Rollbacks

Automatic Rollbacks:

You can configure a deployment group or deployment to automatically roll back when a deployment fails or when a monitoring threshold you specify is met. You configure automatic rollbacks when you create an application or create or update a deployment group.

Manual Rollbacks:

You can manually roll back a deployment by creating a new deployment that uses any previously deployed application revision and following steps to redeploy a revision.

CodeDeploy rollback and redeployment workflow:

When rollback is initiated, CodeDeploy first tries to remove from each participating instance all files that were last successfully installed. CodeDeploy does this by checking the cleanup file:

> `/opt/codedeploy-agent/deployment-root/deployment-instructions/deployment-group-ID-cleanup file` (for Amazon Linux, Ubuntu Server, and RHEL instances)

If it exists, CodeDeploy uses the cleanup file to remove from the instance all listed files before starting the new deployment.

As part of the deployment process, the CodeDeploy agent removes from each instance all the files installed by the most recent deployment. If files that weren't part of a previous deployment appear in target deployment locations, you can choose what CodeDeploy does with them during the next deployment:

Rollback behavior with existing content:

- Fail the deployment — An error is reported, and the deployment status is changed to Failed.
- Overwrite the content — The version of the file from the application revision replaces the version already on the instance.
- Retain the content — The file in the target location is kept and the version in the application revision is not copied to the instance.

You can choose this behavior when you create a deployment. If creating a deployment in the console, see Create an EC2/On-Premises Compute Platform deployment (console).

AWS Snapshots

Point-in-Time Copies- Snapshots capture the state of an EBS volume at a specific moment, allowing you to revert to that state if needed.

Snapshots store only the changes made to the volume since the last snapshot.

AWS BackUp

Overview

- **Centralized & Automated Protection:** AWS Backup enables centralized, automated data protection across AWS services.
- **Backup Plans:** You can create backup policies (called backup plans) to schedule backups and define retention periods.
- **Tag-Based Management:** Apply backup plans to AWS resources using tags for automatic backup management.
- **On-Demand & Scheduled Jobs:** Supports both immediate (on-demand) backup jobs and automated scheduled backups.

Features for EC2 Instances

- **Comprehensive Protection:** Backs up EC2 instances, including all attached EBS volumes.
- **AMI Creation:** Backup includes creation of an AMI with configuration data (excluding Elastic Inference accelerators and user data scripts).

Sources:

https://docs.aws.amazon.com/codedeploy/latest/userguide/deployments-rollback-and-redeploy.html

https://docs.aws.amazon.com/autoscaling/ec2/userguide/instance-refresh-rollback.html

https://aws.amazon.com/getting-started/hands-on/amazon-ec2-backup-and-restore-using-aws-backup/