Lesson Description - Application Monitoring

Prometheus can monitor a wide variety of applications using various exporters. In this lesson, we explore the process of monitoring applications and demonstrate how to set up monitoring for the Apache web server application.

Relevant Documentation

- Exporters
- Apache Exporter for Prometheus

Lesson Reference

Configure the Apache Server to Provide Metrics

Log in to your Linux server.

Install Apache:

```
sudo apt-get update
```

```
sudo apt-get install -y apache2
```

Make a request to Apache to verify it is up and running:

```
curl localhost:80
```

Download and install the Apache Exporter binary:

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

```
wget https://github.com/Lusitaniae/apache_exporter/releases/download
/v0.7.0/apache_exporter-0.7.0.linux-amd64.tar.gz
```

```
tar xvfz apache_exporter-0.7.0.linux-amd64.tar.gz
```

```
sudo cp apache_exporter-0.7.0.linux-amd64/apache_exporter /usr/local
/bin/
```

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

Set up a systemd service for Apache Exporter:

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

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

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

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

Start and enable the apache_exporter service:

```
sudo systemctl enable apache_exporter
```

```
sudo systemctl start apache_exporter
```

Make sure Apache Exporter is working:

```
sudo systemctl status apache_exporter
```

```
curl localhost:9117/metrics
```

Configure Prometheus to Scrape Metrics from Apache

Log in to your Prometheus server.

Edit the Prometheus config:

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

Under the scrape_configs section, add a scrape configuration for the Apache Exporter. Use the private IP address of your Linux/Apache server for the target:

```
- job_name: 'Apache'
    static_configs:
    - targets: ['<APACHE_SERVER_PRIVATE_IP>:9117']
```

Restart Prometheus to load the new configuration:

```
sudo systemctl restart prometheus
```

Use the expression browser to verify you can see Apache metrics in Prometheus. You can access the expression browser in a web browser at http://<PROMETHEUS_SERVER_PUBLIC_IP>:9090.

Run a query to view some Apache metric data:

```
apache_workers
```