

# SQL Server 2014 installation/setup instructions

Abbreviated notes for installing SQL 2014 servers.

## Installation

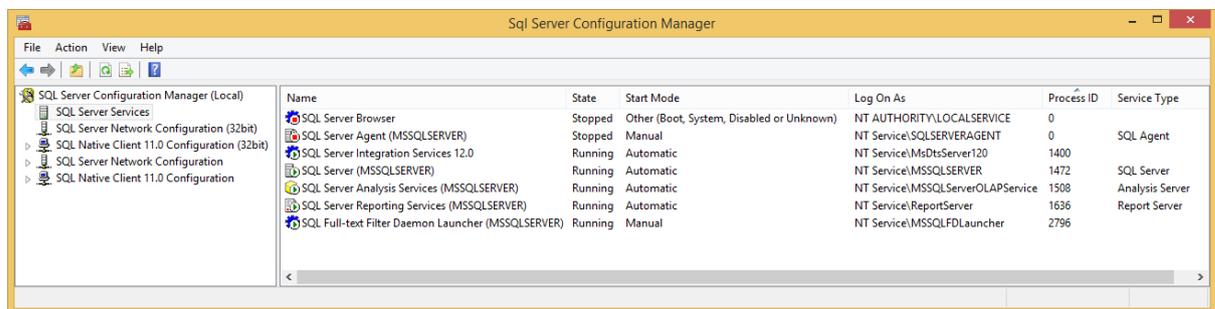
Install SQL Server 2014 and then configure it as per below. Some steps like the SQL Server Properties can be completed as part of the install and if that is the case don't need to be changed again later.

## SQL Server 2014 Configuration

### SQL Server 2014 Properties

#### To configure SQL Server

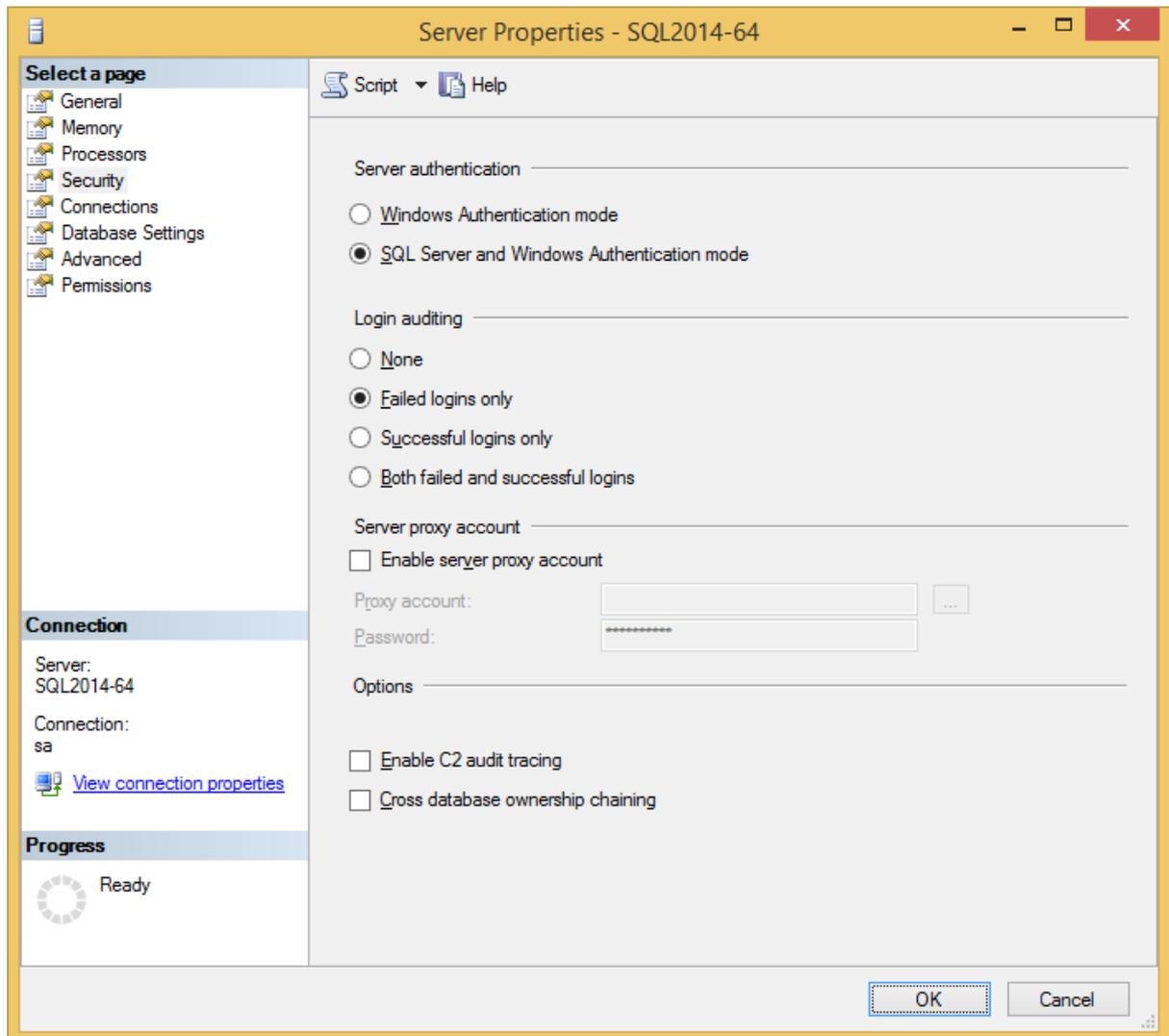
- Open **SQL Server Configuration Manager**. This can be found from the **Start** menu under **All Programs, Microsoft SQL Server 2014, Configuration Tools**.
- Click on the SQL Server Services node.



- Make certain both **SQL Server** and **SQL Server Agent** are both running and have a Start Mode of **Automatic**.
  - The SQL Server Agent is required to automate backups.

## Authentication Mode

- Open **SQL Server Management Studio**. This can be found from the **Start** menu under **All Programs, Microsoft SQL Server 2014**.
- Logon using **Server Type** 'Database Engine', **Server Name** '[server network logon name]', **Logon, Password**, settings.
- Right click on the server and select **Properties**.



- Under **Server Authentication**, make sure that **SQL Server and Windows Authentication mode** is checked.
- Click **OK**.
- At this point you may be asked to Restart SQL Server – do so now.

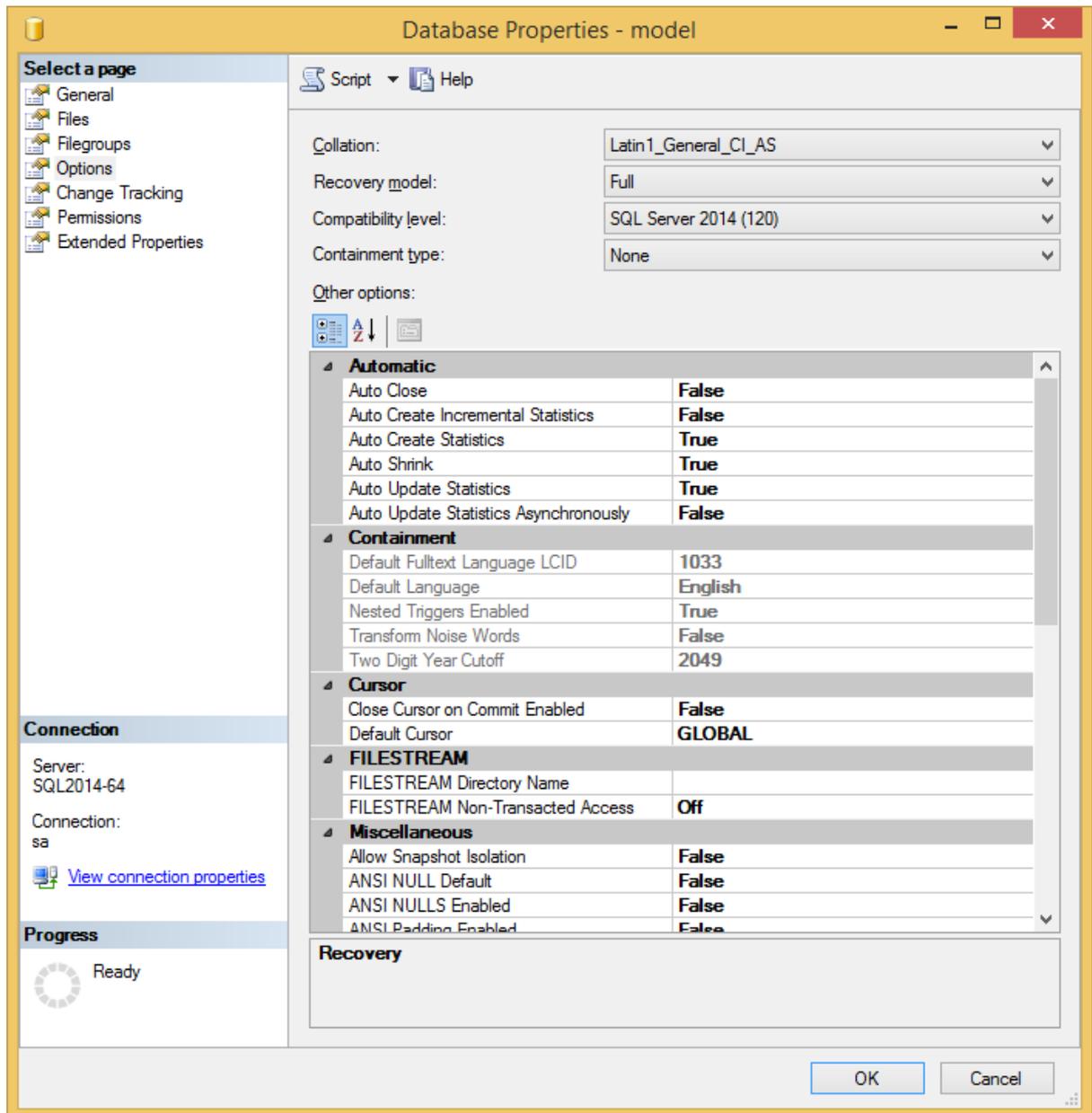
## Model database

Within SQL Server there are several "system" databases, including the **master**, **tempdb**, **model** and **msdb** databases.

The **model** database is used as the template for all databases created, and it is strongly recommended that this is correctly setup prior to doing anything else.

### To check Model database options

- Open Microsoft SQL Server Management Studio.
- Expand your server.
- Expand **Databases**.
- Expand **System Databases**.
- Right click the **model** database, then click **Properties**.
- Select the **Options** page.



- Ensure the following options are set:

Auto Create Statistics	True
Auto Shrink	True
Auto Update Statistics	True
ANSI NULL Default	False

- Click **OK**.

Although the above is what we suggest, it may be that you wish to set the default **Recovery** model to another option.

## Intersoft Login

The Intersoft Login is required so that emPOWER, fdPOWER and finPOWER can have System Administrator rights to the SQL Server, for example to create a new database.

**Note: This is not required for finPOWER Connect.**

### To add the Intersoft Login

- Open Microsoft SQL Server Management Studio.
- Expand your server.
- Expand **Security**.
- Right-click on **Logins** and click **New Login....**
- On the General page set Login Name as **intersoft**, change Authentication to **SQL Server Authentication** and set the password.

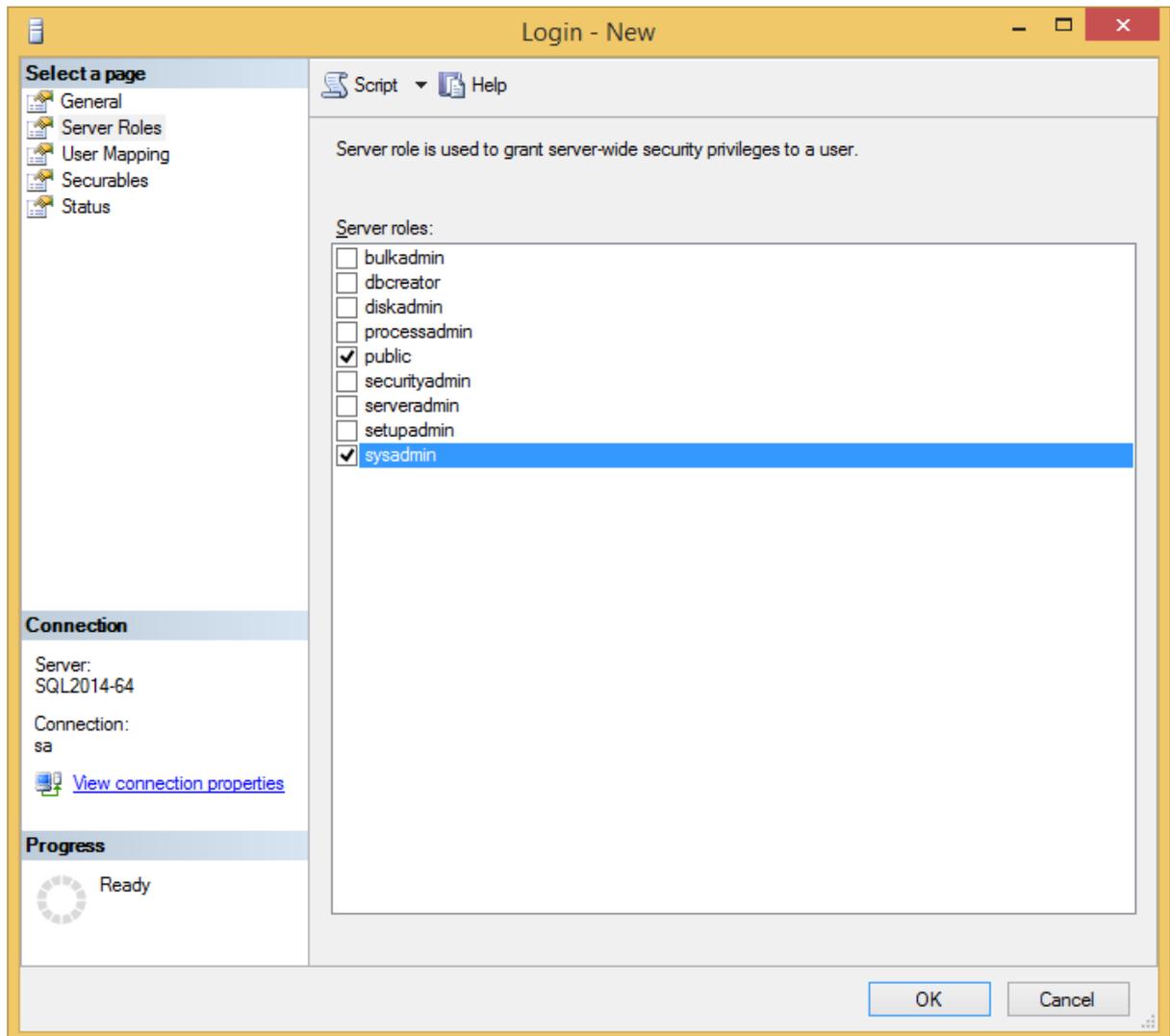
**Get the password for your client id from your Intersoft Dealer. Enter without spaces.**

- Uncheck **Enforce password policy**.

The screenshot shows the 'Login - New' dialog box with the following configuration:

- General** page selected in the left pane.
- Server: SQL2014-64, Connection: sa.
- Progress: Ready.
- Login name: intersoft
- Authentication:  SQL Server authentication
- Password: [masked]
- Confirm password: [masked]
- Specify old password
- Old password: [empty]
- Enforce password policy
- Enforce password expiration
- User must change password at next login
- Mapped to certificate
- Mapped to asymmetric key
- Map to Credential
- Mapped Credentials table is empty.
- Default database: master
- Default language: English
- Buttons: OK, Cancel, Add, Remove, Search...

- Click on the **Server Roles** page. Check the **sysadmin** Server Role. Note the 'public' role will already be selected automatically and this cannot be unselected.



- Click **OK**.
- If asked, confirm the Login password.

## System Administrator Login

Setup a system administrator 'sa' login, in a similar way as above.

## emPOWER, fdPOWER, finPOWER and finPOWER Connect Login

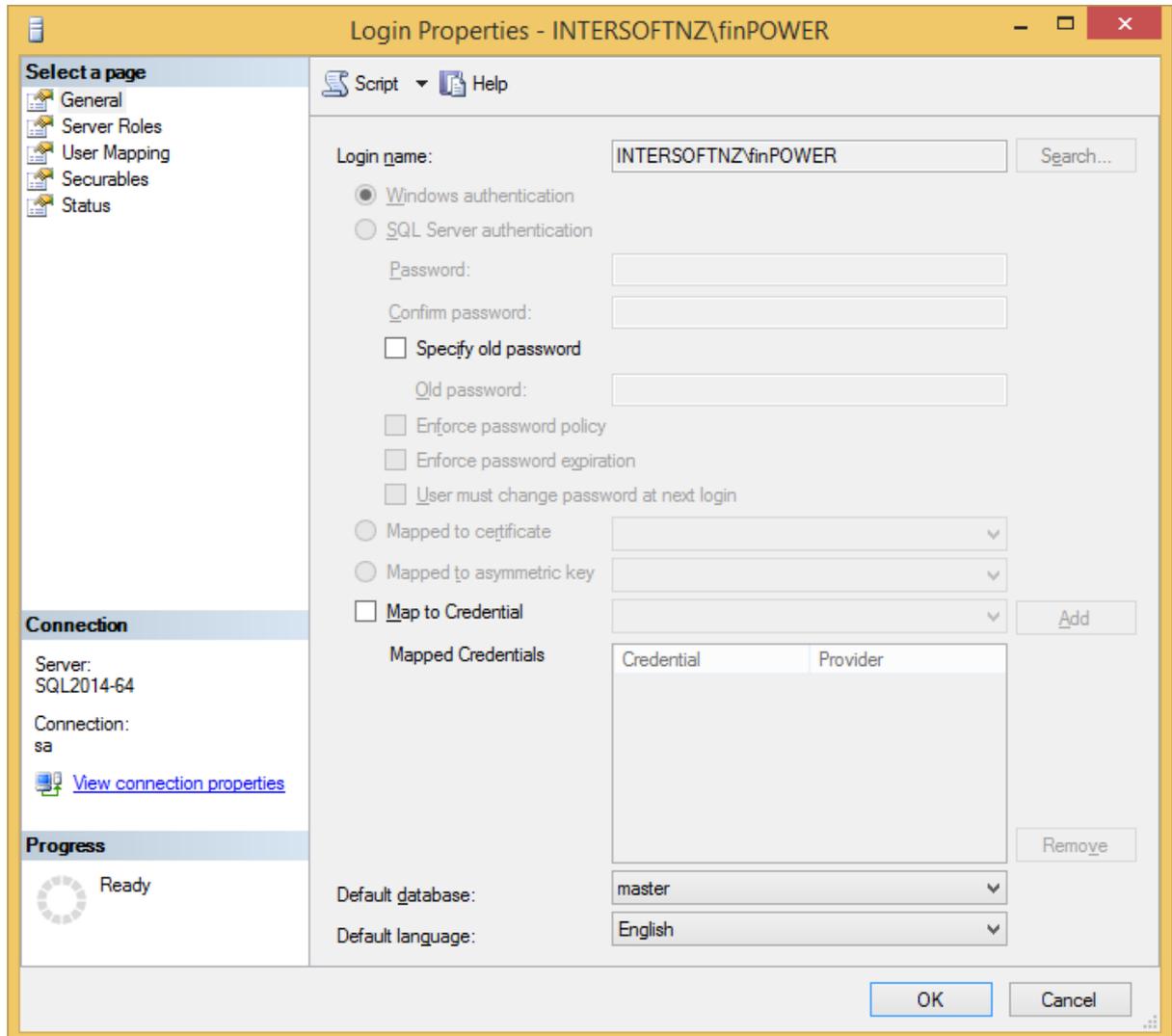
The **emPOWER/ fdPOWER/ finPOWER** login is required for general day to day use of emPOWER, fdPOWER, finPOWER and finPOWER Connect databases, rather than using the **Intersoft** login which has full System Administrator rights. This maps directly to the Windows emPOWER, fdPOWER and finPOWER Security Groups defined on the Windows Server. Details of group creation can be found under the Intersoft SQL Server Add On document, under 'Windows Server Configuration/Add the emPOWER, fdPOWER and finPOWER Group'.

### To add the emPOWER, fdPOWER or finPOWER Login

- Open Microsoft SQL Server Management Studio.
- Expand your server.
- Expand **Security**.
- Right-click on **Logins** and click New **Login....**

- On the General page set **Login name** as **emPOWER, fdPOWER or finPOWER** ensuring that the name is prefixed with your domain name and make sure that **Windows Authentication** is checked.

Alternatively you can use the **Search...** button next to the **Login Name** field to lookup the Windows **emPOWER, fdPOWER or finPOWER** group.



- Click **OK**.

## SQL Data

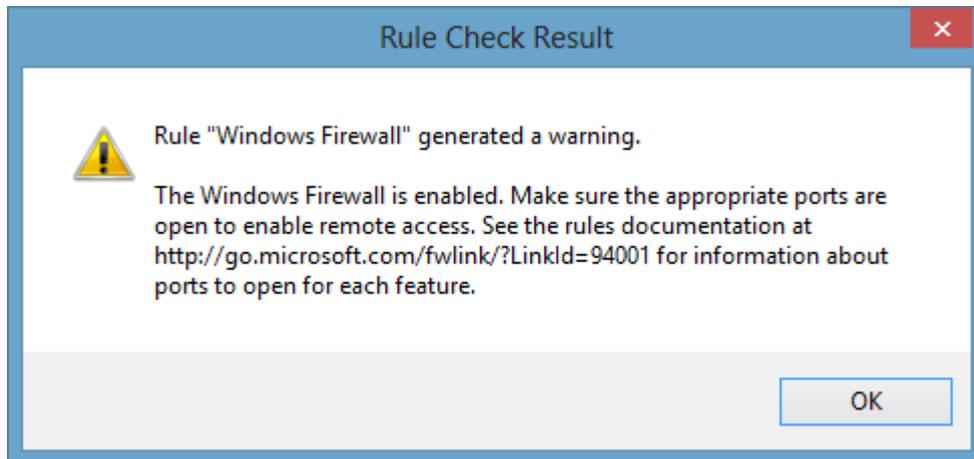
There needs to be a network available folder created to store the SQL Data for Clients and test databases.

- If no other specific drive is being used then create a folder 'C:\SQLData' and share this folder on the network to everyone.
- Everyone will then need to map this network location on their own computers.

## Configure the Windows Firewall to Allow SQL Server Access

Firewall systems help prevent unauthorized access to computer resources. If a firewall is turned on but not correctly configured, attempts to connect to SQL Server might be blocked.

To access an instance of the SQL Server through a firewall, you must configure the firewall on the computer that is running SQL Server to allow access. Windows Firewall is a component of Microsoft Windows. You can also install a firewall from another company. This topic discusses how to configure Windows Firewall, but the basic principles apply to other firewall programs.



<https://msdn.microsoft.com/en-us/library/cc646023.aspx>

Applies to Windows Vista, 7, 8 or 10, and Windows Server 2008, 2008 R2, 2012, 2012 R2 and 2016.

The following procedures configure Windows Firewall by using Windows Firewall with Advanced Security Microsoft Management Console (MMC) snap-in. Windows Firewall with Advanced Security only configures the current profile.

#### **To open a port in Windows Firewall for TCP/IP access**

- On the **Start** menu, click Run, type WF.msc, and then click OK.
- In the Windows Firewall with Advanced Security, in the left pane, right-click Inbound Rules, and then click New Rule in the action pane.
- In the Rule Type dialog box, select Port, and then click Next.
- In the Protocol and Ports dialog box, select TCP. Select Specific local ports, and then type the port number of the instance of the Database Engine, such as 1433 for the default instance. Click Next.
- In the Action dialog box, select Allow the connection, and then click Next.
- In the Profile dialog box, select any profiles that describe the computer connection environment when you want to connect to the Database Engine, and then click Next.
- In the Name dialog box, type a name and description for this rule, and then click Finish.

#### **To open access to SQL Server when using dynamic ports**

- On the **Start** menu, click Run, type WF.msc, and then click OK.
- In the Windows Firewall with Advanced Security, in the left pane, right-click Inbound Rules, and then click New Rule in the action pane.
- In the Rule Type dialog box, select Program, and then click Next.
- In the Program dialog box, select This program path. Click Browse, and navigate to the instance of SQL Server that you want to access through the firewall, and

then click Open. By default, SQL Server is at (32 bit) C:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Binn\Sqlservr.exe. Click Next.

- In the Action dialog box, select Allow the connection, and then click Next.
- In the Profile dialog box, select any profiles that describe the computer connection environment when you want to connect to the Database Engine, and then click Next.
- In the Name dialog box, type a name and description for this rule, and then click Finish.

### To change sharing options for different network profiles

- On the **Start** menu, click Control Panel, select Network and Sharing Center.
- In the left pane, click on Change advanced sharing settings.
- Under Network discovery. Tick 'Turn on network discovery' button.

#### Change sharing options for different network profiles

Windows creates a separate network profile for each network you use. You can choose specific options for each profile.

Private ▼

Guest or Public ▼

Domain (current profile) ▲

Network discovery \_\_\_\_\_

When network discovery is on, this computer can see other network computers and devices and is visible to other network computers.

Turn on network discovery

Turn off network discovery

File and printer sharing \_\_\_\_\_

When file and printer sharing is on, files and printers that you have shared from this computer can be accessed by people on the network.

Turn on file and printer sharing

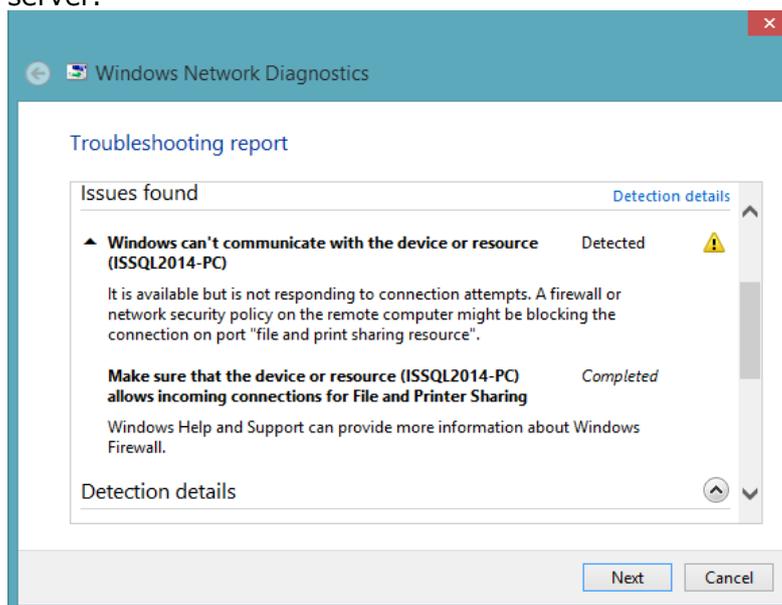
Turn off file and printer sharing

All Networks ▼

- Click **Save changes**.

## Network mapping to the new server

- You may experience the following error message when trying to map to the new server.



- You may have to enable rules under Windows Firewall, Advanced Settings, Inbound/Outbound Rules. Enable File and Printer Sharing.

Windows Firewall with Advanced Settings		Inbound Rules			
		Name	Group	Profile	Enabled
<input checked="" type="checkbox"/>	Core Networking - Router Advertisement (ICMPv6-L...	Core Networking	Core Networking	All	Yes
<input checked="" type="checkbox"/>	Core Networking - Router Solicitation (ICMPv6-In)	Core Networking	Core Networking	All	Yes
<input checked="" type="checkbox"/>	Core Networking - Teredo (UDP-In)	Core Networking	Core Networking	All	Yes
<input checked="" type="checkbox"/>	Core Networking - Time Exceeded (ICMPv6-In)	Core Networking	Core Networking	All	Yes
<input type="checkbox"/>	Distributed Transaction Coordinator (RPC)	Distributed Transactio...	Distributed Transactio...	Private...	No
<input type="checkbox"/>	Distributed Transaction Coordinator (RPC)	Distributed Transactio...	Distributed Transactio...	Domain	No
<input type="checkbox"/>	Distributed Transaction Coordinator (RPC-EPMAP)	Distributed Transactio...	Distributed Transactio...	Private...	No
<input type="checkbox"/>	Distributed Transaction Coordinator (RPC-EPMAP)	Distributed Transactio...	Distributed Transactio...	Domain	No
<input type="checkbox"/>	Distributed Transaction Coordinator (TCP-In)	Distributed Transactio...	Distributed Transactio...	Domain	No
<input type="checkbox"/>	Distributed Transaction Coordinator (TCP-In)	Distributed Transactio...	Distributed Transactio...	Private...	No
<input type="checkbox"/>	File and Printer Sharing (Echo Request - ICMPv4-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input checked="" type="checkbox"/>	File and Printer Sharing (Echo Request - ICMPv4-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input checked="" type="checkbox"/>	File and Printer Sharing (Echo Request - ICMPv6-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input type="checkbox"/>	File and Printer Sharing (Echo Request - ICMPv6-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input checked="" type="checkbox"/>	File and Printer Sharing (LLMNR-UDP-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input type="checkbox"/>	File and Printer Sharing (LLMNR-UDP-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input type="checkbox"/>	File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input checked="" type="checkbox"/>	File and Printer Sharing (NB-Datagram-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input checked="" type="checkbox"/>	File and Printer Sharing (NB-Name-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input type="checkbox"/>	File and Printer Sharing (NB-Name-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input checked="" type="checkbox"/>	File and Printer Sharing (NB-Session-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input type="checkbox"/>	File and Printer Sharing (NB-Session-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input type="checkbox"/>	File and Printer Sharing (SMB-In)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input checked="" type="checkbox"/>	File and Printer Sharing (SMB-In)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input type="checkbox"/>	File and Printer Sharing (Spooler Service - RPC)	File and Printer Sharing	File and Printer Sharing	Private...	No
<input checked="" type="checkbox"/>	File and Printer Sharing (Spooler Service - RPC)	File and Printer Sharing	File and Printer Sharing	Domain	Yes
<input checked="" type="checkbox"/>	File and Printer Sharing (Spooler Service - RPC-EP...	File and Printer Sharing	File and Printer Sharing	Domain	Yes