

Hp DL360 Gen9 Server Datasheet

hp dl360 gen9 server datasheet The HP DL360 Gen9 server is a versatile and high-performance server designed to meet the demanding needs of modern data centers and enterprise environments. Recognized for its robust architecture, exceptional scalability, and advanced management features, the HP DL360 Gen9 is an ideal choice for organizations seeking reliable server solutions to support workloads such as virtualization, database management, and cloud computing. This datasheet provides a comprehensive overview of the key specifications, features, and benefits of the HP DL360 Gen9 server, empowering IT professionals to make informed decisions.

Overview of HP DL360 Gen9 Server

The HP DL360 Gen9 is a 2U rack-mounted server built to deliver enterprise-class performance and flexibility. It combines cutting-edge hardware components with intelligent management tools, making it suitable for a wide range of applications. Its modular design allows for easy upgrades and maintenance, minimizing downtime and ensuring continuous operation.

Key Features of HP DL360 Gen9 Server

Processor and Memory Capabilities

The server supports Intel Xeon E5-2600 v3/v4 series processors, offering a balance of performance and efficiency.

1. Maximum of 22 cores per processor for intensive multitasking
2. Supports up to 2 processors, enabling high scalability
3. Up to 1.5TB of DDR4 RAM across 24 DIMM slots for fast data access
4. Memory speed up to 2400 MHz for optimal performance

Storage Options and Expansion

Designed for flexible storage configurations, the DL360 Gen9 provides multiple options to meet various data storage needs.

1. Supports up to 12 LFF (Large Form Factor) drives or 24 SFF (Small Form Factor) drives
2. Supports SAS, SATA, and NVMe drives for maximum versatility
3. Optional PCIe NVMe SSDs for high-speed data transfer
4. HP SmartDrive technology for hot-swappable drive bays

Networking and Connectivity

The server is equipped with multiple options to ensure seamless network integration.

1. Embedded 1GbE ports, with optional 10GbE network adapters
2. Supports flexible networking configurations, including SR-IOV and RDMA
3. Multiple PCIe slots for additional NIC cards or network accelerators

Power Supply and Efficiency

Efficiency and reliability are prioritized with the server's power management features.

1. Supports hot-plug redundant power supplies for uninterrupted operation
2. Power supplies available in 460W, 800W, and 1600W options
3. Energy-efficient design reduces operational costs
4. Intelligent power capping and management tools

Management and Security Features

Integrated Lights-Out (iLO) Management

The HP iLO management engine provides remote server management capabilities.

1. Remote console access and virtual media support
2. Comprehensive health monitoring and alerting
3. Automated firmware updates and configuration tools
4. Secure remote management with HTTPS, SSH, and LDAP support

Security Features

Protection of sensitive data and hardware integrity is a priority.

1. Secure boot and firmware integrity checks
2. TPM (Trusted Platform Module) support for hardware-based security
3. Role-based access control and audit logs
4. Optional rack security features such as lockable drive bays

Performance and Scalability

The HP DL360 Gen9 is optimized for demanding workloads, offering scalable performance options.

Workload Optimization

The server excels in various enterprise workloads:

1. Virtualization: supports VMware, Hyper-V, and other hypervisors
2. Database Management: handles SQL, Oracle, and NoSQL databases efficiently
3. Cloud Computing: ideal for private and hybrid cloud environments
4. Big Data Analytics: supports intensive data processing tasks

Expansion and Flexibility

Designed for future growth, the server allows for easy hardware upgrades.

1. Additional PCIe slots for expansion cards
2. Upgradeable memory modules
3. Support for additional storage drives and controllers

Physical Specifications and Form Factor

Understanding the physical aspects of the HP DL360 Gen9 is essential for deployment planning.

Dimensions and Weight

1. Height: 3.45 inches (8.76 cm)
2. Width: 17.55 inches (44.6 cm)
3. Depth: 28.5 inches (72.4 cm)
4. Weight: approximately 35-40 kg, depending on configuration

Environmental Requirements

The server operates efficiently within standard data center conditions.

1. Operating temperature: 10°C to 35°C (50°F to 95°F)
2. Relative humidity: 20% to 80% non-condensing
3. Altitude: up to 10,000 feet (3,048 meters)

Warranty and Support Options

The HP DL360 Gen9 comes with comprehensive warranty options to ensure peace of mind.

1. Standard limited warranty of 3 years
2. Optional extended warranty and onsite support
3. Proactive support with HP Care Pack services
4. Access to HP technical support and firmware updates

Conclusion

The HP DL360 Gen9 server datasheet highlights its status as a reliable, scalable, and high-performance enterprise server. Its flexible hardware options, advanced management features, and security capabilities make it suitable for a diverse array of workloads, from virtualization to big data analytics. Whether deploying in a data center or a private cloud, the DL360 Gen9 offers the robustness and adaptability needed for modern IT environments. Organizations seeking a future-proof server solution will find the HP DL360 Gen9 to be an excellent investment, combining performance, efficiency, and security in a compact 2U form factor.

HP DL360 Gen9 Server Datasheet Review: An In-Depth Analysis of Performance, Features, and Capabilities The HP DL360 Gen9 server stands as a flagship in HP's enterprise server lineup, offering a blend of scalability, reliability, and performance tailored for data centers, virtualization, and mission-critical workloads. With its innovative design and advanced features, the DL360 Gen9 has established itself as a versatile and powerful server solution for organizations seeking robust infrastructure. This review delves deep into the specifications, features, and overall value proposition of the HP DL360 Gen9 server, providing a comprehensive understanding of what makes it a compelling choice in the enterprise server space.

Overview of the HP DL360 Gen9 Server

The HP DL360 Gen9 is a 2U rack-mounted server designed for high performance and flexibility. It is part of HP's Gen9 series, which emphasizes enhanced efficiency, security, and manageability. Its modular architecture allows for a wide range of configurations, making it suitable for various enterprise applications—from virtualization and database management to cloud computing and large-scale data analytics. Key Highlights: - Designed for data centers with space and power efficiency in mind. - Supports a broad range of processors, memory configurations, and storage options. - Emphasizes security features, including embedded security and firmware integrity. - Offers comprehensive management tools to simplify deployment, monitoring, and maintenance.

Processor Support and Performance

The HP DL360 Gen9 server is engineered to support a variety of Intel Xeon E5-2600 v3 and v4 series processors, providing flexibility in performance scaling based on workload requirements.

Supported Processors

- Dual Intel Xeon E5-2600 v3/v4 series CPUs. - Up to 22 cores per processor (depending on the model). - Hyper-threading support for improved multi-threaded performance. - Advanced features like Intel AVX2, AVX-512 (on v4 series), and Turbo Boost for enhanced computational throughput.

Performance Benefits

- High core counts enable massive parallel processing capabilities. - Large cache sizes improve data access speeds for critical applications. - Support for multiple processors allows for scalable performance, ideal for virtualization and database workloads. - Enhanced instruction sets optimize performance for compute-intensive tasks.

Memory Architecture and Capacity

Memory capacity and speed are pivotal in server performance, and the DL360 Gen9 excels with extensive RAM support.

Memory Specifications

- Supports up to 3TB of DDR4 Registered (RDIMM) or Load-Reduced DIMMs (LRDIMM). - Up to 24 DIMM slots, arranged in six channels with four DIMMs per channel. - DDR4 memory speeds up to 2400 MHz (depending on processor and configuration). - Support for error-correcting code (ECC) memory for reliability.

Memory Features and Benefits

- High memory density facilitates large in-memory databases and virtualization. - Memory mirroring and sparing features enhance resilience. - Flexible configurations allow for cost-effective scaling—start small and expand as needed.

Storage Options and Capabilities

The DL360 Gen9 offers versatile storage configurations, supporting different drive types and RAID options to meet various enterprise needs.

Drive Support

- Supports up to 12 SFF (2.5-inch) drives or 6 LFF (3.5-inch) drives, based on configuration.
- Compatibility with SATA, SAS, and NVMe SSDs for high-speed storage.
- Hot-plug drive bays for minimized downtime.

RAID and Storage Management

- Embedded HP Smart Array controllers (e.g., P440ar, P440, or optional controllers).
- Support for RAID levels 0, 1, 5, 6, 10, 50, and 60 for data redundancy and performance.
- Hardware encryption options for data security.

Storage Enhancements

- NVMe support allows for ultra-fast data access, ideal for high-performance applications.
- Flexible drive configurations facilitate tiered storage solutions.
- Expandable storage controllers for future growth.

Networking and Connectivity

Networking capabilities are crucial for enterprise servers, and the DL360 Gen9 provides multiple options to ensure robust connectivity.

Standard Network Interfaces

- Integrated 1GbE ports (up to four ports with optional network modules).
- Optional 10GbE NICs via flexibleLOMs or PCIe adapters.
- Support for Fibre Channel HBAs for SAN connectivity.

Expansion and Flexibility

- PCIe 3.0 slots for additional network cards, including 40GbE or InfiniBand adapters.
- Support for converged network adapters to optimize data traffic management.
- Embedded management ports for out-of-band management.

Power and Cooling Efficiency

Power efficiency and thermal management are vital in enterprise environments, and the DL360 Gen9 addresses these areas effectively.

Power Supplies

- Redundant power supply options (hot-swappable) for high availability.
- Support for high-efficiency power supplies (up to 94% efficiency).
- Power supplies support up to 800W or 1400W, depending on

configuration.

Cooling Features

- Hot-swappable fans maintain optimal thermal conditions. - Intelligent fan control reduces noise and energy consumption. - Airflow design optimized for rack mounting, ensuring consistent cooling.

Management and Security Features

Effective management and security are cornerstones of enterprise servers, and the DL360 Gen9 excels in providing a comprehensive set of tools.

Management Tools

- Integrated Lights-Out 4 (iLO 4) for remote management, monitoring, and troubleshooting. - HP Intelligent Provisioning for streamlined deployment. - Support for HP OneView for centralized infrastructure management. - Hardware health monitoring with predictive failure analysis.

Security Capabilities

- Secure Boot and firmware protection to prevent unauthorized modifications. - TPM (Trusted Platform Module) support for hardware-based security. - Secure erase functions for data sanitization. - Role-based access controls and secure console access.

Expandability and Future-Proofing

The DL360 Gen9's design emphasizes adaptability, allowing organizations to tailor configurations to their evolving needs.

PCIe Slots and Add-Ons

- Up to 4 PCIe 3.0 slots for additional I/O, storage controllers, or networking cards. - Support for NVMe SSDs and other high-speed peripherals.

Scalability

- Memory expansion up to 3TB. - Storage expansion with additional drive bays and controllers. - Processor upgrades as newer Intel Xeon models become available.

Form Factor and Physical Design

The 2U rack-mounted chassis is optimized for space efficiency in data centers. - Dimensions: 87.3 mm x 445 mm x 719 mm (3.44 x 17.52 x 28.3 inches). - Weight varies based on configuration but designed for easy rack integration. - Tool-less access for drives, memory, and expansion cards.

Use Cases and Applications

The versatility of the HP DL360 Gen9 makes it suitable for a wide range of enterprise applications, including: - Virtualization platforms (e.g., VMware, Hyper-V) - Database servers (SQL, Oracle, MySQL) - Cloud infrastructure and private clouds - Enterprise resource planning (ERP) systems - Data analytics and big data processing - High-performance computing (HPC) workloads - Business continuity and disaster recovery setups

Conclusion: Is the HP DL360 Gen9 the Right Choice?

The HP DL360 Gen9 server embodies a balanced combination of performance, scalability, security, and manageability. Its support for multiple high-core-count processors, extensive memory capacity, versatile storage options, and robust management tools make it a top contender for organizations needing reliable and scalable server infrastructure. While newer models have emerged, the DL360 Gen9 remains a proven and versatile platform, especially for organizations with existing investments or specific compatibility needs. Overall, the HP DL360 Gen9 offers: - Exceptional processing capabilities for demanding workloads. - High memory density for large-scale virtualization and data processing. - Flexible storage configurations supporting modern SSD and NVMe drives. - Reliable networking options and expandability. - Advanced security and management features ensuring operational integrity. Organizations considering enterprise-grade servers should evaluate their current and future workload requirements against the capabilities of the DL360 Gen9. Its proven architecture and feature set make it a dependable foundation for various mission-critical applications, ensuring enterprise stability and performance for years to come.

Questions & Answers About hp dl360 gen9 server datasheet

No	Question	Answer
1	What are the key specifications of the HP DL360 Gen9 server according to its datasheet?	The HP DL360 Gen9 server features Intel Xeon E5-2600 v3/v4 processors, up to 2TB of DDR4 RAM, multiple PCIe 3.0 expansion slots, hot-swappable drives supporting SAS/SATA/SSD, and integrated networking options, making it suitable for enterprise workloads.
2	How does the HP DL360 Gen9 support scalability and expansion?	The HP DL360 Gen9 offers flexible configuration options with up to 8 SFF or 4 LFF drive bays, multiple PCIe 3.0 slots for expansion cards, and support for additional memory modules, enabling scalable performance for data centers and enterprise applications.
3	What are the power and cooling features highlighted in the HP DL360 Gen9 datasheet?	The datasheet describes efficient power supplies with high efficiency ratings, integrated cooling solutions, and hot-swappable fans, which help reduce downtime and optimize energy consumption in demanding data center environments.
4	What security features are included in the HP DL360 Gen9 server as per its datasheet?	The server includes features such as hardware-based security with Secure Boot, TPM 2.0, and encrypted drives, along with management tools like iLO for remote security management and firmware updates.

5	Is the HP DL360 Gen9 suitable for high-availability environments based on its datasheet?	Yes, the HP DL360 Gen9 supports features like redundant power supplies, hot-swappable components, and integrated management tools to ensure high availability and minimal downtime in mission-critical applications.
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