

# MISYS CURRENT MINIMUM SPECIFICATIONS AND REQUIREMENTS

## RS/6000/pSeries Server Specifications

- AIX 4.3.3 or higher OS for Misys Tiger
- AIX 5.2 or higher for Misys EMR/Misys Vision
- 10/100/1000 Intranet Card, or other TCP/IP equivalent
- A minimum of (2) unmirrored/unduplexed disk drives if Misys Tiger and Misys EMR are installed together or if Misys EMR and Misys Vision are installed together. Misys strongly recommends redundant disk drives to protect against data loss and downtime.

## Windows Server Specifications

- Server class hardware
- 10/100/1000 Ethernet Card, or other TCP/IP equivalent
- 2.8 GHz Processor or Higher
- 2GB RAM or Higher
- A minimum of (2) 73GB disks

Server Type	Supported OS
Misys Tiger® for WINDOWS® SERVER OS	Windows 2000 Server or Windows Server 2003
Misys EMR® for WINDOWS® SERVER OS	Windows Server 2003
Misys Tiger® Middle Tier Server	Windows Server 2003
Misys EMR®/Vision® Middle Tier Server	Windows Server 2003
Microsoft Windows Terminal Services	Windows 2000 Server or Windows Server 2003

The above are considered to be minimum requirements. The number of user sessions will impact actual memory and processor requirements.

## PC Specifications – GENERAL REQUIREMENTS

Base “Minimum” assumes only a single instance of the Misys application running. “Recommended” assumes that multiple sessions may be active, as well as Internet, MS Office, Email, etc.

<b>Deployment</b>	<b>WINDOWS 2000 MINIMUM</b>	<b>WINDOWS 2000 RECOMMENDED</b>	<b>WINDOWS XP MINIMUM</b>	<b>WINDOWS XP RECOMMENDED</b>
RAM	512MB	1GB	512MB	1GB
Free Disk Space	500MB	1GB	500MB	1GB
Network	10/100/1000 Ethernet	10/100/1000 Ethernet	10/100/1000 Ethernet	10/100/1000 Ethernet

## PC Specifications – APPLICATION SPECIFIC REQUIREMENTS (Standard-Client)

<b>Application Product</b>	<b>Misys Tiger®</b>	<b>Misys EMR®</b>	<b>Misys Document Manager (view)</b>	<b>Misys Document Manager (scan)</b>	<b>Misys Vision</b>
RAM	512MB	512MB	512MB	512MB	512MB
Graphics	1MB Graphics Card 800 x 600 resolution	1MB Graphics Card 800 x 600 resolution	2MB Graphics Card 1024 x 768 resolution	2MB Graphics Card 1024 x 768 resolution	1MB Graphics Card 800 x 600 resolution
Monitor	14” SVGA or better	14” SVGA or better	17” Ultra VGA or better	14” Ultra VGA or better	14” SVGA or better
Office Suite	Word 2002/2003 required for Tiger Correspondence	Word 2002/2003 supported with TA Module	NA	NA	NA
Network	10/100/1000 Ethernet	10/100/1000 Ethernet	10/100/1000 Ethernet	10/100/1000 Switched Ethernet	10/100/1000 Ethernet

## WTS (Thin-Client Operating System) Support

The items listed below dictate limitations for support of the Windows® Terminal Services environment.

- Misys will support Thin-Client Operating Systems (including Microsoft Windows 2000 Server with Terminal Services, Microsoft Windows 2003 Server with Terminal Services, Citrix MetaFrame XP and Citrix Presentation Server) and Misys’ applications in accordance with the party’s Software License and Maintenance Agreement, as amended herein.
- Support of the Thin-Client Operating System will consist of troubleshooting and correction of issues directly related to the Thin-Client Operating System installation, setup and administration.

## MISYS CURRENT MINIMUM SPECIFICATIONS AND REQUIREMENTS

These services will be offered as part of our standard software maintenance.

- Misys will support those Misys applications and applicable Microsoft certified products functioning in a Thin-Client environment as identified in the Purchase Schedule. These services will be offered as part of Misys' standard software maintenance.
- Misys will make reasonable efforts to assist the Client and Client's third party vendor in troubleshooting operational issues based upon Misys' billable standard support rates. Misys cannot guarantee there will be an acceptable solution for potential compatibility issues.

## LAN Specifications – MINIMUM GENERAL REQUIREMENTS

LAN CONFIGURATION	Misys Tiger	Misys EMR	Misys Document Manager (view)	Misys Document Manager (scan)	Misys Vision
Network Type	10/100/1000 Ethernet or equivalent TCP/IP network	10/100/1000 Ethernet or equivalent TCP/IP network	10/100/1000 Ethernet or equivalent TCP/IP network	Fast Ethernet or equivalent TCP/IP network	10/100/1000 Ethernet or equivalent TCP/IP network
Cabling	Industry-standard Cat 5 cabling and connectors (all devices)	Industry-standard Cat 5 cabling and connectors (all devices)	Industry-standard Cat 5 cabling and connectors (all devices)	Industry-standard Cat 5 cabling and connectors (all devices)	Industry-standard Cat 5 cabling and connectors (all devices)
Hubs, Switches, Routers, Access Points	Misys approved or equivalent	Misys approved or equivalent	Misys approved or equivalent	Misys approved or equivalent	Misys approved or equivalent
Network Protocol	TCP/IP	TCP/IP	TCP/IP	TCP/IP	TCP/IP
Wireless Network*	802.11b/g/a WPA or equivalent	802.11b/g/a WPA or equivalent	802.11b/g/a WPA or equivalent	802.11b/g/a WPA or equivalent	802.11b/g/a WPA or equivalent
Tech Support Access	VPN, Netopia R2020 or equivalent**	VPN, Netopia R2020 or equivalent**	VPN, Netopia R2020 or equivalent**	VPN, Netopia R2020 or equivalent**	VPN, Netopia R2020 or equivalent**

\*\* The network modem is not recommended as a way to connect remote sites for normal business use

### Note

(\*) If Client wishes to implement Misys applications in a wireless networking environment, Client will be required to install a Wireless Access Point approximately every 200 feet, depending upon the construction of the building and location of other radio-based electronic devices. The number of Access Point devices will be determined after Misys Field Engineering performs an Access Point site check.

WAN Specifications – MINIMUM GENERAL REQUIREMENTS

Misys Application Product	Misys Tiger®	Misys EMR®	Misys Document Manager (view)	Misys Document Manager (scan)	Misys Vision™
<b>Standard-Client WAN</b>					
Minimum WAN Service Requirement	128kbps Frame Relay	256kbps Frame Relay	256kbps Frame Relay	256kbps Frame Relay <sup>1</sup>	256kbps Frame Relay <sup>1</sup>
CIR	50%	50%	50%	50%	50%
Latency	50ms or less	50ms or less	50ms or less	50ms or less	50ms or less
Number of Devices <sup>2</sup>	1-7	1-7	1-7	1 per 128kbps bandwidth	1-7
<b>Main Site</b>					
Minimum WAN Service Requirement	Aggregate of all remote circuit requirements including CIR and latency minimums to each remote site	Aggregate of all remote circuit requirements including CIR and latency minimums to each remote site	Aggregate of all remote circuit requirements including CIR and latency minimums to each remote site	Aggregate of all remote circuit requirements including CIR and latency minimums to each remote site	Aggregate of all remote circuit requirements including CIR and latency minimums to each remote site
<b>Thin-Client WAN</b>					
Minimum WAN Service Requirement	56kbps Point-to-Point, ISDN or Internet/VPN	56kbps Point-to-Point, ISDN or Internet/VPN	56kbps Point-to-Point, ISDN or Internet/VPN	NOT SUPPORTED	56kbps Point-to-Point, ISDN or Internet/VPN
Latency	150ms or less	150ms or less	150ms or less	N/A	150ms or less
Number of Devices <sup>2</sup>	1-15	1-15	1-15	N/A	1-15
<b>Main Site</b>					
Minimum WAN Service Requirement	Aggregate of all remote circuit requirements including latency minimums to each remote site	Aggregate of all remote circuit requirements including latency minimums to each remote site	Aggregate of all remote circuit requirements including latency minimums to each remote site	N/A	Aggregate of all remote circuit requirements including latency minimums to each remote site

<sup>1</sup> The Misys Document Manager™ Scan Station will not work in Thin-Client mode and must be used in a standard client/server configuration. Internet/VPN is not recommended for remote Scan Station devices.

<sup>2</sup> The device limits are based on the minimum recommended WAN circuit from the chart above. Additional devices may be connected at the remote if the circuit bandwidth is increased. A device is a PC or printer. Ranges are specified because many variables can impact performance and this information is for general guidance only.

## Deviations From Stated Wide-Area-Network (WAN) Minimum Requirements

- Misys provides recommendations for minimum WAN connectivity for standard client/ server installations (see LAN Specifications).
- Connectivity recommendations are based upon bandwidth AND latency.
- Lower-cost alternatives, such as 56kbps, ISDN, and Internet/VPN have high latency values, and may adversely impact application performance to a remote location, even for a single user.
- Misys is not responsible for performance issues to remote locations/users if less than the stated minimum connectivity requirement is in use.

## General Printer Device Considerations (Misys Tiger®, Misys EMR® and Misys Vision®)

- The following guidelines relate to printer connectivity for these application environments:
- Printers must have a Windows® print driver supported by the Client Operating System.
- Printers can be connected to a PC or directly to the network via a print server. Printers can not be connected directly to the Database Server (AIX or Windows).
- An HP Jet Direct Print Server (or compatible) or network-ready printer is required for any network printer requiring print jobs to be received from the Misys Tiger, Misys EMR, or Misys Vision application. (NOTE: An Internal print server can be used for networked laser printers. Otherwise an External HP Jet Direct print server (or compatible) is required for other network printers.)

## Misys EMR® Considerations

The items listed below dictate the current minimum requirements\* for each component of the client-server environment to initially operate the existing Misys EMR applications.

### Tape Drives

- The tape drive should have a backup capacity at least equal in size of the data bases that reside on the server, allowing an automated backup of both Misys data and the Informix database. Otherwise the customer will have to manually insert multiple tapes to complete the backup.

### Scanners (Misys Document Manager®)

- Client recognizes that they must provide a Misys-supported scanner and any necessary adapters, drivers, cables, etc. that are compatible with Misys Document Manager®.
- Standard storage allowances for Document Manager® images are based upon a formula of 25,000 pages per Gigabyte of disk space, assuming 8.5 inch by 11 inch page size, Black and White, TIFF G4 Format, 300DPI. Many alternate storage formats are fully supported (such as JPEG, BMP, etc.) but may change the formula above.

### Misys Faxing Solution

- Client must have dedicated phone lines for connection to the hardware used with the Misys Faxing Solution- no A/B switches.
- For Outbound-only installation, Client must purchase the MultiTech modem model MT2834BA. This modem must be dedicated, and cannot be shared with Fast Services, Support or Direct Claims.
- Client must have Microsoft Exchange Server 2000 or greater.
- Client must have Microsoft Outlook 2002 or higher. "Internet Only" mode is not supported under any circumstances.
- Misys Faxing Solution software with Misys EMR™ will be supported by Misys with Windows® 2000 Server/Professional, Windows® XP Professional, and also Windows® Terminal Services (with or without Citrix). Windows® 95, Windows® 98, Windows® ME “Millennium Edition”, and Windows® XP “Home Edition” are not supported with the Misys Faxing Solution.
- Misys will only provide Faxing Solution support for those documents that can be printed from the application.

### VOICE CAPTURE/PLAYBACK (Misys EMR® 7.00 and higher)

- Voice CAPTURE features are fully supported in Standard-Client and Thin Client mode on Windows 2000/2003 Server with Terminal Services and Citrix Presentation Server 3.0 Advanced Edition and greater. Voice CAPTURE is not supported in Thin Client deployments without Citrix.
- Voice PLAYBACK is supported in Standard-Client and Thin Client mode on Windows 2000/2003 Server with Terminal Services.
- Voice CAPTURE/PLAYBACK feature is intended for main site or remote sites connected via high-speed connection (e.g. T1). It is not intended for use over lower speed connections such as dial-up or Internet/VPN.
- Specific configuration settings are required to assure a quality CAPTURE/PLAYBACK experience.

### MIDMARK DIAGNOSTIC INTEGRATION (Misys EMR® 7.00 and higher)

- Midmark/Brentwood integration is fully supported in Standard-Client and Thin-Client mode.
- This feature requires a PC that meets the minimum specifications appearing above.

### WELCH ALLYN DIAGNOSTICS INTEGRATION (Misys EMR® 8.00 and higher)

- Welch Allyn integration is fully supported in Standard-Client and Thin-Client mode
- This feature requires a PC that meets the minimum specifications appearing above.

### Misys TIGER® Considerations

The items listed below dictate the current minimum requirements\* for each component of the client-server environment to initially operate the existing Misys TIGER applications.

#### ID CARD SCAN FEATURE (Misys TIGER® 3.02 and higher)

- This feature requires the presence of a Windows Server, either Windows 2000 Server or Windows 2003 Server to store the card images. This server does not have to be the Tiger database server.
- Amount of dedicated storage for this feature assumes 50k per card image file and approx.

2.5 images per patient, which is a requirement of 50MB of storage for every 1000 card images scanned or every 400 patients.

- The calculation for ID Card Image Storage:

Number of Patients x 2.5 images each x 50k file size = MINIMUM amount of storage needed

- The ID Card Scanner software must be installed on a PC which meets the minimum requirements above.
- The Misys Tiger™ application, which communicates to the ID Card Scanning software, can be running Thin Client or Standard Client.

#### REAL-TIME FAST ELIGIBILITY (Misys TIGER® 3.02 and higher)

- This feature requires the presence of an always-on broadband Internet connection, such as CableModem or DSL.
- This feature requires the presence of an Internet Firewall, to secure transmissions for Real-Time Fast Eligibility.

#### Tape Drives

- The tape drive should have a backup capacity at least equal in size of the data bases that reside on the server, allowing an automated backup of Misys Tiger data elements. Otherwise the customer will have to manually insert multiple tapes to complete the backup.

### Misys VISION® Considerations

The items listed below dictate the current minimum requirements\* for each component of the client-server environment to initially operate the existing Misys VISION applications.

#### PATIENT CARD SCANNING FEATURE (Misys VISION® 8.00.0 and higher)

- Amount of dedicated storage on the database server for this feature is dependent upon the card size, color and image resolution utilized, which can range from 50 to 300 dpi.
- Using the recommended 100 dpi resolution, assuming 33k per card image file and 2 images per patient, 33MB of storage would be required for every 1000 card images scanned or every 500 patients.

- The calculation for ID Card Image Storage:

Number of Patients x 2 images each x 33k file size = MINIMUM amount of storage needed

- The ID Card Scanner software must be installed on a PC which meets the minimum requirements above.
- The Misys Vision™ application, which contains the card scanning functionality, can be running Thin Client or Standard Client.
- The Misys Scan Server component which handles the communication with the scanner must be installed on the Client PC where the scanner hardware is installed.

## Anti-Virus Protection Considerations for Microsoft Windows® Servers

Client acknowledges that Misys strongly recommends anti-virus protection on all Windows servers within the Misys Software environment. The anti-virus solution can be either Misys-supplied or Client-supplied. Misys also recommends that Client execute updates for the antivirus software at least once per month. If Misys services are required for virus removal within the Misys Software environment, these services will be provided on a billable basis.

## The specifications listed in this document are subject to change.

Client agrees that all other Sections of the Agreement shall remain unchanged and in full force and effect.