

# Allied Control to Exhibit Immersion Cooling Solutions with Orange Silicon Valley at SC18 Conference

*ACL Will Exhibit at Booth 1616 at Supercomputing Conference, November 12-18*

participate this week in the SC18 conference, where it will exhibit its record-breaking solutions for ultra-high density high-performance computing (HPC) applications.

SC18 is a gathering of the global supercomputing community that features the latest technologies and accomplishments from leading vendors, research organizations and universities. As an exhibitor, Allied Control will display its innovative two-phase immersion cooling solution, an energy-efficient and space-saving method for cooling HPC applications.

Allied Control recently donated free processing time to Folding@home, a distributed computing project for disease research operated by Pande Laboratory at Stanford University. Allied Control's donated processing time was used to simulate protein folding that could be responsible for diseases such as cancer, Alzheimer's and Parkinson's.

Using its energy-efficient and space-saving HPC solution, Allied Control was able to develop a compact and effective protein-folding setup. At the end of last month, Allied Control ranked within the top 25 donors to the Folding@home project.

Allied Control and Orange Silicon Valley, a California based subsidiary of the Global Telecom operator Orange S.A., have created a compact mobile 2-phase immersion cooling system including an integrated radiator, containing 20 of the latest generation NVIDIA Volta GPUs. This system can support computing capacity of up to 8 kilowatts, which is sufficient for any 20 GPU configuration with full overclocking.

Gabriel Sidhom, Vice-President of technology development at Orange Silicon Valley, said: "We see liquid immersion cooling as a means to collocate supercomputing capability with a very low physical footprint in dense urban datacenters and our telecom edge locations where real estate comes at a premium cost. 5G is becoming mainstream and exponentially increasing data traffic. There is increased demand for supercomputing at the edge for AI and other use cases. With that in mind, we are looking for all possible options to pack as much compute capability at the last mile as possible."

Kar-Wing Lau, CEO of Allied Control agreed. "We are excited to explore with Orange Silicon Valley the unparalleled power densities of 2-phase immersion cooling for edge datacenters. Massive amounts of data can be processed with ultra-low latency as close as possible to the source where it is being collected," said Lau. "Even with the speed of light, data transmission to

datacenters several hundreds of kilometers away could let, for example, a self-driving car travel by four feet versus only four inches, if the data was processed nearby instead.”

Allied Control's innovative solutions will be on display at SC18. More information can be found [here](#).

### **About Immersion Cooling**

Bitfury signature custom designed immersion cooling technology is the next-generation solution for our digital data center world. Data centers contain millions of computer chips. To effectively secure the Bitcoin Blockchain, these chips are used to solve complex cryptographic mathematical problems. As these chips run, they generate a significant amount of heat. In traditional data centers, resources are spent on electrical air-conditioning systems that keep the chips cool, which can be expensive and often uses fossil fuels. Immersion cooling provides an environmentally responsible solution to today's challenges.

Immersion-cooled data centers use far less electricity on air conditioning and cooling because computer chips are placed directly into a pool of dedicated liquid solution. These fluids are safe for computer chips and keep the chips cool as they run and generate heat. The fluid is engineered to evaporate as the chips generate heat. When the fluid evaporates, it rises to the top of the container, where it comes into contact with pipes containing cooled water. Upon contact with the cooled pipes, the solution condenses and returns to the pool where it continues cooling the chips. This cutting-edge process is up to 4,000 times more efficient than traditional air cooling, is very compact as it doesn't require bulky heatsinks, it is silent without server fans, non-toxic and environmentally friendly.

Immersion cooling is also extremely effective and can handle an amazing 40 megawatts of IT computing power, with 252 kilowatts available per rack, all without using excess electricity.

### **About Allied Control**

Allied Control was founded in 2012 to consult and implement practical immersion cooling technology. The company is a 3M Technology Partner and specializes in creating and providing consulting on commercially feasible solutions for high density applications. It sees its passive immersion cooling technology playing a vital role in reducing energy consumption, cutting engineering resources, and massively lower greenhouse emissions. The company has built the world's largest FPGA cluster Immersion-1. It has as well-built Immersion-2 as the most energy efficient data center in Hong Kong and maybe even Asia with a very low PUE of only 1.01 despite hot and humid climate (Hong Kong's average: PUE 2.20), for which it has won the Best Green ICT Award, the DatacenterDynamics Award for Future Thinking and Design Concepts and the Green Innovations Award. It is a wholly-owned subsidiary of the Bitfury Group since 2015.

### **About The Bitfury Group**

The Bitfury Group is the world's leading full-service blockchain technology company. Bitfury is building solutions for the future, with the most significant technologies of the millennium. Our mission is to make the world more transparent and trusted by innovating at every level of technology – hardware, security, and software – to put trust back into the equation. Founded in 2011, Bitfury is the leading security and infrastructure provider for the Bitcoin Blockchain. In

addition to securing the Bitcoin Blockchain, Bitfury also designs and produces innovative

chips and mobile datacenters. Bitfury is also a software provider for the some of the world's most cutting-edge applications through its private blockchain framework, Exonum, its advanced analytics platform Crystal Blockchain, and its specialized engineering team for the open-source Lightning Network, LightningPeach. To learn more, visit [www.bitfury.com](http://www.bitfury.com).

**Bitfury Media Contact**

Rachel Pipan

[rachel.pipan@bitfury.com](mailto:rachel.pipan@bitfury.com)