

# **INSTALLING MICROSOFT SQL SERVER AND CONFIGURING REPORTING SERVICES**

## **TECHNICAL ARTICLE**

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# 1. INTRODUCTION

## 1.1. Overview

Microsoft SQL Server 2005/2008 R2/2012 Express with Advanced Services provides the Reporting Services platform that enables creating, viewing, and managing reports based on data stored in the local SQL Server Express instance. NetWrix products use Reporting Services to generate reports on events and changes in your IT infrastructure.

This article provides detailed instructions on how to install and configure different Microsoft SQL Server Express versions for Reporting Services to function properly. It lists product requirements, guides you through the installation process, and explains how to configure the target servers.

**Note:** This article only lists the configuration steps required for proper functioning of NetWrix products. For full details on SQL Server installation, please refer to Microsoft documentation.

This guide can be used by system integrators and network administrators.

## 1.2. How This Guide is Organized

This section explains how this guide is organized and provides a brief overview of each chapter.

- Chapter [1 Introduction](#): the current chapter. It explains the purpose of this document, defines its audience and explains its structure.
- Chapter [2 Installing Microsoft SQL Server 2005 Express and Configuring Reporting Services](#) provides instructions on how to install Microsoft SQL Server 2005 Express on Windows 7/ Windows Vista and Windows 2008 and configure Reporting Services.
- Chapter [3 Installing Microsoft SQL Server 2008 R2 Express and Configuring Reporting Services](#) provides instructions on how to install Microsoft SQL Server 2008 R2 Express and configure Reporting Services.
- Chapter [4 Installing Microsoft SQL Server 2012 Express and Configuring Reporting Services](#) provides instructions on how to install Microsoft SQL Server 2012 Express and configure Reporting Services.

# 2. INSTALLING MICROSOFT SQL SERVER 2005 EXPRESS AND CONFIGURING REPORTING SERVICES

This section provides instructions on how to install Microsoft SQL Server 2005 Express on Windows 7/ Windows Vista and Windows 2008 and configure Reporting Services used by NetWrix products. Perform the following procedures in the order they are provided:

- [Configuring IIS](#) ○ [Configuring IIS on Windows 7/Windows Vista](#) ○ [Configuring IIS on Windows 2008](#)
- [Installing SQL Server 2005 Express](#)
- [Enabling script execution for IIS](#)

## 2.1. System Requirements

### 2.1.1. Hardware Requirements

Before installing MS SQL Server 2005 Express, make sure that your hardware meets the following requirements:

*Table 1: Hardware Requirements*

Component	Requirement
Processor	1 GHz or faster
Free hard-disk space	600 MB
RAM	Minimum 512 MB, recommended 1 GB or more

### 2.1.2. Software Requirements

For Reporting Services to operate normally, IIS 7.0 and .NET Framework 2.0 are required.

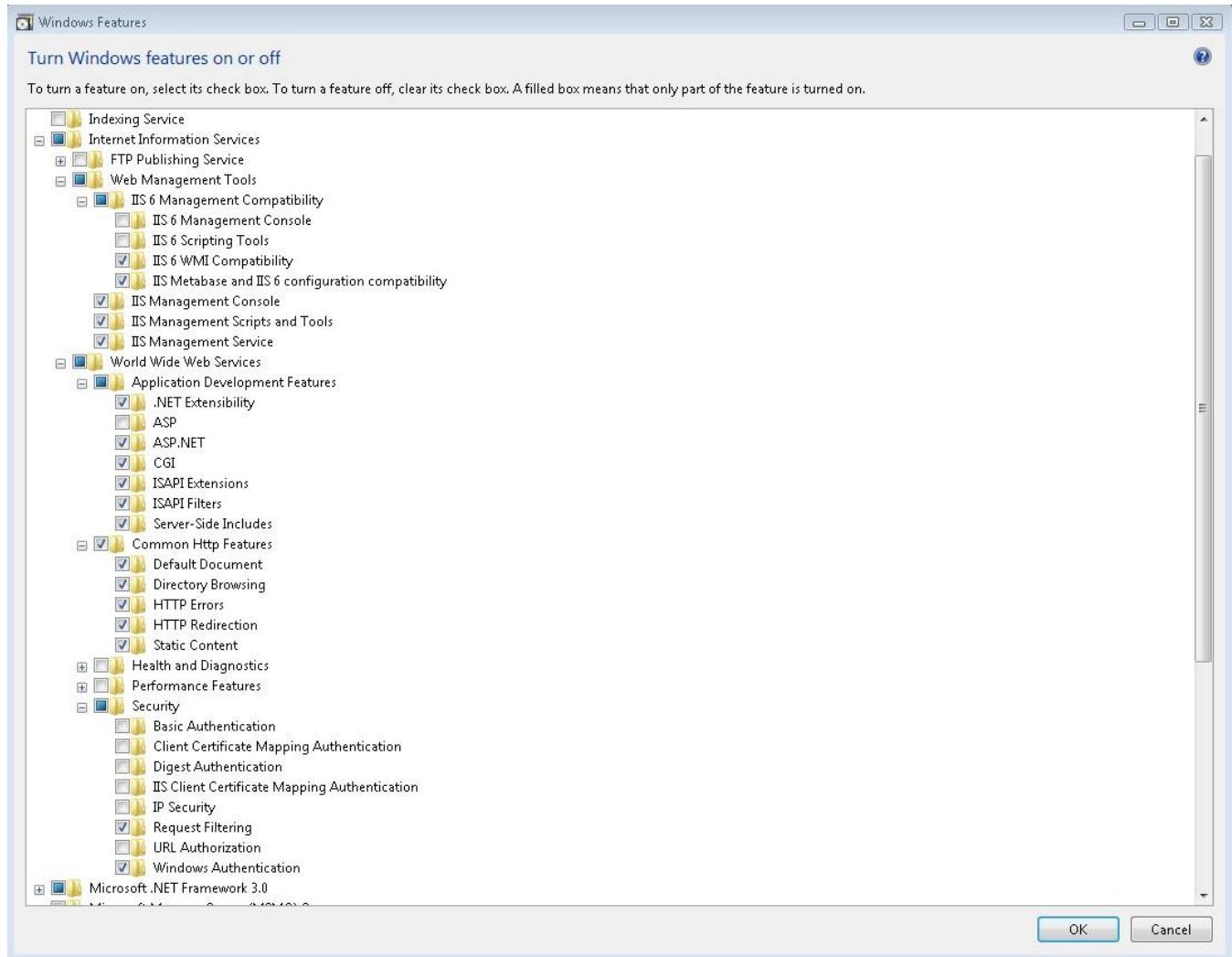
## 2.2. Configuring IIS

### 2.2.1. Configuring IIS on Windows 7/Windows Vista

#### Procedure 1. To configure IIS on Windows 7 / Windows Vista

1. Go to Start → Control Panel → Programs → Programs and Features → Turn Windows features on or off.
2. Make sure that Internet Information Services are configured as shown in the figure below:

Figure 1: IIS Configuration



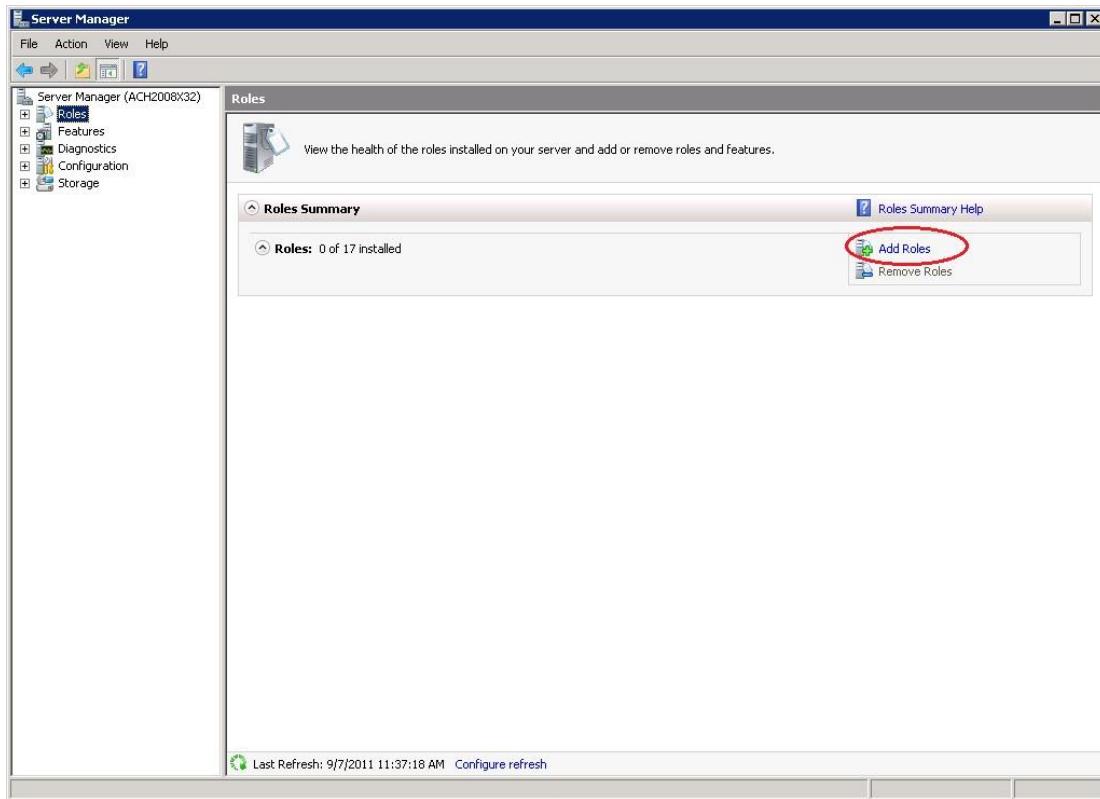
## 2.2.2. Configuring IIS on Windows 2008

### Procedure 2. To configure IIS on Windows 2008

1. Go to Start → Administrative Tools and launch the **Server Manager** snap-in.
2. Select the **Roles** node and click **Add Roles** on the right:

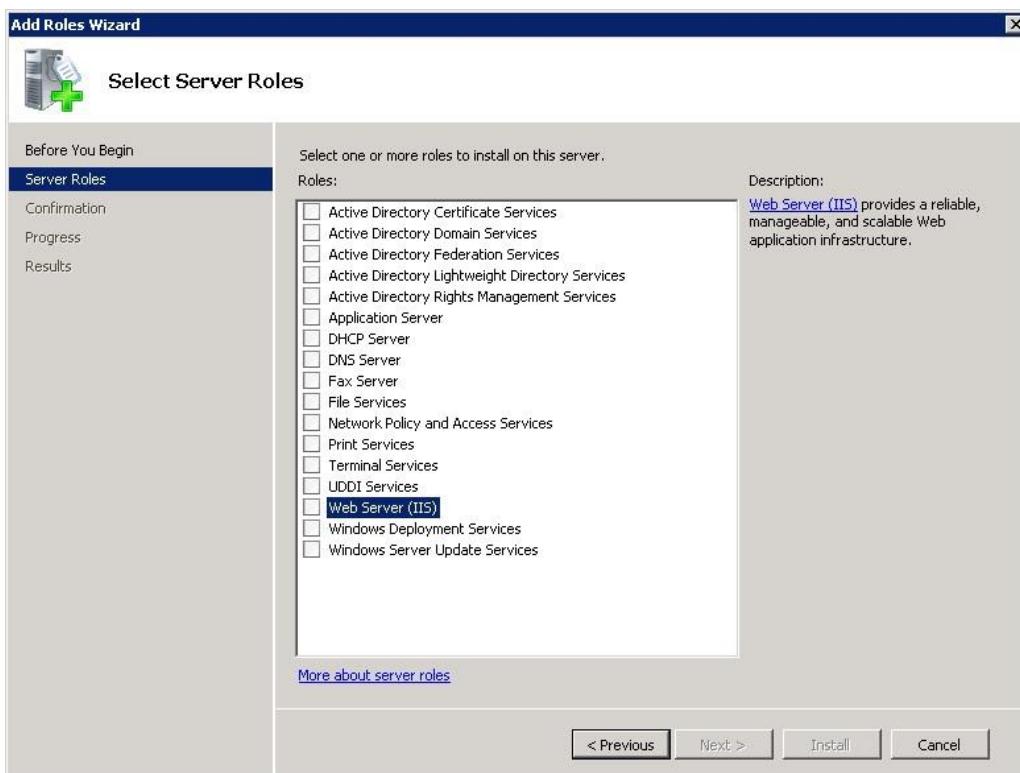
## Installing Microsoft SQL Server and Configuring Reporting Services

Figure 2: Server Manager



3. In the Add Roles Wizard, click **Server Roles** on the left, select **Web Server (IIS)** on the right, and click **Next**:

Figure 3: Add Roles Wizard: Select Server Roles



4. On the next step, select **Role Services** under **Web Server (IIS)** and make sure the role services are configured as shown in the figures below:

Figure 4: Add Roles Wizard: Select Role Services

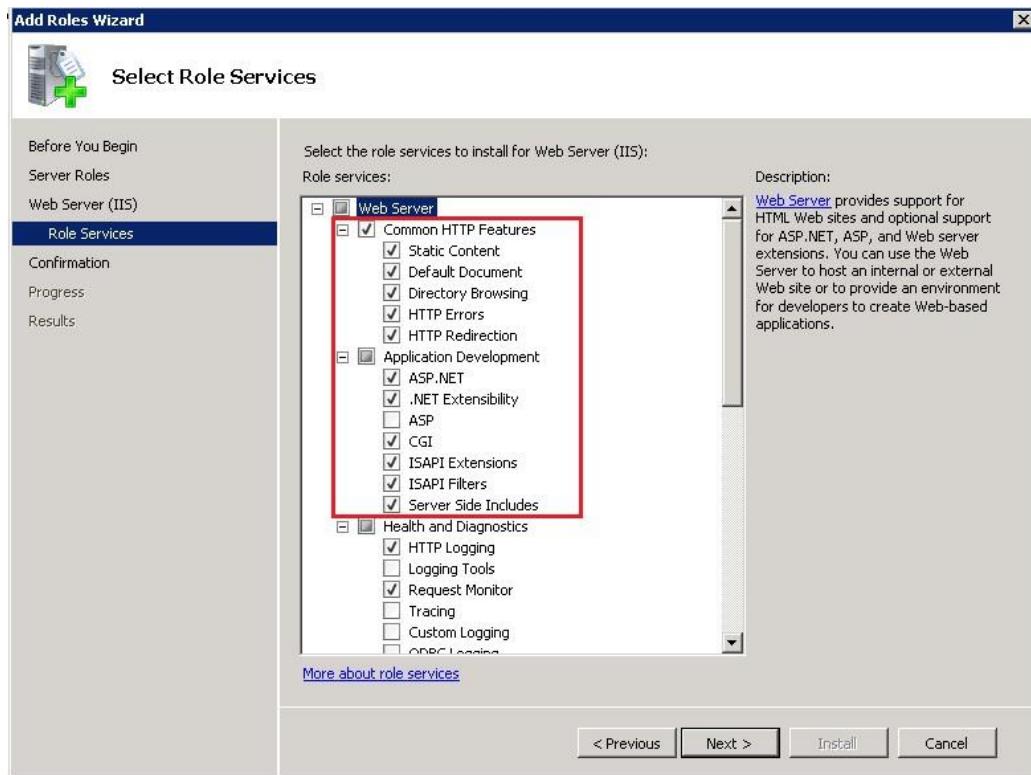


Figure 5: Add Roles Wizard: Select Role Services (continued)

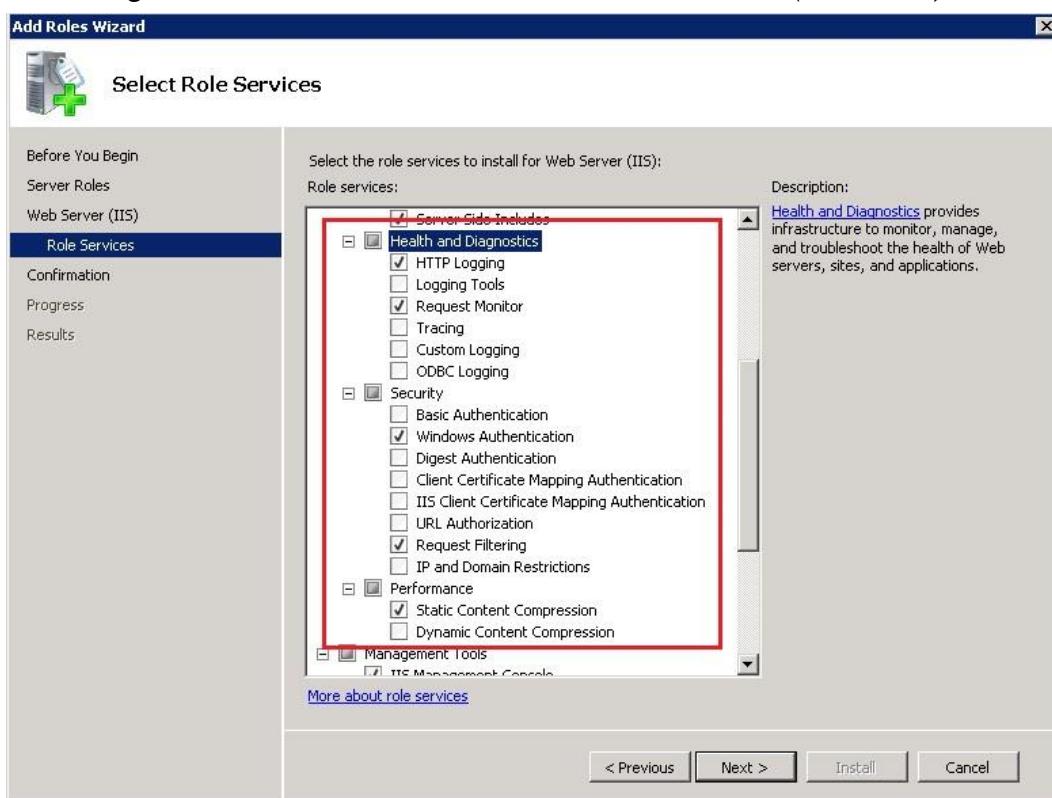
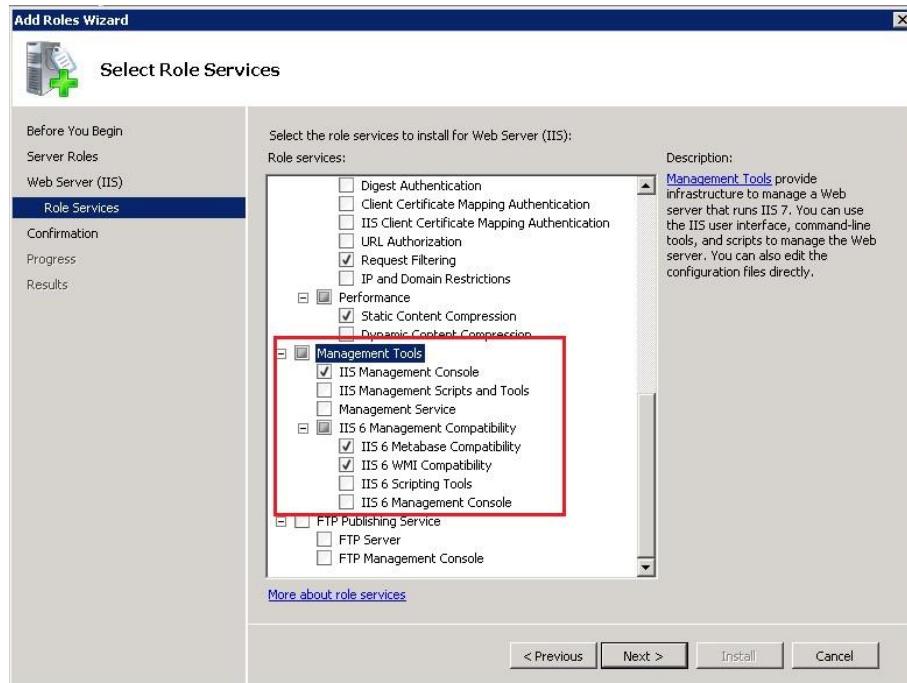


Figure 6: Add Roles Wizard: Select Role Services (continued)



## 2.3. Installing SQL Server 2005 Express

Microsoft SQL Server 2005 Express installation package can be downloaded at [Microsoft Download Center](#).

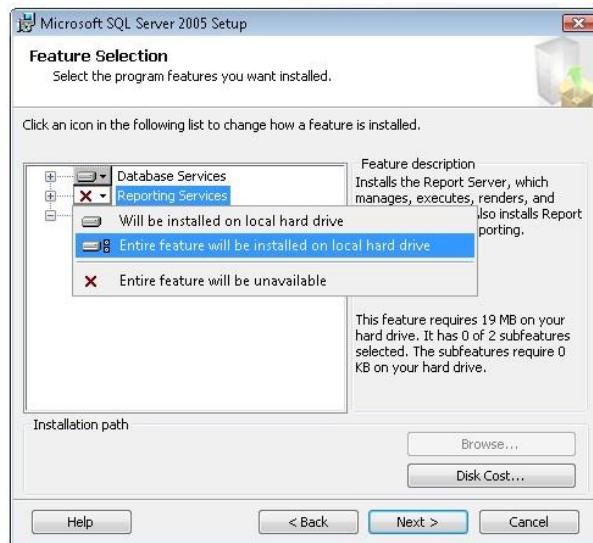
### Procedure 3. To install SQL Server 2005 Express on Windows 7 / Windows Vista or Windows 2008

1. Run the installation package and follow the instructions of the wizard until you get to the **Registration Information** page. On this page, clear the **Hide advanced configuration options** check box and click **Next**: *Figure 7: Registration Information Page*



2. On the **Feature Selection** page, click the  icon next to the **Reporting Services** node, and select the **Entire feature will be installed on local hard drive** option:

*Figure 8: Feature Selection Page*



3. Follow the instructions of the wizard to complete the installation.

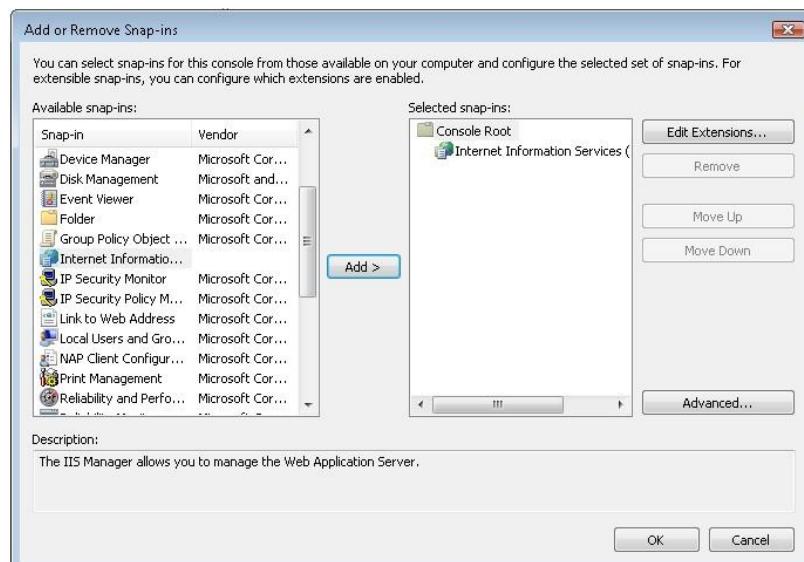
## 2.4. Enabling Script Execution in IIS

To enable script execution in IIS on Windows 7 / Windows Vista or Windows 2008, perform the following procedure:

### Procedure 4. To enable script execution in IIS

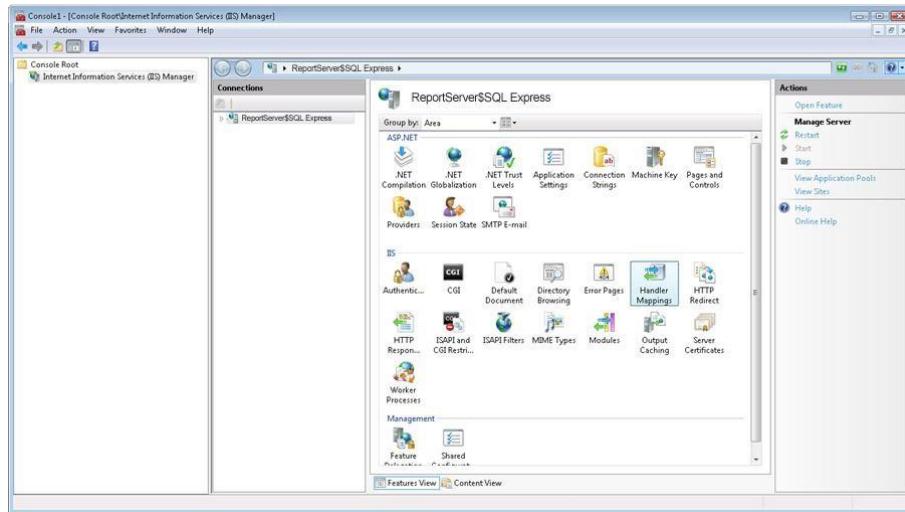
1. Go to Start → Run and launch the Microsoft Management Console by typing mmc.
2. Select **Add/Remove Snap-in** from the **File** menu. In the window that opens, select **Internet Information Services** from the **Available snap-ins** list and click the **Add** button. Then click **OK**:

*Figure 9: Add or Remove Snap-ins Dialog*



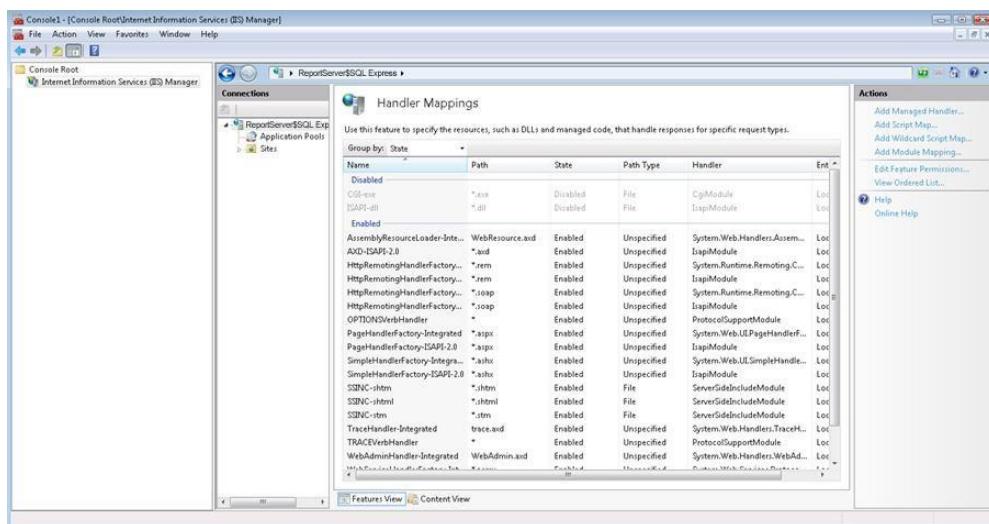
3. Select the **Internet Information Services (IIS) Manager** node and double-click **Handler Mappings** in the right pane:

*Figure 10: ReportServer\$SQLExpress Home Page*



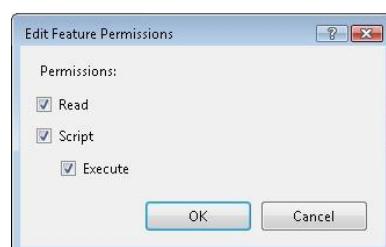
4. On the **Handler Mappings** page, select ‘CGI-exe’ under **Disabled** and click **Edit Feature Permissions** in the **Actions** pane on the right:

*Figure 11: Handler Mappings*



5. Select the **Script** and **Execute** options in the dialog box that opens and click **OK**:

*Figure 12: Edit Feature Permissions Dialog*



6. Repeat the same operation for ‘ISAPI-dll’.
7. Restart IIS by executing the `IISRESET` command in the command prompt.

### 3. INSTALLING MICROSOFT SQL SERVER 2008 R2 EXPRESS AND CONFIGURING REPORTING SERVICES

This section provides instructions on how to install Microsoft SQL Server 2008 R2 Express and configure the Reporting Services used by NetWrix products. Perform the following procedures in the order they are provided:

- [Installing SQL Server 2008 R2 Express](#)
- [Verifying Reporting Services Installation](#)

**Note:** These instructions are applicable to any Windows version.

#### 3.1. System Requirements

##### 3.1.1. Hardware Requirements

Before installing MS SQL Server 2008 R2 Express, make sure that your hardware meets the following requirements:

*Table 2: Hardware Requirements*

Component	Requirement
Processor	Minimum 1.4 GHz, recommended 2 GHz or faster
Free hard disk space	Minimum 2.2 GB
RAM	Minimum 512 MB; recommended 2 GB and more

##### 3.1.2. Software Requirements

Before installing MS SQL Server 2008 R2 Express, make sure that your software meets the following requirements:

*Table 3: Software Requirements*

Component	Requirement
OS	Windows XP / Windows Server 2003 / Windows Vista / Windows Server 2008 / Windows 7 / Windows Server 2008 R2 <b>NOTE:</b> both 32-bit and 64-bit platforms are supported
Framework	<a href="#">Microsoft .NET Framework 3.5 SP1</a>
Additional Software	<ul style="list-style-type: none"> <li>• <a href="#">Windows Installer 4.5</a></li> <li>• <a href="#">Windows PowerShell 1.0</a></li> </ul>

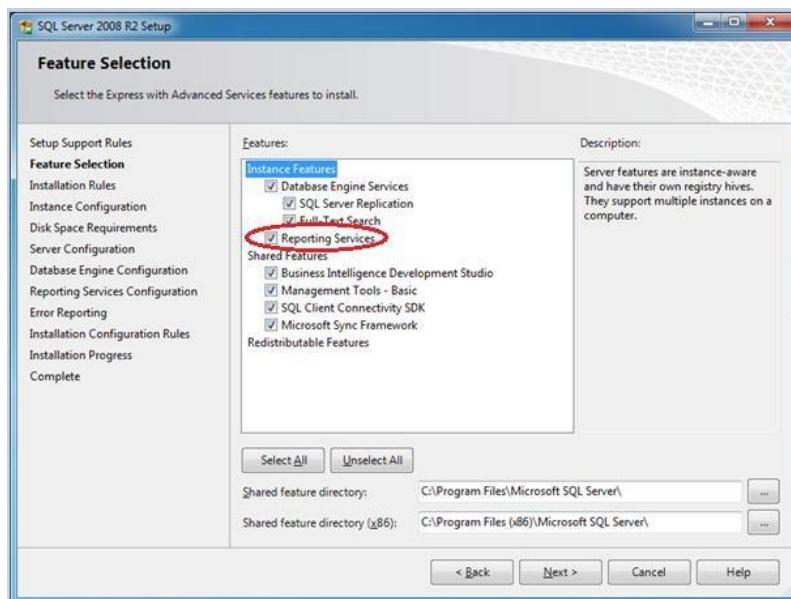
## 3.2. Installing SQL Server 2008 R2 Express

Microsoft SQL Server 2008 R2 Express installation package can be downloaded at [Microsoft Download Center](#).

### Procedure 5. To install SQL Server 2008 R2 Express

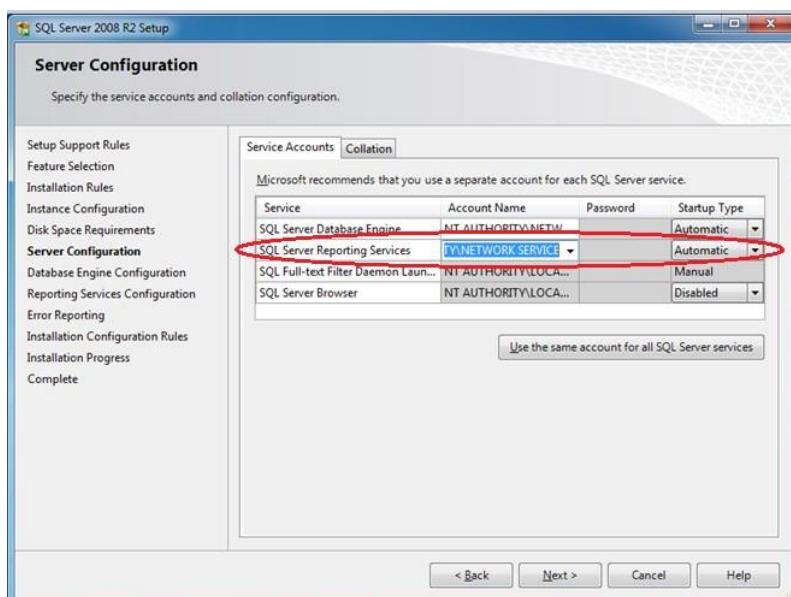
- Run the installation package and follow the instructions of the wizard until you get to the **Feature Selection** page. On this page, ensure that the **Reporting Services** option is selected under **Instance Features**, and click **Next**:

*Figure 13: Feature Selection Page*



- Proceed with the wizard until you get to the **Server Configuration** page. On this page, ensure that the SQL Server Reporting Services will run under the Network Service account, and its startup type is set to 'Automatic':

*Figure 14: Server Configuration Page*



- Follow the instructions of the wizard to complete the installation.

### 3.3. Verifying Reporting Services Installation

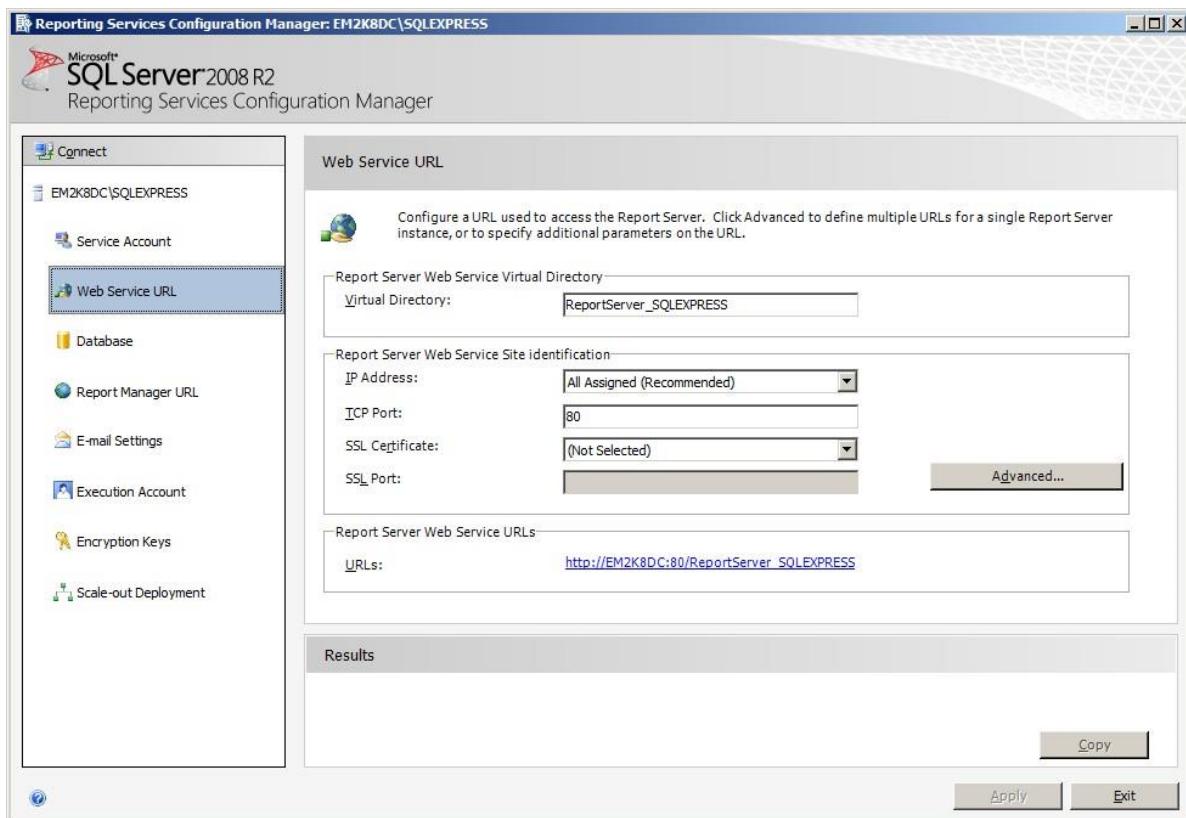
As a rule, NetWrix products can use Reporting Services installed with the default settings. However, to ensure that Reporting Services are properly configured, it is recommended to perform the following procedure:

**Note:** You must be logged in as a member of the local administrators group on the computer where SQL Server 2008 R2 Express is installed.

#### Procedure 6. To verify the Reporting Services installation

1. Navigate to Start → All Programs → Microsoft SQL Server 2008 R2 → Configuration Tools → Reporting Services Configuration Manager.
2. In the Reporting Services Configuration Connection dialog, make sure that your local report server instance (for example SQLEXPRESS) is selected and click Connect.
3. In the Reporting Services Configuration Manager left pane, select Web Service URL. The following page will be displayed:

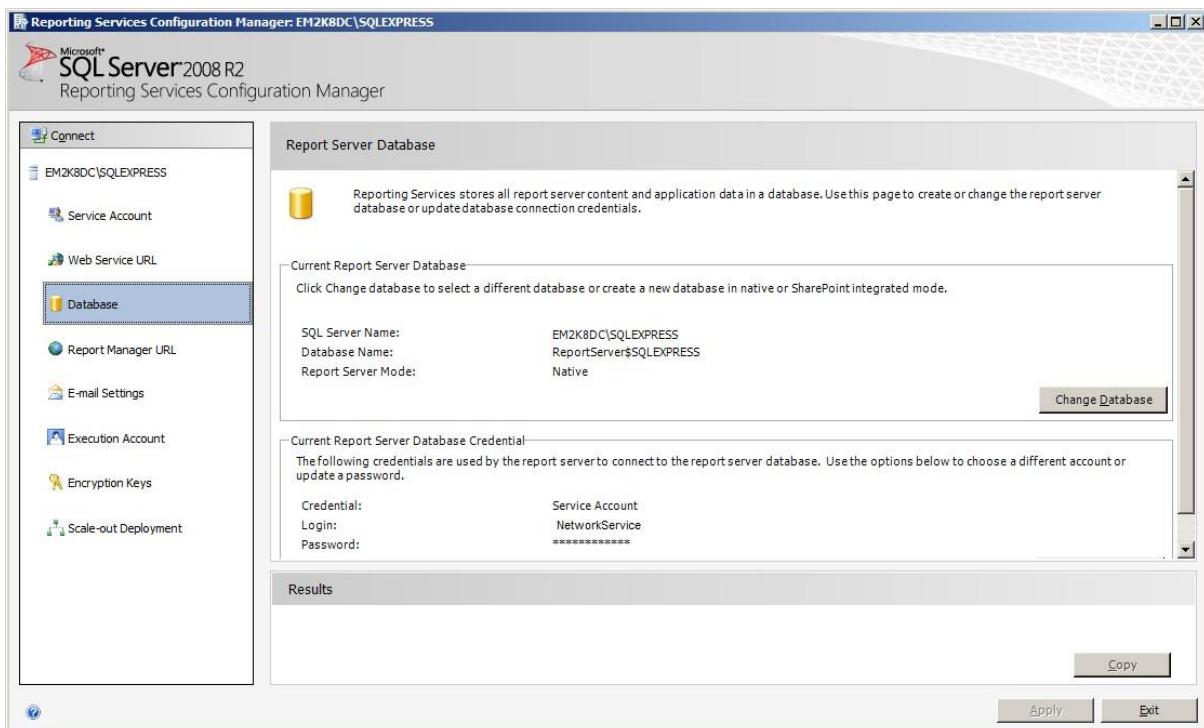
Figure 15: Web Services URL Page



4. On this page, make sure that the Virtual Directory parameter is set to 'ReportServer\_<YourSqlServerInstanceName>' ('ReportServer\_SQLEXPRESS' for the SQLEXPRESS instance), and that the TCP Port is set to 80. Click Apply.
5. In the Reporting Services Configuration Manager left pane, select Database. The following page will be displayed:

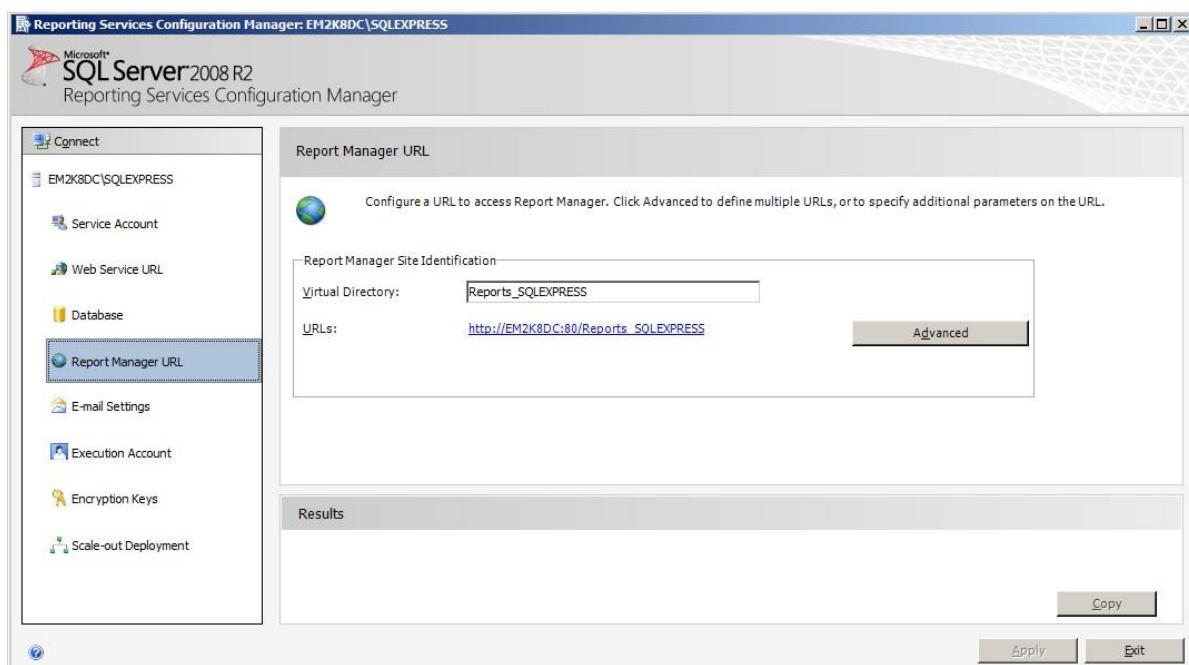
## Installing Microsoft SQL Server and Configuring Reporting Services

Figure 16: Database Page



6. On this page, ensure that the **SQL Server Name** and **Database Name** fields contain correct values. If not, click the **Change Database** button and complete the Report Server Database Configuration wizard.
7. In the Reporting Services Configuration Manager left pane, select **Report Manager URL**. The following page will be displayed:

Figure 17: Report Manager URL Page



8. On this page, ensure that the **Virtual Directory** parameter is set correctly, and that the URL is valid.
9. Click **Exit** to close the Reporting Services Configuration Manager.

## 4. INSTALLING MICROSOFT SQL SERVER 2012 EXPRESS AND CONFIGURING REPORTING SERVICES

This section provides instructions on how to install Microsoft SQL Server 2012 Express and configure the Reporting Services used by NetWrix products. Perform the following procedures in the order they are provided:

- [Installing SQL Server 2012 Express](#)
- [Verifying Reporting Services Installation](#)

### 4.1. System Requirements

#### 4.1.1. Hardware Requirements

Before installing MS SQL Server 2012 Express, make sure that your hardware meets the following requirements:

*Table 4: Hardware Requirements*

Component	Requirement
Processor	Minimum 1 GHz for x86 Processor / 1.4 GHz for x64 Processor, recommended 2 GHz or faster
Free hard-disk space	Minimum 6 GB
RAM	Minimum 512 MB; recommended 1 GB

#### 4.1.2. Software Requirements

Before installing MS SQL Server 2012 Express, make sure that your software meets the following requirements:

*Table 5: Software Requirements*

Component	Requirement
OS	Windows Server 2012 / Windows Server 2008 R2 SP1 /Windows 8 / Windows 7 SP1 / Windows Server 2008 SP2 / Windows Vista SP2 NOTE: 32-bit and 64-bit platforms are supported
Framework	<a href="#">Microsoft .NET Framework 3.5 SP1</a> Microsoft .NET Framework 4.0 is also required if you install SQL Server Express on a Server Core installation of Windows Server 2008 R2 SP1 or Windows Server 2012.
Additional Software	<ul style="list-style-type: none"> <li>• <a href="#">Internet Explorer 7 or later</a></li> <li>• <a href="#">Windows PowerShell 2.0</a></li> </ul>

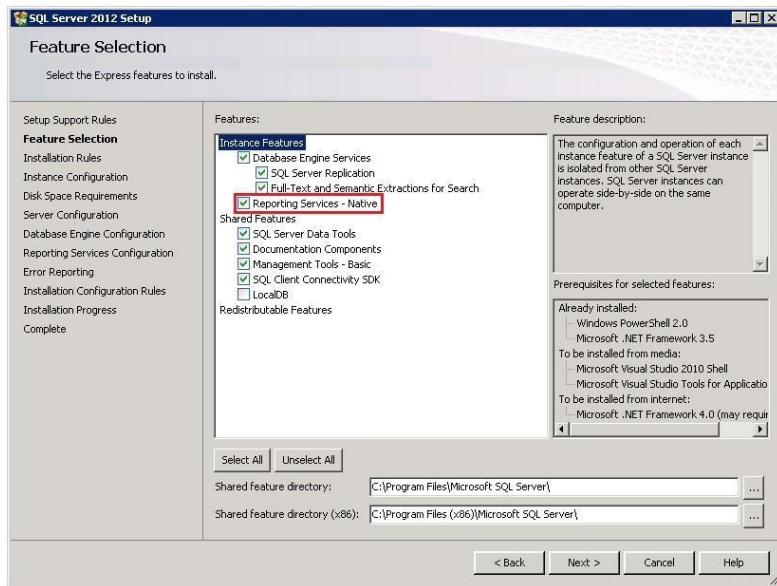
## 4.2. Installing SQL Server 2012 Express

Microsoft SQL Server 2012 Express installation package can be downloaded at [Microsoft Download Center](#): select either ENU\x64\SQLEXPRAADV\_x64\_ENU.exe or ENU\x86\SQLEXPRAADV\_x86\_ENU.exe download packages.

### Procedure 7. To install SQL Server 2012 Express

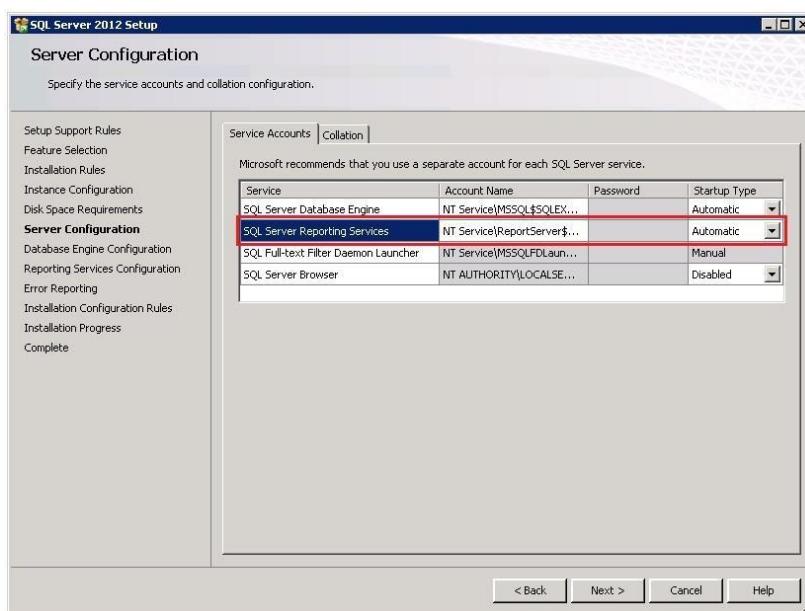
1. Run the installation package and follow the instructions of the wizard until you get to the **Feature Selection** page. On this page, ensure that the **Reporting Services** option is selected under **Instance Features**, and click **Next**:

*Figure 18: Feature Selection Page*



2. Proceed with the wizard until you get to the **Server Configuration** page. On this page, ensure that SQL Server Reporting Services will run under the Network Service account, and its startup type is set to 'Automatic':

*Figure 19: Server Configuration Page*



3. Follow the instructions of the wizard to complete the installation.

## 4.3. Verifying Reporting Services Installation

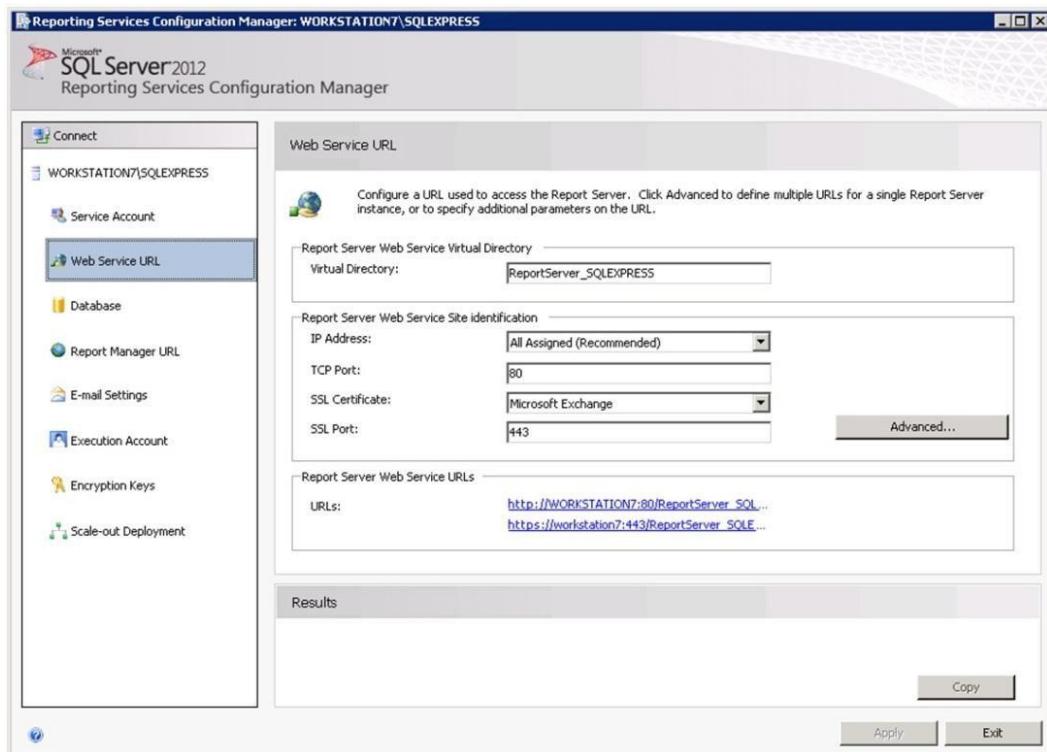
As a rule, NetWrix products can use Reporting Services installed with the default settings. However, to ensure that Reporting Services are properly configured, it is recommended to perform the following procedure:

**Note:** You must be logged in as a member of the local administrators group on the computer where SQL Server 2012 Express is installed.

### Procedure 8. To verify the Reporting Services installation

1. Navigate to Start → All Programs → Microsoft SQL Server 2012 → Configuration Tools → Reporting Services Configuration Manager.
2. In the **Reporting Services Configuration Connection** dialog, make sure that your local report server instance (for example **SQLExpress**) is selected and click **Connect**.
3. In the Reporting Services Configuration Manager left pane, select **Web Service URL**. The following page will be displayed:

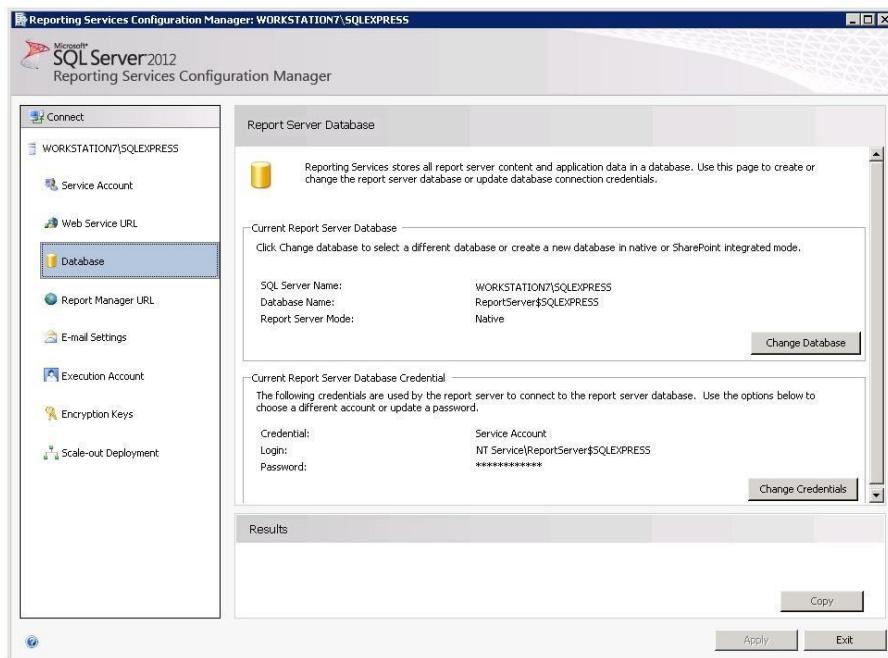
Figure 20: Web Services URL Page



4. On this page, make sure that the **Virtual Directory** parameter is set to '**ReportServer\_<YourSqlServerInstanceName>**' ('ReportServer\_SQLEXPRESS' for the **SQLEXPRESS** instance), and that the **TCP Port** is set to **80**. Click **Apply**.

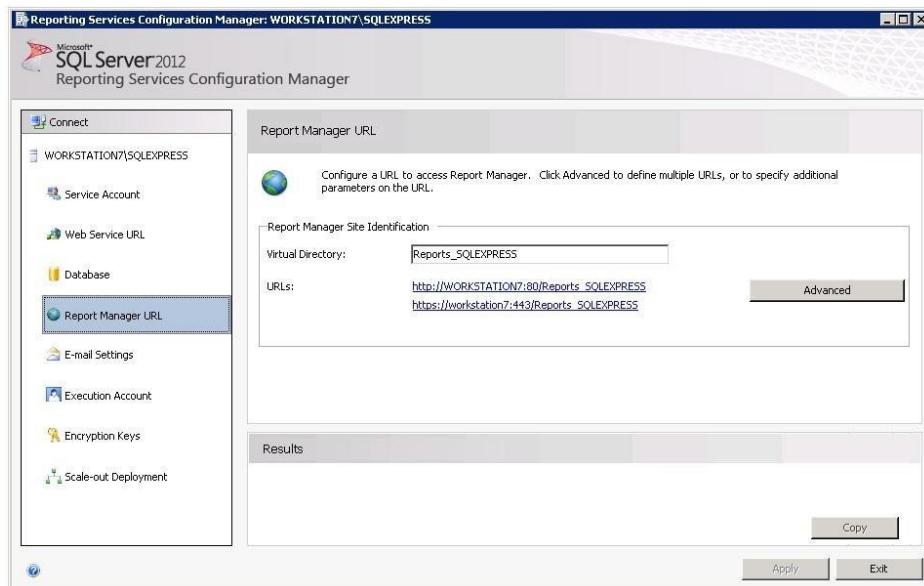
- In the Reporting Services Configuration Manager left pane, select **Database**. The following page will be displayed:

*Figure 21: Database Page*



- On this page, ensure that the **SQL Server Name** and **Database Name** fields contain correct values. If not, click the **Change Database** button and complete the Report Server Database Configuration wizard.
- In the Reporting Services Configuration Manager left pane, select **Report Manager URL**. The following page will be displayed:

*Figure 22: Report Manager URL Page*



- On this page, ensure that the **Virtual Directory** parameter is set correctly, and that the URL is valid.
- Click **Exit** to close the Reporting Services Configuration Manager.