Sage HRMS

Server Optimization Settings Guide

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Introduction

This guide provides instructions for optimizing your server settings. It also aids customers with large data sets who experience network delays when using Sage HRMS applications.

Review this guide before you install Sage HRMS, or before you migrate to a new server or environment.

> **Note:** Before installing, consult with your business partner or Sage to ensure that this program is compatible with customizations, integrated third-party applications, and other configuration options. If you install this program independently, you assume responsibility for any impact on your system.

Support and resources

Sage strives to provide you with the best help and support in the industry. If you have a question, we're here to help!

- **Online Help:** Click or press **F1** within in the product to open the online help for the window you are viewing. From within the help, you can click the **Contents** tab (on the left side of the window) to explore a variety of topics, click the **Index** tab to look for topics related to a particular keyword, or use the search box (in the upper right corner of the window) by typing a particular word or phrase and clicking to search for topics containing that text.
- **Product Documents:** Access this and other documents from the Sage HRMS Product Documents website.
- **Community Hub:** Visit the online community at https://communityhub.sage.com/us/sage_hrms/ for blogs, tips, and guidance for your Sage programs.
- **Sage Knowledgebase:** Search the Sage Knowledgebase, which provides 24/7 access to support articles as well as the latest software downloads and updates.
- **Customer Support:** For other support resources, visit the Sage Support Resource Centre page, select your country, and then select your product.

- **Sage University:** Learn pro tips for year-end processing in online or classroom courses. Visit http://SageU.com and log on or create an account to register for training.
- **Tax forms:** Because all printed forms have variations, Sage HRMS Payroll only supports forms printed by Sage Checks and Forms. Call Sage Checks and Forms at 800-617-3224 or order online at www.SageChecks.com.

System requirements

See Sage Knowledgebase article 225924250083549 for the hardware and software recommendations for Sage HRMS and Sage Employee Self Service.

Recommended memory and network settings

This guide provides instructions to update or disable the following settings on the server:

1. Network Card Settings for Sage HRMS Server "Network card settings" (page 4)
2. SQL Server Memory Settings "SQL server memory settings" (page 7)
3. Server Virtual Memory Settings "Virtual memory settings" (page 8)

> **Note:** After changing these settings, you must restart your server.

Before you start

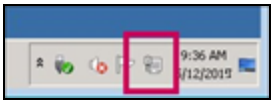
Before you modify your network settings, verify that:

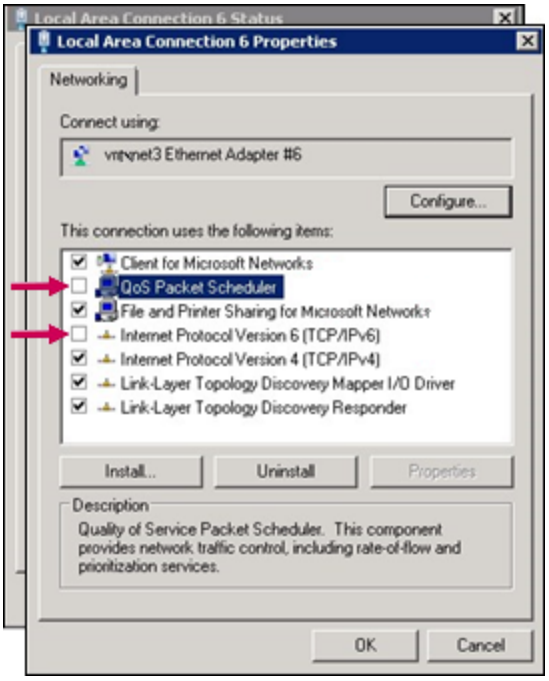
- All Windows updates are installed on all servers (including the application server and SQL Server) and client workstations.
- Your antivirus or web defender software has exceptions in place to prevent blocking Sage HRMS application activities on the servers and client workstations.
- Firewall and application ports are open between Sage HRMS clients and the Sage HRMS servers.

Network card settings

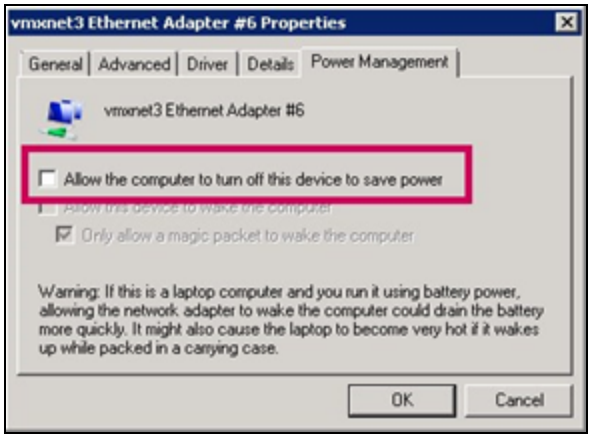
The latest servers come with high-end network cards but the network switches may not be current.

1. On the Sage HRMS Server, open the Network and Sharing Center in one of the following ways:
   - Select **Network Options > Network and Sharing Center**.
   - From the **Control Panel**, select **Network and Sharing Center**.
   - Click the **Network Options** icon from the system tray, and click **Open Network and Sharing Center**.

   
2. Click **Local Area Connection**.
3. In the **Activity** section of the **Local Area Connection** window, click **Properties**.
4. In the list under **This connection uses the following items**, clear the following two check boxes to disable those settings:
   - **QoS Packet Scheduler:** This provides network traffic control, including rate-of-flow and prioritization services. Disabling the setting removes restrictions for Sage HRMS client access through the network.
   - **Internet Protocol Version 6 (TCP/IPv6):** This is the latest version of the Internet protocol that provides communications across diverse interconnected networks. If you are not using Internet Protocol, you can disable it to optimize your server for Sage HRMS client access.



5. Click **OK** to save your changes.
6. Click the **Properties** button again to open the properties window.
7. Click the **Configure** button.
8. In the **Ethernet Adapter Properties** window, click the **Power Management** tab.
9. Clear the **Allow the computer to turn off this device to save power** check box.



10. Click the **Advanced** tab.

11. In the **Property** list box, make these changes to the following settings:
    - **Large Send OffLoad V2(IPv4)**: Set to **Disabled**.
    - **Large Send OffLoad V2(IPv6)**: Set to **Disabled**.
    - **Speed & Duplex**:
        - If your network switch and network cards are on 100 Mbps speed, set to **100 Mbps Full Duplex**.
        - If your network switch and cards are on 1 Gbps speed, set to 1 **Gbps Full Duplex**.
    - **TCP Checksum Offload (IPv4)**: Set to **Rx & Tx Enabled**.
    - **TCP Checksum Offload (IPv6)**: Set to **Rx & Tx Enabled**.
    - **Jumbo Packet**: Set to **Disabled**. If a virtual machine server, set to **Standard 1500**.
12. Click **OK** to save your changes.
13. Close the **Properties** window.

SQL server memory settings

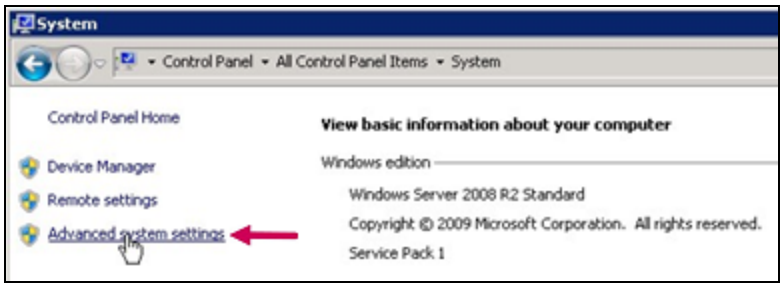
> **Note:** The SQL service must stop and restart for the setting changes to apply.

1. On the Sage HRMS Server, open **Microsoft SQL Server Management Studio**.
2. Right-click the server and select **Properties**.
3. Click the **Memory** tab and enter 256 for **Minimum server memory (in MB)**.
4. Click the **Processors** tab and:
    a. Enter 0 for **Maximum worker threads**.
    b. Select the **Boost SQL Server priority** check box.
5. Click the **Connections** tab and:
    a. In the **Connections** section, set the **Maximum number of concurrent connections** to 0 (for unlimited).
    b. In the **Remote server connections** section, set the **Remote query timeout** to 0 (for no timeout).
6. Click the **Advanced** tab and (in the **Network** menu) set the **Remote Login Timeout** to 20.
7. Click **OK** to save your changes.

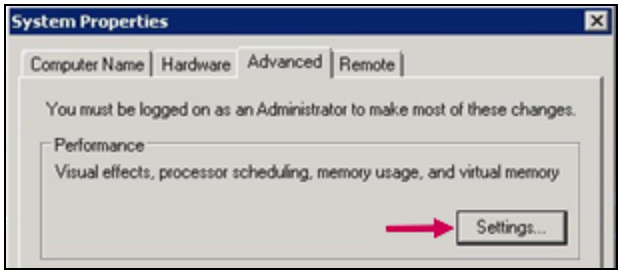
Virtual memory settings

Perform these steps on both the server machine and each workstation that will access the Sage HRMS client.

1. Open **Control Panel > System > Advanced system settings**.



2. On the **Advanced** tab of the **System Properties** window, click **Settings** in the **Performance** section.

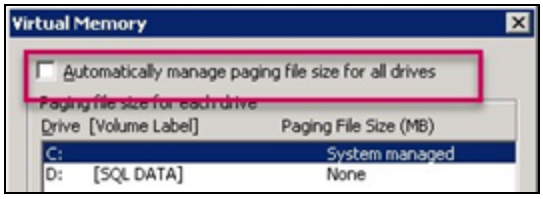


3. On the **Visual Effects** tab of the **Performance Options** window, select **Adjust for best performance**.

4. Click the **Advanced** tab, and then click the **Change** button in the **Virtual Memory** section.

5. In the **Virtual Memory** window:

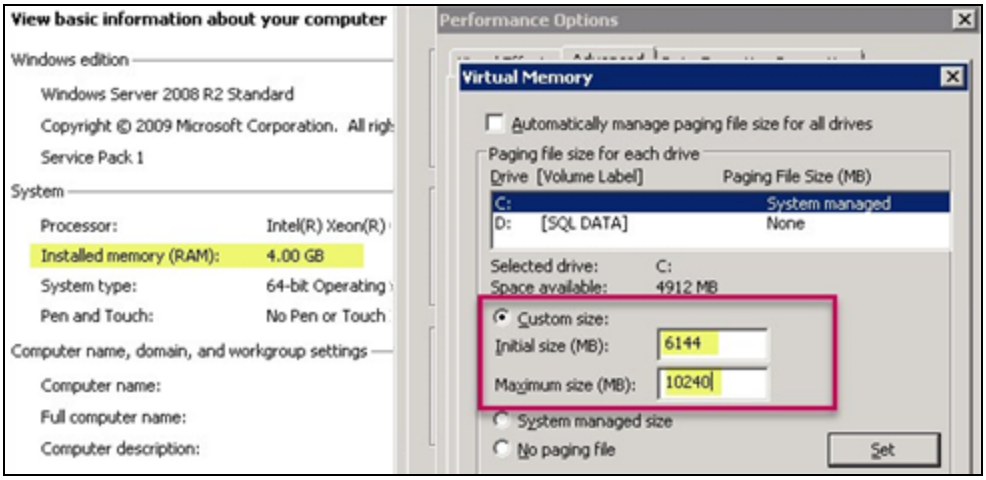
   a. Clear the **Automatically manage paging file size for all drives** check box.



   b. Select **Custom Size** and enter the following size settings:

   - For **Initial Size (MB)**, enter a value that equals 1.5 times the total memory size on the server.
   - For **Maximum Size (MB)**, enter a value that equals 2.5 times the total memory size on the server.

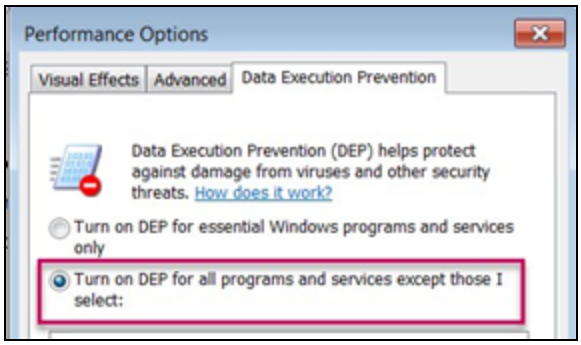
> **Example:** The total installed memory size is 4.00 GB.
>
> The **Initial Size** calculation in MB is: (4 x 1.5) x 1024 = **6144**
>
> The **Maximum Size** calculation in MB is: (4 x 2.5) x 1024 = **10240**



   c. Click the **Set** button to save the settings.

6. When reminded that you will be required you to restart your computer, click **OK**. (You will restart after completing the remaining steps.)
7. Click **OK** to close the **Virtual Memory** window.

8. In the **Performance Options** window, click the **Data Execution Prevention** tab.
9. Select **Turn on DEP for all programs and services except those I select**.



10. Click **OK** to close the **Performance Options** window.
11. Click **OK** to close the **System Properties** window.
12. When prompted, restart the server. This is required to apply the changes.

Installing Sage HRMS

Follow the instructions in the following documents to install and configure Sage HRMS and Sage HRMS Payroll:

- Sage HRMS Product and Tax Update Release Notes
- Sage HRMS System Requirements
- Sage HRMS Installation Guide
- Sage HRMS Getting Started Guide
- Sage HRMS Payroll Getting Started Guide

> **Note:** You can find the latest documentation on the Sage HRMS Product Documents webiste. This website is also linked from the Help menu in Sage HRMS.

SQL Server database settings

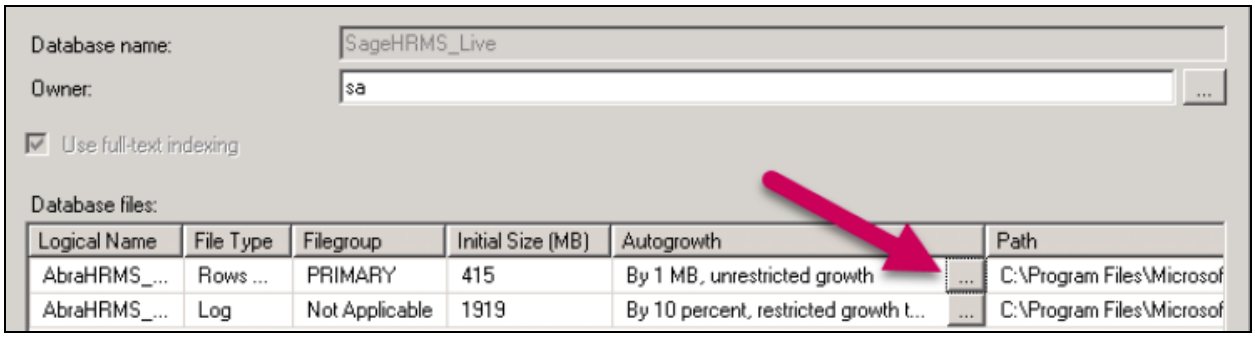
After you install and configure your Sage HRMS databases, you must update the SQL database autogrowth settings.

In **Microsoft SQL Server Management Studio**, perform the following steps for each Sage HRMS database:

1. Under the server (in the left pane), expand the **Databases** menu.
2. Right-click the **SageHRMS_Live** database and select **Properties**.

   > **Note:** If you changed your database name when installing Sage HRMS, or if you have multiple databases, right-click the Sage HRMS database you set up.

3. In the left navigation menu, select **Files**.
4. In the **Database files** table, click the button in the **Autogrowth** column.



5. In the **Change Autogrowth for <Database_Name>** window:
   - Change the **File Growth** setting to **In Percent**.
   - Change the **In Percent** value to 10.
6. Click **OK** to close the window.
7. Close Microsoft SQL Server Management Studio.