**sage**

GUIDE

# Sage 200 Professional

*System Requirements and Prerequisites for on-premise deployment (2021 R1)*

## Copyright statement

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# Contents

# Introduction

This guide is designed to provide Business Partners and customers with the system requirements for Sage 200 Professional in an on-premise deployment.

> **Note:** If you are installing Sage 200 Extra Online, please see the Sage 200 Extra Online System Requirements.

Sage 200 Professional is made up of various core and optional modules that integrate with the core product. When determining your system requirements, you must make sure that you have considered the requirements for all the parts that you want to use, as some modules have different system requirements.

The application footprint on each of the Sage 200 client machines can be large. Each of the client machines that run Sage 200, as well as the servers, must meet the minimum specification. See .

> **Note:** The System Requirements shown here were correct at time of publication. Later versions of operating systems or applications may be supported. See desktophelp.sage.co.uk/sage200/installation/Content/On%20Premise/Core.htm for an updated list.

# New for Sage 200 Professional

## 2021 R1

- There are no changes in this version.

# Checking the prerequisites

Before you install Sage 200, you must make sure the required prerequisites are installed on your system. You must also make sure that your installations of Microsoft SQL Server and Microsoft Internet Information Services (IIS) have the required settings.

## Using the prerequisite tool

We have provided a tool which to help you check that the required prerequisites are installed on your server. Use this tool to check the following:

☑ The server machine name starts with a letter, end with a letter or digit, and have as interior characters only letters, digits, and hyphens.

For more information about Domain name rules, see section 2.3.1 of the following article:www.faqs.org/rfcs/rfc1035.htm↗

☑ Windows Identity Foundation is installed. This can be added as feature.

☑ Microsoft .NET Framework version 4.6.2 (or later) is installed.

> **Note:** This may already be included if you have installed a later version of .NET Framework.

☑  .NET Framework 4.5 (or later) Features with HTTP Activation.

☑  IIS v8 or higher installed, with the following settings.

| Common HTTP Features | Default Document |
|---|---|
|  | Directory Browsing |
|  | HTTP Errors |
|  | HTTP Redirection |
|  | Static Content |
| Application Development Features | .NET Extensibility 4.5 (or later) |
|  | ASP |
|  | ASP .NET 4.5 (or later) |
|  | ISAPI Extensions |
|  | ISAPI Filters |
| Security | Request Filtering |
|  | Windows Authentication |
| Web Management Tools | IIS Management Console |
| Web Management Tools > IIS 6 Management Compatibility | IIS 6 WMI Compatibility |
|  | IIS 6 Metabase and IIS 6 configuration compatibility |

## Run the prerequisite tool

1.  Open the Prerequisite check tool folder on the ISO.
2.  Double - click the PreRequisiteCheckTool.exe.
3.  Click Start.

4.  The results will show which prerequisites are installed.
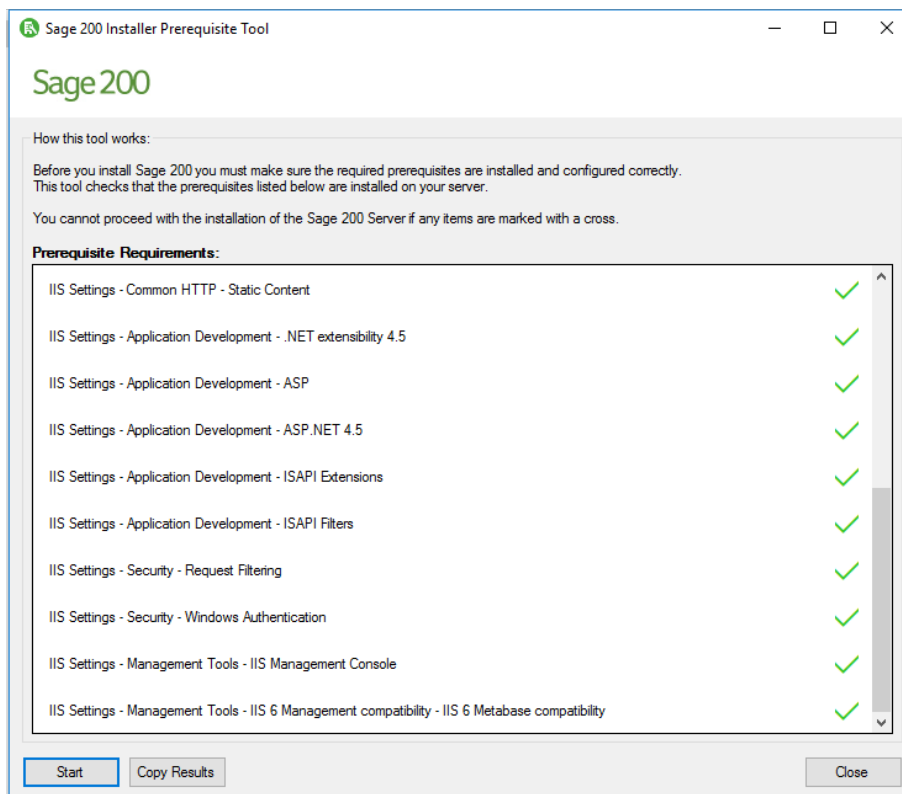


# Additional requirements (not checked by the tool)

- All machines must have regional and language settings set to either English (UK) or English (Ireland) only.

- Your domain controller must **not** be set to Read Only.

- All machines must have a c:\ drive although Sage 200 can be installed and run from a drive other than c:\.

- Microsoft SQL Server:

    - SQL server must support TLS 1.2.

    - Must be running in Mixed Mode (SQL Server and Windows Authentication mode).

    - The Server Collation for SQL server must be set to Latin1_General_CI_AS.

    - The Default Language for SQL server must be set to English. Do not set it to British English.

    - If you're using Business Intelligence, SQL Server and Analysis Services must be installed on the same machine with the same instance name.

# Prerequisites for the client

- All machine names must start with a letter, end with a letter or digit, and have as interior characters only letters, digits, and hyphens.

- All machines must have regional and language settings set to either English (UK) or English (Ireland) only.

- All machines must have a c:\ drive although Sage 200 can be installed and run from a drive other than c:\.

- Microsoft .NET Framework version 4.7.2 **must** be installed.

- Microsoft .NET Framework version 3.5 is also installed, if you are using Sage 200 BI.

- Microsoft Visual C++ 2015-2019 Redistributable (x86) - 14.24.28127 is installed.

    **Note:** This is included in the Sage 200 installer, but can also be downloaded from Microsoft: The latest supported Visual C++ downloads⤤

# Supported software

## Operating systems

| | Server | Client |
|---|---|---|
| Windows 10 (32-bit and 64-bit) (Pro and Enterprise Editions) | ✖[1] | ✔ |
| Windows 8.1 (32-bit and 64-bit) (Pro and Enterprise Editions) | ✖[1] | ✔ |
| Windows 7 SP1 (32-bit and 64-bit) (Professional, Enterprise & Ultimate Editions) [3, 4] | ✖[1] | ✔ |
| Windows Server 2019 (Standard, Essentials & Datacenter Editions) | ✔ | ✔ |
| Windows Server 2016 (Standard, Essentials & Datacenter Editions) | ✔ | ✔ |
| Windows Server 2012 R2 (Standard, Essentials & Datacenter Editions) [2] | ✔ | ✔ |
| Windows Server 2012 (Standard, Essentials & Datacenter Editions) [3] | ✔ | ✔ |

[1] Not supported for production environments but may be used for demonstration and training purposes only.

[2] Windows Server 2012 R2 with Updates version (released Nov 2014). If you use virtualised platforms, there is a known performance issue with the Core Components when installed on this version of 2012 R2, when you use a minimum hardware specification. This can be resolved by increasing the hardware specification.

[3] If you are using the Sage 200 API, Sage Contact app, Microsoft Power BI or Microsoft Power Automate; the Azure Application Proxy Installer requires Windows 8.1, Windows Server 2012 R2, or later versions of Windows.

[4] Microsoft support for Windows 7 ended on 14 January 2020. We therefore recommend that you don't install Sage 200 on this operating system. See Windows 7 End of Support⬀

## Sage 200 migration tools

| | Classic Migration tool | 50 - 200 Migration tool |
|---|---|---|
| Windows 10 (32-bit and 64-bit) (Pro and Enterprise Editions) | ✖ | ✔ |

|  | Classic Migration tool | 50 - 200 Migration tool |
|---|---|---|
| Windows 8.1 (32-bit and 64-bit) (Pro and Enterprise Editions) | ✖ | ✔ |
| Windows 7 SP1 (32-bit and 64-bit) (Professional, Enterprise & Ultimate Editions) | ✔(32 bit only) | ✔ |
| Windows Server 2019 (Standard, Essentials & Datacenter Editions) | ✖ | ✖ |
| Windows Server 2016 (Standard, Essentials & Datacenter Editions) | ✖ | ✖ |
| Windows Server 2012 R2 (Standard, Essentials & Datacenter Editions) | ✖ | ✖ |
| Windows Server 2012 (Standard, Essentials & Datacenter Editions) | ✖ | ✖ |

## Sage connected apps - Sage Contact app, Power BI, Power Automate

*Sage connected apps* refers to applications that connect to your Microsoft 365 account. This includes the Sage Contact app, Microsoft Power BI, and Microsoft Power Automate.

- The Microsoft Azure Active Directory Proxy Connector (used for the Sage connected apps), requires Microsoft Windows 8.1, Windows Server 2012 R2, or later versions of Windows.

- The Sage connected apps can only be used with Microsoft 365 Business Standard (formerly Office 365 Business Premium), Enterprise (E1, E3 or E5) or Office 365 Education (A1, A3, A5) subscriptions.

- To use Microsoft Power Automate with our provided flows, we recommend a Power Automate *Per user plan*.

# Wide Area Network (WAN) and Virtual Private Network (VPN) connections

We do **not** recommend running Sage 200 over a Wide Area Network (WAN) or a Virtual Private Network (VPN). These connection types usually increase latency in communications between the Sage 200 server, the Sage 200 client and the SQL server. High latency between these components can cause unacceptable performance and database timeouts.

# Remote Desktop Services (formerly Terminal Services)

|  | Server | Client |
|---|---|---|
| Windows Server 2019 * | ✔ | ✔ |
| Windows Server 2016 * | ✔ | ✔ |
| Windows Server 2012 R2 * | ✔ | ✔ |
| Windows Server 2012 * | ✔ | ✔ |

\* The application must be deployed using 'Session based Desktop Deployment' with a published remote desktop. 'Virtual machine based desktop deployment' is not supported.

Requirements for deploying Remote Desktop Services:

- The Remote Desktop Services installation must be deployed using Session-based desktop deployment.

  Deployment using Virtual-machine based desktop deployment is **not** recommended.

- Sage 200 is only recommended when publishing the whole desktop environment through Remote Desktop Services.

  Delivering Sage 200 as a RemoteApp solution is **not** recommended.

For Remote Desktop Services servers hosting Sage 200 client sessions, we recommend:

- At least 600MB memory per user on the server, for each client session running occasional or one-off tasks, such as an account enquiry or price check.

- At least 1GB memory for each client session processing for any prolonged period of time, for tasks such as checking in stock, or creating purchase orders.

- You should run large batch processes and updates on the local area network, or out of hours.

**Note:** These figures are for the Sage 200 desktop only. If other applications are to be ran at the same time, they will have their own memory requirements.

## SQL server

| | Server |
|---|---|
| Microsoft SQL Server 2019 * - Standard or Enterprise Editions | ✔ |
| Microsoft SQL Server 2017 - Standard, Business Intelligence, Enterprise & Datacenter Editions (64-bit) | ✔ |
| Microsoft SQL Server 2016 SP2- Standard, Business Intelligence, Enterprise & Datacenter Editions (32 & 64-bit) | ✔ |
| Microsoft SQL Server 2014 SP3 - Standard, Business Intelligence, Enterprise & Datacenter Editions (32 & 64-bit) | ✔ |
| Microsoft SQL Server 2012 SP4 - Standard, Enterprise & Datacenter Editions (32 & 64-bit ) | ✔ |

* Microsoft SQL Server 2019 is not supported by Sage 200 CRM 2020 R1.

Prerequisites for SQL server

Sage 200 Professional is **not** supported when SQL server is installed on a Domain controller.

- SQL server must support TLS 1.2.
- In Server Configuration, the Server Collation for SQL server must be set to Latin1_ General_CI_AS.
- In Database Engine Configuration, the SQL server Authentication mode must be set to Mixed Mode (SQL Server authentication and Windows authentication).
- The Default Language for SQL server must be set to English. Do not set it to British English.

- We recommend that you use the default accounts set up by the SQL server installation wizard. (In previous editions of Microsoft SQL Server, we recommended running SQL Server as Local System Accounts.)

| Service Accounts | Collation | | | |
|---|---|---|---|---|
| Microsoft recommends that you use a separate account for each SQL Server service. | | | | |
| Service | Account Name | Pa... | Startup Type | |
| SQL Server Agent | NT Service\SQLSERVERAGENT | | Manual | ▼ |
| SQL Server Database Engine | NT Service\MSSQLSERVER | | Automatic | ▼ |
| SQL Server Analysis Services | NT Service\MSSQLServerOLAPService | | Automatic | ▼ |
| SQL Server Browser | NT AUTHORITY\LOCAL SERVICE | | Disabled | ▼ |
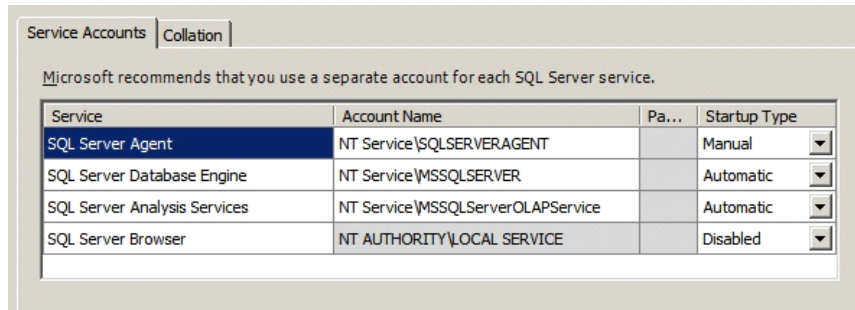
**For Sage 200 BI**

- Sage 200 BI is not supported on Workgroup editions of SQL server. This is because Business Intelligence requires Analysis Services.
- Microsoft SQL Server and Analysis Services must be installed on the same machine with the same instance name.

# Web browsers and devices

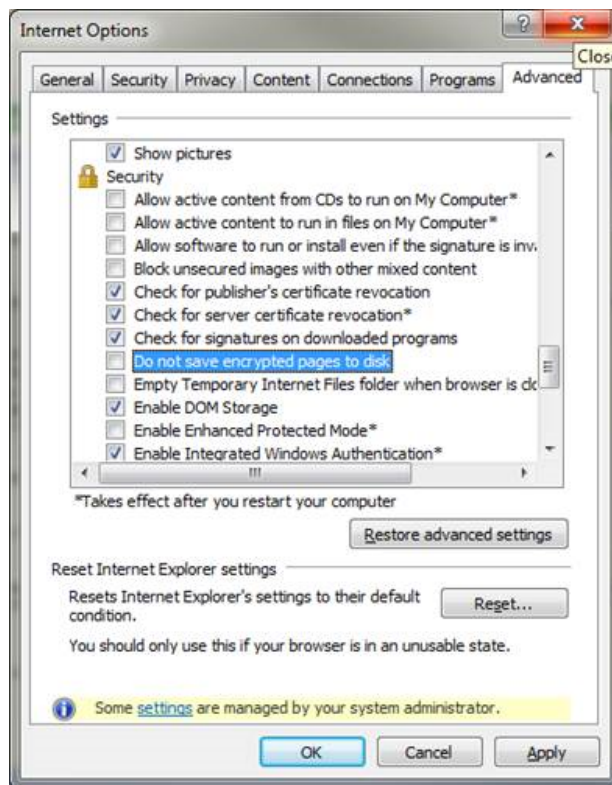| | Desktop App | Self Service web app |
|---|---|---|
| Microsoft Edge on Windows desktop PCs and tablets | ✓ | ✓ |
| Microsoft Internet Explorer v11 on Windows desktop PCs and tablets | ✓ | ✓ |
| Microsoft Internet Explorer v10 or Edge on desktop PCs - *supported on Server 2012 only* | ✓ | ✓ |
| Apple Safari on tablets (iOS) | | ✓ |
| Google Chrome on Windows desktop PCs and Android tablets | | ✓ |

- Other web browsers and devices may be compatible but have not been tested.

## Automatically log in to workspaces

When accessing workspaces in the desktop app or from the Self Service web app, you may be asked to login. If you don't wish to be prompted each time, you can set your browser to always use your login credentials:

| Browser | Settings |
|---|---|
| Internet Explorer | We recommend that you set this for your local intranet zone, however you may choose to set Trusted Sites instead depending on your domain or local security policies.<br><br>■ Local Intranet zone<br>   a. Open: Internet Options > Security> Custom Level<br>   b. Set user User Authentication > Logon to Automatic Logon with current user name and password.<br><br>■ Trusted Sites<br>   a. Open Internet Options > Security > Trusted Sites > Sites.<br>   b. Add the SelfService server URL e.g. https://<server_name>.<br>   c. Open Internet Options > Security > Trusted Sites > Custom Level.<br>   d. Set User Authentication > Logon to Automatic Logon with current user name and password. |
| Chrome - Self Service web app only | Set User Authentication > Logon to Automatic Logon with current user name and password.<br><br>Enter the following from the Command prompt:<br><br>■ For 32-bit operating systems:<br><br>"C:\Program Files\Google\Chrome\Application\chrome.exe" -auth-server-whitelist="localhost, *<machine fully qualified domain name>"*. For example: "C:\Program Files\Google\Chrome\Application\chrome.exe" -auth-server-whitelist=localhost, sagesvr01.mydomain.com"<br><br>■ For 64-bit operating systems:<br><br>"C:\Program Files (x86)\Google\Chrome\Application\chrome.exe" -auth-server-whitelist="localhost, *<machine fully qualified domain name>"*. For example: "C:\Program Files (x86)\Google\Chrome\Application\chrome.exe" -auth-server-whitelist=localhost, sagesvr01.mydomain.com" |

When viewing excel reports in Internet Explorer, you may see this error Unable to download viewreport from [server name]. To resolve this make sure that you have **not** set the option Do not save encrypted pages to disk in the Internet Explorer settings.

Internet Options

General | Security | Privacy | Content | Connections | Programs | Advanced

Settings

☑ Show pictures
🔒 Security
☐ Allow active content from CDs to run on My Computer*
☐ Allow active content to run in files on My Computer*
☐ Allow software to run or install even if the signature is inv.
☐ Block unsecured images with other mixed content
☑ Check for publisher's certificate revocation
☑ Check for server certificate revocation*
☑ Check for signatures on downloaded programs
☑ Do not save encrypted pages to disk
☐ Empty Temporary Internet Files folder when browser is cl
☑ Enable DOM Storage
☐ Enable Enhanced Protected Mode*
☑ Enable Integrated Windows Authentication*

*Takes effect after you restart your computer

Restore advanced settings

Reset Internet Explorer settings

Resets Internet Explorer's settings to their default condition.

Reset...

You should only use this if your browser is in an unusable state.

ⓘ Some settings are managed by your system administrator.

OK | Cancel | Apply

# Microsoft 365 / Microsoft Office

| | 2013 SP1 [1] | | 2016 [1] | | 2019 [1] | | Microsoft 365 [2] | | |
|---|---|---|---|---|---|---|---|---|---|
| Functions | 32-bit | 64-bit | 32-bit | 64-bit | 32-bit | 64-bit | Desktop 32-bit | Desktop 64-bit | Online App |
| Excel Reporting | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✖ |
| Send to Excel (from workspaces and lists) | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ |
| Opening Attachments | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✔ | ✖ |
| Send Email (not from Report Designer) | ✔ | ✖ | ✔ | ✖ | ✔ | ✖ | ✔ | ✖ | ✖ |
| Report Designer - output to email | ✔ | ✖ | ✔ | ✖ | ✔ | ✖ | ✔ | ✖ | ✖ |
| Sage Contact, Power BI, Power Automate [4] | ✖ | ✖ | ✖ | ✖ | ✖ | ✖ | ✔[3] | ✔[3] | ✔[3] |
| Sage 200 BI | ✔ | ✖ | ✔ | ✖ | ✔ | ✖ | ✖ | ✖ | ✖ |

[1] 2013, 2016, 2019 - Standard, Home and Business, Small Business Premium, Professional Plus, and Enterprise Editions.

[2] Microsoft 365 Business Standard (formerly Office 365 Business Premium), Microsoft 365 Apps for Enterprise (formerly Office 365 Professional Plus), and Enterprise Editions. Home and Personal editions are **not** supported.

[3] Microsoft 365 Business Standard (formerly Office 365 Business Premium), Enterprise (E1, E3 or E5) or Office 365 Education (A1, A3, A5) subscription is required for Sage connected apps: Sage Contact, Microsoft Power BI, and Microsoft Power Automate. Your Microsoft 365 subscription must include Azure Active Directory Premium P1/P2.

[4] To use Microsoft Power Automate, we recommend a Power Automate Per user plan.

## Compatibility checker

We've produced this article to help you quickly check compatibility for the Sage 200 suite.

- Sage 200 Professional - Compatibility Checker for Sage 200 Suite⬀

# Security and firewall settings

Sage 200 Professional uses a combination of Windows security and SSL certificates to secure communications between the Sage 200 server and client machines.

## Windows File Permissions

The Sage 200 client can be installed to any location on a client machine. To find the Sage 200 server, the client looks for a file called \\server name\Sage.

In the final step of installation process, the permissions of this folder share are changed as follows:

### Domain

When deployed in an Active Directory Domain environment, access to the central Sage file share (e.g. c:\Sage) and associated files and subdirectories is restricted to the Sage 200 user and admin groups.

> **Note:** All domain controllers on the same domain as Sage 200 need to be accessible and writeable.

### Workgroup

When deployed in a Windows workgroup environment, the central Sage file share (e.g. c:\Sage) and associated files and subdirectories have their permissions set to Everyone | FullControl. We recommend that you set the Share and Security permissions as follows:

- Set the Share permissions to FullControl/Change/Read for these users:
  - Sage 200 Administrators group
  - Sage 200 Users group
  - Sage 200 Services user
  - Sage 200 Secured Services user

- Set the Folder Security to Modify/Read&Execute/ListFolderContents/Read/Write for these users:
  - Sage 200 Administrators group
  - Sage 200 Users group
  - Sage 200 Secured Services user

> **Note:** Once you have installed Sage 200, restart the machine before you access System Administration. This is so the security permissions are set correctly.

## Already have a shared Sage folder on your server?

If you already have a folder share called Sage on your server, then the permissions for this folder will be changed as part of the Sage 200 client installation. You can:

1. Change the name of the share for the existing folder.
2. Install Sage 200 to the existing folder if you're happy with permissions.

## Firewall Settings

Sage 200 runs a variety of programs and services that can be affected by security firewall settings. The following table details the ports that need to be opened in order for Sage 200 to function correctly.

| Server | Port | Details |
|---|---|---|
| Database Server (Default SQL Instance) | TCP Port 1433 | Default SQL Instance |
| Database Server (Named SQL instance) | UDP Port 1434 | Named SQL Instance |
| File Server | TCP Port 139 | File & Print Sharing |
| | TCP Port 445 | File & Print Sharing |
| | TCP Port 137 | File & Print Sharing |
| | TCP Port 138 | File & Print Sharing |
| | TCP Port 10443 | HTTPS |
| Sage 200 Self Service | TCP Port 10444 | HTTPS |
| | TCP Port 443[1] | HTTPS |

[1] You will need to open port 443 on your server machine, and grant permission for:

- https://licensing.services.sage.com and https://licensing2.services.sage.com
- www.google.com

  Google needs to be allowed as Sage 200 will ping Google to check for an internet connection before it connects to the licensing server.

The following ports are required for Sage 200 BI:

| Server | Port | Details |
|---|---|---|
| Database Server (Default SQL Instance) | TCP Port 2383 | SQL Analysis Services |
| Database Server (Named SQL Instance)[2] | TCP Port 2382 | SQL Analysis Services |
| | UDP Port 1434 | SQL Browser Service |

[2] For more information see, msdn.microsoft.com/en-us/library/ms174937.aspx#bkmk_ named.

The following are required if you use Opayo (formerly Sage Pay):

| URL | Port | Details |
|---|---|---|
| test.sagepay.com | TCP Port 443 | HTTPS |
| live.sagepay.com | TCP Port 443 | HTTPS |

## Additional firewall settings if you have a named SQL instance or dynamic ports

Follow the steps below if you have named SQL instance or are using dynamic ports:

1. Find the port number:

   a. Open Start > All Programs > Microsoft SQL Server *version* > Configuration Tools > SQL Server Configuration Manager.

   b. Select SQL Server Network Configuration > Protocols for *<your instance Name>*.

   c. Right-click TCP/IP and select Properties.

   d. Select the IP Addresses tab and scroll down to the IPAll group.

   e. The current port is the TCP Dynamic Ports number.

2. Set your Firewall to exclude this port number.

# Minimum specifications for client and server machines

These are the **minimum** specifications for each client and server machine in a Sage 200 Professional deployment. Users with large databases or high numbers of concurrent users will require higher specifications.

Due to the wide variation of companies that use Sage 200, it is not possible to give exact specifications for each system. Factors such as the concurrent number of users, size of the database and estimated growth should all be taken into consideration when sizing a server.

When tasks are processed, CPU and memory resources are used on both the client and the server. Therefore, the specification of both machines will affect the overall performance of the system.

To make sure Sage 200 displays correctly:

- Check that your screen Resolution is set to the recommended setting for your display.

  To check this, open Control Panel > Appearance and Personalization > Display > Screen Resolution.

- Check that your text size is set to 100%.

  To check this, open Control Panel > Appearance and Personalization > Display, and ensure that the size is set to Smaller - 100%.

| | Processor | Disk | Memory | Network |
|---|---|---|---|---|
| **Sage 200 Server**<br><br>Sage 200 Server with Microsoft SQL Server | Dual-core 2.6GHz or equivalent | 7,200 rpm SATA with 4GB disk space after SQL Server is installed. | 4GB | Gigabit Ethernet |
| **Sage 200 Client**<br><br>Client | Dual Core 1.6GHz or equivalent | 7,200 rpm SATA with 500MB disk space required. | 2GB | Gigabit Ethernet |

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