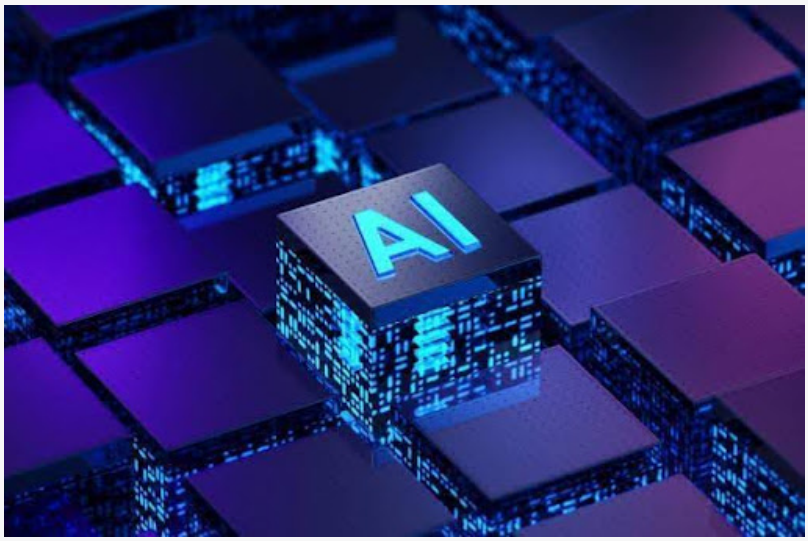
EdgeNebula Introduces Sustainable Datacenter Solution to Address AI's Power Grid Strain

As global energy demand skyrockets, industry experts launch a solution to convert unused, urban commercial real estate into AI-ready datacenters.



EdgeNebula's innovative datacenter design repurposes urban commercial buildings.

LONDON, UNITED KINGDOM, November 12, 2024 / EINPresswire.com/ -- Today, an international team of innovators with more than a century of combined datacenter experience launches a much-needed disruptor: EdgeNebula. This new datacenter solutions provider can convert an empty commercial building into a next-generation datacenter that will enable a city's power grid to stand up to the energy demands of the AI boom — and the conversion takes as little as two months.

> EdgeNebula is excited to lead this transformation, reimagining datacenter construction and operations to meet the urgent needs of the AI age and our planet."
> *Peter Hannaford, EdgeNebula CEO*

The company's transformative approach repurposes underutilised or vacant urban real estate, such as office buildings, into constellations of cutting-edge datacenters. These groundbreaking new facilities can take just two months to go online, are infinitely scalable, and optimised for circular reuse, possible at a significantly lower cost compared to traditional datacenters. Furthermore, this model can be deployed in any city around the world.

"Destroying forests and wildlife habitats and ploughing up fields to build massive datacenters, which then require vast amounts of electricity and water, is simply not sustainable," says Peter Hannaford, CEO of EdgeNebula. "The rapid advancement of AI is driving unprecedented demand for this

infrastructure, making it more critical than ever to respond with sustainable, scalable solutions that prioritise security. EdgeNebula is excited to lead this transformation, reimagining datacenter construction and operations to meet the urgent needs of the AI age and our planet."

The UK is positioning itself at the forefront of the AI revolution, supporting the infrastructure demands of rapidly advancing technology.

Datacenters are the invisible infrastructure of modern society, enabling billions of people to do hundreds of things each day that wouldn't otherwise be possible, from online shopping, to social media use, to streaming video. Enabling cloud computing and artificial intelligence, modern datacenters have revolutionised healthcare, education, defence, cybersecurity, global communication, gaming and entertainment.

The pitfall of this critical utility is the demand it places on the power grid and the water supply. As we progress through the AI journey, from narrow AI applications that enhance efficiency to more advanced forms like general AI and super-intelligent AI, the challenges related to energy consumption and resource requirements will only intensify.

A recent Goldman Sachs report showed that a single generative AI query requires approximately 10 times more electricity than a standard Google search. Currently, an estimated 12% of all datacenter output is consumed by AI, and as this market expands, the demand for computing power is projected to grow at least 20% year over year. The corresponding need for water in cooling these facilities exacerbates the issue, making sustainable solutions more crucial. As AI technologies continue to evolve, organisations must prepare for the increasing complexity and resource demands that will shape the future landscape of artificial intelligence.

EdgeNebula's leading edge facilities strategically leverage "stranded power," which refers to underutilised electrical capacity, to enhance operational efficiency and sustainability. And its advanced liquid cooling systems consume significantly less energy than traditional methods, resulting in reduced electricity costs and a smaller carbon footprint.

Importantly, these systems minimise dependence on local water supplies; and, utilise the waste heat generated by the datacenters to either provide hot water for other building users, or to connect into district heat networks, creating a sustainable heating solution for the community.

By repurposing existing urban properties instead of engaging in new construction, EdgeNebula

substantially lowers capital expenditure and reduces construction waste. Its efficient design reduces costs and makes the company a leader in environmentally friendly datacenters.

“With AI set to revolutionise industries, we’ve witnessed a surge in demand for infrastructure capable of supporting this growth,” says Phil Collerton, EdgeNebula’s Chief Operating Officer. “Yet, despite hundreds of millions of dollars pouring into massive datacenter projects, many AI businesses are forced to wait — either for power, space, or the lengthy build cycles required for hyperscale facilities. And for those businesses that can’t wait, they risk losing their competitive edge or even relocating overseas.”

As of this launch, EdgeNebula is poised to provide AI-ready datacenter solutions to businesses across a wide range of industries, enabling them to build and deploy AI models at scale and locally, making every city relevant and AI-ready. With robust power infrastructure, liquid cooling racks for IT and communication hardware, and comprehensive 24/7 monitoring and maintenance, EdgeNebula not only caters to companies directly leveraging AI technologies but also supports system integrators, telecom providers, cloud and platform companies, and government institutions.

Learn more about EdgeNebula’s commitment to becoming a next-generation partner in the evolving landscape of artificial intelligence and datacenter innovation at edge-nebula.com.

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