

Microsoft datacenters in India

As more people and businesses rely upon technology to stay connected, informed, and productive, digital needs in India and around the globe are growing. And that means the need for hyperscale datacenters is growing too.

Hyperscale brings hyper efficiency. Microsoft cloud services offer customers an energy-efficient and carbon neutral alternative to running their own private datacenters. [Research](#) shows that Microsoft cloud services are up to 93 percent more energy efficient than traditional enterprise datacenters.

Microsoft strives to empower the communities where our employees live, work, and operate our datacenters. With that, it's important we share information to ensure you understand why datacenters are needed, Microsoft's approach for responsible operations, and the benefits of hosting a datacenter in your community.

Cloud computing powers our digital world

Cloud computing is the delivery of computing services over the internet. Common daily activities are made possible through cloud computing, such as:



Email



Online banking



File storage



Collaboration



Online shopping



Mobile apps

Cloud computing can provide consumers and businesses with the benefits of enhanced security, privacy, compliance protection, lower costs, easier access, higher reliability, and a lower carbon footprint.

The Microsoft Cloud is for everyone

The Microsoft Cloud serves over 1 billion customers and 20 million companies worldwide.

Organizations in India rely on the Microsoft Cloud including large enterprises, startups, governments, hospitals, banks, schools and other organizations that contribute to a modern society.



When Microsoft joins a community, we bring our commitments for a better world



Support inclusive economic opportunity



Commit to a sustainable future



Earn trust



Microsoft datacenters are key to our sustainability goals

Carbon negative by 2030

Over the next several years, we plan to [build several new datacenter facilities](#) in Hyderabad and Pune.

[Power usage effectiveness \(PUE\)](#) measures cloud energy efficiency. The calculation is total power consumption divided by IT power consumption. A lower PUE score indicates more energy-efficient datacenters, with a PUE of 1.0 being the best score. Our new India datacenters are under construction and not in operation. Because the new datacenters will be built to conserve local water resources, air cooled chillers are required. This tradeoff means a higher PUE than areas where water is used for cooling. **The new facilities in India will have a design average PUE of 1.43**

Globally, Microsoft datacenters use fossil fuel generators for backup power which account for **less than 1 percent of our overall emissions**.

In specific regions, Microsoft is piloting running backup generators with **renewable blend, cleaner-burning fuels**, and is also piloting the **replacement of datacenter generators with long-duration batteries**.

[Leadership in Energy and Environmental Design \(LEED\)](#) is the world's largest green building certification program. LEED

provides the framework for healthy, highly efficient, and cost saving green buildings with lower carbon emissions. LEED certification is a globally recognized symbol of sustainability achievement and leadership. New Microsoft datacenters being built are designed to earn LEED Gold certification.

Microsoft operations in India **comply with applicable air quality requirements**.

Water positive by 2030

Water Usage Effectiveness (WUE) is another key metric relating to the efficient and sustainable operations of our datacenters and is a crucial aspect as we work towards our commitment to be water positive by 2030.

WUE is calculated by dividing the number of liters of water used for humidification and cooling by the total annual amount of power (measured in kWh) needed to operate our datacenter IT equipment.

The new facilities will use air-cooled chillers that require zero water for cooling or humidification. This means, **the water usage effectiveness (WUE) will be 0.0**.

Zero waste by 2030

Microsoft has a goal to achieve 90 percent diversion of datacenter operational waste by 2030. To reach this goal, we're working closely with our waste haulers to optimize waste diversion programs across our global datacenter portfolio. We have achieved Zero Waste certifications for our San Antonio, Texas; Quincy, Washington; Boydton, Virginia; and Dublin, Ireland datacenter locations

In 2020, we opened our first Microsoft Circular Center in our North Holland datacenters, which is designed to extend the life cycle of servers through reuse and to support a circular economy for the Microsoft Cloud. Because it takes five to six years from when a datacenter is operational to generate reusable assets, we are planning to use the closest available circular center to India. Microsoft Circular Centers are able to process 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**. We are continuing to research further methods to reduce waste by determining new recycling solutions for used air filters and fiber-optic cables.

Microsoft India Philanthropies helps to advance the Microsoft mission by reaching those who are typically unreached or under-served by the benefits & opportunities of technology and are underrepresented in the digital economy.

That includes people in rural or remote communities, women and girls, people with disabilities, and organizations who serve them as in these examples.



State Bank of India & Microsoft Initiative for Empowerment of People with Disabilities

Microsoft is partnering with SBI Foundation to help enable career pathways for 2000 young people with disabilities (PwDs) in banking, financial services, and the insurance (BSFI) sector. Deployed through American India Foundation, Win Vinaya Foundation and V-Sheh, this program upskilled 500 youth for BFSI jobs across five locations - Bengaluru, Chennai, Hyderabad, Mumbai, and National Capital Region. To date, more than 360 candidates have been placed in related jobs.



DigiSaksham in partnership with Ministry of Labour and Employment (MoLE)

Deployed in partnership with the Ministry of Labour & Employment (MoLE) through its National Career Service portal, this program helps ongoing efforts to protect the interests of youth from rural and semi-urban cities by up-skilling to enhance the employability skills. With the huge demand for workforce trained on digital skills, Microsoft, and National Institute for Career Services (NICS), partnered to help train more than 120,000 jobseekers registered on NCS portal across India on digital skills.

Microsoft datacenters create family-wage operations and construction jobs as well as positive impacts to the local economy

Microsoft datacenters represent a capital-intensive investment and long-term commitment to the community. More than **87 full-time employees** and contractors work across Microsoft's existing datacenter campuses in India.

When construction begins for the new facilities, we estimate it will require between **2,000 and 2,400** construction roles and approximately **8.7 million work hours** to complete construction of the new datacenters. We intend to fill **25 to 30 percent of positions with local contractors**. Once the new datacenters are fully operational, we anticipate an additional **504** full-time employees will work at those facilities.



Construction jobs

- Electricians
- Plumbers and pipefitters
- Carpenters
- Structural iron and steel workers
- Concrete workers
- Earth movers



Datacenter operations

- Campus management
- People management
- Learning and development
- IT operations
- Critical Environment operations
- Mechanical engineers
- Electrical engineers
- Security contractors
- Building maintenance