A CLOUD GURU

Lesson Description - Configuring an Exporter

In order to fully utilize Prometheus, you will need to configure exporters. Exporters are sources of metric data that Prometheus periodically collects. In this lesson, we set up monitoring for a Linux server. We will install Node Exporter on the server and configure Prometheus to scrape metrics from that exporter. This will enable us to query Prometheus for the new Linux server's metric data.

Relevant Documentation

- Scrape Config
- Monitoring a Linux Host

Lesson Reference

Configure a New Server to Be Monitored

Create a new Cloud Playground server:

- Distribution: `Ubuntu 18.04 Bionic Beaver LTS`
- Size: `Small`
- Tag: `Linux Server`

Log in to the new server. We will configure this new server for Prometheus monitoring using Node Exporter.

Create a user for Node Exporter:

```
sudo useradd -M -r -s /bin/false node_exporter
```

Download and extract the Node Exporter binary:

```
wget https://github.com/prometheus/node_exporter/releases/download/
v0.18.1/node_exporter-0.18.1.linux-amd64.tar.gz
```

```
tar xvfz node_exporter-0.18.1.linux-amd64.tar.gz
```

Copy the Node Exporter binary to the appropriate location and set ownership:

```
sudo cp node_exporter-0.18.1.linux-amd64/node_exporter /usr/local/
bin/
```

```
sudo chown node_exporter:node_exporter /usr/local/bin/node_exporter
```

Create a `systemd` unit file for Node Exporter:

```
sudo vi /etc/systemd/system/node_exporter.service
```

Define the Node Exporter service in the unit file:

```
[Unit]
Description=Prometheus Node Exporter
Wants=network-online.target
After=network-online.target

[Service]
User=node_exporter
Group=node_exporter
Type=simple
ExecStart=/usr/local/bin/node_exporter

[Install]
WantedBy=multi-user.target
```

Start and enable the `node_exporter` service:

```
sudo systemctl daemon-reload
```

```
sudo systemctl start node_exporter
```

```
sudo systemctl enable node_exporter
```

You can retrieve the metrics served by Node Exporter like so:

```
curl localhost:9100/metrics
```

Configure Prometheus to Scrape Metrics

Log in to your Prometheus server and configure Prometheus to scrape metrics from the new server.

Edit the Prometheus config file:

```
sudo vi /etc/prometheus/prometheus.yml
```

Locate the `scrape_configs` section and add a new entry under that section. You will need to supply the private IP address of your new playground server for `targets`.

```
...

- job_name: 'Linux Server'
  static_configs:
  - targets: ['<PRIVATE_IP_ADDRESS_OF_NEW_SERVER>:9100']

...
```

Reload the Prometheus config:

```
sudo killall –HUP prometheus
```

Navigate to the Prometheus expression browser in your web browser using the public IP address of your Prometheus server: `<PROMETHEUS_SERVER_PUBLIC_IP>:9090`.

Run some queries to retrieve metric data about your new server:

```
up
```

```
node_filesystem_avail_bytes
```