# System Requirements

Version 11.xx
Release date: April 2023

Control ID: R 10.0

**Synchronizing Healthcare**

# Contents

# Introduction

CompuGroup Medical approved the system requirements and technical details outlined in this document as of the release date of this version. The information in this document may change as we test and upgrade CGM ENTERPRISE PM for compatibility with the latest software and hardware.

We realize that each of our customers may have different computing environment and needs. For assistance in determining the requirements and details for your environment, please contact our Customer Support team at (855) 270-6700, Monday through Friday, 8 A.M. to 5 P.M. Eastern Time.

# System requirements for version 11.xx

CompuGroup Medical™ (CGM) has identified the requirements for the hardware and software components that are necessary for the successful installation and use of the CGM ENTERPRISE PM™.

The performance of CGM ENTERPRISE PM may be adversely impacted and the minimum hardware requirements may be inadequate if the system is running additional applications. The use of hardware systems or components that are not purchased from or approved by CGM may negatively affect the PM software.

The system requirements outlined below are approved as of the release date of this document and are subject to change based on compatibility testing with the latest software and hardware. Please contact Customer Support for the latest requirements.

| ⚠ | **Important**<br><br>The loading of PM software on a client's PC does not transfer liability for the PC's hardware or software to CompuGroup Medical. |
|---|---|

## Server specifications

The following requirements are for clients with fewer than 75 users per server. A custom analysis is required for clients with 76 users or greater.

| Server specifications | |
|---|---|
| **Component** | **Details** |
| Processor | Quad Core Intel® Xeon @ 2.6 GHz or faster |
| Memory | 12 GB O/S: 12 GB Base + 20 MB per user |
| Storage [1] | Hardware RAID controller (RAID level 1 and 10 recommended) with partitions:<br><br>C: 100 GB (20 GB free after OS install)<br>D: ≥ 150 GB available disk space (dependent on current database size)<br>E: 2X system RAM is the recommended partition size |

---

[1] RAID 1 or 10 can also be used for redundancy. Optimal configuration would have 2 arrays:  First array - O/S under Raid 1; Second array - 4 drives under Raid 10.

| Server specifications | |
|---|---|
| **Component** | **Details** |
| Operating System | Microsoft Windows 2022 (Universe 12.2)<br><br>Microsoft Windows 2019<br><br>Microsoft Windows 2016<br><br>**Important**: *All versions of Microsoft Windows Small Business Server are not supported.*<br><br>Internet Information Services (IIS) installed onto drive C: with at least 20 GB available on the system partition. |
| Database | Universe (Database supplied by CGM) |
| Internet Browser | Microsoft® Edge® and Google Chrome<br><br>High speed internet connection (DSL, Cable, Fiber, or similar) |
| Video Display | 17" flat screen monitor (minimum)<br><br>1024 x 768 resolution (minimum)<br><br>16-bit color (minimum)<br><br>**Note:** *The CGM ENTERPRISE PM application automatically resizes to correctly display on monitors with larger screen dimensions, higher resolution, and greater color bit depth.* |
| Network Adapter | 100/1000 Mbps gigabit Ethernet |
| UPS | A minimum of 15 minutes without power, plus 25% additional capacity.<br><br>Auto shutdown capable.<br><br>Refer to server specifications for complete wattage requirements. |
| Firewall [2] | HIPAA-compliant firewall<br><br>(See https://www.hhs.gov/hipaa/for-professionals/security/laws-regulations/index.html for more information)<br><br>FTP (Outgoing: Ports 20, 21)<br><br>SSL (Bidirectional: Port 443) |

---

[2] Network security is recommended (i.e., firewall & anti-virus). CGM does not support a software firewall.

| Server specifications | |
|---|---|
| **Component** | **Details** |
| Backup Device | Capacity of backup device should be equal to or larger than the total disk space to ensure a complete system backup can be accomplished. (See the *System Backup* section in this document for more information about backing up the PM application.) |
| Antivirus Software [3] | Eset NOD32 AntiVirus or a comparable business antivirus solution. |
| Additional Software and Hardware | Adobe® Acrobat® Reader® v11.0 or higher<br><br>JAVA Version 1.8 update 202 (1.8.0_202) 64-bit<br><br>Anti-spyware recommended (3)<br><br>Monitor, keyboard, and mouse |
| Remote Support/Upgrades | Bomgar and/or eBlvd (Software installed with CGM assistance at no cost) |

---

[3] Anti-Virus & Anti-Spyware usually consume additional resources on the machine.

The CGM ENTERPRISE EHR and CGM ENTERPRISE PM directories and databases should be excluded from continuous scans. Consider an anti-virus/spyware hardware appliance.

## Server location recommendations

The server hardware should be located in a facility that meets the conditions listed in the following table.

| Server location recommendations | |
|---|---|
| **Component** | **Details** |
| Power [4] | Requires a dedicated circuit with an isolated ground. |
| Ventilation | Not over 80° Fahrenheit. Ventilated room with A/C present. |
| Cleanliness | Keep server and server area free of dust. Server must be placed in an area easily accessed for cleaning. |
| Static | Use static mats or sprays to control static around server. Avoid carpeted areas. |
| Moisture | Avoid areas high in humidity or mildew (e.g., basements). Avoid installing near water heater tanks. |

## Server ports and IP addresses

The specific ports and IP addresses required by the PM application are listed in the following table.

| Server ports and IP addresses used by the PM application | |
|---|---|
| **Function** | **Port number** |
| Report Writer | 9090 |
| Apache | 8080 |
| Universe | 8443 |
| FTP | 21 |
| FTP server for automated software updates | 216.52.55.31 |

---

[4] Standard servers require an 110V 15 AMP circuit. Voltage requirements may vary depending upon the specific server configuration.

## User workstation specifications

The following hardware and software are the minimum required for each client computer (desktop, laptop, and tablet). [5]

| User workstation specifications | |
|---|---|
| **Component** | **Details** |
| Processor | Intel® Core™ i5-3330s Processor 2.7 GHz |
| Memory | 8 GB RAM |
| Storage | 10 GB Free Space |
| Operating System | Windows® 10 Professional<br><br>Windows® 11 Professional<br><br>**Notes**:<br><br>*If running multiple CGM applications, see the requirements for the other CGM applications for compatibility acceptance.*<br><br>*Mac OS® and hardware platform are not supported.* |
| Internet Browser | Microsoft® Edge® and Google Chrome |
| Video Display | 17" flat screen monitor (minimum)<br><br>1024 x 768 resolution (minimum)<br><br>16-bit color (minimum)<br><br>**Note:** *The CGM ENTERPRISE PM application automatically resizes to correctly display on monitors with larger screen dimensions, higher resolution, and greater color bit depth. The display of the user interface elements on some screens within the PM application may be less than optimum when using the minimum screen resolution of 1024x768. To resolve the issue, go to your computer's Display Settings and select a higher resolution.* |
| Network Adapter | 100/1000 MBPS gigabit Ethernet |
| Remote Support | When CGM support must gain access to a client computer to provide assistance, a one-time secure connection is established with the client computer. The client initiates the session. Once the work is finished and the session closed, access to the client computer is terminated. |

---

[5] Standard servers require a 110V 15 AMP circuit. Voltage requirements may vary depending upon the specific server configuration.

| User workstation specifications | |
|---|---|
| **Component** | **Details** |
| Antivirus Software [6] | Eset NOD32 AntiVirus™ (or a comparable business antivirus solution) |
| Additional Software and Hardware | Adobe® Acrobat® Reader® v11.0 or higher<br><br>JAVA Version 1.8 update 202 (1.8.0_202) 64-bit<br><br>Anti-spyware recommended<br><br>Monitor, keyboard, and mouse |

### Note

According to the terms of the support agreement, CGM must be allowed remote access to the client system so technical support can be provided. When remote assistance is required, a one-time secure connection is established with the appropriate client computer. The client initiates the session. Once the session is finished and closed, access to the client computer is terminated. Only authorized CGM personnel are permitted access to a client system. CGM personnel will not open, modify, or view patient health information (PHI) documents or data unless directly pertaining to the repair, troubleshooting, or maintenance of the CGM ENTERPRISE PM application.

---

[6] Anti-Virus & Anti-Spyware typically consume additional resources on the machine.

The CGM ENTERPRISE EHR and CGM ENTERPRISE PM directories and databases should be excluded from continuous scans. Consider an anti-virus/spyware hardware appliance.

CGM**ENTERPRISE PM** ™

## Peripheral specifications

The printer and scanner specifications are listed in this section.

### Printers

The following printers are supported. [7] [8]

| Peripheral specifications | |
|---|---|
| **Format** | **Models** |
| Dot Matrix | Okidata 420 Turbo<br><br>**Notes:** *Printer emulations of IBM PPR, Epson, or Okidata should be used.*<br><br>*Ethernet jetDirect is required.* |
| Laser | HP LaserJet and compatible printers supporting PCL 5, PCL 5e & PCL 6.<br>**Note:** *Installation of the Universal printer driver is recommended.* |
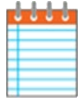
> # Note
> CGM recommends a laser printer connected through the network and managed by the server.

### Desktop scanners

A desktop scanner is required for daily scanning tasks. [9]

| Desktop scanners | |
|---|---|
| **Component** | **Details** |
| Feed Type | Multi-sheet / single sided |

---

[7] Network configured printers are recommended. Some local printers are supported if the above criteria is met. A list of proposed locally connected and networked printers and scanners can be reviewed for evaluation. It is the client's responsibility to provide printer drivers for existing printers.

[8] Other printer makes and models are supported; however, they will need to be setup and configured. It is recommended that a business class laser printer be used for printing preprinted claims forms such as UB04.

[9] Scanning may require additional resources (RAM, processor, hard drive space).

| Desktop scanners | |
|---|---|
| Component | Details |
| Interface | USB |
| Driver | TWAIN Compliant: Both 32-bit and 64-bit drivers |
| Card Scanner (double-sided) | Fujitsu fi-7160 Ambir DS687 or DS687-3 Scanner |

## Internet connection

CGM ENTERPRISE PM requires a full-time broadband internet connection. The listed bandwidth speeds are the minimum recommendation for optimal experience with CGM ENTERPRISE PM. If there is additional internet traffic at the user site, then a higher bandwidth may be required. For assistance determining how much bandwidth your site may need to accommodate scanning and image retrieval, please contact our Professional Services team at (855) 270-6700, Monday through Friday, 8 A.M. to 5 P.M. Eastern Time. [10]

| Internet connection | | |
|---|---|---|
| Concurrent users | Minimum down | Minimum up |
| 1 – 10 | 640 Kbps (Typical DSL) | 512 Kbps |
| 11 – 30 | 1.5 Mbps (Full T1) | |
| *The latency test average should be less than 70ms.* | | |

### Note
CGM prefers Business Class cable or fiber.

---

[10] WAN bandwidth recommendations are only for CGM ENTERPRISE PM and must be considered within the context of the specific network configuration.

- 75kb is the recommended bandwidth for heavy usage (i.e., data entry, frequent lookups, and large reports).
- 50kb is the recommended bandwidth for medium usage (i.e., frequent lookups, small to medium sized reports).
- 25kb is the recommended bandwidth for light usage (i.e., infrequent lookups and small reports).

## System backup

The files and directories necessary for the proper functioning of CGM ENTERPRISE PM must be backed up daily to ensure that the PM system may be completely restored in the event of a system failure, re-imaging, hardware upgrade, or other circumstances. A full system backup is the recommended level of data archiving since it allows the system to be restored to operational status in the shortest time possible.

The following files and applications should be included in the full system backup:

- Operating system (e.g., Windows)
- Applications (e.g., CGM ENTERPRISE EHR, CGM ENTERPRISE PM)
- Data files on all local and networked (SAN, NAS, NFS, SAMBA, etc.) drives attached to the system.

| | **Important** |
|---|---|
| ⚠ | The customer is solely responsible to perform and verify the system backup, including completion and integrity. Periodic verification that the backup can be restored is essential. |

## Pre-Installation requirements worksheet

| CGM ENTERPRISE PM server details | |
|---|---|
| **Component** | **Details** |
| **Server Name:** (As reported by hostname command) | |
| **Fully Qualified Domain Name:** | |
| **Server/Domain Administrator Username:** <br><br> (A different login with administrative privileges other than Administrator may be designated.) | |
| **Server/Domain Administrator Password:** | |
| **Hard Drive Capacity GB:** | |
| **Memory Installed GB:** | |
| **Windows Version:** <br><br> (Including Standard or Enterprise with service pack) | |
| **Processor Type and Clock Speed:** | |
| **Number of Processors as interpreted by Windows System Information:** <br><br> (For example, a single dual-core processor is considered two processors) | |

## System Requirements Compliance

By signing below, the customer agrees to acquire and maintain the software and hardware required to interact efficiently with CGM ENTERPRISE PM. The customer also acknowledges the sole responsibility of performing and verifying a daily full system backup, as delineated within this document.

Customer Signature: _____

Print Name: _____

Title:       _____

Dated:      _____