How to create profiles to run AWS commands using taskflow command tasks in a serverless runtime environment

Abstract

This article describes how to create and use profiles to run AWS commands using taskflow command tasks in a serverless runtime environment.

Supported Versions

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Overview

You can use profiles to run AWS commands in taskflow command task scripts in a serverless runtime environment. This is useful when you migrate from a Secure Agent or Secure Agent group to a serverless runtime environment.

You can run the scripts that contain the AWS commands directly as shown in the following sample:

```
#!/bin/sh
aws s3 cp s3://folder1/folder2/command_scripts/largeFile.txt myTest.txt
```

For example, consider that you want to migrate from OnPrem Secure Agent to a serverless runtime environment, and you have many scripts to run. You do not need to edit each script to add access permissions. You can create profiles in the AWS configuration file or use default profiles to provide access permissions.

Creating profiles

You can create an AWS configuration file with the required profiles or use the default AWS profile. This eliminates the effort of changing command task scripts and adding AWS profile information to commands individually.

When you create an AWS configuration file, you must name the file as `serverless_default_aws_config`. Place the file in the same folder where the command scripts or script files are located.

The `serverless_default_aws_config` configuration file contains profiles as shown in the following sample:

```
[default]
region = us-west-2
role_arn= arn:aws:iam::123456789012:role/cli-role
source_profile = cli-user
mfa_serial = arn:aws:iam::123456789012:mfa/cli-user

[profile role-with-mfa]
region = us-west-2
role_arn= arn:aws:iam::123456789012:role/cli-role
source_profile = cli-user
mfa_serial = arn:aws:iam::123456789012:mfa/cli-user
```

Note: You must adhere to the AWS profiles formatting standard when creating profiles in the `serverless_default_aws_config` file.

If the user does not provide the AWS configuration file, that is, the `serverless_default_aws_config` file, a default profile is automatically created at run time. This default profile uses the same authentication information that is provided while creating the serverless runtime environment. This default profile runs any AWS command or script.

The user profile defined in the `serverless_default_aws_config` file takes precedence over the default profile. You can also override the profile using your own configuration or access mechanisms by adding the command scripts at the same location as the script files and referencing them in the script files.

Profile usage scenarios

Consider the following scenarios to understand how the profiles are used to run AWS commands:

- If the user has created the `serverless_default_aws_config` file and defined profiles as shown in the following sample:

```
[default]
region = us-west-2
role_arn= arn:aws:iam::123456789012:role/cli-role
source_profile = cli-user
mfa_serial = arn:aws:iam::123456789012:mfa/cli-user

[profile 1]
region = us-west-2
role_arn= arn:aws:iam::123456789012:role/cli-role
source_profile = cli-user
mfa_serial = arn:aws:iam::123456789012:mfa/cli-user

[profile 2]
region = us-west-2
role_arn= arn:aws:iam::123456789321:role/cli-role
source_profile = cli-user
mfa_serial = arn:aws:iam::123456789321:mfa/cli-user
```

  When you run the script or command with a specific profile, if the profile matches the profile name in the `serverless_default_aws_config` file, profile-specific authentication is used. For example, if the user specifies profile 1 in the command, the authentication specified in the profile 1 section is applied.

  If the user does not provide the profile to be used in the script or command, the authentication provided in the default section is applied.

  If the user provides the profile in the script or command that is not available in the `serverless_default_aws_config` file, the command fails with an error stating that the profile is not found. For example, if the user provides profile 3 in the command which is not defined in the configuration file, the command fails with an error.

- If the user has created the `serverless_default_aws_config` file, but it does not contain the default section. When you run the script or command, if the profile matches the profile name in the `serverless_default_aws_config` file, profile-specific authentication is used. Otherwise, the default profile that uses user authentication is applied.

- If the user does not provide the `serverless_default_aws_config` file, the default profile that uses user authentication is applied.

For information about how to use the command script file in Command Task step in taskflow, see [Command Task step](#) documentation.

Author

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