



Lytec MD Patient Records 11.2.1 System Requirements

Database/Application Server

Specifications are based on a 10-user setup unless otherwise specified. The requirements are for the Practice Partner software only. If you decide to run additional services (DNS, Active Directory, Microsoft Office), you will need to add additional CPUs and/or RAM.

	Minimum	Recommended
Processor	8 Cores at 2.3 GHZ or Higher	16 Cores at 2.3 GHZ or Higher
Ram	16 GB	32 GB
Operating System	Windows Server 2016 - 64 Bit	Windows Server 2019 Standard - 64 Bit
Network Card (NIC)	1 Gbps	1 Gbps

Storage

	Minimum	Recommended
C: Operating System Etc.	60 GB free space	60 GB free space
D: Data (SQL Database and Office Shares)	250 GB Free Space	500GB Free Space
P: For PPart	750 GB Free Space	1TB GB Free Space

Specific drive letters are not required but recommended; the drive letter may not be changed after installation. A 4 disk RAID-10 Array is required for Data Volumes. The OS Volume may be RAID-1. When in doubt overestimate, it is easier to purchase hard drive space when you purchase your server than to add hard drives later. Drive space sizes *may* be adjusted dependent on your specific and current data size.

Server Hard Drive Growth Planning:

No Scanning	100 to 500 MB per full time physician per year
Moderate to Heavy Scanning	1GB to 10 GB per full time physician per year
Heavy to Extensive Scanning	10 to 50 GB per full time physician per year

Remote Desktop (Terminal) Server

RemoteApp feature is not supported

	Minimum	Recommended
Processor	8 cores at 2.3 GHz or higher*	16 Cores at 2.3 GHz or higher
Ram	16 GB*	32 GB
Operating System	Windows Server 2016 Standard - 64 Bit	Windows Server 2019 Standard - 64 bit
Network Card (NIC)	1 Gbps	1 Gbps

*Supports 25 sessions of Lytec MD. For every 25 additional sessions, add 4 GB RAM and 2 more CPU Cores.

Workstations

Windows Home Editions are not supported

	Minimum	Recommended
Processor	4 cores 2.0 GHz	4 cores or higher
Ram	8 GB	8 GB or higher

Operating System	Windows 10 Pro 64 bit	Windows 10 Pro 64 bit
Storage	8 GB Free on OS Drive	
Network Card (NIC)	100 Mbps	1 Gbps
Resolution	1024x768 (1200x800 for widescreen)	

Network

- Wired 1 Gigabit network. Wireless is not supported for local installs of Lytec or Lytec MD. Windows Remote Desktop Services on a qualified RD Server is required if you will be using Lytec MD in a wireless environment.
- Teamed Network Cards are not supported.
- Each network adapter (on Server(s) and Clients) should have the Internet Protocol Version 6 check box cleared to avoid slowness in your application
- DNS/Active Directory must be functioning correctly so that permissions and hostname resolution work
- DNS should be on the same subnet as the Lytec MD servers
- End-to-end network round-trip time of 120 ms or less from user workstations
- Network (packet) loss of 1% or less from user workstations
- Available network capacity (upload AND download): 5 Mbps or greater per user
- Disable offline file caching
- Urls listed below must also be included in Trusted Sites
- Hardware-level firewall with allowances below

Program, Port, url	Protocol	Scope
Sqlservr.exe (variable location)	TCP	Domain and Private
50501-50508	TCP	Domain and Private
1433	TCP	Domain and Private
1434	TCP, UDP	Domain and Private
443	TCP	All
https://microservice.emds.com*	https	
https://erx.emdscld.com*	https	
A port in the range 49000-50000 (if using Lytec Mobile App)	TCP	All

*You must allow ICMP pings for these two services. If you are blocking the pings, you must unblock them or the services will not work.

Security and File System Settings

- Domain\Active Directory Environment Required
- User Account Control (UAC) and Data Execution Prevention (DEP) must be disabled and may require being turned off at the registry level during installation
- NTFS is required due to the necessity to set file permissions
 - Do not enable built-in NTFS compression on the ppart folder to avoid performance issues
- The Windows pagefile should be two times the amount of installed RAM

The Permissions below must be assigned to the indicated Directories by the site's IT Vendor. Applying the required permissions by Group Policy is recommended.

- Security Levels
 - Full Control: Administrators, System, Network Service
 - Modify: Any and All Users or Security Groups who will run Practice Partner

- Paths
 - P:\ppart
 - C:\Program Files (x86)\McKesson\Practice Partner
 - C:\Program Files (x86)\Lytec 20xx
 - C:\ProgramData\Lytec
 - C:\ProgramData\McKesson
- Sharing
 - The root level of P: must be Shared with full access to all of the Groups detailed above
 - The root level of P:\ must be added as a mapped drive on each Client PC using the same volume letter
 - Drive mapping via Group Policy must use 'Update' not 'Replace'
 - SMB3 is approved for use with Lytec MD. To enable SMB3, refer to the Microsoft knowledge base for instructions
 - SMB2 must be enabled.

Anti-Virus

- The application folder (ppart) and client folders (C:\Program Files (x86)\McKesson\Practice Partner, C:\ProgramData\McKesson\ClientUpdatesStore) must be excluded from real-time/on-access scanning
- Scheduled scans should be run when users are not logged in
- Any anti-virus that does not allow for exclusions should not be installed. Trend Micro, CA eTrust, and Kaspersky are unapproved anti-virus solutions that may cause instability.

Additional

Lytec MD requires a SQL Server Standard license to run the program. In the past, the appropriate SQL licenses were included in the Lytec purchase itself. Effective with the Lytec MD 2021 install, SQL is no longer included and must be purchased and licensed to the customer directly. Please contact CHS regarding any questions about SQL Licensing and the best method to obtain your licensing.

Printers: TCP/IP-enabled, PCL5-compatible printers are recommended. Remote Desktop printing may require additional purchase and setup and the associated infrastructure must be supported by the client or the client's IT.

Scanners must include the necessary TWAIN driver software for use with the scanner. Direct scanning from the Zoom application requires a scanner attached directly to the Client PC. Scanning Software must output pdf format.

Dragon Naturally Speaking **Dictation** has limited functionality in a Remote Desktop Environment

Integrated Faxing

CHS only supports Equisys' Zetafax solution for using Lytec MD integrated Faxing. Other solutions may be used but are not supported.

For small clinics, you can install a fax board on the application server or thin client server. For customers that do a larger amount of faxing, CHS recommends a dedicated fax server.

Supported Fax Boards: Brooktrout TruFax Series, Brooktrout TR1034 Series

Backup

Backup is never optional

CHS will only provide support on the CHS Cloud Backup regardless of any prior setup or assistance

It is recommended that you have backups stored in multiple locations including (but not limited to):

- Cloud backup
- External sources (NAS/External Drive etc)
- A local server

Factor expected data growth when choosing backup media size.

For reliability, the backup of the ppart directory requires all users to remain logged out, any items connecting to the ppart directory such as interfaces be closed, and the PMSI Services (Application Server, Data Server, Interoperability Service be stopped during a backup of your ppart directory.

Have a disaster recovery plan in place. Test the recovery plan periodically to make sure that in the event of a disaster, you can recover your data and be functional in the shortest amount of time possible. Restoration time will vary based on severity of disaster (i.e. Database restoration vs. complete server loss).

The following items must be backed up

- Lytec SQL Database (in a .bak format)
- Lytec Shareddata SQL Database
- RM Practice Data Folder (If Using Revenue Management)
- Lytec Forms, Custom Reports
- Lytec Mobile Superbill Files
- Lytec MD SQL Database (in a .bak format)
- PPART Directory Excluding the contents of the following folders:
 - PPART\Tempfrml\
 - PPART\Interface\Lytec\Demsch\Rcv\Archive\
 - PPART\Interface\Lytec\Demsch\Rcv\log\
 - PPART\Interface\Lytec\BillCode\Snd\log\
 - PPART\Interface\SureScripts\Input\Archive\
 - PPART\DumpFiles\
 - PPART\PatientEducation\
 - MRRCOP99.*, MRRCOV99.*, MRRALT99.*, MRFRML99.*, MRRCOC99.*

All specifications are subject to change without notice