



# GIGABYTE™

## **GIGABYTE Data Center Infrastructure Solutions**

GIGABYTE leverages decades of L12 expertise to deliver scalable, modular, and sustainable data center infrastructure. Our holistic approach mitigates high-density deployment risks and optimizes ROI for new and existing facilities.

# Evolve Your Data Center Infrastructure

## Empowering the Next Generation of AI and HPC Data Centers

In an era driven by massive data generation and the exponential growth of computational model parameters, traditional facilities face unprecedented thermal and power constraints. GIGABYTE provides comprehensive, scalable, and future-ready infrastructure solutions designed to bridge the gap between raw computational power and facility limitations. By doing so, GIGABYTE empowers data centers to sustainably meet the extreme and constantly evolving demands of artificial intelligence (AI), high-performance computing (HPC), and high-density enterprise workloads without compromising on environmental responsibilities.

### Server System for Bespoke Architecting

This foundational infrastructure rests on a highly versatile and modular server portfolio meticulously engineered for continuous, high-reliability data center operations.

#### Compute



2U MGX Server  
NVIDIA GB200 NVL4



2U HGX Server  
NVIDIA HGX™ Rubin NVL8



4U HGX / OAM Server  
NVIDIA HGX™ / AMD Instinct™



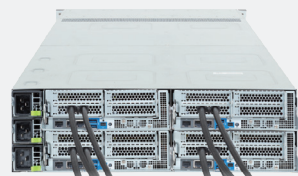
4U GPU Server  
Up to 10 Dual-slot PCIe GPUs



4U/6U MGX Server  
NVIDIA RTX PRO™ 6000 BSE



6U10N Blade Server  
Intel® Xeon® / AMD EPYC™



3U4N High-density Server  
Intel® Xeon® 6



2U4N High-density Server  
Intel® Xeon® / AMD EPYC™

#### Data Storage



1U 32-Bay E1.S All-Flash



2U E3.S NVMe SSD & CXL



2U 24-Bay 2.5" NVMe SSDs



4U 68-Bay Storage Server

#### Networking & Management



2U DP Rackmount Server



2U UP Rackmount Server



1U UP Rackmount Server



DLC Management Server

# Advanced Cooling for Green Computing

To support skyrocketing TDPs (Thermal Design Power) and dense server configurations, GIGABYTE offers a comprehensive suite of advanced liquid and air cooling technologies that maximize energy efficiency and PUE (Power Usage Effectiveness).

### RDHx

- Liquid-to-Air
- DC/AC Rear Door Heat Exchanger
- Up to 50kW capacity
- 19" EIA / 21" OCP ORV3 compatible

Power Distribution Unit (PDU)

### G-REX

Intelligent DLC Management tool (Redfish-enabled) in real-time

### Manifold

- Efficient coolant distribution for EIA / OCP racks
- Quick Disconnect: SCG / UQD

### Sidecar

- Liquid-to-Air
- 140kW capacity
- 19" EIA / 21" OCP ORV3 compatible

### Coldplate

- Passive cold plate loops
- Leak sensor boards

### In-Row CDU

- Liquid-to-Liquid
- Up to 1800kW cooling capacity
- 19" EIA / 21" OCP ORV3 compatible

### In-Rack CDU

- Liquid-to-Air / Liquid-to-Liquid
- Up to 200kW capacity
- EIA / OCP compatible

## Scalable Clusters & Racks

GIGABYTE provides modular and scalable building blocks, allowing our data centers to expand effortlessly from a single rack to a massive supercomputing cluster.

- **L11 Racks:** Pre-integrated single-rack systems combining compute, storage, and networking, designed and validated for rapid deployment and simplified data center integration.
- **GIGAPOD:** Pre-configured multi-rack infrastructure designed for coordinated shipment, modular scaling, and efficient deployment across large data center environments.



48U MGX Rack  
NVIDIA GB300 /  
GB200 NVL72

48U MGX Rack  
NVIDIA Vera  
Rubin NVL72

48U MGX Rack  
NVIDIA HGX™  
Rubin NVL8

42U AI Rack  
AMD instinct™ /  
NVIDIA HGX™

42U AI Rack  
NVIDIA GB200  
NVL4

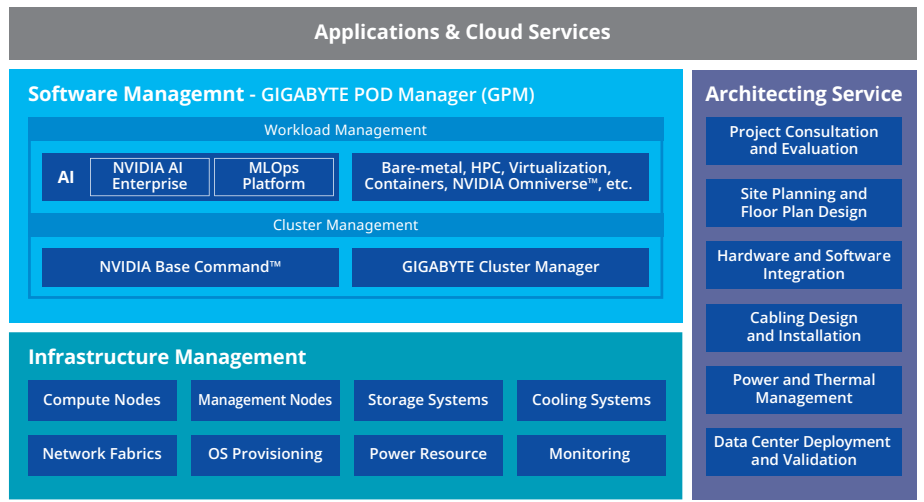
42U AI Rack  
NVIDIA RTX PRO™  
6000 BSE

42U HPC Rack  
AMD EPYC™ /  
Intel® Xeon®

42U HPC Rack  
AMD EPYC™ /  
Intel® Xeon®

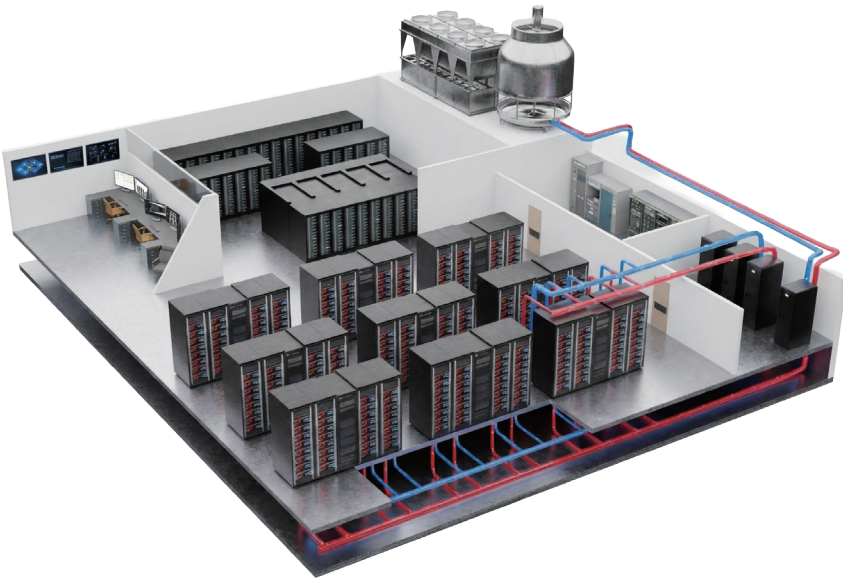
# Management Software

- GIGABYTE POD Manager (GPM) :**  
 Advanced cluster-level management software designed to monitor and orchestrate integrated pods, maximizing overall system utilization and health.
- GIGABYTE Server Management (GSM) :**  
 A comprehensive server management software suite featuring BMC remote management, helping IT administrators easily monitor, maintain, and update individual servers.



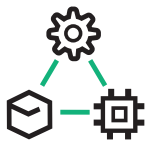
# Data Center Lifecycle Solutions & Services

GIGABYTE encompasses every phase of the data center lifecycle, ensuring that infrastructure is not only deployed rapidly but operates with sustained reliability:



- Consultation and Planning:**  
 Integrating proven expertise into facility layout, security, and resource design to meet performance and budget goals.
- Hardware and Cabling Configuration:**  
 Architecting integrated server, rack, and network solutions for optimal connectivity and scalability.
- Power and Thermal Management:**  
 Deploying advanced air and liquid cooling setups to maximize energy efficiency and reliability.
- Deployment and Validation:**  
 Executing rigorous testing to ensure high availability and minimize time-to-online.

# Why GIGABYTE Data Center Solution



## Scalable Modular Architecture

Adaptable L11 racks and GIGAPOD clusters seamlessly integrating cutting-edge compute, GPU, and storage.



## Advanced Thermal Management

Industry-leading liquid and air cooling infrastructure to minimize PUE and sustain dense AI workloads.



## End-to-End Lifecycle Integration

Comprehensive support from initial consultation and site planning to rigorous validation, ensuring reliable deployment.



Learn more at <https://www.GigaComputing.com/en>

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