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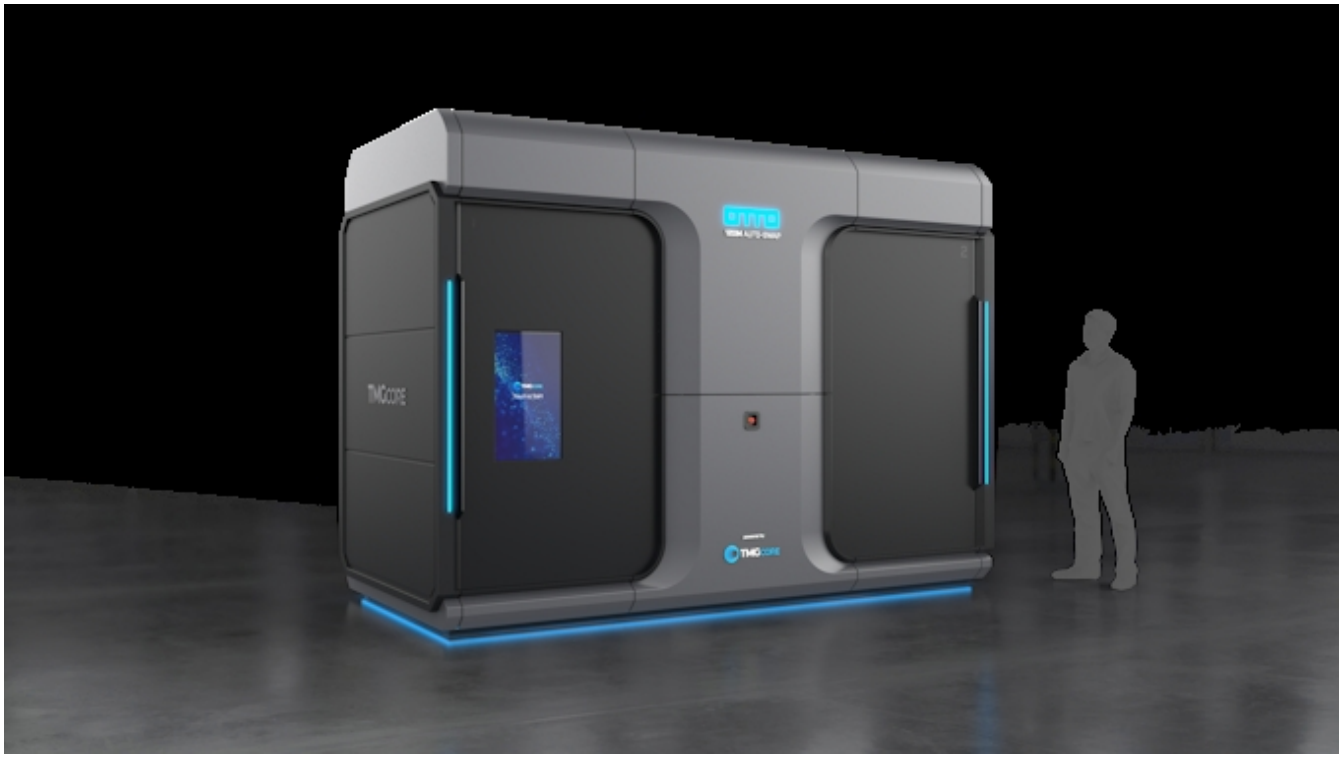
Datacentre hardware maker TMGcore presents OTTO, a system it describes a "completely automated, self-contained, two-phase liquid immersion-cooled datacentre platform (2PLIC)" promising gains in performance and cuts in both costs and space.



“Datacentre hardware manufacturers today are tasked with building technology capable of handling increasingly vast amounts of data processing while addressing challenges including uptime, environmental impact and operating costs associated with building and operating a large datacentre-- namely space and power constraints,” the company says. “We designed OTTO to address these major issues facing the industry. OTTO provides companies with a solution that is scalable, quick to market, secure and extremely energy efficient while remaining cost effective.”

According to TMGcore, the OTTO system is around tenth the size of a traditional datacentre and is able to cut operational costs by 80% while providing ten times more processing power per square foot. It consists of a micro datacentre module deployable in three form factors (60kW, 120kW and 600kW) kept cool using a two-phase immersion system. The servers are immersed in coolant fluid, and as they heat up the liquid turns into vapor. A closed-loop water

system condenses the fluid before returning it into the tank.

Interestingly, customers can adapt OEM components into an immersion-ready chassis for plugging into a backplane providing network and power while a robotic system hot-swaps servers, removing failed servers and replacing them with a fresh one. A software platform manages all elements making the OTTO system. The server is also environmentally-neutral, allowing customers to easily fit an OTTO into an existing system or tie it into a new facility.

TMGcore also points out the OTTO is not a piece of prototype hardware. In fact, the system is on show at Supercomputing 2019 (SC19), and is set to ship on Q1 2020.

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