

System Requirements

Windows Server 2012

Windows Server 2012 R2

Windows Server 2016

Base: HiScout 3.2

Date: 11.05.2020 12:43
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Valid from Version: 3.2.0

This document contains 9 pages.

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1. Introduction

This document describes the general system requirements the infrastructure has to meet, prior to installation of HiScout 3.2.

2. Installation prerequisites

2.1 Server infrastructure considerations

HiScout can be installed in two different constellations:

- ① Web, application and database on one server
- ② Web and application on one server, database on a different server

Note to 2:

If HiScout web and application are not installed on the same server as the database, the technical user (the user in who's context the HiScout windows service runs), should be a domain user with access on the web/application server and the database server.

- ▶ It is advisable that, on the web/application server, the technical user is in the group of **administrators**.
- ▶ On the database server, the technical server needs to be in role **db_owner** for the databases of HiScout and Business Logic Engine database.

2.2 System requirements (Software, Hardware)

2.2.1 Web/application server

Software (System)	Patch level
Windows Server 2012 (64 Bit)	Current Updates recommended
Windows Server 2012 R2 (64 Bit)	Current Updates recommended
Windows Server 2016 (64 Bit)	Current Updates recommended
.NET Framework	4.8

Hardware (System)	Scaling
CPU (minimum)	4 Cores
CPU (recommended)	6 Cores
RAM (minimum)	4 GB
RAM (recommended)	16 GB
HDD	20 GB free disc space

2.2.2 Database server

Software (System)	Patch level
Windows Server 2012 (64 Bit)	Current Updates recommended
Windows Server 2012 R2 (64 Bit)	Current Updates recommended
Windows Server 2016 (64 Bit)	Current Updates recommended
SQL Server 2012 ¹	<i>Note: Full text catalogs need to be installed and the server collation has to be set to Latin1_General_CI_AS</i>
SQL Server 2014	<i>Note: see SQL Server 2012</i> COMPATIBILITY_LEVEL = 110
SQL Server 2016	<i>Note: see SQL Server 2012</i> LEGACY_CARDINALITY_ESTIMATION = ON
Hardware (System)	Scaling
CPU (minimum)	4 Cores
CPU (recommended)	6 Cores
RAM (minimum)	4 GB
RAM (recommended)	16 GB
HDD	Recommended >100 GB

2.2.3 Client, Workstation

System	Patch level
Windows 8.0	Windows 8.1 is recommended
Windows 10	Current patch and hotfix level recommended
Browser	Patch level
Internet Explorer	Version 11 (without compatibility mode)
Firefox	minimum Version ESR 52.2
Chrome	minimum Version 59
Hardware	Specification
Monitor (recommended)	Resolution minimum 1280x1024

Note: JavaScript needs to be enabled.

¹ When using MS SQL Server 2012 or above, full text search in PDF documents is not supported.

Note: Popups need to be allowed.

2.3 Installation prerequisites for application and web server

- ▶ **ASP.NET 4.0** and **4.5.2** need to be installed
- ▶ Role **Web Server** need to be installed
- ▶ If you wish to use the HiScout Business Logic Engine, Message Queuing needs to be activated

2.4 Microsoft Access Database Engine 2010 Redistributable

If you want to use RiskAssessment or GSMeasures2 Plugin you will need to install **Microsoft Access Database Engine 2010 Redistributable**. Otherwise the generation of Excel-files will not be possible for those plugins.

It can be downloaded here: <https://www.microsoft.com/en-us/download/details.aspx?id=13255>.

2.5 Visual C++ Redistributable for Visual Studio 2012 Update 4

The HiScout Questionnaire Feature requires Visual C++ Redistributable for Visual Studio 2012 Update 4.

It can be downloaded here: <https://www.microsoft.com/en-us/download/details.aspx?id=30679>

3. Technical network requirements

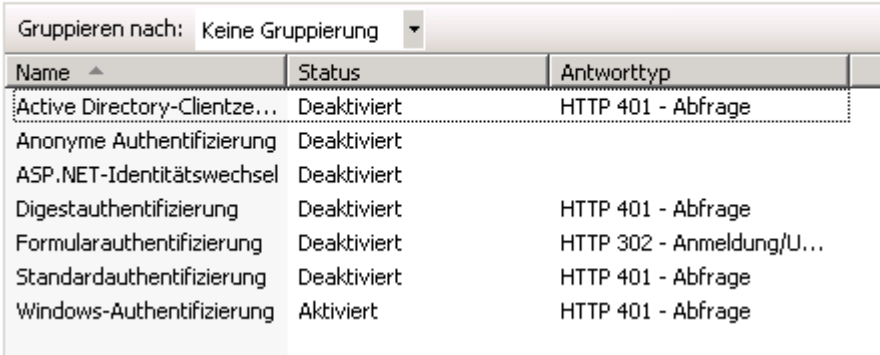
The HiScout application is designed to be used as an intranet application, though it is possible to connect it to the internet. In this case, additional security measures have to be met. To ensure data confidentiality, follow HiScout Security concept for configuring the Server. Additional problems may arise when using HiScout over slow internet connections.

Only authenticated users can access the application. For Windows family OS most common Browsers (Edge, IE, Chrome) are able to use the built in Windows authentication functions to automatically log in the user. To use this function:

- ▶ The Client Network and the Server need to be in the same or trusted domain.
- ▶ The IIS settings for “Windows-Authentication” need to be enabled.



Authentifizierung



The screenshot shows the IIS authentication settings window. At the top, there is a dropdown menu for 'Gruppieren nach:' set to 'Keine Gruppierung'. Below is a table with three columns: 'Name', 'Status', and 'Antworttyp'.

Name	Status	Antworttyp
Active Directory-Clientze...	Deaktiviert	HTTP 401 - Abfrage
Anonyme Authentifizierung	Deaktiviert	
ASP.NET-Identitätswechsel	Deaktiviert	
Digestauthentifizierung	Deaktiviert	HTTP 401 - Abfrage
Formularauthentifizierung	Deaktiviert	HTTP 302 - Anmeldung/U...
Standardauthentifizierung	Deaktiviert	HTTP 401 - Abfrage
Windows-Authentifizierung	Aktiviert	HTTP 401 - Abfrage

Picture 3.1: Authentication in IIS

Alternatively, it is possible to use Forms Authentication. In this case:

- ▶ The IIS settings for “Windows-Authentication” need to be disabled.
- ▶ The user needs to enter his/her username and password via a user form.

4. Backing up Application Data

The Application Data is stored in a database and a file folder, which location is set during the installation. The file folder can be located on a file server or web / application server.

For backing up the database, it is possible to configure a scheduled job that automatically writes the current DB state in a backup file. For the DB backup file and the application file folder standard backup policies can be applied.

Before starting any sort of application maintenance, following files should be backed up:

- ▶ The configuration file located in the root directory of HiScout Server, `HiScoutServer.exe.config`.
- ▶ The configuration file located in the root directory of HiScout web, `web.config`.
- ▶ If the configuration files of any plugins have been edited, then the corresponding `Config.xml`.

For full file paths please refer to the installation log.

5. Security measures

5.1 General

The HiScout Questionnaire and all other future developments are based on REST architecture. The plugin Questionnaire transmits sensitive data, therefore all communication between the plugin and HiScout **has to be encrypted** using SSL. If the HiScout Questionnaire is not activated, a SSL certificate is not required.

5.2 Ports

For HiScout application Ports 8085 (HiScout server) and 9090 (REST interface) are used by default. Accordingly, these ports need to be open in the firewall. If the ports are already in use, they can be changed in the configuration files.

5.3 Certificates

For the SSL encryption for HiScout Questionnaire, an encryption certificate is required. The "Certificate Authority" needs to be a valid entity; otherwise, the certificate is automatically invalid. For Test systems or internal use, the certificate can be self-signed.