Schneider Electric Announces Partnership with Avnet and Iceotope to Develop Liquid-Cooled Data Center Solutions

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Barcelona (Spain), October 2, 2019 – Schneider Electric, the leader in digital transformation of energy management and automation, announced today that it is teaming up with Avnet and Iceotope to jointly develop innovative, chassis-level immersive liquid cooling solutions for data centers. This newly announced partnership brings together three global technology innovation leaders: Avnet for technology integration services; Iceotope for chassis-level immersion cooling technologies; and Schneider Electric for data center

infrastructure solutions.

“Compute intensive applications like AI and IoT are driving the need for better chip performance. Our quantitative analysis and testing of liquid cooling approaches shows significant benefits to the market,” said Kevin Brown, CTO and SVP of Innovation, Secure Power, Schneider Electric. “This partnership is the next step in solution development and we are excited to be working with Avnet and Iceotope.”

Schneider Electric has invested in Iceotope through SE Ventures, the investment arm of the Innovation at the Edge program which includes investments, incubations, partnerships and joint ventures with external partners to make bold ideas a reality in the transition to decentralized, digitized and decarbonized energy.

Analysis reveals immersive liquid cooling yields capex and opex savings

Schneider Electric’s preliminary analysis of a chassis-level immersion cooled solution versus a traditional air-cooled solution shows CapEx savings of 15 percent and energy savings of at least 10 percent, which leads to a 20-year Total Cost of Ownership (TCO) savings of over 11 percent.

“Largely driven by the recent explosion of IoT, the processing power needed for workloads like AI in data centers requires advanced solutions to keep connected systems operating efficiently,” said Scott MacDonald, global president, Avnet Integrated. “The development of a liquid cooling technology solution offers customers the performance needed to deliver on these growing compute demands. This is a prime example of how we work with customers to provide the advanced solutions necessary to meet the needs of data-centric workloads in virtually every industry.”

“Iceotope is delighted to work with Schneider and Avnet on a solution that delivers on the promise of liquid cooling,” said David Craig, CEO of Iceotope. “Working with great partners that share the same passion for innovation, solution focused thinking and quality is a pleasure. Our ability to bring our IP to combined solutions that manage the pressing challenges of chip density, energy and water consumption, space and location challenges and the ever more complex issues relating to harsh environment and climate will be game changing in the industry.”

Liquid Cooling more efficient and less costly for power-dense applications

The parallel-processing power of Graphical Processing Units, known as GPUs, makes them the most efficient processor for a growing number of applications including AI, big data analytics, data mining, and more. The chips are increasingly power dense with thermal design power ratings reaching 400 watts or more. This makes traditional data center air-cooled architectures impractical, or costly and less efficient than liquid-cooled approaches where the server is partially submerged in a dielectric fluid. And liquid cooling offers the following benefits:

- Efficient: No need for air conditioning, delivers same processing power with less energy
- Silent: No industrial drone from fans and pumps
- Resilient: All components are in a sealed module that resists dust and smoke
- Compact: Smaller, more flexible footprint

These benefits mean that liquid cooling might be the preferred technology for applications other than just extreme power densities. This blog describes five reasons to consider adopting liquid cooling as opposed to traditional air-cooled architectures.

About Avnet

Avnet is a global technology solutions provider with an extensive ecosystem delivering design, product, marketing and supply chain expertise for customers at every stage of the product lifecycle. We transform ideas into intelligent solutions, reducing the time, cost and complexities of bringing products to market. For nearly a century, Avnet has helped its customers and suppliers around the world realize the transformative possibilities of technology. Learn more about Avnet at www.avnet.com.

About Iceotope

Iceotope's next generation cooling technologies manage the heat generated by electronics from the cloud to the edge. Our chassis-level immersion and precision delivery liquid cooling technologies can easily accommodate the increasing heat loads from the latest processor roadmaps. Engineered to fit all standard form factors including a simply retrofits for Cloud, our technologies can cool the whole IT stack – in every use case – from the cloud to the edge. They can also be compacted into smaller custom form factors to enable edge compute, networking and storage in place that just haven't been possible until now. By removing the need for fans and air-cooling infrastructure our technologies operate in pure silence bringing a game-changing reduction in energy and water consumption, and significant cost reductions in the design, build and operation of data centers. Because our technologies are sealed and impervious to dust, heat and humidity, they can be deployed in the harshest environments. www.iceotope.com

About Schneider Electric

At Schneider, we believe **access to energy and digital** is a basic human right. We empower all to **make the most of their energy and resources**, ensuring **Life Is On** everywhere, for everyone, at every moment.

We provide **energy and automationdigital** solutions for **efficiency and sustainability**. We combine world-leading energy technologies, real-time automation, software and services into integrated solutions for Homes, Buildings, Data Centers, Infrastructure and Industries.

We are committed to unleash the infinite possibilities of an **open, global, innovative community** that is passionate about our **Meaningful Purpose, Inclusive and Empowered** values.

www.se.com

Om Schneider Electric

Schneider Electric blev i januar 2021 kåret til verdens mest bæredygtige virksomhed. Det skete blandt 8.080 nominerede på det internationalt anerkendte Global 100-indeks.

Schneider Electrics formål er at gøre alle i stand til **at få mest muligt ud af vores energi og ressourcer, så vi alle kan forbinde udvikling og bæredygtighed.** Vi kalder dette **Life Is On.**

Vores mission er at være **din digitale partner for bæredygtighed og effektivitet.**

Vi driver den digitale transformation og muliggør de fuldt integrerede digitale ledelsesværktøjer og administrationsløsninger til bygninger, datacentre, infrastruktur, private hjem og industrivirksomheder. Dette gør vi muligt ved at integrere vores førende process- og energiteknologier, "end-point to cloud" IoT produkter, styringsenheder, software og services.

Vi er det mest **lokale af de globale virksomheder.** Vi er fortalere for standarder og økosystem af partnerskaber, der er åbne og, som også brænder for vores værdier: **Meningsfuldt, Inkluderende og Styrkende.**

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