# SDL Tridion 2013 Product Prerequisites

**Content Management Technologies Division of SDL**

# SDL Tridion 2013 Product Prerequisites

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# About the product prerequisites

The product prerequisites list the required and supported software for all the individual parts that comprise SDL Tridion.

**Licences**

SDL Tridion requires licenses to run. SDL Tridion Customer Support provides you with license files that enable modules and features based on your license agreement with SDL Tridion.

**Items marked as deprecated**

Items marked as deprecated may no longer be supported in the next version.

**Combining software components on the same machine**

The product prerequisites work on the assumption that you will install each software component on a separate machine. However, you can combine software components on one machine as long as the prerequisites do not conflict.

For example, on a development or demo machine you can install and run your Content Manager server and your Content Delivery system on the same Microsoft Windows platform, or you can combine a Content Manager Explorer client, Content Manager server, and Content Manager database server.

In a production environment, for performance reasons it is recommended to install each software component on a separate machine. Combining clients on the same machine, however, does not impact performance significantly.

# Chapter 1   Hardware prerequisites

Guidelines on selecting the correct hardware for your SDL Tridion implementation. The platform supports basic, single-machine implementations and elaborate, scaled-out implementations, each with different hardware requirements.

## 1.1    DTAP infrastructure

SDL recommends running multiple instances of SDL Tridion in parallel to manage the development process and clearly separate the project implementation phases and use Content Porter to port data from on SD: Tridion environment to another. **D**evelopment, **T**est, **A**cceptance and **P**roduction (DTAP) is the recommended infrastructure for an SDL Tridion implementation.

DTAP enables different users to manage different types of content on different Content Manager servers: the creation and management of content is distributed over several machines to prevent different types of content from getting in each other's way. You then use Content Porter to port data from one SDL Tridion environment to another.

The following diagram shows a typical hardware setup for a DTAP environment: a single-machine setup for Development and Test, and a multiple-machine setup for Acceptance and Production. Everything except the Acceptance Live Server and Production Live Server lives inside the local network.
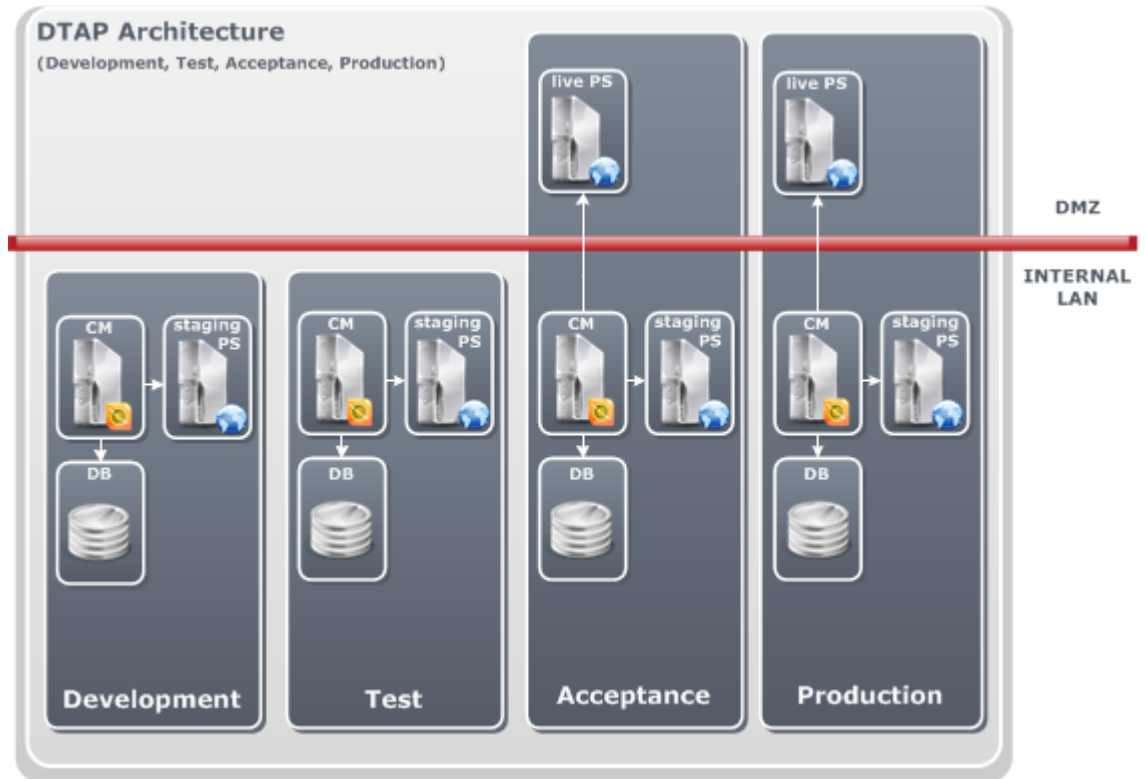
## 1.2 Hardware acquisition plan

Acquiring hardware is a phased activity: buy hardware that meets minimal prerequisites or higher to acquire the Development and Testing machines; implement the product; and use your implementation to measure which (and how much) hardware to acquire your Acceptance and Production machines.

**Hardware for Development and Testing environments**

When developing or testing your implementation of SDL Tridion, you can follow the guidelines for minimal hardware requirements. It is possible (though not recommended) to develop and test your implementation using a single laptop.

**Hardware for Acceptance and Production environments**

Without a finished implementation of the product, it is impossible to know which hardware or how much hardware to acquire for your Acceptance and Production environments. This is because your specific implementation choices dramatically affect the performance. As a result, we recommend reserving a project phase in which you simulate a real-live production environment and measure its performance.

## 1.3 Minimal hardware prerequisites for Development and Testing environments

Both for the Development and the Testing environment, SDL recommends a single-machine setup, with the Content Manager, Content Manager database and Presentation Server on the same machine.

| Hardware item | Recommendation |
|---|---|
| CPU clock rate | 2.70 GHz |
| CPU cores | dual core or quad core |
| Memory | 8 GB RAM |
| Hard disk | 20 GB HDD (30 GB if using a Java Web application server) |
| Database DBMS | SQL Server (Oracle requires a separate server) |

## 1.4 Performance variables for Acceptance and Production

The performance of the main areas of your SDL Tridion implementation depends on a large number of performance variables, many of which are determined by your implementation choices. This topic enumerates for each performance area which variables you might measure or examine.

Typically, performance bottlenecks in a Production environment occur in one of the following areas:

- Content Manager: users and/or processes interacting with the Content Manager server have to wait too long for a response.
- Publishing throughput: publishing content takes too long.
- Presentation Server serving of Web pages: visitors of the Web site wait too long for a Web page to be loaded in their browser

**Content Manager performance variables**

As a rule of thumb, automated processes, most notably publishing, often impact scaling decisions more than, say, the number of concurrent users.

Automated processes include:

- Publishing volume, that is, the total combined size of items being submitted for publishing per time unit
- The complexity and speed of templating code
- The complexity and speed of Event System code, if any
- The complexity and speed of GUI extension code, if any
- The complexity of Workflow Process Definitions, if any
- The complexity and speed of other custom code (e.g integration with back-office systems, or on-the-fly data conversion)
- The number of Core Service requests per time unit

Another set of factors is the number of users and the intensity of their interaction:

- The number of concurrent users, defined by the formula `(NAMED USERS * SINGLE USER USAGE PER PERIOD) / OVERALL USAGE PER PERIOD`. For example, 200 different users interacting an average of 30 minutes per week with the system, while the system is in use for 40 hours per week, means that there are (200 * .5)/40 = 2.5 concurrent users.
- The number of search requests per time unit
- The number of item modifications by users per time unit

The third set of factors concerns the size and complexity of your implementation:

- The expected number of Components and Pages
- The number of Organizational Items, and the depth of the structure in which they are organized
- The complexity of your Taxonomies, both the number of Keywords and the depth
- The complexity of your BluePrint structure (including the number of Publications and the BluePrint depth)
- The complexity of your security framework

And fourth, of course, the actual hardware you use affects performance. Note that because Web abd application server tiers are typically easier to scale out than database server tiers, the database tier will more often prove to be the performance bottleneck.

- The number of Content Manager server machines
- The CPU speed, number of CPUs and number of cores of your Content Manager server machine(s)
- The RAM of your Content Manager server machine(s)
- The number of your Content Manager database machines
- The CPU speed, number of CPUs and number of cores of your Content Manager database machine(s)
- The RAM of your Content Manager database machine(s)
- The maximum throughput rate of the hard disk of your Content Manager database machine(s)
- The client/server network latency

**Publishing performance variables**

- Publishing volume, that is, the total combined size of items being submitted for publishing per time unit
- The complexity and speed of templating code
- The complexity and speed of custom Content Deployer Modules, if any
- The bandwidth of the connection between the Content Manager and Content Delivery systems
- The type and speed of the firewall you use, and how it is configured
- How static or dynamic your Web site is (dynamic Web sites publish faster)

**Web content serving performance variables**

- The visitor's connection speed
- The number of page views per time unit
- The number of concurrent visitors, that is, the number of active visitor sessions at any one time
- The level of interactivity on Web pages

- The type of Web and application server used
- The amount and level of integration with other applications, such as back-office systems
- The type and speed of the firewall you use, and how it is configured
- The use of SDL Tridion's object caching
- The use of file caching (e.g. proxy caching) - this slows down performance
- The number of Content Delivery Web service requests per time unit
- The number of Content Delivery server machines
- The CPU speed, number of CPUs and number of cores of your Content Delivery server machine(s)
- The RAM of your Content Delivery server machine(s)
- The number of your Content Delivery database machines
- The CPU speed, number of CPUs and number of cores of your Content Delivery database machine(s)
- The RAM of your Content Delivery database machine(s)
- The maximum throughput rate of the hard disk of your Content Delivery database machine(s)
- The connection speed between your various Presentation Servers
- How static or dynamic your Web site is (static Web sites serve content faster)

## 1.5 Hard disk size variables for Acceptance and Production environments

Both your Content Manager and Content Delivery database servers need a hard disk that can accommodate the managed content size or published content size, respectively.

**Content Manager database**

The Content Manager database in a Production environment requires a hard disk size of 30 GB + (3 * size of managed content in bytes).

**Content Delivery database**

The Content Delivery database in a Production environment requires one of the following hard disk sizes of 30 GB + (3 * size of published content in bytes). Note that your published content size is difficult to predict because it depends on various aspects of your system:

- Amount of static content vs dynamic content
- How much of the managed content is rendered as published content (determined by your templating code and the choice of Template)
- Amount of Web sites you publish to

## 1.6 Performance measurement for Acceptance and Production

After completing your implementation of SDL Tridion and before going live, measure the performance of the various areas of your implementation in the Acceptance and Production environments to find any performance problems.

**Publishing**

The publishing area tends to be the least predictable and the most demanding area of your implementation. Many factors can impact publishing performance. Refer to the troubleshooting section for more information about these factors.

In general, a publish cycle of two minutes or less and a publishing volume of roughly 500 items per hour would be reasonable performance goals to pursue.

To identify possible performance bottlenecks in your implementation, note the following:

- In a system without any customizations, performance is typically most influenced by queuing, both on the Content Manager and Content Delivery sides. The various queues need to be fine-tuned and adjusted to each other carefully to ensure a steady publish flow, and fit the hardware set up for this purpose.
- If you customize the Content Deployer by adding custom Modules and/ or Processors, deployment may slow down noticeably, especially when these customizations interact with back-end systems.
- If you create long or complicated templating code, rendering and resolving of simple items can slow down. (Slow rendering and resolving is not always a problem: for example, a new navigation may take 10 minutes to render, but it is a rare and high-impact change to the Web site, and so will not slow down publishing overall.)

**Content Delivery**

On the presentation side, performance is often easier to predict than publishing. Use your actual or expected number of visitors and Web site load as a reference point, as well as your existing infrastructure for your Web site.

Another helpful approach is to create a reference implementation, publish a Web site and measure its performance on a single server, then extrapolate to find out how many servers you expect to need.

You can experiment with having multiple servers running side by side, or with running multiple instances of your Web and application server on the same machine.

It is recommended to run your Content Deployer on a separate server. Combining it with your Web server can harm your performance and introduce risks.

**Content Manager**

One way to measure performance is to automate GUI interaction, repeating basic steps such as opening a Page, opening a Component, modifying and saving the Component, etc, and measuring the actual duration of such operations in milliseconds.

Another way to measure performance is to have actual users interact with the product and report back on their performance experiences.

SDL Tridion has various extension points, such as the user interface, workflow and the Event System and many other parts of Content Manager. Therefore, if you have built extensions, measuring the performance impact of each of those customizations is important. To optimize performance, zoom in on performance bottlenecks by switching off various customizations you have built and examining how they affect performance.

Also, your security framework may have a noticeable impact on Content Manager performance. Be sure to test not only with an administrator account, but also with a realistic end user account.

# Chapter 2   Content Manager database prerequisites

The Content Manager requires an Oracle or Microsoft SQL Server database. This topic lists the required and supported software for the Content Manager database.

Note: The Content Manager database server runs on any operating system that supports the specific DBMS you choose to use. Refer to your database vendor documentation to learn which operating systems are supported.
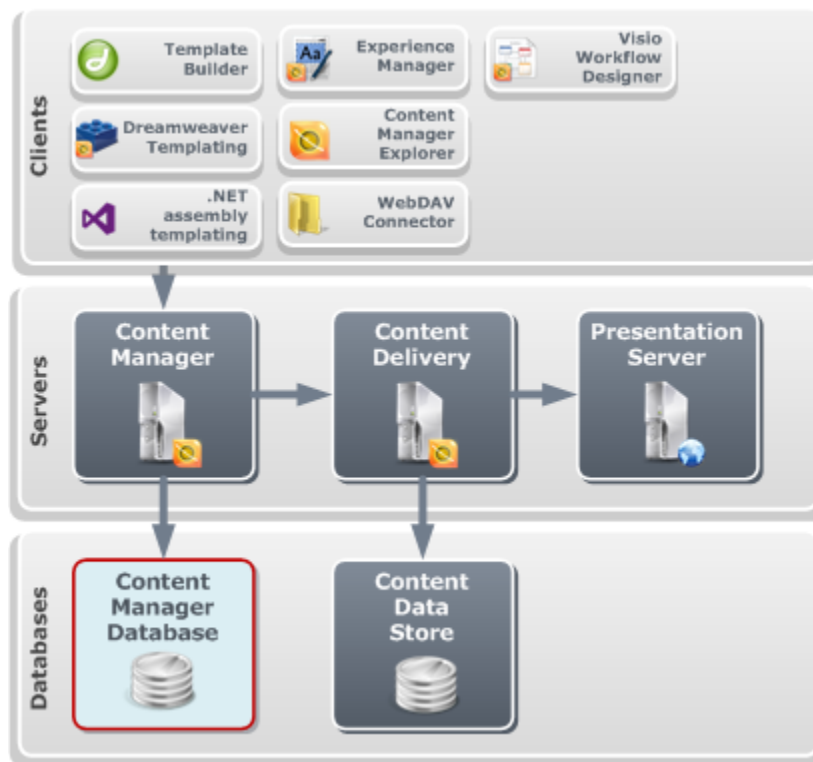


**Recommended prerequisites**

SDL recommends one of the following database servers:

- Oracle Server 11.2.0.3 with one of the following patches applied:
    - For Linux/UNIX systems: PSU 11.2.0.3.2
    - For Windows systems: 11.2.0.3 Patch 2 or higher (for Windows)
- Microsoft SQL Server 2012 SP1

**Supported Microsoft SQL Server databases**

Content Manager supports the following Microsoft SQL Server databases.

**Supported:**

- SQL Server 2012 SP1

- SQL Server 2008 R2 SP2

**Deprecated:** None

## Supported Oracle databases

Content Manager supports the following Oracle databases.

**Supported:**

- Oracle Database 11*g* Release 2 patch set 11.2.0.3 with one of the following patches applied:
    - For Linux/UNIX systems: PSU 11.2.0.3.2
    - For Windows systems: 11.2.0.3 Patch 2 or higher (for Windows)
- Oracle Database 10*g* Release 2, patch set 10.2.0.5

**Deprecated:** None

## PowerShell

To install SDL Tridion databases on a Windows machine requires Windows PowerShell 3.0 be installed on that machine.

## .NET

To install the Content Manager database on a Windows machine, Microsoft .NET Framework 4.0 or higher must be installed on that machine.

# Chapter 3  Content Manager server prerequisites

This topic lists the required and supported software for the Content Manager server. In most cases, the installer will install a supported version of the required prerequisite if missing.
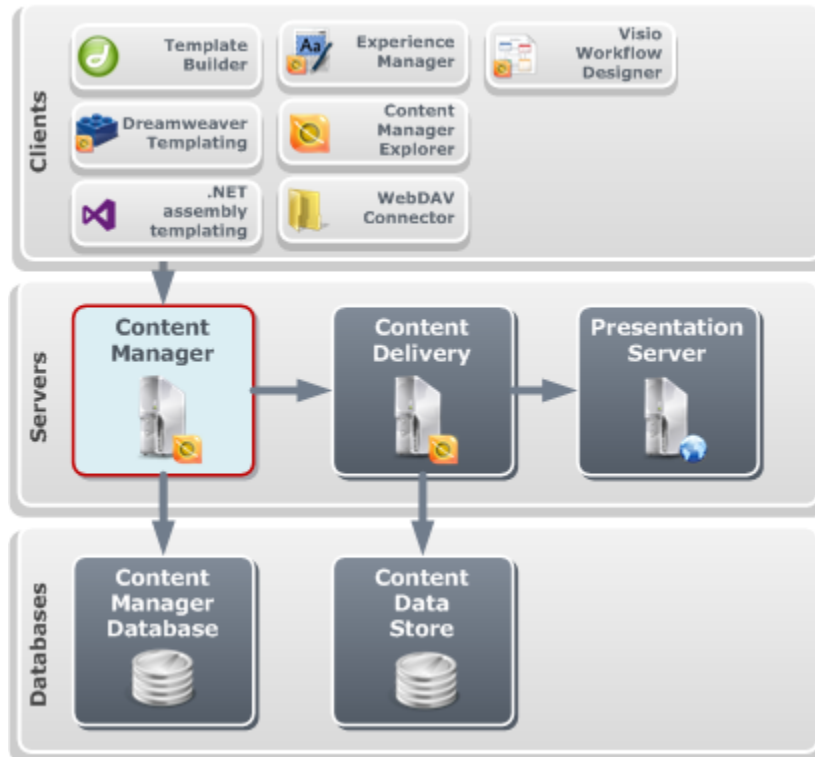


## Recommended prerequisites

SDL recommends the following set of Content Manager server prerequisites:

| Prerequisite | Recommended product release |
|---|---|
| Operating system | Microsoft Windows Server 2012 (x64) |
| Web and Application server | Microsoft IIS 8 |
| .NET Framework | Microsoft .NET Framework 4.5 |
| Java | Java SE 7.0 (64-bit) |
| Oracle Database client (if using Oracle) | ODAC 11.2.0.3 |

## Operating system languages

The operating system on which Content Manager server runs must be in one of the following languages:

- US English
- French
- German
- Spanish
- Dutch
- Japanese

Note: Related software must use the same language. For example, using a French operating system implies using a French database.

## Operating system versions and editions

The Microsoft Windows operating systems on which Content Manager server are as follows.

**Supported:**

- Windows Server 2012 (x64)
- Windows Server 2008 R2 SP1 (x64)

**Deprecated:** None

Note: The SDL Tridion installation media contains a Web page, `\Redistributables\Readme.htm`, with links to the Microsoft download pages for the Service Packs listed in the table. As a general rule, ensure that the latest updates are installed on your Microsoft Windows operating system.

**Server Roles**

Ensure that the following Server Roles are enabled:

- Web Server
- Application Server

## Database clients

Content Manager server requires a database client that connects to one of the supported databases. The database client software required depends on the operating system you use and on the DBMS you use.

**Oracle client**

If your DBMS is Oracle, you require client Oracle client software (ODAC) version 11.2.0.3.

The exact requirements depend on the architecture of your operating system.

If you are running Content Manager server on a 64-bit system, you require the following:

- The 64-bit edition of the following ODAC software components:
    - Oracle Data Provider for .NET (ODP.NET)
    - Oracle Services for Microsoft Transaction Server (ORAMTS)

- The 32-bit edition of the following ODAC software components:

    - Oracle Data Provider for .NET (ODP.NET)
    - Oracle Provider for OLEDB

The installation topics provide more details on how to install Oracle clients.

**Microsoft SQL Server client**

Microsoft SQL Server does not have any client requirements.

## Web and Application Server

Content Manager server requires one of the following Web and Application servers:

Content Delivery server role that you install as a Web application require a Web server or a Web Application Server. The following table lists the Web Servers and Web Application Servers that Content Delivery supports (your choice of Web and Application server restricts the operating systems you can use for your Content Delivery server roles):

**Supported:**

- Microsoft IIS 8
- Microsoft IIS 7.5

**Deprecated:** None

Note the following:

- You need a 32-bit compatible edition of these software components, even if your operating system has a 64-bit architecture.
- You can install the Web and Application server from the Add/Remove Programs screen in your Control Panel, by selecting Add/Remove Windows Components. In the **Add/Remove Windows Components** screen, in the **Details** screen of the item **Application Server**, you must also have the option **Enable network DTC access** checked.
- To use WebDAV, ensure that the Microsoft WebDAV Extension is *disabled* (this is the case by default).

## Third-party software components

Content Manager server requires the following third-party applications.

> Note: For all of these third-party software components, please note the following:
>
> - Unless indicated otherwise, you need a 32-bit compatible edition of these software components, even if your operating system has a 64-bit architecture.
> - The SDL Tridion installation media contains a Web page, `\Redistributables\Readme.htm`, with links to the download pages for the software listed above.

**MS XML 4.0 SP3**

If you do not install this application yourself, the installer installs it for you.

**Microsoft CAPICOM 2.0.0.1 or higher**

If you do not install this application yourself, the installer installs version 2.1.0.2 for you.

Only if you install CAPICOM yourself, register the CAPICOM assembly after installation by doing the following:

- Open a command prompt and navigate to the folder in which the CAPICOM assembly is located (this location defaults to `C:\Program Files\Microsoft CAPICOM 2.1.0.2 SDK\Lib\X86\`.
- From the command prompt, execute the following command:

```
regsvr32 capicom.dll
```

- The DLL is now registered.

**Microsoft Windows Identity Foundation**

You need Microsoft Windows Identity Foundation (x64). If you do not install this application yourself, the installer installs it for you.

**Microsoft Visual C++ Redistributable**

You need Microsoft Visual C++ 2010 Redistributable SP1 (x64). If you run the installer without having this software component installed, the installer automatically installs it for you.

## .NET Framework

Content Manager server requires one of the following .NET Framework releases:

**Supported:**

- Microsoft .NET Framework version 4.5, CLR 4.5
- Microsoft .NET Framework version 4.0, CLR 4.0

**Deprecated:** None

Note: You need a 32-bit compatible edition of these software components, even if your operating system has a 64-bit architecture.

## Java

Content Manager server requires Java for the following functionality:

- Publishing content from the Content Manager
- Searching content in the Content Manager

For publishing, Content Manager has the following Java prerequisites:

**Supported:**

- Sun Java Development Kit (JDK), 64-bit edition, version 7.0
- Sun Java Runtime Environment (JRE), 64-bit edition, version 7.0

**Deprecated:**

- Sun Java Development Kit (JDK), 64-bit edition, version 6.0
- Sun Java Runtime Environment (JRE), 64-bit edition, version 6.0

If you do not have either of these versions installed, the installer installs JRE 7.0, 64-bit edition.

For searching, Content Manager has the following Java prerequisites:

**Supported:**

- Sun Java Runtime Environment (JRE), 64-bit edition, version 7.0

**Deprecated:**

* Sun Java Runtime Environment (JRE), 64-bit edition, version 6.0

If you do not have either of these versions installed, the installer installs JRE 7.0, 64-bit edition.

## User directories

The Content Manager server supports the following user directories (it does not require either):

| User directory type | Security platform |
|---|---|
| NTLM | Microsoft Active Directory Service |
| LDAP | All LDAP-compliant security platforms<br><br>Note: LDAP is a general standard supported by, for example, Sun ONE Directory Server and Novell E-Directory. |

# Chapter 4   Content Manager Explorer prerequisites

This topic lists the required and supported software for the Content Manager Explorer browser-based interface. The prerequisites are the same as for Experience Manager .
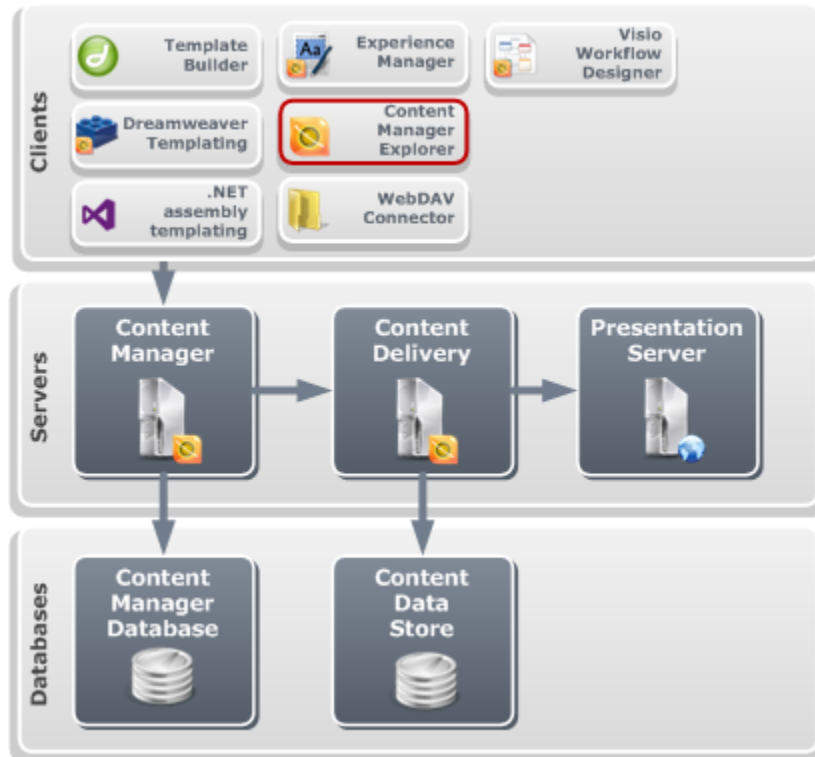


## Recommended prerequisites

SDL recommends the following set of Content Manager Explorer prerequisites:

| Prerequisite | Recommended product release |
| --- | --- |
| Operating system | Microsoft Windows 8 (x86 or x64), or Apple Mac OS X 10.8 Mountain Lion |
| Internet browser | Microsoft Internet Explorer 10.0, or Safari 6.0 for the Mac (if using Mac OS X) |

## Operating system languages

The operating system on which Content Manager Explorer runs must be in one of the following languages:

- US English
- French
- German
- Spanish
- Dutch
- Japanese

## Operating system versions and editions

**Supported:**

| OS Version | Service pack | Architecture |
|---|---|---|
| Windows 8 | n/a | x86 |
| Windows 8 | n/a | x64 |
| Windows 7 | SP1 | x86 |
| Windows 7 | SP1 | x64 |
| Windows Server 2012 | n/a | x64 |
| Windows Server 2008 R2 | SP1 | x64 |
| Apple Mac OS X 10.8 Mountain Lion | n/a | n/a |

**Deprecated:** None

Note: The SDL Tridion installation media contains a Web page, `\Redistributables\Readme.htm`, with links to the Microsoft download pages for the Service Packs listed in the table.

## Web browser

**Supported:**

- Internet Explorer 10.0 (on Windows 8 and Windows Server 2012)
- Internet Explorer 9.0 (on other Windows versions)
- Safari 6.0 for the Mac
- Google Chrome, latest version
- Mozilla Firefox, latest version

**Deprecated:** None

For information about the supported operating systems for each browser, contact the vendor of the browser you intend to use.

**Updating supported browser versions**

The list of supported Web browser versions was known and tested at the time of release. However, new Web browser versions may have been released since that time that are also supported but have not been subjected to testing. As a result, the Content Manager Explorer may display a 'browser version not supported' warning contrary to this list, or it may display no warning even though the browser version you use is not listed.

If you have not yet already done so for the user interface for context editing, change SDL Tridion's response to a specific browser version by configuring the `system.config` file:

1. Access the subfolder `WebUI\WebRoot\Configuration` of the Content Manager root location (defaults to `C:\Program Files (x86)\Tridion\`).

2. Open `system.config` in a plain-text or XML editor. The `<supportedbrowsers>` section near the top of the file contains `browser` elements for supported browser versions.

3. To stop SDL Tridion from issuing a warning for an unsupported browser version, copy and paste an existing `browser` element for an earlier version and set the set the `name` and `regExp` attributes to values that represent the supported version.

4. To make SDL Tridion issue a warning for a browser version that is no longer listed as supported, remove the `browser` element that has its `name` attribute set to the browser version you want to issue a warning for.

5. Save and close `system.config`.

6. Restart IIS.

## Licenses

To use Content Manager Explorer, you must have a license on the Content Manager server machine that explicitly licenses Content Manager Explorer.

# Chapter 5   Experience Manager client prerequisites

This topic lists the required and supported software for the Experience Manager  client. The prerequisites are the same as for Content Manager Explorer.
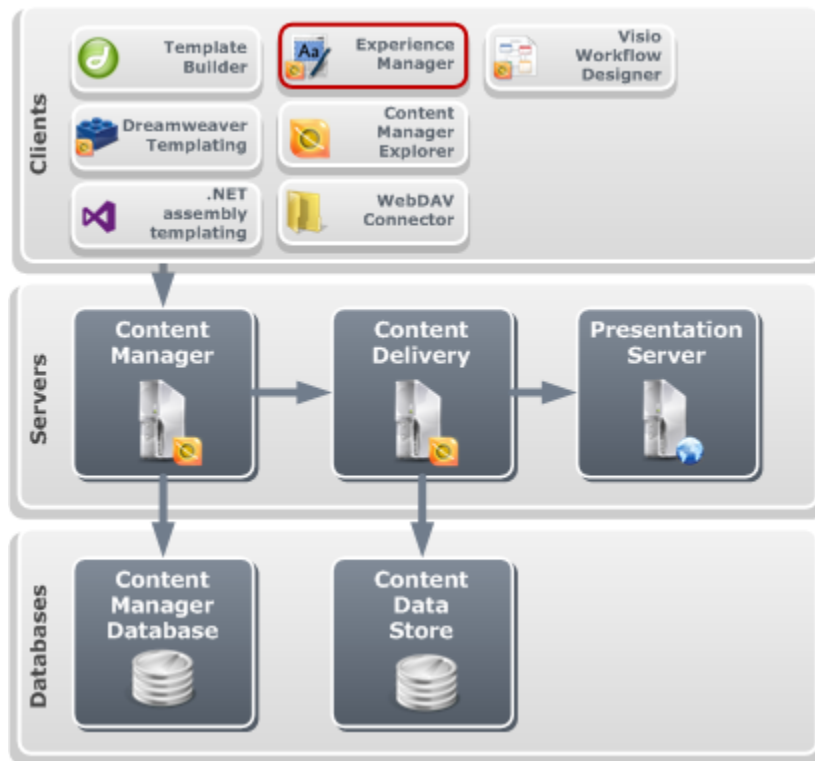


## Recommended prerequisites

SDL recommends the following set of prerequisites for Experience Manager :

| Prerequisite | Recommended product release |
|---|---|
| Operating system | Microsoft Windows 8 (x86 or x64), or Apple Mac OS X 10.8 Mountain Lion |
| Internet browser | Microsoft Internet Explorer 10.0, or Safari 6.0 for the Mac (if using Mac OS X) |

## Operating system languages

The operating system on which the Experience Manager  runs must be in one of the following languages:

- US English
- French
- German
- Spanish
- Dutch
- Japanese

## Operating system versions and editions

**Supported:**

| OS Version | Service pack | Architecture |
|---|---|---|
| Windows 8 | n/a | x86 |
| Windows 8 | n/a | x64 |
| Windows 7 | SP1 | x86 |
| Windows 7 | SP1 | x64 |
| Windows Server 2012 | n/a | x64 |
| Windows Server 2008 R2 | SP1 | x64 |
| Apple Mac OS X 10.8 Mountain Lion | n/a | n/a |

**Deprecated:** None

Note: The SDL Tridion installation media contains a Web page, `\Redistributables\Readme.htm`, with links to the Microsoft download pages for the Service Packs listed in the table.

## Web browser

**Supported:**

- Internet Explorer 10.0 (on Windows 8 and Windows Server 2012)
- Internet Explorer 9.0 (on other Windows versions)
- Safari 6.0 for the Mac
- Google Chrome, latest version
- Mozilla Firefox, latest version

**Deprecated:** None

For information about the supported operating systems for each browser, contact the vendor of the browser you intend to use.

**Updating supported browser versions**

The list of supported Web browser versions was known and tested at the time of release. However, new Web browser versions may have been released since that time that are also supported but have not been subjected to testing. As a result, the Content Manager Explorer may display a 'browser version not supported' warning contrary to this list, or it may display no warning even though the browser version you use is not listed.

To change the response to a specific browser version, configure the
`system.config` file:

1. Access the subfolder `WebUI\WebRoot\Configuration` of the Content
   Manager root location (defaults to
   `C:\Program Files (x86)\Tridion\`).

2. Open `system.config` in a plain-text or XML editor. The
   `<supportedbrowsers>` section near the top of the file contains `browser`
   elements for supported browser versions.

3. To stop SDL Tridion from issuing a warning for an unsupported browser
   version, copy and paste an existing `browser` element for an earlier
   version and set the set the `name` and `regExp` attributes to values that
   represent the supported version.

4. To make SDL Tridion issue a warning for a browser version that is no
   longer listed as supported, remove the `browser` element that has its `name`
   attribute set to the browser version you want to issue a warning for.

5. Save and close `system.config`.

6. Restart IIS.

# Chapter 6 WebDAV client prerequisites

This topic lists the required and supported client-side software to connect to the WebDAV Connector. The WebDAV Connector enables interaction with the Content Manager through a WebDAV-compliant application, such as Windows Explorer.
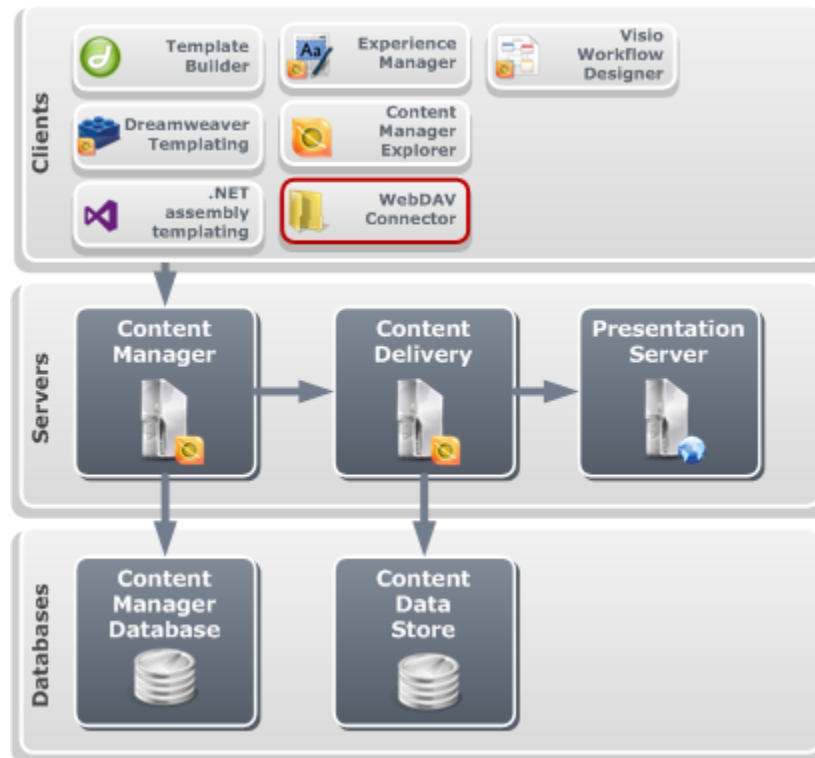


The WebDAV Connector does not require any client-side software to run, but to use it, you need any WebDAV-compliant desktop software client application, such as:

- Microsoft Office
- Adobe Dreamweaver
- Altova XML Spy

Also, the WebDAV Connector does not require any license to run, neither on a client machine nor on the Content Manager server machine.

# Chapter 7  Visio Workflow Designer client prerequisites

Required and supported software for the Visio Workflow Designer client application. Visio Workflow Designer requires no licenses at all, neither on the client side nor on the Content Manager Server.
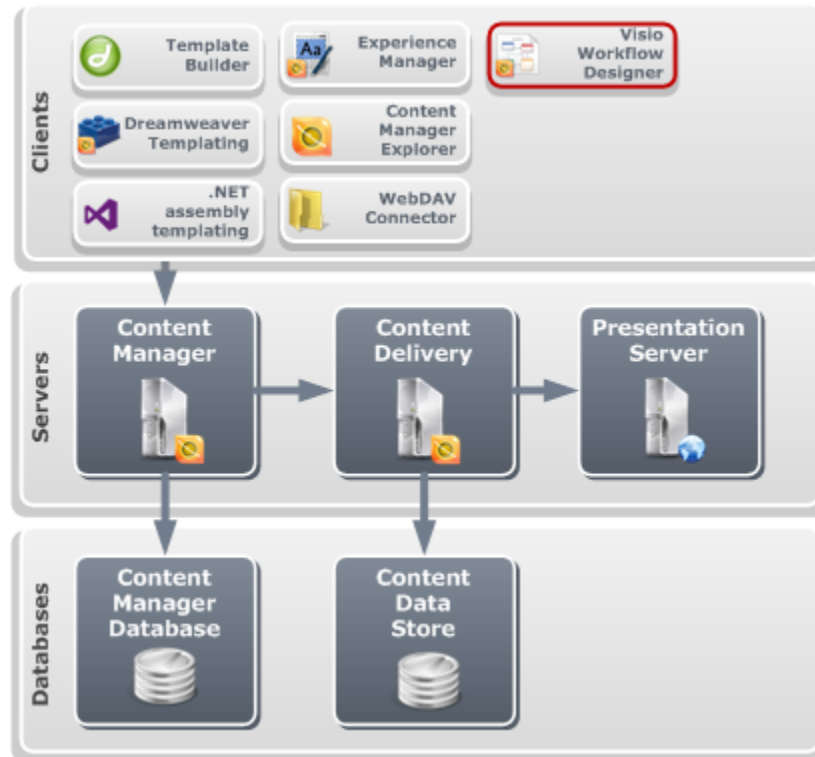


## Recommended prerequisites

SDL recommends using version 4.5 of the .NET Framework.

## Recommended prerequisites

SDL recommends the following set of Visio Workflow Designer prerequisites:

| Prerequisite | Recommended product release |
|---|---|
| Operating system | Microsoft Windows 8 (x86 or x64), or Apple Mac OS X 10.8 Mountain Lion |
| Internet browser | Microsoft Internet Explorer 10.0, or Safari 6.0 for the Mac (if using Mac OS X) |

## Operating system languages

The operating system on which Visio Workflow Designer runs must be in one of the following languages:

- US English
- French
- German
- Spanish
- Dutch
- Japanese

## Operating system versions and editions

**Supported:**

| OS Version | Service pack | Architecture |
|---|---|---|
| Windows 8 | n/a | x86 |
| Windows 8 | n/a | x64 |
| Windows 7 | SP1 | x86 |
| Windows 7 | SP1 | x64 |
| Windows Server 2012 | n/a | x64 |
| Windows Server 2008 R2 | SP1 | x64 |
| Apple Mac OS X 10.8 Mountain Lion | n/a | n/a |

**Deprecated:** None

Note: The SDL Tridion installation media contains a Web page, `\Redistributables\Readme.htm`, with links to the Microsoft download pages for the Service Packs listed in the table.

## Third-party software components

The Workflow Designer client application requires the following product:

Microsoft Visio 2010 SP1 (32-bit), English version

In addition, Workflow Designer requires:

- MS XML 6.0
- Version 4.0 or 4.5 of the Microsoft .NET Framework.

# Chapter 8  Template Builder prerequisites

The prerequisites of the Template Builder client application. Template Builder enables template developers to combine Template Building Blocks into a Template. Template Builder requires no license at all to run, neither on the client machine nor on the Content Manager server machine.
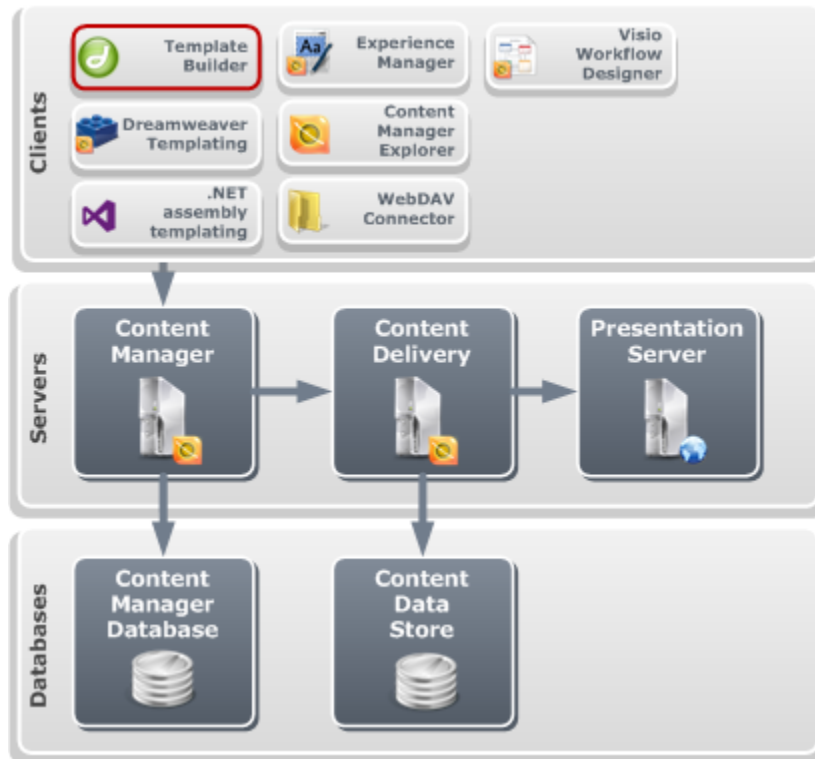


Template Builder has the following requirements:

**Operating system**

Template Builder runs on any Microsoft Windows release supported for the Content Manager Explorer client.

**.NET Framework**

Template Builder requires Microsoft .NET Framework 4.0 or 4.5 (SDL recommends .NET 4.5).
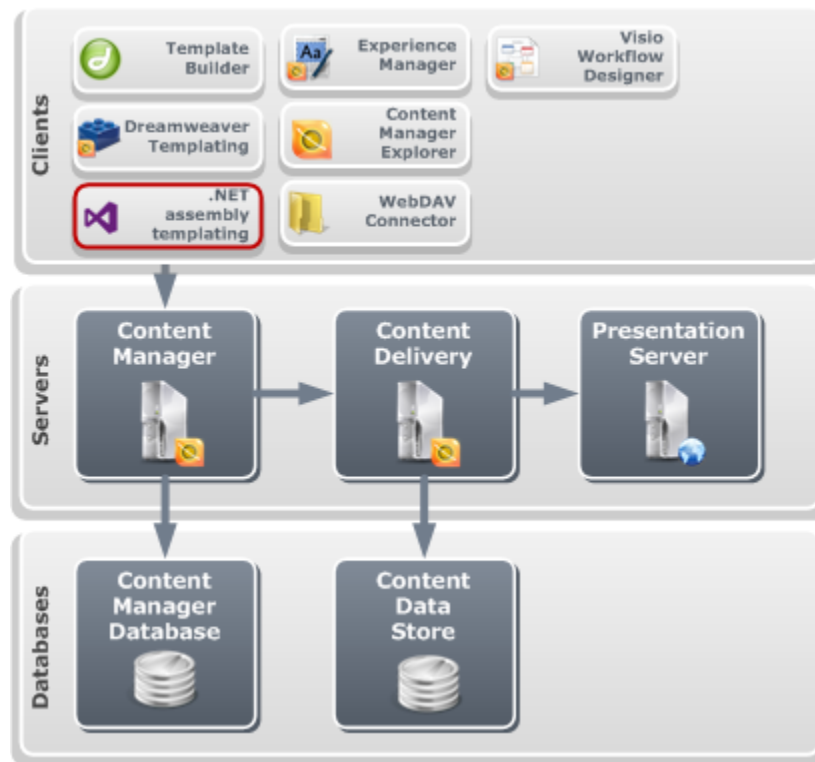
**Internet browser**

Template Builder requires one of the following Web browsers:

- Microsoft Internet Explorer 10.0 (recommended)
- Microsoft Internet Explorer 9.0

# Chapter 9 .NET assembly templating client prerequisites

This topic lists the required and supported software for creating and uploading .NET assemblies into Template Building Blocks.

You create .NET assemblies and upload them into Template Building Blocks to create parts of a Compound Template. You then use Template Builder to assemble a Compound Template from these and other Template Building Blocks.

To create the .NET assembly, the client machine requires Microsoft .NET Framework 4.0 or 4.5 (SDL recommends using version 4.5). In addition, you will probably want to use a .NET development IDE. SDL recommends using the Microsoft Visual Studio 11 environment, but any IDE that produces .NET assemblies should work.

Uploading the .NET assembly requires the executable file `TcmUploadAssembly.exe` which is placed on the Content Manager server during installation. If you want to run this upload tool client-side from Content Manager Explorer, make sure that you have that client also installed on your .NET assembly client machine.

.NET assembly templating requires no license.

# Chapter 10   Dreamweaver templating prerequisites

This topic lists the required and supported software for creating and uploading Dreamweaver Template Building Blocks into Content Manager.
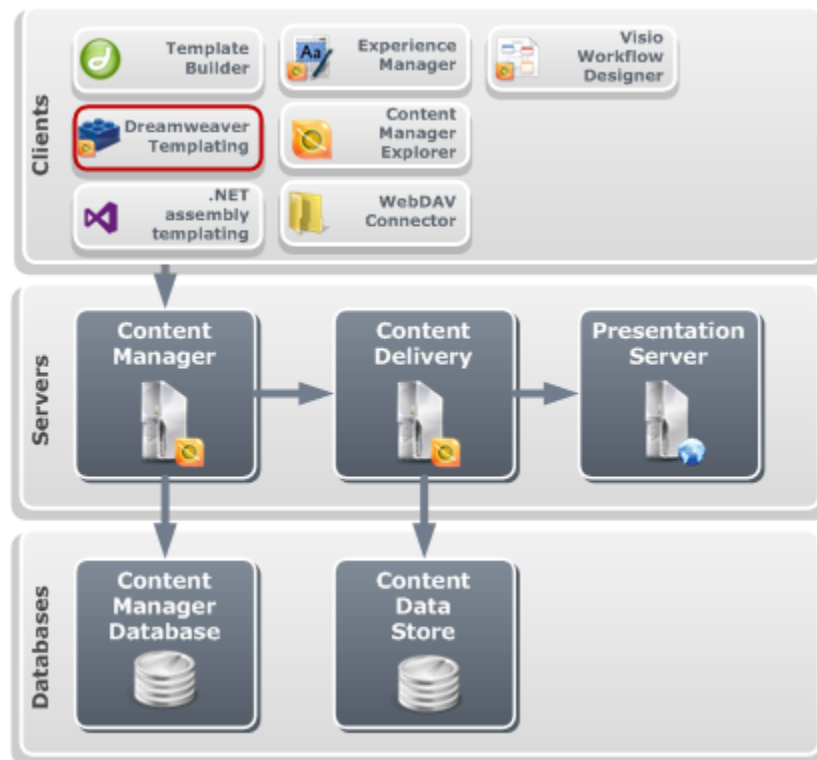


Dreamweaver templating requires one of the following versions of Dreamweaver in order to run:

- Adobe Dreamweaver CS6
- Adobe Dreamweaver CS5

Dreamweaver requires WebDAV Connector to be configured on the Content Manager server, but requires no license.

# Chapter 11    Content Data Store prerequisites

This topic lists the required and supported software for the Content Data Store where a relational database is used to store published content.
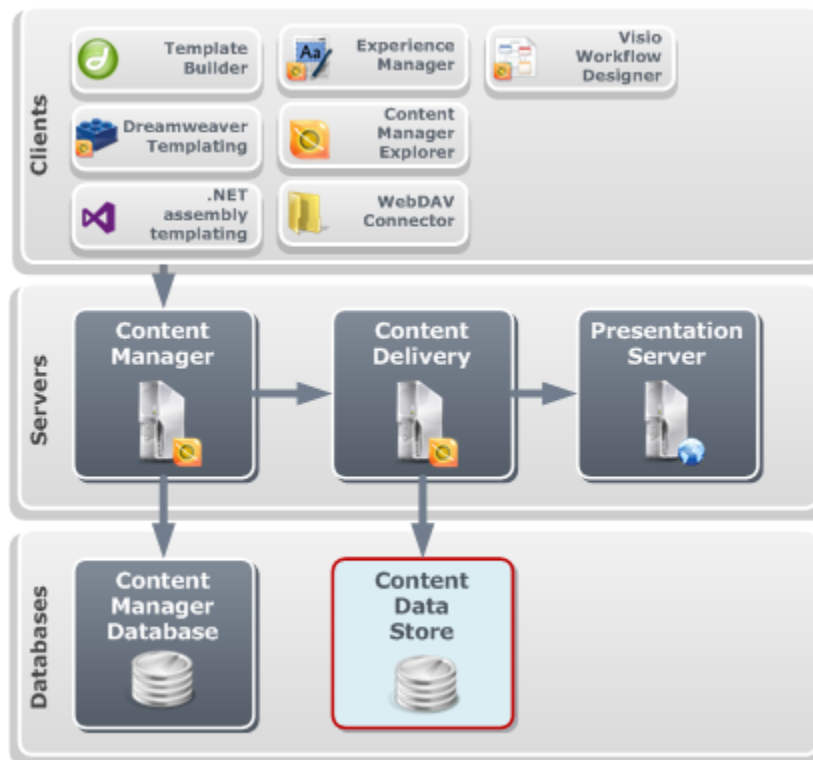


**Recommended database servers**

SDL recommends one of the following database servers:

- Oracle Server 11.2.0.3 with one of the following patches applied:
    - For Linux/UNIX systems: PSU 11.2.0.3.2
    - For Windows systems: 11.2.0.3 Patch 2 or higher (for Windows)
- Microsoft SQL Server 2012 SP1

**Supported Microsoft SQL Server databases**

The Content Data Store supports the following Microsoft SQL Server databases:

**Supported:**

- Microsoft SQL Server 2012 SP1
- Microsoft SQL Server 2008 R2 SP2

**Deprecated:** None

**Supported Oracle databases**

The Content Data Store supports the following Oracle databases:

**Supported:**

- Oracle Database 10*g* Release 2 patch set 10.2.0.5
- Oracle Database 11*g* Release 2 patch set 11.2.0.3 with one of the following patches applied:

    - For Linux/UNIX systems: PSU 11.2.0.3.2
    - For Windows systems: 11.2.0.3 Patch 2 or higher (for Windows)

**Deprecated:** None

## Supported IBM DB2 databases

The Content Data Store supports the following IBM DB2 database:

**Deprecated:**

| DB2 version | Dropped in next version release? |
|---|---|
| IBM DB2 9.7 | Under review |

The Content Data Store can reside on any operating system that supports the specific DBMS you choose to use. Refer to your database vendor documentation to learn which operating systems are supported.

You can also store published content on the local file system. However, the following Content Delivery features require a database:

- Dynamically assembling content onto a Web page through querying and filtering.
- Profiling & Personalization which enables you to track visitors and offer them personalized content.
- Intelligent navigation (taxonomies).
- Outbound E-mail (Tracking database) and Audience Manager (Subscription database)—note that IBM DB2 is not supported.
- User-Generated Content (UGC)—note that IBM DB2 is not supported.

## Licenses

If you use a relational database as a Content Data Store, your Content Delivery system requires a license. To obtain a license, contact Customer Support.

# Chapter 12   Experience Manager database prerequisites

This topic lists the required and supported software for the Experience Manager database.

**Recommended database servers**

SDL recommends one of the following database servers:

- Oracle Server 11.2.0.3 with one of the following patches applied:
    - For Linux/UNIX systems: PSU 11.2.0.3.2
    - For Windows systems: 11.2.0.3 Patch 2 or higher (for Windows)
- Microsoft SQL Server 2012 SP1

**Supported Microsoft SQL Server databases**

The Experience Manager database supports the following Microsoft SQL Server databases:

**Supported:**

- Microsoft SQL Server 2012 SP1
- Microsoft SQL Server 2008 R2 SP2

**Deprecated:** None

**Supported Oracle databases**

The Experience Manager database supports the following Oracle databases:

**Supported:**

- Oracle Database 10$g$ Release 2 patch set 10.2.0.5
- Oracle Database 11$g$ Release 2 patch set 11.2.0.3 with one of the following patches applied:
    - For Linux/UNIX systems: PSU 11.2.0.3.2
    - For Windows systems: 11.2.0.3 Patch 2 or higher (for Windows)

**Deprecated:** None

**Supported IBM DB2 databases**

The Experience Manager database supports the following IBM DB2 database:

**Deprecated:**

| DB2 version | Dropped in next version release? |
|---|---|
| IBM DB2 9.7 | Under review |

# Chapter 13  Content Delivery prerequisites

This topic lists the required and supported software for installing Content Delivery Server Roles. The prerequisites are the same for all Server Roles.
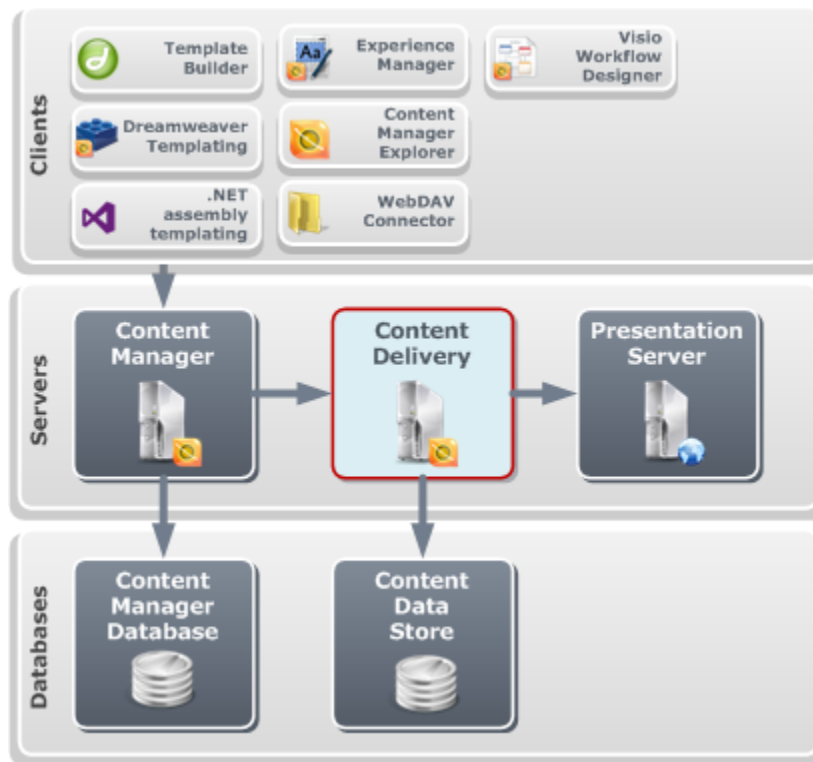


## Recommended prerequisites

SDL recommends the following set of Content Delivery prerequisites:

**Java/JSP implementation**

If you publish to Java/JSP, SDL recommends the following setup:

| Prerequisite | Recommended product release |
| --- | --- |
| Operating system | The latest version of any of the supported operating systems |
| Web and Application server | The latest version of any of the supported Web and Application servers |
| Java | Java SE 7.0 |

**ASP.NET implementation**

If you publish to ASP.NET, SDL recommends the following setup:

| Prerequisite | Recommended product release |
|---|---|
| Operating system | Microsoft Windows Server 2012 (x64) |
| Web and Application server | Microsoft IIS 8 |
| Java | Java SE 7.0 |
| .NET Framework | Microsoft .NET Framework 4.5 |

## Microsoft Windows operating systems

Content Delivery Server Roles run on the following Windows operating systems:

**Supported:**

- Microsoft Windows Server 2012 (x64)
- Microsoft Windows 2008 R2 SP1 (x64)

**Deprecated:** None

Note: The SDL Tridion installation media contains a Web page, `\Redistributables\Readme.htm`, with links to the Microsoft download pages for the Service Packs listed.

Your Windows release must be in one of the following languages:

- US English
- French
- German
- Spanish
- Dutch
- Japanese

The language of your Windows version must correspond to the language of related software. For example, using a French version of Windows requires a French database.

## Non-Windows operating systems

Content Delivery Server Roles run on the following non-Windows operating systems:

**Supported:**

| Vendor | Operating system version |
|---|---|
| Sun | Solaris 9 |
| Sun | Solaris 10 |
| IBM | IBM AIX 6.1 |
| IBM | IBM AIX 7.1 |
| Redhat | Redhat Enterprise Linux 5.9 |
| Redhat | Redhat Enterprise Linux 6.4 |

| Vendor | Operating system version |
|--------|--------------------------|
| HP | HP-UX 11i V2 |
| HP | HP-UX 11i V3 |

**Deprecated:** None

### Database client

If you intend to store published content in a database, your Content Delivery Server Role requires a database client (JDBC driver) to connect to the Content Data Store. The database client software you need depends on your database vendor:

| Vendor | JDBC Driver | Required JAR |
|--------|-------------|--------------|
| Microsoft SQL Server | Microsoft SQL Server JDBC Driver 4.0 | `sqljdbc4.jar` |
| Oracle | Oracle JDBC driver 11.2.0.3 | `ojdbc6.jar` |
| IBM DB2 | IBM Data Server Driver for JDBC and SQLJ (9.7 GA) *(deprecated)* | `db2jcc.jar` |

To download these files, access the SDL Tridion installation media and in the `Redistributables\` folder, open the Web page `Readme.htm` to see a list of links to the JDBC drivers.

### Java

Content Delivery Server Roles, including those running on a .NET Web site, require a Java Runtime Environment (JRE). The JRE can be any Java SE 7.0 or J2SE 6.0 compliant runtime environment that ships with your Web Application Server. If your Web Application Server does not ship with a JRE, install one of the Java software products listed below:

**Supported:**

- Java 7.0, bitsize 32 or 64
- Java 6.0, bitsize 32 or 64 (deprecated)

To download one of these Java releases, access the SDL Tridion installation media and in the `Redistributables\` folder, open the Web page `Readme.htm` to see a list of links to the Java releases.

To run Java on Windows, you also need the Microsoft Visual C++ 2010 SP1 Redistributable (with the same bitsize as the Java instance you intend to use), which is also accessible from that Web page.

To install a Server Role as a Windows service, you require a 64-bit JVM.

### .NET requirement

If you intend to publish ASP.NET pages on your Web site or to install any Server Role as a .NET Web application, you require one of the following .NET environments:

**Supported:**

- Microsoft .NET Framework version 4.5, CLR 4.5

- Microsoft .NET Framework version 4.0, CLR 4.0

**Deprecated:**

| .NET Framework version | Dropped in next version release? |
|---|---|
| Microsoft .NET Framework version 3.5 SP1, CLR 2.0 | Probably |

To download one of these .NET Frameworks, access the SDL Tridion installation media and in the `Redistributables\` folder, open the Web page `Readme.htm` to see a list of links to the .NET Frameworks.

## Web Servers and Application Servers

Content Delivery Server Role that you install as a Web application require a Web server or a Web Application Server. The following table lists the Web Servers and Web Application Servers that Content Delivery supports (your choice of Web and Application server restricts the operating systems you can use for your Content Delivery Server Roles):

**Supported:**

| Vendor | Name | Version |
|---|---|---|
| Apache Software Foundation | Tomcat | 6.0 |
| Apache Software Foundation | Tomcat | 7.0 |
| IBM | WebSphere | 7.0 |
| IBM | WebSphere | 8.5 |
| Microsoft | IIS (Internet Information Services) | 7.5 |
| Microsoft | IIS (Internet Information Services) | 8.0 |
| Oracle | WebLogic Server | 11*g* R1 |
| Oracle | WebLogic Server | 12c |
| Oracle | GlassFish Server | v3 |
| RedHat | JBoss Enterprise Application Platform | 5.1 |
| RedHat | JBoss Enterprise Application Platform | 6.0 |

If you use IBM WebSphere 7.0, you must also have the Feature Pack for OSGi Applications and Java Persistence API (JPA) 2.0 installed.

**Deprecated:** None

# Chapter 14   User Generated Content prerequisites

This section lists the required and supported software for the User Generated Content database.
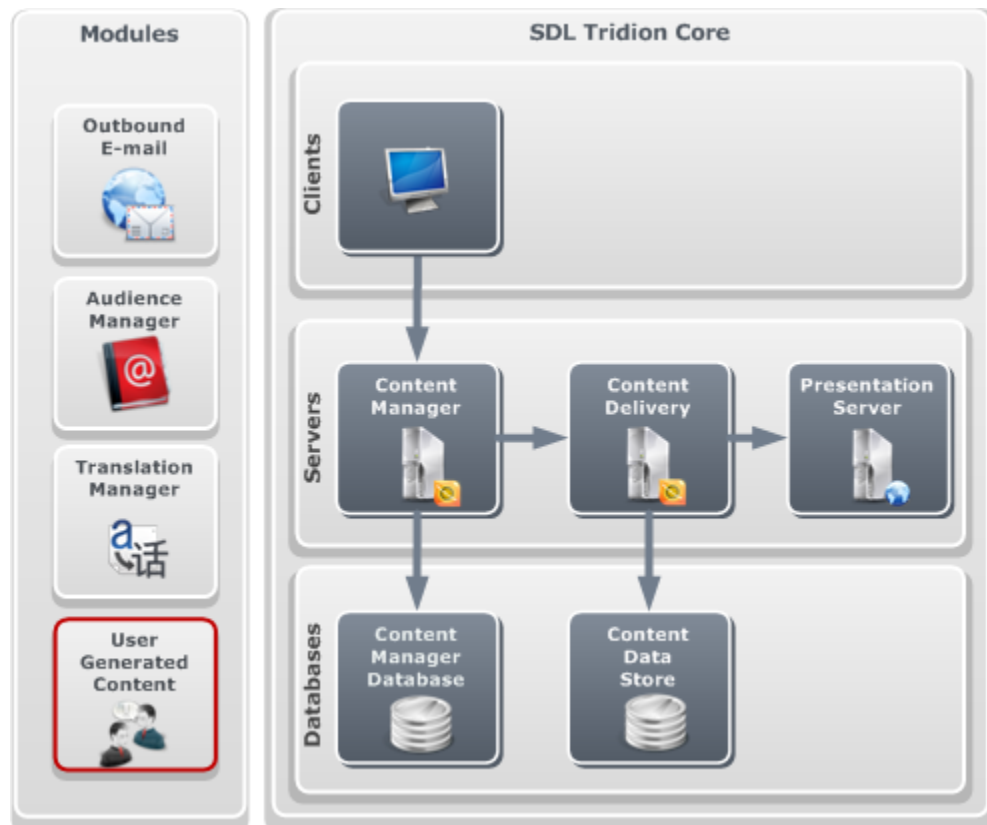


**Content Manager side prerequisites**

User Generated Content is fully integrated into the Content Manager and is installed as a part of the Content Manager installation, therefore Content Manager server prerequisites apply.

**Content Delivery side prerequisites**

User Generated Content is installed as a Server Role on the Content Delivery side of your installation, therefore Content Delivery prerequisites apply.

**Database prerequisites on Content Delivery side**

User Generated Content requires a database to store comments and ratings. The User Generated Content database supports the same Microsoft SQL Server and Oracle databases as the Content Data Store. **IBM DB2 database is not supported.**

The databases may run on any operating system that supports the specific DBMS you choose to use. Refer to your database vendor documentation to learn which operating systems are supported.

# Chapter 15  Audience Manager and Outbound E-mail prerequisites

This topic lists the required and supported software for part of the Audience Manager and Outbound E-mail systems.
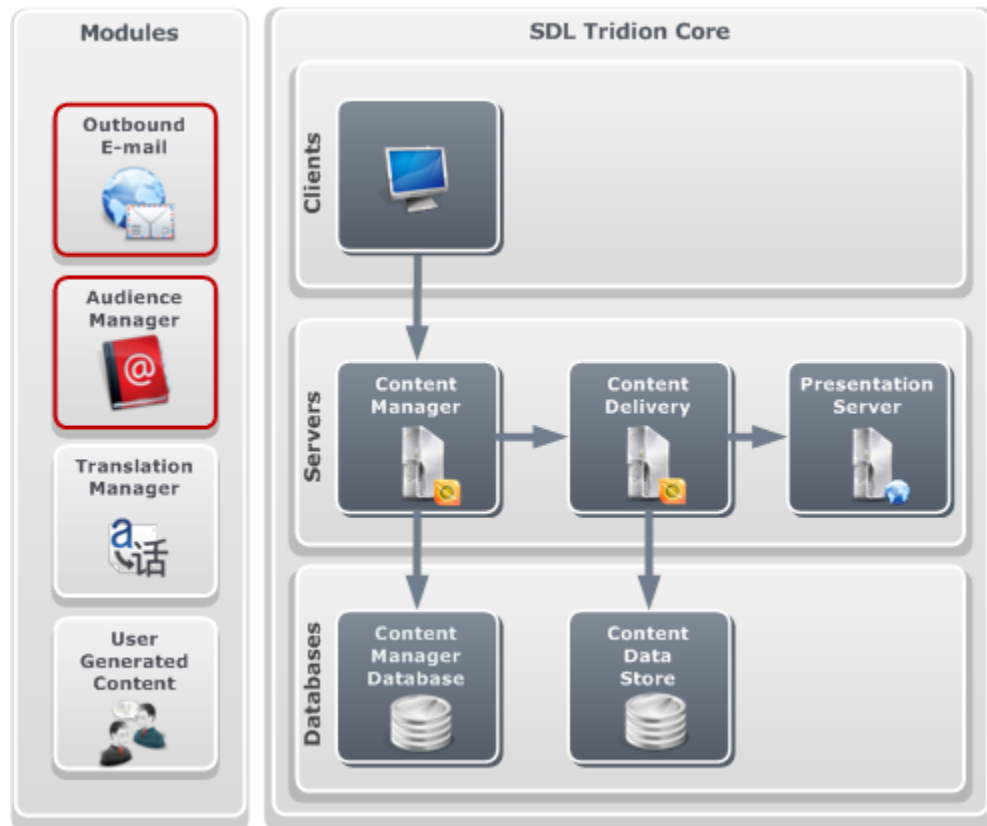


**Content Manager side prerequisites**

Audience Manager and Outbound E-mail is fully integrated into the Content Manager and is installed as a part of the Content Manager installation, therefore Content Manager server prerequisites apply.

**Database prerequisites on Content Manager side**

Audience Manager and Outbound E-mail require a database to store Contacts. The supported versions of Oracle or Microsoft SQL Server are identical to those of the Content Manager database.

Additionally, the **Oracle Database Client** must be installed with the following options:

- Oracle Database Utilities (specifically, your database client requires SQL*Loader installed)
- Oracle Windows interfaces—Oracle Data Provider for .NET 2.0

**Required third-party software**

Outbound E-mail requires a number of third-party software components to work:

- SMTP server—for sending out e-mails
- POP3 or Internet Message Access Protocol (IMAP) server—for receiving bounced messages and the like for e-mails Outbound E-mail failed to deliver

> Note: For information on how to install these third-party software items, refer to the documentation of these software packages.

**Content Delivery side prerequisites**

You install Contact Subscription (Audience Manager) and Tracking (Outbound E-mail) on the Presentation Server where your public-facing SDL Tridion-drive Web site is running, and you install Contact Synchronization and Tracking synchronization on your Content Delivery Server (or on a separate dedicated machine). These components require specific Content Delivery Server Roles installed and configured on these machines (described in the installation documentation).

Concerning the prerequisites for these machines, Content Delivery prerequisites apply.

**Database prerequisites on Content Delivery side**

Audience Manager requires a database on the presentation side to store subscriptions and changes to subscriptions, and Outbound E-mail requires a database to store e-mail responses.

The **Tracking database** and **Subscription database** support the same Microsoft SQL Server and Oracle databases as the Content Data Store. **IBM DB2 database is not supported**.

The databases may run on any operating system that supports the specific DBMS you choose to use. Refer to your database vendor documentation to learn which operating systems are supported.

# Chapter 16   Translation Manager prerequisites

This topic lists the required and supported software for Translation Manager.
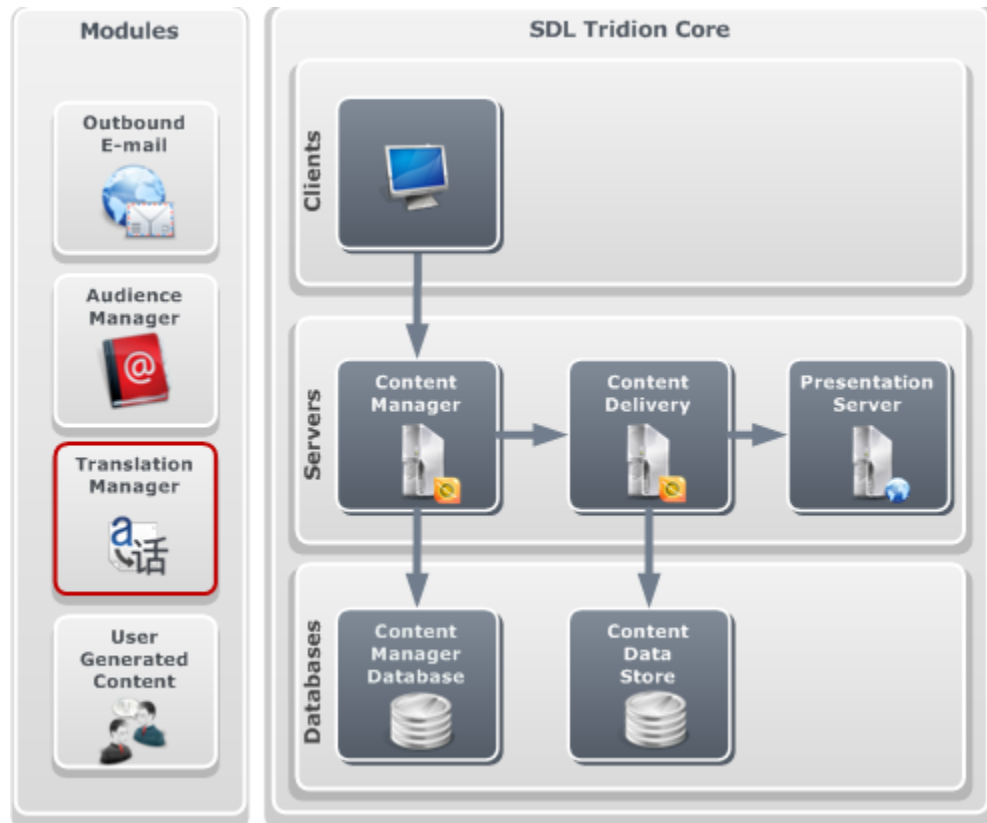


## Content Manager side prerequisites

Translation Manager is fully integrated into the Content Manager and is installed as a part of the Content Manager installation, therefore Content Manager server prerequisites apply.

## Database prerequisites on Content Manager side

The Translation Manager requires an Oracle or Microsoft SQL Server database server for storing Translation Jobs created in the Content Manager.

The supported versions of Oracle or Microsoft SQL Server are identical to those of the Content Manager database. For **Oracle**, you require in addition the Oracle XML Developer Kit installed (in a default installation, this is installed automatically). Refer to Content Manager database prerequisites (see page 9) for details.

## Translation Management system prerequisites

Translation Manager requires connection to a translation system. Translation Manager supports SDL Translation Management System (SDL TMS) and SDL WorldServer:

**SDL WorldServer**

Translation Manager supports SDL WorldServer 10.1.

**SDL TMS**

Translation Manager supports the following versions of SDL TMS:

- SDL TMS 2011 SP3
- SDL TMS 2011 SP2 (deprecated)
- SDL TMS 2007 SP4[1] (latest patch applied)

Note: [1] You can use SDL TMS version 2007 SP4 on all Translation Manager versions provided you set `compression="false"`. You configure compression in the `<TmsServer>` element in the `TranslationManager.xml` configuration file, for example:

```
<TmsServer port="80" compression="false" ssl="false">http://tridion.sdlproducts.com</TmsServer>
```