



Lenovo

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Transforming Manufacturing with Edge Computing

Maximize production and optimize efficiencies with Lenovo and Intel®

Edge computing with Lenovo and Intel are ushering in a new era of manufacturing innovation. Powered by the latest Intel processors, Lenovo's ThinkEdge solutions enable real-time data processing and analysis at the edge in a durable, compact, and secure design tailored for diverse manufacturing environments.

Manufacturing is undergoing a digital modernization

Labor shortages, supply chain issues, and cost pressures have paved the way for Industry 4.0 – smart manufacturing where new technologies will enhance productivity, flexibility, and agility.

85%

Of industrial manufacturing firms are implementing or have already implemented IoT.¹

70%

Of manufacturers say they've implemented some form of AI into their operations.²

75%

Of large enterprises will use intralogistics smart robots in their warehouses by 2026.³

Edge computing is key to smart manufacturing success

The rapid adoption of AI, IoT devices, and smart sensors is creating troves of data. Edge computing quickly and efficiently harnesses this data at the source, speeding transmission and providing immediate business intelligence.



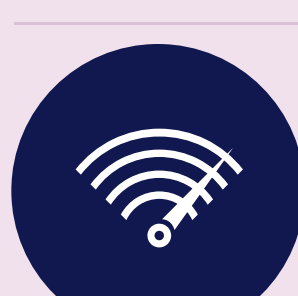
Edge computing processes data closer to where it is created, increasing bandwidth, reducing latency, and facilitating real-time analysis.



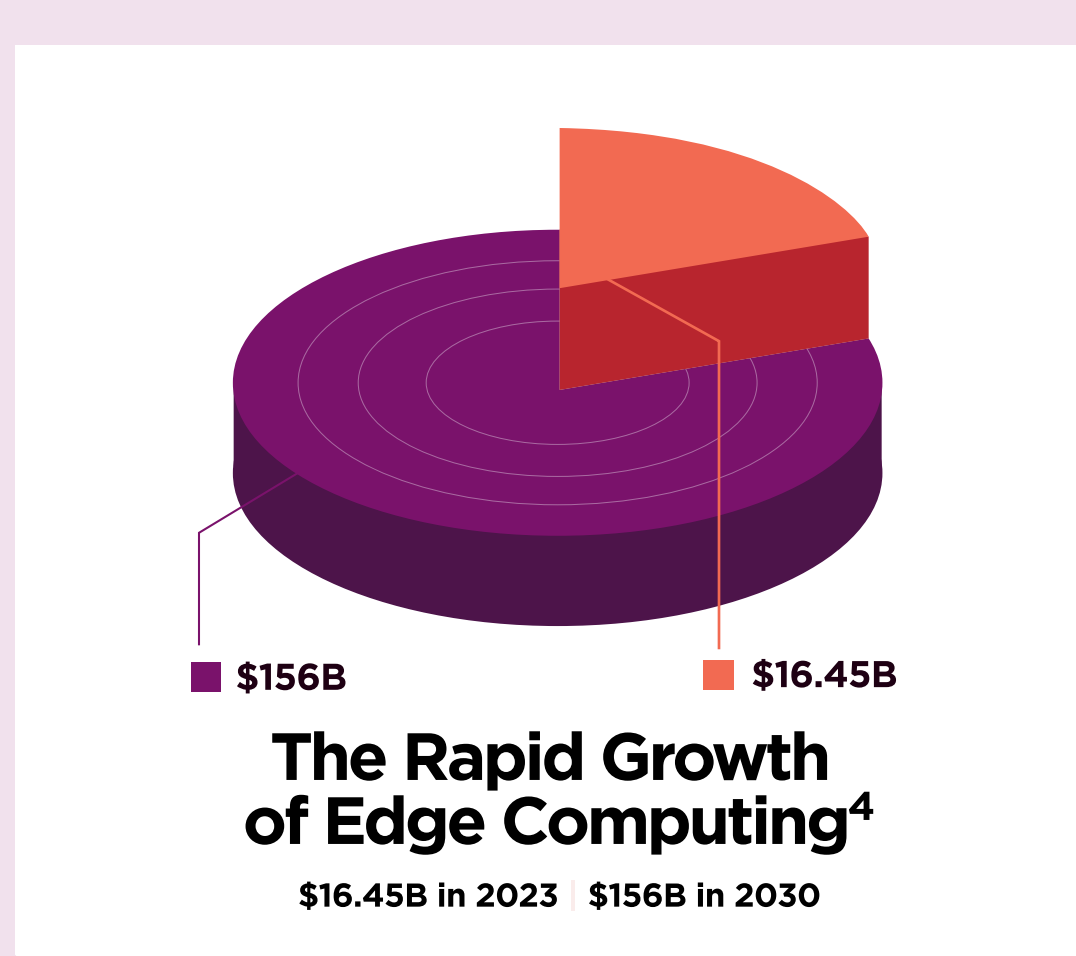
Edge computing reduces data in transit, minimizing the risk of exposure and enhancing data privacy.



Edge computing has a distributed architecture, increasing scalability in existing and future manufacturing applications.



Edge computing has the power to process vast datasets, allowing manufacturers to maximize smarter technologies.



ThinkEdge is powering the edge in manufacturing

Lenovo and Intel's market-leading edge solutions bring the highest-performing, most secure and reliable compute power to where manufacturing data is generated for fast insights and faster ROI.

<p>SE10</p> <p>Intel® Atom</p>	<p>SE30</p> <p>Intel® Celeron® or Intel® Core™</p>	<p>SE50</p> <p>Intel® Core™</p>
<p>SE350 V2</p> <p>Intel® Xeon® D</p>	<p>SE360 V2</p> <p>Intel® Xeon® D Intel® Data Center GPU Flex Series</p>	<p>SE450</p> <p>Intel® Xeon® Platinum Intel® Data Center GPU Flex Series</p>
<p>Powerful</p> <p>With the highest Performance-per-Accelerator (PPA) and most advanced embedded graphics performance.</p>	<p>Versatile</p> <p>Featuring the broadest Edge portfolio on the market in a wide variety of form factors.</p>	<p>Rugged</p> <p>Purpose-built to withstand dust, vibration, and the most demanding physical environments from -20° to 65°C.</p>
<p>Secure + Reliable</p> <p>Rated #1 in security and reliability by ITIC, with built-in physical and software protections that provide ultimate peace of mind.</p>	<p>Quieter</p> <p>Up to 20% quieter than the competition—a decibel difference between a whisper and a vacuum cleaner—for a more pleasant, more productive work environment.</p>	<p>Scalable</p> <p>Designed for easy, low-investment upgrades as your business grows, and featuring the latest in wireless technologies to remain compatible with evolving network standards.</p>

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Purpose-built edge devices for diverse manufacturing environments

Lenovo and Intel's right-sized infrastructure, security solutions, and guided expertise ensure optimal real-time monitoring, predictive maintenance, and quality control across any manufacturing location or scenario.

Predictive Maintenance

Smart sensor temperature, motion, and vibration measurement; IoT asset monitoring, issuing real-time alerts before machinery fails



Automation

Sensors, actuators, and robotics for automation of industrial processes, tasks, and machinery, minimizing human intervention



Supply Chain

Analytics platforms and warehouse IoT devices for product matching, real-time inventory tracking, and mobile robot health, increasing efficiency



Digital Twin

Data modeling from IoT devices and sensors for a virtual representation of assets and processes, leading to optimization and cost-savings

Transform Your Business with AI at the Edge. Discover How at Lenovo.com/IntelEdgeAI

¹ HFS Research, <https://www.hfsresearch.com/research/the-industrial-manufacturing-industry-has-the-highest-adoption-of-iiot-among-all-industries/>

² Rootstock, <https://www.rootstock.com/wp-content/uploads/2023/11/AI-in-MFG-Survey-Findings-10.2023.pdf>

³ Gartner, <https://www.gartner.com/en/newsroom/press-releases/2022-01-19-gartner-predicts-25-percent-of-supply-chain-decisions-will-be-made-across-intelligent-edge-ecosystems-through-2025>

⁴ Grandview Research, <https://www.grandviewresearch.com/industry-analysis/edge-computing-market>

Lenovo Smarter technology for all

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