



Hardware Requirements

Applicable to MagView and LungView

Table of Contents

Workstation Requirements.....	3
Web Server Requirements.....	4
Application/Database Server Requirements.....	5
Storage Requirements.....	6
Thin Client Requirements.....	7
HIS/RIS HL7 Interface Server.....	7
Interfacing.....	8
Remote Support Requirements.....	8
Data Backup and Antivirus.....	8
Printer Compatibility.....	9
Microsoft Patches.....	9
Barcode Reader.....	9
Fax Server Interface.....	9
Patient History Tablet.....	10
Tablet Devices.....	10
Tablet Server.....	10
Techpad.....	11
Techpad Devices.....	11
Techpad Server.....	11
Patient Results / History Portal.....	11
Luminary Risk / Luminary Analytics.....	12
Luminary Risk Provider Hosted by MagView.....	12
Dashboard.....	13
Dictation / Transcription Devices.....	13
Document Management / Scanning Devices.....	13
Electronic Signature Collection.....	13
Luminary Workflow Manager.....	14
LWM Workstation Requirements.....	14
LWM Application/Database Server Requirements.....	14
LWM Thin Client Requirements.....	14

Workstation Requirements

The following minimum and recommended hardware requirements apply to workstations in a stand-alone or LAN environment. If you are installing new, we recommend selecting specifications that offer the best current price/performance value, which could be significantly higher than the minimum requirements listed here.

	Minimum Supported	Recommended
Operating System	Windows 10	Windows 11
Processor	Intel Pentium 4 2GHz or equivalent AMD processor	Intel Core i3 2 cores 2.4GHz or equivalent AMD Ryzen 3 (or higher)
Memory	8 GB	16 GB or more
Storage	1 GB available	More than 2 GB available
Desktop Resolution	1024 x 768	1920 x 1080
Workstation Environment	Stand-alone LAN FAT client	Citrix thin client
Internet Browser	Edge	Chrome, FireFox, Opera

Web Server Requirements

When opting for a complete on-premise solution an on-premise web server and a separate on-premise database server will also be required for installation. The following minimum and recommended hardware requirements apply to servers in a LAN environment. Our software is compatible with virtualization solutions such as VMware. No known issues are occurring with running our software with any other virtualization solution.

	Minimum Supported	Recommended
Operating System	Windows Server 2016	Windows Server 2022 or the latest Windows OS
Processor	Intel 2 GHz 4 CPU cores, Equivalent AMD	2 x Intel 2 GHz 4 CPU Cores or higher, Equivalent AMD
Memory	8 GB	16 GB or more
Storage	40 GB System Drive, 40 GB Data Drive	60 GB System Drive, 80 GB Data Drive
IIS	10.0	10 or greater
Network	100 Mbit w/ use of thin client	1 Gbit or above
Virtualization	VMWare, Microsoft Hypervisor	VMWare

Application/Database Server Requirements

The following minimum and recommended hardware requirements apply to servers in a LAN environment. Take note that the difference between application and database server requirements are storage requirements and SQL version requirements. Although a dedicated server is always recommended, using a peer-to-peer workstation as the server is not recommended for installations involving 3 or more workstations. Our software is compatible with virtualization solutions such as VMware. No known issues are running our software with any other virtualization solution.

	Minimum Supported	Recommended
Operating System	Windows Server 2016	Windows Server 2022 or the latest Windows OS
Processor	Intel Core i3 2.4Ghz 4 CPU cores (or equivalent AMD Ryzen 3)	Intel Xeon Silver/Gold, AMD EPYC, or equivalent server-grade processors
Memory	8 GB	16 GB or more
Storage (<i>Application Server Only</i>)	40 GB System Drive 40 GB Data Drive	40 GB System Drive SSD 80 GB Data Drive SSD
Storage (<i>Database, or Database and Application Servers Combined</i>)	40 GB System Drive 100 GB Data Drive See Storage Requirements for data growth	40 GB System Drive 250+ GB Data Drive See Storage Requirements for data growth
SQL Version (<i>Database Server Only</i>)	Microsoft SQL Server 2016	Microsoft SQL Server 2022 or the latest Microsoft SQL Version
Network	100 Mbit w/ use of thin client	1 Gbit or above
Thin Client Platforms	Citrix XenApp Microsoft Remote Desktop	Citrix XenApp
Virtualization	VMWare Microsoft Hypervisor	VMWare

We recommend following VMWare's best practices for installing a SQL server in a virtual environment.

<http://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/solutions/sql-server-on-vmware-best-practices-guide.pdf>

NOTE: If you plan on deploying the Microsoft SQL backend, please refer to Microsoft's virtualization documentation as well as your virtualization solution's documentation on installing SQL in a virtual environment. For large enterprise environments, we recommend that the SQL server not be virtualized.

Storage Requirements

The following are minimum annual storage requirements for each of the available add-on modules. Each module is in addition to the base study record storage.

Additional Modules and Features used per study	Storage needed per study	Annual Storage per 1,000 Studies	Annual Storage per 10,000 Studies
Digital dictation	500KB	500MB	5GB
Document management *	200KB	200MB	2GB
Patient Navigation *	200KB	200MB	2.00GB
Clinical breast diagram	180KB	180MB	1.8GB
Luminary Risk	70KB	70MB	700MB
History Portal and Techpad	25KB	25MB	250MB
Luminary Analytics	25KB	25MB	250MB
Base study record (<i>no added modules</i>)	25KB	25MB	250MB
Luminary Connect	10KB	10MB	100MB

* Assumes average 1 document scanned per patient visit. Add 200 KB per study for each additional document.

NOTE: These numbers are for one copy of the system. For most environments, however, we recommend both a TEST and PRODUCTION system, and some environments also require a DEV or TRAIN environment. Each of these environments is a separate system. While these separate systems do not require another server, the storage requirements should be considered.

Thin Client Requirements

For multi-user environments or in a WAN environment, a thin client platform can offer improved application performance. Other advantages of deploying over a thin client platform include centralized installation and application management.

Important: For best results, we highly recommend installing Citrix and an independent SQL server instance for the MagView/LungView databases directly on the application server. If the MagView SQL database lives on a separate SQL server, there will need to be high network throughput between the application server and the SQL server.

	Minimum Supported	Recommended
Thin Client	Windows 2016 RDS, Citrix Xenapp	Windows 2022 RDS, Citrix Enterprise, Citrix XenApp
Server Processor	Based on a number of concurrent users, please see Microsoft and Citrix for current requirements	Based on a number of concurrent users, please see Microsoft and Citrix for current requirements
Server Memory	128 MB per session	256 MB or higher per session

HIS/RIS HL7 Interface Server

For MagView installations that involve an HL-7 interface between our system and one or more other information systems, the MagLink interface engine is required. This can be installed on the same server that hosts the application and database, but in this case, the memory requirements and recommendations are in addition to the ones above.

	Minimum Supported	Recommended
Operating System	Windows Server 2016	Windows Server 2022
Processor	Intel 2GHz 4 CPU cores, Equivalent AMD	2 x Intel 2GHz 4 CPU cores or higher Equivalent AMD
Memory	8 GB	16 GB or more
Storage	40 GB available	80 GB available

NOTE: If the HL-7 interface engine is installed on the same server as the Application / Database, it is recommended that an additional 1 GB of memory per interface be added.

Interfacing

MagView fully supports all versions and levels of HL-7 based interfacing. Additionally, we support translation to/from custom messages, HL7, XML, and other formats.

Where possible, MagView's interface solutions are standards-based (HL7, DICOM, XML, etc). Where required, we also offer the flexibility of custom interfaces.

Remote Support Requirements

The MagView Support Department offers extended support services that may include remote access to your system for cases where that is required. These support services typically involve investigation, troubleshooting, and repairing technical problems that require a remote connection to a PC on your network. Secure remote access can be achieved using a remote-control application such as Remote Desktop, VNC, or other terminal connections (ideally with the ability to gain console access). Access may be configured through the Internet, a VPN, or your preferred method of secure connection. A system for remote access allowing for maintenance and the provision of extended support services, is required.

Data Backup and Antivirus

We require a backup device or backup system for the daily backup of the system database. The capacity for the back-up system should be sufficient to back up all data and configuration files. Typically, MagView recommends that you back up the entire directory and all subdirectories as well. Failure to appropriately back up the database may result in unrecoverable data loss.

Developing, implementing, testing, and monitoring the backup process is the sole responsibility of the customer. MagView recommends daily incremental as well as full weekly backups. MagView also recommends quarterly testing of the restore process to validate that the data is being properly backed up.

Additionally, anti-virus programs, especially those employing "active scan" technologies, have been known to interfere with or interrupt users' workflow as they are using MagView. For this reason, MagView recommends that the system directory and all subdirectories be excluded from virus scan routines.

Printer Compatibility

Our system will support standard output to any printer that Windows supports. To implement specific customized print options, such as printing your letterhead on plain paper, a laser printer that supports the PCL 5e printer language is required. Most laser printers support the PCL 5e printer language. If you have any questions about this requirement, please contact the MagView Support Department.

Microsoft Patches

MagView recommends that you follow your standard processes for applying Microsoft patches to the servers and workstations that run our software. MagView will release a support bulletin to all customers should any issue arise with our testing of Microsoft patches. However, we have not had to issue such a support bulletin in the past as no known issues have existed with Microsoft patches that were exclusive to our systems.

Barcode Reader

Our system supports bar code entry of the patient ID to select patients quickly. We also support the bar-coded entry of findings by the radiologist. Our system is compatible with most in-line bar code readers and laser guns that support prefix and terminating characters. For specific product recommendations, please contact the MagView Support Department.

Fax Server Interface

Our system supports integration with several Fax Servers for the automatic faxing of reports to referring physicians. MagView currently recommends OpenText RightFax server to complement our fax interface. For more information, please contact the MagView Support Department. MagView recommends a dedicated fax server, which will require a fax card that is compliant with OpenText RightFax. Please see their requirements for recommendations at OpenText.com.

Patient History Tablet

If you are implementing Patient History Tablet, you will need to have tablet or kiosk hardware that meets certain specialized requirements. These types of devices are made to be used in a “touch–screen” type environment where either a finger or a stylus touch controls the input into the device.

Tablet Devices

MagView recommends using the latest Apple iPad on the latest iOS version for the Tablets.

	Minimum Supported	Recommended
Operating System	iPadOS 17	iPadOS 26
Internet Browser	Safari	Safari
Wireless Network	802.11 b	802.11 n or greater
Wireless Band	2.4 GHz	2.4 GHz

Tablet Server

If you are implementing Patient History Tablet, the server must meet both the Web Server and Database Server requirements outlined above. This website can be hosted on a separate web server. In addition, the server must include the following:

- A web server that meets the previously listed Web Server requirements
- SQL Server 2016 Standard or Enterprise Edition (or later), with SQL Server access
- A service account with read/write access to the MagView server and database via Windows file sharing
- An SSL certificate for the server’s fully qualified domain name ensures secure connections

Techpad

Techpad Devices

MagView recommends using the latest Apple iPad on the latest iOS version for the TechPad.

	Minimum Supported	Recommended
Operating System	iPadOS 17	iPadOS 26
Internet Browser	Safari	Safari
Wireless Network	802.11 b	802.11 n or greater
Wireless Band	2.4 GHz	2.4 GHz

Techpad Server

If you are implementing Techpad, the server must meet both the Web Server and Database Server requirements outlined above. This website can be hosted on a separate web server. In addition, the server must include the following:

- A web server that meets the previously listed Web Server requirements
- SQL Server 2016 Standard or Enterprise Edition (or later), with SQL Server access
- A service account with read/write access to the MagView server and database via Windows file sharing
- An SSL certificate for the server's fully qualified domain name ensures secure connections

Patient Results / History Portal

If you are implementing Patient Results and/or Patient Clinical History Portal, the server must meet both the Web Server and Database Server requirements outlined above. This website should be hosted on a separate web server. In addition, the server must include the following:

- A web server that meets the previously listed Web Server requirements
- SQL Server 2016 Standard or Enterprise Edition (or later), with SQL Server access
- A service account with read/write access to the MagView server and database via Windows file sharing
- An SSL certificate for the server's fully qualified domain name ensures secure connections

Luminary Risk / Luminary Analytics

If you are implementing Luminary Risk and/or Luminary Analytics, the server must meet both the Web Server and Database Server requirements outlined above. This website should be hosted on a separate web server. In addition, the server must include the following:

- A web server that meets the previously listed Web Server requirements
- SQL Server 2016 Standard or Enterprise Edition (or later), with SQL Server access
- A service account with read/write access to the MagView server and database via Windows file sharing
- An SSL certificate for the server's fully qualified domain name ensures secure connections

Luminary Risk Provider Hosted by MagView

Luminary Risk Provider can be deployed as a cloud-based solution and hosted and managed by MagView. In this setup, the MagView team will oversee the implementation of the database server, web server, and all necessary prerequisites. The hardware requirements for the web and database servers remain consistent with the requirements outlined for the on-premise solution.

	Recommended
Operating System	Windows Server 2022
Processor	Intel 2GHz 4 CPU cores Equivalent AMD
Memory	16 GB
Storage	40 GB System Drive 140 GB Data Drive See Storage requirements above for data growth
SQL Version	Microsoft SQL Server 2022
Network	100 Mbit with use of thin client
Virtualization	VMWare, Microsoft Hypervisor

NOTE: MagView provides integrated support for sending emails and text messages via SMTP and Twilio. All necessary prerequisite installations will be handled by the MagView team

Dashboard

If you are implementing Dashboard, the server must meet the Web Server requirements outlined above. This website can be hosted on a separate web server. In addition, the server must include the following:

- A web server that meets the previously listed Web Server requirements
- SQL Server 2016 Standard or Enterprise Edition (or later), with SQL Server access
- A service account with read/write access to the MagView server and database via Windows file sharing
- An SSL certificate for the server's fully qualified domain name ensures secure connections

Dictation / Transcription Devices

If you are implementing the Digital Dictation and/or the Transcription Management module, certain specialized hardware is required. This hardware includes handheld recording devices for radiologists and a specialized foot pedal and headphone set for the transcriptionist. For more information about obtaining these devices, please contact the MagView Support Department.

Document Management / Scanning Devices

If you implement the Document Management module, one or more scanners or other image acquisition devices are required. MagView is compatible with scanners and image acquisition devices that are TWAIN compatible.

Electronic Signature Collection

Our system also has the ability to collect patient signatures electronically without the Patient History Tablet module. For this collection method, a Topaz brand signature pad, model number T-S460-HSB-R or T-LBK755-BHSB-R, is required. For the use of any other signature collection device, please first contact the MagView Support Department.

Luminary Workflow Manager

If you are implementing the Luminary Workflow Manager, the following minimum requirements are needed:

LWM Workstation Requirements

	Minimum Supported
Operating System	Windows 10 / Windows 11
Processor	Current Intel Core Series Dual Core Equivalent AMD with a minimum of 2.0 GHz
Memory	8 GB or more
Storage	More than 2 GB Available
Desktop Resolution	1920 x 1080

LWM Application/Database Server Requirements

	Minimum Supported
Operating System	Windows Server 2016 or the latest Windows OS
Processor	2 x Intel 2GHz 4 CPU cores or higher, Equivalent AMD
Memory	16 GB, or more
Storage (<i>Application Server Only</i>)	40 GB System Drive 80 GB Data Drive
Storage (<i>Database, or Database and Application Servers Combined</i>)	40 GB System Drive 100+ GB Data Drive See Storage Requirements for data growth
SQL Version (<i>Database Server Only</i>)	Microsoft SQL Server 2016 or the latest SQL version
Network	1 Gbit or above
Thin Client Platforms	Citrix XenApp
Virtualization	VMWare

LWM Thin Client Requirements

	Minimum Supported
Thin Client	Windows 2016 RDS Citrix Enterprise, Citrix XenApp
Server Processor	Based on a number of concurrent users, please see Microsoft and/or Citrix for current requirements
Server Memory	128 MB or higher per session