

Digital Twin Market to Reach USD 228.46 Billion by 2031, Reports Mordor Intelligence

The digital twin market is growing at a 35.95% CAGR, driven by industrial IoT adoption, edge AI deployment, and rising demand for real-time asset intelligence.

HYDERABAD, TELANGANA, INDIA, October 13, 2026 /EINPresswire.com/ -- According to Mordor Intelligence, the [digital twin market size](#) is projected to grow from USD 49.2 billion in 2026 to USD 228.46 billion by 2031, registering a CAGR of 35.95% during the forecast period. The market is expanding as manufacturers, energy companies, aerospace organizations, and infrastructure operators increasingly use digital replicas of physical assets, processes, and systems to improve performance, monitor operations, and simulate complex scenarios. Rapid industrial IoT adoption, wider deployment of edge-based artificial intelligence, virtual commissioning, and growing requirements for safety-critical infrastructure digitization are supporting demand across industries.

The market is also benefiting from the integration of digital twins with cloud computing, simulation software, industrial automation, AI analytics, and enterprise data platforms. While manufacturing remains the largest application segment, oil and gas is projected to record strong growth as operators seek better asset integrity, remote inspection, and predictive maintenance capabilities. North America remains the largest regional market, while Asia-Pacific is projected to record significant growth through 2031, supported by government-led digitalization initiatives, smart infrastructure programs, and industrial modernization.

Digital Twin Market Key Growth Factors

Industrial IoT Integration Expanding Digital Twin Adoption

The expansion of industrial Internet of Things (IIoT) platforms is strengthening digital twin adoption by enabling continuous data exchange between physical assets and their digital representations. Connected sensors, industrial controllers, and telemetry systems provide real-time information about equipment performance, production conditions, and operating parameters. This allows organizations to monitor asset behavior, identify anomalies, and simulate operational changes before implementing them in physical environments. Digital twins are increasingly being used in manufacturing, energy, automotive, and infrastructure applications to improve maintenance planning, reduce downtime, and support more informed operational decisions.

Edge AI and Simulation Improving Operational Efficiency

The growing deployment of edge computing and artificial intelligence is expanding the capabilities of digital twin platforms. Processing data closer to connected equipment reduces latency and supports faster responses to changing operating conditions. AI-enabled digital twins can identify abnormal behavior, improve predictive maintenance, and evaluate alternative operating scenarios. Virtual commissioning also allows engineering teams to test production lines, automation systems, and equipment configurations before physical installation. These capabilities help reduce commissioning delays, limit unnecessary physical testing, and improve the efficiency of capital-intensive projects.

Cloud Platforms and Digitalization Supporting Scalable Deployments

Cloud-based digital twin platforms are gaining traction as organizations seek scalable computing resources, centralized data management, and easier integration with enterprise applications. Cloud infrastructure supports complex simulations and cross-site monitoring without requiring organizations to maintain all computing resources locally. Hybrid deployments allow businesses to retain latency-sensitive workloads at the edge while using cloud environments for aggregated analytics and model development. The availability of managed platforms, application programming interfaces, and reusable modeling tools is also helping organizations expand digital twin deployments across multiple facilities and business functions.

Ashish Gautam, Senior Research Manager, Mordor Intelligence, says, "The digital twin market is expanding as organizations increasingly adopt industrial IoT, artificial intelligence, cloud platforms, and advanced simulation technologies to improve asset performance, operational efficiency, and lifecycle management. Mordor Intelligence applies structured research methodologies and rigorous validation to help organizations assess the evolving digital twin ecosystem, including smart manufacturing, edge AI, virtual commissioning, cloud deployment, industrial automation, and regional adoption trends across the global digital twin market."

Digital Twin Market Recent Industry Developments

August 2026 – Silvaco and Dassault Systèmes partner on semiconductor digital twins: The companies announced plans to develop interoperable digital twin workflows for semiconductor manufacturing, linking equipment simulation, semiconductor process modelling, and structural analysis to improve process development and manufacturing decisions.

June 2026 – KDDI launches a RAN digital twin collaboration with technology partners: KDDI and KDDI Research announced a collaboration with NVIDIA, Keysight, and Samsung Research America to develop a high-fidelity radio access network digital twin for AI-driven network optimization, autonomous operations, and evaluation of 6G-era technologies.

Digital Twin Market Segmentation Insights

By Application

Manufacturing

Energy and Power

Aerospace and Defense

Oil and Gas

Automotive

Others

By Component

Solutions/Platforms

Services

By Deployment Mode

On-premises

Cloud

By Enterprise Size

Large Enterprises

Small and Medium Enterprises (SMEs)

By Geography

North America: United States, Canada, Mexico

South America: Brazil, Argentina, Rest of South America

Europe: United Kingdom, Germany, France, Italy, Spain, Nordics, Rest of Europe

Middle East and Africa: Saudi Arabia, United Arab Emirates, Turkey, Rest of Middle East, South

Africa, Egypt, Nigeria, Rest of Africa

Asia-Pacific: China, India, Japan, South Korea, ASEAN, Australia, New Zealand, Rest of Asia-Pacific

Digital Twin Market Regional Insights

North America

North America remains the largest regional market, supported by established industrial software ecosystems, early Industry 4.0 adoption, and investments in aerospace, manufacturing, and energy infrastructure. Organizations across the United States and Canada are using digital twins to monitor industrial assets, improve predictive maintenance, simulate production processes, and support infrastructure planning. Cloud platform availability and the integration of digital twins with enterprise applications are further supporting regional adoption.

Asia-Pacific

Asia-Pacific is projected to record substantial growth, driven by government-backed digitalization programs, industrial automation, smart-city investments, and expanding infrastructure development. China is advancing digital infrastructure and urban digitalization initiatives, while India is investing in telecommunications modernization and digital infrastructure. Japan, South Korea, Singapore, and Australia are expanding digital twin applications across smart manufacturing, transportation, energy management, and urban planning. These developments are creating opportunities for platform vendors, industrial software providers, and systems integrators.

The digital twin market report is also available in the following languages

Japanese: https://www.mordorintelligence.com/ja/industry-reports/digital-twin-market?utm_source=einpr

French: https://www.mordorintelligence.com/fr/industry-reports/digital-twin-market?utm_source=einpr

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Digital Twin Market Competitive Landscape

The digital twin market features a moderately concentrated competitive environment, with industrial software providers, simulation specialists, cloud companies, and engineering technology vendors competing across platforms and services. Companies differentiate through simulation accuracy, interoperability, AI integration, cloud deployment, visualization, and support for complex industrial workflows. Siemens has strengthened its engineering simulation capabilities through its acquisition of Altair Engineering, while Dassault Systèmes continues to expand virtual twin applications through its 3DEXPERIENCE platform. PTC, Microsoft, AWS, and other technology providers compete through connected industrial platforms, managed services, and enterprise system integration.

As organizations move from pilot projects to multi-site deployments, implementation services, data governance, model validation, and ongoing performance management are becoming increasingly important. Providers that offer secure data exchange, interoperable models, and lifecycle-wide deployment capabilities are well positioned to address enterprise requirements and support broader digital twin adoption across industrial operations.

Digital Twin Industry Leaders

General Electric Company

IBM Corporation

Siemens AG

Dassault Systèmes SE

PTC Inc.

Other companies covered in the report include ANSYS, Inc., AVEVA Group plc, Bentley Systems, Incorporated, Hexagon AB, Microsoft Corporation, Oracle Corporation, SAP SE, Schneider Electric SE, Robert Bosch GmbH, and Amazon Web Services, Inc.

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[Physical AI for Warehouse Handling Market Analysis](#)

The Physical AI for warehouse handling market size is projected to expand from USD 5.56 billion in 2026 to USD 22.65 billion by 2032, registering a CAGR of 26.51% between 2027 and 2032. Growth is driven by increasing warehouse automation, AI-enabled robotics, autonomous material handling, and demand for greater operational efficiency and accuracy.

Virtual Reality Market Growth

The Virtual Reality market size is projected to grow from USD 15.64 billion in 2026 to USD 40.71 billion by 2031, registering a CAGR of 21.08% from 2026 to 2031. Growth is supported by rising adoption of immersive training, simulation applications, virtual collaboration, and VR technologies across gaming, healthcare, education, and industrial environments.

https://www.mordorintelligence.com/industry-reports/virtual-reality-market?utm_source=einpr

Video Telematics Market Size

The Video Telematics market size, measured by installed base, is projected to increase from 10.38 million units in 2026 to 14.28 million units by 2031, registering a CAGR of 6.59% from 2026 to 2031. Growth is driven by fleet safety requirements, demand for real-time driver monitoring, accident prevention, and the increasing use of video analytics and connected fleet management systems. Read more - https://www.mordorintelligence.com/industry-reports/global-video-telematics-market?utm_source=einpr

About Mordor Intelligence:

Mordor Intelligence is a global market intelligence firm, founded in 2014, helping businesses make informed decisions through data-driven insights, industry expertise, and advanced analytics. With 550+ domain experts and on-ground specialists across 150+ countries, the company delivers comprehensive intelligence across aerospace & defense, agriculture, automation, automotive, chemicals & materials, consumer goods & services, electronics, energy & power, financial services, food & beverages, healthcare, hospitality & tourism, information & communications technology, and logistics.

Its offerings include syndicated industry reports, custom research and advisory, and subscription platforms such as Synapse, [Data Center Intelligence](#), and Robotics Intelligence. Mordor Intelligence is ISO 9001:2015 and ISO/IEC 27001:2022 certified, a member of ESOMAR and the Market Research Society of India, and a four-time Great Place to Work® honoree. Learn more at mordorintelligence.com

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