

E4 Computer Engineering and Wistron Corporation Introduce New Energy-Efficient OCP Platform based on IBM POWER CPUs Coupled with NVIDIA Tesla Pascal GPUs with NVLink

The two international companies, guests at the OpenPOWER booth during OCP U.S. Summit 2017 (March 8th – 9th), will introduce a brand-new open compute platform rack with liquid cooling

Santa Clara, CA - March 8th, 2017 - [E4 Computer Engineering](#) and [Wistron Corporation](#) today showcase the result of their joint effort to produce an open rack PetaFlops-Class Computing Solution, that features, among other distinctive characteristics, a remarkable energy efficiency ratio that is based on the IBM POWER architecture.

As an active member of the [OpenPOWER Foundation](#), E4 Computer Engineering has a very proactive approach and desires to add a different and pioneering solution to its OpenPOWER based range, that could improve energy efficiency for its HPC and enterprise users.

With the open rack form factor compute nodes provided by Wistron, E4 was able to fully customize the solution, by adding the liquid cooling and Infiniband interconnect.

This new system, named OP 206 Gold, is a 2U 21" Open Rack Enclosure with integrated piping & power distribution. It is a Power8-based node in OCP form-factor, with leading edge features specifically engineered for HPC workloads. The node has two IBM Power8 processors, four [NVIDIA® Tesla® P100 GPUs with NVLink™](#) interconnect and liquid cooling, that is the newest feature. Liquid cooling is key to increase the repeatability of the performance (which is not dependent upon the variation of the processor temperature) and to extend the lifespan of the components (by lowering the thermal stresses due to higher temperature).

Specifically, for the OP206 Gold, E4 Computer Engineering, Wistron and the University of Bologna developed an innovative technology for measuring, monitoring and capping the power consumption of the whole node, through the collection of data from all relevant components (processors, memory, GPU, fans) to improve energy efficiency.

"Finding new ways of making easily deployable and energy efficient HPC solutions is often a complex task, which requires a lot of planning, testing and benchmarking - said Cosimo Gianfreda CTO, Co-Founder, E4 Computer Engineering. - We are very lucky to work with great partners like Wistron, as their timing and accuracy means we have all the right conditions to have effective time-to-market. I strongly believe that the performance on the node, coupled with the power monitoring technology, will receive a wide acceptance from the HPC and Enterprise community".

"The open and collaborative spirit of innovation within the OpenPOWER Foundation enables companies like E4 to take advantage of new technology and build solutions to help customers dealing with the huge volume of data in today's technology environment," said Ken King, IBM general manager of OpenPOWER. "The POWER8 with NVIDIA NVLink processor enables incredible velocity of data transfer between CPUs and GPUs and is ideal for emerging workloads like advanced analytics, AI and machine learning."

"Tesla P100 GPU accelerator with NVLink multi-GPU technology enables a new class of servers that can deliver the performance of hundreds of CPU server nodes," said Roy Kim, Director of NVIDIA Tesla Product Management. "With the Tesla Platform and advanced OpenPOWER technology, E4 is delivering innovative, high-powered solutions to tackle the most demanding HPC and artificial intelligence workloads".

"Accelerating the AI applications in OCP infrastructure, Wistron POWER8 systems with NVLink solution support up to four Tesla P100, that will dramatically speed-up the performance and manage the energy saving at the same rack; one of the most powerful platforms for PetaFlops-class high performance computing", said Donald Hwang, Chief Technology Officer and President of EBG at Wistron Corporation.

About E4 Computer Engineering

Since 2002, E4 Computer Engineering has been innovating and actively encouraging the adoption of new computing and storage technologies. Because new ideas are so important, we invest heavily in research and hence in our future. Thanks to our comprehensive range of hardware, software and services, we are able to offer our customers complete solutions for their most demanding workloads on: HPC, Big-Data, AI, Deep Learning, Data Analytics, Cognitive Computing and for any challenging Storage and Computing requirements. E4. When Performance Matters.

For more info: www.e4company.com

About Wistron Corporation

Wistron Corporation is a Fortune Global 500 company and a technology service provider supplying design, manufacture, and after-sales services for various ICT (information and communication technology) products. We are devoted to increasing the value of our services and systems through developing innovative solutions in the areas of cloud computing, display vertical integration, and e-waste recycling. As a long-standing partner with IBM, Wistron has more than 10 years PowerPC design experience and provides various flexible business models from barebones to rack integration delivery. For more information, please visit: www.wistron.com.

Media contact for E4 Computer Engineering

Agnese Reina

agnese.reina@e4company.com

Media contact for Wistron Corporation

Joyce Chou

joyce_wl_chou@wistron.com

