System Requirements

When replacing or purchasing new hardware for the Manitou system, please review these minimum requirements prior to purchase.

> 🔔 We highly recommend companies <u>purchase the most and very best the company can afford</u> greater than theses minimums. (Updated 2025 January)

Manitou Database/Application Server

- Intel **Quad Core** processor (recommend 2.6 GHz or higher)
- **32 GB RAM**
- System Drive (C:) - (2) **300 GB SAS HDD with RAID 1**
- Data Drive (D:) – (2) **600 GB SAS HDD with RAID 1**
- **100/1000 LAN NIC**
- **Backup Device**
- **Microsoft Windows Server** with Proper **CALs** (x64) – supported versions listed below
- **Microsoft SQL Server Standard Edition** with Proper **CALs** (x64)
- **Valid SSL Certificate** (purchased from provider such as Go Daddy or Verisign)

BoldNet Server

- Intel **Quad Core** processor
- **16 GB RAM**
- System Drive (C:) – (2) **300 GB SAS or 300 GB SATA HDD with RAID 1**
- **100/1000 LAN NIC**
- **Backup Device**
- **Microsoft Windows Server** with Proper **CALs** (x64) – supported versions listed below
- **Microsoft SQL Express** (x64)
- **Valid SSL Certificate** (purchased from provider such as Go Daddy or Verisign)

BoldNet Ports

> 🔔 For system security reasons, the BoldNet server should reside on the firewall's DMZ (outside the protected LAN).

The company firewall configuration should allow traffic over the following ports:

- **Port 1433** (Microsoft SQL) open from Manitou servers (internal) to BoldNet (external)
- **Port 7007** (Manitou Distributer) open in both directions between Manitou servers and BoldNet

- **Port 7008** (Manitou Web Gateway) open from BoldNet (external) to Manitou server (internal)

MediaGateway Server

- **Intel Quad Core Processor**
- **16 GB RAM**
- System Drive (C:) – **(2) 300 GB SAS HDD with RAID1**
- **100/1000 LAN NIC**
- **Microsoft Windows Server** with Proper CALs (x64) – supported versions listed below
- **Microsoft SQL Express** (x64)

The MediaGateway may be **Virtual** or **Hardware**

Hard Drive Selection

When selecting hardware configurations, Bold Group highly recommends the use of **SSD or SAS hard drives optimized for speed**. This greatly enhances the database performance over SATA disk or slower drives.

> ℹ️ In general, the above specifications are listed as <u>minimum guidelines</u> for a system and may be exceeded if budget supports more, or an aggressive growth model exists. Enterprise solid state drives, designed for high write endurance, may be recommended for some larger systems.

Workstations

- **Intel Dual Core**
- **8GB RAM**
- **160 GB SATA HDD**
- **100/1000 LAN NIC**
- **1920 x 1080 Monitor**
- **Sound card with speakers**
- **Video Graphics Card**
- **Microsoft Windows**

Video Monitoring

- Dual output video card
- Additional 1920 x 1080 Monitor

Supported SERVER products

- Microsoft Windows Server 2022 Standard or Data center Edition
- Microsoft SQL Server 2022 Standard or Enterprise Edition

Supported DATABASE Products

- Microsoft Windows Server 2022 Standard or Data center Edition
- Microsoft SQL Server 2022 Standard or Enterprise Edition

Supported Desktop/Workstation products

- Microsoft Windows 10/11 Pro or Enterprise

> ⚠️ Bold Group DOES NOT support the use of **Microsoft Windows Small Business Server** with any of our products. Small Business Service is designed for a business that will only be deploying one server. Numerous conflicts occur when deploying a Small Business Server (SBS) on a network with other servers. Bold Group keeps your company's future interests in view by recommending a more flexible solution.

Backup Device

Any Windows compatible backup device is acceptable. It is only necessary to have this device on one of the machines.

> ℹ️ We recommend using the backup Application Server/Database machine when running and transferring database backups.

Acceptable Devices

- **Tape** devices (DAT, Travan, DLT)
- **Optical** recorder drives (DVD+-R)
- **External hard drives** are acceptable devices.
- **Network Attached Storage** device (NAS) or Storage Area Network array (SAN).