

# AMD GPUOpen Fuels Seismic Supercomputing Efforts for Geoscience Leader CGG With Open Source Software and AMD FirePro GPUs

CGG Speeds Energy Research Using AMD GPUOpen to Move to Open Source and Power More Than 1 PetaFLOPS Using AMD FirePro(TM) S9150 GPUs

SUNNYVALE, CA -- (Marketwired) -- 03/02/16 -- AMD (NASDAQ: AMD) today announced that CGG, a pioneering global geophysical services and equipment company, has deployed AMD FirePro™ S9150 server GPUs to accelerate its geoscience oil and gas research efforts, harnessing more than 1 PetaFLOPS of GPU processing power. Employing AMD's HPC GPU Computing software tools available on GPUOpen.com, CGG rapidly converted its in-house Nvidia CUDA code to OpenCL™ for seismic data processing running on an AMD FirePro™ S9150 GPU production cluster, enabling fast, cost-effective GPU-powered research.

"The installation of the large AMD GPU production cluster at CGG is a great example of how AMD's technology prowess in both HPC GPU hardware and in open source software tools combined to deliver incredible results," said Brian Reeves, senior director, product management, AMD Professional Graphics. "Energy research is a demanding and time-intensive task that stands to realize significant benefits from the use of GPU computation. GPUOpen software tools coupled with AMD FirePro S-series hardware enables an efficient and cost-effective solution for rapid data processing that can drive tremendous competitive advantage."

"We are very pleased with the innovative collaboration between CGG and AMD especially in the efficiency of converting CUDA to OpenCL as a dynamic solution for processing data," said Jean-Yves Blanc, chief IT architect, CGG. "Our research depends on the reliable and precise results delivered by the AMD FirePro S9150 GPU production cluster -- the performance per watt plus the large GPU memory support was especially beneficial. We look forward to working with the Radeon™ Open Compute runtime, driver and tools to bring new capabilities to geophysical software which is an integral part of our company's geoscience solutions for oil and gas projects."

## AMD FirePro S9150 GPU features:

- Massive multi-GPU clusters: Support for AMD open source libraries and reliably support large multi-GPU clusters to address large computational projects that require more than 1 PetaFLOPS of GPU processing power.
- Fast Fourier Transform compute support: Support for cIFFT open source and tuned library containing Fast Fourier Transform functions for optimal efficiency with AMD

FirePro<sup>™</sup> S-series products.

- Basic Linear Algebra Subprograms compute support: Support for <a href="clBLAS">clBLAS</a> open source and tuned library containing single and double precision linear algebra functions for optimal efficiency with AMD FirePro S-series products.
- Leading energy-efficiency for high-performance GPU computing: AMD FirePro S9150 was recognized as the #1 position on the Green500 list - Nov 2014 as the GPUbased solution for unmatched compute performance and energy efficiency in HPC.

The Radeon Open Compute platform, as a key part of GPUOpen, is comprised of several components based on open standards and extended features that reveal important hardware capabilities. GPUOpen supports porting to OpenCL with support by AMD and the open source community, and exposes innovative open source solutions including the Heterogeneous Compute Compiler and HIP API. For more information, visit <a href="https://www.gpuopen.com">www.gpuopen.com</a>.

## Supporting Resources

- Learn more about AMD FirePro professional graphics
- Find more details on AMD's blog
- Become a fan of AMD on Facebook
- Follow AMD FirePro on Twitter

### About AMD

For more than 45 years AMD has driven innovation in high-performance computing, graphics, and visualization technologies -- the building blocks for gaming, immersive platforms, and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses, and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work, and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ: AMD) website, blog, Facebook and Twitter pages.

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