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# Highstage Installation Server Requirements

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## Highstage Installation Server Requirements

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# 1. Introduction

This article introduces you to the various server requirements and/or recommendations that is needed for installing and hosting the Highstage software.

## 2. Hardware

Requirements and recommendations to Highstage server hardware and standard software that the Highstage application depends on.

### 2.1. Scope

The recommendation for hardware configurations required to run the Highstage system is twofold. The first one "*Separate Highstage server recommendations*" is meant for installations where both the web-app and the database server is installed on the same machine.

The 2nd one "*Highstage Hybrid server*" is meant for systems where the web app and the database system is installed on the same computer system. The Servers can be running in a virtualized environment, as long as minimum recommendations for Hardware is met.

### 2.2. Recommendations

Below are our recommendations for configuration of the Highstage server system. These recommendations are made to target a standard of Highstage. This includes Highstage included in a standard configuration.

For special usage of Highstage, this set of recommendation might not be sufficient, and the system requires extended hardware.

For usage, please contact the Highstage support team to obtain more precise hardware requirements.

Hosting additional application on the same server as Highstage is possible, however, make sure that enough resources are available to the Highstage server at all time.

### 2.3. Separate Highstage server

This set of instruction's is made to target systems where the Highstage Web application is not hosted on the same computer as the database utilized by Highstage.

#### Setup 1 - Web application server recommendations

No.	Component	Description
1	CPU	Dual-Core 64-Bit Processor or faster
2	RAM	8 GB RAM or more
3	Hard disk	System disk: 60GB or more (SSD Type) System disk: 80GB or more (SSD Type) Data disk: Typical 120 GB or more <sup>1</sup> .

### Setup 2 - Highstage Database server recommendations

No.	Component	Description
1	CPU	Dual-Core Ghz 64-Bit Processor or faster
2	RAM	4 GB RAM or more
3	Hard disk	For all disk used to run Highstage, Disk of the SSD Type is preferred. System disk: 80GB or more (SSD Type) Data disk: Typical 40 GB or more <sup>1</sup> .

### Setup 3 - Highstage Hybrid server with database and web application recommendations

No.	Component	Description
1	CPU	Dual-Core 64-Bit Processor or faster
2	RAM	8 GB RAM or more
3	Hard disk	For all disk used to run Highstage, Disk of the SSD Type is preferred. System disk: 80GB or more (SSD Type)Data disk: 160 GB or more <sup>1</sup> .

**Tip:** good approach to calculate hard disk size requirement is to calculate a rough estimate on the amount of information (GB) the company produce per year (use the existing file servers for the calculation) and then multiply with the expected lifetime (years) of the server.

## **3. Software**

Requirements and recommendations to Highstage server standard software that the Highstage application depends on.

### **3.1. Recommendations**

The following list is our recommendations for the configuration of a Highstage server.

The actual configuration requirements depends on a number of factors, including number of users, IT-infrastructure, available storage etc.

No	Subject	Recommendation
1	Operating system	Windows Server 2019/2022
2	OS Features	Web Server (IIS) .NET Framework 3.5 and 4.6 ASP.NET File Server Windows Search Service
3	Domain Services	Active Directory Domain Services <i>(Not required but optional on the installation machine. Should be part of the network)</i>
4	SQL Server	<p><b>SQL Server:</b> SQL server 2019/2022 for all versions. <i>(Enterprise / Standard / Express / Web are supported).</i></p> <p><b>Size:</b> Our experience is that the SQL database will increase by approximately 1MB per user/year. Highstage is storage efficient, as files are stored in a separate file server rather than in the database directly.</p> <p><b>Pricing recommendations:</b> If it is acquired, the standard SQL server requires a purchase of one license per user. As an alternative, Microsoft has a processor license with unlimited number of named users. This alternative is cost efficient when having 30 or more users.</p> <p>SQL server Express is supported with a built-in database size limitation. This limitation is 10GB for SQL-server Express. This solution should be sufficient for small to medium size companies for a number of years. Notice that Express has noticeably fewer features than the standard SQL Server.</p> <p><b>Authentication:</b> SQL Server must have *SQL Server Authentication enabled. The SQL user account used by Highstage must have full permissions (owner) for the Highstage database.</p>
5	Backup	A backup solution should be part of the IT infrastructure and procedures must be used.
6	SQL Server Management	SQL Server Management Studio (SSMS).
7	Browser	Firefox.
8	Editor	Notepad++.

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No	Subject	Recommendation
9	Packing tool	7zip.

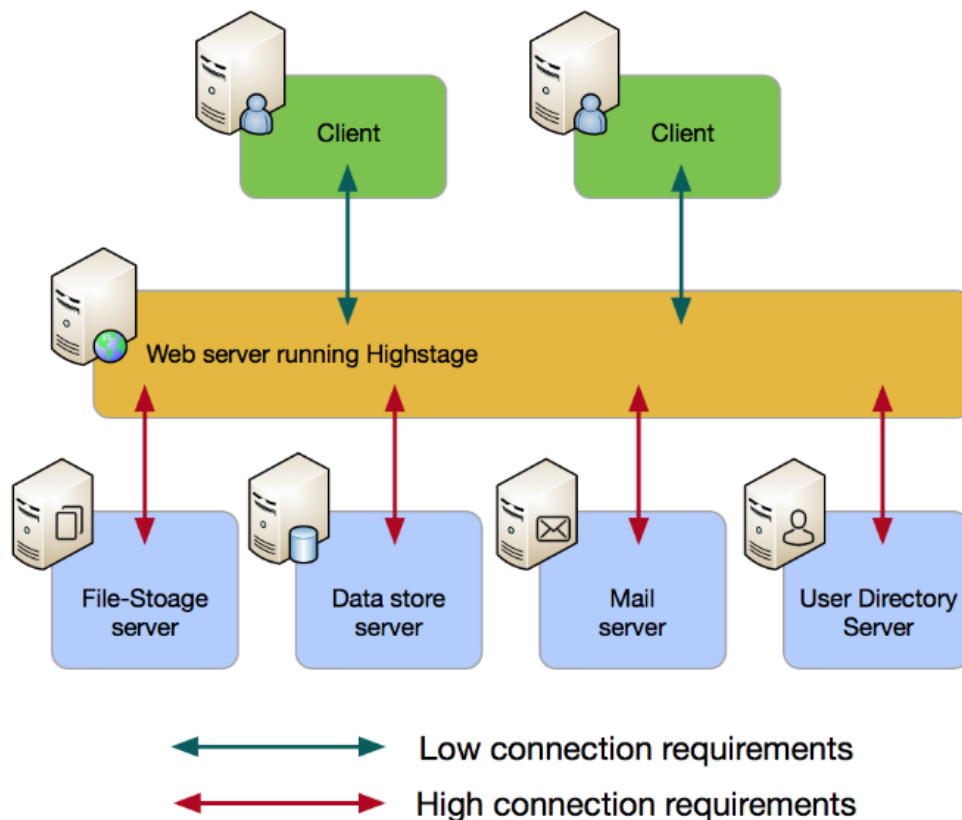
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## 4. Connection

Requirements and recommendations to Highstage server connection and dependent applications.

### 4.1. Scope

recommendation for hardware configurations required to run the Highstage system. Connections in regard to Highstage can be divided in two categories, "Low connection requirement" and "High connection requirements":



## 4.2. Recommendations

### 4.2.1. High connection requirements

Highstage is hosted on a webserver with a few dependencies to other services such as File store and database, these services can be hosted on the same machine as the Highstage installation resulting in perfect connection between the system. However, this might affect the general performance due to many services being hosted on the same system.

Alternatively these services can be hosted in individual machines. Yet such a setup require good bandwidth between the related services. This connection is specified to be 1Gbit with maximum 3ms latency between the systems.



### 4.2.2. Low connection requirements

The connection to the clients are less requiring compared to the internal system, due to the nature of clients and usage of the applications.

Clients can work from anywhere. A focus should be on ensuring a proper connection to the place where most clients are located such as offices, branches or production environments, where access might be needed.

There are no official requirements for this, however latency between clients and the webserver should be no more than 1000 ms. for a satisfying experience.



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1. Note Data hard disk size depends on how much information that will be produced. Hard disk may be extended whenever required. High performance RAIDED hard disk drives are recommended for maximum file server reliability and performance. ↔ ↔ ↔