

GPU as a Service (GPUaaS) Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 - 2032

<https://marketpublishers.com/r/GAA508069506EN.html>

Date: September 2024

Pages: 200

Price: US\$ 4,365.00 (Single User License)

ID: GAA508069506EN

Abstracts

The Global GPU As A Service (GPUaaS) Market was valued at USD 6.4 billion in 2023 and is projected to grow at a CAGR of 30% from 2024 to 2032. This surge is primarily fueled by the rising adoption of cloud computing services, celebrated for their scalability, cost-effectiveness, and efficiency. Data from the European Commission reveals that in 2023, over 45% of EU businesses turned to cloud computing services for tasks like email hosting, file storage, and office software. The industry is increasingly leaning towards high-performance computing (HPC) tasks, encompassing scientific simulations, weather forecasting, and financial modeling. HPC applications demand significant computational power for their simulations and modeling.

GPUs expedite the processing of vast datasets and intricate calculations to facilitate quicker and more nuanced simulations, such as particle collisions. Climate scientists are turning to GPUaaS for enhanced weather forecasting and climate modeling. By harnessing the parallel processing prowess of GPUs, researchers can sift through extensive meteorological data, leading to more precise weather predictions and climate change models. Such advancements play a crucial role in comprehending and addressing the challenges posed by climate change.

The overall industry is segmented into component, service model, delivery model, end-user, application, and region. The market, categorized by service models, includes SaaS, PaaS, and IaaS. In 2023, the SaaS segment dominated with over 55% market share and is on track to surpass USD 35 billion by 2032. The SaaS model alleviates concerns of hardware maintenance and updates, as service providers oversee software management, patching, and scaling. This convenience appeals to companies eager to lighten operational loads while tapping into high-performance computing.

End-user segmentation of the GPU as a service market encompasses gaming, design & manufacturing, automotive, real estate, healthcare, and more. In 2023, the gaming

segment accounted for approximately 31% of the market. Today's games demand top-tier graphics, real-time rendering, and immersive settings, all reliant on robust GPUs. With GPUaaS, gaming firms can offer players superior visual experiences, like ray tracing and 4K resolution, sidestepping the need for costly gaming rigs.

North America captured roughly 37% of the GPU as a service market share in 2023 and is poised for notable growth through 2032. This regional expansion is largely due to the dominance of major cloud service providers, including AWS, Microsoft Corporation, and Google LLC, who are spearheading the growth of GPUaaS offerings.

Contents

Report Content

CHAPTER 1 METHODOLOGY & SCOPE

- 1.1 Research design
 - 1.1.1 Research approach
 - 1.1.2 Data collection methods
- 1.2 Base estimates and calculations
 - 1.2.1 Base year calculation
 - 1.2.2 Key trends for market estimates
- 1.3 Forecast model
- 1.4 Primary research & validation
 - 1.4.1 Primary sources
 - 1.4.2 Data mining sources
- 1.5 Market definitions

CHAPTER 2 EXECUTIVE SUMMARY

- 2.1 Market 360° synopsis, 2021 - 2032

CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
- 3.2 Supplier landscape
 - 3.2.1 Raw material suppliers
 - 3.2.2 Original equipment manufacturer (OEMs)
 - 3.2.3 Technology providers
 - 3.2.4 System integrators
 - 3.2.5 Service providers
 - 3.2.6 End user
- 3.3 Profit margin analysis
- 3.4 Technology & innovation landscape
- 3.5 Case studies
- 3.6 Patent analysis
- 3.7 Key news and initiatives
 - 3.7.1 Partnership/Collaboration
 - 3.7.2 Merger/Acquisition

- 3.7.3 Investment
- 3.7.4 Product launch & innovation
- 3.8 Regulatory landscape
- 3.9 Impact forces
 - 3.9.1 Growth drivers
 - 3.9.1.1 Growing demand for AI and machine learning workloads
 - 3.9.1.2 Rising popularity of cloud gaming
 - 3.9.1.3 Increased use of data analytics and real-time processing across industries
 - 3.9.1.4 Cost savings and operational flexibility from the pay-as-you-go model
 - 3.9.2 Industry pitfalls & challenges
 - 3.9.2.1 Data privacy and security concerns
 - 3.9.2.2 Limited customization and control
- 3.10 Growth potential analysis
- 3.11 Porter's analysis
- 3.12 PESTEL analysis

CHAPTER 4 COMPETITIVE LANDSCAPE, 2023

- 4.1 Introduction
- 4.2 Company market share analysis
- 4.3 Competitive positioning matrix
- 4.4 Strategic outlook matrix

CHAPTER 5 MARKET ESTIMATES & FORECAST, BY COMPONENT, 2021-2032 (\$BN)

- 5.1 Key trends
- 5.2 Software
 - 5.2.1 CAD/CAM
 - 5.2.2 Simulation
 - 5.2.3 Imaging
 - 5.2.4 Digital video
 - 5.2.5 Modeling and animation
 - 5.2.6 Others
- 5.3 Service
 - 5.3.1 Managed services
 - 5.3.2 Updates and maintenance
 - 5.3.3 Compliance and security
 - 5.3.4 Others

CHAPTER 6 MARKET ESTIMATES & FORECAST, BY DELIVERY MODEL, 2021-2032 (\$BN)

- 6.1 Key trends
- 6.2 Public cloud
- 6.3 Private cloud
- 6.4 Hybrid cloud

CHAPTER 7 MARKET ESTIMATES & FORECAST, BY SERVICE MODEL, 2021-2032 (\$BN)

- 7.1 Key trends
- 7.2 SaaS
- 7.3 PaaS
- 7.4 IaaS

CHAPTER 8 MARKET ESTIMATES & FORECAST, BY END-USER, 2021-2032 (\$BN)

- 8.1 Key trends
- 8.2 Gaming
- 8.3 Design and manufacturing
- 8.4 Automotive
- 8.5 Real estate
- 8.6 Healthcare
- 8.7 Others

CHAPTER 9 MARKET ESTIMATES & FORECAST, BY APPLICATION, 2021-2032 (\$BN)

- 9.1 Key trends
- 9.2 AI & ML
- 9.3 Graphics rendering
- 9.4 Data analytics
- 9.5 Scientific simulations
- 9.6 Medical imaging
- 9.7 Cryptocurrency mining
- 9.8 Others

CHAPTER 10 MARKET ESTIMATES & FORECAST, BY REGION, 2021-2032 (\$MN)

- 10.1 Key trends
- 10.2 North America
 - 10.2.1 U.S.
 - 10.2.2 Canada
- 10.3 Europe
 - 10.3.1 UK
 - 10.3.2 Germany
 - 10.3.3 France
 - 10.3.4 Italy
 - 10.3.5 Spain
 - 10.3.6 Russia
 - 10.3.7 Nordics
 - 10.3.8 Rest of Europe
- 10.4 Asia Pacific
 - 10.4.1 China
 - 10.4.2 India
 - 10.4.3 Japan
 - 10.4.4 South Korea
 - 10.4.5 ANZ
 - 10.4.6 Southeast Asia
 - 10.4.7 Rest of Asia Pacific
- 10.5 Latin America
 - 10.5.1 Brazil
 - 10.5.2 Mexico
 - 10.5.3 Argentina
 - 10.5.4 Rest of Latin America
- 10.6 MEA
 - 10.6.1 South Africa
 - 10.6.2 UAE
 - 10.6.3 Saudi Arabia
 - 10.6.4 Rest of MEA

CHAPTER 11 COMPANY PROFILES

- 11.1 Advanced Micro Devices, Inc
- 11.2 Alibaba Cloud
- 11.3 Amazon Web Services Inc.

- 11.4 Autodesk Inc.
- 11.5 Dassault Systems, Inc.
- 11.6 dinCloud
- 11.7 FluidStack, Ltd.
- 11.8 Google LLC
- 11.9 IBM Corporation
- 11.10 Intel Corporation
- 11.11 Lambda, Inc.
- 11.12 Linode LLC
- 11.13 Microsoft Corporation
- 11.14 Nimbix, Inc.
- 11.15 NVIDIA Corporation
- 11.16 OVH Cloud
- 11.17 Penguin Computing Inc.
- 11.18 Qualcomm Technologies, Inc.
- 11.19 ScaleMatrix Holdings, Inc.
- 11.20 VULTR (The Constant Company LLC)

I would like to order

Product name: GPU as a Service (GPUaaS) Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2024 - 2032

Product link: <https://marketpublishers.com/r/GAA508069506EN.html>

Price: US\$ 4,365.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GAA508069506EN.html>