

A pink cloud outline with a scalloped edge, containing text in orange. The text is centered within the cloud.

duq McCloud

Our cloud has a
geophysical lining

Reach for the sky with DUG McCloud.

DUG is thrilled to announce DUG McCloud, the cloud service that's backed by DUG's own, huge, geophysically -configured machine in a purpose-built exascale data centre. With DUG McCloud you can reach for the sky and expand your computational capacity whenever you need. Your data remains your property, and will never be held ransom with high retrieval charges. The unique benefit is the fully-integrated hardware / software / services stack, of which you can use any or all according to your needs. DUG's entire software platform (potentially including source code) is available to accelerate your research, development, and production. Why would you wish to write FWI/RTM code when DUG's code is available with all these features:

DUG'S FWI/RTM CODE:

1. Is tolerant to hardware failures
2. Is heavily optimised
3. Is checkpointed
4. Plays well with others (jobs can expand if idle nodes become available, and contract back to their allocated resources when required)
5. Effortlessly and efficiently runs on huge machines
6. Has a "geophysical layer" written symbolically and with Python (perfect for both research and production)
7. Runs virtually any size problem (think high frequency)
8. Has optimised stencils
9. Has variable depth sampling

CLIENTS CAN USE IT AS-IS, OR EDIT OR REPLACE DUG'S GEOPHYSICAL SOLUTIONS FOR:

1. Loop skipping
2. Reflections
3. Elastic parameters
4. Absorption
5. Anisotropy
6. LS RTM
7. High-contrast velocity models (e.g. salt)

OR CLIENTS CAN ADD OTHER FEATURES - AND OF COURSE, MAINTAIN TOTAL OWNERSHIP OF THEIR IP

In fact, all of DUG's codes are engineered to run on super large machines. For example, a single Kirchhoff Migration will happily run on an entire compute cluster without loss of efficiency. Compare that with other software suites.

A cloud for all.

DUG's seismic interpretation software package, DUG Insight, will have full support from DUG McCloud. Users will be able to store data and sessions in the DUG cloud seamlessly, with on-demand access to compute. The cloud facilitates ease of access to DUG Insight management and support. No local (in-office) servers are required for DUG Insight users who choose this route in future. DUG McCloud will become a powerful resource for DUG's multi-client partners who can use it as a data storage and delivery centre.

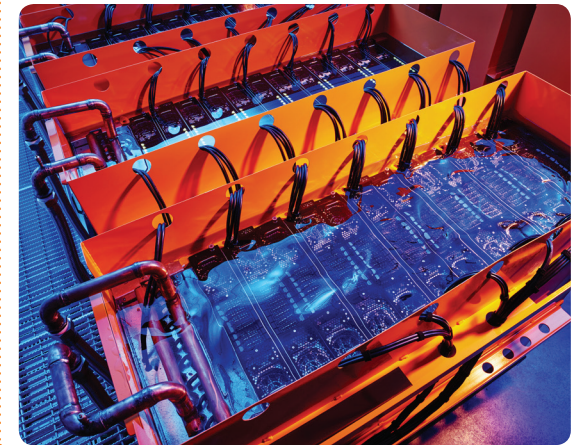
Backed by powerful compute.

The initial DUG McCloud data hall has 15 MW of power, which will house a 250 petaflop (single-precision) machine once fully installed. Power, room, and plans are in hand to expand the facility beyond an exaflop.

DUG McCloud will come online in February 2019.

DUG has developed (Patent Publication WA 2017/091862A1) an advanced, flexible, and modular dielectric-fluid cooling solution, named DUG Cool. By popular demand, DUG now also provides this innovative cooling solution to the general HPC industry. The running costs of HPC systems are commonly evaluated using the Power Usage Effectiveness (PUE) metric. DUG currently operates DUG Cool data centres in our office locations in Perth, Houston, London, and KL, with a proven PUE of 1.05 or less.

This is significantly better than the PUE of recognised "green" data centres around the world. Thus DUG McCloud will be a super energy-efficient facility, greener than green!



Want to discover
what **DUG McCloud**
can do for your business?
Email McCloud@dug.com
for more information.

dug McCloud