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Innovative AMD FirePro(TM) Server GPU Supports Intense Compute Workloads on HP ProLiant DL380 Gen9 Servers

AMD FirePro(TM) S9150 Server GPU Delivers Double-Precision Floating Point Performance

SUNNYVALE, CA -- (Marketwired) -- 02/26/15 -- AMD (NASDAQ: AMD) today announced that the AMD FirePro™ S9150 server GPU (Graphics Processing Unit) built for High Performance Computing is now available on the HP ProLiant DL380 Gen9, the world's best-selling server[1]. AMD FirePro™ server GPUs combine with HP ProLiant DL380 Gen9 servers for a variety of specialized applications including Academic and Government clusters, Oil and Gas research, and Deep Neural Networks. The AMD FirePro S9150 server GPU is supported by a powerful software ecosystem, enabling developers to better harness its compute performance including support for OpenCL™ 2.0.

Featuring the first AMD Graphics Core Next (GCN) architecture specifically with compute workloads in mind, the AMD FirePro S9150 server GPU supports enhanced double precision floating point computation and breaks the 2.0 TFLOPS double precision barrier. With 16GB of GDDR5 memory and maximum power consumption of 235 watts, AMD FirePro S9150 server GPUs provide massive compute performance while helping maximize available power budgets.

"We're proud to offer AMD FirePro server GPUs to deliver HP server users with the compute power to manage intense workloads for a variety of scenarios," said Karl Freund, general manager, Professional Graphics at AMD. "HP ProLiant DL380 Gen9 server users can benefit from support for open standards, such as OpenCL™ and OpenMP, for GPU compute and multiple GPUs per server."

"With the AMD FirePro GPU, the HP ProLiant DL380 can run graphics intensive applications faster than ever," said Peter Schrady, vice president and general manager, Rack and Tower Servers, HP. "Our government, academic and energy customers will see performance benefits, letting them do more with their HP ProLiant servers."

With AMD STREAM technology, customers will be able to leverage the massive parallel processing power of the AMD FirePro S9150 server GPU and accelerate applications beyond just graphics. The server GPU features:

- Maximum double-precision floating point performance resulting in 2.53 TFLOPS peak double-precision compute performance -- up to 77 percent more than the competition[2]
- 5.07 TFLOPS of peak single-precision floating point performance -- up to 18 percent more than the competition[2]

- Industry leading memory configuration[3] -- 16GB GDDR5 memory, 512-bit memory interface and up to 320 GB/s memory bandwidth
- 2,816 stream processors (44 GCN compute units)
- Error Correcting Code Memory support (external)
- Ready to support OpenCL™ 2.0[4]
- 235W maximum power consumption

The AMD FirePro S9150 server GPU also provides support to handle workloads in a variety of sectors by enabling OpenMP, an API for high-level parallelism in the C, C++, and Fortran languages. In segments such as Oil and Gas, Computer Aided Engineering and Computational Science, many organizations have made substantial investments in OpenMP to create scalable workloads. AMD's collaboration with Pathscale to provide support for OpenMP 4.0 will allow customers in these HPC fields to harness the compute power of AMD FirePro S9150 server GPU.

Additionally, AMD FirePro™ S4000X server GPUs can be found the HP ProLiant WS460c Graphics Server Blade[5]. With high-quality 3D graphics and multidisplay functionality, the AMD FirePro S4000X server GPU module delivers workstation-class graphics performance on remote desktops. Designed with blade server and blade workstation platforms in mind, each module consumes 45W maximum power, includes 2GB of GDDR5 memory, up to 72 GB/s of memory bandwidth, and the ability to support up to six high resolution remote displays[6].

Supporting Resources

- Learn more about AMD FirePro professional graphics
- Learn more about AMD FirePro S9150 server cards
- Learn more about AMD STREAM technology
- Learn more about AMD FirePro found in other HP products
- Become a fan of AMD on Facebook
- Follow AMD professional graphics on Twitter- @AMDFirePro

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[1] Source: Q214 IDC WW Quarterly Server Tracker, August 2014 - http://h30507.www3.hp.com/t5/Coffee-Coaching-HP-and-Microsoft/The-world-s-best-selling-server-the-HP-ProLiant-DL380-Server/ba-p/176952#.VOYNk_nF-QQ

[2] AMD FirePro™ S9150 max power is 235W and delivers up to 2.53 TFLOPS peak double and up to 5.07 peak single precision floating point performance. Nvidia's highest performing single GPU server card in the market as of January 2015 is the Tesla K40, max power of

235W, with up to 1.43 TFLOPS peak double and up to 4.29 peak single precision. Visit http://www.nvidia.com/object/tesla-servers.html for Nvidia product specs. FP-97

[3] AMD FirePro™ S9150 features 16GB GDDR5 memory, a 512-bit memory interface and up to 320 GB/s memory bandwidth, and Nvidia's highest performance single GPU server card in the market as of January 2015 is the Tesla K40 with 12GB GDDR5 memory, a 384-bit memory interface and up to 288 GB/s memory bandwidth. Visit http://www.nvidia.com/object/tesla-servers.html for Nvidia product specs. FP-100

[4] AMD plans to release OpenCL 2.0 drivers for the AMD FirePro™ S9150 cards in Q1 2015; conformance testing is planned at that time. Previous generation AMD FirePro products may not support OpenCL 2.0.

[5] http://www8.hp.com/us/en/products/proliant-workstation-blades/product-detail.html?oid=5249678#!tab=features

[6] AMD Eyefinity technology supports up to six DisplayPort monitors on an enabled graphics card. Supported display quantity, type and resolution vary by model and board design. Mixed monitors of different resolutions are supported by select AMD FirePro™ professional graphics cards. Confirm specifications with manufacturer before purchase. To enable more than two displays, or multiple displays from a single output, additional hardware such as DisplayPort™-ready monitors or DisplayPort 1.2 MST-enabled hubs may be required. A maximum of two active adapters is recommended for consumer systems. See www.amd.com/eyefinityfaq for full details.

Source: Advanced Micro Devices