

## Bitfury Appoints Joseph Capes To Run Allied Control

Executive Brings Tech, Marketing and Business Expertise to Bitfury's Liquid Cooling Division

AMSTERDAM, Oct. 22, 2019 – The Bitfury Group announced today that Joseph Capes will serve as the new head of Bitfury's liquid cooling subsidiary, Allied Control Limited, a leading provider of high-performance computing and liquid cooling technologies.

The company's award-winning technology is used in datacenters globally, including Bitfury's high-performance transaction processing centers. Bitfury's subsidiary is an industry leader in sustainable datacenter and computing solutions. Its proprietary 2-phase immersion cooling solution is covered by multiple patents globally and significantly reduces datacenter size and environmental footprint while delivering increased computing capabilities. The introduction of Capes highlights Bitfury's commitment to high-performance computing products for all sectors, including artificial intelligence.

"Joe is an important addition to our high-performance computing team," said Val Vavilov, CEO and cofounder of Bitfury. "Under his direction, we look forward to expanding our sustainable datacenter and computing technologies for artificial intelligence, blockchain, high-performance computing and other applications."

Addressing the growing need for liquid cooling solutions, Capes said power densities in datacenter and edge computing applications have increased dramatically due to the use of higher-powered chips. Datacenters now use more electricity and water for cooling as traditional IT and mechanical infrastructure reaches practical limitations in efficiency and cost of operation.

"Liquid cooling helps us address this thermal trend in a way that is unachievable through other methods," he added. "Once you take into account IT hardware compaction, removal of mechanical air-conditioning and the ability to free-cool at higher outdoor ambient conditions, it is clear that liquid cooling can provide dramatic savings of energy, water and physical space while providing sound financial payback."

Prior to joining Bitfury, Capes served as Global Director of Cooling Offer Development for Schneider Electric's cloud and service provider customer segment. He has held senior-level management positions in sales, marketing, product management and business development for Schneider Electric, spanning 19 years of service with the company. Capes is an accomplished entrepreneur and start-up company executive with extensive mergers and acquisitions experience. He was previously vice president of Sales and Marketing for Premium Power, responsible for the commercialization of advanced battery power systems used in telecoms, utility and renewable energy applications.

Capes was also co-founder and general manager of Coolcentric, a company that provides high efficiency liquid cooling solutions for datacenters and high-performance computing applications. He holds a Bachelor of Science degree in Electrical Engineering from Lehigh University and is named as an inventor in several patents related to datacenter cooling technologies.



## **About Liquid Cooling and Allied Control**

Liquid cooling is the next-generation solution for our digital world. High-powered datacenters are increasingly used for everything from internet searches to securing public blockchains, and it is crucial we make sure they are energy efficient, sustainable and productive. Bitfury is leading the way with its signature immersion cooling solutions.

Datacenters contain millions of computer chips. As these chips run, they generate a significant amount of heat. In traditional datacenters, resources are spent on mechanical air-conditioning systems that keep the chips cool, but which can be expensive and highly inefficient. Liquid cooling provides an environmentally responsible solution to today's thermal challenges.

Liquid-cooled datacenters use far less electricity than air cooling because IT equipment is placed directly into non-conductive, non-toxic, environmentally friendly fluid that is engineered specifically for this application. These dielectric fluids are safe for computer equipment and keep the chips cool as they run and generate heat. The fluid is designed to evaporate as the chips generate heat. When the fluid evaporates, it rises to the top of a specially designed IT enclosure where it comes into contact with a heat exchanger containing water used for outside heat rejection. Upon contact with the heat exchanger, the dielectric fluid condenses back into solution and the entire process repeats.

Immersion cooling is also extremely effective and can handle amazingly large amounts of computing power, up to 252 kilowatts per rack, and permits free-cooling in the world's most aggressive climates. This technology has practical application in edge computing and in vertically dense cities where space is often at a premium. In datacenters, noise generated by IT and air-conditioning fans regularly exceed levels safe for human ears whereas liquid cooling is entirely silent.

The proprietary immersion cooling solution developed by Bitfury's subsidiary is an incredible innovation that significantly reduces energy consumption and deployment time while delivering environmental sustainability. The technology is used in Bitfury's datacenter in the Republic of Georgia (right outside of the capital city, Tbilisi). It is believed to be the largest single implementation of immersion cooling to date.

## **About The Bitfury Group**

The Bitfury Group is the world's leading emerging technologies company. Bitfury™ is building solutions for the future, with the most significant technologies of the millennium. Founded in 2011, our mission is to make the world more transparent and trusted by innovating at every level of technology – hardware and software – to put trust back into the equation. Bitfury's portfolio focuses on solutions for artificial intelligence, blockchain technology and digital currencies. 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 hardware that keeps cryptocurrencies and blockchains secure, including custom semiconductor chips and mobile data centers. Bitfury is also a software provider for the some of the world's most cutting-edge applications through its Exonum™ private blockchain framework, its Crystal™ Blockchain advanced analytics platform, and its specialized engineering team for the open-source Lightning Network, Peach™. To learn more, visit www.bitfury.com.

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