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NSEIT

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Automation

Infrastructure as a Code

BROCHURE

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

NSEIT 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.

Soluton **Brief**

NSEIT 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 IaC (Infrastructure-As-Code)

NSEIT Centre of Excellence has successful developed 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 provide 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
- **Author**
  Write the configuration for your infrastructure
- **Initialize**
  Install the plugins Terraform needs to manage the infrastructure
- **Plan**
  Preview the changes Terraform will make to match your configuration
- **Apply**
  Make the planned changes

Scope 1
Identifying the project infrastructure

Author 2
Configuration creation for infrastructure

Initialize 3
Install Terraform to manage the infrastructure

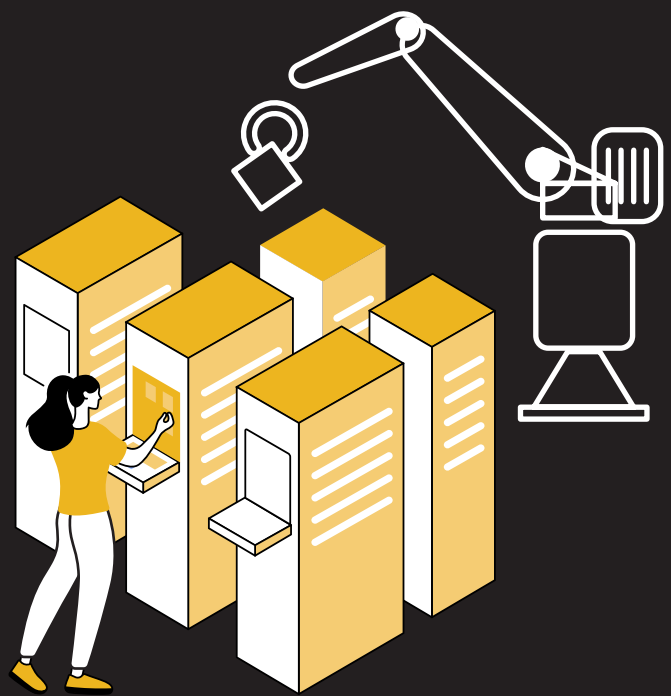
Plan 4
Preview changes to match your configuration

Apply 5
Implement planned changes

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

Features and Benefits

- **Improved consistency**
  - Privilege control
  - Auto-scanning
  - No configuration drifts
- **Multi-environment management**
  - Dynamic provisioning
  - Rapid scalability
  - Quick disaster recovery
- **Improved resource awareness**
  - Auditing and Version-controlled changes
  - Metadata and detailed description
- **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 wide variety 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 fast-tracks 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 use 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 evaluation process to ensure seamless continuity

About **NSEIT**

NSEIT Limited is a digital native technology company that engineers world-class solutions to help our global customers accelerate their digital transformation journeys. Our key service pillars are Application Modernization, Business Transformation, Data Analytics, Infrastructure & Cloud Services, and Cybersecurity, through which we create intuitive digital experiences and tangible business impact. For over two decades, our innate drive for excellence has made us the partner of choice for global organizations. At NSEIT, we fuel digital progress.

For more information, visit us at nseit.com

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