

## **SIMATIC IT Interspec 6.7**

# **Interspec Server Installation Manual**

### **Installation Manual**

**Edition 01/2016**

**A5E03923296-03**

## Guidelines

This manual contains notes of varying importance that should be read with care; i.e.:

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### Important

Contains essential information regarding handling the product, the product itself or a specific part of the documentation.

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**Note** Provides supplementary information regarding handling the product, the product itself or a specific part of the documentation.

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## Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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# Preface

## Where is this manual valid?

This manual is valid for release 6.7 of SIMATIC IT Interspec.

## Basic knowledge required

This guide is intended for SIMATIC IT Interspec users who are responsible for system configuration, such as application managers and system integrators (consultants). To be able to understand the concepts and examples discussed in this guide, the reader should at least have taken the SIMATIC IT Interspec Basic Training.

## Purpose

This Installation Manual describes the installation procedures for the Simatic IT Interspec server database.

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### Important

This guide does not intend to describe the user interaction or concepts of Interspec.

For more information about related concepts, please see the Related Documentation section.

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## Related documentation

The following documentation illustrates concepts related to / the understanding of which is a prerequisite to using Simatic IT Interspec:

Document	Content
User Interaction in the C_S Application	The user interaction in the Simatic IT Interspec application

These documents are all available online from the SIMATIC IT Documentation Library, a comprehensive and user-friendly interface for accessing overall product documentation.

Depending on the operating system you are using, the SIMATIC IT Documentation Library can be accessed in one of the following ways:

- For Windows Server 2008: Select **Start > All Programs > Siemens Automation > SIMATIC > SIMATIC IT > SIMATIC IT Documentation**.
- For Windows Server 2012: On the **Start** screen, click the arrow in the lower-left corner to access the **Apps** view. Under the **Siemens Automation** category, click the **SIMATIC IT Documentation** link.

In addition, we strongly suggest that you consult the Release Notes, which come provided with the installation and contain information on upgrade procedures and compatibility with previous releases. The Release Notes are supplied both in standard text (**ReadMe.wri**) and in Acrobat PDF (**ReadMe.pdf**) format.

The ReadMe file is available in the SIMATIC IT Documentation Library, as well as in folder \ReleaseNotes of the setup DVD.

## **SIMATIC IT Training Center**

Siemens DF PL DER MOM offers a number of training courses to familiarize you with the SIMATIC IT product suite. To successfully achieve this goal, training consists of lessons in both theory and practice.

Courses are held year-round, according to a program that is published well in advance of the first scheduled session.

The material on the basis of which our courses are conducted reflects the result of years of experience in process, LIMS, quality control and production management.

All courses are held by expert personnel that are aware of the developments and innovations in the Siemens DF PL DER MOM product suite.

Courses are held in English at the Siemens DF PL DER MOM Training Centers.

Upon request, training courses can also be organized on the customer's premises.

For more information on the training course calendar, please visit our technical web site

(<http://www.automation.siemens.com/mcms/mes/en/serviceandsupport/valueaddedservices/Pages/Default.aspx>) or our SIMATIC IT Club (<https://mes-simaticit.siemens.com/res/html/>).

## **SIMATIC IT Service & Support**

A comprehensive Software Maintenance program is available with SIMATIC IT products. Software Maintenance includes the following services:

- **Software Update Service (SUS):** automatic distribution of upgrades and service packs
- **Technical Support Service (TSS):** support on technical problems with SIMATIC IT software (standard support and other optional services)
- **Online Support:** a technical web site, providing information such as Frequently Asked Questions and technical documentation on SIMATIC IT products

### **Software Update Service (SUS)**

This service provides automatic shipment of new SIMATIC IT Product software versions and Service Packs when released. When a new version / service pack is available for shipping, it is typically shipped within one month.

One copy of the installation DVD is shipped for each Server covered by Software Maintenance.

Hot fixes (officially tested and released) are not shipped and must be downloaded from the Technical Support Service Web site.

### **Technical Support Service (TSS)**

Siemens provides a dedicated technical support team for SIMATIC IT products.

The following options are available:

Bronze support: 9 hours/day, 5 days/week

Silver support: 24 hours/day, 5 days/week

Gold support: 24 hours/day, 7 days/week

The principal language of the SIMATIC IT hotline is English.

SIMATIC IT partners and customers covered by the Software Maintenance program are entitled to direct access to the TSS.

## Access to the TSS

To be able to access the TSS, the customer needs to register as a user on the Technical Support Web site. Connect to <https://mes-simaticit.siemens.com/tss/RestrictedSupportServices.html> and then click the **Register for your very first time** link.

The registration form must be completed with:

- Personal data
- The required company and plant information
- The Contract Number provided by Siemens Back Office when the contract is agreed.

## Online Support

A customer who is a registered TSS user, can access the Technical Support Web site (<https://mes-simaticit.siemens.com/tss/login2.html?page=home.html>), which contains technical information such as:

- Service conditions (Phone numbers, Working hours, Reaction times, etc.)
- SIMATIC IT knowledge base: a technical support database that includes practical service solutions from the Technical Support or the SIMATIC IT community
- SIMATIC IT software (e.g. hot fixes, software examples) and release notes that can be downloaded
- SIMATIC IT cross-industry libraries that can be downloaded (limited access to SIMATIC IT certified partners)
- SIMATIC IT product documentation that can be downloaded
- Frequently Asked Questions and useful tips.

# 1 Server Installation

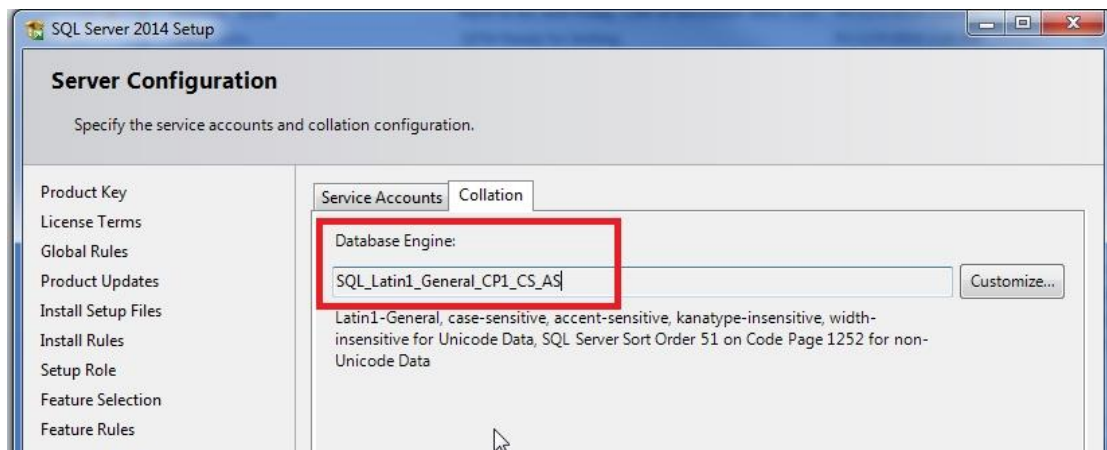
## 1.1 Prerequisites

The following prerequisites must be met before installation:

### 1. Collation Setting

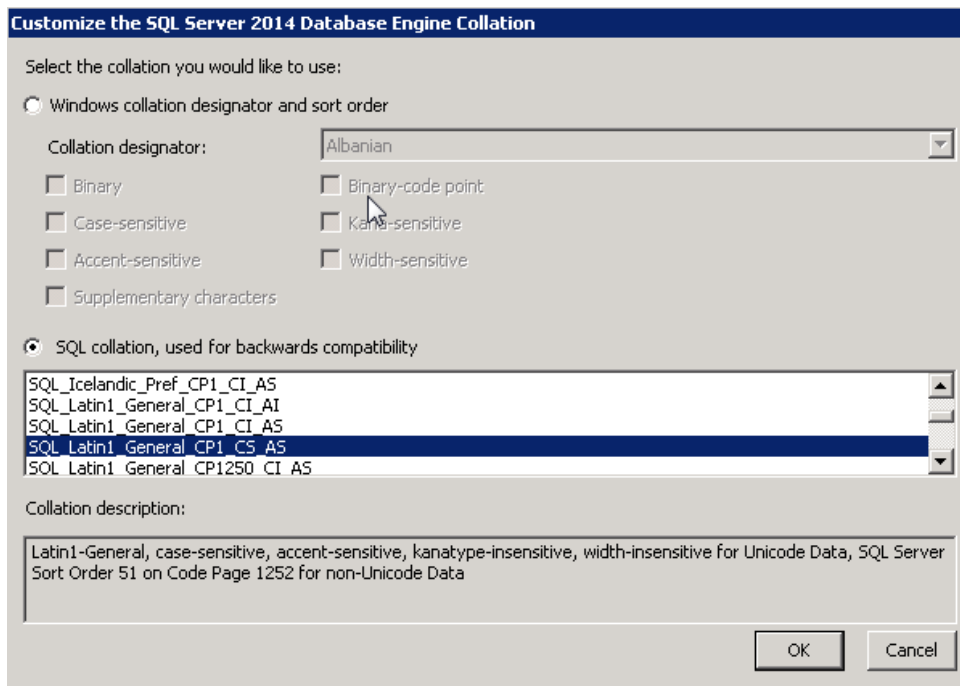
When the SQL instance is created, the collation parameter needs to be set to *SQL\_LATIN1\_General\_CP1\_CS\_AS*.

This is done in the **Server Configuration** step > **Collation** tab.



In the **Database Engine** field, press **Customize**.

Set the collation parameter in the **Customize the SQL Server 2012 or SQL Server 2014 Database Engine Collation** window:



**2. SQL native client 2005 must be installed for the PowerBuilder modules.**

**3. The following .dlls must exist at the given location for integration with .NET installation:**

- For x86 OS:
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\Accessibility.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.DirectoryServices.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Runtime.Serialization.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Drawing.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Runtime.Serialization.Formatter.Soop.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Windows.Forms.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Xaml.dll; C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Runtime.DurableInstancing.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\SMDiagnostics.dll
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Configuration.Install
  - C:\Windows\Microsoft.NET\Framework\v4.0.30319\System.Messaging
- For x64 OS:
  - C:\Windows\Microsoft.NET\Framework64\v4.0.30319\Accessibility.dll
  - C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.DirectoryServices.dll



- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Runtime.Serialization.dll
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Drawing.dll
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Runtime.Serialization.Formatter.SSoap.dll
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Windows.Forms.dll
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Xaml.dll  
C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Runtime.DurableInstancing.dll
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\SMDiagnostics.dll
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Configuration.Install
- C:\Windows\Microsoft.NET\Framework64\v4.0.30319\System.Messaging

## 1.2 Introduction

This chapter describes the installer application and the installation procedures of a production database.

The installer creates a database for you. Also, it creates a number of scripts that need to be run separately on the server machine, on an existing database. This procedure is the same, regardless of the operating system of your server.

The section **Production Server** covers all supported environments and must be executed by an SQL DBA with the assistance of the local system administrator. This section is recommended for the creation of operational databases.

## 1.3 Installer Prerequisites and Options

### 1.3.1 Prepare Environment

To install a production server you need the following:

- A Windows PC with a supported Windows Server 2008 or later, x64 operating system;
- The installer will run on a host with SQL Server 2012 or 2014, on 64 Bit systems;
- Enough disk space on one logical drive to create the database files (6 GB for Microsoft SQL Server);
- A supported version of Microsoft SQL Server software;
- Windows service "Distributed Transaction Coordinator" must be started and Startup type must be set to "Automatic";

- Windows feature: "Microsoft Message Queue (MSMQ) Server" and all its dependencies must be turned on (Control Panel – Programs – Turn Windows Features on or off);
- Set the correct variables in Config.txt file, as follows:

**SERVER:** The server name where the database is/will be installed

**INSTANCE:** The instance name. If there is Default Instance, SERVER is enough

**USER:** UserName. We strongly recommend to use "sa" on database creation, and "RnDAdmin" for others options.

**PASSWORD:** sa Password

**DB:** Database name

**dbLogPath:** Path to the database log file (LDF file)

**dbDataPrimPath:** Path to database MDF file

**dbAssemblPath:** Path to the folder where setup will copy the .dll files needed for the "Integration with .Net setup" feature

**dbDataPath:** Path to database NDF files;

**HostForBackgroundService:** The name or IP address of the machine host for BackgroundService

**dbDemoDataPath:** The path to the demo database backup to be restored

For reference see the **ConfigTemplate.txt** from the Installer root directory.

E.g.: SERVER=WIN-RHIHIJPM3E3\POKSERV2

INSTANCE=p67SQL3

USER=sa

PASSWORD=zaq12wsx!

DB=p67SQL3

dbLogPath=C:\\Database\\p67SQL3\\log\\

dbDataPrimPath=C:\\Database\\p67SQL3\\data\\

dbAssemblPath=C:\\Assemblies\\

dbDataPath=C:\\Database\\p67SQL3\\data2\\

HostForBackgroundService=192.168.119.180

dbDemoDataPath=C:\\Users\\Administrator\\Desktop\\k  
its\\SQL Server.Net Installer\\Production  
database\\11 Import Data\\Demo\\

- The installer program and its subfolders.

The supported versions are described in the Interspec **Prerequisites** document.

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#### Note

Interspec does **not** support more than one database in the same server instance.

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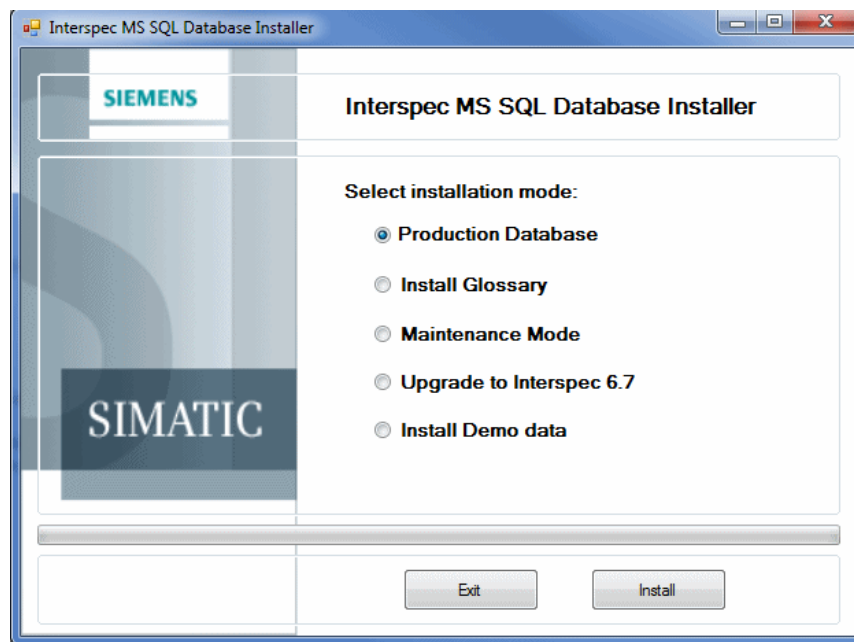
### 1.3.2 Running the Installer

You can find the installer on the product DVD, in the folder: <<DVD>>\DB  
**Server\SQLServer.Net.zip**.

You will need to copy the **SQLServer.Net.zip** to another location (your local drive) and extract the package. Make sure that none of the files in the folder are read-only.

### 1.3.3 Installer Options

Run the **IS SQLServer.exe** from the Installer folder as Administrator. The following window will open:



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#### Note

After running the Installer, for more information about installation process, errors, etc., please check the **Log** folder that can be found inside the Installer folder.

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#### 1.3.3.1 Production Database

Select option **Production Database**. This Installer option will:

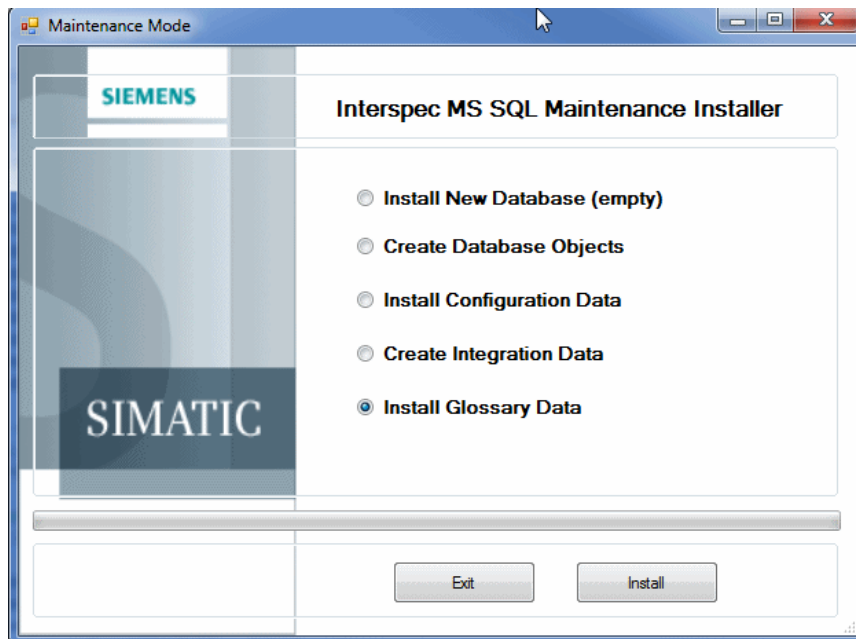
- Create a new Microsoft SQL Database;
- Create DB Objects (Tables, Views, Constraints, Functions, Indexes, TVPs, Procedures, Triggers);
- Create Configuration Data;
- Create Integration with .Net.

### 1.3.3.2 Install Glossary

If option **Install Glossary** is selected, it will install the glossary data on an existing Microsoft SQL database (specified in **Config.txt**).

### 1.3.3.3 Maintenance Mode

If option **Maintenance Mode** is selected, then the Installer will show a new window containing different installation options: *Maintenance Options*:



#### Maintenance Options description:

- **Install New Database (empty)** – will only install a new empty Microsoft SQL database, using parameters from the **Config.txt** file;
- **Create Database Objects** – will only create database objects in an existing Microsoft SQL database (specified in the **Config.txt**);
- **Install Configuration Data** – will only install configuration data in an existing Microsoft SQL database (specified in the **Config.txt**);
- **Create Integration Data** – will only install Integration with .Net scripts on an existing Microsoft SQL database (specified in the **Config.txt**);
- **Install Glossary** – will only install Glossary data on an existing Microsoft SQL database (specified in the **Config.txt**);

Press **Exit** to leave the **Maintenance Mode Installer** and return to the previous Installer window.

### 1.3.3.4 Upgrade to Interspec 6.7

For upgrade instructions, please see section [Server Upgrade](#).

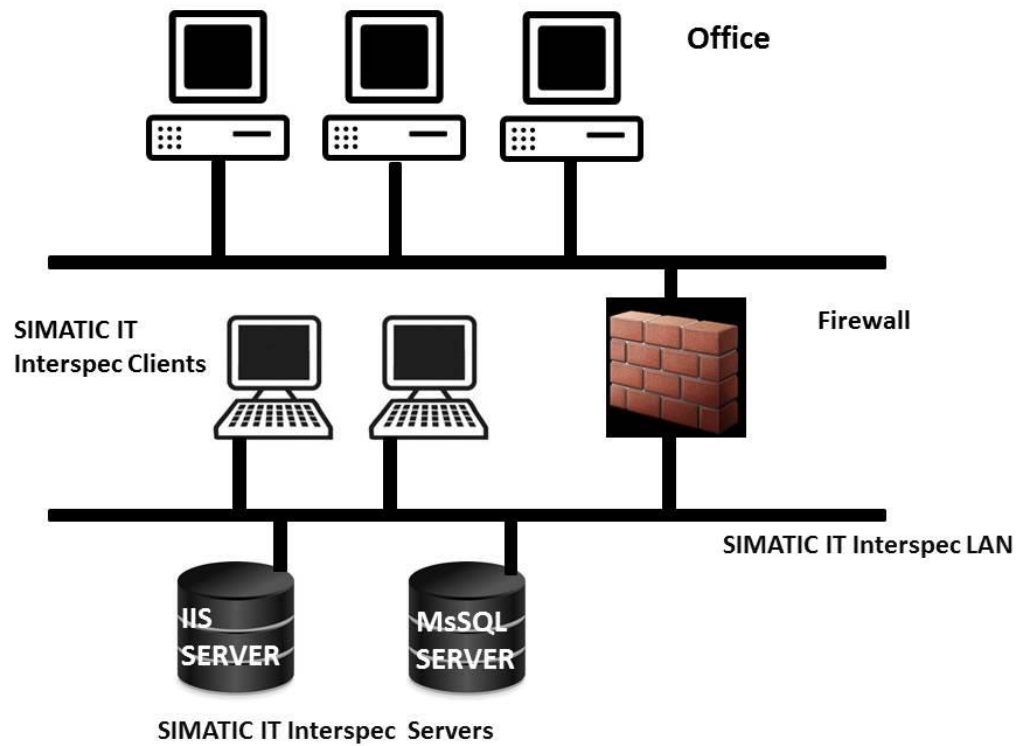
### 1.3.3.5 Install Demo data

This Installer option will create a new Interspec 6.7 production database with some demo data inside, using parameters from the **Config.txt** file.

## 1.4 Networking and Communication Security

### 1.4.1 Simatic IT Interspec Servers and Clients on the same LAN

In the SIMATIC IT Interspec network, security is guaranteed by the fact that every client module must present the logged user's credentials to the server module before requesting any action.



### 1.4.2 Simatic IT Interspec Servers and Clients on LANs with Firewalls

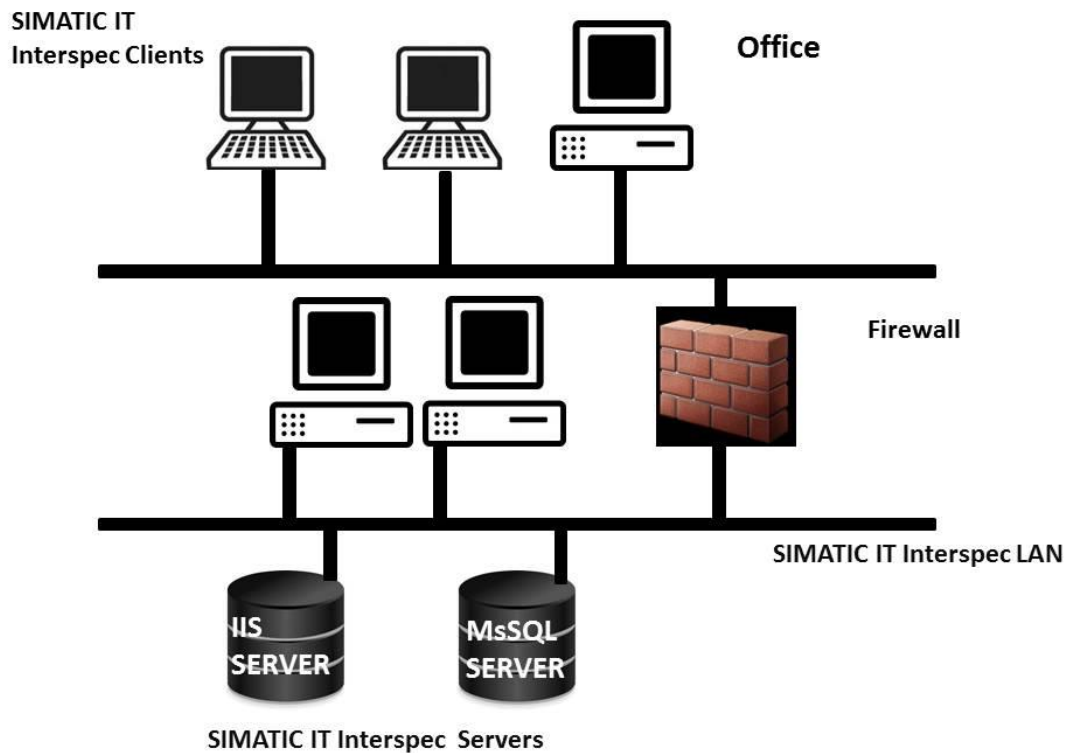
When a firewall is located between SIMATIC IT Interspec client and server LANs, a proper firewall configuration is required, to avoid communication problems between modules. Any protocol used by SIMATIC IT Interspec modules requires that its communication port is kept open.

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**Note**

In this scenario, an additional security level is guaranteed by the adoption of VPNs (Virtual Private Networks). These protect communications between clients and servers from external hacking.

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### 1.4.3 SIMATIC IT Interspec Servers on a Firewalled LAN and SIMATIC IT Clients on the Internet

In this scenario, the SIMATIC IT Interspec network must be accessed by Internet clients through a firewall only.

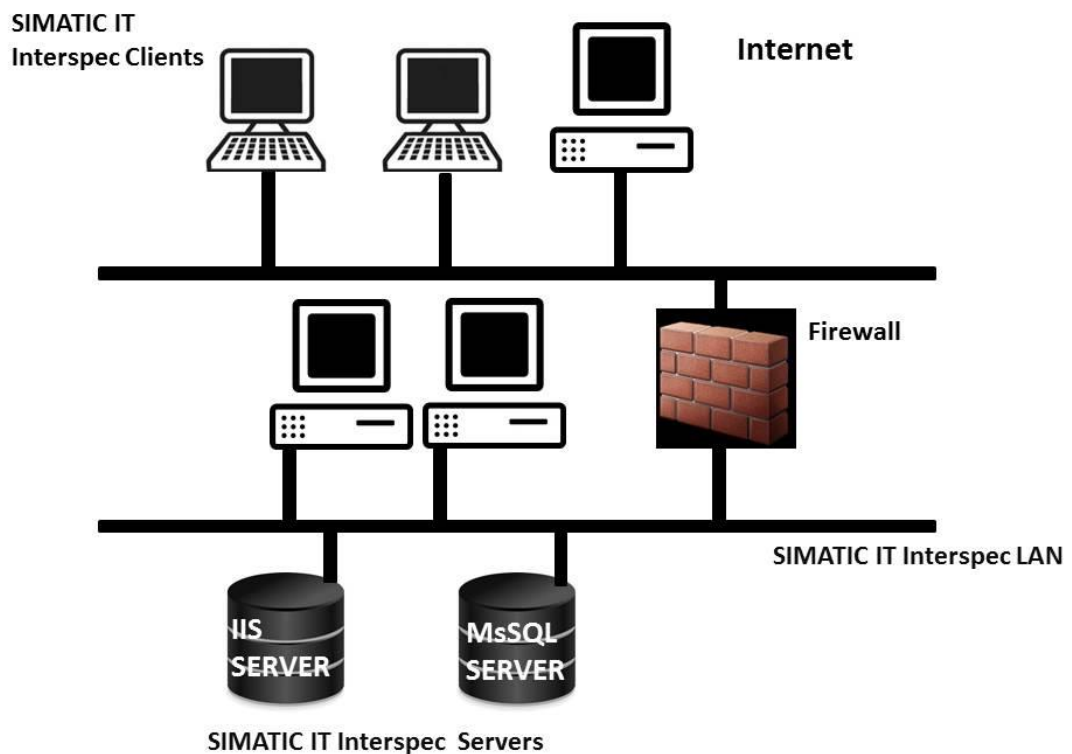
All communication relies on HTTP or HTTPS protocols. Only the standard port 80 is used on the firewall.

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**Note**

Even in this scenario, an additional level of security is guaranteed by the adoption of VPNs (Virtual Private Networks) that can protect communications between clients and servers from external hacking.

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## 2 Server Upgrade

### 2.1 Introduction

Upgrade to SIMATIC ITInterspec 6.7 is only supported starting from a SIMATIC IT Interspec 6.5.2 database. If your database is running an older version, follow the upgrade procedure to upgrade to SIMATIC IT Interspec 6.5.2 first. This procedure is described in the *Product Library* of your version.

#### Before You Begin

Carefully read the Release Notes before performing the upgrade, as there might be important changes that affect the way you currently work with the system.

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##### Note

Make sure you have a current backup of your system before you start the upgrade. There is no rollback procedure to go back to the previous version. An upgraded database cannot be moved back to version 6.5 SP2.

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### 2.2 Upgrade Scenarios

There are two possible upgrade scenarios:

#### 2.2.1 Upgrade MS SQL Server 2008 to MS SQL Server 2012 or 2014

In this case, before launching the Interspec Upgrade package, you must run the Microsoft SQL Server Upgrade package, which will upgrade your MS SQL Server from 2008 to MS SQL Server 2012 or 2014.

After completing this step, please follow the Upgrade procedure from subsection [Upgrade Prerequisites](#).

#### 2.2.2 Interspec database is relocated from MS SQL Server 2008 Instance to a MS SQL 2012 or 2014 Server Instance

In this scenario, after you successfully relocated the production database, please follow the Upgrade procedure from subsection [Upgrade Prerequisites](#).



#### Note

Please take into account that after database relocation no application users will be linked to your new MS SQL 2012/2014 Server Instance (except users SIEMENS, RnDAdmin and BgSrv). In order to automatically link all application users to the new Server Instance, there is a custom solution which is not part of the standard installation package.

## 2.3 Upgrade Prerequisites

You need to set the correct variables in the **Config.txt** file of the Installer root folder, as follows:

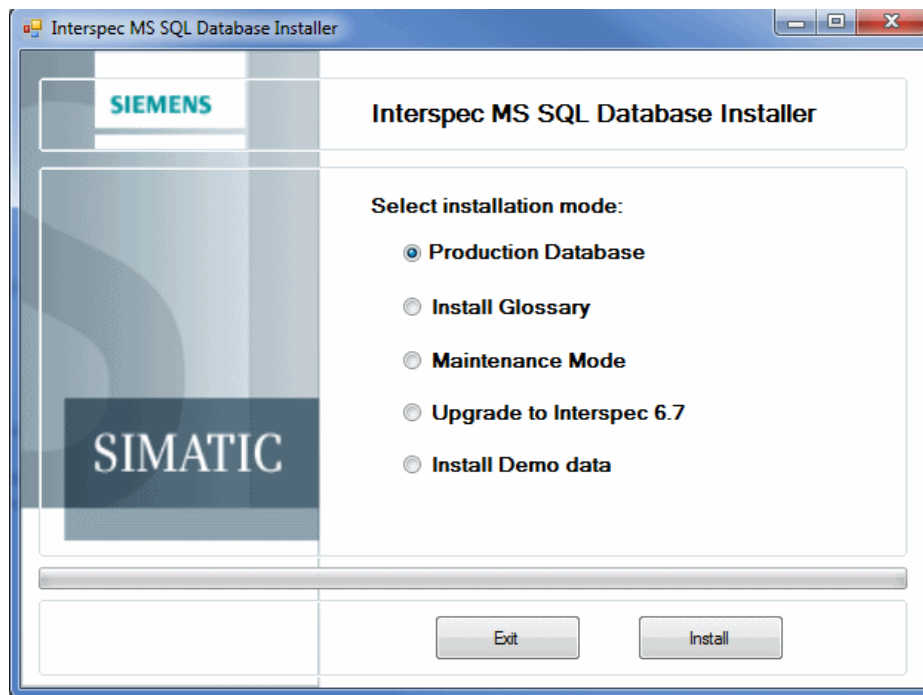
<b>SERVER</b>	The server where the database is installed.
<b>INSTANCE</b>	The instance name. If there is a Default Instance, then SERVER is enough.
<b>USER</b>	The UserName. We strongly recommend using "sa" for upgrade options.
<b>PASSWORD</b>	The password.
<b>DB</b>	The database name that will be upgraded.
<b>dbLogPath</b>	The path to the database log file (LDF file).
<b>dbDataPrimPath</b>	The path to the database MDF file.
<b>dbAssemblPath</b>	The path to the folder where the setup will copy the .dll files needed for the "Integration with .Net setup" feature.
<b>dbDataPath</b>	The path to the database NDF files.
<b><u>HostForBackgroundService</u></b>	The name or IP address of the machine host for BackgroundService
<b><u>dbDemoDataPath</u></b>	The path to demo database backup to be restored

For reference, see the **ConfigTemplate.txt** from the Installer root.

## 2.4 Running the Upgrade package

Run the **IS SQLServer.exe** as Administrator from the installer root folder.

The following window appears:



- Select the **Upgrade to Interspec 6.7** option and click **Install**.

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#### Note

After running the Upgrade package, for more information about the upgrade process, errors, etc., please check the **Log** folder found in the **Installer** folder.

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