

**VECTOR** >



# **PREEvision**

## System Requirements

**Version 8.5**  
English

## **Imprint**

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# 1 System requirements

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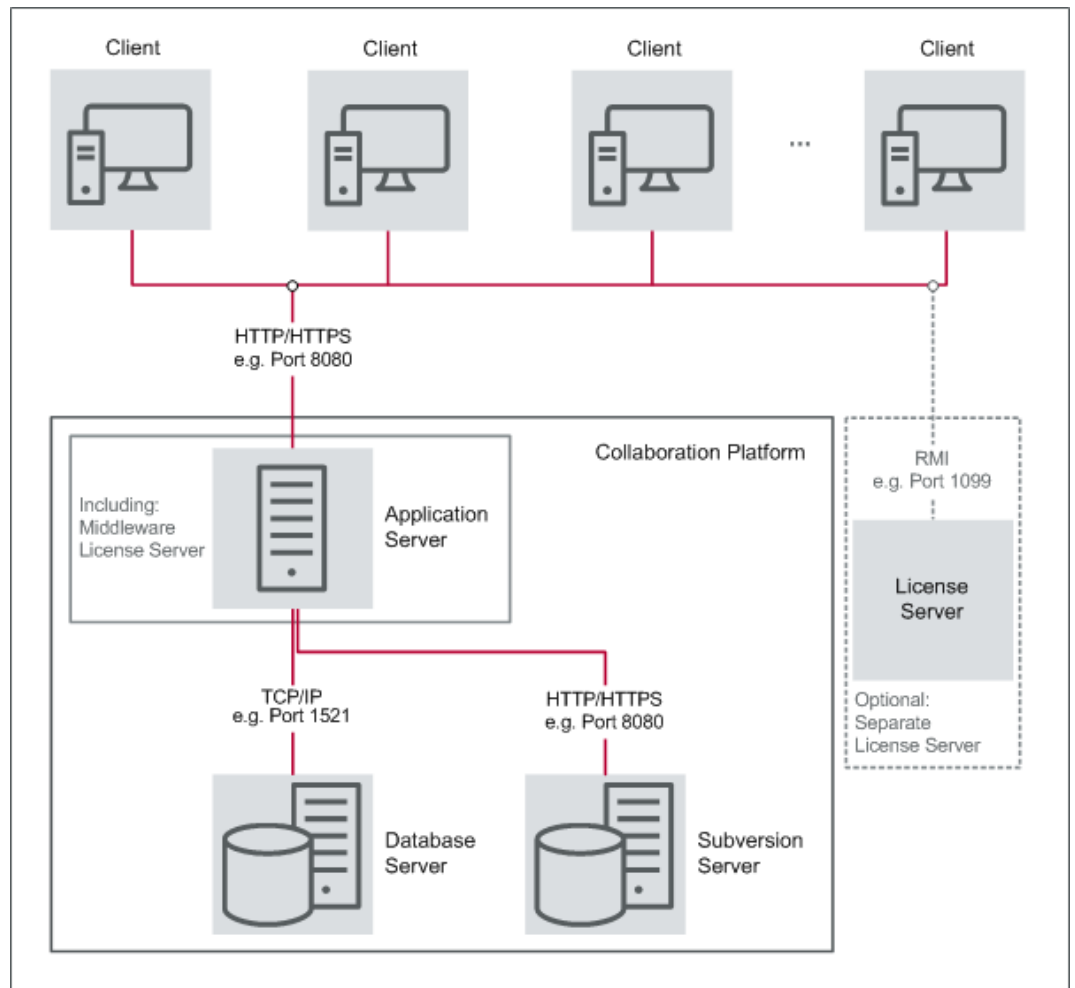


**Note:** This document specifies general hardware and software requirements for **PREEvision**. For detailed installation and configuration prerequisites, refer to the **PREEvision** operating manual.

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## 1.1 System architecture

### PREEvision Collaboration Platform



**Note:** A test environment identical to the productive environment is required for migration purposes and is recommended as fallback and for testing.

### License server

For the PREEvision Collaboration Platform, licenses are managed on a license server. The license server can either be integrated in the middleware or be installed as separate component.

When using a separate license server, RMI is used as protocol for the communication between the clients and the license server.

### HTTPS

Due to the variability of the system infrastructure, the setup of HTTPS is a complex issue and requires a customization project as well as increased installation and test efforts.

### LDAP

For the authentication via LDAP, accessing the active directory server must be possible. Due to the variability of the system infrastructure, the setup of LDAP is a complex issue and requires a customization project as well as increased installation and test efforts.

### PREEvision standalone

The PREEvision client can also be used as standalone installation. All data is then stored in local model files.

## 1.2 Client requirements

### Software requirements

<b>Operating system</b>	> Windows 7 (64-bit) > Windows 8 (64-bit) > Windows 8.1 (64-bit) > Windows 10 (64-bit)
<b>Java version</b>	> Java 1.8.0_112 (provided with client installation)
<b>Components</b>	> Microsoft Visual C++ 2010 x86 Redistributable - 10.0.40219 (provided with client installation)

### Minimum hardware requirements

<b>CPU</b>	2 GHz Dual-Core processor
<b>RAM</b>	8 GB
<b>Hard disk</b>	16 GB free space
<b>LAN</b>	100 Mbps
<b>Display</b>	1280x1024 screen resolution

### Recommended hardware requirements

<b>CPU</b>	3,6 GHz Quad-Core processor (64-bit) e.g. Intel Core I7-7700 3,6 GHz
<b>RAM</b>	16 GB
<b>Hard disk</b>	SSD, 20 GB free space
<b>LAN</b>	1 Gbps
<b>Display</b>	1920x1200 screen resolution



**Note:** The requirements may vary depending on the size of the model and the required use cases. For detailed information, please contact our support at [support@vector.com](mailto:support@vector.com). For detailed system requirements regarding backup, restore and migration use cases, please refer to the **PREEvision** operating manual.

## 1.3 Application server requirements

### Software requirements

<b>Application server</b>	> Apache Tomcat 8.5 (recommended version: Apache Tomcat 8.5.15)
<b>Java version</b>	> Java 1.8.0_112 Oracle Java Virtual Machine required
<b>Operating system</b>	> All operating systems supported by the respective application server version

### Minimum hardware requirements

<b>CPU</b>	2 GHz Quad-Core processor (64-bit)
<b>RAM</b>	32 GB
<b>Hard disk</b>	64 GB free space
<b>LAN</b>	1 x Gigabit Ethernet port

### Recommended hardware requirements

<b>CPU</b>	at least 2,8 GHz Octa-Core processor (64-bit) e.g. Intel Xeon E7-8891 v4 (10 Cores with 2,8 GHz)
<b>RAM</b>	128 GB
<b>Hard disk</b>	SSD, 128 GB free space SSD performance (peak): > 5,000 IOPS > 250 MB/s SSD performance (average): > 1,000 IOPS > 50 MB/s
<b>LAN</b>	2 x Gigabit Ethernet port (may be bonded to increase throughput)

### Virtualization

The **PREEvision Collaboration Platform** supports virtualization technologies like VMware **vSphere Hypervisor (ESXi)** or Microsoft **Hyper-V**.

For resource allocation:

- > on **ESXi**: Use the **Resource Allocation Reservation** feature.
- > in **Hyper-V**: Use the resource allocation parameters (**PowerShell** commands).

Adjust the following resources to guaranteed recommended hardware requirements:

- > CPU resources (static sockets reservation)
- > memory allocation (fixed)
- > disk resource allocation (stable IOPS)

## 1.4 Database server requirements

### Software requirements

<b>Oracle version</b>	<ul style="list-style-type: none"> <li>&gt; Oracle 12.1.0.2</li> <li>&gt; Oracle 12.2.0.1</li> </ul> (recommended version: Oracle 12.1.0.2 Enterprise Edition with Diagnostic Pack)
<b>Operating system</b>	> All operating systems supported by the respective Oracle version.



**Note:** The specified Oracle versions are only supported as long as supported by Oracle.

### Minimum hardware requirements

<b>CPU</b>	2 GHz Dual-Core or Quad-Core processor (64-bit)
<b>RAM</b>	8 GB exclusively available for the database ECC (error-correcting code) memory not necessary but optimal
<b>Hard disk</b>	RAID 1 (software or hardware)  Available hard disk size: <ul style="list-style-type: none"> <li>&gt; <b>Model tablespace:</b> 20 GB</li> <li>&gt; <b>Index tablespace:</b> 30 GB (model tablespace size + 50%)</li> <li>&gt; <b>Redo logs:</b> 1,5 GB</li> <li>&gt; <b>Undo tablespace:</b> 30 GB</li> <li>&gt; <b>Temp tablespace:</b> 1 GB</li> </ul> Especially when using hard drives with slow I/O rates, it is recommended to store the model tablespace, index tablespace and the redo logs on separate hard drives.
<b>LAN</b>	1 x Gigabit Ethernet port



Recommended hardware requirements

<b>CPU</b>	3 GHz Quad-Core processor (64-bit) e.g. Intel Xeon E7-8891 v4 (10 Cores with 2,8 GHz)
<b>RAM</b>	64 GB registered ECC memory exclusively available for the database
<b>Hard disk</b>	<p>RAID 10, SAS, NCQ (native command queuing), SSD</p> <p>SSD performance (peak):</p> <ul style="list-style-type: none"> <li>&gt; 10,000 IOPS</li> <li>&gt; 500 MB/s</li> </ul> <p>SSD performance (average):</p> <ul style="list-style-type: none"> <li>&gt; 1,000 IOPS</li> <li>&gt; 75 MB/s</li> </ul> <p>Available hard disk size:</p> <ul style="list-style-type: none"> <li>&gt; <b>Archive log space:</b> 500 GB</li> <li>&gt; <b>Model tablespace:</b> 120 GB</li> <li>&gt; <b>Index tablespace:</b> 180 GB (model tablespace size + 50%)</li> <li>&gt; <b>Redo logs:</b> 2 x 6 GB on different discs</li> <li>&gt; <b>Undo tablespace:</b> 96 GB</li> <li>&gt; <b>Temp tablespace:</b> 10 GB</li> </ul> <p>Especially when using hard drives with slow I/O rates, it is recommended to store the model tablespace, index tablespace and the redo logs on separate hard drives.</p>
<b>LAN</b>	2 x Gigabit Ethernet ports (may be bonded to increase throughput)

## 1.5 Subversion server requirements

### Software requirements

<b>Subversion version</b>	<ul style="list-style-type: none"> <li>&gt; Apache Subversion 1.8 (recommended version: CollabNet Subversion 1.8.14 with Apache Server)</li> <li>&gt; Apache Subversion 1.9 (recommended version: CollabNet Subversion 1.9.5 with Apache Server)</li> </ul>
<b>Operating system</b>	> All operating systems supported by the respective Subversion version



**Note:** There are known performance and stability problems on Windows systems.

### Minimum hardware requirements

<b>CPU</b>	1,8 GHz Single-Core processor
<b>RAM</b>	2 GB
<b>Hard disk</b>	<p>SATA 7,200 rpm, ~5 GB free space: 200 MB + estimated target size of the repository</p> <p>All files are stored in the Subversion repository. For estimating the required hard disk space, the number of files to be stored, the average file size and the number of revisions/branches per file artifact has to be considered. Due to delta storage, each new version of a file requires approximately 70% of the original file size. The required space can be estimated according to the following formula:  <math>\langle \text{number of files} \rangle * \langle \text{average file size} \rangle * (1 + (0.7 * \langle \text{number of revisions/branches per file} \rangle))</math></p>
<b>LAN</b>	1 x Gigabit Ethernet port

### Recommended hardware requirements

<b>CPU</b>	Dual-Core processor (64-bit)
<b>RAM</b>	16 GB
<b>Hard disk</b>	<p>RAID 10, SAS / SSD, ~250 GB free space: 200 MB + estimated target size of the repository</p> <p>All files are stored in the Subversion repository. For estimating the required hard disk space, the number of files to be stored, the average file size and the number of revisions/branches per file artifact has to be considered. Due to delta storage, each new version of a file requires approximately 70% of the original file size. The required space can be estimated according to the following formula:  <math>\langle \text{number of files} \rangle * \langle \text{average file size} \rangle * (1 + (0.7 * \langle \text{number of revisions/branches per file} \rangle))</math></p>
<b>LAN</b>	1 x Gigabit Ethernet port

**Restrictions**

Note the following restrictions regarding the Subversion server:

- > A separate repository has to be used for the Subversion server.
- > The connection to the repository must be established via the application server.  
Do not directly connect to the repository via a Subversion client.

## 1.6 License server requirements

### Software requirements

<b>Operating system</b>	> Windows * (32-bit or 64-bit) For the license server, a Windows service is created and started. > Linux * (32-bit or 64-bit)
<b>Java version</b>	> Java 1.8.0_112 (provided with the Windows installer of license server version 2.0.6)



**Note:** \* For detailed information about the supported Windows and Linux versions, please contact our support at [support@vector.com](mailto:support@vector.com).

### Hardware requirements

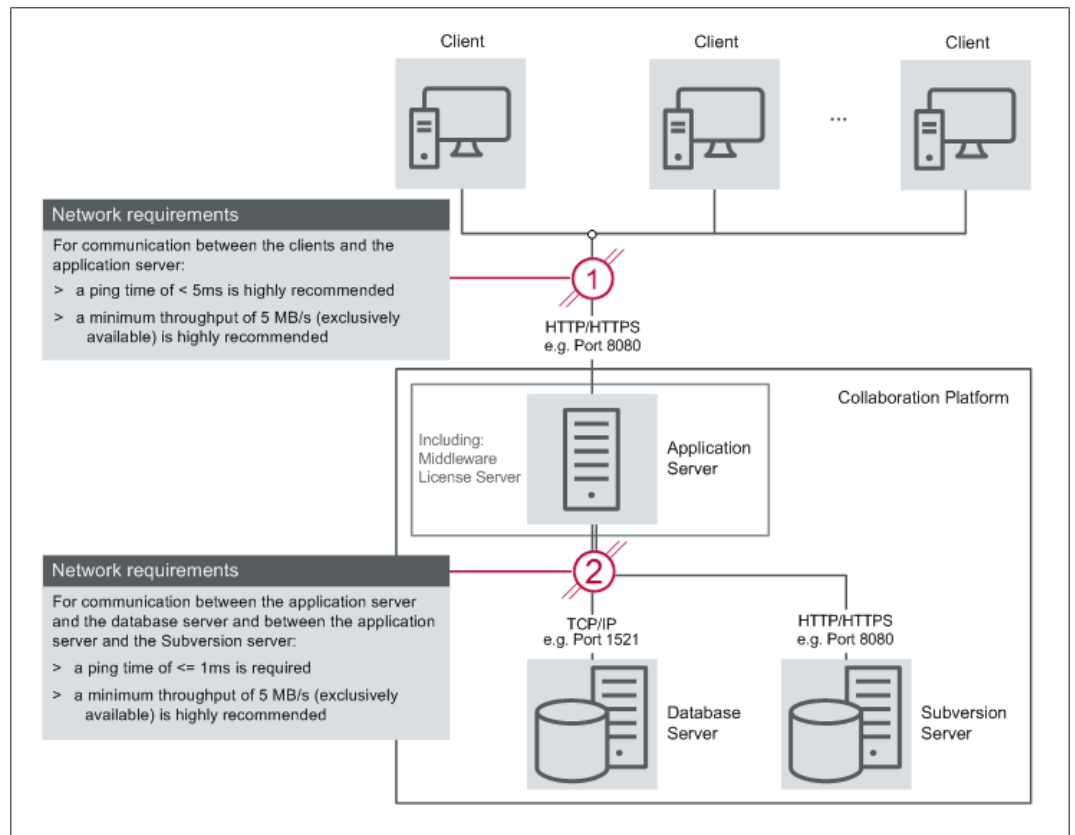
<b>CPU</b>	1 GHz
<b>RAM</b>	100 MB
<b>Hard disk</b>	Initial installation size: ca. 100 MB Log file size: maximum 10 MB Stored licenses: < 1 MB
<b>LAN</b>	1 x 100 Megabit Ethernet port

### RMI for license server

When using the separate license server, RMI is used as protocol for the communication between the clients and the license server. One standard port for the RMI communication is defined during license server installation, for example 1099. This port is only used for the initial request from the clients to the license server. Afterwards, the server assigns a new dynamic port (from the port range: 1024 to 65535) for the communication to keep the standard port available for other clients.

## 1.7 Network communication requirements

### Network communication requirements





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