

## Hardware Requirements for IBS System (SQL Version)

*Please note that our IBS SQL Version uses SQL Server 2016 or above as a database server and .NET based technology. As a result, we can only support our IBS SQL Version on Windows Server platforms.*

***ATTENTION!! PLEASE MAKE SURE YOU HAVE INSTALLED ALL MICROSOFT SERVER UPDATES PRIOR TO INSTALLING SQL!!***

### Server:

- At least Windows Server 2016 w/ latest Service Packs †
- We recommend a minimum 8GB RAM, preferably at least 16GB RAM
- 2.0 GHz or higher processor or 1.6 GHz or higher multicore processor
- At least 10GB of hard drive space reserved for IBS System. \*\* Formatted in NTFS and No Compression
- It is recommended that there be some sort of redundancy in place for the hard disk where IBS is stored (RAID 1, 5, 6, or 10).
- 100/1000 MB NIC strongly recommended

† If you will be utilizing one of our Van Line Registration or Tariff Interface programs, then please contact your Van Line or Tariff Program Vendor for further information on specific requirements related to their software.

\*\* 10GB for IBS Programs ONLY. Allow an additional 10GB+ of hard drive space for Images and Letters, depending on your Company's utilization of this functionality.

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### Workstations:

- Windows 10. We recommended that you be on at least Windows 10 Pro 1909 \*
- A minimum of 2GB RAM, however, higher is recommended
- 2 GHz Pentium 4 or higher processor or 1.6 GHz or higher multicore processor is recommended
- 100/1000 MB NIC strongly recommended

\* Microsoft will be ending Mainstream Support for Windows Server 2016 on the 11/01/2022. They have already ended support for earlier server operating system. All versions of Windows 10 up to 1903 are already out of support and Microsoft will end Mainstream Support for 1903 on 08/12/2020. Half yearly updates are available to Windows 10 from Microsoft at no cost and it is recommended to install those when available.

### Upgrading workstations from Windows 7/8.1 - Below are suggestions you can discuss with your consultant

Microsoft officially supports the ability to upgrade Windows 7 and Windows 8.1 computers to Windows 10 should your workstation meet the requirements.

<https://support.microsoft.com/en-us/help/4028142/windows-10-system-requirements>

There are two options for upgrading.

- 1) Follow this article(link below) from ZDNET that describes how you can still upgrade from Windows 7 for free.
- 2) Buy an upgrade from Microsoft at a reasonable price buy visiting their store.

Article Link: <https://www.zdnet.com/article/heres-how-you-can-still-get-a-free-windows-10-upgrade/>

**Direct Systems are not affiliated with ZDNET and we also do not offer any support for windows upgrades.**

**We recommend you should contact your consultant for help with upgrading your workstations.**

**It is important that you make sure you have good backups of your workstations before upgrading. Please also take steps to note down any software you have installed on your workstation. It is known that you may need to re-install software after upgrading.**

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### Internet Service:

- High speed Internet service is required on workstations for installation, updates, and support.
- You must have a high quality, stable Internet connection to use IBS System via a remote connection.
- We recommend the use of Microsoft's Terminal Services (Remote Desktop Connection—RDP) for remote access of our IBS System.

### Database Requirements:

- Microsoft SQL Server 2016 or above, Standard or Express edition
- For 0 to 20 concurrent users with less than 7 GB of data: SQL Server Express
- For 20 or more concurrent users or large databases over 7 GB of data: SQL Server Standard is strongly recommended.
- Windows PowerShell and Windows Installer 4.5 must be installed prior to SQL Server installation.
- SQL Native Client must be installed during SQL Server installation for each desktop connection. Microsoft SQL Server 2012 Native Client can be found with this link  
<https://www.microsoft.com/en-us/download/details.aspx?id=50402>  
(Please Choose 64bit or 32bit depending on your version of operating system)
- For additional SQL Server requirements: [http://www.directsystems.com/wiki/SQL\\_Server](http://www.directsystems.com/wiki/SQL_Server)

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### Miscellaneous Requirements/Recommendations:

- It is recommended that network switches are running at a minimum of 100MB.
- Use of network hubs is strongly discouraged.
- Ensure that the network is free from any interference, loose or damaged network cables or connections, loopbacks, or excessive hops.
- We recommend UPS power supplies for your File Server(s), Switches, and key workstations.
- Maintain your workstations and servers.... schedule regular disk defragmentation if the disk drives installed are not SSD, keep them clean of viruses and spyware, remove temporary internet files on a regular basis, and do not let your anti-virus subscriptions expire.
- Exclude all IBS SQL folders from real-time anti-virus scanning.
- Disable Compression on the server where all IBS SQL folders reside.
- If the processor on your Server supports hyper-threading, then be sure that feature is Disabled in your Server's BIOS.
- It is strongly recommended that write caching be disabled on the server where the shared IBS SQL programs folder and the IBS SQL Database reside.
- When creating the IBS SQL share, it is recommended that you disable offline file and folder caching. To do this, please select 'No files or programs are available offline' on the caching button on the share.
- Neither Windows 10, nor Windows Server 2016+ come installed with the .NET 3.5 Framework enabled. Since our software relies on this technology, it is imperative that it be enabled on every Windows 10 and Windows Server 2016+ computer prior to installation of our IBS software.

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### **IMPORTANT NOTE REGARDING BACKUPS:**

All IBS customers are responsible for making appropriate backups of your IBS SQL System. **Direct Systems is NOT responsible for backups!** Your company must setup a procedure to make daily backups of your IBS SQL database (usually named IBSDData) and of the shared folder where the IBS programs reside (usually named IBSSQL). We recommend you have a **minimum** of 10 days of backups. We also recommend that you have more than one backup procedure in place. Perhaps an automated backup and a manual backup to a media that can be kept offsite.

It is important that you have FULL access to each file and folder in your backup including the .BAK file produced during the backup of your SQL database. Your backup routine should not only allow you to restore your files and database but also allow you to copy individual files to a temporary non-production location in case they need to be transferred to Direct Systems in a support situation.

NOTE: If your company is using our Sales, Dispatch, and/or Move/Task modules, then you will also need to backup the appropriate IBS data folders where the data files for those modules reside (\c01\_data, \c02\_data, etc.). These modules are not yet available in a SQL Version, but they will work in conjunction with the SQL Version of our Accounting modules.