Grafana Deployment Process

**Grafana**

Grafana is a multi-platform open source analytics and interactive visualization web application. It provides charts, graphs, and alerts for the web when connected to supported data sources. Grafana is available under AGPL v3 license (GNU’s Affero General Public License, version 3.0). It is supported in the three main operating systems: Microsoft Windows, Linux and MacOS.

Grafana can be used to establish :

## **Explore metrics, logs, and tracess**

## **Alerts**

## **Annotations**

## **Import dashboards and plugins**

What is Grafana Dashboard?

Grafana Dashboard is used to pull data from various data sources such as Prometheus, Influx DB, Graphite, ElasticSearch, MySQL, PostgreSQL, CloudWatch, Microsoft SQL Server, and many more.

A Grafana Dashboard contains various visualization options such as heat maps, geo maps, histograms, tables, free text panels, and different types of charts & graphs to study and understand business data easily.

In Grafana, we create the following types of Grafana Dashboard:

Dynamic Dashboard

Production Dashboard

VMware VMs

Cisco switch RV 325 Dashboard

MariaDB Dashboard

Testing dynamic Dashboard

**Why Grafana?**

**1. Easy virtualization**

Grafana provides the best virtualization technique by adding multiple graphs to a single visualization panel.

**2. Drag and drop panels**

Grafana uses drag and drop panels to insert images, videos, tables, and graphs on the Grafana dashboard.

**3. Flexible to use**

Grafana is flexible to use because it can combine with influx Data.

**4. Support 30+ Data Sources**

Grafana supports more than 30 data sources to bring our data together for a better context. Grafana mainly uses various databases like Azure Monitor, Elasticsearch, Loki, Microsoft SQL Server (MSSQL), OpenTSDB, and PostgreSQL. Grafana provides a customized query editor and specifies a syntax for each data source.

**5. Open-source**

Grafana is an open-source platform because we don’t need any license and pay any charge to use the Grafana platform.

**6. Multi-platform support**

Grafana supports multi-platform so that we can install Grafana in any platform like **Windows**, **Linux**, **Mac**, **Docker** **container**, and **ARM**.

Features of Grafana

The most important features of Grafana are listed below:

1. Plugins Platform

Grafana provides an advanced platform to users for easier, faster, and most efficiently create new high-quality plugins.

2. Transformation

Transformation is the most important feature of Grafana that allows us to transform non-time series data into tables within seconds without any additional overhead.

3. Dynamic Dashboards

Grafana helps us to create a dynamic and reusable dashboard with good looking templates that appear at the top of the dashboard.

4. Authentication

Grafana supports authentication techniques like LDAP and Google Auth to map users to the organization.

5. Explore Metrics and Logs

In Grafana, we can explore our data metrics through ad-hoc queries. We can also split-view using different time range and data range.

6. Alerting

Grafana helps us to continuously evaluate and send alert notification to a number of different notifiers, including systems such as Slack, VictorOps, OPsGenie, SMS, email, and PagerDuty.

7. Annotations

Annotations are useful for correlating data if something went to wrong.

8. Mixed Data Sources

Grafana supports various storage backends for data sources such as AWS CloudWatch, Azure Monitor, Elasticsearch, Loki, Microsoft SQL Server (MSSQL), OpenTSDB, PostgreSQL, and Stackdrier.

9. Beautiful Dashboard

Grafana contains a well-designed dashboard with beautiful Graphs, Text, Alert messages, tables, clock, Logs, plugin lists, and more.

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