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The information in this document applies to Sage ERP MAS 200 SQL Version 4.50. Detailed product update information and support policies can be found on the Customer Portal at: <a href="http://na.sage.com/log-on/">http://na.sage.com/log-on/</a>

This document is intended to cover all information regarding the compatibility of various operating systems with Sage ERP MAS 200 SQL as of July 24, 2014. Any operating system not listed should be considered *incompatible*.

**Note**: It is critical that before and during an installation, this document be thoroughly reviewed, along with the *Sage ERP MAS 200 SQL Installation and System Administrator's Guide* and other documents found by clicking the Installation Information link of the main Sage MAS 90 and 200 Support Web page. This Web page can be found on the Customer Portal at <a href="http://na.sage.com/log-on/">http://na.sage.com/log-on/</a>. If development partner or Extended Solutions customizations or modifications have been made to your Sage ERP MAS 200 SQL software, coordinate with your Sage business partner and your development partner before installing Sage ERP MAS 200 SQL.

For information about integrated solutions compatibility, refer to the Integrated Solutions Compatibility Matrix on the Customer Portal at: <a href="http://na.sage.com/log-on/">http://na.sage.com/log-on/</a> Sage ERP MAS 200 SQL 4.50 phone and web case support (retirement) end date is September 30, 2015. For more information, see Supported Versions document located here, <a href="https://partners.sagenorthamerica.com/irj/go/km/docs/sageKM/Sage%20MAS%2090%20and%20200/Assets/Sage%20100%20ERP%20Supported%20Versions.pdf">https://partners.sagenorthamerica.com/irj/go/km/docs/sageKM/Sage%20MAS%2090%20and%20200/Assets/Sage%20100%20ERP%20Supported%20Versions.pdf</a>

Web site content can change at any time. Sage has no control over, and cannot be responsible for the content of other companies' Web sites.

#### If your platform is not listed in the matrices below, it is not supported.

Supported Workstations	Remarks		
Windows 8.1 (32 and 64-bit) Professional and Enterprise	<ul> <li>Notes</li> <li>Microsoft C++ 2008 SP1 has to be installed prior to Sage ERP MAS 200 Installation.</li> <li>Sage CRM 7.1 Patch H Hotfix1 and above is supported.</li> <li>Refer KB 20216, if the following issue occurs, "The wrong version of Crystal Reports is installed on this workstating Please re-run Workstation Setup"</li> </ul>		
Windows 8 (32 and 64-bit) Professional and Enterprise	Notes  ■ Microsoft C++ 2008 SP1 has to be installed prior to Sage ERP MAS 200 Installation.  ■ Sage recommends installing Sage ERP MAS 200 SQL Workstation Setup to a location other than the C:\Program Files folder (for example, C:\Sage).  ■ Sage CRM 7.1 Patch H Hotfix1 and above is supported.		
Windows 7 (32 and 64-bit) Professional, Enterprise, and Ultimate Service Pack 1	<ul> <li>Notes</li> <li>Sage recommends installing Sage ERP MAS 200 SQL Workstation Setup to a location other than the C:\Program Files folder (for example, C:\Sage).</li> <li>Not Supported</li> <li>The items listed here are intended to be used for clarification purposes only, and are not intended to represent a comprehensive list of exclusions.</li> <li>■ Windows 7 Home Basic and Windows 7 Home Premium editions are not supported.</li> </ul>		
Windows Vista (32-bit) Business, Enterprise, and Ultimate Service Pack 2	Notes  Sage recommends installing Sage ERP MAS 200 SQL Workstation Setup to a location other than the C:\Program Files folder (for example, C:\Sage).		

Supported Workstations	Remarks
Microsoft Dedicated Servers define	Not Supported  The items listed here are intended to be used for clarification purposes only, and are not intended to represent a comprehensive list of exclusions.  Windows Vista Home Basic and Windows Vista Home Premium editions are not supported  Windows Vista 64-bit version is not supported.  das Operating System software specifically designed to be used as a network server (not peer-to-peer).
ERP Supported Servers	Remarks
Windows Server 2012 (64-bit) Standard  Windows Server 2012 (64-bit) Standard  Windows Server 2008 (32- and 64-bit) Standard and Enterprise Service Pack 2  Windows Server 2008 R2 (64-bit) Standard and Enterprise Service Pack 1	<ul> <li>Notes</li> <li>Sage ERP MAS 200 SQL is a 32 bit application and will run seamlessly on a 64-bit operating system utilizing the WOW64 x86 emulator.</li> <li>The eBusiness Web Services service can be installed only on a Windows Server platform, such as Windows Server 2008. For more information, see the <i>eBusiness Web Services Installation and Reference Guide</i> found by clicking the Documentation link on the Sage ERP 200 SQL Autorun window.</li> <li>Unless absolutely necessary, avoid installing Sage ERP MAS 200 SQL to system controlled folders, such as C:\Program Files (x86). Sage recommends installing Sage ERP MAS 200 SQL to a dedicated non-system controlled folder, such as C:\Sage.</li> <li>The eBusiness Web Services service can only be installed on Windows Server 2003 or 2008. Note that while the Sage 100 ERP 4.50 Server is supported on Windows Server 2012, the eBusiness Web Services is not. Users who are looking to make use of eBusiness Web Services should not install Sage 100 ERP 4.50 Server on Windows Server 2012. For more information, see the eBusiness Web Services Installation and Reference Guide found by clicking the Documentation link on the Sage ERP MAS 90 and 200 Autorun window.</li> <li>Refer KB 20216, if the following issue occurs, "The wrong version of Crystal Reports is installed on this workstation. Please re-run Workstation Setup"</li> <li>Recommendations</li> <li>Sage ERP MAS 200 SQL should be installed on a dedicated member/application server. Although supported, certain Windows server configurations are not recommended due to possible instability and performance issues. Support from Sage Customer Support may be limited in the following circumstances:         <ul> <li>Running Sage ERP MAS 200 SQL on a Windows server active prunning other applications or services, such as e-mail (for example, Exchange Server), IIS, fax programs, or other software.</li> </ul> </li> </ul>

Supported Workstations	Remarks
	<ul> <li>Not Supported</li> <li>The items listed here are intended to be used for clarification purposes only, and are not intended to represent a comprehensive list of exclusions.</li> <li>Running Sage ERP MAS 200 SQL on any Windows Small Business Server operating system – regardless of the number of user and computer accounts it is managing, is not supported. Small Business Server runs Active Directory and Exchange Server by default, and that has been a factor in many reported cases of instability and performance issues. Instability may also result if Small Business Server is further configured to run other applications concurrently, such as IIS, Shared Fax Services, and SQL Server.</li> <li>Using a server operating system as a Sage ERP MAS 200 SQL workstation is not supported (not even as a client to another server). However, this configuration can be utilized for testing.</li> <li>Sage ERP and Sage CRM Suite were not designed for any version of Windows Datacenter Server and are not supported on this platform.</li> </ul>
Sage CRM Supported Server	Remarks
Windows Server 2012 R2(64-bit) Standard Windows Server 2012 (64-bit) Standard	<ul> <li>Notes</li> <li>Microsoft SQL Server is required for Sage CRM Server.</li> <li>Sage CRM can be installed on MS SQL Server 2005, 2008 (32- and 64-bit), 2008 R2 and 2012 SP1Standard and Enterprise editions.</li> <li>Sage CRM Server cannot be installed on a server running Microsoft Exchange or Lotus Notes Domino.</li> <li>Sage CRM 7.1 Patch H Hotfix1 and above Supports Windows Server 2012 &amp; 2012 R2.</li> </ul>
Windows Server 2008 (32 and 64-bit) Standard and Enterprise Service Pack 2  Windows Server 2008 R2 (64-bit) Standard and Enterprise Service Pack 1	<ul> <li>Outlook Plug-In for Sage CRM</li> <li>To install CRM Outlook Integration, download the Outlook plug-in from within CRM in the My CRM menu &gt; Preferences tab. The user must be an Administrator or Power User of the client machine to install the Outlook plug-in.</li> <li>If installing the CRM Outlook Integration in a Terminal Services environment, administrator rights are required on the Terminal Services machine. All instances of Internet Explorer and Outlook must be closed to install the plug-in. At the time of the installation, exclusive access to the server is required for each user. After the plug-in is installed, administrator rights are no longer required.</li> </ul>
Windows Server 2003 R2 (32-bit) Standard and Enterprise Service Pack 2	<ul> <li>CRM Outlook client integration is supported only for e-mail accounts running on Microsoft Exchange Server.</li> <li>Not Supported</li> <li>Small Business Server is not supported for Sage CRM.</li> </ul>

ERP and Sage CRM Supported MS SQL Servers	Remarks
Microsoft SQL Server 2014 (32 and 64-bit) Standard and Enterprise	Notes ■ Sage CRM 7.1 Patch H Hotfix1 and above supports SQL Server 2012 SP1
Microsoft SQL Server 2012 (32 and 64-bit) Standard and Enterprise	
Microsoft SQL Server 2008 (32 and 64-bit) Standard and Enterprise Service Pack 1	
Microsoft SQL Server 2008 R2 (32 and 64-bit) Standard, Enterprise	
Additional Sage CRM Only Supported MS SQL Servers	Remarks
Microsoft SQL Server 2005 (32-bit) Standard and Enterprise Service Pack 3	

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Terminal Services/Citrix Servers	Remarks		
Windows Server 2012 R2 (64-bit) Standard Windows Server 2012 (64-bit) Standard Windows Server 2008 (32 and 64-bit) Standard and Enterprise Service Pack 2 Terminal Services Windows Server 2008 R2 (64-bit) Standard and Enterprise Terminal Services  Citrix XenApp 5.0 Citrix XenApp 6.0 Citrix XenApp 6.5	<ul> <li>Notes</li> <li>Windows Server 2008 R2 Remote Desktop Services is a new name for former Terminal Services Service.</li> <li>Terminal Services or Citrix must be installed on a supported version of Windows, such as Windows Server 2008.</li> <li>Installing Sage ERP MAS 200 SQL or Sage CRM Server on the same server as Terminal Services or Citrix is not supported.</li> <li>Windows thin clients are supported with Terminal Services and Citrix. For more information, refer to www.microsoft.com</li> <li>For more information on Terminal Services/Citrix, see the Miscellaneous Notes section in this document.</li> <li>Sage CRM Notes</li> <li>Running Sage CRM through Terminal Services or Citrix is only supported when run through a remote session to the Desktop and not as a Published Application.</li> <li>Sage CRM is supported on XenApp 5.0 32-bit version only</li> <li>Sage CRM 7.1 SP2 and above is supported on Citrix XenApp 6.0 32- bit version only.</li> <li>Sage CRM is supported on Citrix XenApp 6.0 32- bit version only.</li> </ul>		
	Not Supported  The items listed here are intended to be used for clarification purposes only, and are not intended to represent a comprehensive list of exclusions.  Service Pack 1 on Windows Server 2003 is not supported.  Running Sage CRM on a Terminal Services session from a Terminal Services or Citrix server installed on a Windows Server 2003 is not supported.  Citrix does not support Citrix XenApp 5.0 on Windows Server 2008 R2.		
Virtual Platforms	Remarks		

#### Notes

- All supported Operating Systems listed under the Supported Workstations, ERP Supported Servers and Sage CRM Supported Servers sections are supported when hosted on these Citrix virtual platform products.
- Hardware and software requirements (minimum and recommended) for Sage ERP MAS products apply to virtual environments as well.
- Some third party products might not support the same virtualization platforms as Sage ERP MAS products. For verification, please check with the third party vendor.

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#### **Miscellaneous Notes**

- 1. When running Sage ERP MAS 200 SQL over a local area network (LAN) environment, the ping timings will vary depending on the speed and configuration of the network. Typical ping timings with 1,800 bytes of data should be between 20–30 milliseconds or faster. Unacceptable ping speeds are over 40 milliseconds.
- 2. In the Sage ERP MAS 200 SQL client/server environment, integrated applications do their processing at the workstation, not at the server. As a result, users may experience performance issues when running integrated applications from remote locations. Some of the applications affected include Crystal Reports.
- 3. Virtual private network (VPN) and wide area network (WAN) connections should be set up as point-to-point connections, as opposed to Internet connections, for better stability and performance. If an Internet connection is used, ensure the Internet Service Provider (ISP) can provide a guaranteed bandwidth; otherwise, users may experience dropped sessions and lost connections. With any type of low speed WAN connection, for each remote user, select the Low Speed Connection checkbox in User Maintenance.
- 4. Always re-run Sage ERP MAS 200 SQL Workstation Setup after re-installing or upgrading the Windows operating system, and verify that a default Windows printer is still available and operational.
- 5. Verify that all hardware involved in running Sage ERP MAS 200 SQL is on Microsoft's Hardware Compatibility List. Incompatible hardware can cause severe data corruption. For more information, refer to the Microsoft Hardware Compatibility List at: <a href="http://www.microsoft.com/whdc/hcl/default.mspx">http://www.microsoft.com/whdc/hcl/default.mspx</a>
- 6. Sage is committed to supporting future Microsoft operating systems as they are released to market for all Sage ERP MAS 200 SQL modules; however, Sage does not support beta-level operating systems. As new operating system levels are scheduled for general release, Sage will verify their compatibility, and this document will be updated when Sage's evaluations are completed.
- 7. Using Citrix or Terminal Services is suggested for faster remote printing of Crystal reports over a WAN and virtual private network (VPN)
- 8. Sage requires a guaranteed minimum bandwidth of 256 Kbps per user for running Sage ERP MAS 200 SQL through a low-speed remote connection. For each user, 512 Kbps or higher is recommended. Select the Low Speed Connection check box in the Sage ERP MAS 200 SQL User Maintenance window.
- 9. If a VPN connection is used, keep in mind the following:
  - VPN solutions are either software-based, hardware-based (such as a VPN firewall), or a hybrid of both.
  - Software-based VPNs may result in slower connection speeds due to the security overhead of encrypting the data. Hardware-based solutions run faster.
  - Low-speed connections are subject to considerable performance issues when using a software-based VPN. It may cause the connection to have a bandwidth of less than 256 Kbps. For information on guaranteed bandwidth requirements, see miscellaneous note above.

- 10. TCP/IP must be installed and properly configured so that you can ping by computer name and IP address from the workstation to the server. The server must be able to at least ping the workstation by its IP address. You must be able to use the Windows TELNET.EXE utility or equivalent to communicate with the Application Server on a specific port ID and IP address, or on a specific port ID and name from all workstations to the server. If this cannot be done, you must contact your Microsoft support organization. Sage Customer Support cannot assist with this task. For more information on connection requirements, refer to your Sage ERP MAS 200 SQL Installation and System Administrator's Guide.
- 11. The Sage ERP MAS 200 SQL Application Server is a Windows Sockets application that listens on a single port (typically port 10000). You must open this port on your firewall/router so clients can connect to the Application Server properly. The client does not listen back on its own port, so opening ports for clients is not necessary. Also, the Application Server is compatible with Network Address Translation (NAT).
- 12. If the Sage ERP MAS 200 SQL Application Server is configured to run as a service and you are experiencing connection timed out errors, white screens, hanging, or slow performance, but only after a certain number of Sage ERP MAS 200 SQL users are in the system, review document <a href="SS3003-A">SS3003-A</a> on the Customer Portal at <a href="http://na.sage.com/log-on/">http://na.sage.com/log-on/</a>. If you are running the Application Server on the desktop instead of running it as a service, the same problem may occur in a very large multiuser environment. If that is the case, review document SS3003-A on Customer Portal.
- 13. Wireless local area networks (WLANs) are not recommended for desktop or laptop connections, because using a wireless LAN may result in dropped packets and lost connections.
- 14. The Microsoft Fax Services feature provided with Windows Server 2008, 2012, 2012 R2 Windows Vista, Windows 7, Windows 8 and Windows 8.1 are supported only for Paperless Office and batch faxing. For more information, refer to the Integrated Solutions Compatibility Matrix on the Customer Portal at: <a href="http://na.sage.com/log-on-log-on-l

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Recommended Minimum System Configuration			
	Recommended Minimum <sup>1</sup>		
Client Workstation	Processor	Physical Memory (RAM)	Available Memory (RAM) <sup>2</sup>
Workstation (client) operating system versions not listed in this document will not be supported with Sage ERP MAS 200 SQL version 4.50.			
Windows 8.1 (32 and 64-bit) Professional and Enterprise	Intel Core 2 Duo	2 GB	512 MB
Windows 8 (32 and 64-bit) Professional and Enterprise	Intel Core 2 Duo	2 GB	512 MB
Windows 7 (32 and 64-bit) Professional, Enterprise, and Ultimate	Intel Core 2 Duo	2 GB	512 MB
Windows Vista Business, Enterprise, and Ultimate	Intel Core 2 Duo	2 GB	512 MB
Network Bandwidth	Recommended Minimum		
	100 Base-T – 100 Mbps at Full Duplex		

<sup>1</sup>The recommended minimum is designed to ensure that the systems used for Sage ERP MAS 200 SQL are capable of providing adequate performance with a standard complement of normally installed applications, such as virus protection software.

<sup>&</sup>lt;sup>2</sup> Regardless of the recommended minimums specified above, users should check the available memory on the workstation prior to installing Sage ERP MAS 200 SQL and use the Windows Task Manager to check the Available Physical Memory on the Performance tab. A minimum of 512 MB of physical RAM should be available to Sage ERP MAS 200 SQL when all other applications that will be used with Sage ERP MAS 200 SQL are loaded. Sage cannot guarantee acceptable performance when running Sage ERP MAS 200SQL concurrently with other applications that consume system resources required for Sage ERP MAS 200 SQL to perform at an optimum level.

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Recommend	ed Minimum System Configurati	on for ERP and Sage CRM Serve	rs
	Recommended Minimum <sup>1</sup>		
ERP and Sage CRM Supported Servers	Processor	Memory (RAM)	Additional Requirements
Windows Server 2012 R2 (64-bit) Standard Windows Server 2012 (64-bit) Standard		2 GB + 4-6 MB per concurrent user	100 Mbps network connection
Windows Server 2008 (32 and 64-bit) Standard and Enterprise			
Windows Server 2008 R2 (64-bit) Standard and Enterprise	For 64-bit systems:		
Additional Sage CRM Only Supported Servers	Intel or AMD 64-bit capable, such as Intel Xeon or Quad-Core AMD Opteron	Memory (RAM)	Additional Requirements
Windows Server 2003 R2 (32-bit) Standard and Enterprise	•	1 GB + 4-6 MB per concurrent user	100 Mbps network connection
Terminal Services and Citrix	For 32-bit systems:	Memory (RAM)	Additional Requirements
Windows Server 2012 R2 Terminal Services Windows Server 2012 Terminal Services Windows Server 2008 R2 Remote Desktop Services Windows Server 2008 Terminal Services Citrix XenApp 5.0 Citrix XenApp 6.0	Intel Pentium 4 class 2.4 GHz Dual processor recommended	Recommended minimum and as required by Terminal Services or Citrix, plus 128 MB per concurrent user <sup>1</sup>	100 Mbps network connection
Citrix XenApp 6.5  ERP and Sage CRM Web Servers		Memory (RAM)	Additional Requirements
Windows Server 2012 R2 Windows Server 2012 Windows Server 2008 Windows Server 2008 R2		2 GB	Internet Information Services 7.0

<sup>1</sup>The recommended minimum is designed to ensure the systems used for Sage ERP MAS 200 SQL are capable of providing adequate performance with a standard complement of normally installed applications, such as virus protection software.

<sup>&</sup>lt;sup>2</sup>128 MB is based on an average of three concurrent tasks per user (Sage ERP MAS 200 SQL Desktop plus two additional tasks, such as Sales Order Entry or Customer Maintenance). Averages of more than three concurrent tasks per user will require additional RAM.

E-mail Servers	Processor	Memory (RAM)	Additional Requirements
Microsoft Exchange Server 2003		2 GB	100 Mbps network connection
Microsoft Exchange Server 2007 (32-bit) Microsoft Exchange Server 2010 (64-bit) (See CRM 7.1 Petab II Hetfin and above in	Intel Pentium 4 class 2.8 GHz		
(Sage CRM 7.1 Patch H Hotfix1 and above is Supported)			