

The Project Management Software – for Outlook, Web and Smartphone

InLoox PM 10.x configuration guide for Microsoft SQL Server

An InLoox Whitepaper

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General Information

This document describes the steps to successfully configure and start-up a Microsoft SQL Server 2014 or 2016. Moreover, a suitable system configuration for the use of InLoox PM is described.

SQL Server Installation

Obtain a SQL Servers 2014 or 2016 Edition

 If you neither have a Microsoft SQL Server 2014 or 2016 licence nor an appropriate installation medium, Microsoft SQL Server 2014 or 2016 Express Edition is available free of charge under following address:

http://www.microsoft.com/en-US/download/details.aspx?id=42299

2. Install the Microsoft SQL Server 2014 or 2016. You can find a step by step guide under: http://technet.microsoft.com/en-US/library/ms143219.aspx



Important: Please note that offline replication is not possible with Microsoft SQL Server 2014 or 2016 Express Edition. If you want to use the Microsoft SQL Server offline replication, a **Workgroup**, **Standard** or **Enterprise Edition** of Microsoft SQL Server is necessary. You find an overview of the SQL Server versions' capability characteristics under:

http://www.microsoft.com/sql/prodinfo/features/compare-features.mspx

This does not affect InLoox offline availability, which you can use with Microsoft SQL Server 2014 or 2016 and Microsoft SQL Express Edition.

3. Create an InLoox PM database according to the whitepaper *InLoox PM 10.x Server Installation Guide*. You can find this whitepaper at:

https://www.inloox.com/support/knowledge-base/white-papers/

Use the steps described in the section for the Workgroup/Enterprise Server (Network version).



Check installation

After the installation, make sure the SQL Server Service and the SQL Server Browser Server is being executed:

- 1. Double click on Computer Management in the Control Panel >> Administrative Tools
- 2. Click on Services and Application >> Services
- 3. Look for the indicator name of the appropriate services.

By default, the SQL Server Service has the name 'SQL Server (MSSQLSERVER)' or 'SQL Server (SQLEXPRESS)'

The standard SQL Server Browser Service name is 'SQL Server-Browser'.

4. If one of these is not running, set the Startup type to automatic und start the service.

SQL Server (SQLEXPRESS) Properties (Local Co	omputer) ×
General Log On Recovery Dependencies	
Service name: MSSQL\$SQLEXPRESS	
Display name: SQL Server (SQLEXPRESS)	
Description: Provides storage, processing and controlle of data, and rapid transaction processing.	ed access 🔨
Path to executable: "C:\Program Files\Microsoft SQL Server\MSSQL12.SQLEXP	RESS\MSSQL
Startup type: Automatic	~
Service status: Running	
Start Stop Pause	Resume
You can specify the start parameters that apply when you star from here.	t the service
Start parameters:	
OK Cancel	Apply

Opening Ports

<u>Please note</u> that opening ports can lead to a **safety risk** in your network. Check the necessary safety precautions in advance!



Make sure that the database server ports are *not blocked*. Examine the firewall properties of the server as well as the network hardware.

The standard port of Microsoft SQL Server is: 1433



SQL Server Configuration

If you try to connect to an instance of Microsoft SQL Server 2014 or 2016 from a remote computer or a client, an error message might appear:

	InLoox PM Setup	×
1	Database creation failed. Please check your inputs and your permisson on the server. Server error: A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: SQL Network Interfaces, error: 26 - Error Locating Server/Instance Specified)	
	OK	

This problem can occur with any program you use to connect to the SQL Server. Follow this guide in order to solve the problem.

Check the SQL Server Configuration Manager settings

In order to reach the the SQL Server instance from the network, you have to configure and, if necessary switch on the network protocols. Proceed as follows:

- 1. Click on Start >> Programs >> Microsoft SQL Server 2014 or 2016 >> Configuration Tools
- 2. Afterwards click on SQL Server Configuration Manager

	Sql Server Configuration Manager	 ×
File Action View Help		
SQL Server Configuration Manager (Local) SQL Server Services SQL Server Network Configuration (32bit) ● SQL Native Client 11.0 Configuration (32bit) ● SQL Server Network Configuration ● SQL Server Network Configuration	Items SQL Server Services SQL Server Network Configuration (32bit) SQL Server Network Configuration SQL Server Network Configuration SQL Native Client 11.0 Configuration	

3. Open the branch SQL Server Network configuration in the left tree structure and click on Protocols for MSSQLSERVER



4. Right click on TCP/IP to activate this protocol



- 5. Double click on **TCP/IP** and switch to the page **IP-Addresses**
- 6. Check the settings of the TCP Ports and adjust them if necessary. The standard MS SQL port is 1433.

Confirm the dialog with OK.

	TCP/IP Properties ?	
Protocol IP Addresses		
TCP Dynamic Ports	0	^
TCP Port		
🗆 IP3		
Active	Yes	
Enabled	No	
IP Address	::1	
TCP Dynamic Ports	0	
TCP Port		
⊟ IP4		
Active	Yes	
Enabled	No	
IP Address	127.0.0.1	
TCP Dynamic Ports	0	
TCP Port		
TCP Dynamic Ports		
TCP Port	1433	
TCP Port TCP port		
OK	Cancel Apply He	elp

- 7. Deactivate Named Pipes.
- 8. If a message requests to restart the SQL service, click on the node SQL Server 2014 or 2016-Services, stop the SQL Server and SQL Browser and restart these afterwards. Lastly, make sure that both services are running.

Authorizations configuration

- 1. Create a new user group InLoox PM in the Active directory
- 2. Add all InLoox PM users to this group
- 3. Click on Start >> Programs >> Microsoft SQL Server 2014 or 2016 >> SQL Server Management Studio
- 4. The Connect to Server dialog appears

ļ.	Connect to Server	
Microsoft	SQL Server 2014	
Server type:	Database Engine	v
Server name:	C5-VM\SQLEXPRESS	~
Authentication:	Windows Authentication	Ŷ
User name:		~
Password:		
	Remember password	
Conn	ect Cancel Help	Options >>

- 5. Select the appropriate Server under Server name or enter the server name manually.
- 6. Click on Connect afterwards
- 7. Microsoft SQL Server Management Studio indicates that it is connected



1 5	Object Explorer Details - N	licrosoft SQL Server Managem	ent Studio	- 🗆 ×
File Edit View Tools Window Help 1 1 1 1 1 1 1 2 1 1 1 1 1 1	•••••••••••••••••••••••••••••••••••••	×.₽×₽, ₩ >	* *	ø ÿ
Object Explorer → 및 × Connect → 및 및 = 🍸 2 🍒	Object Explorer Details × ③ ⑤ ⊉ 韋 マ ◙ 感 Sear	ch		-
 ☐ C5-VM\SQLEXPRESS (SQL Server 12.0.2) ④ □ Databases ● □ Security 	C5-VM\SQLEXPRESS (SQL Server 12 Name	.0.2000 - INLOOX\buchner) Policy Health State		
 a Server Objects a Replication a Management 	 Databases Security Server Objects Replication 			
	🗀 Management			

- 8. Open the Security node
- 9. Click on Login with the right mouse button



10. Click on New Login



11. The window Login - New appears

8	Login -	New		- 🗆 ×
Select a page	🔄 Script 🔻 🚺 Help			
Server Roles User Mapping Securables Status	Login name: Windows authentication			Search
	SQL Server authentication			
	Password:			
	Confirm password:			
	Specify old password			
	Old password:			
	 Enforce password policy 			
	 Enforce password expira 	tion		
	User must change passv	vord at next login		
	Mapped to certificate		¥	
	 Mapped to asymmetric key 		¥	
Connection	Map to Credential		\checkmark	Add
Server: C5-VM\SQLEXPRESS	Mapped Credentials	Credential	Provider	
Connection: INLOOX\buchner				
View connection properties				
Progress				Remove
Ready	Default database:	master	¥	
The second secon	Default language:	<default></default>	¥	
			ОК	Cancel

12. Click on Search

Select User or Group	×
Select this object type:	
User or Built-in security principal	Object Types
From this location:	
C5-VM	Locations
Enter the object name to select (<u>examples</u>):	Check Names
Advanced OK	Cancel



13. Look for the **InLoox group** in the Active directory or in the **computer administration** under groups. You can adjust this via a click on **Location...**

Locations		×
Select the location you want to search.		
Location: 		
	OK Cance	el:

- 14. Enter "InLoox PM" as the object name and click on Check Names.
- 15. Make sure that all **Object Types** are selected. Occasionally groups are not activated and you have to set the appropriate option here, so that you can see the groups.

Object Types	x
Select the types of objects you want to find. Object types: Image: Other objects Image: Other objects	
OK Cancel	

16. The group was found and can be confirmed with OK.

Select User or Group	×
Select this object type:	
User, Group or Built-in security principal	Object Types
From this location:	
C5-VM	Locations
Enter the object name to select (<u>examples</u>):	
C5-VM\InLoox PM	Check Names
Advanced OK	Cancel



	17.	The	group	name	was	inserted
--	-----	-----	-------	------	-----	----------

E	Login -	New	- 🗆 ×
Select a page	🔄 Script 🔻 🛐 Help		
Server Roles Server Roles Securables Status	Login name: Windows authentication SQL Server authentication Password:	C5-VM\lnLoox PM	Search
	Confirm password: Specify old password Old password: Frforce password policy Frforce password expira	lion	
	Mapped to certificate Mapped to asymmetric key Map to Credential		v v
Connection Server: C5-VM\SQLEXPRESS	Mapped Credentials	Credential Provider	* Add
Connection: INLOOX/buchner			
Progress			Remove
Ready	Default database: Default language:	master <default></default>	v
			OK Cancel

- 18. Make sure that the option **Windows authentication** is selected. In exceptional cases, e.g. if the client is not integrated in a domain, you will have to use the **SQL authentication**. For that an appropriate change of the SQL Server configuration is necessary, which can be set as follows:
 - Click with the right mouse button on SQL Server in detail area on the left, then click on Properties.
 - In the SQL Server Properties dialog change the Server authentication in the register Security
 >> Server authentication to SQL Server and Windows Authentication mode and then confirm with OK
 - For details consider the Whitepaper Configure Microsoft SQL Server for SQL-authentication



8		Logir	- New		
Select a page	Script 👻	📑 Help			
I User Mapping I User Mapping I Securables I Status	Users mappe Map D V ir n n n n t	d to this login: latabase nloox naster nodel nsdb empdb	User C5-VM\InLoox PM	Default Schema	
	Guest acc	count enabled for:	inloox		
Connection	Guest acc Database role	count enabled for: e membership for: i ssadmin	inloax nloax		
Connection Server: C5-VM\SQLEXPRESS	□ Guest acc Database role □ db_accee □ db_backu ✔ db_datar	count enabled for: i e membership for: i ssadmin upoperator sader	inloax Noox		
Connection Server: C5-VM\SQLEXPRESS Connection: INLOOX\buchner	Guest acc Database rold db_backa V db_dataw db_dataw db_ddataw	count enabled for: e membership for: i ssadmin upoperator eader writer min	inloox nloox		
Connection Server: C5-VM/SQLEXPRESS Connection: INLOOX/buchner INLOOX/buchner	Guest acc Database rok db_accet db_back db_datav db_datav db_datav db_datav db_datav db_datav	count enabled for: e membership for: i ssadmin upoperator eader writer min Jatareader Jatarwater	inloox nloox		
Connection Server: C5-VM\SQLEXPRESS Connection: INLOOXbuchner INLOOXbuchner INLOOXbuchner INLOOXbuchner	Guest acc Database role db_backet db_back db_dataw db_dataw db_dataw db_denyc db_denyc db_owne db_owne db_owne	count enabled for: e membership for: i ssadmin upoperator aader witer min Jatareader Jatareader Jatawriter r tysdmin	inloax Noax		
Connection Server: C5-VM/SQLEXPRESS Connection: INLOOXbuchner Wew connection propertie Progress Ready	Guest acc Database role db_accet db_back db_dataw db_dataw db_dataw db_denyc db_denyc db_denyc db_denyc db_secur db_secur db_secur db_secur	count enabled for: e membership for: i ssadmin upoperator saader witer min Jatareader Jatareader Jatarwiter r t tyadmin scute	inloax nloax		

19. Click on User Mapping afterwards

- 20. Users who are assigned to this logon see all SQL databases on this Server. Activate the InLoox database here. If this database does not exist yet, publish the InLoox database with help of the InLoox PM Setup
- 21. Subsequently, you have to assign the permission public, db_datareader, db_datawriter and db_spexecute.



Configuration of the Firewall

Create an exception for the SQL Server Browser Service in the Windows Firewall

With the InLoox System Manager you can automatically add the Standard MS SQL Port as an exception to the integrated Windows Firewall.



If you use another firewall system consult the appropriate firewall documentation.

- 1. Download the InLoox System Manager: http://www.inloox.com/support/downloads/additional-software/
- 2. Start the InLoox System Manager on the SQL Server
- 3. Select the option Database Configuration.
- 4. Enter the credentials for the InLoox database:

InLo	ox	
abase		
Server type	Microsoft SQL Server	
Server name	C5-VM\SQLEXPRESS	~ 3
Database	inloox	~ [R
Authorization	Integrated security	
	O Username/password	
	Username	
	Password	
parameters		

- 5. Select Next
- 6. Now different requirements for the access to the database are being checked.

Flag	Rule	Status
-	Detabate port 1433 open	Ein Verbindung.
0	InLoox PM database exists	Database does
0	Stored procedure execute permission	No db_spevecut.
0	Data reader permission	No db_dataread.
0	Data write permission	No db_datawrit.



7. If the appropriate SQL Port is not open, you can add the corresponding SQL Port to the Windows Firewall with the Button **Solve Issues.**



This will only work if the InLoox System Manager is directly executed on the SQL Server.

8. Afterwards the Connection test should be successful.

Check list for error solution

In case of problems, please check the following:

- Are the SQL Server and SQL Browser Service running on the server?
- Are Remote Connections and TCP/IP activated in the surface configuration?
- Is the authentication (Windows/SQL with Windows) correctly set in SQL Server Management Studio under Security in the Server Properties of the SQL of the server?
- Is the group, in which the InLoox PM users are entered, in SQL Server Management Studio under Security >> Logins set correctly? Does the registration have the membership db_datareader, db_datawriter and db spexecute in the database roles?
- Is port 1433 open in the Firewall?
- Did a restart of the **clients** take place?
- Did a restart from **SQL Server** take place?

Should you need assistance, please contact us

Go to our website and click on <u>Support</u>. There, you can open a ticket. Our support team will be happy to help you.