

Data Center Thermal Management & Sustainability Intelligence Service

Part of the Cloud & Data Center Service Area Package

Comprehensive insight and analysis of sustainable data center practices and strategies with a focus on new technologies like liquid cooling and energy storage.

**PRODUCT OVERVIEW | Data Center
Thermal Management & Sustainability
Intelligence Service**

VMC

“ The stakes are high when it comes to data center sustainability. While the use of air-cooled equipment dominates data centers today, liquid cooling solutions are gaining interest because they improve the power-to-cooling ratio, address new workload needs and help to achieve sustainability goals. ”

Moises Levy, Ph.D.

Senior Principal Analyst

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KEY QUESTIONS ADDRESSED

- What strategies can improve data center sustainability?
- What incentives are there for data center operators?
- Are operators investing in liquid cooling?
- Who are the main thermal management vendors?
- How does energy storage enable sustainability?
- Who's partnering with who and why?

HOW OMDIA HELPS YOU

- Outline ways to improve resource efficiency
- Understand data center investment enabling sustainability and what are the low hanging fruit
- Compare and contrast the actions and practices of data center operators
- Double click on thermal management strategies and how they will change in the future
- Map the key liquid cooling vendors and their solutions, and see their actual market share
- Follow key trends like AI-based analytics for data center management, equipment renewal and reuse, etc.

NEW ENHANCEMENTS

- New thermal management strategies end-user survey
- Topical reports on new technologies enabling sustainability like energy storage
- New "Microgrids" in Data Centers Topical Report
- New "Trends to Watch" report
- Data center sustainability incentives research

Free Cooling



- Reduces or eliminates the need for mechanical cooling
- Might not be suitable for the whole year operations in most locations

Partial Free Cooling



- Reduce the number of hours mechanical cooling operates
- Available the whole year

Mechanical Cooling



- Less reliant on external conditions
- Available the whole year

Source: OMDIA

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Data Center: Our Expert Analysts



Moises Levy
Senior Principal Analyst



Nicole Tuggle
Research Analyst



Vlad Galabov
Research Director

Data Center: Deliverables



MARKET TRACKERS

- Data Center Thermal Management Tracker



SURVEYS & REPORTS

- Market Landscape: Energy Storage Systems
- Market Landscape: Microgrids
- Market Radar: Liquid Cooling
- “Trends to Watch”



BRIEFINGS

Biannual scheduled briefings with analysts on research highlights from all aspects of the market.



ANALYST INSIGHTS

Analyst commentary on market shifts, technology and regional developments, vendors, events, and more.



ANALYST ACCESS

Prompt responses from Omdia’s regional analyst team to urgent and unique questions.

Quantitative Research Overview

Data Center Thermal Management Report

Provides a comprehensive overview of the data center thermal management market. Presents market size, share and forecasts by product, heat rejection type, segmented by region, vertical market, sales channel and cooling capacity.

DETAILS

Frequency: Annual

Measures

- Revenues

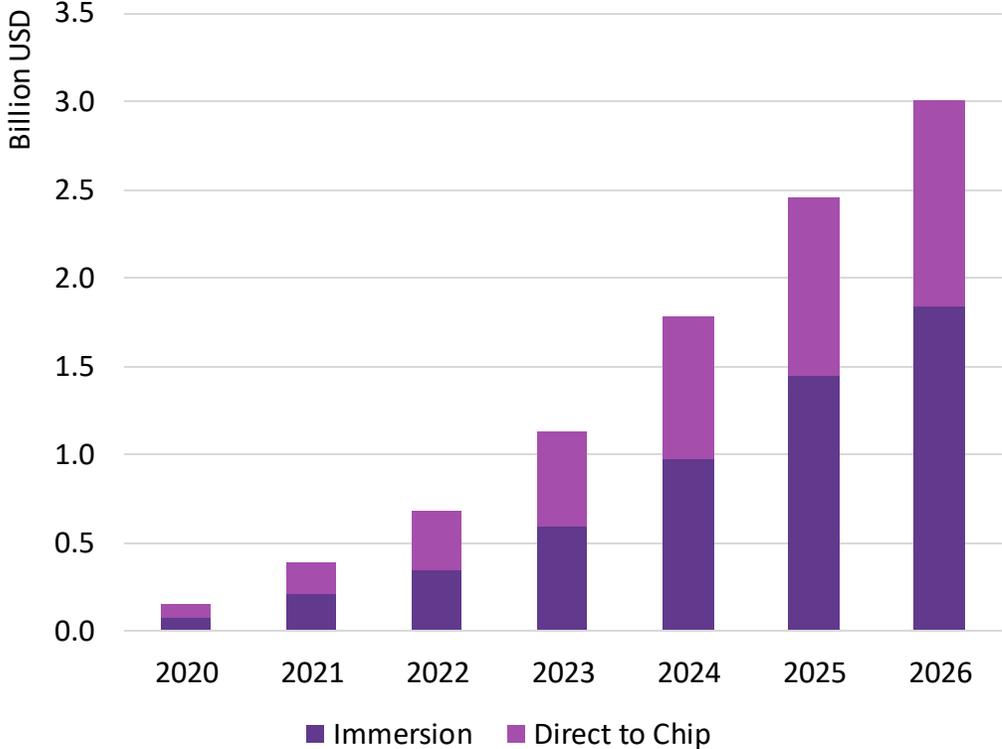
Regions

- North America
- Latin America & the Caribbean
- Western Europe
- Rest of Europe, Middle East and Africa
- Asia and Oceania
- And 56 country and minor regions

Product Types

- Air handler units – indoor
- Air handler units – outdoor
- Ceiling mount
- Mini split
- Outdoor air handlers
- Rack
- Rear door heat exchangers
- Row
- Perimeter
- Liquid cooling: Direct to chip
- Liquid cooling: Immersion
- Chillers
- Containment

Data center liquid cooling forecast



Source: OMDIA

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Vendor and Market Assessment Research in 2023

Market Landscape: Energy Storage Systems

New energy storage technologies and battery chemistry innovation are promising to help data centers become more sustainable. With multiple development efforts at different stages, we explore the landscape and vendors.

Market Landscape: Microgrids

As data centers continue to grow in count and scale, the application of new energy sources is imperative to improve resiliency and reliability. Microgrids based on renewable energy offer an innovative and sustainable solution. We discuss the advantages of this upcoming technology.

Market Radar: Liquid Cooling

Liquid cooling is enabling new power densities in the data center and has spurred a design revolution. Our existing primary research showed that data center operators have not made a decision on a singular liquid cooling solution. In this report we explore the wild, wild west of that is the liquid cooling ecosystem and solutions available to end-users.

Trends to Watch

Our experts summarize what the data center industry should be looking out for in the next year.

Overview of All Cloud and Data Center Subscription Services

RESEARCH COVERAGE

Software, Services and Investment

IT Operations

Software Market Forecast

Omdia Universe: Selecting a Cloud Service Provider

Omdia Universe: Selecting an AIOps Solution

Disrupters

Cloud & Colocation

Infrastructure Cloud Services (IaaS, PaaS, CaaS)

Software-as-a-Service

Colocation Services

Data Center CAPEX

Data Center Buildout

Cloud Native Computing

Container Management

Dev Ops Release Management

Omdia Universe: Serverless

WebAssembly Market Landscape

IT Equipment

Data Center Compute

Servers (device & silicon)

Server Connectivity and Infrastructure Processing (SmartNIC/DPU/IPU)

Workload-level Analysis

High Performance Compute

On-premises IaaS

Data Center Networks

Ethernet Switches by Speed

Switch Silicon Development

SD-WAN Platforms and End-user Strategies

Data Center Storage

Storage Arrays and JBOD

Software-defined Storage

Memory Innovation, DataOps & Data Fabric

Physical Infrastructure

Data Center Thermal Management & Sustainability

Liquid Cooling Market Radar and Market Forecast

Microgrids

Energy Storage Innovation

Smart-grid Ready UPS

Uninterruptible Power Supplies

UPS Hardware & Services

Modular UPS

Industrial UPS

End-user Strategies

Modular and Micro Data Centers

Rack Enclosures

Rack Power Distribution

Modular Data Centers

Micro Data Centers

Related Content: Cloud and Data Center Area Coverage



Service Area Package: **Cloud and Data Center**

IT Operations	Cloud & Colocation
Cloud Native Computing	Data Center Compute
Data Center Networks	Data Center Storage
Data Center Thermal Management & Sustainability	Uninterruptible Power Supplies
Modular and Micro Data Centers	

About Omdia’s Service Providers & Markets Services

Omdia provides expert analysis and data on service providers, their markets, and the strategies for success. We can help you assess which markets and services will drive future growth, understand the changing digital landscape, navigate market regulation, benchmark competitors, and select the appropriate partnerships and business models to exploit new technologies, services and segments.

Our global team of domain and local market experts, leveraging the most comprehensive industry dataset available, will help you unlock value in entirely new and profound ways.

Custom Solutions

Omdia’s consulting services offer a true end-to-end service capability across all aspects of your product lifecycle, from concept and product development, to go-to-market and sales effectiveness. **Contact us** if you have a project that you would like to discuss with a member of the team.



Our “Ask an Analyst” Service Provides Best in Class Customer Support

Whether you need guidance to navigate the service, information regarding our methodologies or you want to better understand a data trend, Omdia’s support team is here to help.

Draw on our expertise

- Make the right decisions
- Sanity-check your own findings
- Get the most out of your subscription
- Understand more about our methodologies

Our Ask an Analyst service gives you direct contact via telephone, email or face-to-face session with our expert analyst team:



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Thank you

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