Hewlett Packard Enterprise | AMD

Solution brief

Boost manufacturing productivity and security

HPE ProLiant DL145 Gen11 Server

Supporting today's dynamic manufacturing environments

The manufacturing industry is experiencing a profound transformation driven by the need to integrate digital and physical production processes. Manufacturers are increasingly leveraging technology to enhance operational efficiency, streamline production, and gain real-time insights into manufacturing processes. This shift necessitates robust and flexible IT infrastructure capable of supporting diverse and dynamic manufacturing environments.

Manufacturers face several challenges in today's competitive landscape:

Why edge computing matters

Edge computing brings computation and data storage closer to the location where it is needed, which is crucial for manufacturing environments. This proximity reduces latency, enhances data security, and ensures faster processing of critical business applications. By minimizing reliance on centralized and distant infrastructure, edge computing enables real-time insights and actions, which are essential for modern manufacturing operations. Edge computing can address several key priorities:

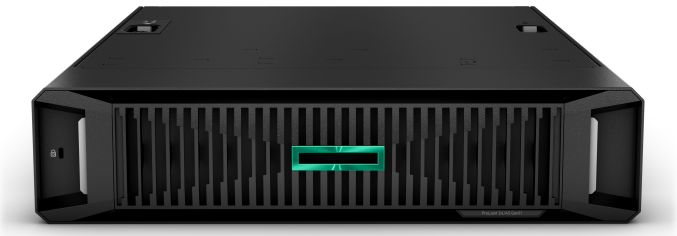
- **Data security and compliance:** Sensitive information is processed and stored closer to its source, helping reduce the risk of data breaches and ensuring better compliance with data protection regulations.
- **Operational efficiency:** By processing data locally, edge computing reduces the reliance on cloud or centralized infrastructure, which in turn lowers latency and improves the speed of data-driven decisions.
- **Real-time production monitoring:** Enabling real-time updates to production metrics, edge computing ensures that manufacturing processes are always optimized and efficient, which reduces the chances of production delays or quality issues.
- **Predictive maintenance:** Edge computing processes data from various sensors and machines to predict maintenance needs, reducing downtime and extending the lifespan of equipment.
- **Support for emerging technologies:** Edge computing provides a robust infrastructure for deploying AI applications and IoT devices; for instance, AI can be used for predictive maintenance, quality control, and optimizing production workflows using data analytics.

Supporting core manufacturing apps and future AI workloads

Edge computing is well suited to support a wide range of business applications, including production management systems, quality control, and supply chain analytics. Additionally, edge computing provides the necessary infrastructure to support future AI workloads, such as predictive maintenance and real-time quality inspection. This capability ensures that manufacturers can remain aligned with technological advancements and continue to innovate.

Future-proofing manufacturing operations at the edge

By leveraging edge computing, manufacturers can drive innovation and maintain a competitive edge in a rapidly evolving market. With the right flexibility, manufacturers can quickly adapt to new technologies and market trends.



Introducing HPE ProLiant DL145 Gen11

Unleash real-time insights with edge compute. Innovate today and for the future.

HPE ProLiant DL145 Gen11 Server with AMD EPYC™ 8004 Series processors is a compact, affordable, and powerful edge server designed to support critical business applications, virtualization, and AI workloads, making it ideal for diverse industry locations like manufacturing.

- **Compact and resilient design:** The server is designed to fit seamlessly into various edge locations, including factory floors, control rooms, or wall mounts. This makes the HPE ProLiant DL145 Gen11 highly adaptable to the physical constraints of manufacturing environments.
- **Powerful processing:** Equipped with AMD EPYC 8004 Series processors, the server offers a range of energy-efficient CPUs with 8 to 64 cores. This provides robust performance for demanding manufacturing applications, ensuring that the server can handle high-performance computing tasks efficiently.
- **Advanced GPU acceleration support:** The server is AI-ready and supports up to three single-wide GPUs. This enables advanced analytics and machine learning capabilities, which can enhance operational efficiency and quality control through applications like predictive maintenance and real-time quality inspection.
- **Scalability:** The server supports up to 120 virtual machines (VMs). This allows manufacturers to scale their IT infrastructure as their business grows, providing flexibility and future-proofing.
- **Ease of management:** Features like zero-touch provisioning and integrated management tools such as HPE GreenLake for Compute Ops Management (COM) and HPE iLO simplify deployment and ongoing management. This makes it easier to manage a distributed compute environment with global visibility from a unified console.
- **Environmental tolerance:** The server is designed to withstand shock and temperature variations, and it includes optional dust filters. This makes it suitable for diverse manufacturing environments, ensuring reliable operation under various conditions.
- **Security:** The HPE ProLiant DL145 Gen11 offers multilevel security with AMD Infinity Guard, AMD Secure Processor, and silicon root of trust from HPE. These features ensure the protection of sensitive production and business data, providing peace of mind for manufacturers.

Get started today

The HPE ProLiant DL145 Gen11 Server is an ideal solution for manufacturing businesses looking to enhance their edge computing capabilities. The server offers robust performance, security features, and ease of management, making it a valuable asset for modern manufacturing environments. By leveraging the power of edge computing, manufacturers can address their top priorities and drive business success at the edge.

Learn more at

HPE.com/ProLiant/DL145-gen11

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