



## **Mellanox Supercharges Massive HPC Cloud Service for Oil and Gas Industry**

(PERTH, February 2019) - DownUnder GeoSolutions (DUG) has chosen leading Ethernet supplier Mellanox Technologies to supercharge their massive exascale-focused HPC facility.

DUG's ambitious cloud service, DUG McCloud, is tailored specifically to the geophysics community and is currently being built at Skybox Houston.

Described as the world's most powerful supercomputer, the facility will be 250 single-precision petaflops when fully installed. The vast, geophysically-configured machine, housed in a purpose-built exascale data centre, will have the power, room, and plans in hand to expand beyond an exaflop, as demand increases.

This level of compute power requires a high performance, reliable, and resilient network capable of delivering >10Gb/s of low-latency bandwidth per server to over 40,000 compute nodes.

To help accelerate the geophysics community's research, development, and production, Mellanox is creating and deploying a unique "multi-host" adapter.

This state of the art technology, created exclusively for DUG, allows four servers to use a single 50Gb/s network connection, with each node able to burst to over 30Gb/s.

The sophisticated design uses Mellanox's SN2700 32 port 100Gb/s Ethernet switches, achieving greater throughput while reducing overall switch count.

"DUG McCloud is a great example of how innovative design and out of the box thinking can drive a huge leap in supercomputer price/performance, compute efficiency, and power efficiency," said Amir Prescher, senior vice president business development and end user sales, Mellanox Technologies.

"Utilizing multi-host technology achieved significant cost savings with the number of switches reduced by 50% and rack cabling reduced by 75%. The combination of powerful compute nodes, Mellanox best-in-class, end-to-end 100G Ethernet fabric and professional services, and DUG's sophisticated models creates a truly world-class geophysical exploration platform. Best

of all the cloud service delivery and consumption model allows customers to benefit from a truly world-leading super computer without the need for a super CAPEX budget.”

DUG’s Managing Director, Dr Matthew Lamont, said “Mellanox's multi-host NIC and high bandwidth fabric is a perfect solution for DUG's network requirements.”

**ENDS**

**Media Contact**

James Chesters  
PR & Digital Marketing Coordinator  
DownUnder GeoSolutions  
Email: [jamesc@dug.com](mailto:jamesc@dug.com)  
Phone: +61 8 9287 4146

**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](http://www.dug.com)

**About Mellanox**

Mellanox Technologies (NASDAQ: MLNX) is a leading supplier of end-to-end Ethernet and InfiniBand smart interconnect solutions and services for servers and storage. Mellanox interconnect solutions increase data center efficiency by providing the highest throughput and lowest latency, delivering data faster to applications, unlocking system performance and improving data security. Mellanox offers a choice of fast interconnect products: adapters, switches, software and silicon that accelerate application performance and maximize business results for a wide range of markets including cloud and hyperscale, high performance computing, artificial intelligence, enterprise data centers, cyber security, storage, financial services and more.

More information is available at: [www.mellanox.com](http://www.mellanox.com).

Connect with Mellanox onTwitter @mellanotech or visit [www.mellanox.com](http://www.mellanox.com)