

Technical Requirements

Introduction

This document describes the required hardware and supporting software necessary to operate HomecareNet™. It outlines:

- Software Requirements
- Server Requirements
- Workstation Requirements
- Additional Requirements and Recommendation

Software Requirements

Category	Software	Comments
Browser	Microsoft® Internet Explorer version 6.0 or above	Free. Must be on each workstation.
Forms	Adobe® Acrobat® Reader® version 6.0 or above	Available free from Adobe Systems, Inc. Must be on each workstation.
Connectivity	A firewall that provides VPN capability, over a broadband (T1, DSL, or cable) connection.	Microsoft-compatible firewall recommended. HAI also has experience with Checkpoint, Cisco, and Sonicwall.
Communications	Microsoft® Windows Remote Desktop	Included with Microsoft® Windows. Required on at least one workstation for remote connections. Assign a strong password.
Electronic Claims Submission	ZirMed for 837 electronic claims; DayTech's CE2000 for NCPDP claims	Optional. More information available at www.zirmed.com and www.daytechcorp.com .

Server Requirements

Healthcare Automation recommends a configuration of two dedicated servers for other than very small installations.

- Server 1 (the SQL server) acts as the database server
- Server 2 (Application/Output server) acts as an Application Server, an Output Server, and a Web Server.
- Larger organizations (more than 150 users) may require more than two servers; responsibilities can be split among Application Server(s), Database Server(s), Output Server(s), and Web Server(s). Healthcare Automation will work with you on specific recommendations based on your organization's size.
- Server performance is generally enhanced if the operating system and installed components reside on a drive or drive array that is physically separate from the data storage location.
- Database Server performance is generally enhanced if SQL Server is installed on a dedicated server, and if the transaction file resides on a drive or drive array that is physically separate than the one housing the HomecareNet database container. HAI's recommended configuration for a database server is:
 - C: drive is a mirrored pair of SAS or SCSI drives (20 GB is adequate)
 - D: drive is a 4 or 5 drive array of SAS or SCSI drives, which hold the HomecareNet database container
 - E: drive is a single SAS or SCSI drive, on which transactions are recorded

Application / Output Server		
Category	Recommended	Minimum
Operating System	Microsoft® Windows Server 2003 Std or Enterprise Edition (with latest Service Pack) Microsoft® Windows Server 2008 Std or Enterprise Edition (with latest Service Pack) 64-bit editions are supported. 32 bit Enterprise editions are preferred over 32 bit Std editions since they support memory beyond 4GB. Virtualization is also supported.	Microsoft® Windows 2003 Std (with latest Service Pack)
CPU	Quad Core or equivalent; SMP; 3GHz or faster	Core2 Duo or equivalent; SMP; 2.8 GHz

	processor	processor
RAM	8+GB for 64 bit or Enterprise versions	4 GB
Hard Disk	Drive array of 500 GB or greater RPM: 10K or faster A SAN or NAS with similar sustained through-put as a 10k rpm or faster drive array.	Drive array of 200 GB
Database Server		
Category	Recommended	Minimum
Operating System	Microsoft® Windows Server 2003 Std or Enterprise Edition (with latest Service Pack) or Microsoft® Windows Server 2008 Std or Enterprise Edition (with latest Service Pack) 64-bit editions are also supported. 32 bit Enterprise editions are preferred over 32 bit Std editions since they support memory beyond 4GB.	Microsoft® Windows 2003 Std Server (with latest Service Pack)
Database	Recommended: Microsoft® SQL Server 2005 or 2008* Minimum: Microsoft® SQL Server 2000	Licensed separately. SQL Server Analysis Services (included on CD) must also be installed in order to use HomecareNet Business Intelligence Solutions. * SQL Server 2008 must be run in 2005 Compatibility mode
CPU	Quad Core or equivalent; SMP; 3GHz or faster processor	Core2 Duo or equivalent; SMP; 2.8 GHz processor
RAM	8+GB for 64 bit or Enterprise versions	4 GB
Hard Disk	Drive array of 5 or more drives RPM: 10k or faster SAS or SCSI. A SAN or NAS with similar sustained through-put as a 10k rpm or faster drive array.	Drive array of 3 or more drives RPM: 10k or faster SAS or SCSI

Workstation Requirements

Category	Recommended	Minimum
Operating System	Microsoft® Windows XP Professional or Microsoft® Windows Vista (with latest Service Pack)	Microsoft® Windows 2000 Professional (with latest Service Pack)
CPU	Dual Core processor or better	Pentium 4 class processor or better
RAM	2GB or greater	2GB
Hard Disk Space	60GB or greater	40GB

HomecareNet Mobile Laptop Requirements

HomecareNet Mobile can be deployed on a Laptop (or desktop) using a PDA device emulator. This type of deployment also allows for the DUR – Drug Utilization Review feature.

Category	Recommended	Minimum
Operating System	Microsoft® Windows XP Professional (with latest Service Pack)	Same
CPU	Core2 Duo or equivalent 2.0 GHz or faster	Core2 Duo or equivalent 1.0 GHz or faster
RAM	2GB	Same
Screen	Touch-Screen if Signature capture is required.	Same
Hard Disk Space	60 GB or greater	Same

HomecareNet Mobile Host Requirements

One Host box support 10 concurrent syncs from mobile devices; plan to have one Host box for every 30-50 HomecareNet Mobile device users.

Category	Recommended	Minimum
Operating System	Microsoft® Windows Server 2003 Std or Enterprise Edition (with latest Service Pack) or Microsoft® Windows Server 2008 Std or Enterprise Edition (with latest Service Pack) Virtualization is also supported.	Microsoft® Windows Server 2003 Std (with latest Service Pack)
CPU	Quad Core or equivalent; SMP; 3GHz or faster processor	Core2 Duo or equivalent 2.8GHz or better
RAM	3GB or greater	2GB
Hard Disk Space	500GB or greater Drive array containing 4 or more drives which are 10k rpm or faster. A SAN or NAS with similar sustained through-put as a 10k rpm or faster drive array.	200GB Drive array with 10k rpm or faster drives. Note: Synchronization speed is directly related to how fast files can be created on the sync-host's hard disk. To achieve acceptable sync speed a fast disk sub-system is required.
Proximity to Database Server	Optimum performance is achieved when the Mobile Host server is physically close to the Database Server. 1GB or faster Ethernet connections between the Database Server and the Mobile Host server is desired.	
Virtualization	If deploying the Mobile Host in a virtual environment, that environment should be equivalent to a quad core processor running at 2.5 GHz or a Dual Core running at 3 GHz.	

Additional Requirements and Recommendations

Category	Requirement	Comments
High-Speed Internet Connection	Strongly recommended. T1, DSL, or cable modem connection	For access to resources on the Internet and remote access by Healthcare Automation's Customer Support Center.
Reports	Crystal Reports or Jasper	Recommended for custom report writing. Available off the shelf.
Printers	Most output is designed for printing on any PCL-compatible laser printer.	Selected forms can be printed on a dot matrix printer that supports Epson emulation.
Thermal Label Printers	Datamax M-Class and/or E-Class thermal printers	For printing of Pharmacy labels. HAI recommends that you purchase a minimum of two printers, including one printer for each label size that you regularly use. For pricing, contact: Rick O'Bryan, Bar Code Direct, Inc. 781-878-5260, www.barcodedirect.com rick.obryan@barcodedirect.com
E-mail	Required for the primary support contact.	Must be able to accept attachments of up to 4MB.
Network Attached Backup	Required. Must be able to backup the database even when it is active.	Backup must be accompanied by an agent capable or working with the database (e.g., Veritas, BackupExec, CA's ARCserv)
Drug Database	Medi-Span Master Drug Database (MDDDB)®	Shipped with HomecareNet; annual fees invoiced by Healthcare Automation
PDA's, Laptops, or Tablets	Optional, for field clinicians using HomecareNet Mobile Clinician.	See HomecareNet Mobile Device Recommendations for recommended devices and more detailed requirements.
Bar Code Scanner	Optional, for inventory management in the warehouse. Any keyboard wedge scanner that attaches between the keyboard and computer and is capable of reading linear bar codes.	For pricing, contact: Rick O'Bryan, Bar Code Direct, Inc. 781-878-5260, www.barcodedirect.com rick.obryan@barcodedirect.com
Wireless Bar Code Scanner	Optional, for drivers using HomecareNet Mobile Deliveries. Must run the Windows Mobile operating system, v5 or higher, and must include a touch screen and a key pad.	See HomecareNet Mobile Deliveries Device Recommendations for recommended devices and more detailed requirements.
Mobile Bluetooth Printer	Optional, for drivers using HomecareNet Mobile Deliveries.	See HomecareNet Mobile Deliveries Device Recommendations for recommended devices and more detailed requirements.
Document Scanner	Optional, for WebScan Pro users.	Must be able to scan to a network folder, use TWAIN or ISIS drivers, scan at 300x300 DPI Recommended but not required: <ul style="list-style-type: none"> • 50 Sheet Automatic Document Feeder Tray • Minimum speed of approx. 20 sheets/minute