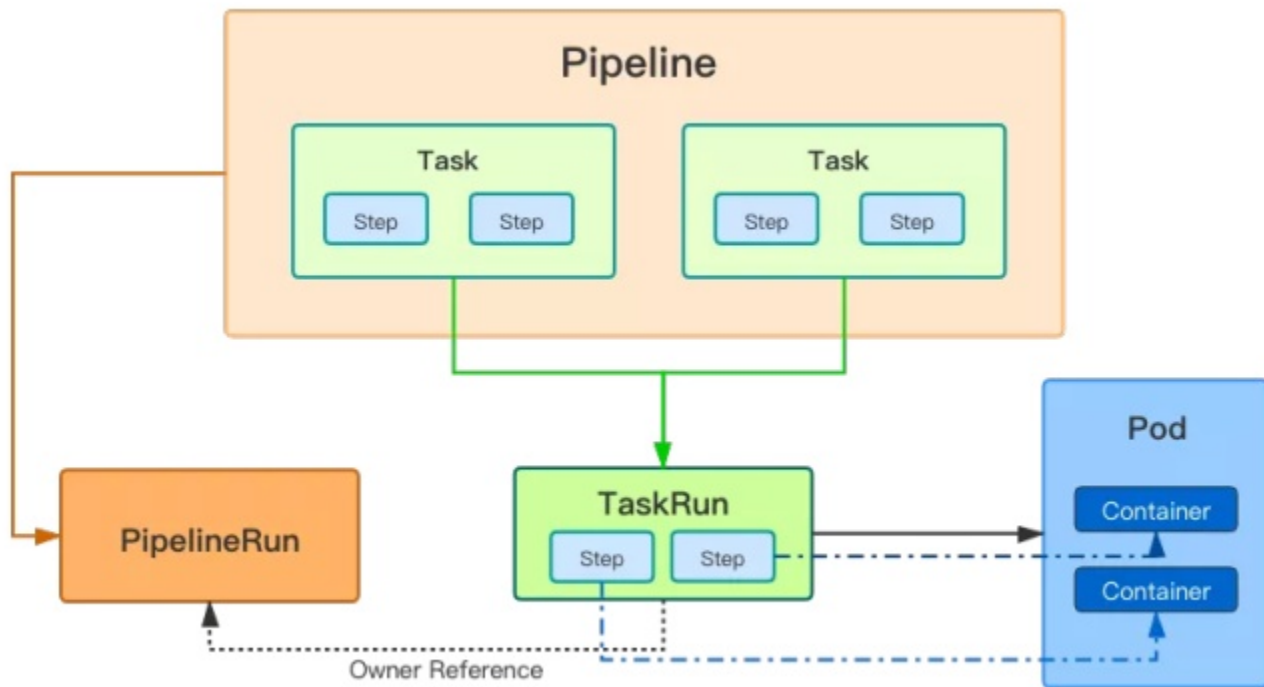


平台部署教程

一、Tekton概念



- **Task:** Task 为构建任务，是 Tekton 中不可分割的最小单位，正如同 Pod 在 Kubernetes 中的概念一样。在 Task 中，可以有多个 Step，每个 Step 由一个 Container 来执行。
- **Pipeline:** Pipeline 由一个或多个 Task 组成。在 Pipeline 中，用户可以定义这些 Task 的执行顺序以及依赖关系来组成 DAG（有向无环图）。
- **PipelineRun:** PipelineRun 是 Pipeline 的实际执行产物，当用户定义好 Pipeline 后，可以通过创建 PipelineRun 的方式来执行流水线，并生成一条流水线记录。
- **TaskRun:** PipelineRun 被创建出来后，会对应 Pipeline 里面的 Task 创建各自的 TaskRun。一个 TaskRun 控制一个 Pod，Task 中的 Step 对应 Pod 中的 Container。当然，TaskRun 也可以单独被创建。
- **PipelineResource:** 代表着一系列的资源，主要承担作为 Task 的输入或者输出的作用。

Pipeline 由多个 Task 组成，每次执行对应生成一条 PipelineRun，其控制的 TaskRun 将创建实际运行的 Pod。

二、k8s平台Tekton使用教程

第1步、自定义项目的pipeline并提mr到tekton-pipeline（一个项目提一次就行）

例如：<https://git.garena.com/shopee/sz-devops/kubernetes/tekton-pipeline/-/blob/master/resource/application-infra-group/ske-console-pipeline.yaml>

第2步、tekton-pipeline开发人员apply之后，确保在dashboard能找到自定义的项目pipeline

Tekton Dashboard				
<div>Tekton resources</div> <div>Pipelines</div> <div>PipelineRuns</div> <div>PipelineResources</div> <div>Tasks</div> <div>ClusterTasks</div> <div>TaskRuns</div> <div>Conditions</div> <div>Extensions</div> <div>k8s-services</div> <div>Import resources</div> <div>About</div>				
<input type="checkbox"/>	preview-env	application-infra-group-pipeline	107 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	sc-metrics	application-infra-group-pipeline	90 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-agent	application-infra-group-pipeline	90 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-agent-v2	application-infra-group-pipeline	54 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-auth	application-infra-group-pipeline	68 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-beats	application-infra-group-pipeline	90 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-beats-v2	application-infra-group-pipeline	54 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-controller	application-infra-group-pipeline	90 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-gateway-v2	application-infra-group-pipeline	90 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-metrics-v2	application-infra-group-pipeline	55 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-open-api	application-infra-group-pipeline	37 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	smb-static-upload-pipeline	application-infra-group-pipeline	107 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	source-to-deploy-infra	application-infra-group-pipeline	90 days ago	<div><div></div><div></div></div>
<input type="checkbox"/>	ske-console	application-infra-group-pipeline	58 minutes ago	<div><div></div><div></div></div>

第3步、创建所发布项目的PipelineResource

Tekton Dashboard	
<div>Tekton resources</div> <div>Pipelines</div> <div>PipelineRuns</div> <div>PipelineResources</div> <div>Tasks</div> <div>ClusterTasks</div> <div>TaskRuns</div> <div>Conditions</div> <div>Extensions</div> <div>k8s-services</div> <div>Import resources</div> <div>About</div>	<div>Create PipelineResource</div> <div><div>Cancel</div><div>Create</div></div> <div><div>Name</div><div>pipeline-resource-name</div><div>resource 名, create PipelineRun 时用到</div></div> <div><div>Namespace</div><div>application-infra-group-pipeline</div><div>默认</div><div>×</div><div>▼</div></div> <div><div>Type</div><div>Git</div><div>默认</div><div>▼</div></div> <div><div>URL</div><div>pipeline-resource-url</div><div>git 项目仓库地址</div></div> <div><div>Revision</div><div>pipeline-resource-revision</div><div>项目的分支名或 tag</div></div>

第4步、创建PipelineRun

Tekton Dashboard

Tekton resources

Pipelines

PipelineRuns

PipelineResources

Tasks

ClusterTasks

TaskRuns

Conditions

Extensions

k8s-services

Import resources

About

Create PipelineRun

CancelCreate

Namespace

application-infra-group-pipeline

Pipeline

ske-console

Labels

Add

Node Selector

Add

PipelineResources

git-source

ske-console-release-1-4-3

git

Params

environment

test

deploy environment

useRevisionAsTag

false

pathToContext

.

The path to the build context, used by Kaniko - within the workspace

pathToDockerFile

deploy/Dockerfile

The path to the dockerfile to build (relative to the context)

imageUrl

harbor.shopeemobile.com/shopee/ske-console

Url of image repository

target_cluster

infra-test

deployYamlFile

deploy/

the target yaml file to deploy

replicas

3

the number of replicas

cpu

1

memory

4Gi

Optional values

ServiceAccount (optional)

app-builder

Ensure the selected ServiceAccount (or the default if none selected) has permissions for creating PipelineRuns and for anything else your PipelineRun interacts with.

Timeout

60

PipelineRun timeout in minutes

例如：

创建完成pipelineRun会马上运行，等待部署完成即可。

三、平台项目Create Pipelinerun 配置参数

部署live须知

hotfix

1. 以当前线上版本的分支切个分支修bug，例：hotfix-xxx-xxx
2. 修完bug后合并到线上版本所在分支
3. 部署线上版本所在分支到test环境、测试
4. 把线上版本所在分支打tag，发布live（比较严重的bug，或封板期间需在运维群发送通知，无异议即可发版修复）

feature

1. 上一个版本的所有release分支代码（不要遗漏hotfix提交的代码）合到master——本地从旧的release分支切个分支出来合到master再提mr
2. 提醒产品修改releaseNotes并提mr到master
3. 部署master（已包含所有的旧代码和新feature代码）到test环境测试
4. 从master打tag。（多个服务的tag版本号保持统一，以最高的那个为准）
5. 运维群发送发版通知
6. 部署live并验证（如有严重bug及时回滚）

Pipeline

platform	project	pipeline
在线	Auth	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-auth
	Beats	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-beats-v2
	Metrics	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-metrics-v2
	Agents	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-agent-v2
	ske-console	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-console
	ske-node-gateway	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-bff
	ske-kubernetes-node-gateway	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ske-kubernetes-node-gateway
离线	ksc-node-gateway	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ksc-bff
	ksc-console	http://tekton-dashboard.envs.test.devops-sz.i.shopee.io/#/namespaces/application-infra-group-pipeline/pipelines/ksc-console

集群 (target_cluster)

environment	target_cluster			
	在线	离线	ecp admin	eks
dev	infra-test			
test	infra-test	kube-ksc-sg-sg2-uat	infra-test	infra-test
staging	platform-staging			
live	platform	ksc-live	platform	platform
k8s迁移后集群live	platform-2nd	-	platform-2nd	platform-2nd

PipelineRun

platform	project	参数							
		pipeline	environment	target_cluster	git-source	deploy-source	service Account	pathToDockerFile	deployYamlFile
在线	Auth	ske-auth	test / staging / live	infra-test / platform-staging / platform	ske-auth-master		app-builder	默认	默认
	Beats	ske-beats-v2	test / staging / live	infra-test / platform-staging / platform	k8s-platform-services-master		app-builder	默认	默认
	Agent	ske-agent-v2	test / staging / live	infra-test / platform-staging / platform	k8s-platform-services-master		app-builder	默认	默认
	Metrics	ske-metrics-v2	test / staging / live	infra-test / platform-staging / platform	k8s-platform-services-master		app-builder	默认	默认
	ske-console	ske-console	dev / test / staging / live	infra-test / platform-staging / platform	kubernetes-platform-console		app-builder	默认	默认（ dev 填入 devDeploy/ ）
	ske-node-gateway	ske-bff	dev / test / staging / live	infra-test / platform-staging / platform	kubernetes-bff		app-builder	默认（ dev 填入 devDeploy /Dockerfile ）	默认（ dev 填入 devDeploy/ ）
	ske-kubernetes-node-gateway	ske-kubernetes-node-gateway	dev / test / live	infra-test / platform	ske-kubernetes-node-gateway	ecp-component-manifest	app-builder	默认（ dev 填入 devDeploy /Dockerfile ）	默认（ dev 填入 devDeploy/ ）
	ske-open-api	ske-open-api	test / staging / live	infra-test / platform-staging / platform	kubernetes-open-apis		app-builder	默认	默认
	ske-node-beats	ske-node-beats	test / staging / live	infra-test / platform-staging / platform	kubernetes-beats		app-builder	默认	默认
	ecp-cmdb-node-gateway	ecp-cmdb-node-gateway	test/live	infra-test / platform	ecp-cmdb-node-gateway		不填	默认	默认
离线	ksc-console	ksc-console	test / live	kube-ksc-sg-sg2-uat / ksc-live	基于ksc-console分支创建		app-builder	默认	默认
	ksc-node-gateway	ksc-bff	test / live	kube-ksc-sg-sg2-uat / ksc-live	基于ksc-node-gateway分支创建		app-builder	默认	默认
ecp admin	ecp-admin-node-gateway	ecp-admin-node-gateway	test / live	infra-test / platform-2nd	基于ecp-admin-node-gateway分支创建		app-builder	默认	默认
	ecp-admin-console	在space里用cmdb： https://space.shopee.io/console/cmdb/deployment/detail/shopee.engineering_infra.infra_products.engineinfra_fe.space.ecpadmin 部署							
eks	ecp-admin-node-gateway	共用ecp-admin-node-gateway							
	eks-console	在space里用cmdb： https://space.shopee.io/console/cmdb/deployment/detail/shopee.engineering_infra.infra_products.engineinfra_fe.space.ecpeks 部署							