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Fujitsu PRIMERGY Server Liquid Cooling Halves Cooling Costs

News facts:

- Fujitsu is the first major vendor to deliver direct-to-chip liquid cooling to its customers around the world, enabling PUE (Power Usage Effectiveness) reduction to as low as 1.06
- Processing power resulting from up to five-times higher data center density revolutionizes the economics of the design, build and running of large scale-out data centers for enterprises, R&D, and universities
- Waste heat in the form of 60 °C / 140 °F hot water can now also be recycled, for example, to heat buildings

Ballerup, July 14, 2015 – Fujitsu today extends its high-performing, reliable and energy-efficient server solutions for large scale-out environments including High Performance Computing (HPC), with the introduction of the award-winning¹ Cool-Central Liquid Cooling Solution that reduces cooling costs by up to 50 percent². In a world of rising energy costs and higher rack densities, Fujitsu's new solution enables data center managers to minimize their power bills, not to mention better comply with stringent requirements or observe guidelines on energy efficiency. The typical data center today uses up to 40 percent of its power for cooling, and reducing power consumption is essential to achieving lower data center operating costs.

A further key priority for HPC customers in particular is to maximize every meter/inch of processing power. The new liquid cooled FUJITSU Server PRIMERGY CX400 M1 and its cluster nodes achieve this goal by increasing data center density by up to five times to a maximum of 160 Intel Xeon processors and 1280 memory modules per standard rack. With resulting Wattages of over 30 kW per rack, liquid cooling plays a vital role in keeping the data center within an acceptable temperature range. In fact, Fujitsu anticipates that high density servers will reach more than 50 kW per rack by 2016, and so is putting in place today the modular and expandible technology that its customers will increasingly need in the future.

Fujitsu's Cool-Central Liquid Cooling Solution significantly increases the tangible financial savings offered by liquid cooling technology to a far broader range of customers around the world. In addition to maximizing rack density and lowering cooling and power costs, a much smaller investment is needed for building new data centers using liquid cooling as compared to traditional air-cooled infrastructures. What's more, overall energy consumption can be further reduced, as waste heat in the form of 60 °C / 140 °F hot water can easily be recycled to heat or cool offices, homes, or other facilities.

Uwe Romppel, Head of Product Management Server at Fujitsu, said: "Fujitsu is revolutionizing data center design, and is the first major vendor to deliver direct-to-chip liquid cooling for more efficient building and operation of scale-out data centers. Achieving a Power Usage Effectiveness (PUE) close to 1.0 shows optimized use of energy in the data center. The Fujitsu Cool-Central Liquid Cooling Solution will enable our customers to achieve a PUE of as low as 1.06, while also simplifying the recycling of heat waste for use elsewhere."

In partnership with Denmark-headquartered Asetek, a leading provider of energy-efficient liquid cooling systems, Fujitsu is delivering innovative hot water, direct-to-chip, data center liquid cooling technology which removes heat from 'hot spots' like central processing units, graphics processing units, and memory modules within servers, using an all-liquid path and ejecting the heat into ambient outdoor air without chilling.

André Sloth Eriksen, founder and CEO of Asetek, said: "Asetek's agreement with Fujitsu to become an Original Equipment Manufacturer based on our RackCDU D2C liquid cooling technology further improves Fujitsu's significant ability to provide solutions for world-class data center efficiency and reduced operating costs. With its global reach and industry position, Fujitsu is poised to amplify the adoption of our market-leading liquid cooling technology to data centers worldwide. We view this announcement as a major milestone for Asetek and its stakeholders, and our first joint deal under this arrangement is already the largest ever single order for our RackCDU products."

Introduced today at the [ISC High Performance HPC Event](#), these new PRIMERGY systems are the latest additions to a long line of energy-efficient technologies designed to provide Fujitsu customers with high-performing, energy-saving and reliable server systems, while delivering significant cost reductions in the design, build and operation of large scale-out data centers for enterprises, R&D facilities, and universities. Fujitsu has continually optimized its x86-based servers for virtualization and cloud environments over several generations. The energy efficiency of FUJITSU Server PRIMERGY systems has improved by a factor of 30 since the start of power and performance characteristic measurements in 2007.³

Pricing and availability

The new Cool-Central Liquid Cooling Solutions (FUJITSU Server PRIMERGY CX400 M1 and CX2550 M1 and CX2570 M1 cluster nodes) are already available on a project basis. General global availability is planned for September 2015. Prices vary by configuration and region.

Notes to editors

- 1 Winner in the 'Data Center Air Conditioning and Cooling' category in the German Data Center Awards, May 2015 ([Fujitsu press release in German](#))
- 2 Including waste heat recycling in comparison to traditional air-cooled systems
- 3 For more information on the improvement over time see slide 7 in: <http://docs.ts.fujitsu.com/dl.aspx?id=8e762033-d6c8-4350-81b2-c9e5d2a664f7>

Online resources

- Cool-Central Liquid Cooling Solutions: <http://www.fujitsu.com/fts/products/computing/servers/primergy/scale-out/cclc/>
- Read the Fujitsu blog: <http://blog.ts.fujitsu.com>
- Follow Fujitsu on Twitter: http://www.twitter.com/Fujitsu_Global
- Follow us on LinkedIn: <http://www.linkedin.com/company/fujitsu>
- Find Fujitsu on Facebook: <http://www.facebook.com/FujitsuCT>
- Fujitsu pictures and media server: <http://mediaportal.ts.fujitsu.com/pages/portal.php>
- For regular news updates, bookmark the Fujitsu newsroom: <http://ts.fujitsu.com/ps2/nr/index.aspx>

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