

# Digital Payments Company Uses Liquid Cooling for Faster Transaction Times Through High-Performance Computing

A Vertiv Case Study



## Background

Recording 150 million transactions in a single day, this digital payment and financial technology company launched its digital wallet application based on the Unified Payment Interface (UPI) in 2016 — an app that is accepted as a payment option at more than 25 million offline and online merchant outlets across 15,700 towns and villages. The company aims to accelerate progress by helping its users unlock the flow of money and access to services.

## Challenge

After seeing delays in transaction times that were causing users to swap to competing service providers and after experiencing server throttling during peak shopping seasons, this digital payment company sought to increase its computing capacity without renting additional colocation space and without driving up energy costs to power its critical infrastructure.

## Solution

To increase computing capacity without expanding the footprint of the deployment, the company chose to increase rack density. To combat the increasing heat in this type of high-density environment, the digital payment company adopted a hybrid cooling strategy, dividing the IT load between [liquid cooling](#) (65%) and air cooling (35%) technologies. Using a liquid cooling solution like the [Vertiv™ Liebert® VIC immersion cooling tank](#), the company quickly achieved its operational goals.

## Outcome

On its way to increasing transaction times for its customers, this digital payment service provider implemented a market-disrupting liquid cooling solution and reduced overall system power usage effectiveness (PUE) from 1.6 to 1.25. Not only did the company increase its volume of transactions without server throttling, it also cut energy consumption and reduced its required colocation space by 50%. With a liquid cooling solution, the company also reduced its yearly carbon emissions by 20.5%. Due to the numerous benefits and the success of this deployment, both the developer and the digital payment organization decided to support its next mega-facility deployment by implementing liquid cooling solutions.

### Company Profile

A leading digital payments platform with more than 450 million registered users

### Industry

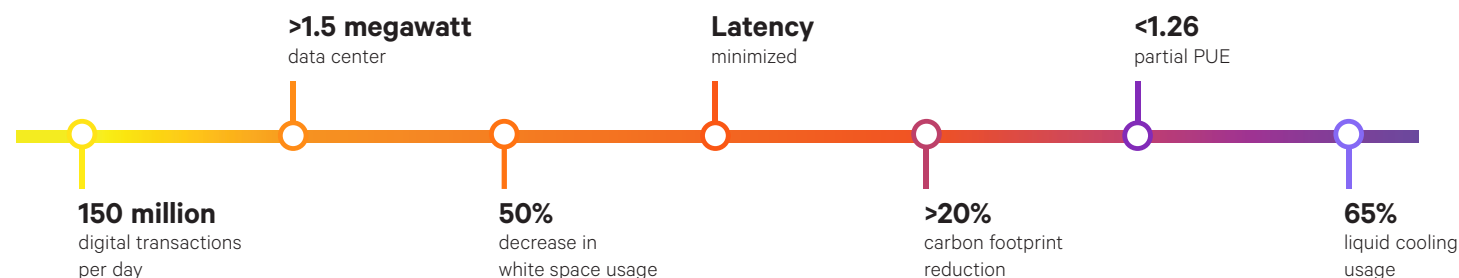
Internet e-commerce

### Region

Mumbai and Bengaluru, India

*Vertiv is always committed to supporting customers in creating sustainable and eco-friendly data centers. And e-commerce is one of the embryonic segments using liquid cooling solutions to improve partial PUE and lessen carbon footprint."*

— Ashok Yadav, Director – Thermal Mangement, Vertiv



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