NuSummit

BROCHURE

Automation: Infrastructure as a Code

Overview

Automating infrastructure provisioning with IaC means that DevOps or IT Infra Team don't need to manually proviision and manage servers, operating systems, storage, and other infrastructure components each time team need to develop or deploy an application.

NuSummit offers below solutions on both OpenSource or Leading Industry Standard Products. Our approach is to identify best suited solution which is aligned with Customer Objective within Infrastructure Automation subject.

Solution Brief

NuSummit provides IAAC using multiple tools like Terraform, CFT, Ansible & other Industry wide used IAAC tools which caters and offers their services around Public Cloud, on-premise or in hybrid mode.

Solution Component: Infrastructure Automation using Infrastructure -As-Code (IaC)

NuSummit Centre of Excellence has successfully developed a practice for implementing "Terraform" an open-source infrastructure as code software tool created by "HashiCorp". Terraform uses declarative configuration language known as HashiCorp Configuration Language (HCL). It lets you focus on building, testing, and deploying your environment with maximum predictability by standardizing your deployment workflow.

Declarative Configuration Language: Terraform lets you describe the desired end-state for your infrastructure, and does not require step-by-step instructions to perform tasks unlike the procedural programming languages

Full Life Cycle Management: The Terraform platform can be implemented for configuration collaboration and its management, manage versioning, and automate provisioning. The customer can define its infrastructure-as-a-code to manage full life cycle, such as creating of new resources, managing existing resources and destroying resources which are no longer in use

Plan and Predict Changes: The Terraform platform provides elegant UX for operator to safely and predictably make changes to infrastructure by way of clearly mapping of resource dependencies, separation of plan & apply and finally consistent, repeatable workflows

Reproducible Infrastructure: The Terraform Platform makes it easy to re-use configurations for similar infrastructure to avoid mistakes and save time by way of shared modules for common infrastructure and combining multiple providers consistently

Terraform's 5 Step Infrastructure Deployment

Scope:
Identify the infrastructure for your project

1

Author:
Write the configuration for your infrastructure

2

Initialize:
Install the plugins Terraform needs to manage the infrastructure

3

Plan:
Preview the changes Terraform will make to match your configuration

4

Apply:
Make the planned changes

5

Features and Benefits

Improved Consistency:

- Privilege control
- Auto-scanning
- No configuration drifts

Improved Resource Awareness:

- Auditing and Version-controlled changes
- Metadata and detailed description

Multi-environment Management:

- Dynamic provisioning
- Rapid scalability
- Quick disaster recovery

Customized Approach:

- Implementing Declarative or Imperative IaC models based on requirement

Key Advantages

Platform Agnostics:
With Platform agnostics, we have the ability to provision infrastructure on a widevariety of platforms, from public cloud providers to container orchestration, etc.

Code Accelerator:
We provide ready-to-use code accelerator to provision infrastructure that accelerates implementation, and fastracks GTM

Multi-cloud Compliance:
We have Multi-Cloud Compliance & Management to provision and manage any infrastructure with one workflow

Self-service Infrastructure:
We provide self-service infrastructure for users to easily provision infrastructure on-demand with a library of approved infrastructure modules

Version Control:
Our IaC solution uses version control and automation to reduce human error and failed builds

Immutable Architecture:
Our IaC solution suite helps provides an immutable architecture, which improves predictability as it cannot change automatically

Differentiators

- **Customised Solutions:** While we can help you update your existing resources, we can also help you build new instances based on your specific requirements
- **Best Practices:** We stringently follow a well-defined set of security and performance best practices to eliminate risks in IaC implementation
- **Process Integration:** Changes in infrastructure are thoroughly reviewed before implementation and integrated with your existing evaluationprocess to ensure seamless continuity

About NuSummit

NuSummit is a global technology leader in AI-led digital transformation, specializing in applications, data, analytics, cloud, and cybersecurity. With over 300 clients worldwide, including 22 Fortune 500 companies, NuSummit supports organizations across industries. Our core expertise lies in banking, insurance, and capital markets, where we offer specialized solutions for these sectors.

With over two decades of experience and 3,000+ professionals, we deliver AI-driven, end-to-end solutions that integrate advanced cloud infrastructure and cybersecurity. Certified to top industry standards and backed by a robust partner ecosystem of hyperscalers and niche innovators, NuSummit is a trusted partner for secure, impactful digital innovation.

For more information, write to connect@nusummit.com.

Source Links:
https://developer.hashicorp.com/terraform/tutorials/aws-get-started/infrastructure-as-code

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