

Quick Summary

[Sebastian Herrera](#)

VIDEO: MICROSOFT

The company is doubling its total data-center footprint over the next two years. One of its most important new sites is the factory in Atlanta that it is unveiling Wednesday. The site, part of its Fairwater network of artificial-intelligence centers, is a new class of Microsoft hubs built for AI training. It will contain hundreds of thousands of [Nvidia](#) graphics processing units and dedicated high-speed connections to other Fairwater locations.

OpenAI is one of Fairwater's largest customers. The site also will be used by others including France's Mistral AI and Elon Musk's xAI—and for training [Microsoft's proprietary models](#).

Microsoft [spent more than \\$34 billion](#) on capital expenditures during its fiscal first quarter and said it would increase its total infrastructure investments over the next fiscal year. It is among several tech companies [pouring a combined \\$400 billion](#) into AI efforts this year, with demand high for AI computing and companies' saying they need ever more capacity.

Microsoft says its Fairwater data centers' design enables them to achieve a higher degree of efficiency in both speed and power consumption.

Microsoft isn't alone in the race. Its largest competitor, [Amazon.com](#), recently opened a hub of seven data center buildings as part of its Project Rainier. That hub, spanning 1,200-acres in Indiana, will consume 2.2 gigawatts of energy.

[Meta Platforms](#), [Oracle](#) and others also have plans for massive new facilities. Anthropic on Wednesday said it [plans to invest \\$50 billion](#) in American computing infrastructure, including custom-built data centers in Texas and

New York, with sites expected to begin operating in 2026.

Aside from the sheer volume of processors called GPUs at the data centers, Microsoft says its factories benefit from two-story construction, allowing for better networking and reduced latency. The Atlanta complex spans more than 1 million square feet across 85 acres.

A novel liquid-cooling system has made it possible to place all the GPUs closely together, Microsoft says. The system uses about as much water annually as 20 average U.S. households, though data centers in general are known for heavy energy and water use.

Microsoft is using 120,000 miles of fiber-optic cables to connect its Fairwater project, with data traveling at nearly the speed of light. The company describes it as a cutting-edge express lane dedicated to AI traffic.

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What impact do you think Microsoft's new factory will have on the AI industry? Join the conversation below.

Microsoft declined to specify the cost of the Atlanta site and the amount of electricity it will consume, but said its Fairwater network would be "multigigawatts," and that part of its strategy is to spread out its power needs, given that one location can only provide so much energy.

Distributing that power is "what we think will allow us to continue to expand and meet this need without overloading any individual utility grid or overburdening any individual community as well," Alistair Spears, Microsoft's general manager of Azure infrastructure, said in an interview.

After canceling some data center leases earlier this year, which Spears called "shifting" in capacity planning, Microsoft now says it has more demand than it can keep up with.

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The Global AI Race

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