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Q&A with Tim Chambers, CEO cool/DC.

Recently the Immersed Computing® solution was installed at the cool/DC datacentre in Lincoln. One of their customers required an enhanced performance, no peak heat slowdowns and reliability for their cloud infrastructure services. Time to ask Tim Chambers his reasons to choose for immersion and his ideas of the future of liquid cooling.



What is cool/DC and what is the idea behind the cool/DC concept?

Formed just under 2 years ago, cool/DC is a UK-based data centre design, build and operator. However, we offer more than just a ‘data centre’. cool/DC offers a step-change in how data centres operate by designing more energy efficient and sustainable data centres that will guarantee our ability to deliver services for the future. Acknowledging the challenges to achieving this, our goal is to design carbon neutral data centres.

What made you start cool/DC?

I’ve long believed that the industry needs shaking up - disrupting. The fact that no-one had really demonstrated a commitment to improving energy efficiencies and driving innovation meant that there was an opportunity in the market.

What are the most important aspects in the design of cool/DC?

Our designs are scalable and modular, allowing for expansion – and shrinkage – to meet changing IT requirements. Because our solutions are IT-driven, this means that the power our data centres use reflects only the power that the equipment needs. We match the cooling environment to IT infrastructure, ensuring maximum energy efficiency. Consequently, because of our concern with smaller Edge data centres – outside tier 1 cities – we’re also able to reduce the physical footprint of our facilities.

Where there any challenges with the development of cool/DC?

The obvious one has been finding investors prepared to fund something different but, relatedly, perhaps the biggest challenge has been trying to change existing mindsets within an industry that talks about needing to become more sustainable but remains resistant to change. This is one of the reasons underpinning our decision to recruit young people directly from (or still at) university – people who are committed to environmental sustainability and excited by innovation.

What were the reasons to choose Asperitas Immersed Computing®?

In short, quality, its people and confidence in the design.

The Asperitas Whitepaper “Datacentre of the future” explains the concept of future datacentres using alternative cooling solutions such as Immersion. cool/DC uses this concept. Could you elaborate on that?

Rolf and I have been in dialogue around these ideas for a long time – way before cool/DC was created. For me, full immersion has always been the missing piece of the jigsaw in new data centre design.

ASHRAE is urging datacenters to prepare for liquid cooling, do you share that?

Absolutely! It has always been part of our build strategy to incorporate liquid cooling, and we have designed our ‘discovery centre’ / demonstration site in Lincoln specifically to take the AIC24. This is a design that we will carry forward in other build projects.

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We know the impact on the energy efficientie can be large with liquid cooling, can you say something on what your expectations are in terms of PUE and do you have plans to reuse it?

Currently, we are looking at an expected PUE around 1.1 at our demonstration centre. However, energy re-use will enable us to reduce this further and help us to achieve a more carbon neutral status. Our demo room has been designed and built to divert surplus heat from the AIC24 into our own office.

How do you see the future of cool/DC and datacentres in general?

As I indicated earlier, we want to reduce both our physical and power footprint. This means smaller, modular, scalable Edge data centres with high power loads. Wherever practically possible, we want to be able to utilise both renewable energy forms and to reuse surplus heat by diverting this into local heat grids and business parks. Ultimately, we want our data centres to be seen as energy-producing, rather than simply energy consuming.

More info on cool/DC www.cooldc.co.uk.