White Paper: Grafana & Prometheus on HPE GreenLake with NVIDIA

Introduction

This document provides a technical overview and deployment guide for Grafana and Prometheus in HPE GreenLake environments with NVIDIA hardware.

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Installation

The repo has many prometheus related charts. The chart we want is called "kube-prometheus-stack". This chart also includes sub-chart of grafana.

Add repo

```
1 helm repo add prometheus-community https://prometheus-community.github.
io/helm-charts
2 helm repo update
```

Install

```
1 helm install kube-prometheus-stack prometheus-community/kube-prometheus
-stack --namespace monitoring --create-namespace
```

Helm Search Output

```
1 prometheus-community/alertmanager v0.28.1 The Alertmanager handles alerts sent by client ...
2 prometheus-community/alertmanager-snmp-notifier 2.0.1 v2.0.0 The SNMP Notifier handles alerts coming from Pr...
```

alt text

Figure 1: alt text

```
3 prometheus-community/jiralert
              v1.3.0 A Helm chart for Kubernetes to install
     jiralert
4 prometheus-community/kube-prometheus-stack
             v0.84.1 kube-prometheus-stack collects Kubernetes
     manif...
5 prometheus-community/kube-state-metrics
                                                     6.1.4
                      Install kube-state-metrics to generate and
      expo...
6 prometheus-community/prom-label-proxy
                                                    0.15.0
             v0.12.0 A proxy that enforces a given label in a
     given ...
7 prometheus-community/prometheus
                                                     27.30.0
            v3.5.0 Prometheus is a monitoring system and time
     seri...
8 prometheus-community/prometheus-adapter
                            A Helm chart for k8s prometheus adapter
              v0.12.0
```

[!Note] Was trying to configure grafana to be NodePort but got confused for a long time why "show value" for chart don't show the grafana.service.type while the installed release shows. The "show value" only shows parent prometheus value while "get values" show the merged values after installation.

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Continue to add sections as you curate your notes.