Solution

# Quick Backup for Cloud Servers

**Issue** 1.0.0

**Date** 2023-04-25

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# 1 Solution Overview

## Scenarios

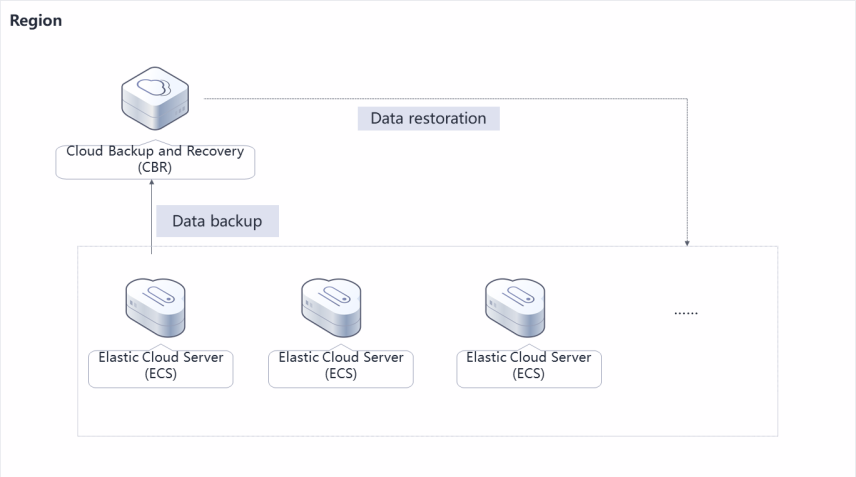
By using the Cloud Backup and Recovery (CBR) of Huawei Cloud and configuring an appropriate backup policy on CBR, this solution allows you to back up all unprotected Elastic Cloud Servers (ECSs) in a region securely and reliably. It protects your ECSs if any of the following incidents occur:

- Hacker or virus attacks
- Accidental deletions
- Application update errors

## Solution Architecture

In this architecture, CBR is deployed to back up all unprotected ECSs in a region, ensuring that data and services on the cloud are safe and intact.

**Figure 1-1** Solution architecture

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With this solution, all ECSs within a region can be backed up in a few clicks:

- A server backup vault is created automatically to store ECS backups.
- ECSs that are not backed up are associated with the vault, and an appropriate backup policy is then applied to the vault.
- ECSs are automatically backed up and restored based on the applied backup policy to ensure that services run properly.

## Solution Advantages

- Backup in a few clicks

  ECSs that are not backed up in a region can be automatically backed up in just a few clicks, with no more manual operations required.

- Quick recovery

  Permanent incremental backups shorten the time required for backup by 95%. Instant Restore allows for as little as 1 hour RPO and RTO within minutes.

- Security and reliability

  Data on encrypted disks is automatically encrypted during backup, and application-consistent backup is available if you require higher data consistency and security for your cloud servers.

## Considerations

- Before deploying this solution, ensure that you have an account with access to the target region.
- **CBR** must be enabled.

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# 2 Resource Planning and Costs

This solution deploys the resources listed in the following table. The costs are estimates and may differ from the final prices. For details, see **Pricing details**.

**Table 2-1** Resource planning and costs

| Product | Description | Monthly Cost (500 GB Vault) |
| --- | --- | --- |
| CBR | Region: AP-Singapore<br>Billing Mode: Pay-per-use<br>Vault Type/Capacity: Server backup vault/500 GB<br>Required Duration: 1 hour<br>Estimated Price: $0.03 USD | $0.03 USD x 24 x 30 ≈ $21.6 USD |

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# 3 Implementation Procedure

3.1 Preparations
3.2 Quick Deployment
3.3 Getting Started
3.4 Quick Uninstallation

## 3.1 Preparations

### Creating the rf_admin_trust Agency

**Step 1** Log in to the Huawei Cloud official website, open the **console**, move your mouse over the account name, and choose **Identity and Access Management**.

**Figure 3-1** Console page

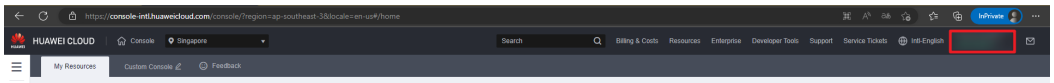


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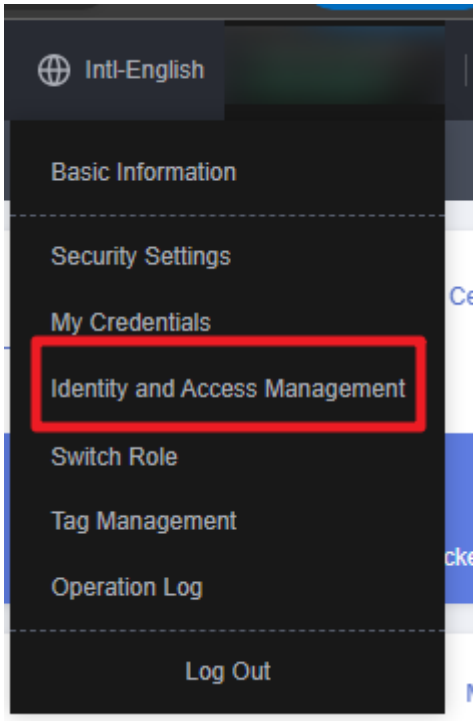
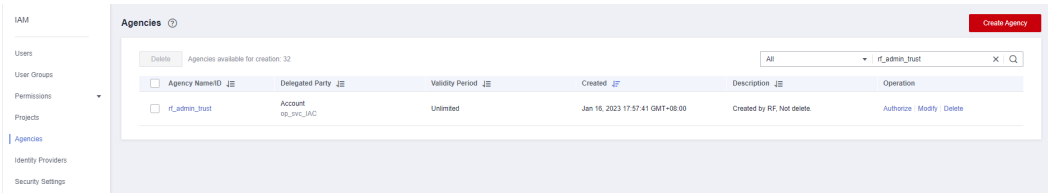
**Figure 3-2** Identity and Access Management




**Step 2** Choose **Agencies** and then search for the **rf_admin_trust** agency in the right pane.

**Figure 3-3** Agency list




- If the agency is found, skip the following steps.
- If the agency is not found, perform the following steps to create it.

**Step 3** Click **Create Agency** in the upper right corner of the page. On the displayed page, enter **rf_admin_trust** for **Agency Name**, select **Cloud service** for **Agency Type**, select **RFS** for **Cloud Service**, and click **Next**.

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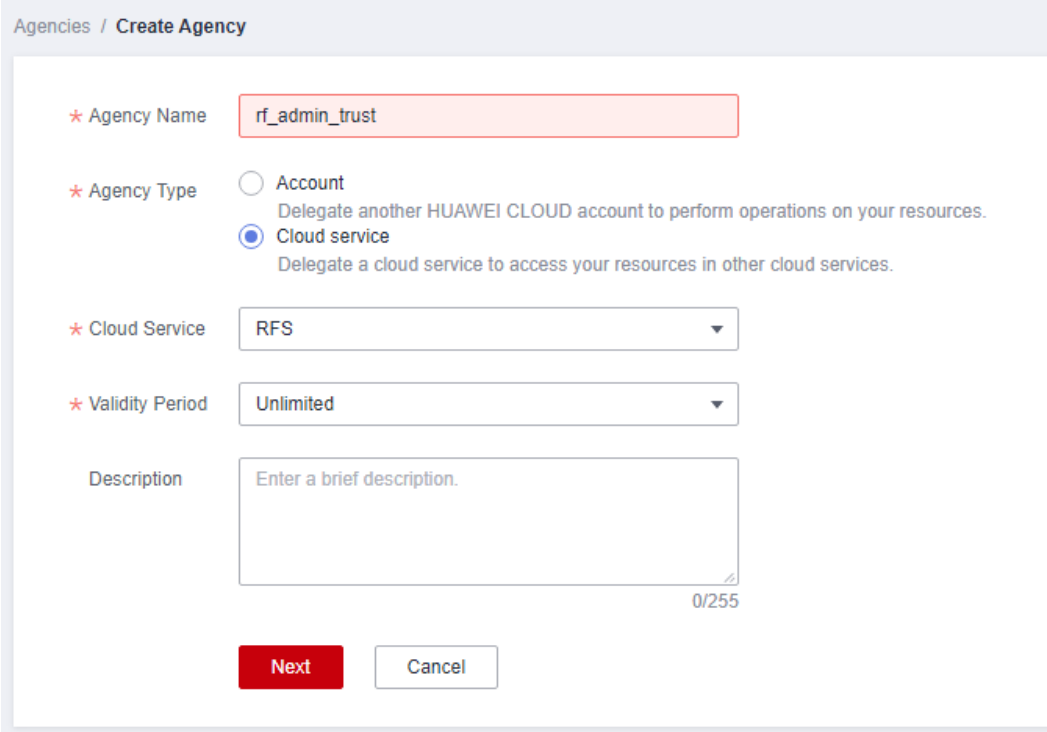
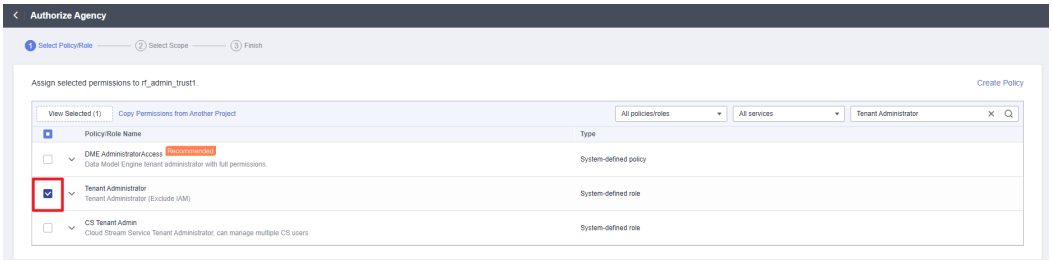
**Figure 3-4** Create Agency



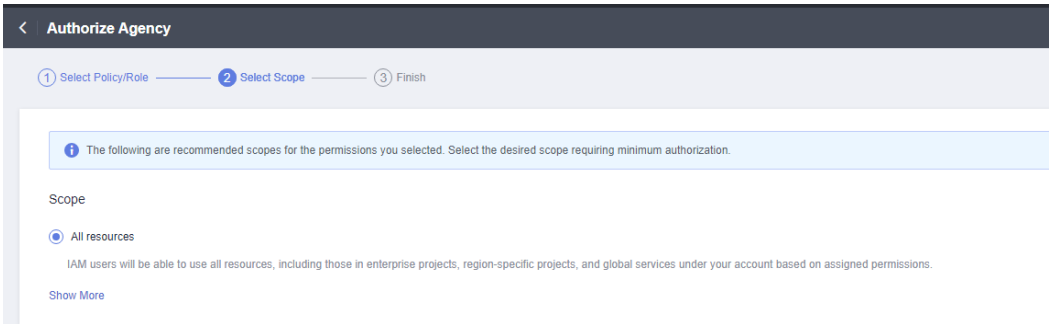

**Step 4** Search for **Tenant Administrator** and select it in the search result.

**Figure 3-5** Select Policy




**Step 5** Select **All resources** and click **OK**.

**Figure 3-6** Select Scope




**Step 6** Check that the **rf_admin_trust** agency is displayed in the agency list.

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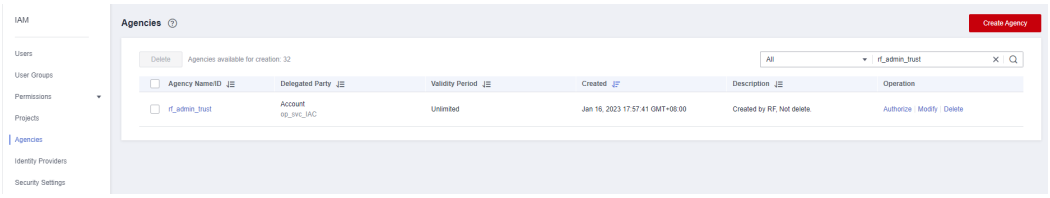
**Figure 3-7** Agency list




**----End**

# 3.2 Quick Deployment

This section describes how to deploy the Quick Backup for Cloud Servers solution.

**Table 3-1** Required parameters

| Parameter | Type | Mandatory | Description | Default Value |
| --- | --- | --- | --- | --- |
| storage_pool_name | string | Yes | The vault name, which can contain letters, digits, underscores (_), and hyphens (-) and must be 1 to 64 characters long. | cloud-backup_demo |
| storage_pool_size | number | Yes | The vault capacity, ranging from 10 GB to 10485760 GB. It is recommended that the vault capacity be at least the total size of disks on the cloud servers. | 500 |
| backup_interval | number | Yes | The backup frequency, which specifies the interval (1 to 30 days) for executing backup tasks. | 3 |
| backup_time | string | Yes | The execution time, which specifies at the beginning of which hour (00:00–23:00) in a day backup is scheduled. It is recommended that backups be performed during off-peak hours or when no services are running. | 14:00 |
| time_period | number | Yes | How long backups will be retained, in days. Value range: 2 to 99999 | 30 |

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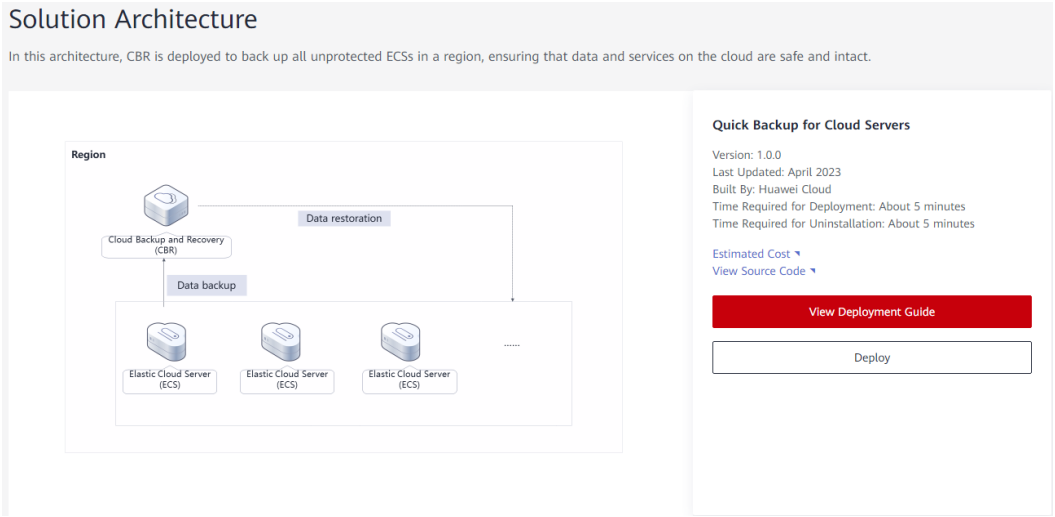
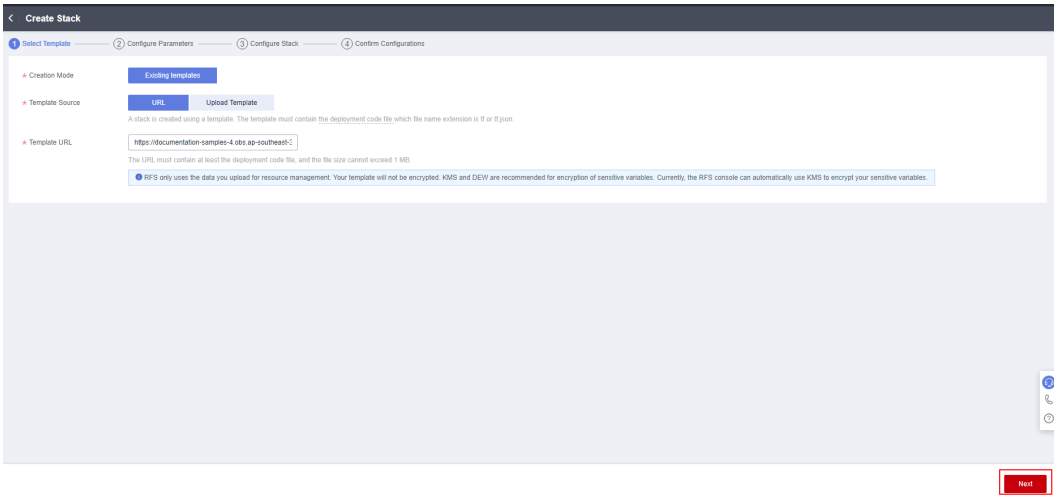
**Step 1** Log in to Huawei Cloud Solution Best Practices and choose **Quick Backup for Cloud Servers**. Click **Deploy Now** to switch to the **Create Stack** page.

**Figure 3-8** Solution Best Practices




**Step 2** On the **Select Template** page, click **Next**.

**Figure 3-9** Select Template




**Step 3** On the **Configure Parameters** page, specify the parameters by referring to **Table 3-1** and click **Next**.

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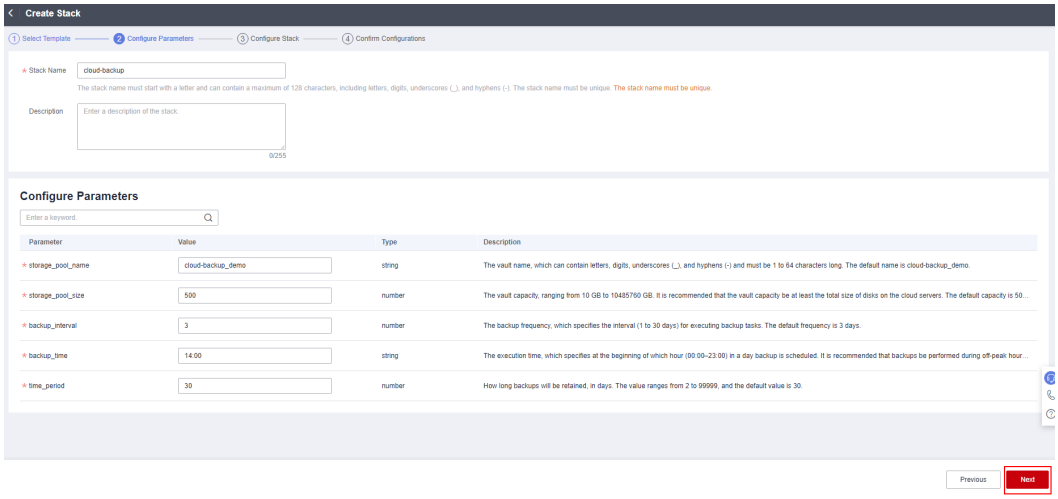
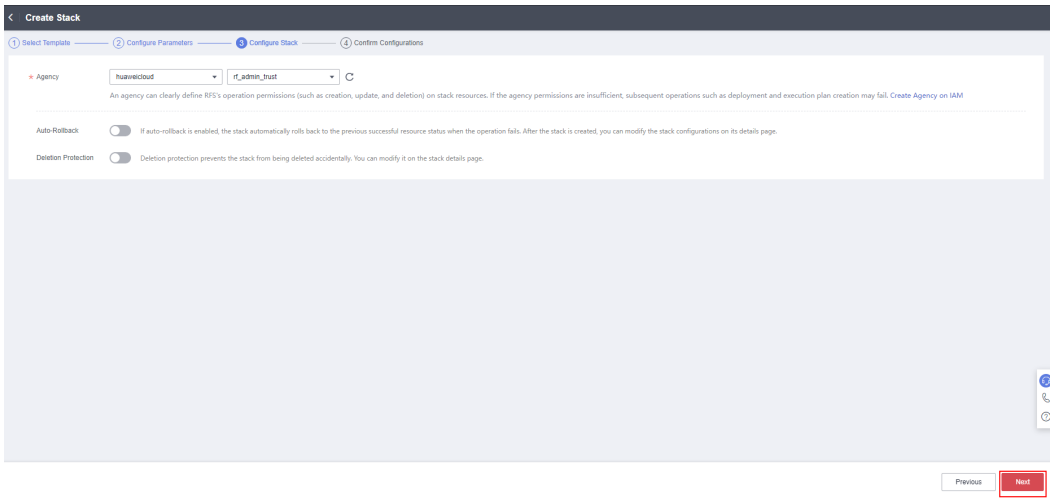
**Figure 3-10** Configure Parameters



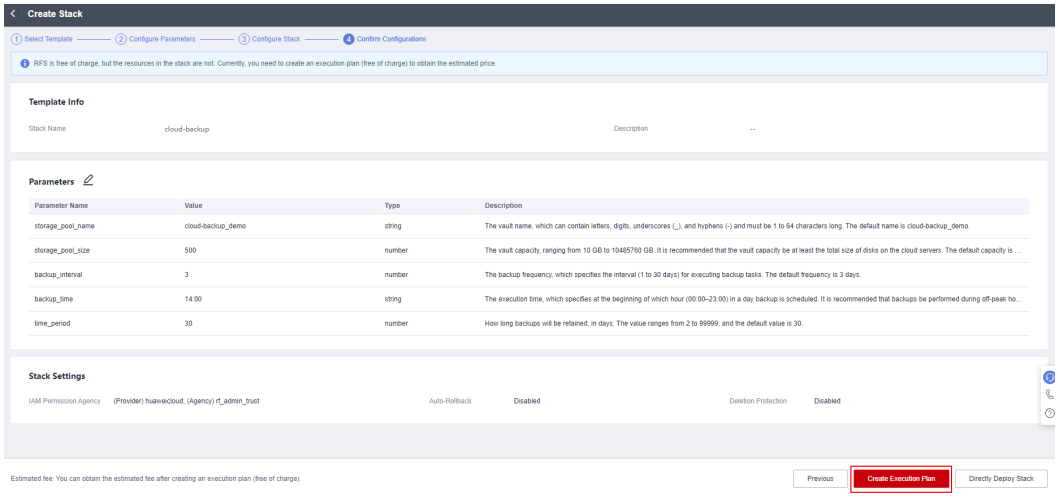

**Step 4** On the **Configure Stack** page, select the **rf_admin_trust** agency and click **Next**.

**Figure 3-11** Configure Stack




**Step 5** On the **Confirm Configurations** page, click **Create Execution Plan**.

**Figure 3-12** Confirm Configurations

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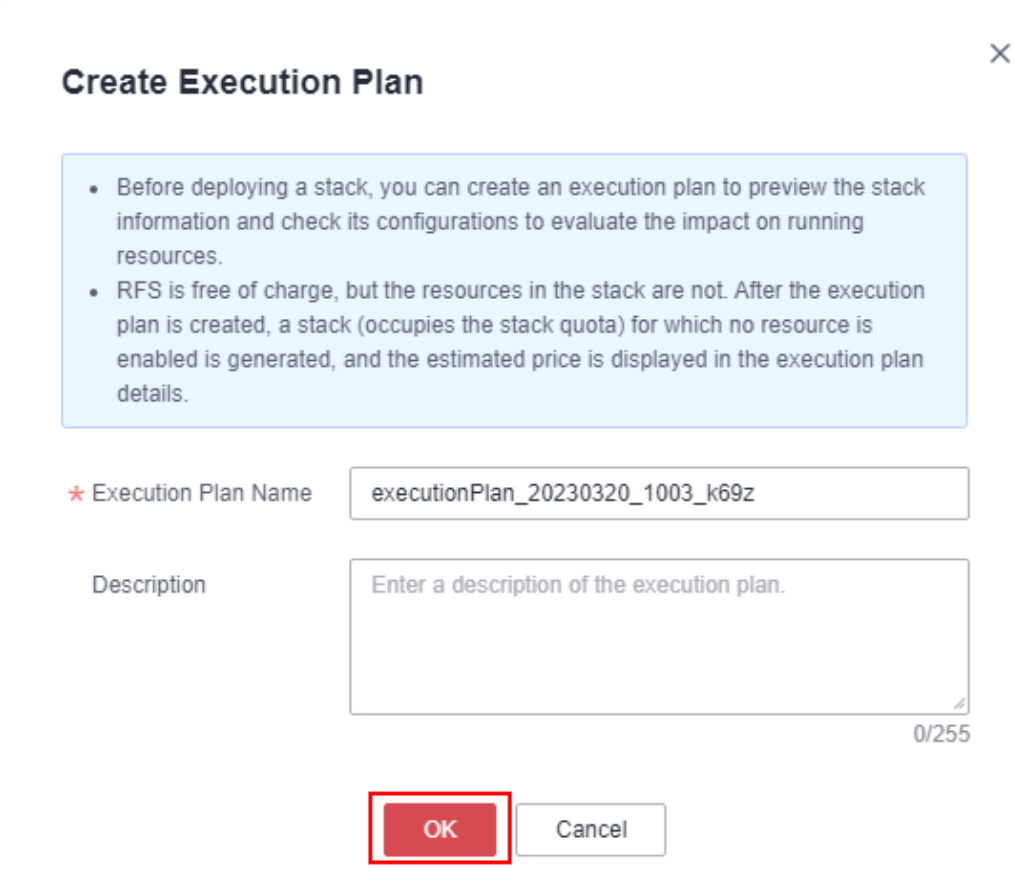
**Step 6** In the displayed **Create Execution Plan** dialog box, enter an execution plan name and click **OK**.

**Figure 3-13** Create Execution Plan




**Step 7** Wait until the status of the execution plan changes to **Available** and then click **Deploy** in the **Operation** column. In the displayed dialog box, click **Execute**.

**Figure 3-14** Execution Plans

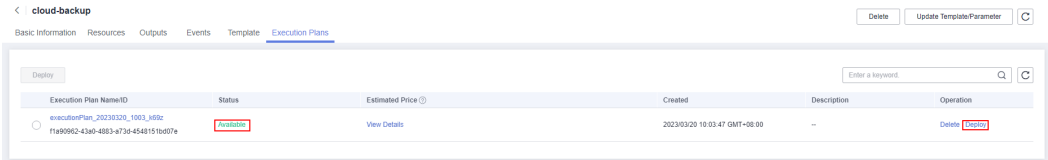



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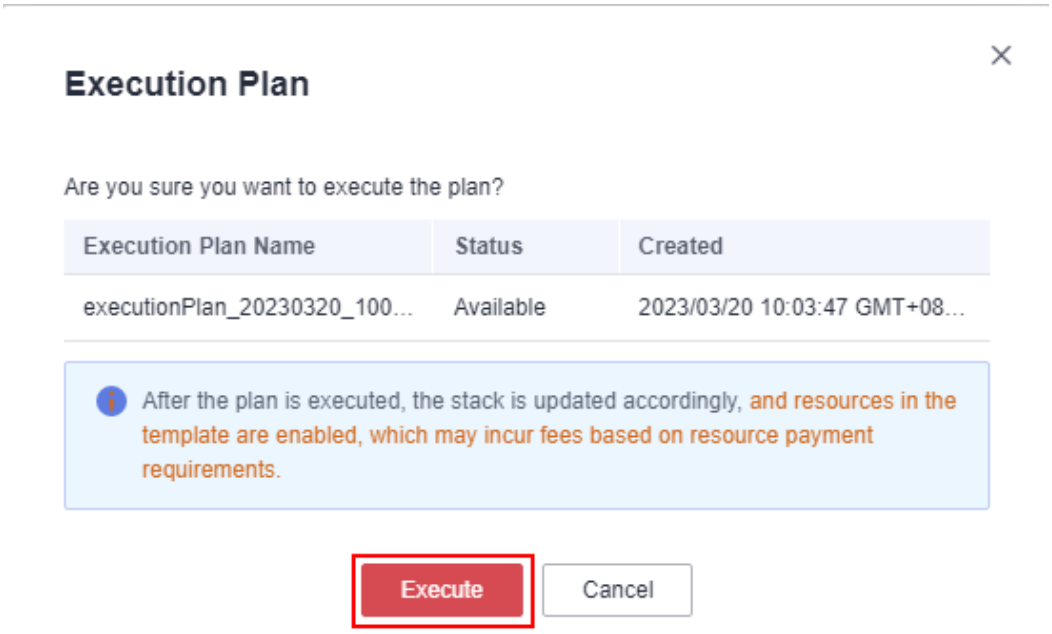
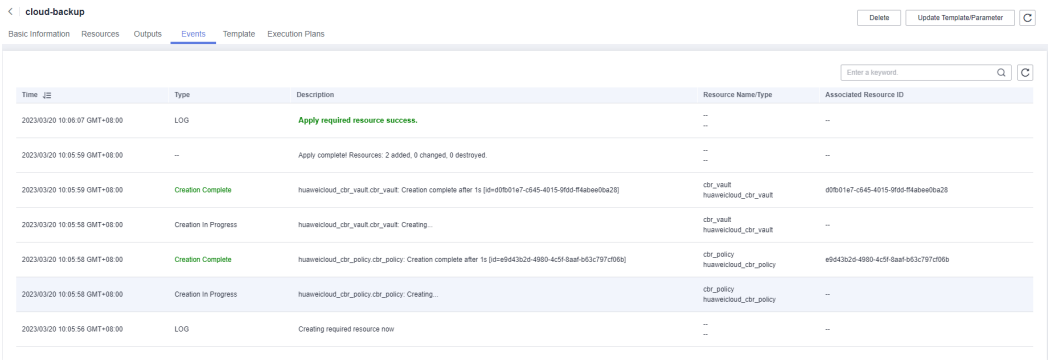
**Figure 3-15** Confirming the execution plan




**Step 8** Wait until message "Apply required resource success" is displayed for the event, indicating that the solution has been deployed.

**Figure 3-16** Solution deployed




**----End**

# 3.3 Getting Started

**Step 1** Log in to the **Cloud Backup and Recovery** console and view the resource created for cloud server backups.

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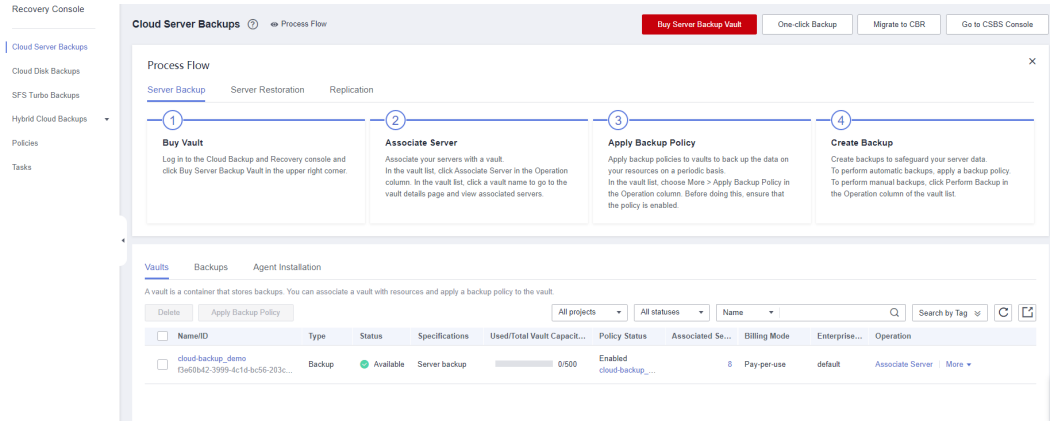
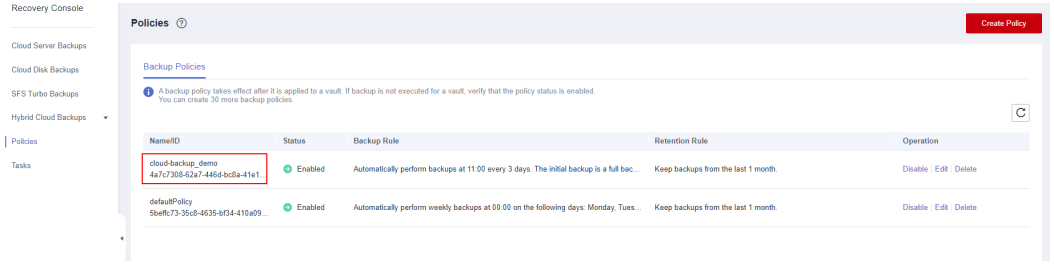
**Figure 3-17** Cloud Server Backups




**Step 2** View the created backup policy.

**Figure 3-18** Backup policy

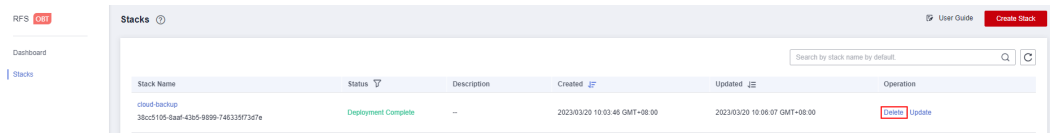



**----End**

# 3.4 Quick Uninstallation

**Step 1** Click **Delete** in the row where the solution stack is.

**Figure 3-19** Uninstalling the solution




**Step 2** Enter **Delete** and click **OK**.

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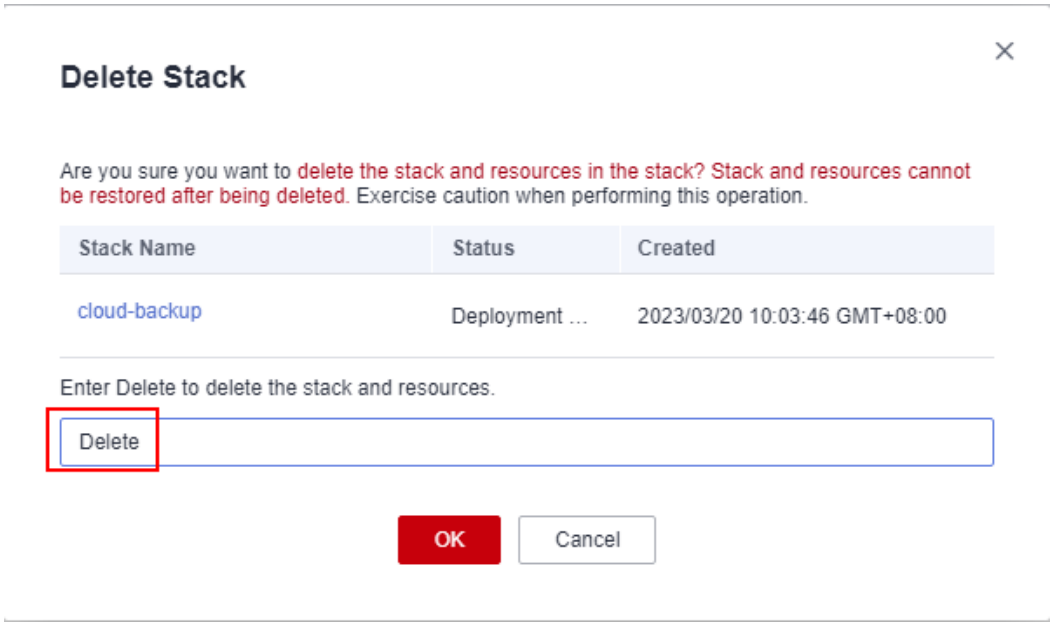
**Figure 3-20** Confirming the uninstallation




**----End**

# 4 Appendix

## Terms

- Elastic Cloud Server (ECS): ECS provides secure, scalable, on-demand compute resources, enabling you to flexibly deploy applications and workloads.
- Cloud Backup and Recovery (CBR): CBR lets you back up cloud-native servers, disks, and file systems as well as on-premises VMware virtual environments with ease. If there is a virus intrusion, accidental deletion, or software/hardware fault, you can restore resources to any point when the data was backed up.

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# 5 Change History

**Table 5-1** Change history

| Released On | Description |
| --- | --- |
| 2023-04-30 | This issue is the first official release. |

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