**Enabling and Monitoring AdmissionReview Metrics on a GKE Cluster**

## 1. Enable AdmissionReview Logs in GKE

Google Kubernetes Engine (GKE) automatically logs AdmissionReview requests in Cloud Logging. You need to ensure logging is enabled and create log-based metrics.

### Step 1: Enable Cloud Logging for GKE

If logging is not enabled, run:

gcloud beta container clusters update YOUR\_CLUSTER\_NAME \

--logging=SYSTEM,WORKLOAD \

--monitoring=SYSTEM,WORKLOAD \

--project=YOUR\_PROJECT\_ID

This ensures AdmissionReview webhook logs are captured.

### Step 2: Verify Logs Exist in Google Cloud Logging

gcloud logging read 'resource.type="k8s\_cluster" AND logName="projects/YOUR\_PROJECT\_ID/logs/kubernetes.io%2Fadmission"'

If logs appear, AdmissionReview logging is enabled.

## 2. Create Log-Based Metrics for AdmissionReview in Google Cloud

To track latency, success rate, and failures, create log-based metrics.

### Step 3: Create Log-Based Metric for Response Time

gcloud logging metrics create admissionreview\_latency \

--description "AdmissionReview Webhook Response Time" \

--log-filter 'resource.type="k8s\_cluster" AND logName="projects/YOUR\_PROJECT\_ID/logs/kubernetes.io%2Fadmission" AND jsonPayload.response.status.code'

This tracks webhook response latency.

### Step 4: Create Log-Based Metric for Admission Decision

gcloud logging metrics create admissionreview\_decision \

--description "AdmissionReview Webhook Allowed/Denied Requests" \

--log-filter 'resource.type="k8s\_cluster" AND logName="projects/YOUR\_PROJECT\_ID/logs/kubernetes.io%2Fadmission" AND jsonPayload.response.allowed'

This tracks allowed vs. denied requests.

## 3. Enable Prometheus Metrics for AdmissionReview

GKE does not expose AdmissionReview metrics natively, but you can capture them using Prometheus.

### Step 5: Deploy Prometheus AdmissionReview Exporter

#### Deploy a Prometheus exporter for AdmissionReview metrics:

apiVersion: monitoring.coreos.com/v1

kind: ServiceMonitor

metadata:

name: admissionreview-monitor

labels:

release: prometheus

spec:

selector:

matchLabels:

app: my-admission-webhook

endpoints:

- port: https

path: /metrics

interval: 15s

#### Expose AdmissionReview metrics in your webhook:

Modify your webhook to export Prometheus metrics:

from prometheus\_client import start\_http\_server, Summary

response\_time = Summary('admissionreview\_response\_time', 'Response time of AdmissionReview requests')

@response\_time.time()

def handle\_request():

# Webhook logic here

pass

Now Prometheus scrapes AdmissionReview response time.

## 4. Forward AdmissionReview Metrics to Datadog

Once you have Cloud Logging metrics or Prometheus metrics, forward them to Datadog.

### Step 6: Forward Log-Based Metrics to Datadog

#### Export logs to Pub/Sub:

gcloud logging sinks create admissionreview-metrics-sink pubsub.googleapis.com/projects/YOUR\_PROJECT\_ID/topics/YOUR\_TOPIC

#### Use Datadog Log Forwarding:

* In Datadog, create a GCP integration
* Enable log ingestion from Pub/Sub
* Use admissionreview.response\_time in Datadog Metrics

## Summary

✅ Enable Cloud Logging for AdmissionReview  
✅ Create Log-Based Metrics in Google Cloud  
✅ Expose AdmissionReview Metrics in Prometheus  
✅ Forward AdmissionReview Metrics to Datadog

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