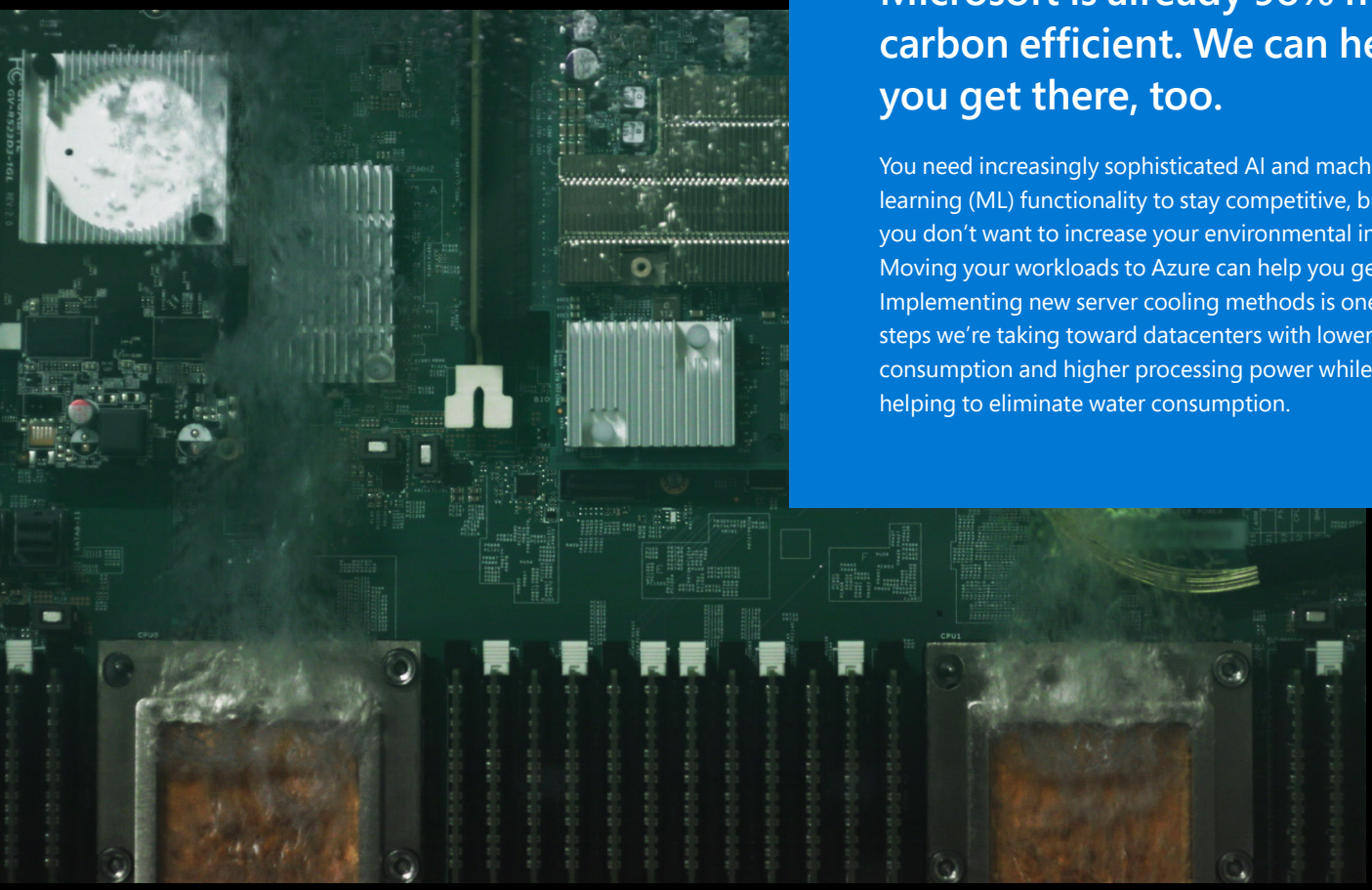
Microsoft Azure

Real tech ready to power the future of AI

As AI heats up, Microsoft will cool your workloads with liquid immersion.



Microsoft is already 98% more carbon efficient. We can help you get there, too.

You need increasingly sophisticated AI and machine learning (ML) functionality to stay competitive, but you don't want to increase your environmental impact. Moving your workloads to Azure can help you get there. Implementing new server cooling methods is one of many steps we're taking toward datacenters with lower energy consumption and higher processing power while also helping to eliminate water consumption.

Cooling AI chips with immersion

Within two years, most cloud AI compute will need to process on advanced chips that run too hot to be cooled by conventional air circulation techniques. Immersing the AI chips on server blades in low-boil dielectric fluid improves latencies and throughput while providing better overall performance.

More powerful chips

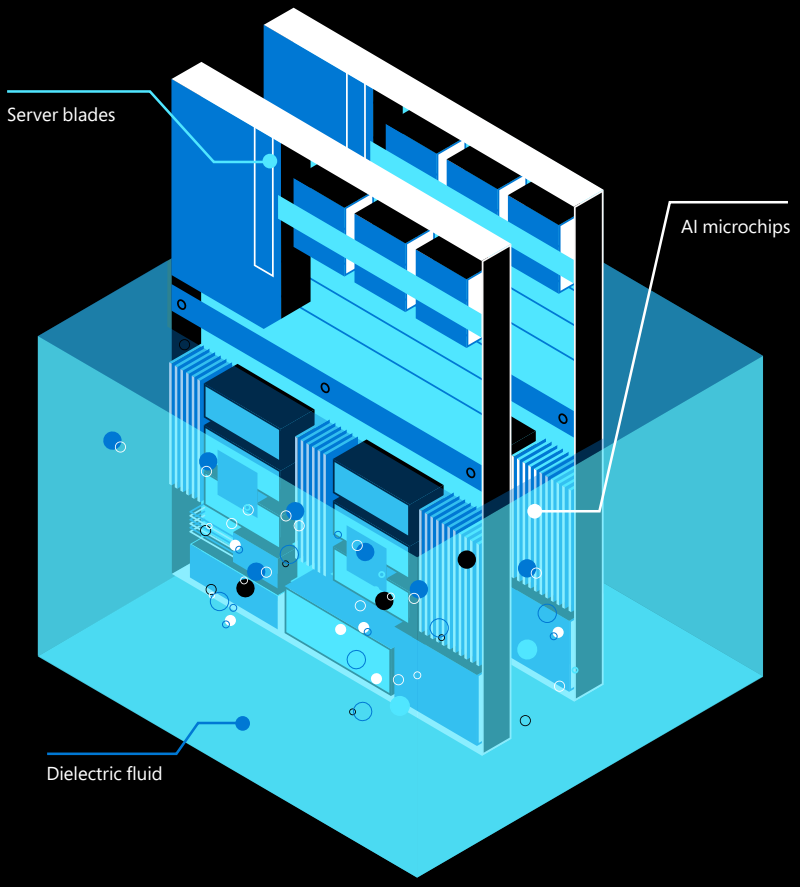
The most advanced microchips today have six times more processing power than standard chips.

Transferring heat in new ways

With its enormous heat transfer capabilities, low-boil dielectric fluid converts the thermal energy released from the AI chips into vapor that is then recaptured in a closed-loop system for reuse in other applications.

Less space, more impact

With adequate cooling, microprocessors can be configured more densely on smaller servers, allowing for fewer server racks and smaller datacenter configurations.



Benefits for energy and water use

Liquid immersion cooling is predicted to lower server energy consumption in the future by 5 to 15% at a minimum while greatly minimizing overall water use in datacenters.

Establishing value for everyone

Businesses that run advanced AI workloads on Azure lower their power usage and eliminate indirect water consumption, benefitting both the environment and water-stressed communities. Consumers also win with better, smarter applications that you make possible.

Work with us toward a carbon-negative future.

Visit aka.ms/AzureSustainability