

OneAsia to launch the first immersion cooling solution for data centers in Hong Kong

New green data center solution marks a new chapter for Hong Kong to attain its 2025 carbon emissions reduction target.

Hong Kong – 22 August, 2022 -- OneAsia, a leading IT service provider in Asia for cloud-based solutions and data center services, is proud to launch an immersion cooling solution starting this September. The first of its kind in Hong Kong, the new solution significantly reduces data center energy consumption and provides more reliable performance. It marks a groundbreaking shift for a heavy energy-consuming industry towards a greener future by adopting innovative, sustainable technologies and practices.



An immersion tank houses the servers in a dielectric bath, and utilizing a CDU, circulates cooling fluid to remove heat.

OneAsia is the first data center operator to provide this innovative technology in Hong Kong, and is set to expand the service to its other data centers in Greater China and East and Southeast Asia.

In recent years, advances in AI, IoT and machine learning, combined with increased computing power and performance requirements, have led to a higher server rack density – a particularly dire problem with Hong Kong's land constraints. The result has been an upsurge in heat generated by traditional data centers, with cooling systems correspondingly consuming significantly more energy at greater cost.

By contrast, immersion cooling solutions are widely recognized for their reliability and energy and cost efficiency. They are also conveniently scalable to any size of data center.

Immersion cooling – also known as direct liquid cooling – is an innovative cooling solution that brings significant advantages over traditional air-cooling techniques, especially when applied to high-density environments such as data centers. For facilities that feature extremely high-density racks (typically over 30 kW), air cooling simply is not sufficient to maintain the reliability of IT systems, no matter how new or optimized they may be. For such facilities (rack power requirements are reaching close to 20 kW in many facilities, and many organizations are looking to deploy racks with requirements of 50kW or more), liquid cooling is not a choice, but a necessity.

With immersion cooling, the rack is designed specifically so that servers are inserted vertically. An immersion tank houses the servers in a dielectric bath, and utilizing a CDU, circulates cooling fluid to remove heat.

As well as scalability, immersion cooling systems also offer a quieter working environment. Other key benefits include:

- **Improved reliability and performance:** up to 10x increase in computing density when comparing to air-cooled data centers. It is also more reliable, as the server is now sealed in a unit and unaffected by vibration, humidity or air borne dust particles.
- **Improved energy efficiency:** liquid has higher thermal transfer properties than air. It also reduces server energy use significantly as no fans are required within the rack – no water consumption and no fan energy used result in a 45% lower carbon footprint than that of air-cooled data centers, and a PUE of 1.09 or lower anywhere.
- **Sustainability:** liquid cooling provides a more effective way to repurpose captured heat, as liquid-to-liquid heat transfer is more efficient than what is possible with air-based cooling systems. As a result, a large portion of energy is ready for reuse, creating the possibility of energy neutrality by supplying heat.
- **Maximizing cost efficiency:** it maximizes data center space by reducing its physical footprint by 40%. It also decreases cooling infrastructure CAPEX and OPEX by around 50% and 85% respectively.

Mr. Charles Lee, Founder and Chief Executive Officer of Legan Group (parent company of OneAsia), comments: "The introduction of this immersion cooling solution demonstrates our

dedication to providing the best colocation solutions that enable customers to meet the increasingly demanding heat dissipation and power requirements for IT infrastructure today. As the first in Hong Kong to provide this add-on service, it will allow our customers to achieve optimum energy efficiency in operation."

Lee adds that OneAsia's expertise in end-to-end solutions for digital infrastructure means that the new immersion cooling solution will offer the long-term benefits of enabling sustainable, future-ready data centers anywhere, and will help to build a more resilient digital infrastructure.

A key step in building a greener future

The push to make data centers more environmentally friendly is currently underway. Motivated by sustainable policies and initiatives and enhanced awareness, clients and industry players are looking for better ways to reduce data centers' energy consumption in order to stay ahead of the trend.

Building-related activities account for some 90% of Hong Kong's total electricity consumption, which is significantly higher than a global average of 40%¹. Meanwhile, 4% of the total electricity consumption is used in the data center segment, in which over 37% of electricity consumption is used for air conditioning² – a figure much higher than the average 25% for the commercial sector. These findings show air conditioning reduction – i.e. introducing immersion cooling solutions – to be a key step in actualising the Hong Kong Government goal of reducing energy intensity by 40% by year 2025³, and the Paris Agreement's goal of limiting global warming to well under 2°C (preferably to 1.5°C) compared to pre-industrial levels.

Headquartered in Hong Kong with an expanding Asian market that boasts data centers in Hong Kong, Greater China, Japan, South Korea, Thailand and Indonesia, OneAsia is committed to investing in cutting-edge technologies that provide the greenest, most reliable and efficient IT infrastructure and solutions to our partners, and to working tirelessly to help make our sustainable future a reality.

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About OneAsia

Established in 2009, OneAsia is a leading data center, connectivity, and cloud solutions provider offering a full range of infrastructure, management, connectivity, and application services to business of all sizes. The Company operates top-tier rated data centers and offers services across Asia, including Greater China, and is further expanding its presence in Thailand, Japan and South Korea. OneAsia cares about the sustainability of the industry as much as the reliability of our services, we integrate state-of-the-art and green technologies into our data center infrastructure

¹ According to Hong Kong Green Building Council

² EMSD Hong Kong Energy End-use Data 2021

³ Energy Saving Plan for Hong Kong, China's Built Environment 2015~2025+

and our service solutions to keep our customers well connected at any time and from anywhere.
For more information, please visit www.oneas1a.com