Press release

Rittal GmbH & Co. KG

Rittal and ZutaCore Demo
2021 OCP Global Summit, San Jose, CA
9 -10 November 2021
Booth B4

Rittal and ZutaCore at the 2021 OCP Global Summit

OCP-Standards with two-phase Direct Chip Cooling

The digital transformation is challenging the data center industry. Applications based on artificial intelligence (AI) or machine learning are increasing the demands on processor performance, density in the data center and cooling per rack. Speed is of essence in the construction and modernization of data centers. The cooling system must deliver maximum performance in order to avoid hotspots and dissipate the high heat in an energy-efficient manner. At the same time, data centers must use as little energy as possible without compromising performance. At the 2021 OCP Global Summit, partners Rittal and ZutaCore will show how the combination of standardized racks according to OCP specifications and two-phase Direct Chip Cooling helps to meet these challenges.

Herborn/San Jose, November 9, 2021 - Standardized technology promotes cost-efficient operation and highly scalable IT infrastructure. OCP technology with particularly energy-efficient, central DC distribution in the IT rack is therefore becoming relevant for more and more CIOs. At the 2021 OCP Global Summit on November 9 and 10, 2021 in San Jose, California, partners Rittal and ZutaCore will show how the advantages of OCP standards for racks can be combined with advanced liquid cooling: "Rittal High Density Cooled-by-ZutaCore".

Flexible cooling with the new OpenRack ORV3

At the summit, Rittal will present the new OpenRack ORV3. It supports 48V DC power supply and allows flexible configuration up to 44 OU/48 RU. With tool-free installation and 100% preconfigured delivery, it adds speed. It bears up to 1,600 kg dynamic load. When it comes to cooling, it offers flexibility for a

Corporate Communications

Dr Carola Hilbrand
Phone: +49 2772 505- 2527
E-mail: hilbrand.c@rittal.de

Hans-Robert Koch
Phone: +49 2772 505- 2693
E-mail: koch.hr@rittal.de

Steffen Maltzan
Tel.: 02772/505-2680
E-Mail: maltzan.s@rittal.de

Rittal GmbH & Co. KG
Auf dem Stützelberg
35745 Herborn, Germany
www.rittal.com

wide range of variants including "Rittal High Density Cooled-by-ZutaCore".

Rittal, global system provider for industrial and IT infrastructure solutions, and ZutaCore, expert in sustainable, high density, liquid cooling, formed a strategic partnership in 2020 to bring innovative solutions for High Performance Cooling and other compute-intensive scenarios to customers. The “Rittal High Density Cooled-by-ZutaCore” system works on the principle of evaporative liquid cooling and uses the latent energy in the evaporation of liquid refrigerant to cool the microchips. Users can eliminate local overheating in processors because the system cools exactly where hotspots occur. Eliminating water and using a dielectric fluid also reduces the risk of IT failures. In addition, the scalability of the system allows customers to grow along with dynamic market requirements in a future-proof manner.

Two HPC designs, fit for OCP

Rittal and ZutaCore offer two designs: Firstly, space-saving, compact rear-door cooling solutions. The principle is as follows: The liquid refrigerant flows into specially developed cold plates ("Enhanced Nucleation Evaporator") which are placed directly on the microchips (CPU, GPU). By absorbing the processor heat, the refrigerant evaporates and becomes vapor. In the heat exchanger, the 3M™ Novec™ 7000 Engineered Fluid, which had previously become vapor, becomes liquid again. The temperature of the air flowing through is sufficient for this.

One or more pumps maintain the supply pressure and fill all heat sinks with refrigerant. Since almost all components of the cooling solution are integrated in the rear door, this ensures significant space savings. At the OCP Global Summit, this technology will be available for an in-person demonstration at the Rittal booth B4 with an OpenRack V2, fit for OCP environments.

The second solution from Rittal and ZutaCore is an in-rack solution that is available as an air-cooled and water-cooled variant. The air-cooled solution supports up to 15 kW of heat dissipation per rack using an in-rack air-cooled condenser. It can be easily installed in any rack in virtually any environment. The water-cooled in-rack version provides energy-efficient cooling of up to 70 kW of heat removal per rack using a water-cooled condenser. It is designed primarily for fast-growing processor and server power.

(4.087 Characters)

■

Caption(s)

Image 1: Rittal High Density Cooled-by-ZutaCore: two-phase Direct Chip Cooling absorbs heat directly at the chip, waterless and safe.

About Rittal

Rittal, headquartered in Herborn, Germany, is a leading global provider of solutions for industrial enclosures, power distribution, climate control and IT infrastructure, as well as software and services. Systems made by Rittal are deployed in over 90 per cent of all industries across the world, including mechanical and plant engineering, food and beverages, and IT and telecommunications.

The international market leader's product portfolio includes configurable enclosures, with data available across the entire production process. Smart Rittal cooling systems, with up to 75 per cent lower power and a great CO_2 advantage can communicate with the production landscape, enabling predictive maintenance and servicing. The offering also includes innovative IT products, from IT racks and modular data centres, to edge and hyperscale computing solutions.

Leading software providers Eplan and Cideon support the value chain, providing interdisciplinary engineering solutions, while Rittal Automation Systems offers solutions for switchgear. Within Germany,

Rittal can supply products on demand within 24 hours – with precision, flexibility and efficiency.

Founded in 1961, Rittal is the largest company in the owner-operated Friedhelm Loh Group. The Friedhelm Loh Group is active worldwide, with 12 production sites and 94 international subsidiaries. It has approximately 11,600 employees and posted revenues of €2.6 billion in fiscal 2019. In 2021, the family-run business was named one of Germany's leading employers by the Top Employers Institute, for the 13th year running. A Germany-wide survey by Focus Money magazine named Friedhelm Loh Group as one of the nation's top companies in terms of vocational training for the fifth year running in 2021.

For more information, visit www.rittal.com and www.friedhelm-loh-group.com.

About ZutaCore

ZutaCore is a direct-on-chip, waterless, two-phase, liquid cooling technology company that unlocks the power of sustainable cooling. By dissipating heat at the source, ZutaCore's HyperCoolTM cuts the cooling power infrastructure needed from the server to the data center. Eliminating the risk of IT meltdown and engineered for low-flow and low-pressure allows for light, compact design and high densities. Coupled with on-demand and closed-loop features, HyperCool maximizes cooling efficiencies, guaranteeing consistent performance in any climate and location. The ZutaCore solution is a complete hardware system enhanced by an optional software-defined-cooling (SDC) platform. The result – the data center shrinks, scarce energy, water, land and construction resources are saved, CAPEX and OPEX are slashed, return on investments (ROI's) are accelerated, and real estate assets are maximized.

Designed by a veteran team in Israel and enabled by 14 patent-pending innovations, HyperCool is a near plug-and-play system. ZutaCore's R&D center is in Israel, with its HQ office in California.

For more information, please visit http://www.zuta-core.com/.