

SSRS NATIVE CONFIGURATION IN A SQL ALWAYS-ON CLUSTER



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Contents

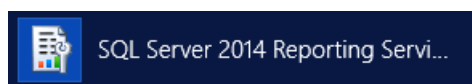
Introduction	2
Configure the Web Service URL	2
Configure the Report manager URL	4
Configure the Service Account	7
Configure the Database.....	7
Add the ReportServer & ReportServerTempDB DB's to the AO Cluster	11
Add the second SSRS Server and configure it	11
Scale-out Deployment.....	15

Introduction

SQL Server Reporting Services (SSRS) is installed in to each SQL instance. The other method of deployment uses SharePoint and is a shared resource on the SQL Server. Each instance that needs SSRS native, will need to have it installed individually either at the instance setup or as an additional feature later on.

NOTE: When installing Reporting Services, it is important to choose Install but do not configure server.

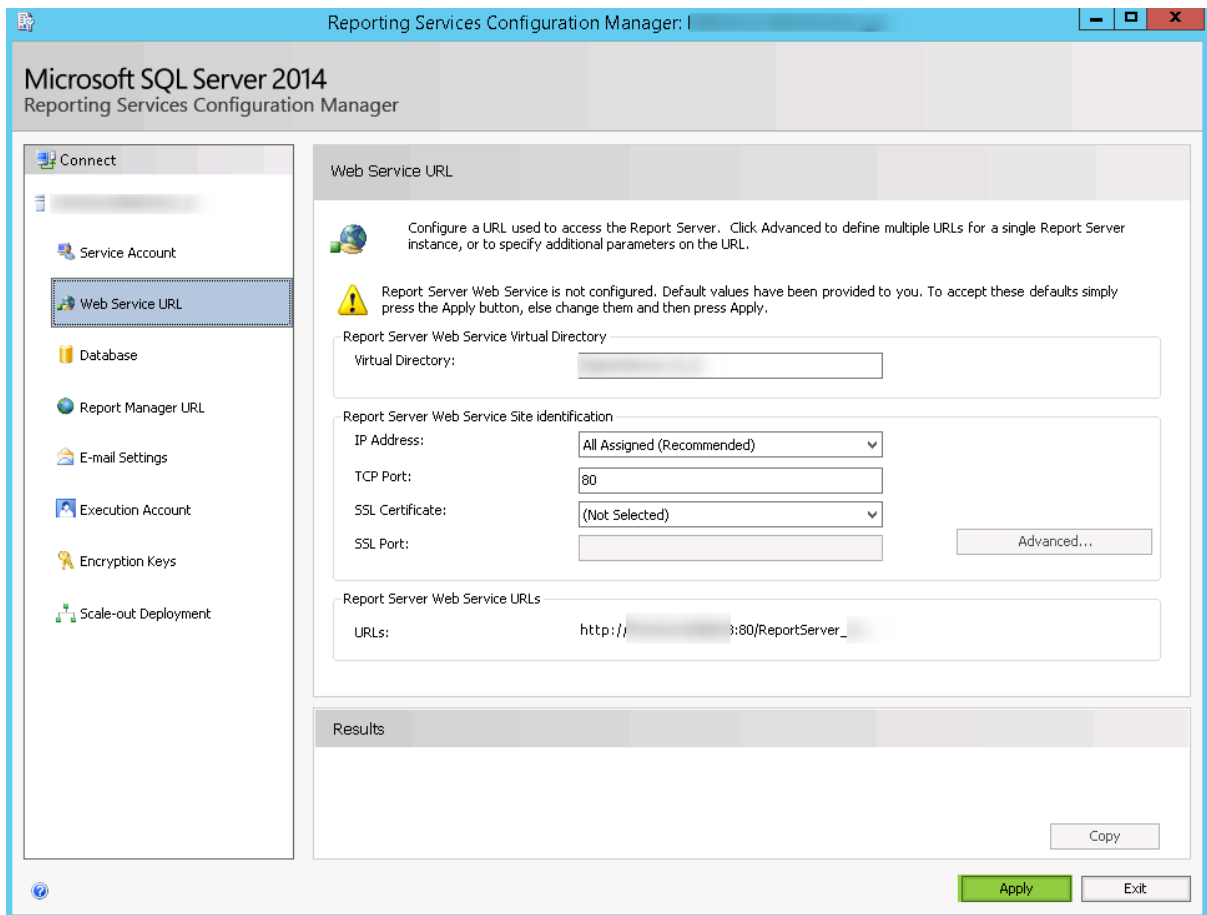
This document assumes that the SSRS feature is already installed and you need to configure it. On the primary SQL server in the Availability Group (See SQL Management Studio – or RDP to the Listener name) open “Reporting Services Configuration Manager” from the start menu.



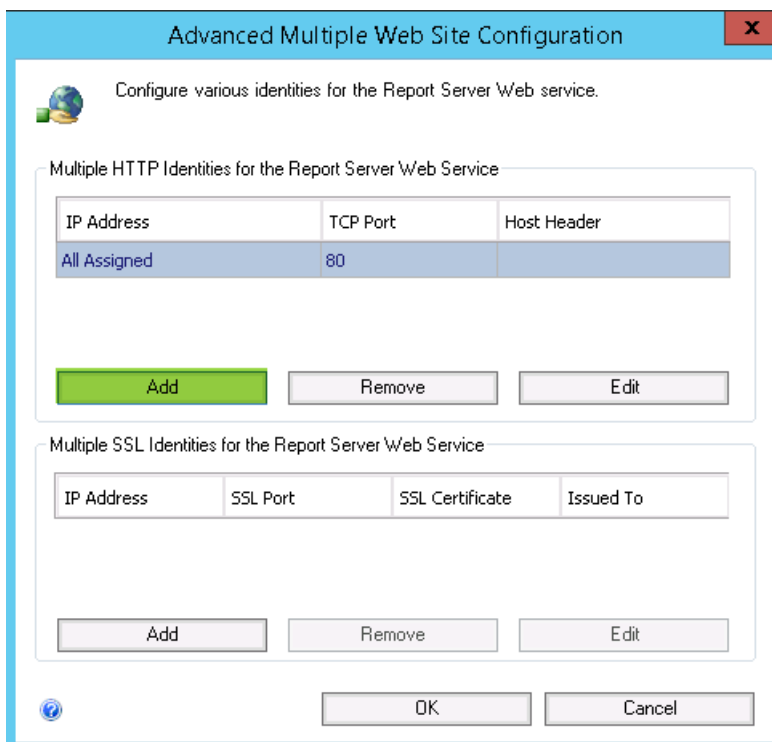
Note this is being done on SQL 2014, but the process is the same in SQL 2016! 😊

Configure the Web Service URL

In Reporting Services Configuration Manager, Web service URLs and Report Manager URLs are used to access the Report Server Web service and Report Manager. By default, Reporting Services provides default URLs as shown below but you can change them as per your requirement using the Advanced button. Click the Advanced Button.



Click the Add button:



Enter the Listener name under host header:

Add a Report Server HTTP URL

Identification

IP Address All Assigned

Host Header Name

TCP Port 80

URL http:// :80/ReportSer...

Back to the advance screen, note the extra line and click OK:

Advanced Multiple Web Site Configuration

Configure various identities for Report Manager.

Multiple Identities for Report Manager

IP Address	TCP Port	Host Header
All Assigned	80	
	80	

Multiple SSL Identities for Report Manager

IP Address	SSL Port	SSL Certificate	Issued To
------------	----------	-----------------	-----------

Results. Note the URL for the local server and the listener are created:

Report Server Web Service URLs

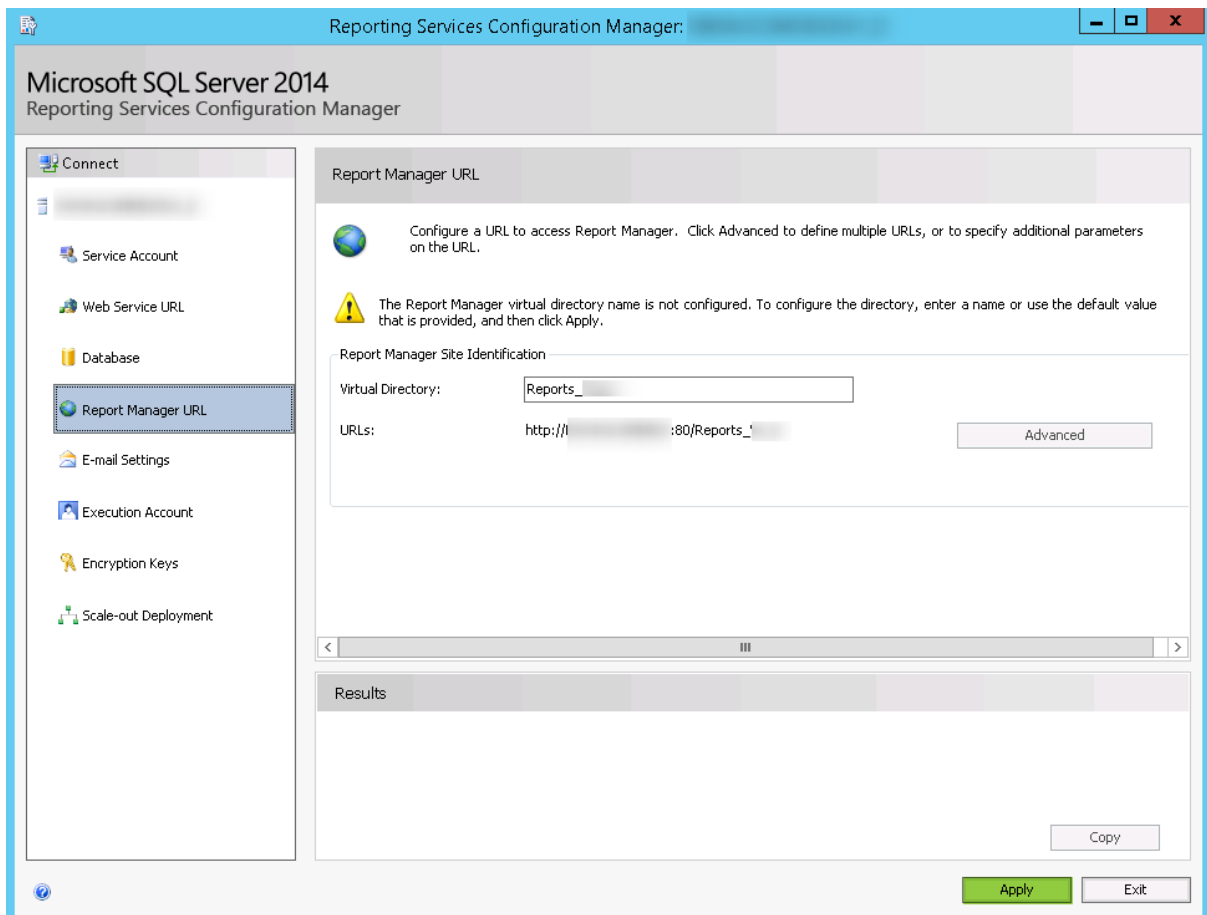
URLs: <http:// :80/ReportServer>
<http:// :80/ReportServer>

Results

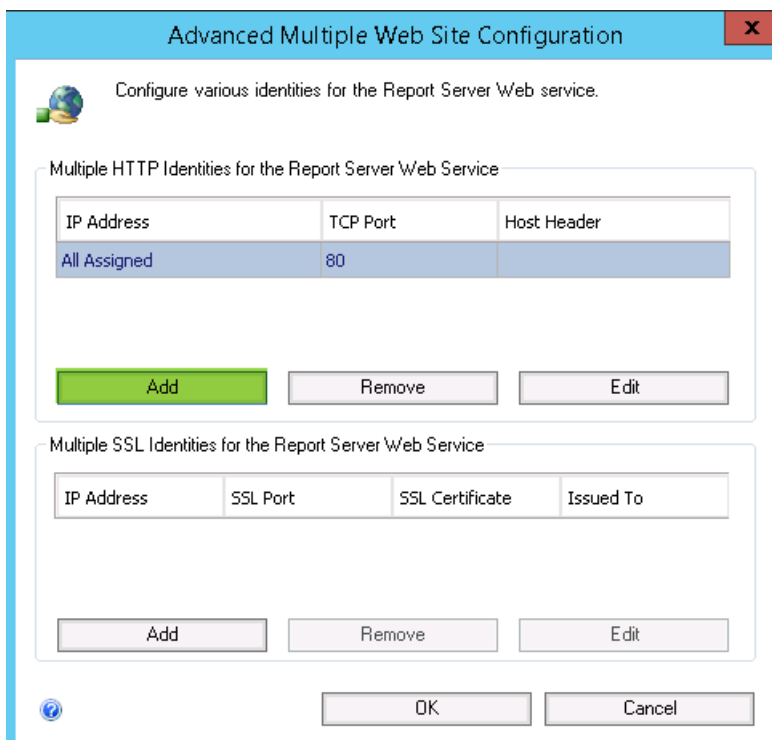
✓ Reserving url http:// :80
 The url was successfully reserved.

Configure the Report manager URL

In Reporting Services, Report Manager URLs are used to access the Report Server Web service and Report Manager. By default, Reporting Services provides default URLs but you can change them as per your requirement by clicking the Advanced button. Click the Advanced Button.



This is exactly as adding the Host Header for the Web Service URL! Click the Add button:



Enter the Listener name under host header:

Add a Report Server HTTP URL

Identification

IP Address All Assigned

Host Header Name [Redacted]

TCP Port 80

URL http://[Redacted]:80/ReportSer...

Back to the advance screen, note the extra line and click OK:

Advanced Multiple Web Site Configuration

Configure various identities for Report Manager.

Multiple Identities for Report Manager

IP Address	TCP Port	Host Header
All Assigned	80	[Redacted]
[Redacted]	80	[Redacted]

Multiple SSL Identities for Report Manager

IP Address	SSL Port	SSL Certificate	Issued To
------------	----------	-----------------	-----------

Results. Note the URL for the local server and the listener are created:

Report Manager Site Identification

Virtual Directory: Reports_ [Redacted]

URLs: [http://\[Redacted\]:80/Reports_](http://[Redacted]:80/Reports_)
[http://\[Redacted\]:80/Reports_](http://[Redacted]:80/Reports_)

Results

✓ Reserving url http://[Redacted]:80

The url was successfully reserved.

Configure the Service Account

By default a reporting sets up a service account to manage the service, but I have a dedicated SQL account for this instance and want to use that instead. Click Apply.

The screenshot shows the 'Service Account' configuration page in the Reporting Services Configuration Manager. The left-hand navigation pane includes 'Connect', 'Service Account', 'Web Service URL', 'Database', 'Report Manager URL', and 'E-mail Settings'. The 'Service Account' section is active, displaying the following options:

- Report Server Service Account: Choose an option to set the service account and then click Apply.
- Use built-in account: ReportServer\$
- Use another account: (highlighted with a green box)
- Account (Domain\user): [Text Input Field]
- Password: [Text Input Field]

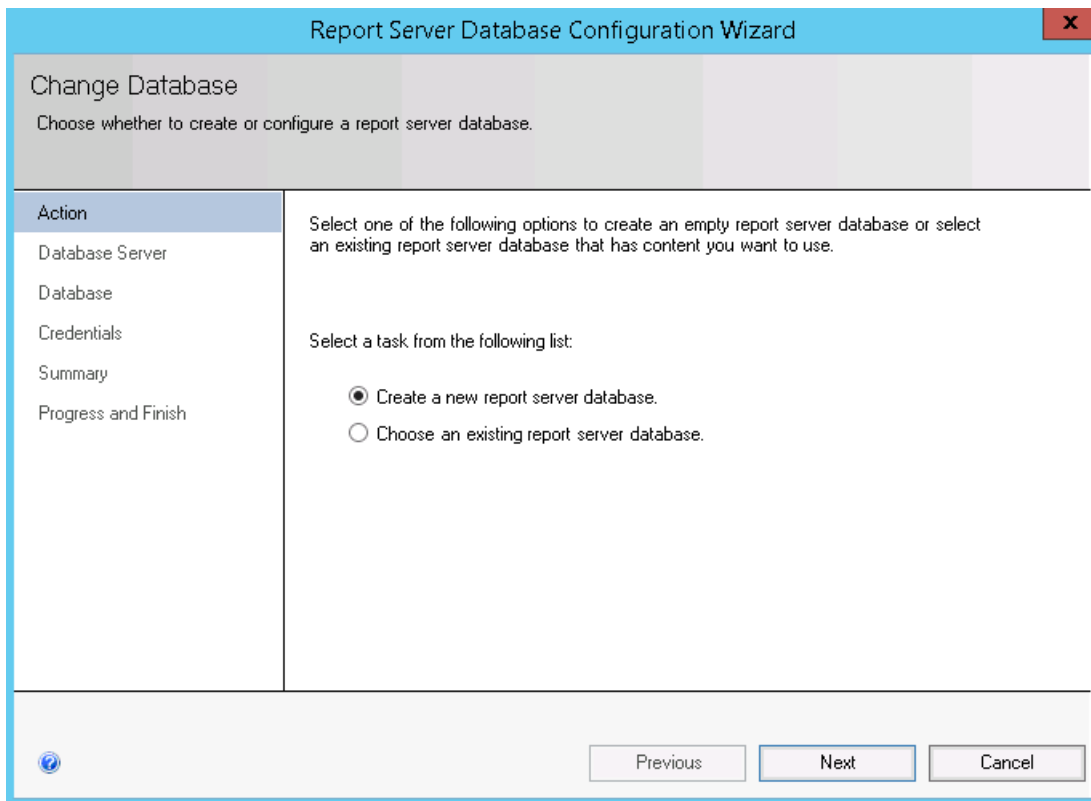
Configure the Database

Configure the Database to use the Listener name. Click Change Database:

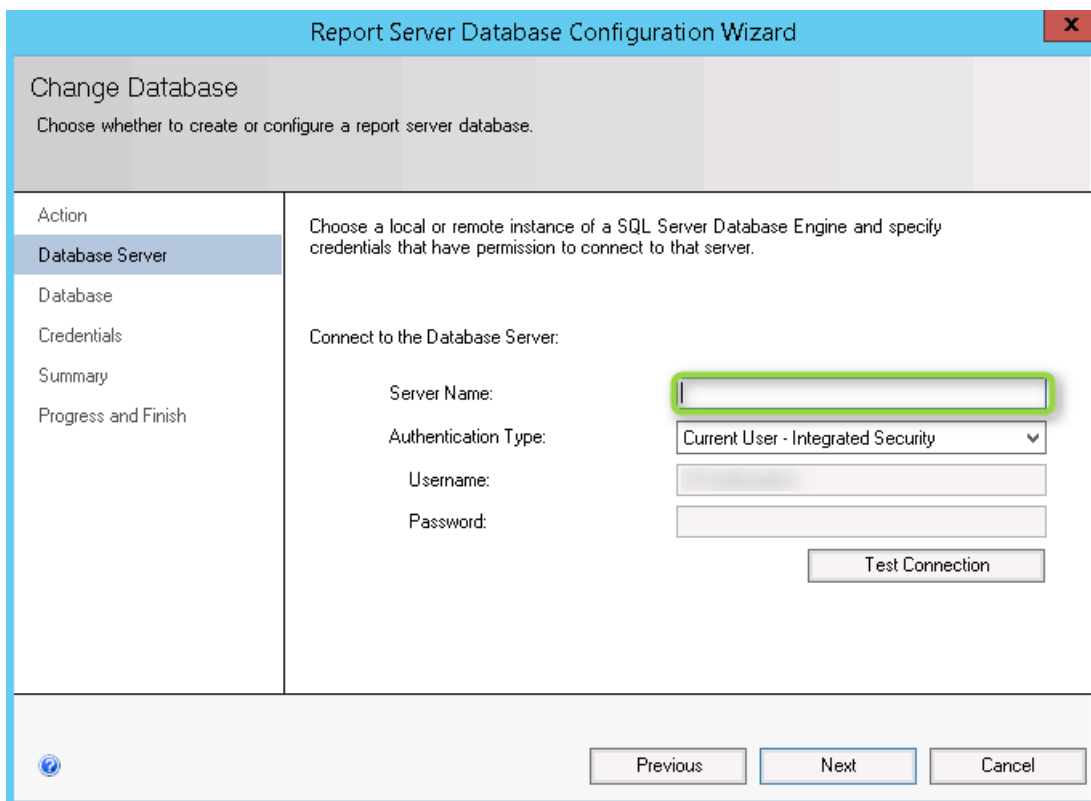
The screenshot shows the 'Report Server Database' configuration page in the Reporting Services Configuration Manager. The left-hand navigation pane includes 'Connect', 'Service Account', 'Web Service URL', 'Database', 'Report Manager URL', 'E-mail Settings', 'Execution Account', 'Encryption Keys', and 'Scale-out Deployment'. The 'Database' section is active, displaying the following options:

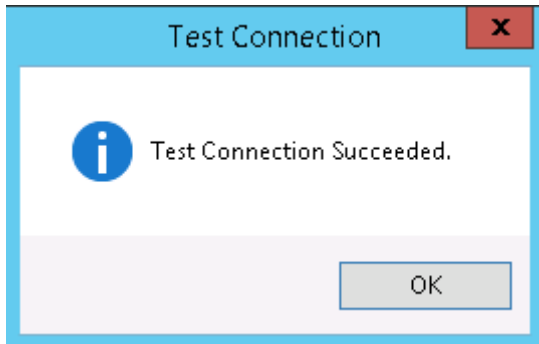
- Report Server Database: Reporting Services stores all report server content and application data in a database. Use this page to create or change the report server database or update database connection credentials.
- Current Report Server Database: Click Change database to select a different database or create a new database in native or SharePoint integrated mode.
- SQL Server Name:
- Database Name:
- Report Server Mode: [Change Database Button]
- Current Report Server Database Credential: The following credentials are used by the report server to connect to the report server database. Use the options below to choose a different account or update a password.
- Credential: Login: Password: [Change Credentials Button]
- Results: [Copy Button]
- [Apply Button] [Exit Button]

Create a new Report Server Database:

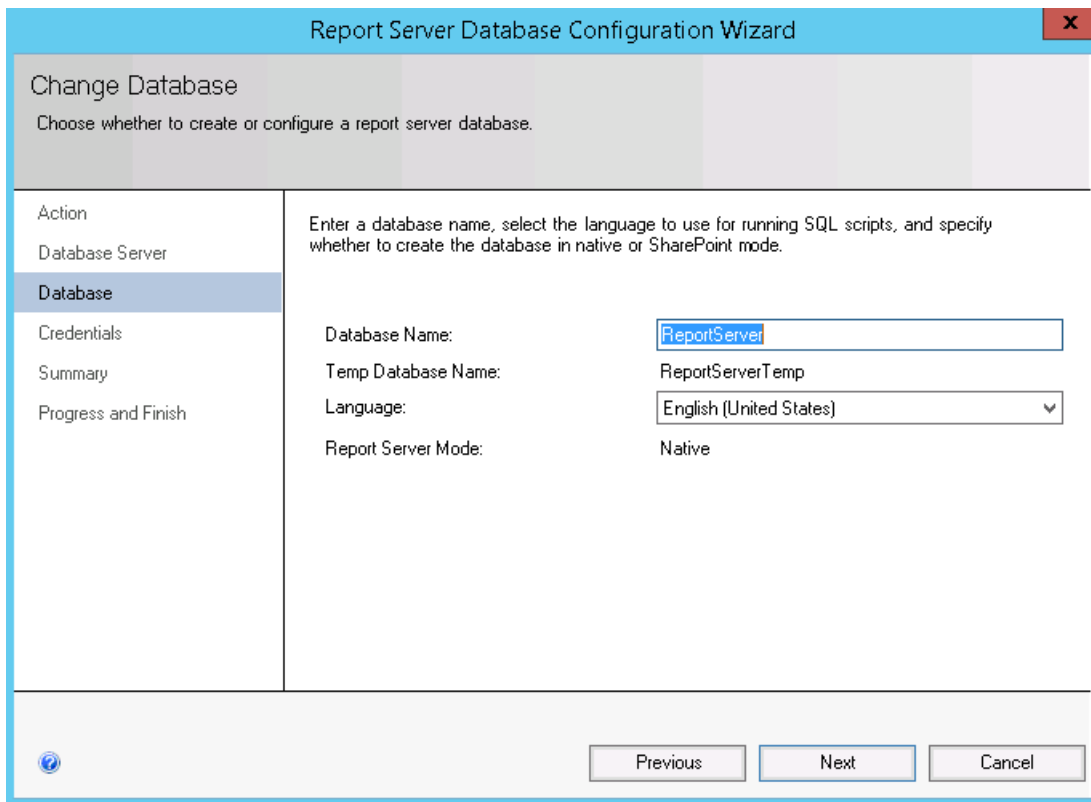


Enter the **Listener name** under Server Name and I left the authentication to me. Make sure to test the connection before proceeding...





Change the language if you want...



Under Credentials, note the service credentials are using the service account configured earlier.

Report Server Database Configuration Wizard [X]

Change Database
Choose whether to create or configure a report server database.

Action	<p>Specify the credentials of an existing account that the report server will use to connect to the report server database. Permission to access the report server database will be automatically granted to the account you specify.</p> <p>Credentials:</p> <p>Authentication Type: <input type="text" value="Service Credentials"/></p> <p>User name: <input type="text"/></p> <p>Password: <input type="text"/></p>
Database Server	
Database	
Credentials	
Summary	
Progress and Finish	

[?] Previous Next Cancel

Review the Summary, then click Next:

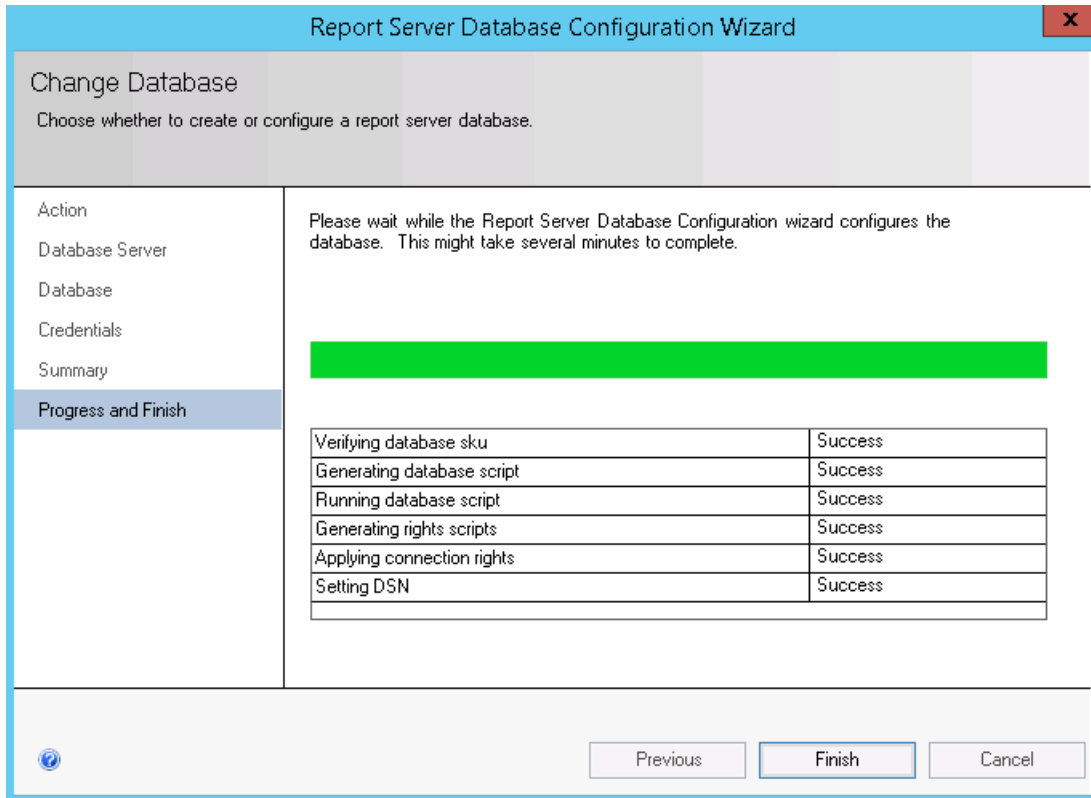
Report Server Database Configuration Wizard [X]

Change Database
Choose whether to create or configure a report server database.

Action	<p>The following information will be used to create a new report server database. Verify this information is correct before you continue.</p> <p>SQL Server Instance: <input type="text"/></p> <p>Report Server Database: ReportServer</p> <p>Temp Database: ReportServerTempDB</p> <p>Report Server Language: English (United States)</p> <p>Report Server Mode: Native</p> <p>Authentication Type: Service Account</p> <p>Username: <input type="text"/></p> <p>Password: <input type="text"/></p>
Database Server	
Database	
Credentials	
Summary	
Progress and Finish	

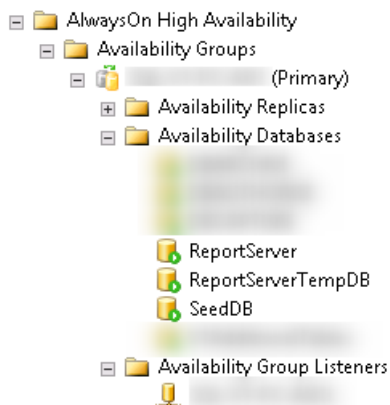
[?] Previous Next Cancel

Click Finish:



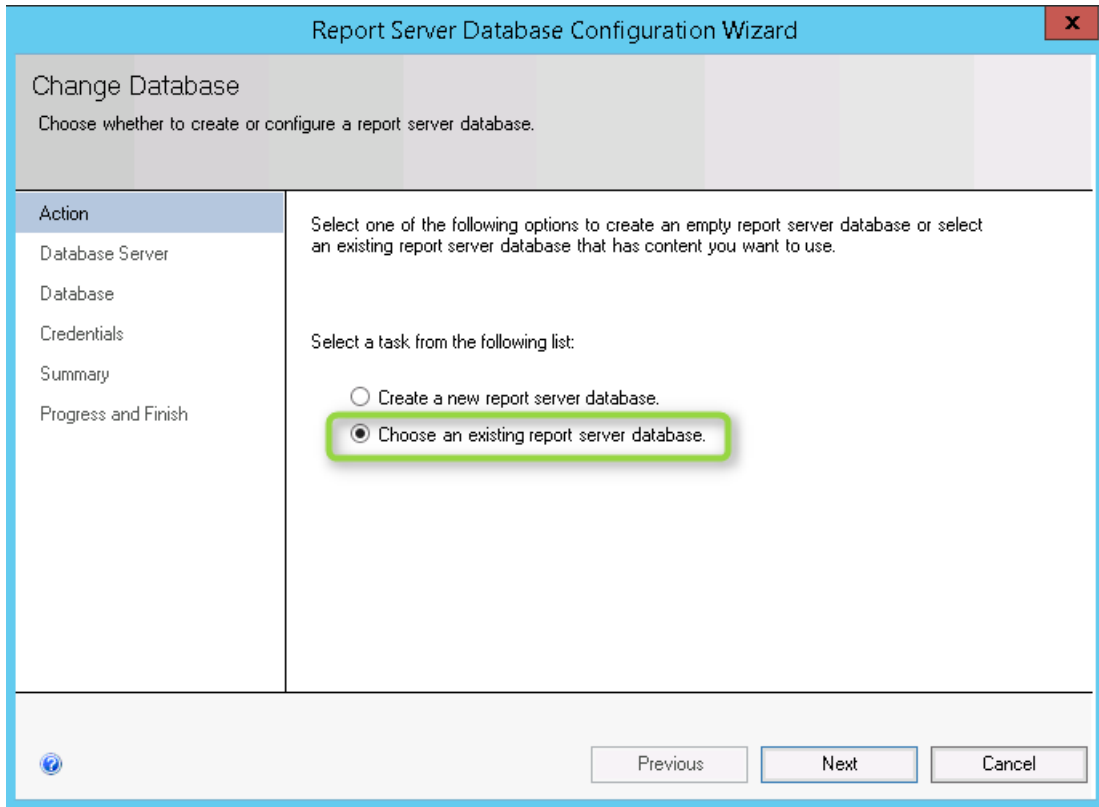
Add the ReportServer & ReportServerTempDB DB's to the AO Cluster

Refer to the SQL Always On Documentation for this information.

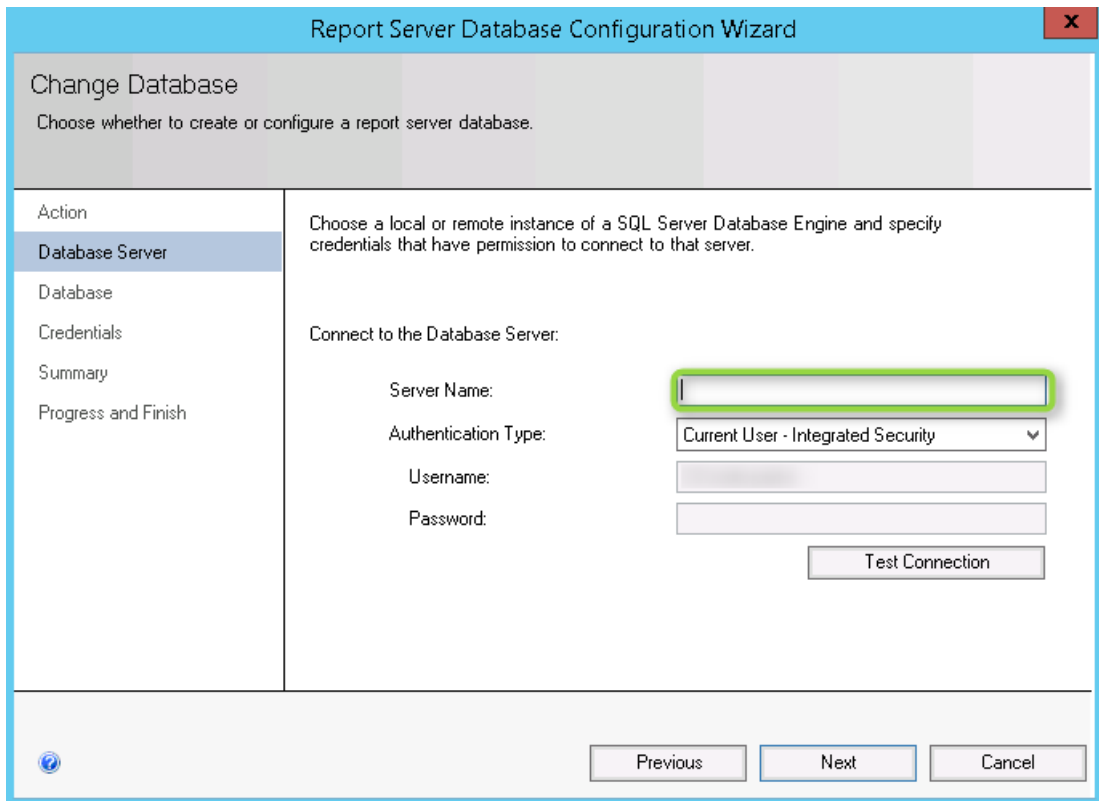


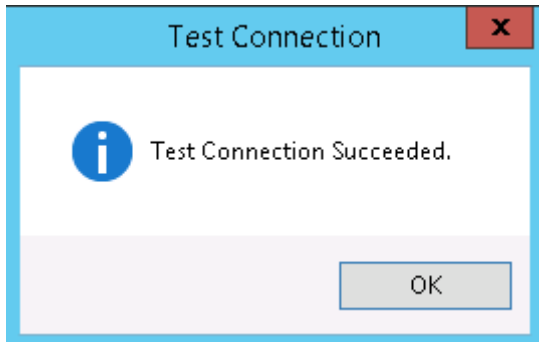
Add the second SSRS Server and configure it

Configure SSRS on the secondary server just as you did above for the first server apart from when you get to the DB configuration, you need to do the following to add the configuration to an existing report server database...

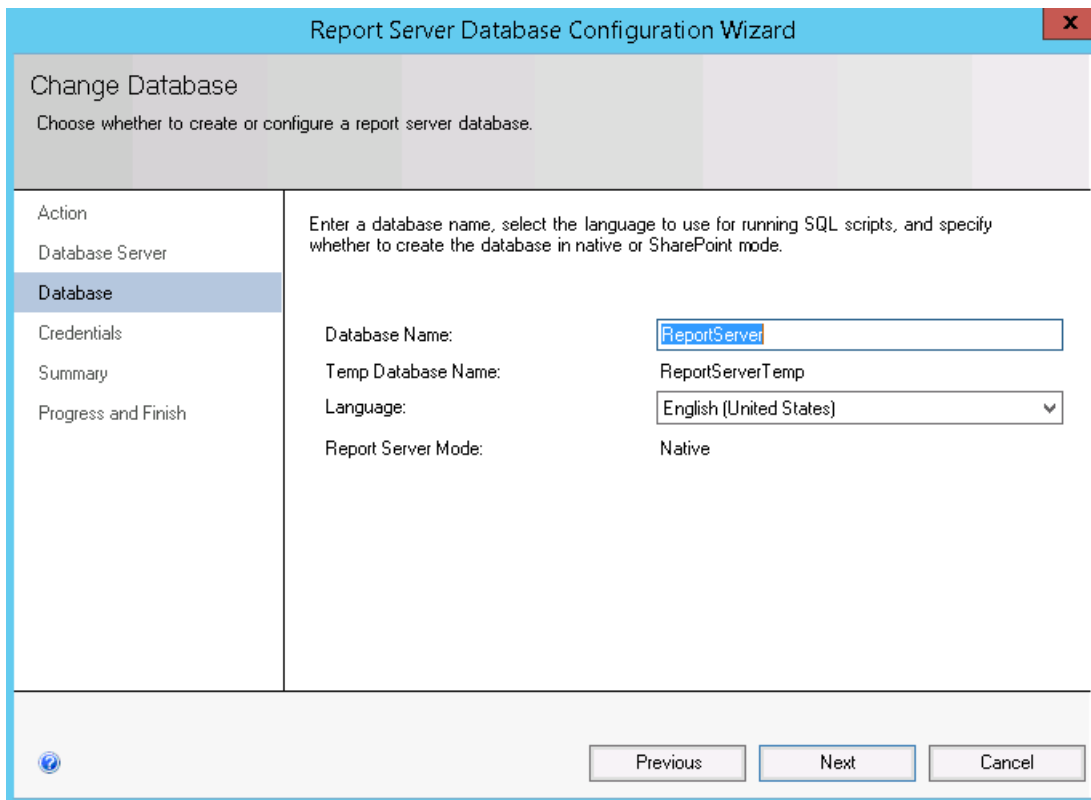


Enter the **Listener name** under Server Name and I left the authentication to me. Make sure to test the connection before proceeding...





Change the language if you want...



Under Credentials, note the service credentials are using the service account configured earlier.

Report Server Database Configuration Wizard [X]

Change Database
Choose whether to create or configure a report server database.

Action	<p>Specify the credentials of an existing account that the report server will use to connect to the report server database. Permission to access the report server database will be automatically granted to the account you specify.</p> <p>Credentials:</p> <p>Authentication Type: <input type="text" value="Service Credentials"/></p> <p>User name: <input type="text"/></p> <p>Password: <input type="password"/></p>
Database Server	
Database	
Credentials	
Summary	
Progress and Finish	

Previous Next Cancel

Review the Summary, then click Next:

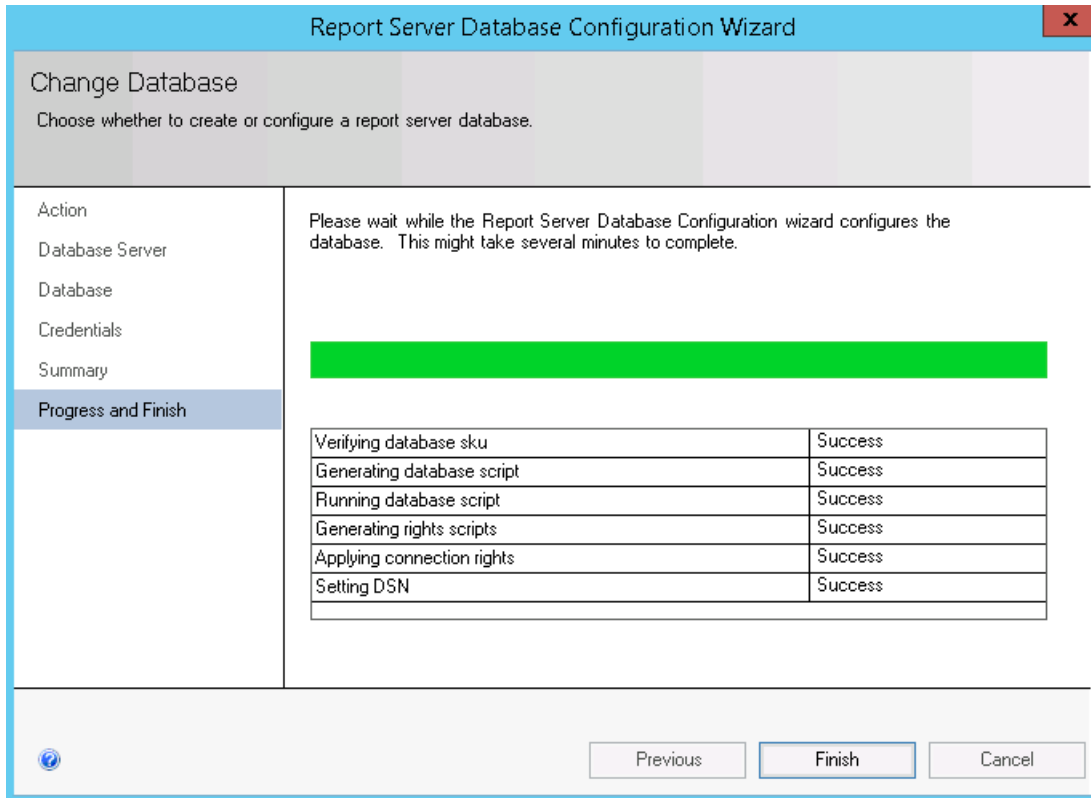
Report Server Database Configuration Wizard [X]

Change Database
Choose whether to create or configure a report server database.

Action	<p>The following information will be used to create a new report server database. Verify this information is correct before you continue.</p> <p>SQL Server Instance: <input type="text"/></p> <p>Report Server Database: ReportServer</p> <p>Temp Database: ReportServerTempDB</p> <p>Report Server Language: English (United States)</p> <p>Report Server Mode: Native</p> <p>Authentication Type: Service Account</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p>
Database Server	
Database	
Credentials	
Summary	
Progress and Finish	

Previous Next Cancel

Click Finish:



Scale-out Deployment

Back on the original server (The Primary), go to Scale-out Deployment. Note that the new server is there, but waiting to join. Click Add Server

Reporting Services Configuration Manager: [Min] [Max] [Close]

Microsoft SQL Server 2014 Reporting Services Configuration Manager

Connect

- Service Account
- Web Service URL
- Database
- Report Manager URL
- E-mail Settings
- Execution Account
- Encryption Keys
- Scale-out Deployment

Scale-out Deployment

Use this page to view information about a scale-out deployment. Report Servers that are joined to the scale-out can store encrypted data in a common Report Server database. Servers that are waiting to join the scale-out deployment must be added by a Report Server instance that is already part of the deployment.

Scale-out Deployment Status

SQL Server Name: [Redacted]
 Database Name: ReportServer
 Report Server Mode: Native

Server	Instance	Status
[Redacted]	[Redacted]	Joined
[Redacted]	[Redacted]	Waiting to Join

Results

Reporting Services Configuration Manager: [Min] [Max] [Close]

Microsoft SQL Server 2014 Reporting Services Configuration Manager

Connect

- Service Account
- Web Service URL
- Database
- Report Manager URL
- E-mail Settings
- Execution Account
- Encryption Keys
- Scale-out Deployment

Scale-out Deployment

Use this page to view information about a scale-out deployment. Report Servers that are joined to the scale-out can store encrypted data in a common Report Server database. Servers that are waiting to join the scale-out deployment must be added by a Report Server instance that is already part of the deployment.

Scale-out Deployment Status

SQL Server Name: [Redacted]
 Database Name: ReportServer
 Report Server Mode: Native

Server	Instance	Status
[Redacted]	[Redacted]	Joined
[Redacted]	[Redacted]	Joined

Results

✓ Joining report server "29d40abe-edeb-4ba9-aceb-9beb6ef83870" to the web farm of the local instance.

The task completed successfully.

After a short while, the server Scale-out Deployment details will show in the secondary server SSRS configuration. That's it!

NOTE: One thing this does not account for is scheduled reports. Those are setup as SQL Server Agent jobs on the SQL instance hosting the database at the time they are created! You have been warned! It may be worth investigating copying them to the secondary by scheduled task and enabling them if needed when the server flips over, but that's a story for another day. Goodnight IT land! 😊