Alibaba Cloud
ApsaraDB for MySQL

Best Practices

Legal disclaimer

Alibaba Cloud reminds you to carefully read and fully understand the terms and conditions of this legal disclaimer before you read or use this document. If you have read or used this document, it shall be deemed as your total acceptance of this legal disclaimer.

1. You shall download and obtain this document from the Alibaba Cloud website or other Alibaba Cloud-authorized channels, and use this document for your own legal business activities only. The content of this document is considered confidential information of Alibaba Cloud. You shall strictly abide by the confidentiality obligations. No part of this document shall be disclosed or provided to any third party for use without the prior written consent of Alibaba Cloud.

2. No part of this document shall be excerpted, translated, reproduced, transmitted, or disseminated by any organization, company, or individual in any form or by any means without the prior written consent of Alibaba Cloud.

3. The content of this document may be changed due to product version upgrades , adjustments, or other reasons. Alibaba Cloud reserves the right to modify the content of this document without notice and the updated versions of this document will be occasionally released through Alibaba Cloud-authorized channels. You shall pay attention to the version changes of this document as they occur and download and obtain the most up-to-date version of this document from Alibaba Cloud-authorized channels.

4. This document serves only as a reference guide for your use of Alibaba Cloud products and services. Alibaba Cloud provides the document in the context that Alibaba Cloud products and services are provided on an "as is", "with all faults " and "as available" basis. Alibaba Cloud makes every effort to provide relevant operational guidance based on existing technologies. However, Alibaba Cloud hereby makes a clear statement that it in no way guarantees the accuracy, integrity , applicability, and reliability of the content of this document, either explicitly or implicitly. Alibaba Cloud shall not bear any liability for any errors or financial losses incurred by any organizations, companies, or individuals arising from their download, use, or trust in this document. Alibaba Cloud shall not, under any circumstances, bear responsibility for any indirect, consequential, exemplary, incidental, special, or punitive damages, including lost profits arising from the use

or trust in this document, even if Alibaba Cloud has been notified of the possibility of such a loss.

5. By law, all the content of the Alibaba Cloud website, including but not limited to works, products, images, archives, information, materials, website architecture, website graphic layout, and webpage design, are intellectual property of Alibaba Cloud and/or its affiliates. This intellectual property includes, but is not limited to, trademark rights, patent rights, copyrights, and trade secrets. No part of the Alibaba Cloud website, product programs, or content shall be used, modified , reproduced, publicly transmitted, changed, disseminated, distributed, or published without the prior written consent of Alibaba Cloud and/or its affiliates . The names owned by Alibaba Cloud shall not be used, published, or reproduced for marketing, advertising, promotion, or other purposes without the prior written consent of Alibaba Cloud. The names owned by Alibaba Cloud include, but are not limited to, "Alibaba Cloud", "Aliyun", "HiChina", and other brands of Alibaba Cloud and/or its affiliates, which appear separately or in combination, as well as the auxiliary signs and patterns of the preceding brands, or anything similar to the company names, trade names, trademarks, product or service names, domain names, patterns, logos, marks, signs, or special descriptions that third parties identify as Alibaba Cloud and/or its affiliates).

6. Please contact Alibaba Cloud directly if you discover any errors in this document.

Generic conventions

Table -1: Style conventions

Style	Description	Example
⛔	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	⛔ Danger: Resetting will result in the loss of user configuration data.
⚠️	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	⚠️ Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
📋	This indicates warning informatio n, supplementary instructions, and other content that the user must understand.	① Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	📋 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus , page names, and other UI elements.	Click OK.
Courier font	It is used for commands.	Run the `cd / d  C :/ windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae  log  list -- instanceid` *Instance_ID*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig [-all|-t]`

Style	Description	Example
{} or {a|b}	**It indicates that it is a required value, and only one item can be selected.**	`swich` *{stand | slave}*

Contents

1 SQL Server

1.1 Use SSRS for an ApsaraDB RDS for SQL Server instance

You can install SQL Server Reporting Services (SSRS) on an ECS instance and create reports based on the data in an ApsaraDB RDS for SQL Server instance. This topic describes how to use ApsaraDB RDS for SQL Server instances as data sources to create reports.

Context

Microsoft SQL Server contains server components such as SQL Server database engine, SSRS, and SQL Server Analysis Services (SSAS). The SQL Server database engine is a standard relational database component. ApsaraDB RDS for SQL Server is a PaaS that provides this database engine. Components such as SSRS run as Windows services, and are not provided as PaaS services on Alibaba Cloud. If you need to use SSRS on Alibaba Cloud, you must create a Windows-based ECS instance before installing and configuring SSRS.

> 📋 **Note:**
> You cannot create the SSRS configuration database in an ApsaraDB RDS for SQL Server instance.

Prerequisites

· You have created an ApsaraDB RDS for SQL Server instance. For more information, see #unique_5.

· You have created an instance by using the wizard.

· You have installed SQL Server on the ECS instance.

> 📋 **Note:**
> The version of SQL Server on the ECS instance can be different from the version of the ApsaraDB RDS for SQL Server instance.
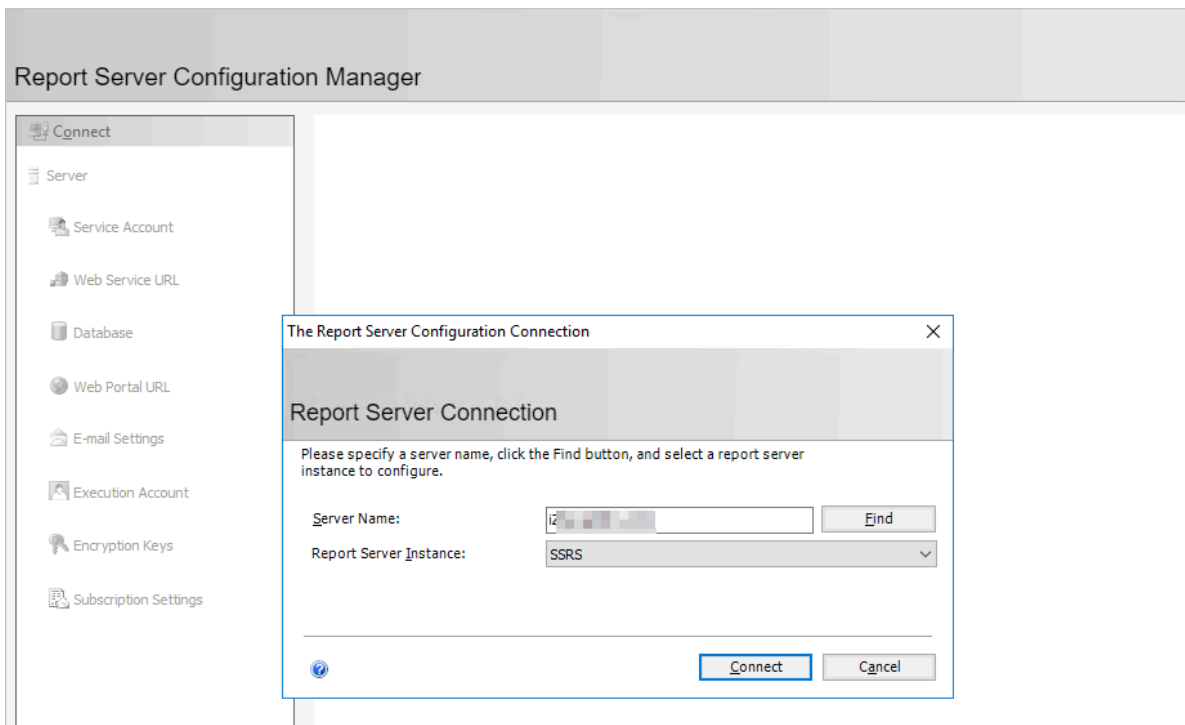
Procedure

1. Download and install Reporting Services in the ECS instance.

2. **Start the Report Server Configuration Manager. Configure Server Name and Report Server Instance. Click Connect.**

> **Note:**
>
> Report Server Configuration Manager automatically displays all the Report Server instances that are in the ECS instance. Select an instance as needed.

Report Server Configuration Manager

- Connect
- Server
  - Service Account
  - Web Service URL
  - Database
  - Web Portal URL
  - E-mail Settings
  - Execution Account
  - Encryption Keys
  - Subscription Settings

The Report Server Configuration Connection   ✕

Report Server Connection

Please specify a server name, click the Find button, and select a report server instance to configure.

Server Name: iz▮▮▮▮▮▮   Find

Report Server Instance: SSRS

                                  Connect   Cancel

3. **In the left-side navigation pane, click Service Account and Web Service URL and configure parameters based on your business needs.**

> **Note:**
>
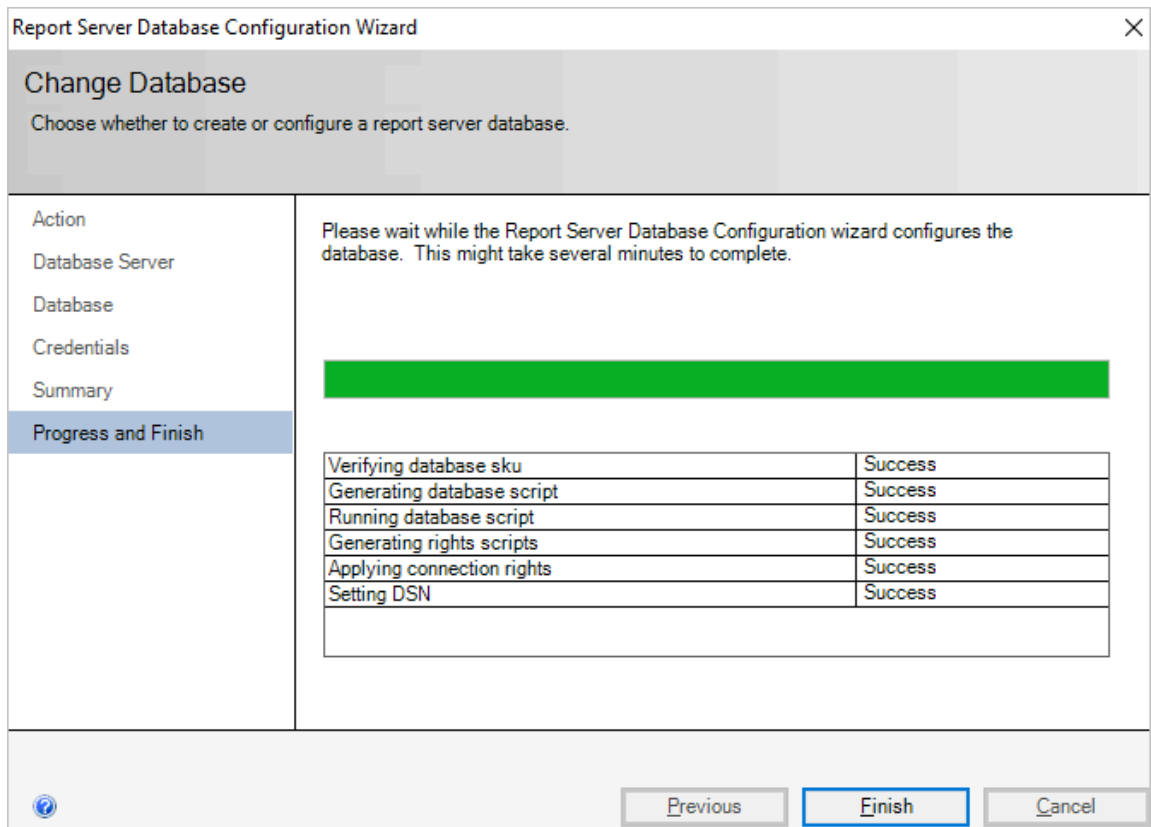> For more information, see Install SQL Server Reporting Services (2017 and later).

4. **In the left-side navigation pane, click Database. On the right side of the page, click Change Database to create a new report server database in the ECS instance.**

   a) **Select Create a new report server database and click Next.**

   b) **Enter the server name and click Next.**

   c) **Enter the database name and select a language for the script. Click Next.**

   d) **Configure the credentials for the account to connect to the report server and click Next.**

   e) **Confirm the information on the Summary page and click Next. Wait for the database to be created.**

f) **Click Finish.**

> **Note:**
> For more information, see Install SQL Server Reporting Services (2017 and later).

5. In the left-side navigation pane, click Web Portal URL and click Apply. After the application operation is finished, click the URL to go to the Web portal of the report server.
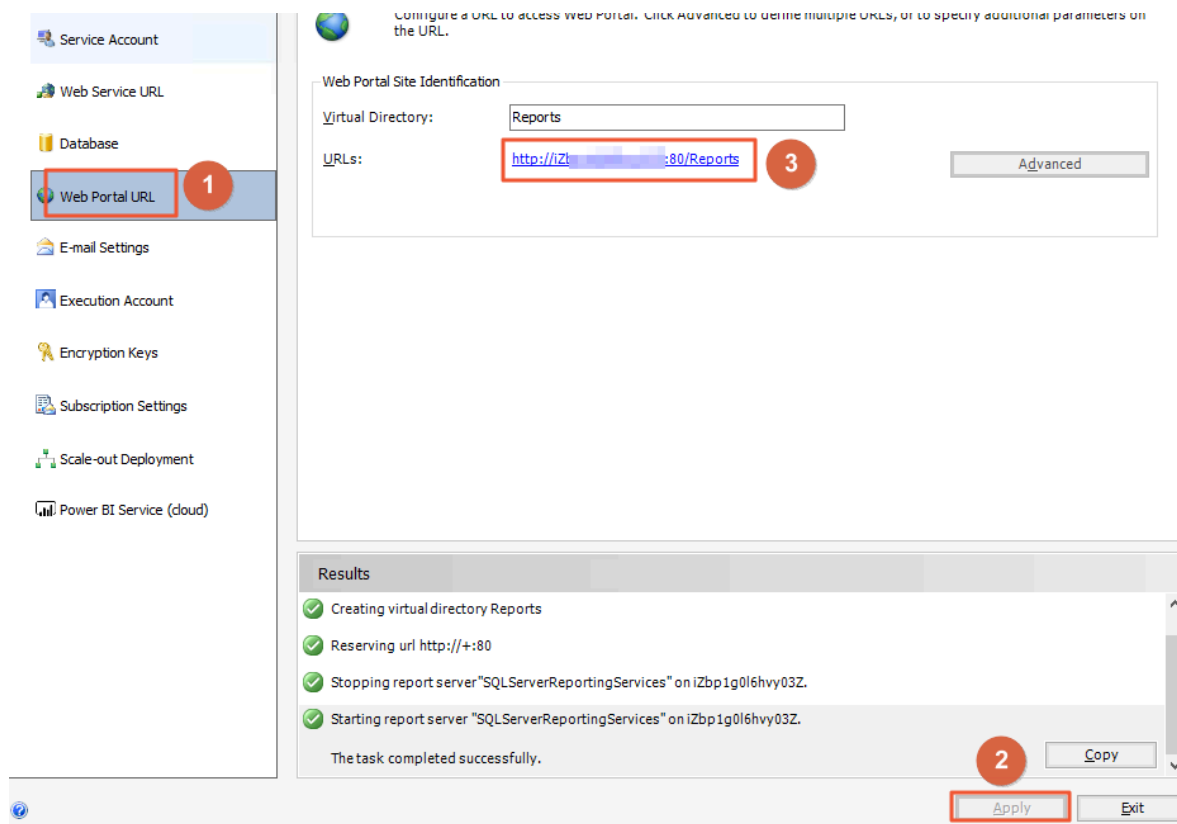
6. In the upper-right corner of the page, choose New > Data Source.

7. Configure the parameters as follows:

Section	Parameter	Description
Properties	Name	Enter the name of the data source. The name cannot contain special characters. Special characters include / @ $ & * + = < > : ', ? | \
	Description	Specify the description of the data source to identify different data sources.
	Hide	Click to hide the data source.
	Enable	Click to enable the data source.
Connections	Type	Select a type of the data source. Select Microsoft SQL Server.

Section	Parameter	Description
	Connection String	Specify the endpoint and the database name of the ApsaraDB RDS for SQL Server instance in the `Data Source =< RDS for SQL Server instance endpoint >; Initial Catalog =< database name >` format. 📋 **Note:** Make sure the IP address of the ECS instance is added to the IP whitelist of the RDS instance. For more information, see #unique_6. Connection string Learn more Data Source=m-▨▨▨▨▨▨▨▨aliyun.com; Initial Catalog=alitest
Credential	Data Source Login	Select Use the following credentials.
	Credential Type	Select Database username and password.
	Username	Enter the database account of the ApsaraDB RDS for SQL Server instance.
	Password	Enter the password of the database account.

8. **Click Create.**

What's next

After the data source is created, you can use software such as Report Builder and Visual Studio to design reports. For more information, see Report Builder in SQL Server.