

ConSol Software GmbH

# System Requirements ConSol CM 6.16

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# 1. Architecture

**ConSol CM** is a Java EE application consisting of the following core components:

- Java EE application server
- Relational database

The reporting framework (**CMRF**) can run on the same application server or as a standalone application. It always needs a separate database schema.

**ConSol CM** provides several client applications:

- **Web Admin Suite**: web application for administrators
- **Web Client**: web application for end users, accessed using a web browser
- **CM/Track**: web application for end users, accessed using a web browser (optional)
- **CM/Archive**: web application for end users, accessed using a web browser (optional)

## 2. Server


This section describes the system requirements for the server for the newest release of **ConSol CM** version 6.16.

### 2.1 Hardware

This section describes the system requirements for the server hardware.

For a standard installation with 50 concurrent users, the following hardware is recommended:

Component	Minimum recommendation
Memory (RAM)	10 GB
Storage	10 GB
Processor	2 GHz dual core or equivalent

 Please also check the system requirements of the used middleware.

#### 2.1.1 Network Connection

This section describes the system requirements regarding the network connectivity between servers, databases and web containers.

For a standard installation with 50 concurrent users, the following network connectivity is recommended:

Component	Minimum recommendation
Network latency	< 0.5 ms
Network bandwidth	1 Gb/s

The above values refer to a network connection which is available for **ConSol CM** and does not bear significant load by other components.

In addition, the following is required:

- No virus scanner on the **ConSol CM** server
- No firewall between **ConSol CM** and the databases

If the above requirement cannot be met for any reason, it is mandatory to ensure that the virus scanner or firewall does not impair or change throughput, latency or content of the network traffic between components.

#### 2.1.2 Virtualization

**ConSol CM** supports virtual environments. The following additional system requirements apply for running **ConSol CM** in virtual environments:

- No overcommit of CPU and memory
- Sockets, CPU and hyperthreading configured consistently with the actual hardware

Performance index	Minimum recommendation
CPU latency	< 5%
VM in ready state	< 5%
Switches/s	< 100
Migrates/s	< 100

## 2.2 Software

This section describes the system requirements for the server software.

### 2.2.1 Operating System

The system requirements regarding the operating system depend on the used application server. In general, **ConSol CM** is operational as long as the requirements of the application server are met.

The following operating systems are supported:

Operating system	Support
Linux / Unix	Kernel 2.6.24 or newer
Windows	Windows Server 2012 or newer

### 2.2.2 Middleware / Application Server

**ConSol CM** is used with Java application servers for Java Enterprise Edition.

**CM/Track** can be used either in the same application server as **ConSol CM** or in a separate application server. Alternatively, it can be used in Apache Tomcat.


The following application servers with the respective Java versions are supported:

#### **ConSol CM**

Vendor	Application server version	Java version
Red Hat	<ul style="list-style-type: none"> <li>JBoss Enterprise Application Platform 7.4</li> <li>WildFly 26.1.3</li> </ul>	<ul style="list-style-type: none"> <li>Adoptium Temurin 11</li> <li>Adoptium Temurin 17</li> </ul>

#### **CM/Track**

Vendor	Application server version	Java version
Red Hat	<ul style="list-style-type: none"> <li>JBoss Enterprise Application Platform 7.4</li> <li>WildFly 26.1.3</li> </ul>	<ul style="list-style-type: none"> <li>Adoptium Temurin 11</li> <li>Adoptium Temurin 17</li> </ul>
Apache	Apache Tomcat 9.0.54 or newer	<ul style="list-style-type: none"> <li>Adoptium Temurin 11</li> <li>Adoptium Temurin 17</li> </ul>

 WildFly 26.1.3 is not supported for clustered environments.

### 2.2.3 Database

**ConSol CM** uses a relational database. The following relational database management systems are supported:

Vendor	Version	Driver
Oracle	Oracle 19c	ojdbc11 21.5.0.0
Microsoft	Microsoft SQL Server 2012, 2014, 2016, 2017, 2019, 2022 (latest patch required)	mssql-jdbc 10.2.3.jre8
Oracle	MySQL 5.6 (5.6.13 or newer), MySQL 5.7, MySQL 8	8.0.22
PostgreSQL	PostgreSQL 16.0	42.7.3

The system requirements of the used RDBMS apply. Example requirements for a standard installation with 50 concurrent users:

Component	Minimum requirement
Memory (RAM)	4 GB
Storage	50 GB, 5 GB increase per year



The necessary database storage heavily depends on the usage of **ConSol CM**. The performance of the database storage has a substantial impact on the general performance of the application. We recommend local storage for the database. If possible, use SSD drives for the temporary tablespace.

## 3. Client

This section describes the system requirements for the clients for the newest release of **ConSol CM** version 6.16. These requirements apply both to the administrators who configure the system and to the end users.

### 3.1 Hardware

This section describes the system requirements for the client hardware.

Component	Minimum recommendation
Memory (RAM)	2 GB
Processor	1 GHz
Screen resolution	1280 px width


### 3.2 Software

This section describes the system requirements for the client software.

#### 3.2.1 Operating System

The following operating systems are supported:


Operating system	Support
Linux / Unix	Linux
Windows	Windows 10 or higher


 **CM/Doc** is only supported on Microsoft Windows.


#### 3.2.2 Browser

The following browsers are supported:

Vendor	Version
Microsoft	<ul style="list-style-type: none"> <li>Microsoft Edge</li> <li>Microsoft Internet Explorer 11 (basic support only, see below)</li> </ul>
Firefox	Latest Extended Support Release (ESR) version
Apple	Safari
Google	Google Chrome

 A basic support for Microsoft Internet Explorer 11 will be provided for the Web Client and CM/Track until the next major release. The basic availability and functionality of all features is ensured as far as technically possible, but layout and smaller behavioral imperfections might exist.

 Additional administrative setup steps are required for using **CM/Doc** with Microsoft Internet Explorer and Microsoft Edge.

 Safari and Internet Explorer 11 are not supported for using the **Web Admin Suite**.

### 3.2.3 Word Processor

The following word processors are supported for the use with **CM/Doc**:

Vendor	Version
Microsoft	<ul style="list-style-type: none"> <li>• Microsoft Word 2010</li> <li>• Microsoft Word 2013</li> <li>• Microsoft Word 2016</li> <li>• Microsoft Word 2019</li> <li>• Microsoft Word Office 365</li> </ul>
Apache	Apache OpenOffice 3.2.1

### 3.2.4 Java

The following Java versions are supported for running **CM/Doc**:

Vendor	Version
Eclipse	<ul style="list-style-type: none"> <li>• Adoptium Temurin 11</li> <li>• Adoptium Temurin 17</li> </ul>



## 4. Interfaces


This section describes the system requirements for the interfaces of **ConSol CM** version 6.16. Except for the email interface, the usage of the interfaces is optional.

### 4.1 Email

**ConSol CM** can communicate with one or multiple email servers using the following protocols:

- POP3 or POP3S
- IMAP or IMAPS
- SMTP or SMTPS


For a proper operation of **ConSol CM**, at least one email server needs to be available.

 The email server is not part of the **ConSol CM** distribution.

### 4.2 Microsoft Exchange Calendar


A Microsoft Exchange calendar can be integrated into the **Web Client**. This is optional. The following versions are supported:

- Microsoft Exchange 2010
- Microsoft Exchange 2013
- Microsoft Exchange 2016

 The Microsoft Exchange server is not part of the **ConSol CM** distribution.

### 4.3 LDAP


LDAP and LDAPS can be used to authenticate users in **ConSol CM**. This is optional. If LDAP authentication is configured, the LDAP server needs to be available.

 The LDAP server is not part of the **ConSol CM** distribution.

### 4.4 Single Sign-On

Single Sign-On is supported for the **Web Client** and **CM/Track**. The following technology is used:

- OpenID Connect with Microsoft Active Directory Federation Services or Azure AD

 The Single Sign-On technology is not part of the **ConSol CM** distribution.

## 4.5 Other Interfaces

The following additional interfaces exist for accessing **ConSol CM** data and integrating **ConSol CM** with other applications. Its usage is optional.

- REST
- Webhook
- ETL

## 5. Add-ons

The following section lists the system requirements for **ConSol CM** add-ons. Only the add-ons which have different system requirements than the core ConSol CM system are included in this section.

- [CM/Archive](#)
- [CM/EBIA](#)

## 5.1 CM/Archive

This section describes the system requirements for the server running **CM/Archive**. There are no special system requirements regarding the clients.

### 5.1.1 Software

This section describes the system requirements for the server software.

#### 5.1.1.1 Operating System

The system requirements regarding the operating system depend on the database. Please see the system requirements of MongoDB at [Supported Platforms](#).

#### 5.1.1.2 Middleware / Application Server

**CM/Archive** is used with an embedded Apache Tomcat application server.

The following Java Runtime Environment is required:

- Java SE 11
- Java SE 17

#### 5.1.1.3 Database

**CM/Archive** uses a document-oriented NoSQL database.

Vendor	Version
MongoDB	<ul style="list-style-type: none"><li>• MongoDB 3.6 (Community and Enterprise Edition) - deprecated</li><li>• MongoDB 5.0.4 (Community and Enterprise Edition)</li></ul>

## 5.2 CM/EBIA

This section describes the system requirements for the server running **CM/EBIA**. There are no special system requirements regarding the clients.

### 5.2.1 Hardware

This section describes the system requirements for the server hardware.

- Memory (RAM): minimum 2 GB, recommended 4 GB.

 The required memory highly depends on the data volume and usage.

### 5.2.2 Software

This section describes the system requirements for the server software.

#### 5.2.2.1 Middleware / Application server

**CM/EBIA** uses an embedded Jetty web server.

The following Java version is required:

- Java SE 11 (OpenJDK or Oracle JRE)
- Java SE 17 (OpenJDK or Oracle JRE)

#### 5.2.2.2 Database

**CM/EBIA** uses a relational database.

Vendor	Version	Comment
The PostgreSQL Global Development Group	PostgreSQL	
Oracle	MySQL 5.7.7 or higher	Character set utf8mb4
MariaDB Foundation	MariaDB 10.2.2 or higher	Character set utf8mb4

### 5.2.3 Internet connection

**CM/EBIA** uses the enterprise version of the third-party product **Metabase**. Therefore, the **ConSol CM** system must be allowed to access the internet to validate the token which gives access to the advanced Metabase features. See <https://www.metabase.com/docs/latest/enterprise-guide/activating-the-enterprise-edition.html> for further details.