

Data Center Compute Intelligence Service

Part of the Cloud & Data Center Service Area Package

Global in-depth coverage of data center compute equipment used by enterprises, cloud, and telecom providers.

PRODUCT OVERVIEW | Data Center
Compute Intelligence Service

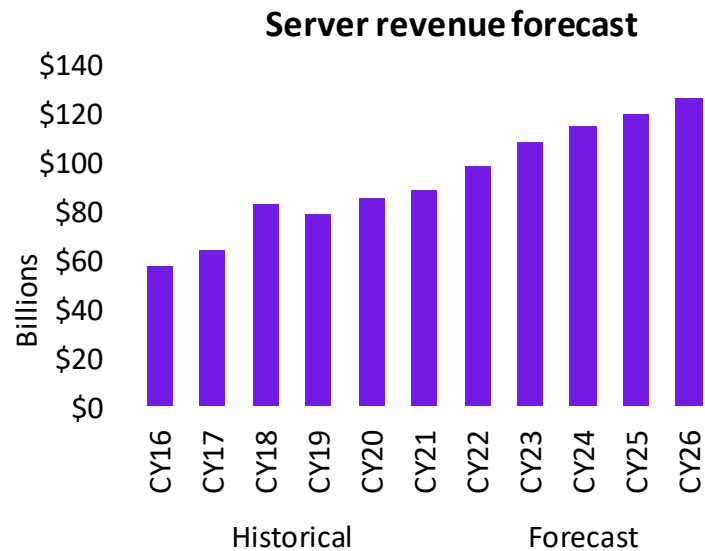
The VMware logo, consisting of a stylized 'v' symbol followed by the letters 'M', 'W', 'A', and 'R' in a bold, sans-serif font.

“ The datacenter server market is expected to undergo a massive transformation in the next few years with new technologies like CXL, custom CPUs and co-processors, new consumption models etc. ”

Manoj Sukumaran
Principal Analyst

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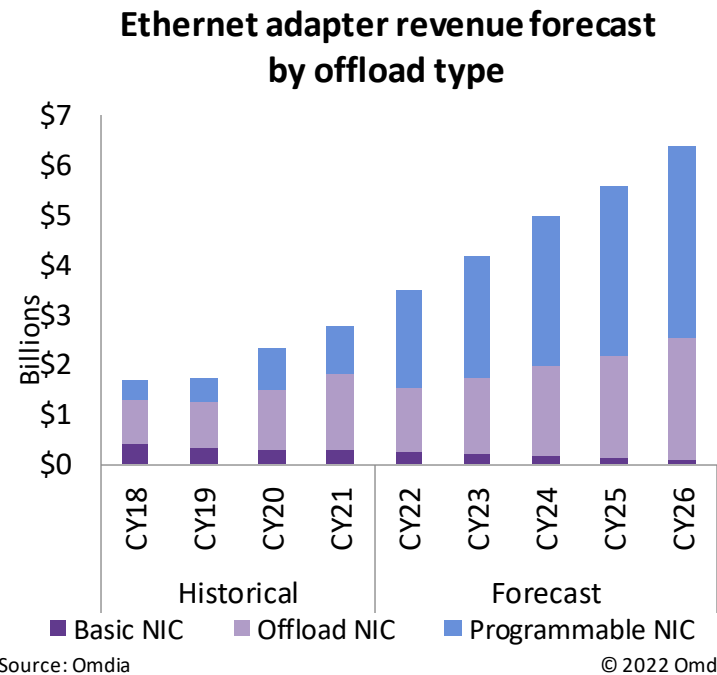


Source: Omdia

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KEY QUESTIONS ADDRESSED

- What are the technology transitions in the server market?
- How are enterprises, cloud and telecom providers deploying compute at the edge?
- What CPU and co-processor types are deployed in servers today and are required going forward?
- What is the adoption rate of open computing?



Source: Omdia

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HOW OMDIA HELPS YOU

- Understand server and server connectivity market shipment and revenue growth
- Understand silicon attach rate for artificial intelligence workloads
- Adoption of CPU architecture: x86, Arm, RISC-V etc.
- Follow transition to white box servers
- Get perspective on adoption of open compute project (OCP) servers and network adapters
- Better understanding of migration of compute to the edge
- Get perspective on market adoption of programmable network interface cards (NIC)
- Correlate port shipments across DC IT infrastructure (servers, network, storage)

NEW ENHANCEMENTS

- Server Silicon Market Tracker and Analysis
- Report on on-premises IaaS market
- Analyst reports on the emerging server architectures
- Silicon level analysis of programmable Ethernet adapters

Data Center Compute: Our Expert Analysts



Manoj Sukumaran
Principal Analyst
Compute Systems



Vlad Galabov
Research Director
Server Workloads



Aaron Lewis
Analyst
Server Connectivity

Data Center Compute: Deliverables



MARKET TRACKERS

- Data Center Server Market Tracker
- Server Connectivity Market Tracker
- Server Silicon Market Tracker



MARKET ANALYSIS REPORTS

- Data Center Server Market Analysis
- Server Connectivity Market Analysis



TOPICAL REPORTS & ANALYSIS

- Server Silicon Market Analysis
- Server Workload Tracker and Analysis
- On-premises IaaS Market Landscape
- Market Radar: Infrastructure Processing



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 (1/2)

Data Center Server Tracker

Worldwide and regional market size, share, forecasts, and analysis for servers by form factor, market segment, CPU type, and co-processor. Accompanied by a semi-annual report analyzing key trends and market drivers.

DETAILS

Frequency: Quarterly

Measures

- Revenues
- Units

Regions

- North America (US and Canada)
- Europe, the Middle East, and Africa
- Asia and Oceania (including Japan and Australia)
- Caribbean and Latin America (including Mexico)

Sub regions

- Mainland China and Rest of Asia Pacific

Data center server equipment

- Form factor
 - Rack [branded, white box]
 - Blade [shared resource, density optimized]
 - Open compute
 - Tower
 - Edge server form factor
- Market segment
 - Hyperscale Cloud SP
 - Tier 2 Cloud SP
 - Communication service providers
 - Enterprise
- CPU attach (x86, ARM, PowerPC, etc.)
- Co-processor attach (GPU, FPGA, etc.)

Server Connectivity Tracker

Market size, share, forecasts, and analysis for Ethernet network adapters by speed, CPU offload, form factor, processor, and market segment. Accompanied by a semi-annual report analyzing key trends and market drivers.

DETAILS

Frequency: Quarterly

Measures

- Revenues
- Ports

Regions

- Worldwide

Ethernet Network Adapters

- Speed
 - 1GE, 10GE, 25GE, 40GE, 50GE, 100GE, 200GE

- CPU offload
 - Basic NIC
 - Offload NIC
 - Programmable NIC (a.k.a. DPU, IPU or SmartNIC)
- Form factor: Open compute, Stand up, Piggyback
- Market segment: Cloud Service Provider, Communication service providers, Enterprise
- Silicon: FPGA, Arm SoC, ASIC

Ethernet Controllers (on motherboard)

- Speed
 - 10GE, 25GE, 40GE, 50GE, 100GE, 200GE

Quantitative Research Overview (2/2)

Server Silicon Tracker

Market size, share, forecasts, and analysis for server CPUs by architecture type (x86, Arm, etc.) and co-processors by processor type (GPU for video, GPU for AI, FPGA, etc.) Accompanied by an annual report analyzing key trends and market drivers.

DETAILS

Frequency: Quarterly

Measures

- Revenues
- Units

Regions

- Worldwide

Server CPU

- Architecture
 - Arm-based
 - x86
 - Other

Server CPU

- By processor type
 - GPU (visualization only)
 - GPU (general purpose)
 - FPGA
 - Other

Server Workload Tracker

Server shipments and revenue split by eight workload categories, end-user segment and location. Includes forecast out to 2026 and sub-segment analysis for key workloads like telecommunication network processing. Accompanied by an annual analysis of key trends.

DETAILS

Frequency: Annual

Measures

- Revenues
- Units

Regions

- Worldwide

Server workload categories

- Artificial intelligence (incl. inference and training)
- Database and analytics (incl. storage)
- Media, graphics and gaming (incl. CDN and VDI)
- Search, social and e-commerce
- Telecommunication network processing
- Virtual RAN

- Core Network
- OSS and BSS
- Other web applications (i.e. web CRM)
- Other IT workloads and business processes (i.e. R&D)

Each workload category is subdivided by

- Market segment
 - Hyperscale Cloud SP
 - Tier 2 Cloud SP
 - Communication service providers
 - Enterprise
- Location
 - Edge
 - Non-edge

Vendor and Market Assessment Research in 2023

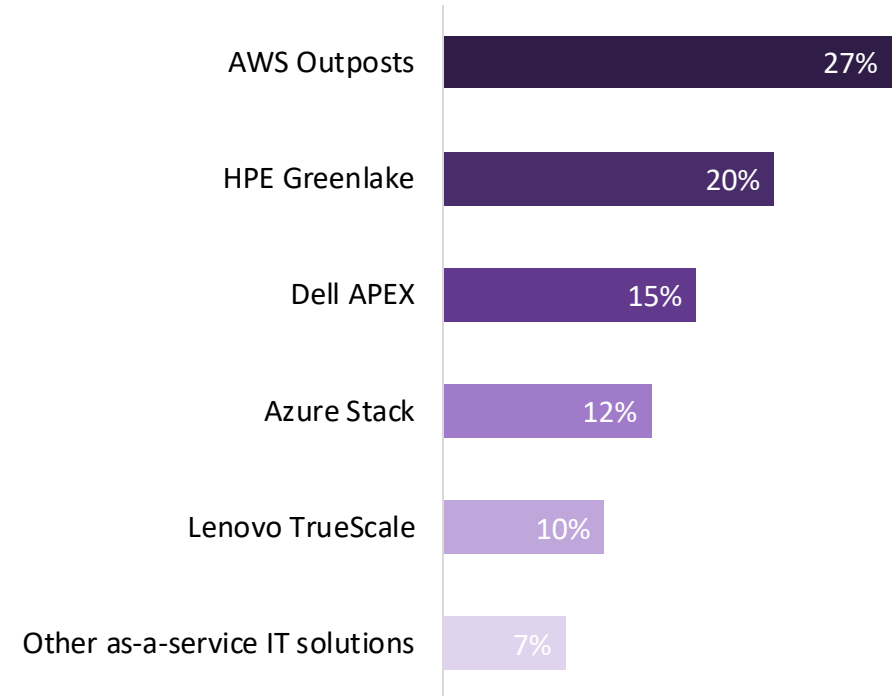
On-premises IaaS Market Landscape

Disrupting the disruptors, this fast-growing market is challenging the business model of the public cloud. The report will include market size and forecast and end-user data, leveraging one of the broadest surveys in the industry.

Market Radar: Infrastructure Processing

Programmable NICs, marketed by vendors as SmartNICs, data processing units (DPU) or infrastructure processing units (IPU) have solidified their spot as efficient network and security workload processors. Mature in the data centers of cloud service providers, this technology is still in its infancy at many enterprises. This market is difficult to navigate due to an overwhelming amount of confusing marketing from vendors. With this report we demystify the market.

On premises infrastructure as-a-service solutions



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Source: OMDIA

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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

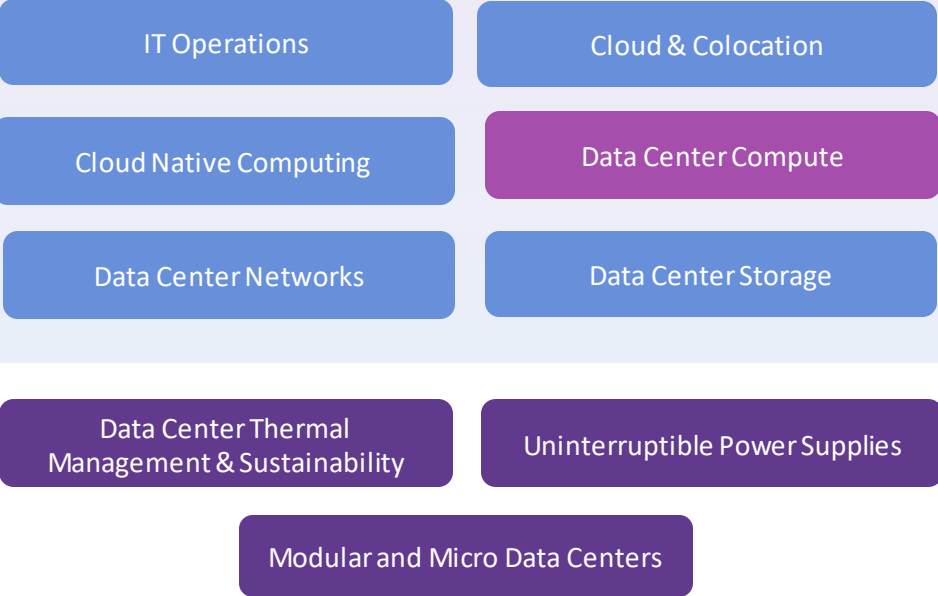
Modular Data Centers

Micro Data Centers

Related Content: Cloud and Data Center Area Coverage



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



About Omdia’s Cloud and Data Center 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.



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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

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

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Thank you

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