Though most CAREWare users run the program without experiencing problems, some have reported that parts of the program respond slowly. This document serves as a guide to help those users improve the overall performance of their installation. It is not intended to replace or amend the system requirements to use CAREWare. Note that the information in this document is current as December 5, 2016 and over time may become outdated.

## CAREWare Configuration:

There are several configuration changes that can be made to CAREWare that can improve performance.

- If the server is running full SQL Server, be sure to have the latest service pack installed. This contains many optimizations that will have a dramatic effect on the performance of CAREWare, particularly when running reports. You can download the latest SP at: <a href="http://technet.microsoft.com/en-US/sqlserver/ff803383.aspx">http://technet.microsoft.com/en-US/sqlserver/ff803383.aspx</a>.
- Get a dedicated server if the server is running several applications, then SQL Server resources will be split up among these and will usually decrease performance. Click here for instructions to move the CAREWare database to a new server.
- Separate Business Tier and Data Tier having the Business Tier and Data Tier on separate computers can have a big effect on performance in situations where there is a lot of activity on the system. Note: The computers need to be on a very high speed connection (i.e. a LAN) and should not be separated by a firewall, which can severely degrade performance.
- Turn off service sharing if you don't need to share services between providers, turning this feature off can significantly improve performance with all service-related processes. Click here for instructions non sharing settings.
- Turn off data encryption this can boost performance in some installations, particularly on lower-end computers. Click <a href="here">here</a> for instructions on data encryption settings.

## System Hardware:

The recommended system requirements listed in the Sys-Admin document are taken from Microsoft's recommendations for the platforms on which CAREWare is run. Real world use has shown that using those recommendations will work but may result in poor performance. For best performance, we recommend the following hardware specifications:

- Processor 1.4 GHz 64-bit processor although it is recommended to have 2 GHz or faster (more important on the server than the client)
- RAM Windows recommends at least 2GB of RAM for a 64 bit machine and you may need more on the server than on the client machine. For the database server, the general recommendation is to have as much RAM as there is data in the SQL Server database instance. If the SQL Server database instance has 30 GB of data,

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- the server should have 30 GB RAM for SQL and additional RAM for the OS and other programs on that server.
- Hard drive space The minimum hard drive space for SQL 2016 is 6 GB, 8 GB if all
  features are installed. The amount of hard drive space required will vary depending
  on how much data the location has, but Windows users often run into performance
  issues when down to the last 10% of the hard drive.
- Internet connection speed (for remote locations only) a DSL (or similar high speed) internet connection can greatly improve overall speed of the application over using a standard dial up connection.

As mentioned earlier, these recommendations are as of December 5, 2016. Given the pace at which technology is advancing, these numbers can very quickly become out of date. In general, keep in mind that CAREWare is an enterprise level application built on MS SQL Server using the VB.Net development language. Thus, hardware configurations that can perform well with those applications should perform well with CAREWare.

## General Computer Health:

The general health of the computers running CAREWare can have a huge impact on performance. For optimal performance, ensure that all computers:

- Have the latest version of CAREWare. Click <u>here</u> to download the latest version of CAREWare.
- Are free from Spyware and viruses
- Have the latest Windows Updates

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