

NOW ONLINE

Massive data center officially opens just west of Houston



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Matthew Lamont is managing director at DownUnder GeoSolutions' which just opened its new, powerful data center west of Houston. *Courtesy of DUG*

DownUnder GeoSolutions has officially opened its **new data centre in Skybox Houston** in Katy, Texas. It's being billed as one of the most powerful supercomputers on earth.

The center, which houses DUG's geophysical cloud service, DUG McCloud, celebrated its grand opening on Thursday, May 16. The company's data hall has 15 megawatts of power and resides in a building designed to withstand hurricane-force winds up to 190 mph.

A second, identical hall is already planned to be built out later this year. Together, the two machines will have a capacity of 650 petaflop, which is a measurement of computing speed that's equal to one thousand million million floating-point operations per second.

In addition to the second hall, DUG is working to build another giant computing system with exaflop capacity — a billion billion calculations per second — by 2021.

"We are in a race to build the first exascale supercomputing system," says Phil Schwan, CTO for DUG, in a news release.

Australia-based DUG first started construction on Bubba, the nickname for the machine, last year and chose Skybox Datacenters as the facility to put Bubba in after a global search. The supercomputer landing in Houston represented the largest data center transaction in the Houston area's history. Dallas-Fort Worth, Austin, and San Antonio have long overshadowed Houston as hotspots for data center activity in Texas.



An differentiating asset of Bubba is the cooling process, which reduces energy usage and costs. Thirteen miles of pipes connect the hard drives to 20-foot cooling towers. Bubba uses "its own patented immersion system that submerges the computer nodes in more than 700 specially-designed tanks filled with polyalphaolefin dielectric fluid," according to the release.



TRENDING



"The complete DUG Insight software suite is available, and is fully-optimised to run on the cloud," says DUG's managing director, Matthew Lamont.

DUG's device is based on Intel® Xeon® processors, and the company uses Intel's technology to enhance its services, and there are more than 40,000 Intel Xeon processor nodes within the DUG McCloud network.

"The close collaboration between our two companies ensures DUG customers have access to the compute resources needed to obtain more meaningful insights from the geophysical landscapes they are exploring," says Trish Damkroger, vice president and general manager of Intel's Extreme Computing Organization, in a release.



"The Bubba supercomputer is a tremendous addition to the DUG McCloud network, and we look forward to our continued collaboration to build even more powerful systems to help accelerate this research and development."

Super-sized supercomputer



Natalie Harms/InnovationMap

Bubba, as the machine is called, has 15 megawatts of power and resides in a building designed to withstand hurricane-force winds up to 190 mph.