

How do I trigger a Prometheus alert?

- Define an alerting rule in Prometheus rule files.
- Reload the Prometheus configuration to load the new rule.
- Configure an alert manager to send out notifications when an alert is triggered.
- Test the alert by generating a condition that satisfies the alert rule.

What is the difference between node exporter and mysql exporter?

Node Exporter is used to collect system-level metrics, such as CPU usage, memory usage, disk I/O, network I/O, and more, from a node or server. It can be installed on almost any type of server or node.

MySQL Exporter is used to collect metrics from the MySQL database. It can provide information on the number of queries executed, the number of slow queries, the number of connections, and more.

what is the maximum retention period to save data in Prometheus and how to increase it?

The maximum retention period to save data in Prometheus is determined by the retention time specified in the Prometheus configuration file. By default, Prometheus stores data for 15 days. However, you can increase this retention period by modifying the `storage.tsdb.retention.time` parameter in the Prometheus configuration file. This parameter specifies the duration for which samples are retained. You can set it to any value you prefer, depending on your storage capacity and the duration for which you need to keep the data. Keep in mind that increasing the retention period will also increase the storage requirements.

What are the different PromQL data types available in Prometheus Expression language?

Prometheus Expression Language (PromQL) supports several data types, including scalar types, string types, and time types. Scalar types include float and integer, and string types are enclosed in single quotes. Time types include duration and timestamp, which represent a duration and a point in time, respectively. Additionally, PromQL supports vector types, which consist of a set of time-value pairs that have the same metric name and label set.

How To calculate the average request duration over the last 5 minutes from a histogram?

```
rate(http_request_duration_seconds_sum[5m]) /  
rate(http_request_duration_seconds_count[5m])
```

What is Thanos Prometheus?

Thanos Prometheus is an open-source extension to Prometheus, a popular monitoring and alerting tool. It was created by *Improbable*, a British gaming technology company, to provide users with highly available metric systems and virtually unlimited storage.

Thanos expands on Prometheus's features for collecting metrics and alerting, and includes several components like Sidecar, Store Gateway, Compactor, Receiver, Ruler/Rule, Querier/Query, and Query Frontend that serve specific functions.

Thanos allows querying and aggregating of data from multiple Prometheus servers from a single endpoint, offers a merged and de-duplicated view of both data streams from HA pairs of Prometheus servers, and provides cheap, responsive, long-term metric storage.

what is promtool and how i can use it?

Promtool is a command-line tool for managing and testing Prometheus configuration files. It can be used to verify if the configuration file has any syntax errors, check the consistency of the labels, and validate the rules. Promtool also includes a query command to test Prometheus queries against a given data set.

Using promtool can help ensure that your Prometheus configuration files are correct and consistent, which can help avoid issues and errors when monitoring your systems with Prometheus.

What types of Monitoring can be done via Grafana?

Grafana is used to monitor their infrastructure and log analytics.

Can we see different Servers CPU comparison in Grafana?

Yes, by making different queries for each server.