

Lesson Description - Configuring Recording Rules

Recording rules are a useful tool for pre-calculating and storing the results of customizable PromQL expressions. They allow you to use Prometheus more efficiently by creating new time-series metrics to store calculated data rather than re-calculating every time a query is run. In this lesson, we explore the process of setting up recording rules, and we demonstrate the process of creating a recording rule.

Relevant Documentation

- [Recording Rules](#)

Lesson Reference

Log in to your Prometheus server.

Create a new directory to store rule files:

```
sudo mkdir -p /etc/prometheus/rules
```

Edit the Prometheus configuration:

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

Locate the `rule_files:` section and add the rules directory as a new entry:

```
...  
  
rule_files:  
  - "/etc/prometheus/rules/*"  
  
...
```

Create a new rule file:

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

Implement a rule to calculate and store CPU usage data:

```
groups:
- name: linux_server
  interval: 15s
  rules:
  - record: linux_server:cpu_usage
    expr: sum(rate(node_cpu_seconds_total{job="Linux Server",mode!
='idle'}[5m])) * 100 / 2
```

Restart Prometheus to load the configuration changes:

```
sudo systemctl restart prometheus
```

Access the expression browser at http://<PROMETHEUS_PUBLIC_SERVER_IP>:9090/graph.

Execute a query to view the data calculated by your recording rule:

```
linux_server:cpu_usage
```