



System Requirements

This guide is not intended to replace the knowledge and expertise of a qualified IT professional, but to assist them in acquiring and configuring the necessary hardware for a successful implementation.

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Server Requirements:

PDS has developed the following general system requirements for your server(s). Please be sure to adhere to PDS supported operating systems and specifications. Deviation from approved server requirements may result in system instability.

It is recommended to have a separate server for both PDS Cortex and EMR, but not entirely necessary. Please speak with your sales rep or PDS technical support if you have questions. In all instances, the Practice Partner EMR server must be a domain member.

The below recommendations are for the PDS Cortex and Practice Partner EMR software only. If you decide to run additional services (i.e. DNS or Active Directory on your application server, or Microsoft Office on your thin client server) you will need to add additional CPUs and/or RAM.

Operation System:

- Windows Server 2008 R2

Small Practice – 1 to 50 Users

Database Server

	Recommended
Processor:	Intel® Xeon® Quad Core 2.4 GHz
Memory:	8 GB
System Drive:	80 GB
Data Drive:	RAID-5 or SAN
*15k Disk Drives required for optimal performance	
Network Card:	1 GB
Optical Drive (CD/DVD)	DVD-ROM

For larger practices, please consult with your PDS Sales Representative.

Thin Client Server (Terminal Services or Citrix)

Thin client servers are designed to support up to 25 concurrent sessions. For each additional 25 sessions, add 4GB of RAM and 2 more CPU cores.

	Recommended
Processor:	Intel® Xeon® Quad Core 2.4 GHz
Memory:	8 GB
System Drive:	120 GB
Network Card:	1 GB
Optical Drive (CD/DVD)	DVD-ROM

Thin Client Server

A thin client server is required if you will be using PDS applications in a wireless environment or when using a wide-area network/VPN. A thin client server can be Windows Terminal Services or Citrix MetaFrame.

All printers that will be accessed through the Terminal Server must have their drivers added as local printers on the Terminal Server(s).

Web View Server

Operation System:

- Windows Web Server 2008 R2

If you are using the Web View product, you must also have a separate server to run the web services. This must be its own server and cannot have patient data on it as the server must be configured to reside in the network's DMZ or have an encrypted tunnel to the internet to facilitate web traffic.

	Recommended
Processor:	Intel® Xeon® Dual Core 2.0 GHz
Memory:	2 GB
System Drive:	40 GB
Network Card:	1 GB
Optical Drive (CD/DVD):	DVD-ROM

Disk Storage Requirements

Separate O/S and data partitions are required. PDS recommends an 80GB OS partition with the remaining space allocated to the data partition. For Cortex, UNC paths are acceptable. For EMR the data partition should have a physical drive letter of M.

Planning for hard drive space is one of the most important decisions to make when purchasing a new server(s). You want to make sure that you have enough space so you won't have to install any additional hard drives right away. A starting data drive space of 300 GB is required for EMR.

Cortex/EMR

- | | |
|--|---------------------------|
| - Practice Partner Software Installation | 10GB |
| - ePrescribing (formulary files) | 150GB |
| - Black and white Imaging | 2GB per provider per year |
| - Color Imaging | 5GB per provider per year |
| - Database Growth | 2GB per provider per year |

Notes:

- For large multi-provider/specialty single-database installations, more and more data becomes shared between providers so the total amount of space is not linear. **For 50+ providers in a single database, please allocate 1GB per provider per year for black and white imaging and 1GB per provider per year for database growth.**
- No single formula can account for every circumstance. If you will be doing an extraordinary amount of scanning (for example, full patient charts for every patient in your clinic), please discuss your storage needs with our support team.
- SQL database types need additional storage for transaction logs, archive logs, and /or multiplexed redo logs. This section only covers storage needed for Practice Partner application data. If you are going to run SQL databases please contact the support team for information about these requirements.

Workstation Requirements

PDS has developed the following requirements for your workstation(s). A workstation can be a desktop, notebook, laptop, or Tablet PC. Please be sure to adhere to PDS supported operating systems and specifications. Deviation from approved workstation requirements may result in system instability.

Operating System:

- Windows 7 Professional/Ultimate

Standard Workstations

A standard workstation is one that does not typically use a Terminal Services client or Citrix client to run PDS applications. Actual data processing (such as report calculations) takes place using the resources of this computer. Recommended hardware specifications will typically be higher than that of a thin client workstation.

	Recommended
Processor:	Intel® Core™ i3
Memory:	4 GB
Network Card:	1 GB
Optical Drive (CD/DVD)	DVD-ROM
Monitor:	LCD 1024x768 – 1200x800

Thin Client Workstations / Laptops / Tablets

Since thin client workstations, laptops and tablets do not run any Practice Partner software, any operating system capable of running the appropriate thin client software is acceptable. Some thin client devices come with a limited amount of on-device storage. Practice Partner has not been tested to run in this configuration and there will very likely be problems. Thin client devices that will be accessing Practice Partner must do so through a thin client server.

Peripherals

Printers:

PDS recommends networked HP LaserJet printers.

NOTE: PDS does not support All-in-one Multifunction Devices

Labelwriters: Dymo Labelwriter 450 Turbo Series

Signature Capture Devices: Topaz Signature Gem 1x5 LCD Series

Scanners:

TWAIN compatibility is required.

Card Scanners Scanshell: 800N/800NR; 800DXN

Scanners Fujitsu 6130 is specifically recommended.

Virtual Servers:

Virtual servers should only be implemented by IT staff familiar in their implementation, configuration and administration. Hardware resources allocated to virtual servers should be equal to the resources required for physical hardware.

Faxing:

A fax server allows you to fax prescriptions and other electronic documents directly from your pc. It also allows you to receive faxes electronically and print only those necessary or attach them to your electronic medical record as linked files (instead of scanning then linking). The fax server cannot be virtual.

For small clinics, the fax board can be installed in the application server or a thin client server. For customers that do a larger amount of faxing, a dedicated fax server is recommended. A Brooktrout fax board is required with ZetaFax. The recommended fax board is the Brooktrout TR1034 series.

Security:

You must have Internet access to access PDS Technical Support resources and to communicate with clearinghouses and laboratories. This will require that you maintain HIPAA compliancy and provide a secure connection to the Internet. VPN's and Firewalls are specialized security tools typically used with a WAN, ASP and Internet connections. We strongly recommend that you consult your IT professional for the design of this component.

REQUIRED

- Separate partitions for Data (TTG, PPART) and Operating System.
 - We recommend P:\ for TTG and M:\ for PPART
- Backups are not optional, they are required!
 - A tape rotation with periodic offsite backup is recommended.
 - Open-file backup agent is required
- Antivirus
 - PDS and Practice Partner folders excluded from real-time/on-access scanning.
 - Application Folders (PPART, TTG)
 - Client Folders C:\Program files\ (McKesson, PDS Cortex).
 - Scheduled scans when users are not in the system are recommended.
 - Trend Micro and CA eTrust are unapproved anti-virus solutions that may cause application instability.
- Active Directory Domain required for Practice Partner
- All servers attached to a battery backup.
- Data Execution Prevention (DEP) must be set to: “Turn on DEP for essential Windows programs and services only”
- The following Microsoft security features and software **MUST BE DISABLED:**
 - User Account Control (UAC)
 - Windows Firewall

RECOMMENDED

- Hardware from experienced and trusted vendors (HP, Dell, IBM) is highly recommended.
 - Hardware/Network support from a local reputable professional or organization.
- PDS recommends a minimum 40-80GB operating system partition.
- Windows set to automatically download updates (do not install as automatic reboots can cause issues with CTree Server).
- Customers should have a hardware-level firewall protecting their network. Software-level firewalls are not supported by PDS.
 - All Internet Security Software should be disabled.
 - Software firewalls and Internet Security software are known to cause issues with PDS and Practice Partner software.
- Have a disaster recovery plan in place.
 - Online Backup is highly recommended.
- Printers installed on Terminal Server(s)

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