



laaC

Autonomia, rastreabilidade e agilidade com
Terraform e Pipeline



Terraform
Jenkins Pipeline

- **Modelo antigo**
- Modelo novo
- Estrutura de módulos
- Estrutura de configurações
- Wrapper terraform

```
resource "aws_autoscaling_notification" "default-asg-1" {
  count          = "${lookup(var.config, "spot_instance", "") != "" && var.environment == "production" ? "2" : "1"}"
  provider       = "aws.${var.environment}"
  depends_on    = ["aws_autoscaling_group.default-asg-1"]
  group_names   = ["${element(aws_autoscaling_group.default-asg-1.*.name, count.index)}"]

  notifications = [
    "autoscaling:EC2_INSTANCE_LAUNCH",
    "autoscaling:EC2_INSTANCE_TERMINATE",
    "autoscaling:EC2_INSTANCE_LAUNCH_ERROR",
    "autoscaling:EC2_INSTANCE_TERMINATE_ERROR",
  ]

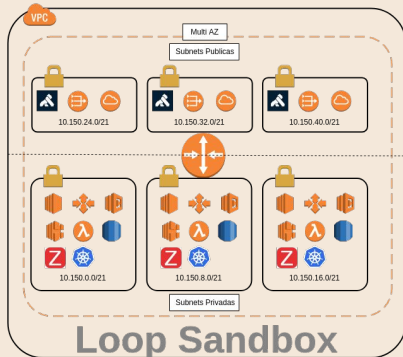
  topic_arn = "${lookup(var.topic_arn[var.environment], var.region)}"
}
```

```
resource "aws_autoscaling_schedule" "default-asg-1" {
  count          = "${length(var.scheduled_actions)}"
  provider       = "aws.${var.environment}"
  depends_on    = ["aws_autoscaling_group.default-asg-1"]
  scheduled_action_name = "${element(null_resource.schedule_vars.*.triggers.name, count.index)}"
  autoscaling_group_name = "${aws_autoscaling_group.default-asg-1.0.name}"
  min_size      = "${element(null_resource.schedule_vars.*.triggers.min, count.index)}"
  max_size      = "${element(null_resource.schedule_vars.*.triggers.max, count.index)}"
  desired_capacity = "${element(null_resource.schedule_vars.*.triggers.desired, count.index)}"
  recurrence    = "${element(null_resource.schedule_vars.*.triggers.cron, count.index)}"
}
```

```
resource "aws_autoscaling_group" "default-asg-2" {
  count          = "${lookup(var.config, "bg_enable", "true") == "true" ? "1" : "0"}"
  provider       = "aws.${var.environment}"

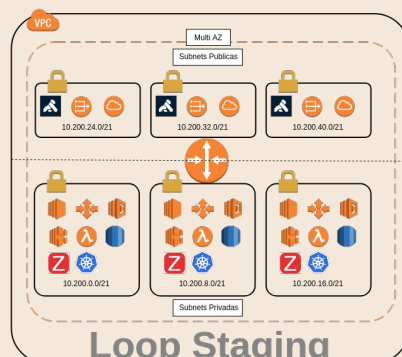
  lifecycle {
    prevent_destroy = false
    ignore_changes = ["max_size", "min_size", "desired_capacity", "load_balancers", "suspended_processes"]
  }
}
```

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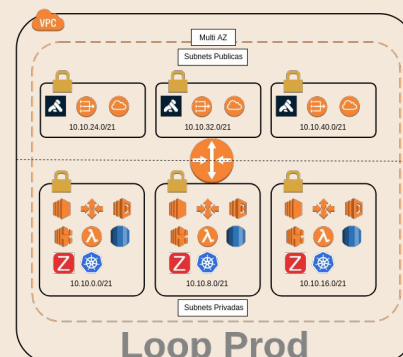
Loop Sandbox

10.150.0.0/16



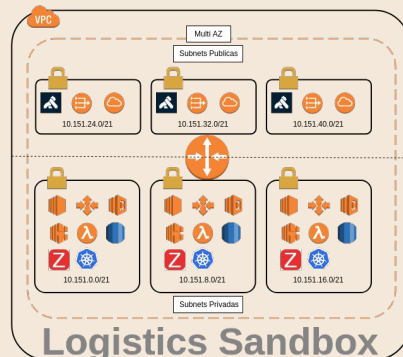
Loop Staging

10.200.0.0/16



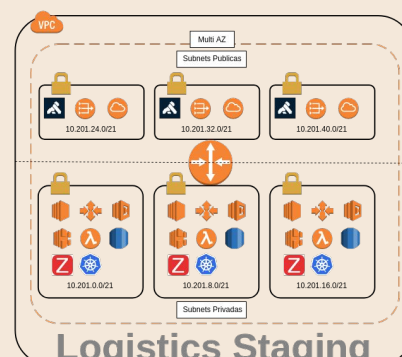
Loop Prod

10.10.0.0/16



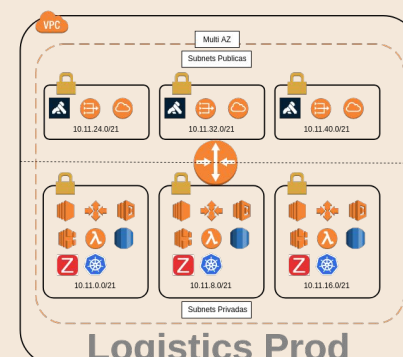
Logistics Sandbox

10.151.0.0/16



Logistics Staging

10.201.0.0/16



Logistics Prod

10.11.0.0/16

```

module "asg1" {
  source           = "../aws/auto-scaling"
  name             = "${lookup(var.service_config, "name_prefix")}"
  max_size        = "${lookup(var.service_config, "max_size")}"
  min_size        = "${lookup(var.service_config, "min_size")}"
  desired_capacity = "${lookup(var.service_config, "desired_capacity")}"
  load_balancers  = [module.elb.id]
  vpc_zone_identifier = var.vpc_zone_identifier

  launch_template_inputs = [
    {
      name = null
      id = module.lt.id
      version = "$Latest"
    }
  ]

  tags = var.asg_tags
}

module "asg2" {
  source           = "../aws/auto-scaling"
  name             = "${lookup(var.service_config, "name_prefix")}-2"
  max_size        = "0"
  min_size        = "0"
  desired_capacity = "0"
  vpc_zone_identifier = var.vpc_zone_identifier
  suspended_processes = ["Launch"]

  launch_template_inputs = [
    {
      name = null
      id = module.lt.id
      version = "$Latest"
    }
  ]

  tags = var.asg_tags
}

module "scheduled_actions asg1" {
  source = "../aws/auto-scaling/schedule"
  autoscaling_group_name = module.asg1.name
  scheduled_actions = var.scheduled_actions
}

module "scheduled_actions asg2" {
  source = "../aws/auto-scaling/schedule"
  autoscaling_group_name = module.asg2.name
  scheduled_actions = var.scheduled_actions
}

resource "aws_autoscaling_group" "this" {
  name = var.name
  max_size = var.max_size
  min_size = var.min_size
  availability_zones = "${var.availability_zones == [] ? null : var.availability_zones}"
  default_cooldown = "${var.default_cooldown == "" ? null : var.default_cooldown}"
  launch_configuration = var.launch_configuration
  health_check_grace_period = var.health_check_grace_period
  health_check_type = "${var.health_check_type == "" ? null : var.health_check_type}"
  desired_capacity = "${var.desired_capacity == "" ? null : var.desired_capacity}"
  force_delete = var.force_delete
  load_balancers = var.load_balancers
  vpc_zone_identifier = "${var.vpc_zone_identifier == [] ? null : var.vpc_zone_identifier}"
  target_group_arns = var.target_group_arns
  termination_policies = var.termination_policies
  suspended_processes = var.suspended_processes
  placement_group = "${var.placement_group == "" ? null : var.placement_group}"
  metrics_granularity = "${var.metrics_granularity == "" ? null : var.metrics_granularity}"
  enabled_metrics = var.enabled_metrics
  wait_for_capacity_timeout = var.wait_for_capacity_timeout
  min_elb_capacity = "${var.min_elb_capacity == "" ? null : var.min_elb_capacity}"
  wait_for_elb_capacity = "${var.wait_for_elb_capacity == "" ? null : var.wait_for_elb_capacity}"
  protect_from_scale_in = var.protect_from_scale_in
  service_linked_role_arn = "${var.service_linked_role_arn == "" ? null : var.service_linked_role_arn}"
  tags = var.tags

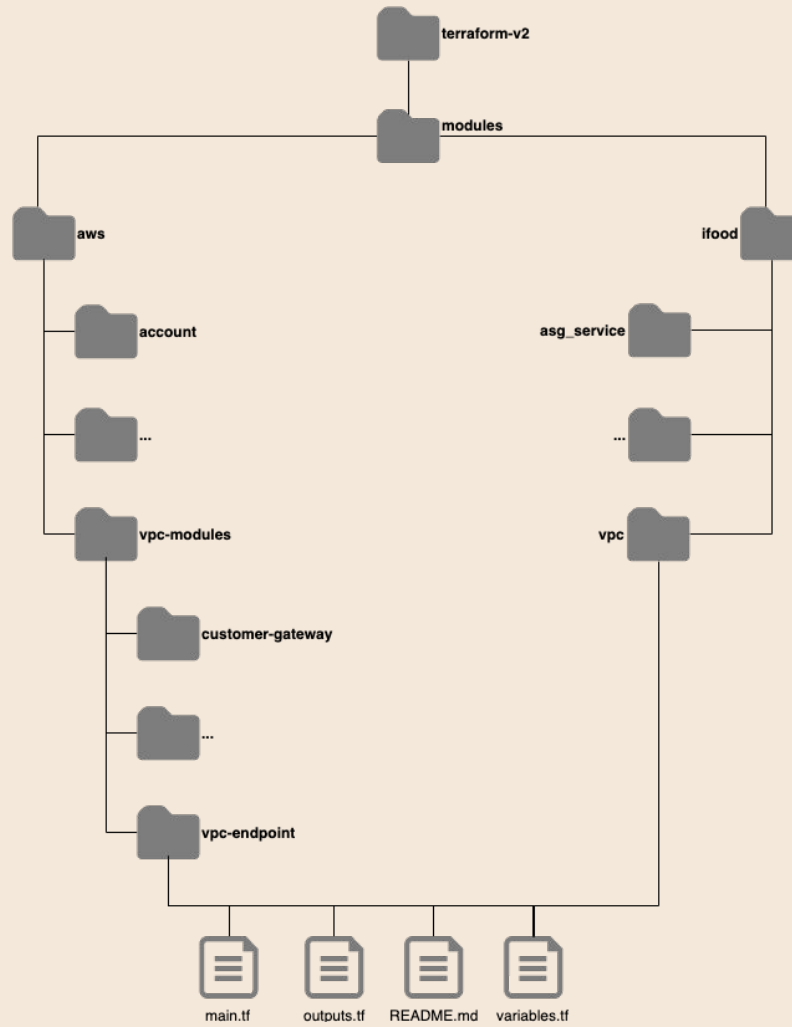
  lifecycle {
    create_before_destroy = true
    ignore_changes = ["max_size", "min_size", "desired_capacity", "load_balancers", "suspended_processes"]
  }

  dynamic "launch_template" {
    for_each = var.launch_template_inputs == null ? [] : var.launch_template_inputs

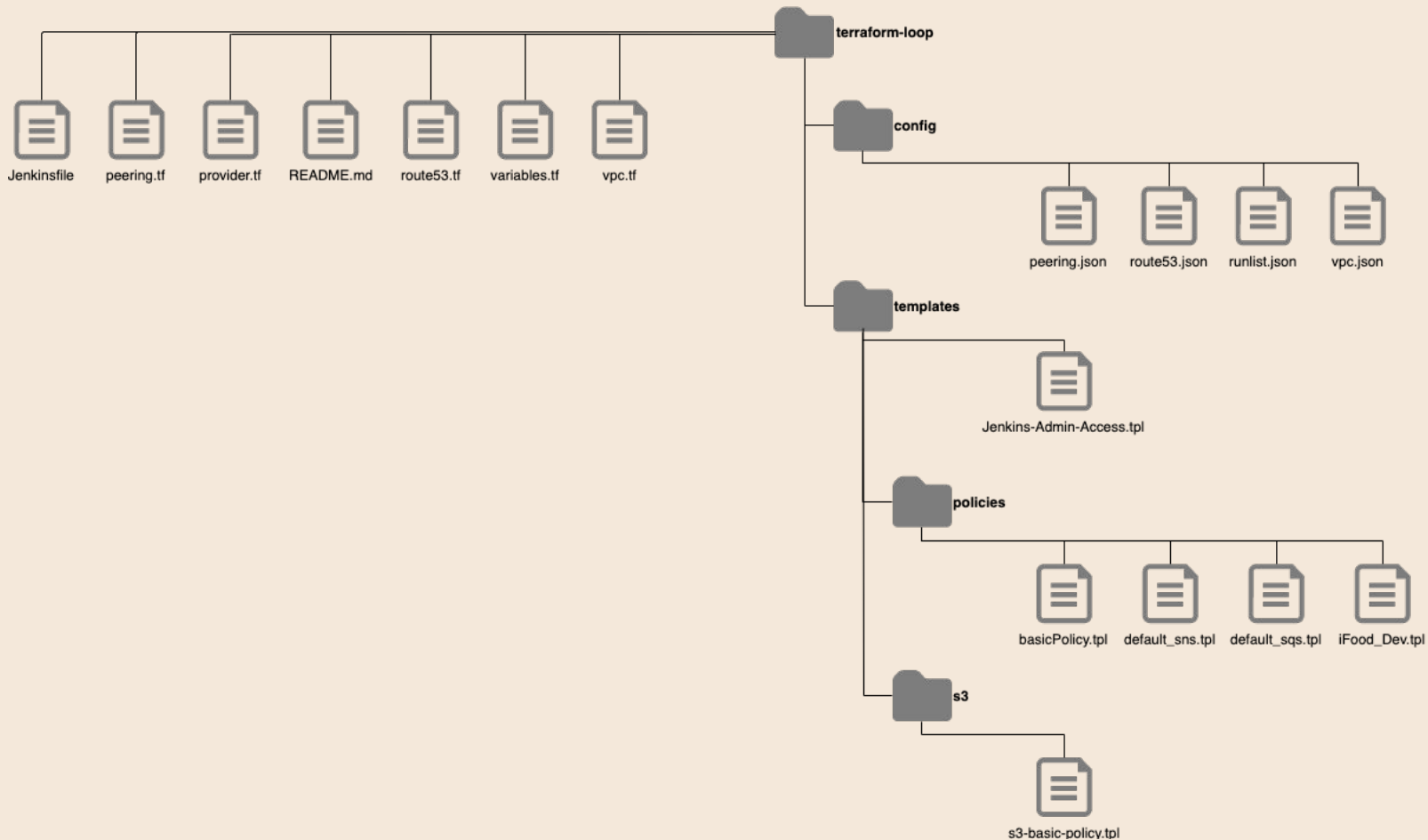
    content {
      id = launch_template.value.id
      name = launch_template.value.name
      version = launch_template.value.version
    }
  }
}

```

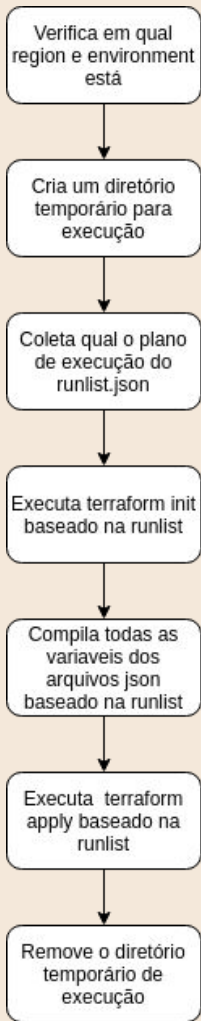

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- **Wrapper terraform**



```
#!/bin/bash

TFDIR="/home/centos/terraform-0.12.0"
TFBIN="$TFDIR/terraform"
TEMP_DIR="$(mktemp -d -p $(PWD) .terraform_temp.XXXXXXXXXX)"

MY_IP=$(ip addr | grep "inet 10\." | awk '{ print $2 }')
COMMAND="${1}"
TRIBE=$(cat config/vpc.json | jq -r '.vpc_config.tribe')
REGION=$(curl -qs http://169.254.169.254/latest/dynamic/instance-identity/document|grep region|awk -F\" '{print $4}')

git pull

set_env() {
    if echo "${MY_IP}" | egrep -q "10.10.10.10"; then
        ENV="sandbox"
    elif echo "${MY_IP}" | egrep -q "10.20.20.20"; then
        ENV="staging"
    elif echo "${MY_IP}" | egrep -q "10.30.30.30"; then
        ENV="prod"
    fi
}

temp_exec() {
    ln -s "${PWD}/config" "${PWD}/output.tf" "${PWD}/provider.tf" "${PWD}/templates" "${PWD}/vpc.tf" ${TEMP_DIR}

    for TF in $(cat config/runlist.json | jq -r '.runlist.'${ENV}'["${REGION}"] | .[]'); do
        ln -s "${PWD}/${TF}" ${TEMP_DIR}
    done

    cd "${TEMP_DIR}"
}

tf_init() {
    ${TFBIN} init -upgrade -plugin-dir=${TFDIR} -backend-config="bucket=${ENV}-tfstate-${TRIBE}-${REGION}" \
    -backend-config="key=${TRIBE}-${REGION}.tfstate" -backend-config="region=${REGION}" -backend-config="encrypt=true" \
    -backend-config="dynamodb_table=${ENV}-tfstate-${TRIBE}-${REGION}"
}

tf_plan() {
    TEMP_CONF="$(mktemp -p ${TEMP_DIR} config.XXXXXXXXXX.json)"

    for JSON in config/*.json; do
        if [ "${JSON}" == "config/runlist.json" ]; then
            continue
        fi
        JSON_LIST+="${JSON} "
    done

    jq -s add ${JSON_LIST} > "${TEMP_CONF}"

    echo "variable \"environment\" {}" > "${TEMP_DIR}/variables.tf"
    echo "variable \"region\" {}" > "${TEMP_DIR}/variables.tf"
    cat "${TEMP_CONF}" | jq -r '. | to_entries[] | "variable \"${key}\" + .key + \"\\" {}\" | @text' >> "${TEMP_DIR}/variables.tf"

    ${TFBIN} ${@:1} -parallelism=10 -var="region=${REGION}" -var="environment=${ENV}" -var-file=${TEMP_CONF} ${@:2}
}

tf_state() {
    ${TFBIN} ${@}
}

case "${COMMAND}" in
    init)
        set_env
        temp_exec
        tf_init
        ;;
    plan|apply|import|destroy)
        temp_exec
        tf_state
        ;;
esac
```

```

{
  "runlist": {
    "sandbox": {
      "us-east-2": [
        "peering.tf",
        "iam.tf",
        "route53.tf",
        "s3.tf",
        "k8s.tf",
        "ecr.tf",
        "sqs.tf",
        "sns.tf"
      ]
    },
    "staging": {
      "us-east-2": [
        "peering.tf",
        "iam.tf",
        "route53.tf",
        "s3.tf",
        "k8s.tf",
        "ecr.tf",
        "sqs.tf",
        "sns.tf"
      ]
    },
    "prod": {
      "us-east-2": [
        "peering.tf",
        "peering-prod.tf",
        "iam.tf",
        "route53.tf",
        "s3.tf",
        "s3-prod.tf",
        "k8s.tf",
        "ecr.tf",
        "sqs.tf",
        "sns.tf"
      ]
    }
  }
}

```

```

module "aws-vpc-peering-to-infra-us-east-2" {
  source          = "git::ssh://git@bitbucket.org/ifood/terraform-v2.git//modules/ifood/peering"
  peering_name    = "to_infra_us-east-2"
  peering         = var.peering
  vpc_id          = module.vpc.vpc_id
  security_group  = module.vpc.default_security_group_id
  route-table-public = module.vpc.route-table-public
  route-table-private = module.vpc.route-table-private
}

module "aws-vpc-peering-to-dev-sa-east-1" {
  source          = "git::ssh://git@bitbucket.org/ifood/terraform-v2.git//modules/ifood/peering"
  peering_name    = "to_dev_us-east-1"
  peering         = var.peering
  vpc_id          = module.vpc.vpc_id
  security_group  = module.vpc.default_security_group_id
  route-table-public = module.vpc.route-table-public
  route-table-private = module.vpc.route-table-private
}

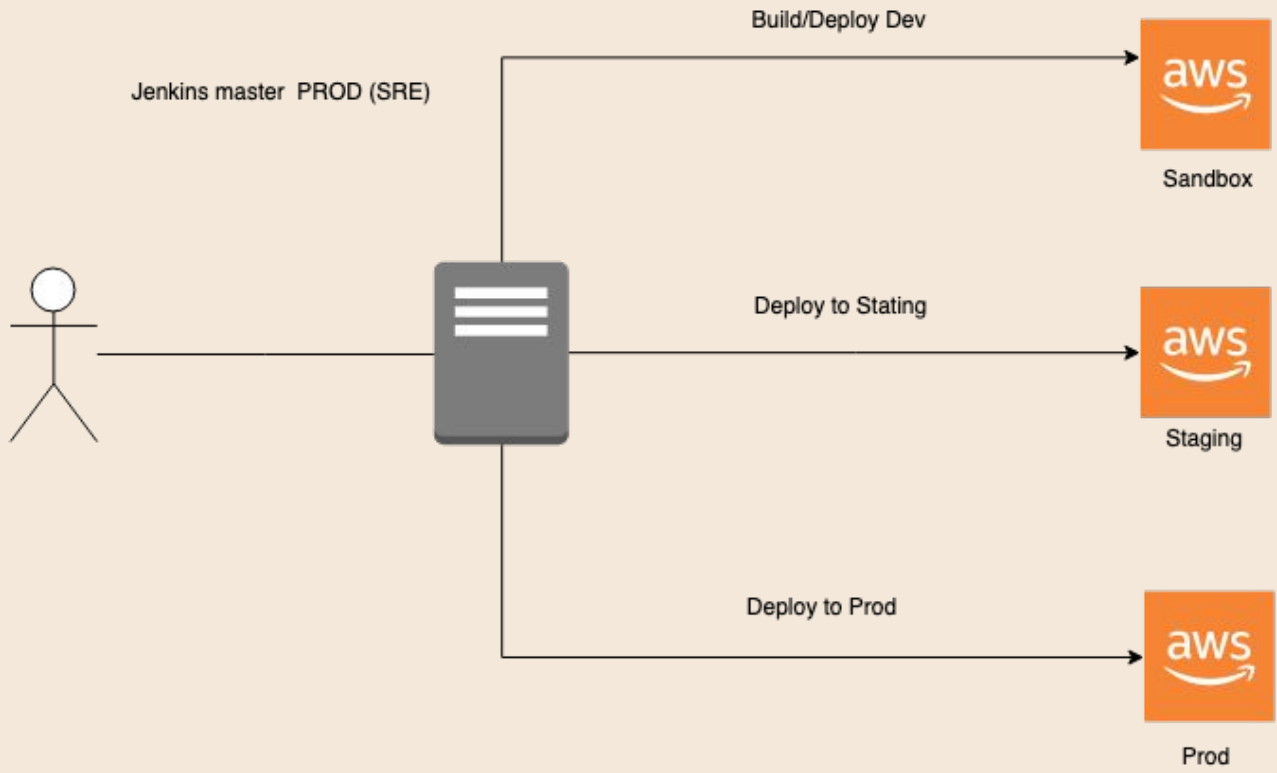
```

```

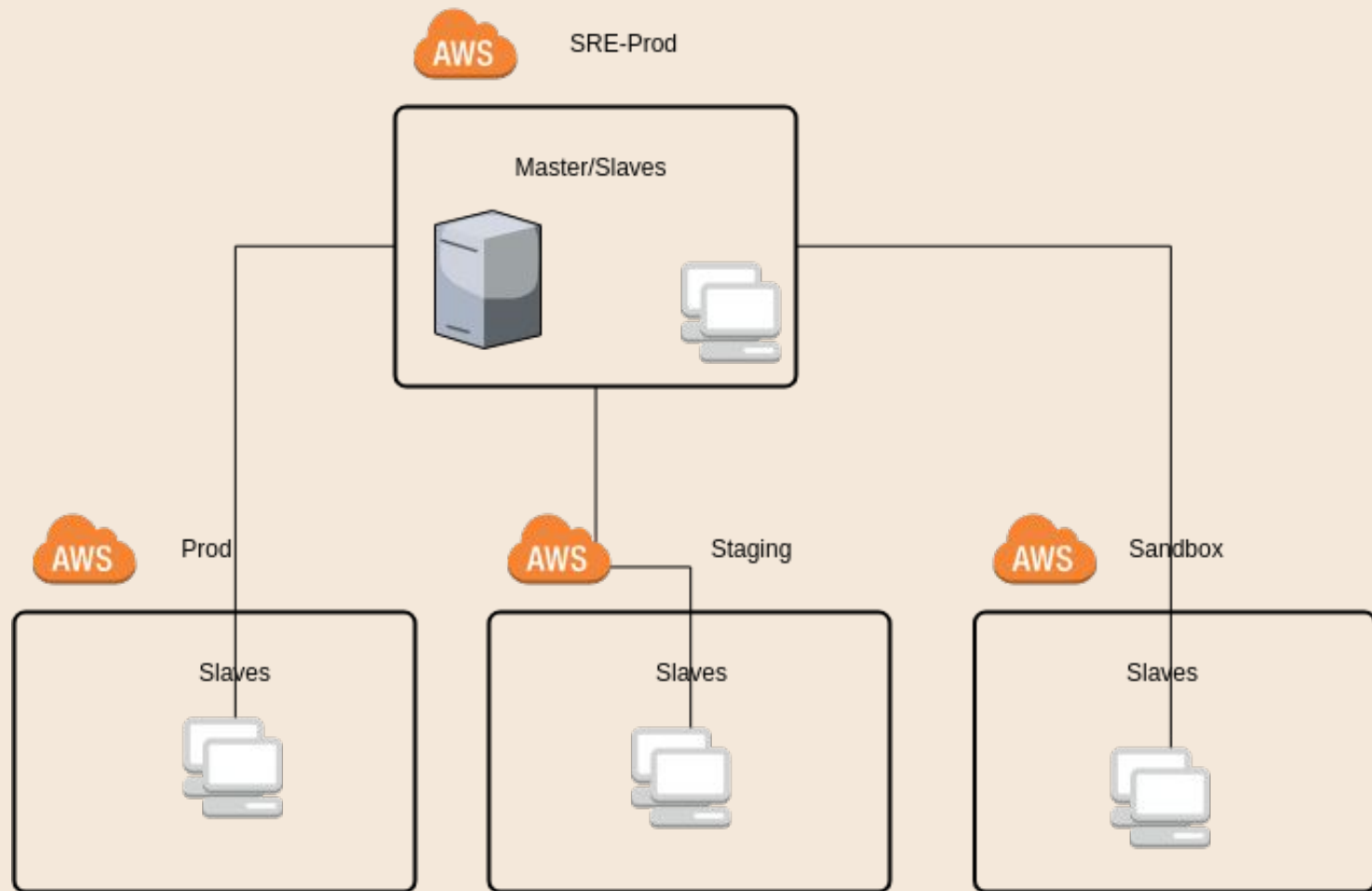
{
  "peering": {
    "to_infra_us-east-2": {
      "peer_owner_id": "i-000000000",
      "peer_vpc_id": "vpc-000000000000000000",
      "peer_region": "us-east-2",
      "peer_cidr": "10.0.0.0/24"
    },
    "to_mktp_us-east-2": {
      "peer_owner_id": "i-000000000",
      "peer_vpc_id": "vpc-000000000000000000",
      "peer_region": "us-east-2",
      "peer_cidr": "10.0.0.0/24"
    },
    "to_dev_us-east-1": {
      "peer_owner_id": "i-000000000",
      "peer_vpc_id": "vpc-000000000",
      "peer_region": "sa-east-1",
      "peer_cidr": "10.0.0.0/24"
    }
  }
}

```

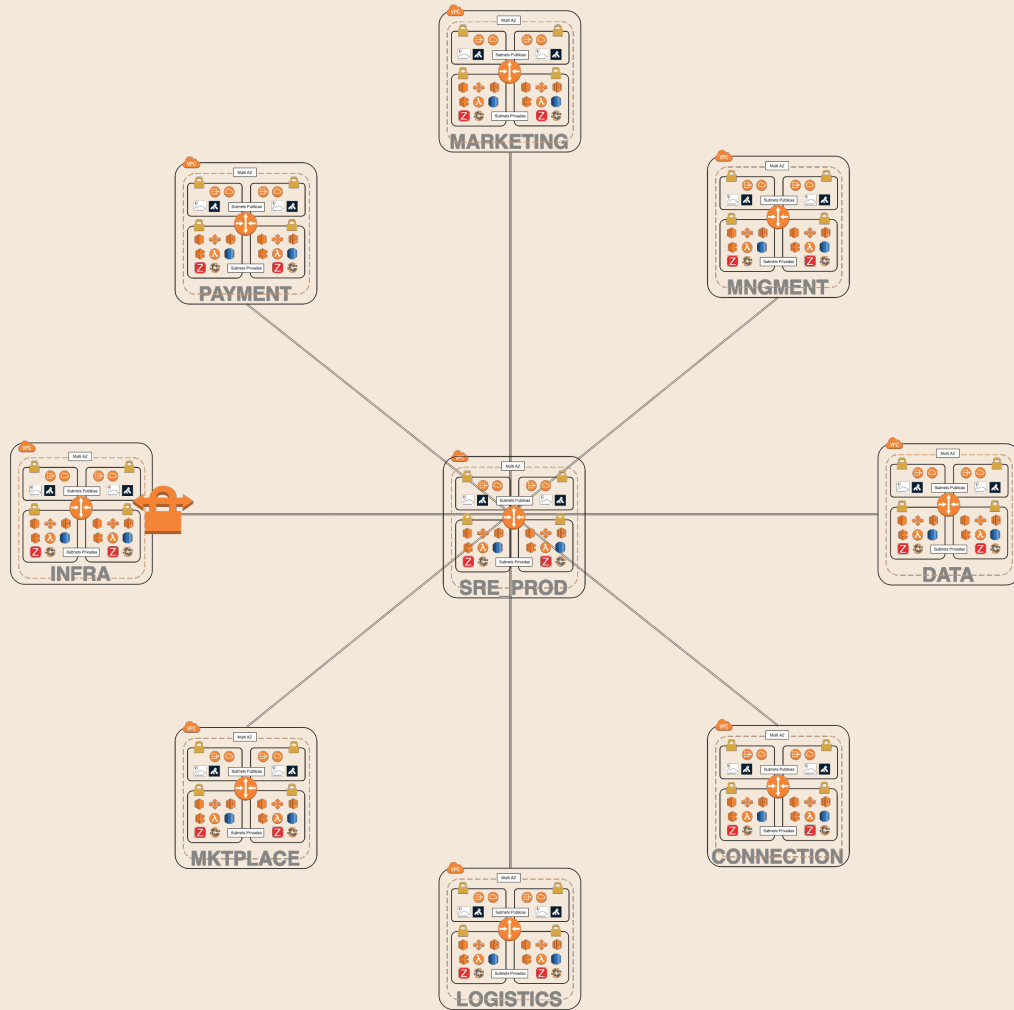
- **Jenkins**
- Kubernetes
- Conectividade
- Repositório IaaS
- Webhooks
- Master
- Tags & Promoções



- Jenkins
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terraform|

CODE



View all code matches

REPOSITORIES



ifood-data-terraform
ifood



ifood-terraform-admin
ifood



terraform
ifood



terraform-connection
ifood



terraform-infra
ifood



terraform-logistics
ifood



terraform-loop
ifood



terraform-marketplace
ifood



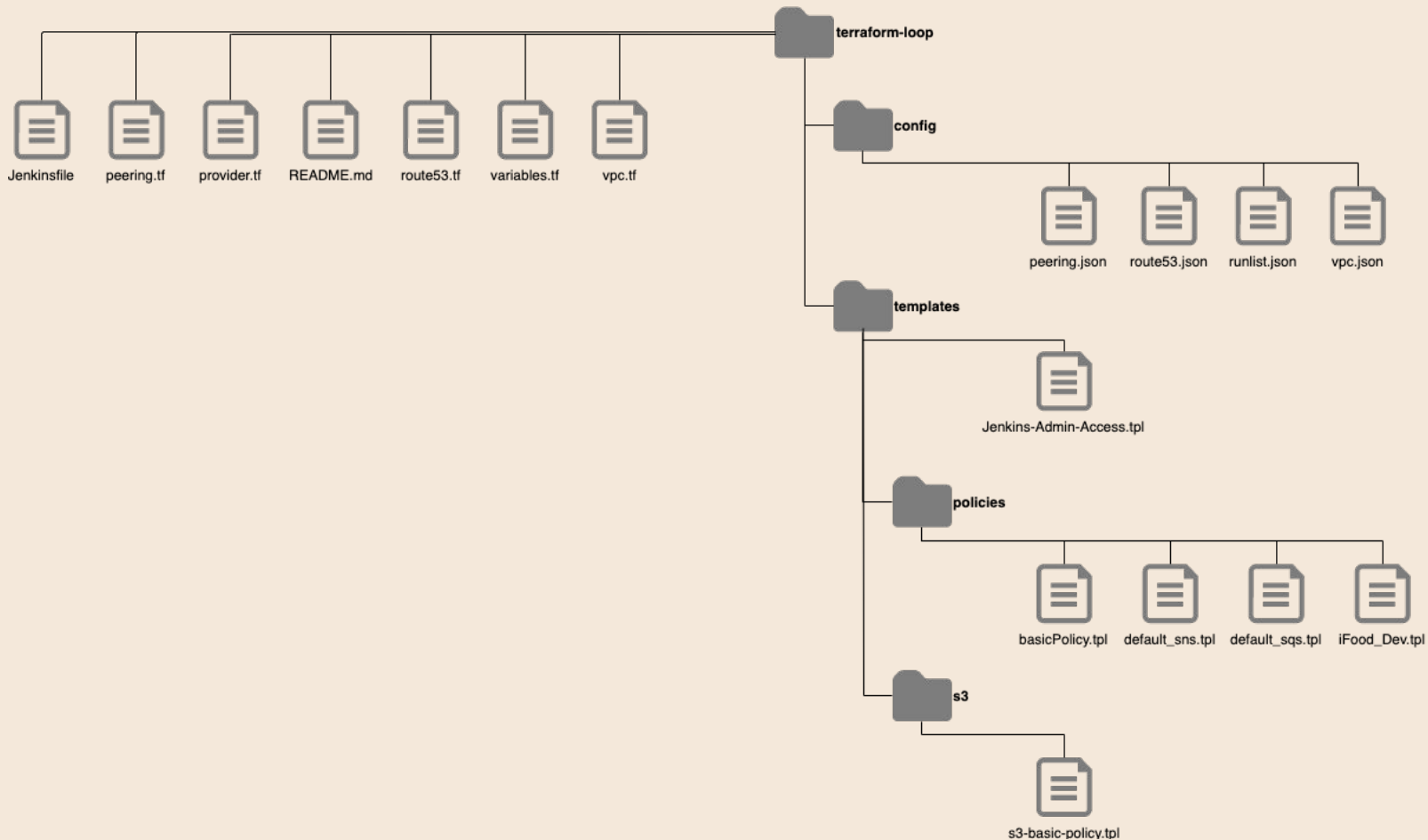
terraform-movile-pay
ifood



terraform-prod-legacy
ifood
















View all repository matches



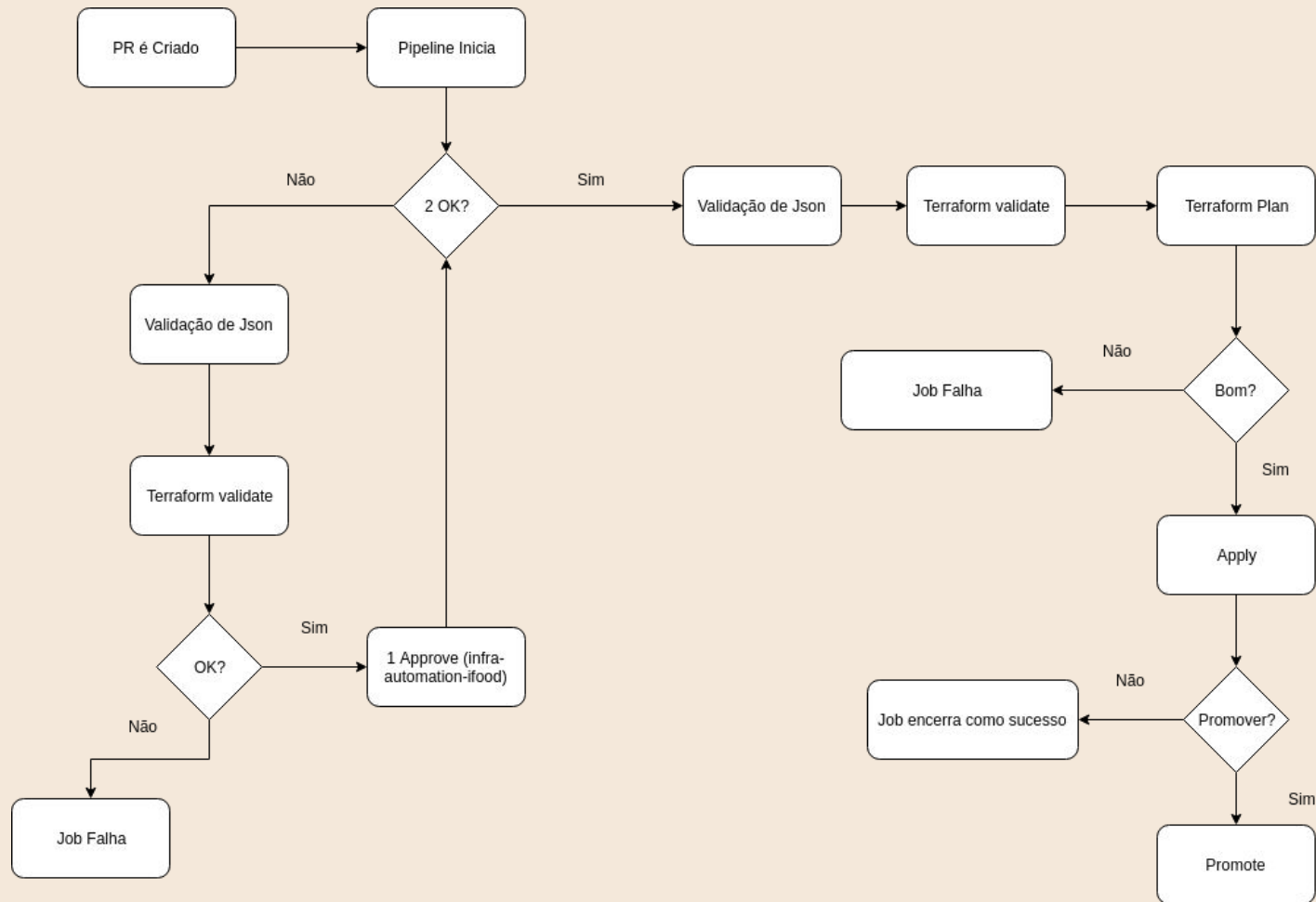
- Jenkins
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Branch permissions

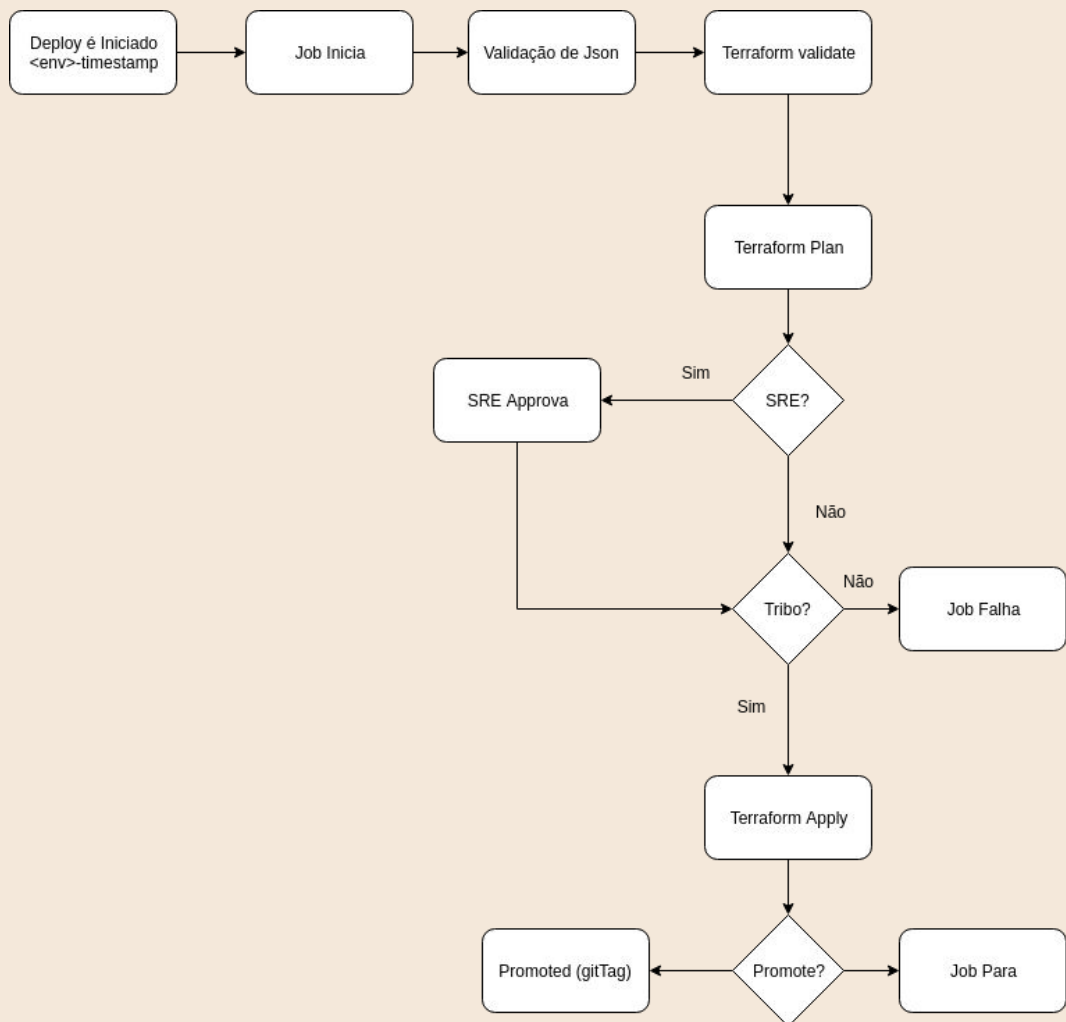
Add a branch permission to specify write and merge access to a specific branch. [Learn more](#)

Branch	Access type	Users and groups	Custom settings
 master	Write access	<ul style="list-style-type: none"> Yuri Adams Leandro Carneiro Daniel Requena Edgar Sandi Joao Alves Marques Junior Rodrigo Torres Hugo Branquinho de Carvalho Smailli Hemori Moraes Eduardo Ximenes Soares Diego Ragazzi Infra Automation infra-pull-request	<p>Deleting this branch is not allowed</p> <p>Rewriting branch history is not allowed</p>
	Merge via pull request	<p><i>*Includes users and groups with write access</i></p>	

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today



smailli.moraes 3:56 PM

jovem

aprova pra pra nois

3:57 PM https://bitbucket.org/ifood/terraform-marketplace/pull-requests/25/asg_bluegreen_tag/diff

Pull request #25



Smailli Moraes

ASG_BLUEGREEN_TAG | (OPEN)

`ASG_BLUEGREEN_TAG` → `master`

Builds



1 of 1 passed

terraform-marketplace | Today at 3:55 PM | Added by Bitbucket Cloud

Merge

Nudge reviewers

Add comment



alan.kleiman 3:57 PM

o mundo da voltas

(aprovado)



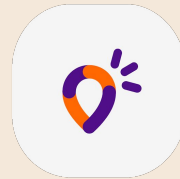
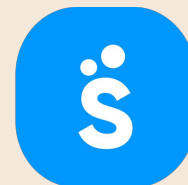
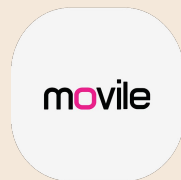
smailli.moraes 3:57 PM



boaaaaa!!!

Perguntas ?

**VISITE O
STAND DO
GRUPO
MOVILE!**



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Obrigado!!!

Smaili Hemori Moraes smaili.moraes@ifood.com.br

Diego Ragazzi diego.ragazzi@ifood.com.br