

Digital Twin Market by Application(Predictive Maintenance, Business Optimization, Performance Monitoring, Inventory Management), Industry(Automotive & Transportation, Healthcare, Energy & Utilities), Enterprise and Geography - Global Forecast to 2028

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Abstracts

The digital twin market is expected to grow from USD 10.1 billion in 2023 to USD 110.1 billion by 2028, at a CAGR of 61.3% during the forecast period. The growth of the digital twin market is driven mainly by the growing demand for digital twin in the healthcare industry and the growing focus on predictive maintenance.

“The digital twin market for the healthcare industry is expected to grow at the highest CAGR during the forecast period”

The digital twin market for the healthcare industry is expected to grow at the highest CAGR during the forecast period. Digital twins offer immense potential to improve patient outcomes and healthcare delivery in healthcare. By creating virtual replicas of physical assets, processes, or even individuals, healthcare providers can gain valuable insights, optimize workflows, and enhance decision-making. Digital twins enable real-time monitoring, predictive analytics, and personalized treatments, leading to more effective and efficient healthcare practices. Furthermore, technological advancements play a significant role in driving the growth of the digital twin market in the healthcare industry. The proliferation of Internet of Things (IoT) devices, cloud computing, artificial intelligence, and big data analytics has made it easier to collect and process vast amounts of healthcare-related data. This data can be leveraged to build and refine digital twin models, enabling healthcare professionals to simulate and test various

scenarios, identify potential issues, and develop targeted interventions.

“Predictive maintenance segment is expected to dominate the digital twin market throughout the forecast period”

The predictive maintenance application is expected to account for the largest size of the digital twin market throughout the forecast period. Predictive maintenance offers significant advantages in terms of cost savings and operational efficiency. By utilizing digital twin technology, organizations can continuously monitor the performance of their assets in real-time. This enables them to detect anomalies, identify potential equipment failures, and proactively schedule maintenance activities. Organizations can minimize disruptions, optimize asset utilization, and reduce overall maintenance costs by addressing maintenance needs before they escalate into costly breakdowns or downtime. In addition, predictive maintenance aligns well with the growing adoption of Internet of Things (IoT) devices and sensors. These connected devices generate vast data regarding asset performance, environmental conditions, and usage patterns. By leveraging digital twins, organizations can integrate and analyze this data to gain insights into asset health, predict failure probabilities, and prescribe preventive measures. This data-driven approach allows for optimized maintenance schedules, reduced unplanned downtime, and improved asset reliability.

“Digital twin market in North America region to register highest CAGR between 2023 and 2028”

The digital twin market in North America is expected to grow at the highest CAGR during the forecast period. North America has a robust technological infrastructure and a mature market for digital twin solutions. The region has numerous technology companies, research institutions, and innovative startups actively developing and implementing digital twin technologies across various industries. The availability of advanced technologies, expertise, and investments in research and development positions North America as a frontrunner in the digital twin market. Furthermore, North America has a strong presence in key industries that heavily rely on digital twin technologies, such as manufacturing, healthcare, automotive, aerospace, and defense. These industries recognize the value of digital twins in optimizing operations, improving product development, enhancing maintenance processes, and driving innovation. The increasing adoption of digital twins in these industries is expected to contribute significantly to regional market growth.

Breakdown of primaries

In determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the digital twin market space. The break-up of primary participants for the report has been shown below:

By Company Type: Tier 1 – 45%, Tier 2 – 25%, and Tier 3 – 30%

By Designation: C-level Executives – 40%, Directors – 25%, and Others – 35%

By Region: North America – 40%, Europe – 25%, Asia Pacific – 20%, and Rest of the World – 10%

Key players in the digital twin market are General Electric (US), Microsoft (US), Siemens (Germany), Amazon Web Services (US), ANSYS (US), Dassault Systèmes (France), PTC (US), Robert Bosch (Germany), and others.

The digital twin market has been segmented into enterprise, application, industry, and region. The digital twin market has been studied in North America, Europe, Asia Pacific, and the Rest of the World.

Reasons to buy the report:

The report will help the market leaders/new entrants with information on the closest approximate revenues for the digital twin and related segments. This report will help stakeholders understand the competitive landscape and gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Analysis of key drivers (rising emphasis on digital twin in manufacturing industries to reduce cost and improve supply chain operations, increasing demand for digital twin from the healthcare industry, and growing focus on predictive maintenance), restraints (high investments associated with implementation of digital twin technology and susceptibility of digital twin to cyberattacks), opportunities (rising emphasis on advanced real-time data

analytics, increasing adoption of industry 4.0 principles, and development of human-centered digital twins), and challenges (complexities associated with data collection and mathematical models and lack of skilled workforce and awareness regarding cost benefit offered by digital twins).

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the digital twin market.

Market Development: Comprehensive information about lucrative markets – the report analyses the digital twin market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the digital twin market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like General Electric (US), Microsoft (US), Siemens (Germany), Amazon Web Services (US), ANSYS (US), Dassault Systèmes (France), PTC (US), Robert Bosch (Germany), among others.

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*Details on Business overview, Products/Solutions/Services offered, Recent Developments, MNM view might not be captured in case of unlisted companies.

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