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

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

Install

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

Helm Search Output

alt text

Figure 1: alt text

```
prometheus-community/alertmanager
                                                        1.24.0
                   The Alertmanager handles alerts sent by client ...
prometheus-community/alertmanager-snmp-notifier
                   The SNMP Notifier handles alerts coming from Pr...
   v2.0.0
prometheus-community/jiralert
                                                      1.8.1
                                                                     v1.3.0
   A Helm chart for Kubernetes to install jiralert
prometheus-community/kube-prometheus-stack
                                                       76.3.0
                   kube-prometheus-stack collects Kubernetes manif...
prometheus-community/kube-state-metrics
                                                        6.1.4
                   Install kube-state-metrics to generate and expo...
   2.16.0
prometheus-community/prom-label-proxy
                                                       0.15.0
   v0.12.0
                   A proxy that enforces a given label in a given ...
prometheus-community/prometheus
                                                        27.30.0
                   Prometheus is a monitoring system and time seri...
   v3.5.0
prometheus-community/prometheus-adapter
                                                        5.1.0
                   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.