Press release

Innovative Liquid Cooling for Sustainable Data Centers with a Focus on AI

Exoscale and Diggers Collaborate for Energy-Efficient Data Center Cooling

Vienna/Munich, February 20, 2025 – Exoscale, A1 Digital's cloud service provider, and Austrian company Diggers, are working together on sustainable data centers of the future with a focus on artificial intelligence. Diggers' innovative liquid cooling solution promises a significant reduction in energy consumption while utilizing the waste heat generated in A1 Group's data centers.

Artificial intelligence (AI) is becoming increasingly important and consuming more capacity in data centers. The power consumption of data centers in Germany currently amounts to about 20 billion kilowatt hours per year, with an upward trend. AI, in particular, is proving to be very energy-hungry. Between 20 and 25 percent of this energy is used for cooling. Making this more efficient creates enormous potential for energy savings, meaning lower costs and a better CO2 footprint. Already the question is soon arising: What is the cost-benefit ratio of artificial intelligence?

Energy consumption is also a major challenge for European cloud service provider Exoscale. "We are currently seeing a return to liquid cooling in data centers. However, in many cases, this is very expensive, and the waste heat is rarely utilized," explains Exoscale CEO Mathias Nöbauer. "We believe it makes sense to utilize the heat generated in our data centers, provided that effort and results are in a reasonable proportion, and we can achieve significant improvements in terms of sustainability. Our partner Diggers' approach goes exactly in this direction, being both sustainable and cost-efficient."

Innovative Cooling with High Utilization Rate

Diggers' solution is easy to use and integrates special cooling lines directly into server systems, which are connected to the GPUs used for AI and which absorb the heat generated there directly. Standard processors in conventional servers without GPUs can also be efficiently cooled using Diggers' approach.

Unlike conventional air conditioning systems, the system uses thermodynamic effects for liquid transport, significantly reducing energy requirements. The resulting waste heat can be used with a utilization rate of up to 98 percent – for example, for hot water preparation or in district heating networks. Thus, Diggers' approach can save up to 50 percent of the energy that has previously been used for cooling in traditional data centers. The solution can be integrated into both new and existing data centers and only requires a water connection in addition to a power supply. The use of aluminum prevents corrosion and ensures long, reliable service life with minimal maintenance.

"The relevance of data centers for digital business processes has been increasing for years. Due to the rising number of private clouds, which security-conscious companies particularly need in times of

new challenges like NIS2, and increasingly powerful AI applications, the need to operate these data centers more energy-efficiently is also growing. With Diggers' liquid cooling solution, we are realizing an energy-saving potential of around 30% and thus contributing significantly to more sustainable operation of clouds and AI," explains A1 CCO Enterprise Martin Resel.

"Globally, the CO2 emissions caused by data centers are significantly higher than those of the entire global air traffic. There is therefore an urgent need for action," emphasizes Martin Schechtner, CEO of Diggers. "The first installation in A1's data center clearly shows that our innovative solution can be an important step towards sustainable data centers."

"The need for reduced energy consumption in datacenters is bigger than ever – Intel® Xeon® as the head node of choice offers leading-edge power efficiency and low total cost of ownership (TCO) together with increased performance. We value all efforts to make AI and Cloud deployments more sustainable, and Diggers' liquid cooling solution is a great example how to significantly drive down power and repurpose heat in a meaningful way", said Jean-Laurent Philippe, EMEA CTO at Intel

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