Robusta Monitor Kubernetes Cluster

1. Robusta 的安装
   1. 安装robusta-cli

|  |
| --- |
| pip install -U robusta-cli --no-cache |

* 1. 通过robusta-cli 创建 values.yaml 文件, 输入以下命令得到generated\_values.yaml

|  |
| --- |
| robusta gen-config |

A computer screen with text

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A screenshot of a computer screen

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* 1. 方法一： 获取Robusta Helm chart， 然后安装到K8S 集群

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| --- |
| helm repo add robusta https://robusta-charts.storage.googleapis.com && helm repo update  helm install robusta robusta/robusta -f ./generated\_values.yaml --set clusterName=lizhutest --namespace robusta |

方法二： 或者使用github repo：

需要修改./helm/robusta/Chart.yaml 内的version 和appVersion （0.10.17）

需要修改/helm/robusta/values.yaml 内的runner image的version 0.10.17

|  |
| --- |
| git clone https://github.com/robusta-dev/robusta.git  helm install robusta ./robusta/helm/robusta -f ./generated\_values.yaml --set clusterName=lizhutest --namespace robusta |

1. Robusta 自定义playbooks 配置
   1. 创建自定义action 的playbooks， 该action是当node状态变为unknown的时候发送alert并且展示该node上运行的pod

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* 1. 为自定义playbooks创建persistent volume

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| --- |
| accessModes:  - ReadWriteOnce  capacity:  storage: 4Gi  local:  path: /home/lizhu/data1  nodeAffinity:  required:  nodeSelectorTerms:  - matchExpressions:  - key: pv  operator: In  values:  - worker1  persistentVolumeReclaimPolicy: Retain  volumeMode: Filesystem |

* 1. 编辑 values.yaml， 设置playbooksPersistentVolume: true

|  |
| --- |
| helm get values robusta -o yaml > values.yaml  echo “playbooksPersistentVolume: true” >> values.yaml  helm upgrade robusta robusta/robusta --values=values.yaml  helm upgrade robusta ./robusta/helm/robusta/ --namespace=robusta –values ./values.yaml |

* 1. Push 自定义playbooks到Robusta

|  |
| --- |
| robusta playbooks push ./my\_action\_root |

* 1. 编辑values.yaml 文件,使自定义的action得以生效

|  |
| --- |
| customPlaybooks:  - actions:  - my\_node\_health\_watcher: {}  triggers:  - on\_node\_update: {} |

1. 集成Prometheus 和Robusta
   1. 编辑 alertManager 配置文件， account\_id和signing\_key 可以从values.yaml文件的global config中获得

|  |
| --- |
| receivers:  - name: 'robusta'  webhook\_configs:  - url: 'http://10.0.4.17:30080/api/alerts'  http\_config:  authorization:  # Replace <TOKEN> with a string in the format `<ACCOUNT\_ID> <SIGNING\_KEY>`  credentials: '8b01ca9a-437b-41b6-adf9-11d6cc0b7c97 8b01ca9a-437b-41b6-adf9-11d6cc0b7c97'  send\_resolved: true  route:  receiver: 'robusta'  routes:  - receiver: 'robusta'  group\_by: [ '...' ]  group\_wait: 1s  group\_interval: 1s  matchers:  - severity =~ ".\*"  repeat\_interval: 4h  continue: true |

* 1. 编辑Prometheus的alert 相关配置，添加label：cluster\_name: lizhutest

|  |
| --- |
| groups:  - name: example  rules:  # Alert for any instance that is unreachable for >2 minutes.  - alert: service\_down  expr: up == 0  for: 2m  labels:  severity: page  cluster\_name: lizhutest  annotations:  summary: "Instance {{ $labels.instance }} down"  description: "{{ $labels.instance }} of job {{ $labels.job }} has been down for more than 2 minutes."  - alert: high\_load  expr: node\_load1 > 0.5  for: 2m  labels:  severity: page  cluster\_name: lizhutest  annotations:  summary: "Instance {{ $labels.instance }} under high load"  description: "{{ $labels.instance }} of job {{ $labels.job }} is under high load." |

* 1. 编辑values.yaml文件，使Robusta可以从Prometheus中获取所需要的信息

|  |
| --- |
| disableCloudRouting: false  globalConfig:  prometheus\_auth: Bearer <YOUR TOKEN> # or any other auth header  alertmanager\_auth: Basic <USER:PASSWORD base64-encoded>  alertmanager\_url: ""  grafana\_url: ""  prometheus\_url: <http://ip:9090>  # Additional query string parameters to be appended to the Prometheus connection URL (optional)  prometheus\_url\_query\_string: "demo-query=example-data&another-query=value" |

1. 测试alert manager是否正常运行

|  |
| --- |
| customPlaybooks:  - actions:  - my\_node\_health\_watcher: {}  triggers:  - on\_node\_update: {}  - actions:  - stack\_overflow\_enricher: {}  triggers:  - on\_prometheus\_alert: {} |

|  |
| --- |
| helm upgrade robusta robusta/robusta –values=./values.yaml  helm upgrade robusta ./robusta/helm/robusta/ --namespace=robusta –values ./values.yaml  robusta demo-alert --alertmanager-url http://10.0.4.20:9093 --labels cluster\_name=lizhutest |

1. 配置Prometheus alert playbooks
2. Tips
   1. Robusta的runner和forwarder不能运行在同一个node上，否则k8s alert不能发送到配置的sink内。但是prometheus的alert发送没有问题。
   2. 给robusta-runner 服务配置ingress，使alert能访问到robusta的runner
   3. Robusta 默认会监测 pod是否crashloopbackoff， imagepullbackoff和 oom kill， 所以如果不需要一些默认提醒可以在chart的values.yaml内将该trigger注释掉。