



HARDWARE AND SOFTWARE REQUIREMENTS

PENTAGON 2000SQL FOR WINDOWS

Sample General Guideline Specification for up to 10 Users

File Server / Database Server

- 64 Bit Processors, Single or Dual CPU, 4 or 8 Core per CPU
*** Increase CPU based on concurrent users as needed ***
- Min of 32 GB of RAM or better recommended
*** Increase RAM based on concurrent users as needed ***
- Fast SAS/SCSI/raid controller (with fast caching)
- Raid 10 configuration, Fast SCSI / SAS hard disk drives
15,000 RPM, Fast SSD Drives Recommended.
- UPS battery to protect file server
- Windows Server 2019/2022 or Higher, Standard Edition or Higher
- Microsoft SQL Server 2019/2022 or Higher, Standard Edition or Higher
- Display Resolution: Minimum 1280 x 960, Maximum 2048 x 1152

Workstations – Local network

- i7 processor or **better**
- 16 GB RAM or **better**
- 200GB hard disk drive or **better** (Fast SSD Drives Recommended)
- 27" monitor or better recommended
- Operating system: Windows 11 Professional.
- Display Resolution: Minimum 1280 x 960, Maximum 2048 x 1152

Workstations – Remote Access

Remote Desktop or Citrix Client can be used by various applications; Windows RDP, Mac., iPad etc., the requirement and performance are mostly based on the internet bandwidth, speed, and server capacity the client is connected to will require a gateway.

General Sample:

- 1 CPU 4 Cores 8 GB RAM Will hold 3-5 users
- 1 CPU 4 Cores 14 GB RAM Will hold 6-10 users
- 1 CPU 4 Cores 28 GB RAM Will hold 12-20 users



Cloud Specs Samples

Amazon Workspaces or Azure Virtual desktop

By opting for either Amazon AWS with Workspaces or Azure Virtual Desktop, each user is provided with their own personal cloud-based PC, eliminating the need to connect to servers via RDP.

Otherwise use the RDP concept sample as shown below:

Azure Sample

Server	Type	CPU	RAM	DISK
1 Application server	D4 v2	8	28	SSD
1 SQL Server	D4 v2	8	32	SSD (Or better)
3 Terminal Servers	D4 v2	8	28	SSD / Or Virtual desktops; 1 for each

Samples of specific Servers modules using AVD (Good for 10-25 users):

AVD Server: D8as v5 instances (8 vCPUs, 32 GB RAM)

SQL Server: E8as VM (8 vCPUs, 64 GB RAM)

Microsoft Azure Cloud calculator:

<https://azure.microsoft.com/en-us/pricing/calculator/?scenario=virtual-machines>

The Application Server will be used as the 'Print Services'.

The SQL Server will host the Database; users will not be connected to.

The terminal Servers will serve about 12-20 RDP users for remote access.

Customers can start with 1 or more and add additional Terminal Servers as needed.



Printers – Forms & Reports

- Any LaserJet printer pcl6 compatible (HP Laser Printer pcl6 recommended)

Printers – Bar-Code Labels

- Any “**Zebra Technologies**” bar code printer using the **ZPL/ZPLII** printer language only. 203 dpi, 4 Inch Wide.

Backup

- Any backup drive with the capacity of the hard drive, or other backup method to support the SQL database Backup program

Imaging Module – Supported Scanners

- Any Twain compatible scanner with automatic feeder.
Network Scanner with static IP recommended, for remote access a ‘Remote Scan’ third party program is required.
For large capacity imaging, dedicated Drive recommended for storage.

Fax Server Requirements

The decision regarding which type of combination to choose is based on the expected number of faxes sent daily. There are several possible combinations; please chose the combination that is most applicable to your operations and the volume of faxes sent out by your organization.

Email fax services

Email fax services are one of the latest innovations in the way we do business. You no longer need a landline phone and a fax machine to receive and send faxes. Now you can send and receive faxes by email directly from Pentagon 2000.

With this module, when submitting the document from Pentagon to the Fax, Pentagon will send the document by email to the Fax service provider which they will send the fax for you to the destination you specified.



Mandatory Backup Systems

It is imperative that you implement a backup system that will safely and efficiently backup your SQL database. Losing this data would cause significant setbacks both in your operations and finances. Using a backup utility will ensure that your business data remains intact in the face of some unforeseen event.

Whichever choice you make, be sure that it carries out the SQL Maintenance Plan.

Implementation Guidelines

1. Get a Microsoft Professional to install your network and SQL Server
2. Plan your resources months ahead
3. Assign team leaders with procedures responsibility
4. Assign Power-Users who will be your in-house experts
5. Setup your system defaults and tables according to your business practices and your company structure
6. Plan your Data Conversion
7. Get training from Pentagon 2000
8. Practice on the system using your own data by running business cases
9. Plan "Going-live" date
10. Setup daily automatic SQL database back up maintenance plan

*****And remember: You can always call Pentagon 2000 with any question you may have. *****