

Enhancing Your EKS Staging Environment



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Overview



Debugging and troubleshooting

Manage constant change

Apply modules to EKS cluster

- Route53 hosted zone
- Cluster autoscaler
- Cert manager
- Nginx ingress
- External DNS



▼ Terraform Format

```
1 ► Run terraform fmt -check
6 /home/runner/work/_temp/0ffdb368-6523-455b-af57-ceb8091e7b00/terraform-bin fmt -check
7 main.tf
8 Error: Terraform exited with code 3.
9 Error: Process completed with exit code 1.
```

`terraform fmt`

◀ Format files for consistent look

`terraform login`

◀ Connect to TF Cloud account

`terraform init`

◀ Initialize directory with files and state

`terraform plan`

◀ Report on expected changes

`terraform apply`

◀ Make changes to infrastructure



“The only constant in life is change.”

Heraclitus





Many library options

- You decide when to update

Constant change / new versions

Multiple ways to accomplish same task

Framework helps track and apply changes

- Easily create test environments

Effective Kubernetes operator

- Pay attention to changes
- Integrate into regular updates



Demo



Apply supporting tools to cluster

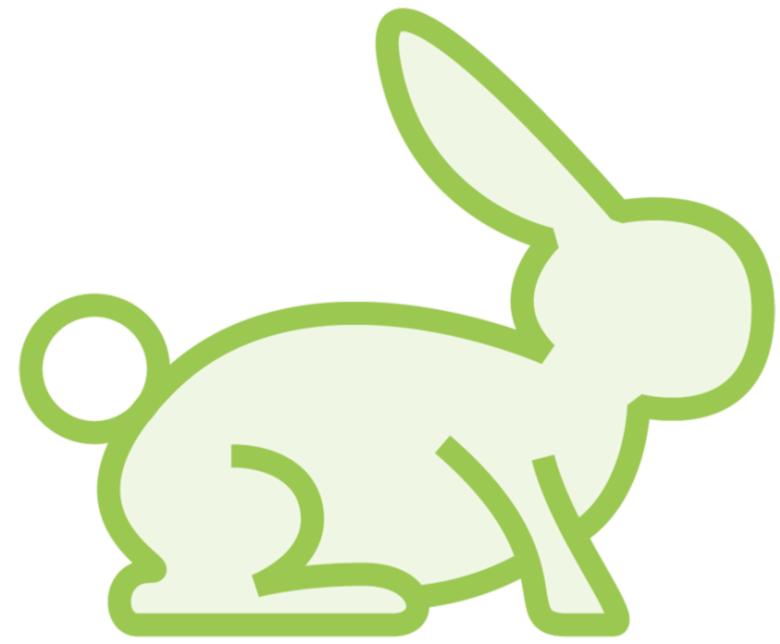
- Big picture - possibilities of framework
- Several options
- Follow similar process

Tools are also covered in other courses

- Route53 hosted zone
- Cluster autoscaler
- Cert manager
- Nginx ingress
- External DNS

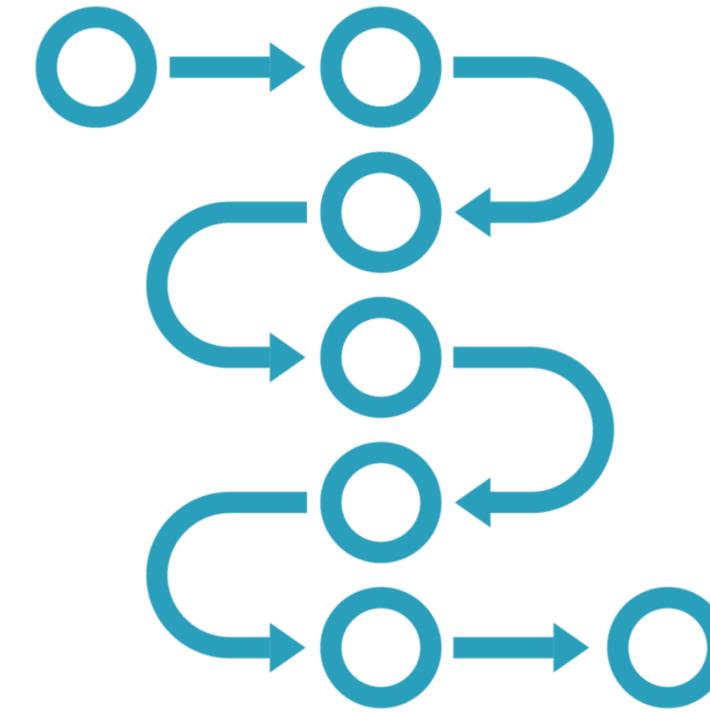


Why Have Multiple Workspaces?



Speed

Smaller workspaces = faster runs



Modularity

Independent changes
Prevent unintentional changes



Demo



Install modules

- kube-prometheus-stack
- Grafana Loki

Add Prometheus to gather metrics

Grafana to visualize and build dashboards

Loki log aggregation

View dashboards and query logs



Summary



Pattern to add tools to EKS

Services provided

- Monitoring
- Searching aggregated logs
- Create DNS entries for ingress
- Https connections

Manage change

- Several ways to accomplish the task



Up Next:
Deploying an Application to Your EKS Cluster

