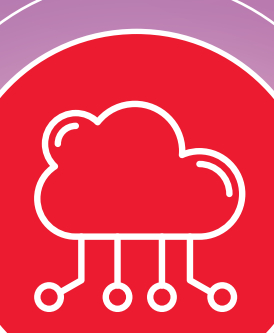


# THE FUTURE OF CLOUD COMPUTING

The need for faster information processing is growing at an exponential pace. **More data means more power. More power means more heat.** With immersion cooling, a method of submerging computer components in a liquid coolant, we can manage heat faster while being more efficient, safe and sustainable.

## INDUSTRIES OF THE FUTURE



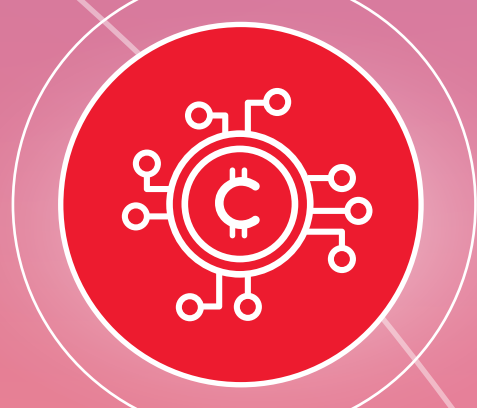
### 5G Edge Computing THE FUTURE OF COMPUTING

Edge computing centers are often located in urban areas, where space is more expensive and less available



### High Frequency Trading THE FUTURE OF TRADING

High frequency trading requires high-performing systems that rely on timeliness and response speed



### Blockchain and Crypto THE FUTURE OF FINANCE

Blockchain technology requires a large number of machines connected to a network with frequent mathematical calculations



### AI and Machine Learning THE FUTURE OF LEARNING

Training algorithms for AI applications use a large number of GPUs, which creates a high level of heat and requires a lot of electricity to cool

Each of these future industries will require one major component: **DATA CENTERS**. These growing industries will require data centers with higher speeds, increased efficiency and an abundance of resources. And it's critical we accelerate with sustainability in mind.

#### HERE'S WHY:

**30%**

increase in data center energy since 2010 as a result of the increase in need for data centers

**40%**

of the energy use from data centers comes from the cooling needed

**1 billion**

liters of water are used by data centers per day in the U.S. alone

**1.5%**

of the world's electricity consumption is accounted for by data centers

## MOVING INDUSTRIES FORWARD

To ensure these critical cloud and data centers are more efficient and sustainable — and to reduce their tremendous energy and land consumption — we've created a revolutionary new single-phase cooling method enabled by silicone chemistries: DOWSIL™ Immersion Cooling Technology.

### DOWSIL™ IMMERSION COOLING TECHNOLOGY ENABLES:

#### SUSTAINABILITY FOR A CARBON NEUTRAL FUTURE



A **low-carbon solution** featuring low Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP) to reduce environmental impact



Water consumption in immersion cooling amounts to **less than 1%** of the total water used in traditional cooling methods



Immersion cooling can reduce a data center's energy usage by **over 60%**



Delivers optimal cooling and thermal conductivity with **low dielectric constant** (ranging from 2.1 to 2.2) and **low viscosity** (10/30 cSt at 4C) with multiple selections



Silicone liquid is **superior in heat conduction** versus air

#### HIGH COST EFFICIENCY



**Reduction** of noise, costs and leakage risks



**Does not require** chillers, CRACs, CRAHs or raised floorst



Easy to maintain in a **convenient location** that saves space

#### STABILITY FOR AN ACCELERATED OUTLOOK OF DATA CENTERS



**Built on** stable chemical properties, high material compatibility and low water absorption



Liquid can get into **small spaces and closer** to materials that need cooling



Learn more about immersion cooling at  
**[bit.ly/DowImmersionCooling](https://bit.ly/DowImmersionCooling)**



©™ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow. © 2023 The Dow Chemical Company. All rights reserved. 2000024822-5792 Form No. 11-4331-01-0523 S2D

Seek Together™