

DUG Technology is an Australian company at the forefront of high-performance computing (HPC).

Founded in Perth in 2003 by Dr Matthew Lamont and Dr Troy Thompson to provide HPC-based solutions for scientific data analysis, the company began expanding in 2007 and has established a global presence to serve international clients.

From two people in a back shed in Perth, Western Australia, DUG has grown to more than 317 staff in four international offices in London, Kuala Lumpur, Houston, and Perth.

Today DUG provides HPC as a service (HPCaaS), scientific data analysis services, and software solutions for the global technology and resource sectors.

The company owns and operates some of the largest and "greenest" supercomputers in the world, has a

strong focus on research and development, a highly experienced and qualified workforce, and proprietary knowledge.

DUG's services can either be delivered directly to the client or through its DUG McCloud platform.

Traditionally, the company's expertise has been used to provide seismic data processing and imaging services to the resource sector. HPCaaS to analyse large datasets has, and continues to be, the focus of the company.

The fully integrated DUG McCloud platform was launched in 2019, and has enabled the company to diversify to service markets outside of the resource sector, an avenue of business development the company continues to pursue.

Research and development is a continuous focus for the company.

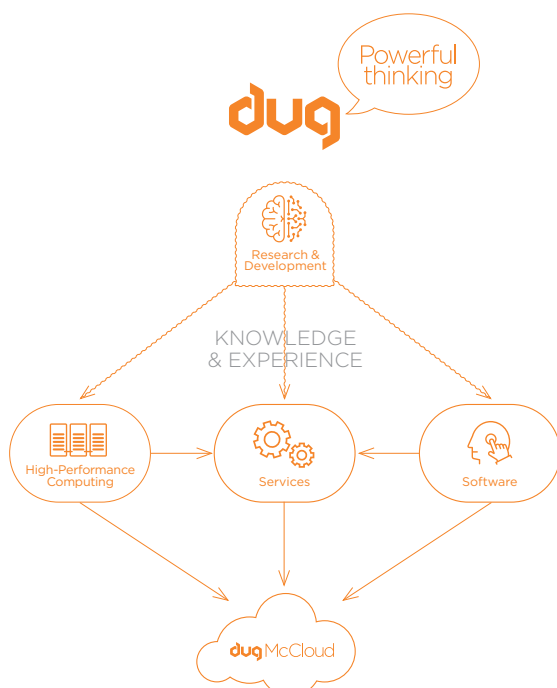
DUG in a Nutshell

DUG is a technology company at the forefront of high-performance computing (HPC) with a strong foundation in applied physics.

The company's innovative hardware and software solutions for the global technology and resource sectors enable clients to leverage large and complex datasets. A constant focus on research

and development combined with a wealth of industry experience has equipped DUG with the technical excellence needed to provide state-of-the-art HPC as a service (HPCaaS).

DUG's solutions can be delivered either direct to-client or via the DUG McCloud platform.



<p>High-Performance Computing as a Service (HPCaaS)</p> <p>Global spread of significant compute and storage</p> <p>A complete HPC environment:</p> <ul style="list-style-type: none"> Security Software stack Job scheduling Cluster file system Monitoring including black-hole mitigation <p>Data centre design services utilising DUG's green computer room technology (patent pending)</p> <p>DUG designs, builds, owns and runs its own computer rooms and everything in them!</p>	<p>Services</p> <p>Data</p> <ul style="list-style-type: none"> Loading QC Management <p>Job management</p> <p>Seismic</p> <ul style="list-style-type: none"> Processing Imaging High-frequency FWI Quantitative interpretation <p>Sophisticated project management system and expert staff</p> <p>Turnkey pricing</p>	<p>Software</p> <p>DUG Insight - scientific data analysis suite</p> <ul style="list-style-type: none"> Many modules including signal processing and visualisation API for clients to add their own programs <p>Multi-tiered code support</p> <ul style="list-style-type: none"> Onboarding of user codes Optimisation of algorithms and software for different architectures (e.g. GPUs) <p>Algorithm development (Extensive physics, maths, and IT capability and experience)</p> <p>Domain specific language (DSL) development-interactive HPC</p>
<p>Customer focussed</p> <p>McMix & McMatch HPC/services/software</p> <p>Customise to suit your needs</p> <p>Globally connected/AARNet enabled</p>		

Global footprint and integrated network.

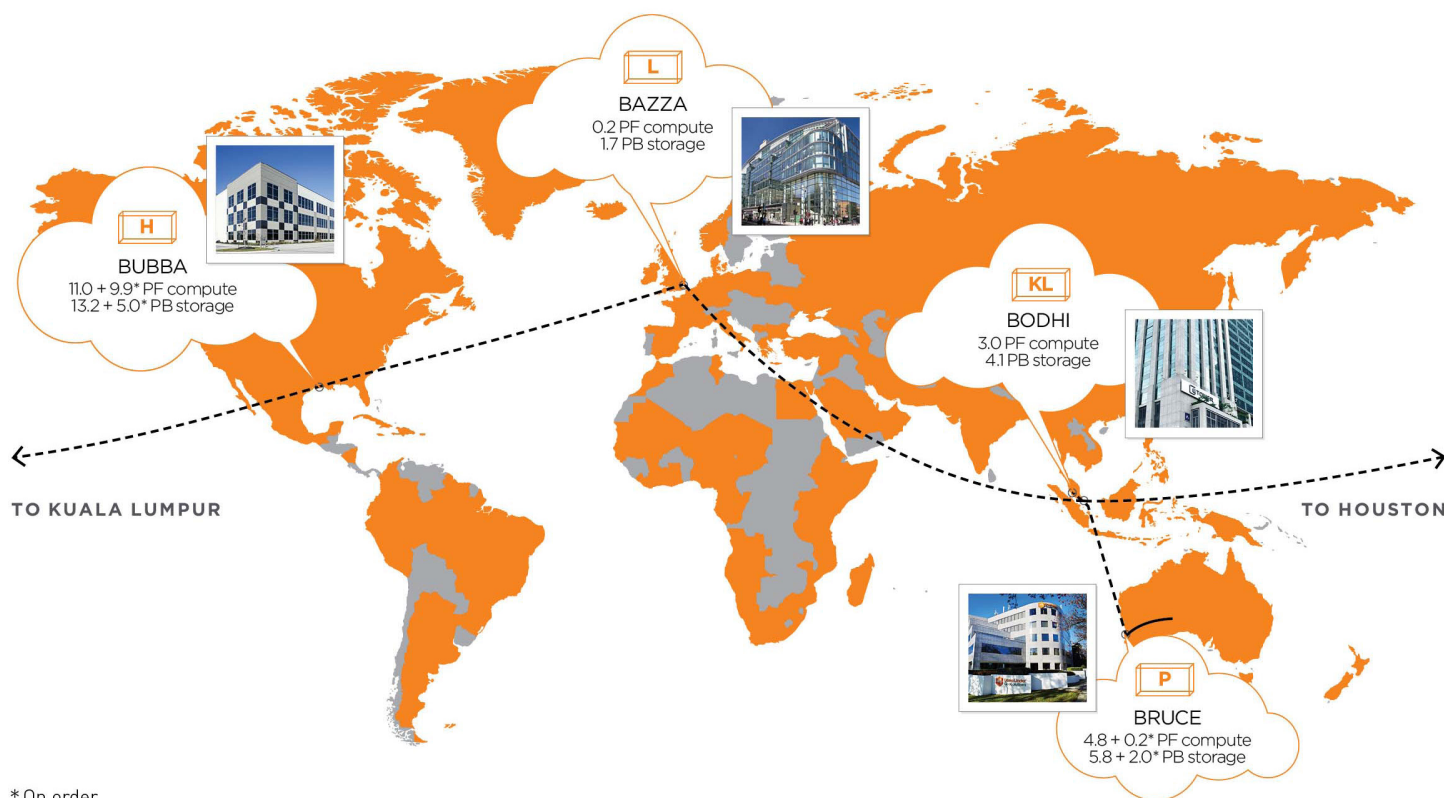
DUG’s custom-designed and built supercomputers are affectionately named per location: ‘Bruce’ located in Perth, ‘Bubba’ located in Houston, ‘Bazza’ in London and ‘Bodhi’ in Kuala Lumpur.

‘Bruce’ is one of the biggest supercomputers in the southern hemisphere, wielding the processing power of two million laptop computers, which would soar four times the height of Mount Everest if vertically stacked. ‘Bubba’ resides at Skybox, a state-of-the-art, secure data facility. Construction of the 15-megawatt (MW)

data hall was completed, and the computer room commissioned in May 2019. DUG is populating the room as demand dictates.

DUG McCloud is a customer focussed and collaborative cloud platform that allows clients to mix and match DUG’s high-performance computing as a service (HPCaaS), professional services, and software, to suit their needs.

This includes disk storage and a unique, cost-effective online archive facility that allows web-based data visualization.



*On order

----- DUG global network
 ——— Connection to AARNet

DUG OFFICE LOCATIONS
DUG PROJECT LOCATIONS

	HOUSTON	KUALA LUMPUR	LONDON	PERTH	TOTAL
Employees	56	88	74	99	317
Employees with Masters/Ph.D.	20	11	52	40	123

- DUG’s owned and operated global HPC offering is fully networked and backed by a deeply invested team consisting of a group of exceptional physicists, mathematicians, engineers, computer programmers and support staff- 40% of whom have a Ph.D. or Masters qualification.
- DUG has recently converted its petaflop numbers from single precision to double precision to be consistent with emerging best practice.