



DUG opens Houston data centre for massive compute engine

One-of-a-kind supercomputer, powered by Intel® Xeon® processors, is tailored to the oil and gas industry

(HOUSTON, 16 May 2019) - **DownUnder GeoSolutions (DUG)** has opened its giant new data centre in **Skybox Houston**. Touted to be one of the most powerful supercomputers on earth, the facility is home to the company's geophysical cloud service, DUG McCloud.

Houston joins the other DUG data centres to form the full DUG McCloud global network, the first global cloud purpose-built for HPC (high-performance computing).

The first DUG McCloud data hall at Skybox has 15 MW of power, and will house the 250 petaflop (single-precision) machine known as Bubba.

DUG already has a second, identical, data hall with plans in place to commence build out in late 2019. Joint capacity of the two data halls will be approximately 650PF.

Work is currently underway for DUG to expand the supercomputer facility at Skybox beyond an exaflop (double-precision) by 2021. "We are in a race to build the first exascale supercomputing system," said Phil Schwan, CTO for DUG.

Construction began in 2018 at Skybox Datacenters facility in the Energy Corridor, after a global search for a site. The deal was the largest colocation transaction in Houston's history.

Completed this month, the facility was formally opened in a ceremony at Skybox Houston attended by executives from Intel, as well as the Katy Area EDC, key members of the oil and gas industry, and local government officials.

DUG's Managing Director, Dr Matthew Lamont, said "DUG is offering a unique cloud product including compute, storage, geophysical software, and services, initially with a massive 250 PF of geophysically-configured compute ready to go."

Dr Lamont added, “The complete DUG Insight software suite is available, and is fully-optimised to run on the cloud. DUG McCloud is based on a monster machine bringing genuine economies of scale into play.

“Our goals are to enable clients to genuinely customise the delivery of geophysics to their corporation, to enable high-frequency, elastic FWI with full imaging apertures, high-frequency LS RTM, and finally to slice six-to-twelve months off project delivery times. We are very proud to be on track to be the first geophysical company able to deliver on these promises.”

Based on Intel® Xeon® processors, DUG McCloud harnesses the high-performance compute, artificial intelligence and analytics capabilities of Intel’s technology to provide customers advanced simulation and modeling. Worldwide, there are over 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,” said Trish Damkroger, vice president and general manager of Intel’s Extreme Computing Organization.

“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.”

The facility itself is just as impressive as the DUG McCloud service. With ten 20-foot tall cooling towers, supercomputer Bubba has 13 miles of pipes, and enough power boards and air handlers to line the data hall’s entire 165ft north wall.

DUG cools the massive Houston computer using its own patented immersion system that submerges the computer nodes in more than 700 specially-designed tanks filled with polyalphaolefin dielectric fluid.

This greatly reduces both energy usage and costs, and increases the life and efficiency of the hardware, making it one of, if not the, greenest compute centres in the world.

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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 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 or visit www.skyboxdatacentres.com

About Intel

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