

Governance, Risk & Compliance

# System Requirements and Implementation Options

ComplianceOne® Solution

# Governance, Risk & Compliance

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## How to Use

Use this information as a guide to identify the hardware and software components needed to implement ComplianceOne. Please review this document in its entirety. Please contact Wolters Kluwer if you have any questions regarding specific configurations.

All requirements are for systems running ComplianceOne only. You will need to take into consideration any additional software that will be running in your environment, as this will increase the listed requirements. Please review the additional notes at the end of this document for further explanations and information.

These requirements are subject to change without notice.

Visit our Software Support Web site at <http://www.wolterskluwerfs.com/support/> for updates to the ComplianceOne System Requirements.

## Standalone Implementation

### Software Requirements: Operating Systems \*\*

- Windows 7 Professional (32- and 64-bit)
- Windows 8.1 Professional (32- and 64-bit)
- Windows 10 (32- and 64-bit, 2016.1 or later releases only)

### Other Required Software

- Internet Information Services (IIS)\*\*
- Microsoft .NET 2.0 Framework\*\*\*
- Microsoft .NET 3.5 Framework
- Microsoft .NET Framework 4\*\*\*
- Microsoft .NET Framework 4.5
- Microsoft .NET Framework 4.6.1 (supported but not required)
- ASP.NET MVC 3\*\*\*
- Microsoft SOAP Toolkit 3.0\*\*\*°
- Microsoft WSE 3.0 Runtime\*\*\*
- MSXML 6.0
- Microsoft Internet Explorer 11.0\*\* (Microsoft Edge is not supported)
- Microsoft SQL Server 2012 Express <sup>†</sup>
- Microsoft SQL Server 2014 Express <sup>†</sup>
- Microsoft SQL Server 2016 Express <sup>†</sup>
- Microsoft SQL Server 2017 Express <sup>†</sup>

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### Note

SQL Native Client 11 is required to support TLS 1.1 or 1.2. This client is already automatically installed as part of newer SQL Server versions (2012, 2014, 2016 and so on). For other versions it is available at <https://www.microsoft.com/en-us/download/details.aspx?id=50402>.

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### Hardware Requirements

- Multicore Intel/AMD processor – Release to market date 2007 or newer\*
- 4 GB RAM or greater recommended\*
- At least 5 GB available hard disk space (7 GB or greater recommended)

## Network - Small Implementation Server *(Up to 15 concurrent users)*

The specifications listed in this section are for an application server to run ComplianceOne only. You will need to take into consideration any additional software that will be running in your environment and size appropriately. Due to security and workload concerns, application software, such as ComplianceOne, should not be installed on an Active Directory Server / Domain Controller. If a server class computer is not available, ComplianceOne can be installed on a workstation computer in a peer-to-peer configuration to act as the server for ComplianceOne clients. It is recommended to install to a computer that is a member of a domain as installations in a workgroup may not work correctly.

Peer-to-peer configurations may be limited to 5 concurrent users. However, if you are running at least our recommended system requirements, up to 15 concurrent users may access ComplianceOne on a Network – Small Implementation Server. If more concurrent users are desired, refer to the Network- Large Implementation Server option.

Consult with Wolters Kluwer to ensure ComplianceOne will work in your environment. Please review the additional notes at the end of this document for further explanations and information.

### Software Requirements: Operating Systems \*\*

- Windows 7 Professional (32- and 64-bit)
- Windows 8.1 Professional (32- and 64-bit)
- Windows 10 (32- and 64-bit, 2016.1 or later releases only)
- Windows Server 2008 Standard or Enterprise (32-bit) <sup>††</sup>
- Windows Server 2008 R2 Standard or Enterprise (64-bit)
- Windows Server 2012 Standard or Enterprise (64-bit) <sup>††</sup>
- Windows Server 2012 R2 Standard or Enterprise (64-bit)
- Windows Server 2016 (64-bit)
- Windows Server 2019 (64-bit)

### Other Required Software

- Internet Information Services (IIS) <sup>\*\*</sup>
- ASP.NET MVC 3 <sup>\*\*\*</sup>
- Microsoft SOAP Toolkit 3.0 <sup>\*\*\*°</sup>
- Microsoft WSE 3.0 Runtime <sup>\*\*\*</sup>
- MSXML 6.0
- Microsoft .NET 2.0 Framework <sup>\*\*\*</sup>
- Microsoft .NET 3.5 Framework
- Microsoft .NET Framework 4 <sup>\*\*\*</sup>
- Microsoft .NET Framework 4.5
- Microsoft .NET Framework 4.6.1 (supported but not required <sup>‡</sup>)
- Microsoft Internet Explorer 11.0 <sup>\*\*</sup> (Microsoft Edge is not supported)
- Microsoft SQL Server 2012 Express <sup>†</sup>
- Microsoft SQL Server 2014 Express <sup>†</sup>
- Microsoft SQL Server 2016 Express <sup>†</sup>
- Microsoft SQL Server 2017 Express <sup>†</sup>

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### Note

SQL Native Client 11 is required to support TLS 1.1 or 1.2. This client is already automatically installed as part of newer SQL Server versions (2012, 2014, 2016 and so on). For other versions it is available at <https://www.microsoft.com/en-us/download/details.aspx?id=50402>.

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## Hardware Requirements

### Hardware Requirements

- Multicore Intel/AMD processor – Release to market date 2007 or newer\*
- 4 GB RAM or greater recommended\*
- At least 5 GB available hard disk space (7 GB recommended)

### Network - Large Implementation Server (*Greater than 15 concurrent users*)

The specifications listed in this section are for an application server to run ComplianceOne only. You will need to take into consideration any additional software that will be running in your environment and size appropriately. The specifications listed in this section are sized for a system with 15 concurrent users.

Due to security and workload concerns, application software, such as ComplianceOne, should not be installed on an Active Directory Server / Domain Controller.

Consult with Wolters Kluwer to ensure ComplianceOne will work in your environment. Please review the additional notes at the end of this document for further explanations and information.

### Software Requirements: Operating Systems \*\*

- Windows Server 2008 Standard or Enterprise (32-bit) <sup>††</sup>
- Windows Server 2008 R2 Standard or Enterprise (64-bit)
- Windows Server 2012 Standard or Enterprise (64-bit) <sup>††</sup>
- Windows Server 2012 R2 Standard or Enterprise (64-bit)
- Windows Server 2016 (64-bit)
- Windows Server 2019 (64-bit)

### Other Required Software

- Internet Information Services (IIS) <sup>\*\*</sup>
- ASP.NET MVC 3 <sup>\*\*\*</sup>
- Microsoft .NET 2.0 Framework <sup>\*\*\*</sup>
- Microsoft .NET 3.5 Framework
- Microsoft .NET Framework 4 <sup>\*\*\*</sup>
- Microsoft Internet Explorer 11.0 <sup>\*\*</sup> (Microsoft Edge is not supported)
- Microsoft SOAP Toolkit 3.0 <sup>\*\*\*°</sup>
- Microsoft .NET Framework 4.5
- Microsoft .NET Framework 4.6.1 (supported but not required <sup>‡</sup>)
- Microsoft WSE 3.0 Runtime <sup>\*\*\*</sup>
- MSXML 6.0
- Microsoft SQL Server 2012 Express or Standard <sup>†</sup>
- Microsoft SQL Server 2014 Express or Standard <sup>†</sup>
- Microsoft SQL Server 2016 Express or Standard <sup>†</sup>
- Microsoft SQL Server 2016 Express <sup>†</sup>
- Microsoft SQL Server 2017 Express <sup>†</sup>

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### Note

SQL Native Client 11 is required to support TLS 1.1 or 1.2. This client is already automatically installed as part of newer SQL Server versions (2012, 2014, 2016 and so on). For other versions it is available at <https://www.microsoft.com/en-us/download/details.aspx?id=50402>.

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## Hardware Requirements

- Multicore Intel/AMD processor – Release to market date 2007 or newer\*
- 4 GB RAM or greater recommended\*
- At least 5 GB available hard disk space (7 GB or greater recommended)

## Network - Wide Area Network (WAN) Implementation (Terminal Services/Remote Desktop Services)

To run effectively in a Wide Area Network (WAN) environment, ComplianceOne requires sufficient bandwidth for acceptable performance. At this time, Terminal Services/Remote Desktop Services is required for Wide Area Network (WAN) implementations. The specifications listed in this section are sized for a system with 15 concurrent users.

It is recommended that ComplianceOne be installed on a separate application server (see Network – Large Implementation Server for requirements) and not the server hosting Terminal Services/Remote Desktop Services. For performance and security reasons, only the ComplianceOne client files are recommended to be installed on the Terminal Server/Remote Desktop Server.

Additionally, Citrix XenApp can be added on top of the Microsoft Terminal Services/Remote Desktop Services to allow more options for workstation connectivity and administration. Workstations that connect to Terminal Server/Remote Desktop Server need to meet the requirements set by Microsoft or Citrix. These requirements are less than the requirements for a local area network client allowing you to use legacy equipment without needing to do hardware upgrades to your workstations. Refer to your technical consultant or visit <http://www.microsoft.com> or <http://www.citrix.com> for Terminal Services/Remote Desktop Services and workstation specifications.

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### Note

Other deployments such as Wyse Thin Client (dummy terminal), VDI (Virtual Desktop Infrastructure) and RemoteApp are not tested, and therefore, functionality cannot be ensured.

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Consult with Wolters Kluwer to ensure ComplianceOne will work in your environment. Please review the additional notes at the end of this document for further explanations and information.

## Software Requirements: Operating Systems \*\*

- Windows Server 2008 Standard or Enterprise (32-bit) with Terminal Services
- Windows Server 2008 R2 Standard or Enterprise (64-bit) with Remote Desktop Services
- Windows Server 2012 Standard or Enterprise (64-bit)
- Windows Server 2012 R2 Standard or Enterprise (64-bit)
- Windows Server 2016 (64-bit)
- Windows Server 2019 (64-bit)

## Other Required Software

- Microsoft .NET 2.0 Framework\*\*\*
- Microsoft .NET 3.5 Framework
- Microsoft .NET Framework 4\*\*\*
- Microsoft .NET Framework 4.5
- Microsoft .NET Framework 4.6.1 (supported but not required<sup>‡</sup>)
- Microsoft Internet Explorer 11.0\*\* (Microsoft Edge is not supported)
- Microsoft SOAP Toolkit 3.0\*\*\*°
- MSXML 6.0

## Hardware Requirements

- Multicore Intel/AMD processor – Release to market date 2007 or newer\*
- 4 GB RAM or greater for the operating system and at least 100 MB RAM per user connection\*
- At least 5 GB available hard disk space (7 GB or greater recommended)

## Network – Clients

These requirements apply to all Local Area Network (LAN) client workstations regardless of the server. For Wide Area Network (WAN) implementations, refer to the Network - Wide Area Network (WAN) Implementation section earlier in this guide.

The specifications listed in this section are for a computer to run ComplianceOne only. You will need to take into consideration any additional software that will be running in your environment and size appropriately.

Consult with Wolters Kluwer to ensure ComplianceOne will work in your environment.

Please review the additional notes at the end of this document for further explanations and information.

## Software Requirements: Operating Systems \*\*

- Windows 7 Professional (32- and 64-bit)
- Windows 8.1 (32- and 64-bit)
- Windows 10 (32- and 64-bit, 2016.1 or later releases only)

## Other Required Software

- Microsoft .NET 2.0 Framework\*\*\*
- Microsoft .NET 3.5 Framework
- Microsoft .NET Framework 4\*\*\*
- Microsoft .NET Framework 4.5
- Microsoft .NET Framework 4.6.1 (supported but not required)
- Microsoft Internet Explorer 11.0\*\* (Microsoft Edge is not supported)
- Microsoft SOAP Toolkit 3.0\*\*\*°
- MSXML 6.0

## Hardware Requirements

- Multicore Intel/AMD processor – Release to market date 2007 or newer\*
- 4 GB RAM or greater recommended\*
- At least 1 GB available hard disk space (2 GB or greater recommended)\*

## Printer Requirements

- PCL5 or PCL6 compatible laser printer
- Two programmable paper trays, one for letter size paper and one for legal size paper.
- Printer memory:
  - 8 MB installed for 300 dpi resolution
  - 16 MB installed for 600 dpi resolution
  - 32 MB installed for 1200 dpi resolution
- T1 communication (or faster) is recommended for Wide Area Network printing

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### Note

Due to the large variety of printers available in the market today, we are unable to test our programs with every printer.

Multi-purpose (printer, copier, fax) printers may meet the above requirements; however, we do not recommend using multi-purpose printers with our software and may not be able to assist with problems printing to these printers.

Using Printer Redirection on any version of terminal services/Remote Desktop Services is not recommended

We also recommend the printer be network-capable and added as a TCP/IP port

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## Key

\* These requirements are for systems running ComplianceOne only. A faster gigahertz (GHz) processor and or more random-access memory (RAM) have shown to improve the overall performance of ComplianceOne. Adding additional CPUs may also improve overall performance. Consult with your technical staff if you will be running additional applications, as this will increase the listed requirements.

\*\* Acquiring and installing these programs is the responsibility of your network administrator or technical consultant. Wolters Kluwer is not responsible for providing or implementing these programs. Also, Wolters Kluwer cannot provide assistance with implementing these programs beyond the information contained in the ComplianceOne Installation Instructions. Contact Microsoft Support for assistance, if needed.

\*\*\* ASP.NET MVC 3, Microsoft SOAP Toolkit 3.0, Microsoft WSE 3.0 Runtime, Microsoft .NET 2.0 Framework, and Microsoft .NET Framework 4 are supplied in the ComplianceOne material source from the Product Download Site.

† Users should note that ComplianceOne will create 9 separate SQL databases.

†† Internet Explorer 11 is not supported by Windows Server 2008 Standard or Enterprise (32-bit) or Windows Server 2012 Standard or Enterprise (64-bit). Some interfaces or browser partners may not function properly.

‡ .NET 4.6.1 is required for certain web-based interfaces. Refer to the Interface Impact Assessment document (release notes) for a list of specific interfaces affected.

° Microsoft SOAP Toolkit 3.0 is required by some interfaces.

## Additional Notes

### Microsoft Word

Microsoft Word 2007, 2010, 2013, or 2016 as a part of Microsoft Office Professional must be installed in order to modify dynamic documents within ComplianceOne. Microsoft Word must be installed on the machine acting as the ComplianceOne client. If are you using a terminal or Citrix server, then Word must be installed on the terminal server, even if Word is installed on the local machine. Note that when installing on a terminal server or Citrix server client, be sure to obtain the appropriate licensing for the installation of Word.

### **Microsoft Office Outlook**

Microsoft Outlook 2007, 2010, 2013, or 2016, as part of Microsoft Office Professional (32-bit and 64-bit is supported only for 2010, 2013 and 2016) is needed for ComplianceOne email functionality, which provides the ability to email documents. Microsoft Outlook must be installed on the machine acting as the ComplianceOne client. If you are using a terminal or Citrix server, then Outlook must be installed on the Terminal Server even if Outlook is installed on the local machine. Note that when installing on a Terminal Server or Citrix server client, be sure to obtain the appropriate licensing for the installation of Microsoft Office Outlook 2007, 2010, 2013 or 2016 32-bit versions.

The 64-bit version of Microsoft Office Outlook is supported for Outlook 2010, 2013 and 2016 but not for Outlook 2007.

### **Port 80**

Web sites deployed on the same server as ComplianceOne and using port 80 will not function properly and also interfere with the functioning of the ComplianceOne web services. As such, we do not currently support deploying ComplianceOne web services into web servers where other sites are configured to use port 80. We also do not currently support deploying ComplianceOne web services into web servers that are running Microsoft SharePoint.

### **Internet Access**

High speed Internet access is required to use some components of ComplianceOne as well as for remote installation and support.

### **Service Packs**

The most current service pack is recommended for all Microsoft applications.

### **Backup Restore**

Backups are the sole responsibility of the institution. Your backup software may require an additional module to allow backing up of database files.

### **Novell NetWare**

ComplianceOne cannot be installed to a Novell NetWare file server because ComplianceOne utilizes Microsoft IIS to create the screens and Microsoft SQL Server to manage the database. These components cannot be installed to or run from a Novell NetWare file server.

### **Windows 7 Home**

These operating systems are designed strictly for home use and are not supported.

### **Windows 8.0**

Windows 8.0 is no longer supported by Microsoft but Windows 8.1 continues to be supported.

### **Microsoft Small Business Server**

This operating system is designed strictly for small business applications and is not supported.

### **Active Directory Server / Domain Controllers**

Good networking practice dictates that application software, such as ComplianceOne, should not be installed on a Domain Controller. This is due to security and workload concerns.

### **Exchange Server**

ComplianceOne is not compatible running on Exchange Server.

### Upgrading Windows Operating Systems

If you have upgraded or are planning to upgrade your Windows operating system, please note the following: Although Microsoft states they support an upgrade process from a previous version of the operating system, in order to install the Microsoft components to run ComplianceOne properly, it is required to perform a new installation (or clean install) of the new operating system. You should not upgrade over your existing installation of Windows. This means that the computer's hard drive must be re-formatted prior to installing Windows. You should back up your data, format the hard drive, install Windows, reinstall your applications and then restore your data from backup. Then contact Wolters Kluwer to reinstall ComplianceOne and restore the data.

### Text Display Size

Controls in ComplianceOne administration can display their values oddly if the default text display size of the Windows operating system is set at any value larger than the default size. The text display size must be set to the Windows default:

- For Windows 7 - Smaller - 100% (default)

The Windows operating system text display size is found in the operating system display properties:

- For Windows 7 - Right-click the desktop, choose Personalize, Display

### Interface Users

Systems that also integrate with business-to-business interfaces may also need to update some proxy/firewall exceptions before using ComplianceOne with those interfaces.

Refer to Appendix F in the *Installation Instructions for Updates* documentation for a complete list of proxy server/firewall exceptions that may be required with your setup.