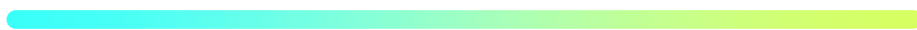




HYCU for AWS CloudFormation



R-Cloud Module Guide

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About the module

The R-Cloud (formerly HYCU Protégé) module for AWS CloudFormation allows you to protect your CloudFormation data.

Prerequisites

Before you add the module to R-Cloud as a source, the following prerequisites must be fulfilled:


- An AWS account must be created.
- The HycuPolicy JSON policy document in the AWS management console requires you to manually add two statements.

See [Editing the HycuPolicy JSON policy file](#) for details.

Limitations

When adding the module and while protecting the related SaaS application, the following limitations apply:

- The created or modified timestamps will not be restored.
- When the stack level restore is initiated, instead of creating a stack with all the details, a stack and a change set are created to prevent immediate execution.


 **Note** The change set includes parameters, stack template, permissions, rollback configurations, notification preferences, and tags. The purpose of the change set is to allow the users to review and, if necessary, approve the proposed changes. The users can also navigate the stack details and execute the change set.

- When the stack is in an inconsistent state, CloudFormation will not permit granular restores due to the API limitations. To enable a granular restore, make sure the stack is in a stable and consistent state.
- The resources cannot be restored when the stack level or the stack set level restore is performed.
- The deployment options will not be restored when the stack set restore is performed.

- When the stack level restore is initiated, the policy and the change sets cannot be restored because of the API limitations.
- If the below listed entities are not available, the stack/stack set or the change set level restore is performed without them:
 - IAM role
 - CloudWatch resource
 - SNS resource
- Currently, R-Cloud only supports backups of:
 - Stacks with the “CREATE_COMPLETE” and “UPDATE_COMPLETE” statuses
 - Stack sets with the “ACTIVE” status
- The private and AWS extensions are not supported.

Protecting data

R-Cloud starts protecting your AWS CloudFormation data after you complete the following tasks:

1. Add the module as a source in R-Cloud. For instructions see *HYCU R-Cloud Help*.
 2. Add your AWS account as a source in R-Cloud. For instructions see *HYCU R-Cloud Help*.
-  **Note** When adding the AWS account as a source, make sure you sign into your AWS account by using the account root user or an IAM user with administrative permissions.
3. Edit the AWS JSON policy document. For instructions, see [Editing the HycuPolicy JSON policy](#).
 4. Assign a policy to the related SaaS application. For instructions, see *HYCU R-Cloud Help*.

Editing the HycuPolicy JSON policy file

In the IAM Management Console, click **Roles**, and then **HycuRole**. Click **HycuPolicy** to edit the policy. Append these statements to the existing HycuPolicy JSON policy file:

- Statement 1:

```
{
  "Effect": "Allow",
  "Action": [
    "cloudformation:ActivateType",
    "cloudformation:ListStackInstances",
    "cloudformation:CreateChangeSet",
    "cloudformation:BatchDescribeTypeConfigurations",
    "cloudformation:DescribeChangeSet",
    "cloudformation:CreateStackSet",
    "cloudformation:ListStackResources",
    "cloudformation:DescribeStacks",
    "cloudformation:GetStackPolicy",
    "cloudformation:GetTemplate",
    "cloudformation:ListStackSetOperations",
    "cloudformation:ListTypes",
    "cloudformation:UpdateTerminationProtection",
    "cloudformation:SetTypeConfiguration",
    "cloudformation:SetStackPolicy",
    "cloudformation:ListStacks",
    "cloudformation:DescribeType",
    "cloudformation:DescribeStackSet",
    "cloudformation:ListStackSets",
    "cloudformation:ListChangeSets",
    "cloudformation:TagResource"
  ],
  "Resource": "*"
}
```

- Statement 2:

```
{
  "Effect": "Allow",
  "Action": [
```

```

        "iam:PassRole",
        "iam:GetRole",
        "iam:ListAttachedRolePolicies",
        "iam:ListRolePolicies",
        "iam:GetPolicyVersion",
        "iam:GetRolePolicy"
    ],
    "Resource": "*"
}

```

- Statement 3. Add this statement to the HycuPolicy file if you are performing the CloudFormation configuration validation:

```

{
    "Effect": "Allow",
    "Action": [
        "cloudwatch:DescribeAlarms",
        "sns:GetTopicAttributes",
    ],
    "Resource": "*"
}

```

Backing up data

After configuring the AWS Account and adding the AWS CloudFormation module as a source in R-Cloud, all AWS CloudFormation Stacks and Stack Sets, their configurations, and the activated extensions will be automatically detected.

For details on how to configure backups for your AWS CloudFormation module, see *HYCU R-Cloud Help*.

The supported objects are:

- Stacks with their affiliated stack templates, parameters, tags, permissions, stack failure options, stack policies, rollback configurations, notification options and change sets, and the change set-related objects
- Stack sets with their affiliated permissions, stack set templates, tags, parameters, and the execution configurations
- Extensions activated by the third parties, and their configuration data.

For details on how to configure the backup for the SaaS application data, see *HYCU R-Cloud Help*.

Restoring data

R-Cloud allows you to restore the protected AWS CloudFormation data at the following levels:

- Stack
- Stack policy
- Stack template
- Change set
- Stack set
- Extension
- Extension configuration

For details on how to restore the SaaS application data, see *HYCU R-Cloud Help*.

Provide feedback

For any suggestions and comments regarding this product or its documentation, send us an e-mail to:

info@hycu.com

We will be glad to hear from you!

