

Data Processing Unit Market 2025 Trends: Predicted to Grow at a CAGR of 26.9% from 2022 to 2031, Report

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Allied Market Research

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/EINPresswire.com/ -- As per the report published by Allied Market Research Titled "[Data Processing Unit Market](#) by Type (ASIC-Based, FPGA-Based, SOC-Based), by Data Center Type (Colocation, Hyperscale, Edge, Others), by Application (BFSI, IT and Telecom, Government, Energy and Utilities, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031"

The global [data processing unit](#) (DPU) market size was valued at \$553.96 million in 2021, and is projected to reach

\$5.5 billion by 2031, growing at a CAGR of 26.9% from 2022 to 2031.

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A data processing unit (DPU) is a programmable processor that helps move data around these data centers. DPUs enable more efficient storage and free up the CPU to focus on processing. The DPU offloads networking and communication tasks from the CPU. It combines processing cores with hardware accelerator blocks and a high-performance network interface to handle data-centric workloads. This enables the DPU to make sure the right data goes to the right place in the right format quickly.

A DPU processor is system on a chip (SOC) that combines three key elements. First, data processing units typically have a multi-core CPU that is software programmable. The second element is a high-performance network interface that enables the DPU to parse, process, and efficiently move data through the network. The third element is a rich set of flexible, programmable acceleration engines that offload network and storage functions from the CPU to

the DPU. DPUs are often integrated with smart network interface cards (NICs) offering powerful network data processing.

The report includes a detailed analysis of the dynamic factors such as drivers, restraints, challenges, and opportunities. The drivers and opportunities help to comprehend the rapidly changing industry trends and how they can impact the growth of the market. Moreover, the challenges and restraints analyzed in the report help recognize profitable market investments. The global data processing unit report provides quantitative and qualitative analysis of the market from 2021 to 2030.

The qualitative study focuses on the value chain analysis, key regulations, and pain point analysis. The global data processing unit market report includes an overview of the market and highlights market definition and scope along with major factors that shape the data processing unit market. The study outlines the major market trends and driving factors that boost the growth of the data processing unit market. The report includes an in-depth study of sales, market size, sales analysis, and prime drivers, challenges, and opportunities.

Some of the prime drivers of the data processing unit industry are surge in penetration of the aging infrastructure is further anticipated to drive the data processing unit market growth. The market for data processing unit would be driven by investing in new technology aimed at increasing system life. Another key factor driving the growth of the data processing unit market is the increased focus on infrastructure throughout the world.

Data processing unit provides monitoring technology to alert maintenance workers when outdated and overused equipment is about to fail, allowing them to make better decisions by providing real-time data on problems and possibilities for improvement. Aside from the limits listed above, there are others, such as environmental factors such as temperature and humidity, as well as groundwater seepage, which can have an influence on the operation of switchgear electrical networks, particularly those situated outside. The changing times necessitate changes in the fundamentals as well. In this situation, even small and medium-sized organizations (SMEs) are taking advantage of collocation data hubs' immense potential and the internet's enormous capacity.

Key Segmentation

The data processing unit market is segmented into Data Center Type, Type and Application. The report offers an in-depth study of every segment, which helps market players and stakeholders to understand the fastest growing segments and highest grossing segments in the market.

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The market study further promotes a sustainable market scenario on the basis of key product offerings. On the other hand, Porter's five forces analysis highlights the potency of buyers and

suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network. The report provides an explicit global market breakdown and exemplifies how the opposition will take shape in the new few years to come. Rendering the top ten industry players functional in the market, the study emphasizes on the policies & approaches integrated by them to retain their foothold in the industry.

The analysis highlights the highest revenue generating and fastest growing segments. These insights are helpful in devising strategies and achieving a sustainable growth. The data processing unit market is studied on the basis of different segments including type, applications, and region. This makes the study well organized and resourceful along with promoting easy understanding. The report a comprehensive data based on each segment of the data processing unit market.

According to data processing unit market analysis, the FPGA-based segment was the highest contributor in the market in 2021. The colocation and hyperscale segments collectively accounted for around 76.7% market share in 2021. The outbreak of the COVID-19 has significantly impacted the growth of the data processing unit market size.

The data processing unit market is analyzed on the basis of geographical penetration along with a study of market influence in the various regions such as North America (United States, Canada, and Mexico), Europe (Germany, France, UK, Russia, and Italy), Asia-Pacific (China, Japan, Korea, India, and Southeast Asia), South America (Brazil, Argentina, Colombia), Middle East and Africa (Saudi Arabia, UAE, Egypt, Nigeria, and South Africa).

Key Market Players:

Fungible, Inc., Advanced Micro Devices, Inc. (Pensando Systems Inc.), NVIDIA Corporation (Mellanox Technologies), Broadcom Inc., Resnics /Yisixin Technology (Shanghai) Co., Ltd., Marvell Technology Inc., Intel Corporation, kalray

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Key Findings of the Study

In 2021, the hyperscale segment was the major revenue contributor to the data processing unit industry, and is projected to grow at a notable CAGR of 24.94% during the forecast period.

The FPGA-based and SOC-based segments together accounted for around 84.5% of the data processing unit market trends in 2021.

The IT and telecom segment is projected to growth at a CAGR of 28.91% during the forecast period.

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