



DUG announces a unique cloud service for the geophysics industry.

(PERTH, 8 October 2018) - **DownUnder GeoSolutions (DUG)** is building a unique cloud service tailored specifically to the geophysics community. The new service, DUG McCloud, will be backed by a huge geophysically-configured supercomputer in a purpose-built exascale compute facility. The machine will be located at **Skybox Houston**, and is the first of DUG's data centres to be located off-site in a purpose-built facility.

The initial DUG McCloud data hall at Skybox has 15 MW of power and will house a 250 petaflop (single-precision) machine once fully installed. Plans, power, and space are in hand to expand the facility beyond an exaflop. DUG's Managing Director, Dr. Matthew Lamont, said "DUG McCloud will provide enormous compute capacity and high-performance storage for DUG's service business. It will further enable delivery of high-frequency FWI and RTM in addition to other high-end and compute-intensive algorithms."

DUG McCloud will be available to external companies to expand their computational resources on demand. In addition, the cloud service will give clients access to DUG's proprietary software, with the option of source code, to accelerate their research, development, and production. As Lamont explains, "They can use our existing solutions, or modify them, or replace them completely. Of course, always owning their own IP."

"DUG McCloud is also the enabler for a game-changing new hardware and software offering," said Lamont. "We're very excited to bring this to market. One of the keys is the unique software stack, allowing our clients to focus on geophysical issues of interest, while leaving the very necessary heavy-duty computer engineering to DUG."

DUG also sees other users finding the cloud service an invaluable resource. "DUG's seismic interpretation software package, DUG Insight, will have full support from DUG McCloud. Our multi-client partners will have access to it as a data storage and delivery centre."

The DUG McCloud facility is due for completion in February 2019, with service commencing in Q2.

DUG will cool this massive supercomputer using their innovative immersion cooling system, DUG Cool (Patent Publication WA 2017/091862A1). Computer nodes are fully submerged in specially-designed tanks filled with polyalphaolefin dielectric fluid. The thermal properties of the fluid, in addition to the removal of the server fans, make it an incredibly energy- and cost-efficient way to run a data centre. The efficiencies of HPC systems are commonly evaluated using the Power Usage Effectiveness (PUE) metric. DUG currently operates DUG Cool data centres in their Perth, Houston, London, and KL offices at a proven PUE of 1.05 or

less. This is significantly better than the PUE of recognised “green” data centres around the world.

“We like to call it the greenest cloud service in the world,” Dr Lamont concluded. “DUG McCloud certainly offers more than just a silver lining.”

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About DownUnder GeoSolutions

DownUnder GeoSolutions is one of the world’s leading geoscience companies, providing data processing and imaging services and seismic interpretation software to the global oil and gas industry.

DUG has offices in Perth, London, Houston, and Kuala Lumpur.

Connect with DUG on Twitter [@DownUnderGeo](https://twitter.com/DownUnderGeo) or visit www.dug.com

About Skybox Data Centres

Skybox Datacenters is a leading mission critical data center owner, developer and operator with a focus on wholesale enterprise facilities. The team’s experience comprises 50 million square feet of real estate development and over \$435 million worth of mission critical transactions throughout North America.

Connect with Skybox on Twitter [@SkyboxDCS](https://twitter.com/SkyboxDCS) or visit www.skyboxdatacentres.com

About Power Usage Effectiveness (PUE)

PUE has become an industry-recognised measure of energy efficiency. It was developed by a consortium called The Green Grid in 2006.

PUE is a ratio of the total amount of energy used by a data centre compared to the energy used by equipment such as lighting or cooling.

A PUE of 1.00 (100% useful work, 0% overhead) is ideal.