

# Upgraded Data Center Racks with Rebranding

## Article Overview

Modern data center racks are being upgraded with advanced cooling, modularity, AI integration, and rebranding to optimize performance, efficiency, and scalability.

### Key Innovations in Upgraded Racks

**Advanced Cooling Systems:** OVHcloud has introduced Smart Racks with a fifth-generation design featuring direct-to-chip waterblocks and a single integrated cooling loop, reducing water consumption by up to 30% and cooling electricity by up to 50% while using over 30 sensors to dynamically adjust cooling based on server workloads . Microsoft similarly integrates liquid cooling with custom AI chips in its Azure data centers to maximize performance and energy efficiency . **Modular and Stackable Designs:** Air20 has developed high thermal density, stackable racks that allow multiple 42U units to be vertically stacked, enabling expansion without increasing the data hall footprint. This modular approach simplifies capacity scaling and reduces downtime during upgrades . Vertiv and Flex also offer modular and customizable rack solutions, supporting both standard and high-density configurations for AI and enterprise workloads . **AI and Smart Monitoring:** Modern racks increasingly incorporate AI-driven monitoring and control. OVHcloud's Smart Racks use sensors to monitor pressure, speed, and water temperature, automatically adjusting cooling in real time . Microsoft's Azure Maia AI infrastructure aligns hardware and software to optimize AI workloads, demonstrating how vertical integration and intelligent monitoring enhance efficiency . **Rebranding and Market Positioning:** Vendors are rebranding these upgraded racks as “Smart Racks,” “High-Density Racks,” or “AI-O...

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How to size, lay out, and cool data center server racks the right way. A

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Data Center Rack Market Size, Share | Industry Report 2034

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Inside a data center, a labyrinth of servers and high-tech networking gear are arranged in specialized

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DC power in the racks

Data centers adopted many things from telecoms, most notably the ubiquitous 19-inch rack, which was standardized by

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Data Center Racks Tracker – 2024 Omdia

The 19-inch racks will be renamed as EIA-310 Rack Enclosures. Upon receiving material information on the high

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### Omdia projects Open Rack enclosures to become the

As the transition from 19-inch EIA-310 Rack Enclosures to 21-inch Open Rack Enclosures

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