



Monitoring Metrics Using the Prometheus Node Exporter

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New and Changed Information

The following table provides an overview of the significant changes up to this current release. The table does not provide an exhaustive list of all changes or of the new features up to this release.

Table 1: New Features and Changed Information

Cisco APIC Release Version	Feature	Description
5.2(3)	Support for Prometheus Node Exporter	Beginning with release 5.2(3), support is now available for monitoring metrics using the Prometheus Node Exporter.

Monitoring Metrics

Beginning with release 5.2(3), support is available for monitoring metrics for Cisco APIC using the Prometheus Node Exporter. The Prometheus Node Exporter provides visibility to a wide variety of hardware and kernel-related metrics, where it collects technical information from Linux nodes, such as CPU, disk, and memory statistics. For overview information on the Prometheus Node Exporter, see:

<https://prometheus.io/docs/introduction/overview/>

If your Cisco APIC is running on release 5.2(3) or later, the Prometheus Node Exporter is automatically available by default.

Guidelines and Limitations

Both HTTP and HTTPS are supported for monitoring metrics using the Prometheus Node Exporter with Cisco APIC.

Monitoring Metrics Using the CLI

Procedure

Step 1 Enter the following commands to enter the appropriate configuration mode:

```
apic1# config
apic1(config)# comm-policy default
apic1(config-comm-policy)#
```

Step 2 Enter the appropriate command to read the node exporter metrics for HTTP or HTTPS service.

- For HTTP service:

```
apic1(config-comm-policy)# http
apic1(config-http)#
```

- For HTTPS service:

```
apicl (config-comm-policy) # https
apicl (config-https) #
```

Step 3 Enter the `node-exporter-enable` command to enable the Prometheus Node Exporter.
For example:

```
apicl (config-http) # node-exporter-enable
```

Step 4 After you have enabled the Prometheus Node Exporter, enter the `no node-exporter-enable` command to disable it.
For example:

```
apicl (config-http) # no node-exporter-enable
```

Monitoring Metrics Using the REST API

These procedures describe how to enable the Prometheus Node Exporter to monitor metrics using the REST API.

Procedure

Step 1 To determine if the Prometheus Node Exporter is enabled or not, send the appropriate GET call.

- For HTTP:

```
GET https://<apic-ip-address>//api/mo/uni/fabric/comm-default/commHttp.xml
```

- For HTTPS:

```
GET https://<apic-ip-address>//api/mo/uni/fabric/comm-default/commHttps.xml
```

Locate the `nodeExporter` field to determine if it is set to `enabled` or `disabled`.

Step 2 To monitor metrics, send the appropriate post to enable the Prometheus Node Exporter.

- For HTTP:

```
POST https://<apic-ip-address>//api/mo/uni/fabric/comm-default/commHttp.xml
<commHttp nodeExporter="enabled" adminSt="enabled"/>
```

- For HTTPS:

```
POST https://<apic-ip-address>//api/mo/uni/fabric/comm-default/commHttps.xml
<commHttps nodeExporter="enabled" />
```

Step 3 To view the metrics using REST API, send the appropriate GET call.

- For HTTP:

```
GET http://<apic-ip-address>//nodeexporter/metrics
```

- For HTTPS:

```
GET https://<apic-ip-address>//nodeexporter/metrics
```

Output similar to the follows is displayed:

```
# HELP go_gc_duration_seconds A summary of the GC invocation durations.
# TYPE go_gc_duration_seconds summary
go_gc_duration_seconds{quantile="0"} 3.8996e-05
go_gc_duration_seconds{quantile="0.25"} 4.5926e-05
```

Step 4 To disable the Prometheus Node Exporter, send the appropriate post.

- For HTTP:

```
POST https://<apic-ip-address>//api/mo/uni/fabric/comm-default/commHttp.xml
```

```
<commHttp nodeExporter="disabled" />
```

- For HTTPS:

```
POST https://<apic-ip-address>//api/mo/uni/fabric/comm-default/commHttps.xml
```

```
<commHttps nodeExporter="disabled" />
```

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