AWS CloudFormation

Need for CloudFormation

Quite often, you will find that manually deploying more than just a handful of services or applications on AWS can be tedious and time-consuming. AWS CloudFormation gives you an effortless way to model a collection of related AWS and third-party resources, provision them quickly and consistently, and manage them throughout their lifecycles, by treating infrastructure as code.

Teqfocus CloudFormation Offering

Automated Deployments

Leveraging our expertise in Infrastructure as a code, you can define your desired resources and their dependencies so you can launch and configure them together as a stack. Our CloudFormation templates allow you to create, update, and delete an entire stack as a single unit, as often as you need to, instead of managing resources individually. What is more, you can manage and provision stacks across multiple AWS accounts and AWS Regions.

Dependency management

Our certified engineers help you manage dependencies between your resources during stack management actions. You do not have to worry about specifying the order in which resources are created, updated, or deleted; as our CloudFormation templates will determine the correct sequence of actions to take for each resource when performing stack operations.

Modelling in JSON/YAML

We can model your entire cloud environment using open-source declarative languages, such as JSON or YAML, to describe what AWS resources you want to create and configure.

Benefits of CloudFormation

Deployment speed

You can deploy multiple instances of the same resources instantaneously using just one template. This approach leads to much faster deployment than you could achieve if you had to manually set up each deployment by running commands on the CLI or using buttons in the AWS console.

Scaling up

Even if you do not need to deploy multiple instances of the same AWS resources initially, CloudFormation templates ensure that you can scale up your environment up quickly and stay up to date with future needs. With CloudFormation templates on hand, you can be rest assured that you can add more virtual machine instances or storage space when you experience increased traffic and need to scale up your environment.
Alternatively, when demand decreases, you can scale down and save money by taking some of your deployments offline while still retaining the ability to redeploy them quickly when demand increases using CloudFormation.

Service integration

A single CloudFormation template can manage the deployment of individual services or resources and multiple resources, for instance setting up an EC2 virtual machine within an AWS Virtual Private Cloud (VPC) or deploying an S3 storage bucket and configuring access control for it using the IAM (Identity and Access Management) service. Managing multiple services through a single template makes it easy to integrate AWS services as you develop a complete cloud environment.

Consistency

When using CloudFormation templates to define and deploy AWS resources, you can apply precisely the same configuration repeatedly. In this way, CloudFormation ensures that your applications and services will be consistent and identical, no matter how many instances you create.

Security

CloudFormation can help improve the overall security of your AWS environment by reducing the risk of oversights or human errors that could turn into breaches. With a secure CloudFormation template, you do not have to worry that an engineer who deploys resources will forget to turn on important access control, or leave data exposed to unrestricted, public access.

Auditing and change management

Integrating CloudFormation to manage your infrastructure enables you to track changes based on the applied templates and how they change over time. Change tracking in CloudFormation helps you to determine how your AWS services and resources have changed over time without looking through logs to reconstruct the timeline of updates.