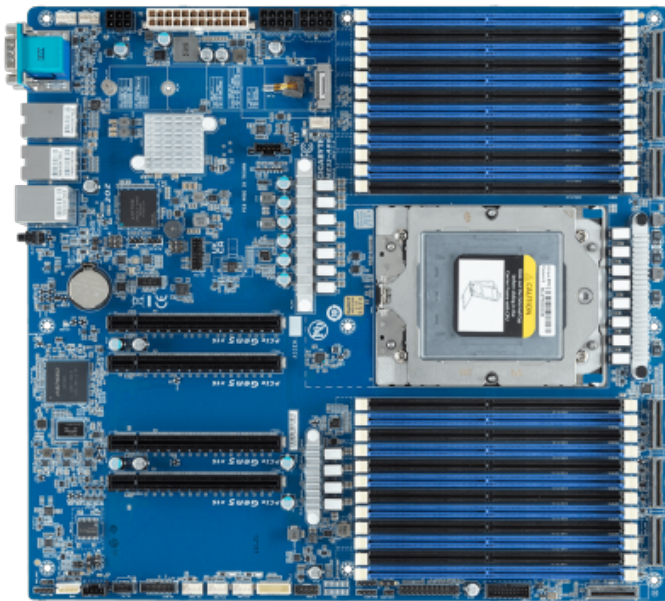


# Gigabyte MZ33-AR0, 1xSKT LGA 6095, AMD EPYC 9004, SoC, 24xDIMM, SATA, NVMe, 1xM.2, 2x10GbE, IPMI

Kod producenta: MZ33-AR0



Category	Server
Form Factor	E-ATX
Dimensions	12" x 13"
CPU Socket	LGA 6096 (Socket SP5)
# of CPU sockets	1
Supported CPU's	AMD EPYC 9004
Max CPU TDP	400 W
Chipset	System on Chip
Memory Type	DDR5 ECC RDIMM
Memory Speed	4800 MT/s 3600 MT/s
# of DIMM's	24
Max Memory Size	6 TB
Integrated GPU	ASPEED AST2600
# of PCIe x16 5.0	4
# of USB Ports	2 x USB 3.2 (rear) 2 x USB 3.2 (header)
# of SATA Ports	2
# of NVMe ports	1
# of M.2 2280	1
# of Serial Ports	1 x DB9 (COM)
# of 10GbE Ports	2 x RJ45
Network Controllers	Broadcom BCM57416
Integrated BMC	IPMI Dedicated RJ45
BMC chip	ASPEED AST2600
TPM	1 x TPM 2.0 13-pin Header

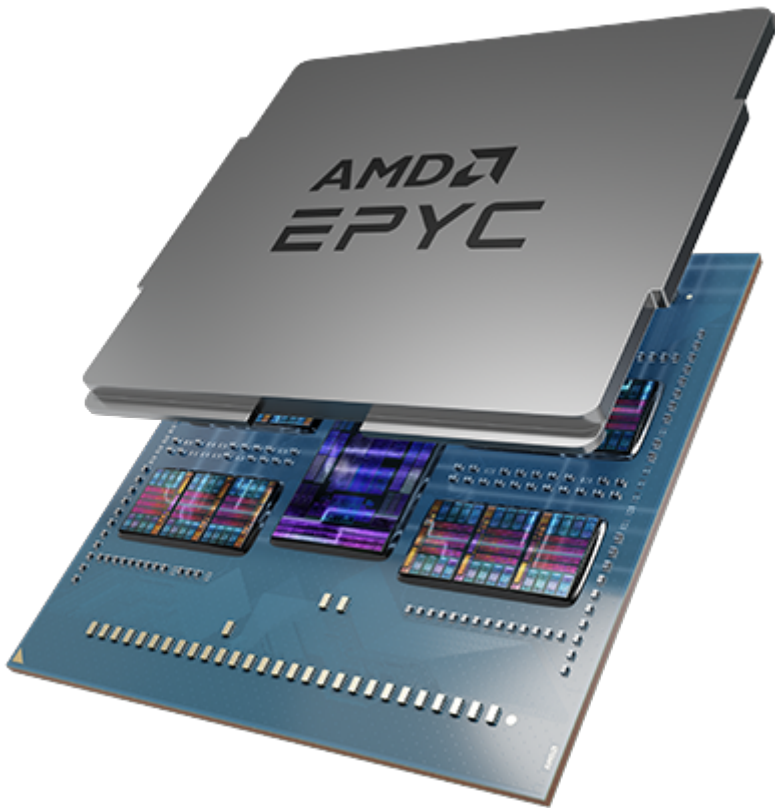
## MZ33-AR0

Motherboard - AMD EPYC™ 9004 - E-ATX UP

- Single AMD EPYC™ 9004 Series Processors (with AMD 3D V-Cache™ Technology)
- 12-Channel DDR5 RDIMM, 24 x DIMMs
- 2 x 10Gb/s LAN ports via Broadcom® BCM57416
- 2 x MCIO 8i connectors with PCIe Gen5 x8 or SATA interface
- 4 x MCIO 8i connectors with PCIe Gen5 x8 interface
- 1 x MCIO 8i connector with PCIe Gen4 x8 interface
- 1 x M.2 slot with PCIe Gen4 x4 interface
- 4 x PCIe Gen5 x16 slots

# Powering the Next Generation of Server Architecture and Energy Efficiency

The path to AMD's 5nm 'Zen 4' architecture was paved with many successful generations of EPYC innovations and chiplet designs, and AMD EPYC 9004 Series processors continue this progression. Adding a host of new features to target a wide range of workloads, the new family of EPYC processors will deliver even better CPU performance and performance per watt, and do so on a platform with 2x the throughput of PCIe 4.0 lanes that also has support for 50% more memory channels. For this new platform, GIGABYTE has products ready to get the most out of EPYC-based systems that support fast PCIe Gen5 accelerators and Gen5 NVMe drives, in addition to support for high performant DDR5 memory.



## 4th Gen AMD EPYC Processors for SP5 Socket

**5nm** architecture

Computer density increases with more

## 128 CPU cores

Dedicated cores and targeted workloads

## Large L3 cache

Selected GPUs have 2x or more L3 cache for scientific computing

## SP5 compatibility

All 9004 series processors are supported

## 12 channels

Memory capacity can achieve 6TB per

## DDR5 memory

Increased memory throughput and higher

## PCIe 5.0 lanes

Increased bandwidth through PCIe 5.0 lanes

# CXL 1.1+

## support

Disaggregated compute architecture

# Select GIGABYTE for the AMD EPYC 9004 platform



## High Performance

Servers and motherboards by GIGABYTE are built to ensure peak performance for demanding CPU workloads. As the latest technology is



## Compute Density

One single socket solution to outperform many dual CPU servers. Dual performance.



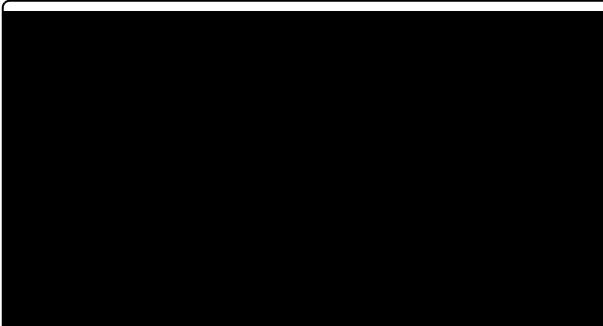
## Fast & Stable Connectivity

Secure boards with the challenges for signal integrity to be well designed.



## Modularity

One building block design to allow a new model to be quickly customized to market.



## Collaboration

AMD and GIGABYTE have maintained a healthy relationship that values shared knowledge in order to get the latest technology into data centers.

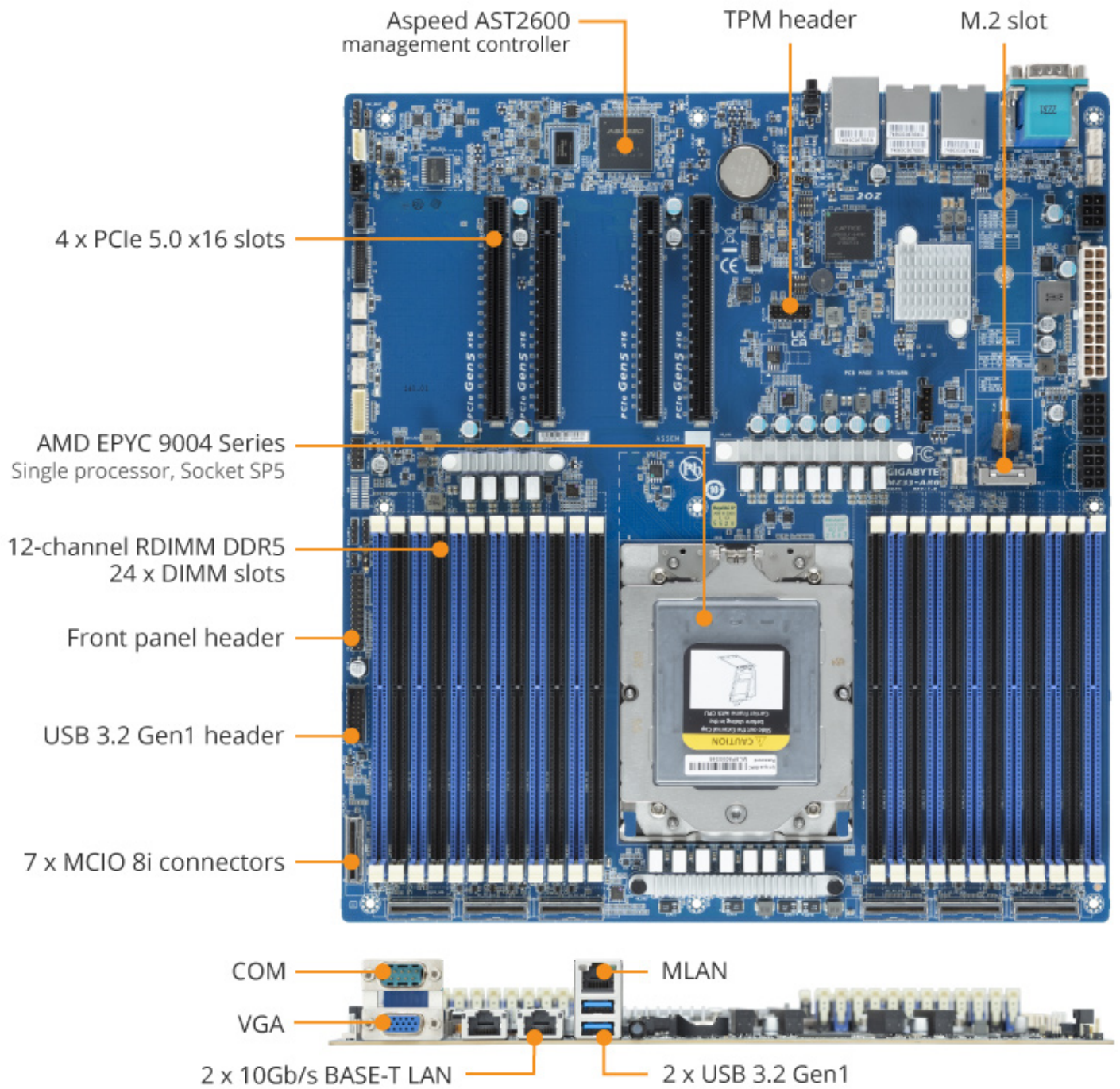


## Optimal Price

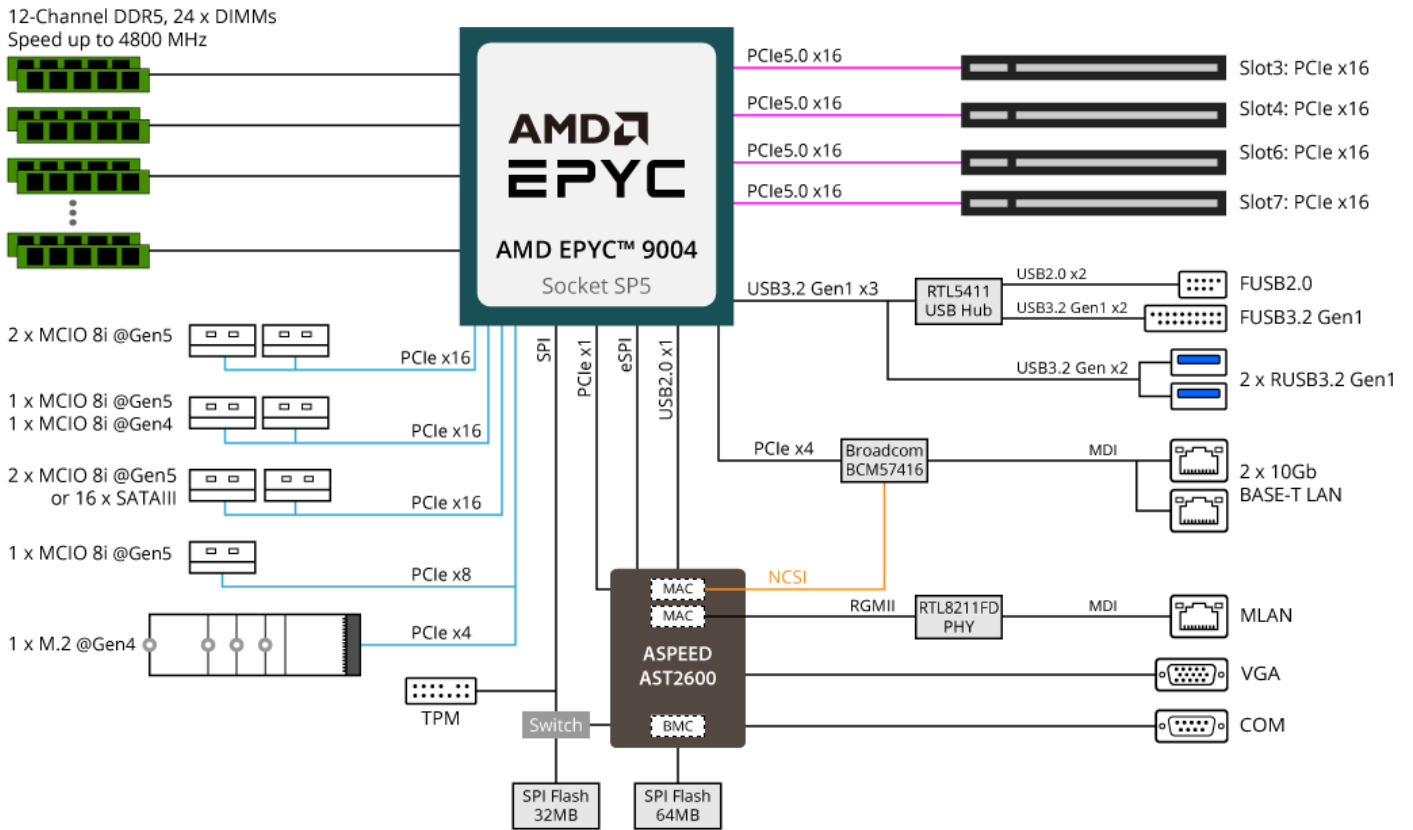
Select the features, the products and models allow a customer to only

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# MZ33-AR0 Product Overview



## MZ33-AR0 Block Diagram



# Hardware Security

## Optional TPM 2.0 Module

For hardware-based authentication, the passwords, encryption keys, and digital certificates are stored in a TPM module to prevent unwanted users from gaining access to your data. GIGABYTE TPM modules come in either a Serial Peripheral Interface or Low Pin Count bus.





# Value-added Management

GIGABYTE offers free-of-charge management applications via a specialized small processor built on the server.

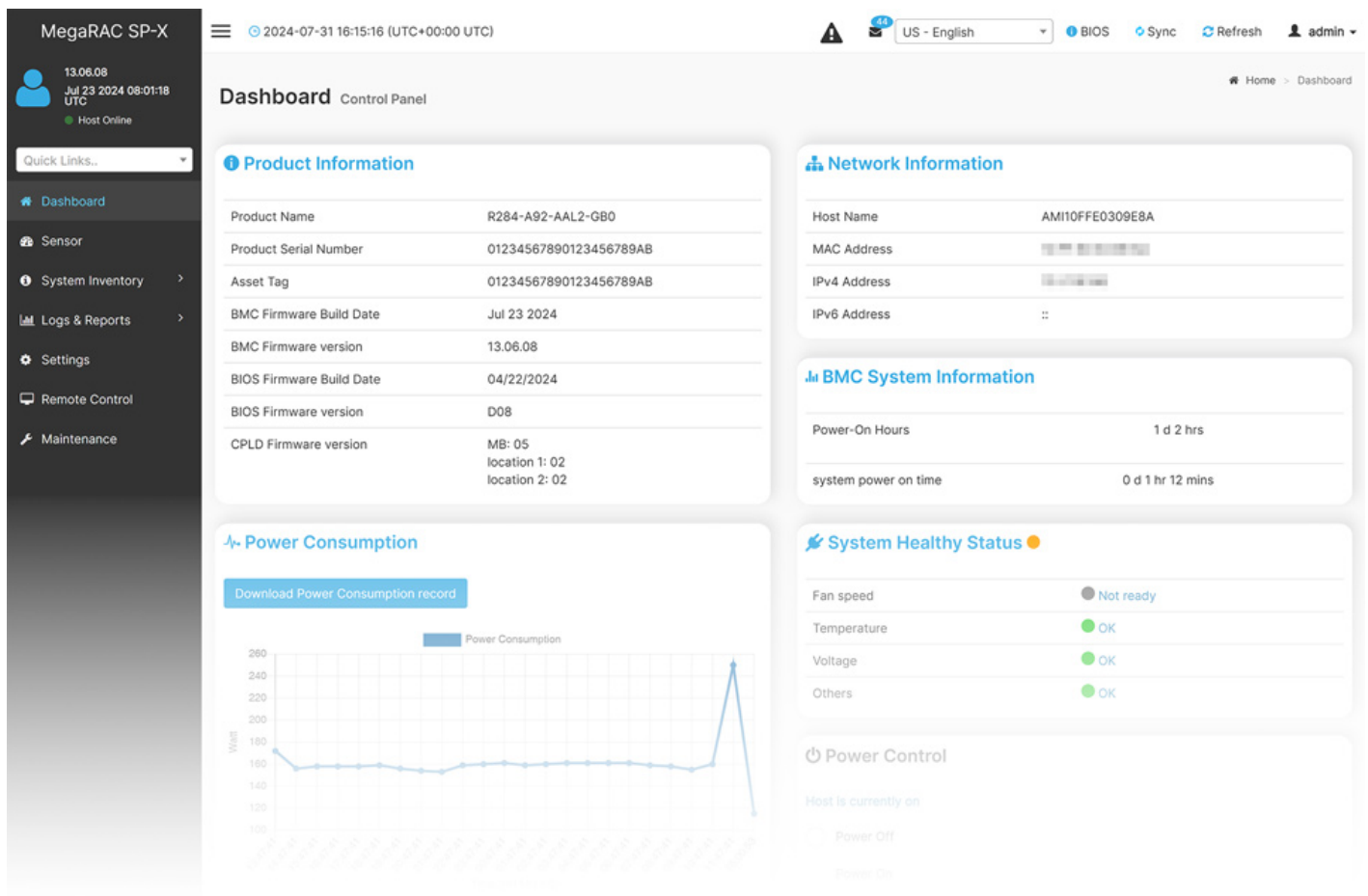
## GIGABYTE Management Console

For management and maintenance of a server or a small cluster, users can use the GIGABYTE Management Console, which is pre-installed on each server. Once the servers are running, IT staff can perform real-time health monitoring and management on each server through the browser-based graphical user interface. In addition, the GIGABYTE Management Console also provides:

Support for standard IPMI specifications that allows users to integrate services into a single platform through an open interface

Automatic event recording, which can record system behavior 30 seconds before an event occurs, making it easier to determine subsequent actions

Integrate SAS/SATA/NVMe devices and RAID controller firmware into GIGABYTE Management Console to monitor and control Broadcom® MegaRAID adapters.



# GIGABYTE Server Management (GSM)

GSM is a software suite that can manage clusters of servers simultaneously over the internet. GSM can be run on all GIGABYTE servers and has support for Windows and Linux. GSM can be downloaded from GIGABYTE website and complies with IPMI and Redfish standards. GSM includes a complete range of system management functions that includes the following utilities:

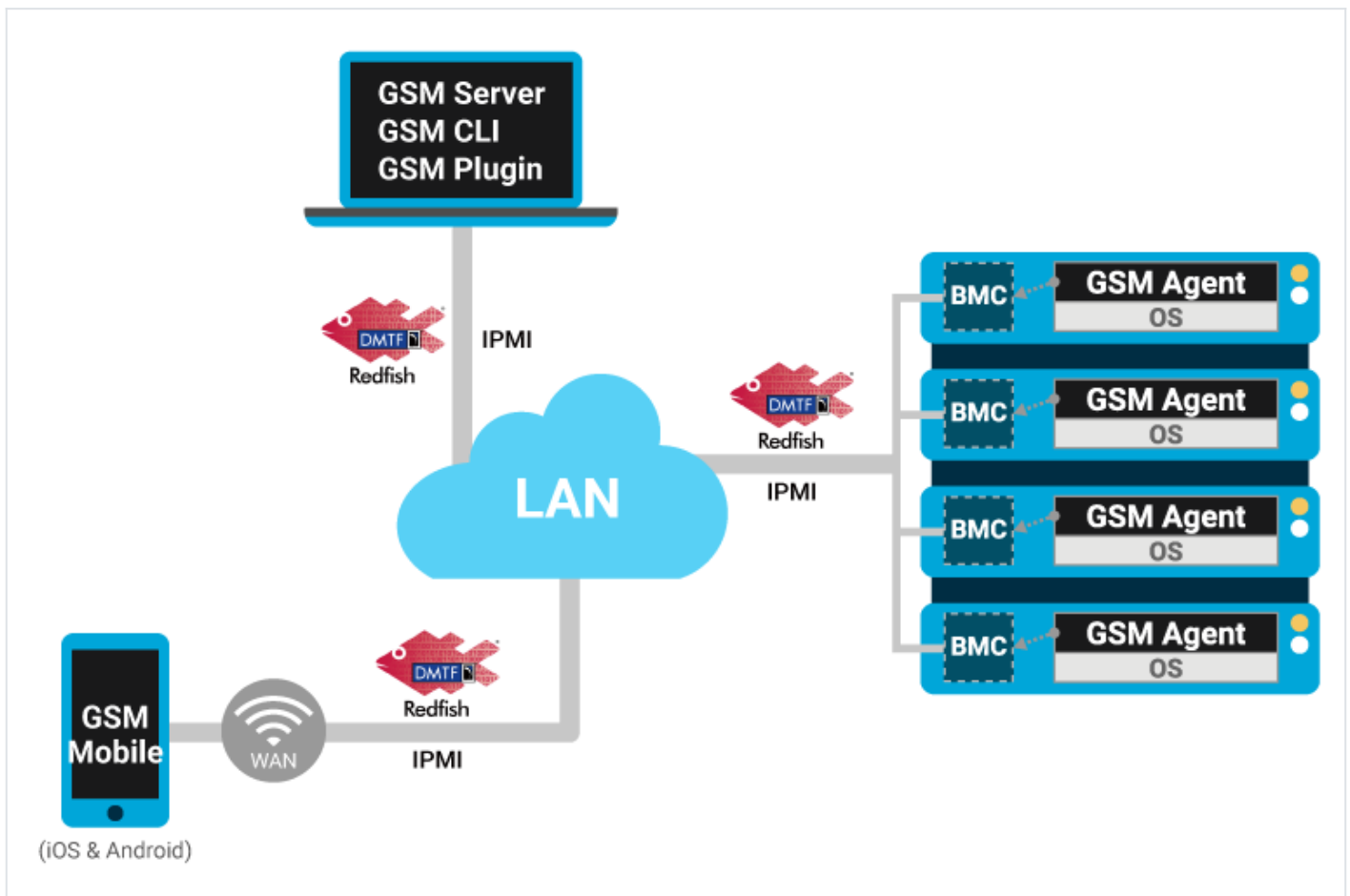
**GSM Server:** A software program that provides real-time, remote control using a graphical user interface through an administrator's computer or through a server in the cluster. The software allows ease of maintenance for large clusters of servers.

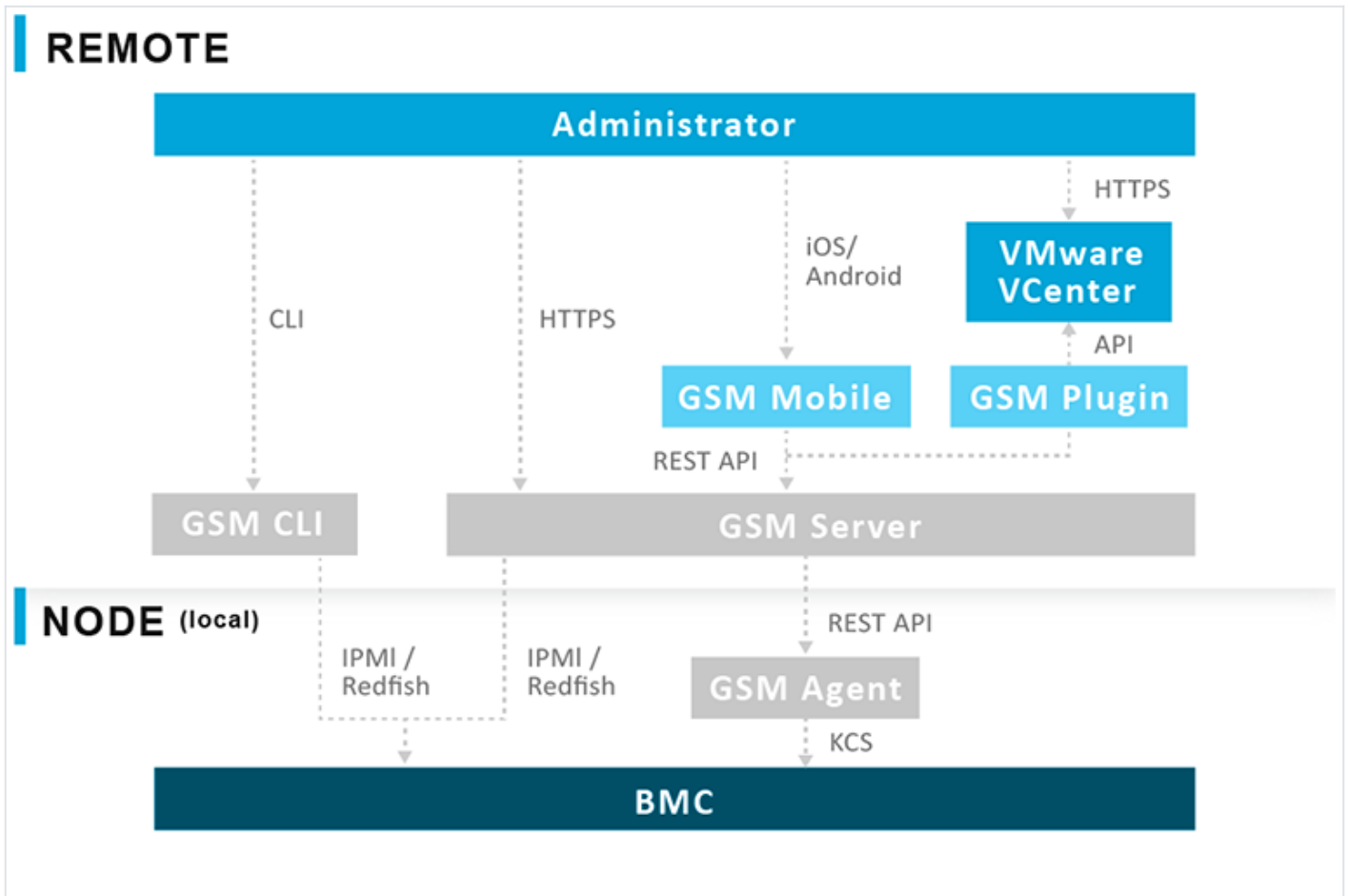
**GSM CLI:** A command-line interface for monitoring and managing remotely.

**GSM Agent:** A software program installed on each GIGABYTE server node that retrieves information from each system and devices through the OS, and this software integrates with GSM Server or GSM CLI.

**GSM Mobile:** A mobile app for both Android and iOS that provides admins with real-time system information.

**GSM Plugin:** An application program interface that allows users to use VMware vCenter for real-time monitoring and management of server clusters.





Strona firmowa produktu:

<https://www.superstorage.pl/gigabyte-mz33-ar0-1xskt-lga-6095-amd-epyc-9004-soc-24xdimm-sata-nvme-1xm2-2x10gbe-ipmi-p-7683.html>