



# ORF EXTERNAL DATABASE GUIDE

for Microsoft SQL Server 2008

For ORF users

Revision 1.5 (for ORF version 6 and up)

Date January 2, 2024

# INTRODUCTION

## What is this guide about?

This guide provides step-by-step instructions for setting up Microsoft SQL Server 2008 to provide database services for ORF. This guide presumes you already have SQL Server 2008 installed on your system along with SQL Server Management Studio (Client Tools) and with mixed-mode authentication enabled. If you do not, visit the following link for installation instructions: <http://msdn.microsoft.com/en-us/library/ms143219.aspx>

Please consider that this guide cannot cover the complex topic of administering a database server. We strongly recommend to consult the documentation of the database product on securing and administering the database product of your choice.

## CREATING THE DATABASE & TABLES

Once SQL Server Express is installed, we can proceed with creating a database for ORF, which will store the **Auto Sender Whitelist**, **Greylisting**, **Honeypot** and **Directory Harvest Attack (DHA)** and **SQL Log** databases. To ease things, we provide an SQL script shipped with this guide (*sql-orf.sql*), which will create the database (called “*ORF*”) along with a database owner user (called “*orfuser*”) with a default password (“*ChangeThisPwd#1*”).

**NOTE:** if you already have some of the tables created, please run the individual SQL scripts for creating tables for the new features only. Features and scripts:

- Auto Sender Whitelist: *sql-aswl.sql*
- DHA Protection Test: *sql-dha.sql*
- Greylisting: *sql-grey.sql*
- Honeypot Test: *sql-honeypot.sql*
- SQL Log: *sql-log.sql*

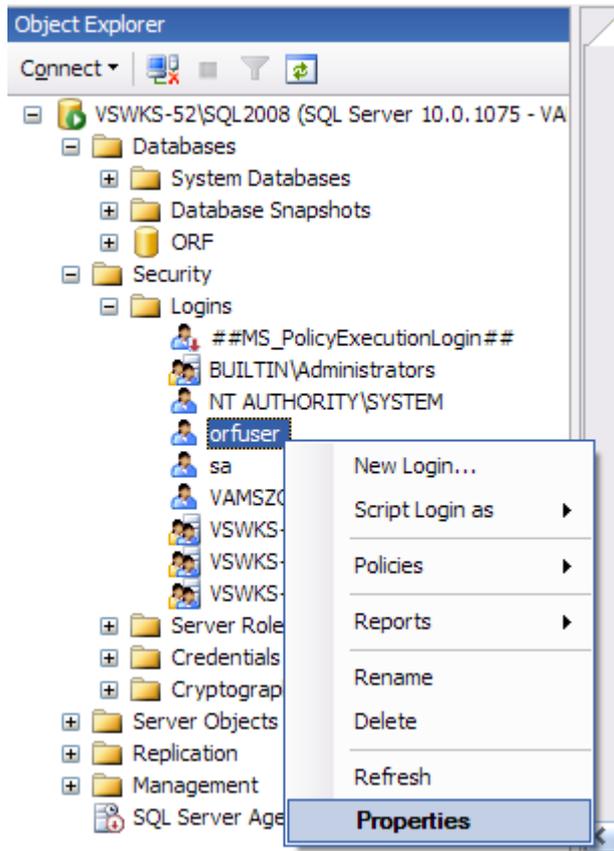
If the database is already set up, you can skip the instructions for creating a user, changing the password, etc.

1. Start the **SQL Server Management Studio** tool.
2. Connect to the SQL Server instance.
3. Open the ORF SQL script file (*sql-orf.sql*) in **SQL Server Management Studio** (*File* | *Open* | *File...* in the main menu or *Ctrl+O*)
4. Select the instance in the *Object Explorer* on the left.
5. Right click anywhere in the script and choose **Execute**. You should get a “**Command(s) completed successfully.**” message.

A new database should appear called **ORF** with tables called *dbo.ASWL*, *dbo.DhaBlacklist*, *dbo.DhaHistory*, *dbo.GREY*, *dbo.HoneypotBlacklist* and *dbo.Log*. If they are not listed, try to *Refresh* the view.

## CHANGING THE PASSWORD

1. Right click orfuser in *Security \ Logins* and select *Properties*

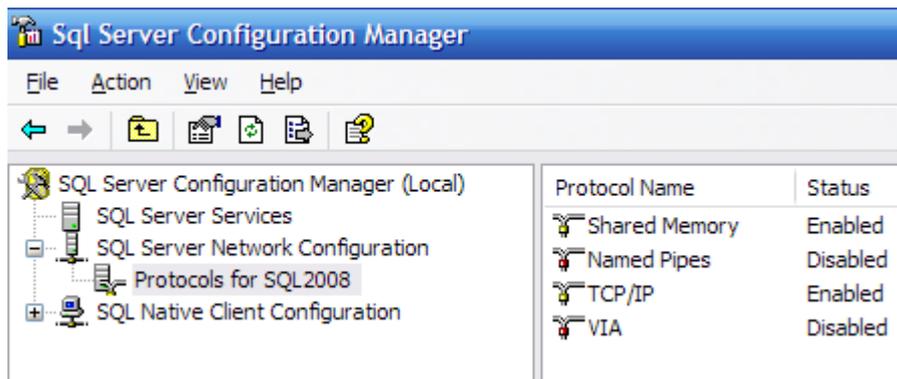


2. Change the password
3. Click OK

## ADDITIONAL SETTINGS

Networking protocols are disabled by default in SQL Server 2008, however without these, ORF cannot connect to it. Follow the steps below to enable the required network protocol.

1. Start the SQL Server Configuration Manager from *Start > Programs > Microsoft SQL Server 2008 > Configuration Tools*.
2. Select the “Protocols for SQL2008” node. TCP/IP is now disabled.
3. Right click on “TCP/IP” and click **Enable**

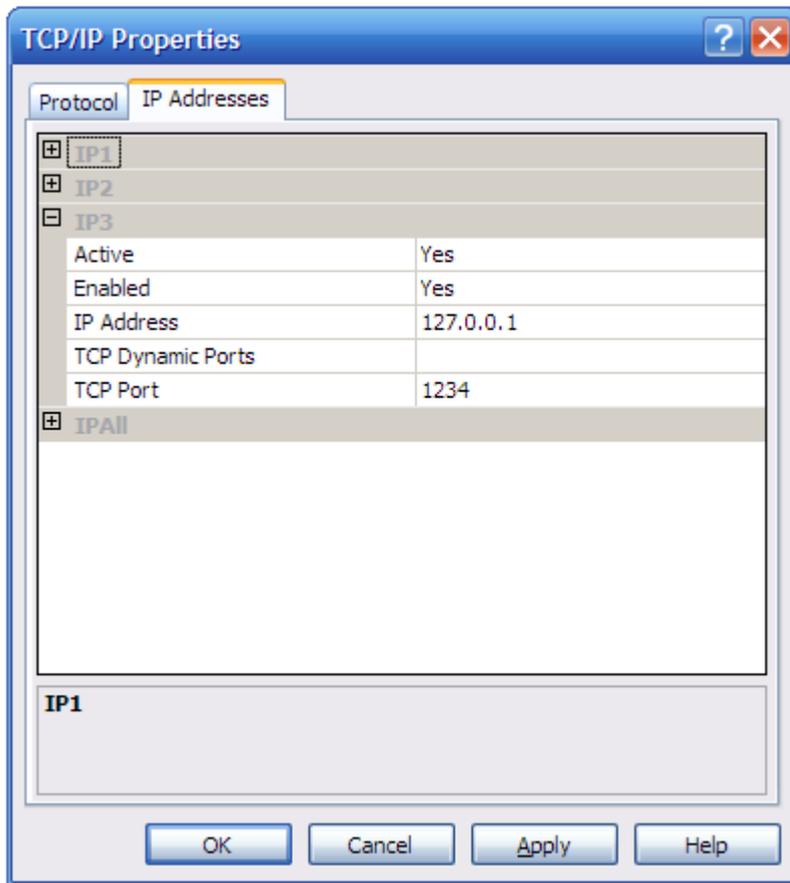


4. Restart the SQL Service.

## Configuring the SQL server port

Follow the steps below to configure the SQL Server to listen on a fixed port.

1. In the SQL Server Configuration Manager, select the “Protocols for SQL2008” node.
2. Right click on “TCP/IP” and select **Properties**.
3. Select the “IP Addresses” tab.
4. Delete “0” from “TCP Dynamic Ports” for the network interface you use to connect to the database (if it is blank, dynamic ports will be disabled).
5. Enter a port number to use in “TCP Port” (in this example, we will use **1234 on the local interface (127.0.0.1)**). Also make sure that the network interface you will use to connect is in “Enabled” state.



6. Click **Apply** and **OK**.

7. Restart the **SQL Service**.

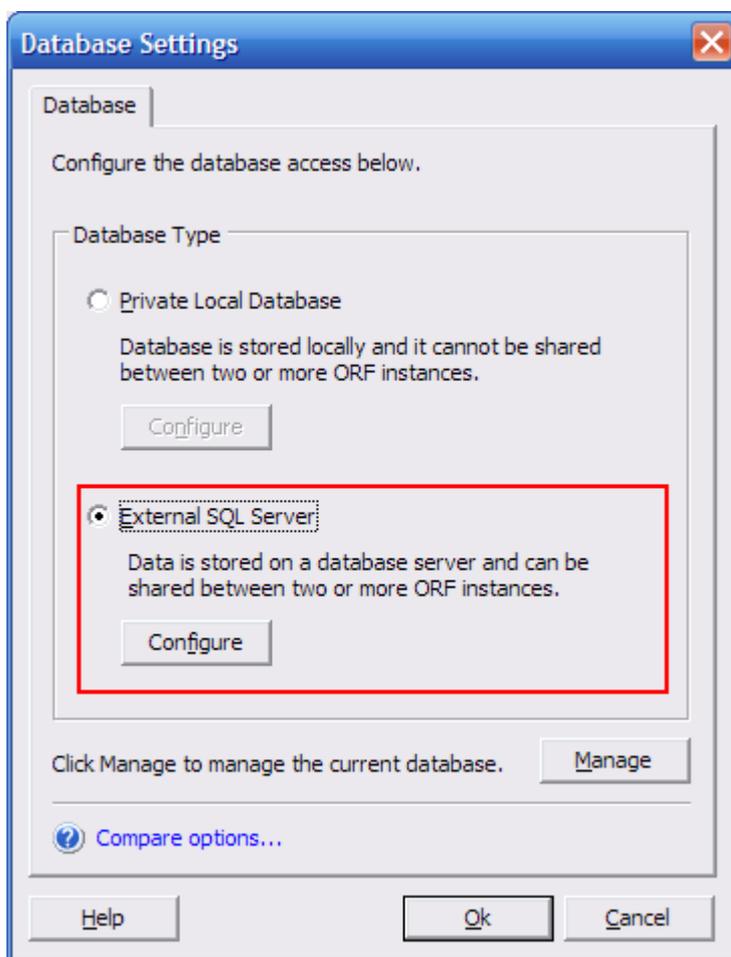
Note that setting a fixed port is not strictly required. You can also use the default dynamic port settings. In that case, the **SQL Server Browser Service** must be running and the port number must not be included in the connection string.

# CONNECTING ORF TO THE DATABASES

ORF connects to the database using a *connection string* that specifies the connection parameters for ORF.

## Connecting the Auto sender whitelist database

1. Start the ORF Administration Tool.
2. In *Whitelists / Auto Sender Whitelist* click the **Database** button.
3. Select the **External SQL Server** radio button.



4. Click the **Configure** button.
5. Enter the connection string as described below:

```
Provider=<PROVIDER>;  
Data Source=<SERVERIP>,<PORT>;  
Database=<DBNAME>;  
User Id=<USERNAME>;  
Password=<PASSWORD>;  
DataTypeCompatibility=80;
```

According to the instance name and port we used in this example, the connection string looks like this (connecting to the specified instance, fix port):

```
Provider=SQLNCLI10;  
Server=ORFSRV\SQL2008,1234;  
Database=ORF;  
User Id=orfuser;  
Password=NewPassword;  
DataTypeCompatibility=80;
```

6. Finally, test the connection string by clicking the *Test Connection* button. You should get a message: “*Connection test was successful*”.

## Connecting the Greylisting database

1. Start the **ORF Administration Tool**.
2. Select *Blacklists / Greylisting* and click the **Database** button.
3. Continue as in the case of the Auto Sender Whitelist setup steps 3-6.

## Connecting the DHA database

1. Start the **ORF Administration Tool**.
2. In *Blacklists / DHA Protection Test* click on the **Database** button.
3. Continue as in the case of the Auto Sender Whitelist setup steps 3-6.

## Connecting the Honeypot database

1. Start the **ORF Administration Tool**.
2. In *Blacklists / Honeypot Test* click on the **Database** button.
3. Continue as in the case of the Auto Sender Whitelist setup steps 3-6.

## Connecting the SQL Log database

1. Start the **ORF Administration Tool**.
2. In *System / Log* click on the **SQL Log Configure** button.
3. Select the **Connection** tab and continue as in the case of the Auto Sender Whitelist setup steps 4-6.

## CONNECTING ORF TO A REMOTE DATABASE

In case your SQL Server is installed on a separate server or you would like to configure multiple ORF instances to share the Auto Sender Whitelist and Greylisting databases, you should install the **Microsoft SQL Server Native Client** tool in order to connect to the remote database server.

You can download this tool from [here](#). The connection method is the same for the remote connections as described above.

## TECHNICAL SUPPORT

Please find our technical support contact options on our website at:

<https://vamsoft.com/r?o-support>