

PRESS RELEASE

Energy efficiency is the future of information technology

SCHÄFER IT-Systems in cooperation with green IT company Cloud&Heat

Neunkirchen, 18th March 2021. Reducing the ecological footprint of IT infrastructure is one of the central tasks in achieving the 2030 climate targets. A significant approach is the optimisation of IT and infrastructure cooling, in combination with the utilization of the waste heat that data centres generate. This is the reason why SCHÄFER IT-Systems, the German specialist for data centre infrastructure and network technology, is now cooperating with Cloud&Heat Technologies, the Dresden-based supplier of energy-efficient data centres. The focus of this cooperation lies squarely on the use and further development of iQdata cooling components and their integration into water-based cooling cycle systems to achieve effective waste heat utilization.

The declared aim of this cooperation between SCHÄFER IT-Systems and Cloud&Heat Technologies is to reduce the electricity needed for data centre cooling even further. IT hardware transforms almost all the electric energy it uses into thermal energy, which is why IT racks need such elaborate and expensive cooling.

In conventional data centres, only about half the electricity consumed is actually used by the processors, storage media, network cards and other computer chips: between 40% and 60% of a data centre's entire electricity demand is used for cooling IT components. For this reason, the existing approach based on direct water cooling is now being optimised and improved with the help of iQdata Cooling.

"The products in our iQdata Cooling range are designed not only to efficiently dissipate unwanted IT waste heat, but also to make it available for further use elsewhere", explains Thomas Wermke, who, as Business Unit Director at SCHÄFER Ausstattungssysteme GmbH, is also responsible for sales at SCHÄFER IT-Systems.

SCHÄFER IT-Systems' InRackcooler already makes it possible to cool the CPU directly with hot water-based cooling technology, without the need for any energy-intensive fans. To achieve this, the water flows through heatsinks, which are in direct contact with the components to be cooled, in particular with the processors. Consequently, direct water cooling dissipates the unavoidable waste heat from IT components at the very place it is generated.

To meet the complex technical requirements for recovering and using waste heat, SCHÄFER IT-Systems, in cooperation with the specialists from Cloud&Heat, has further optimised the InRackcooler. This is now adapted to the needs of the relevant server manufacturer or to the particular project in hand. Cloud&Heat Technologies, for example, require cooling water temperatures of up to 55 °C, as this is necessary for the economical operation of heating and warm-water supply systems. The compact design enables the device to be installed inside the IT rack, as the name implies. For the conversion of existing data centres to water-based direct cooling, Cloud&Heat Technologies can quite easily retrofit the pump box, the InRackcooler's core component.

“On our journey (#futureofcompute) to build up a sustainable and secure digital infrastructure in Europe, we are very pleased to be working with such a strong partner as SCHÄFER IT-Systems. Together, we have set ourselves the aim of jointly developing systems that will achieve highly efficient cooling and waste heat utilization in data centres and future Edge locations“, says Jens Struckmeier, founder and CTO of Cloud&Heat Technologies in Dresden.

Information on iQdata Cooling at: <https://www.schaefer-it-systems.com/en/offer/cooling>

Information on Cloud&Heat Technologies at: www.cloudandheat.com

Images

1st. photo: InRackcooler

Caption: Water-based rack cooling with the InRackcooler from SCHÄFER IT-Systems

2nd. photo: InRackcooler Detail

Caption: Integrated rack cooling

SCHÄFER IT-Systems (www.schaefer-it-systems.de):

SCHÄFER IT-Systems, an innovative manufacturer of made-to-measure network and server cabinet and data centre solutions for both conventional and complex applications, is part of the internationally successful company SCHÄFER WERKE.

This owner-led enterprise is headquartered in Neunkirchen in Germany's Siegerland region and operates globally with diversified business areas: EMW Steel Service Centre, perforated sheets, expanded metal, standard and special containers in stainless steel and installations for data centres, workshops and factories, as well as data management systems for load carriers. The work of all these divisions is based on high-quality fine steel sheet. The processing of this material is one of the core competencies of this enterprise.

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