puppet

Observability Data Connector: Installation and Configuration Guide

Version 1.0

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What is the Observability Data Connector module?

The Observability Data Connector module is a Prometheus metrics exporter for Puppet Enterprise Advanced. With the Observability Data Connector, you can export Puppet® transaction and report metrics in Prometheus format. In this way, you can track events in real time to identify and resolve possible issues and optimize the management of your infrastructure.

Important: This document includes references to a third-party product, Prometheus. The user interface and usage of third-party products are subject to change without notice. For the latest published information about Prometheus, see What is Prometheus?

Prerequisites

- Puppet Enterprise® 2023.7.1 or later.
- The Observability Data Connector, which is available to Puppet Enterprise Advanced customers as premium content on Puppet Forge. See puppet_data_connector.

Install and configure the Observability Data Connector

Before you can start using the module, you must install and configure it.

Install the module

Install the module by taking one of the following actions:

- Run the following command:
  `puppet module install puppetlabs-puppet_data_connector`

- Install the module by using Code Manager. For details, see Managing code with Code Manager.

Configure the module

You must classify the Observability Data Connector in the Puppet Enterprise (PE) console.

1. In the PE console, navigate to **Node groups** and expand **PE Infrastructure**.
2. Select the node group that you want to monitor and navigate to the **Classes** tab.
3. Click **Refresh** to ensure that the `puppet_data_connector` class is loaded.
4. Add a new class: `puppet_data_connector`.
5. Under **Parameter**, specify the dropzone parameter to configure the drop zone for the metrics.
6. Commit your changes and navigate to the PE Certificate Authority node group. Run Puppet on that node group.

Configure a filter for metrics (optional)

The Observability Data Connector can filter metrics to provide a concise view of your data. The filter is a blocklist.

Caution: Any filter parameter that you define removes data from the data set.

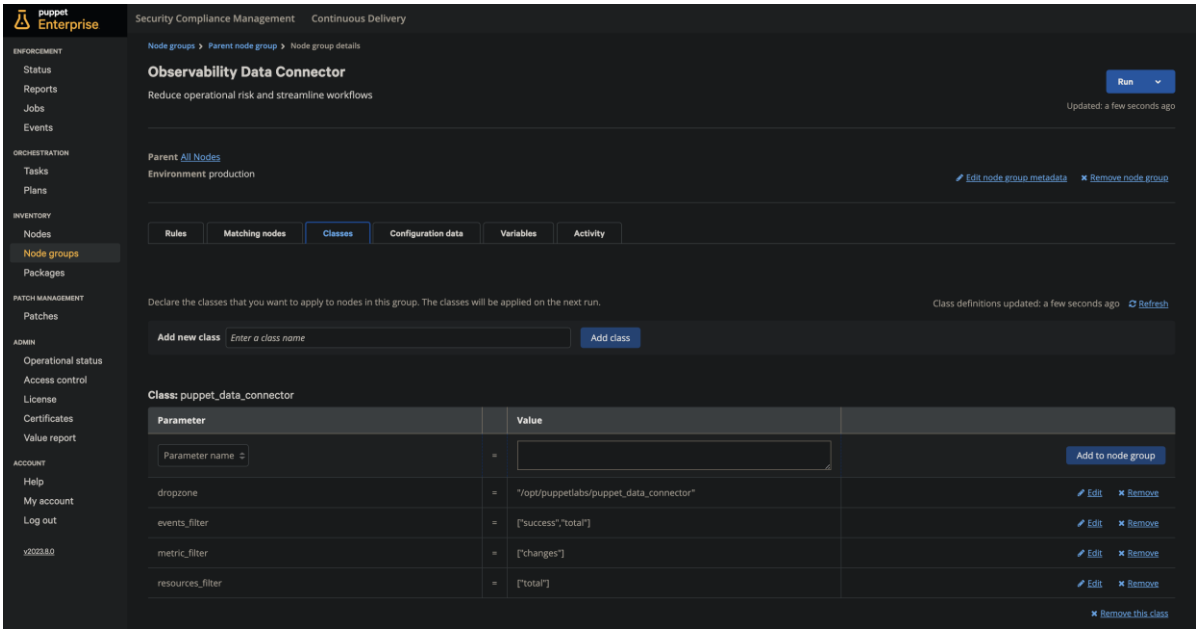
When you apply a filter, you can specify attributes from Puppet reports. For a list of attributes, see Report format. You can use the `metric_filter` parameter for top-level metrics, such as `time`,

`resources`, `events`, and `changes`. You can use the `events_filter` and `resources_filter` parameters to specify the attributes listed for `events` and `resources`.

You can apply a filter by using a code block, as shown in the following example:

```
class { 'puppet_data_connector':
    dropzone => '/opt/puppetlabs/puppet/prometheus_dropzone',
    metric_filter => [“changes”, “events”],
    events_filter => [“success”],
    resources_filter => [“failed”],
  }
```

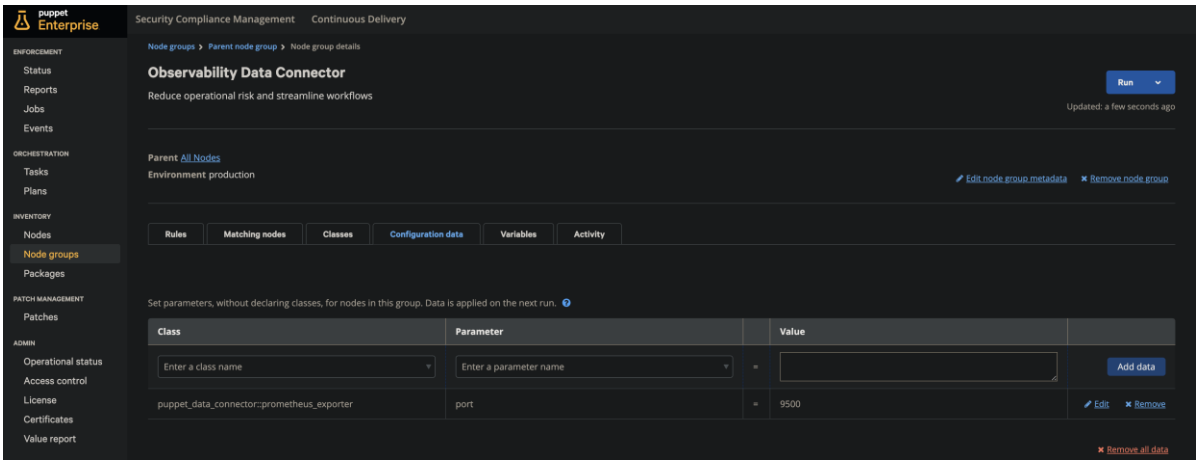
However, to streamline the process, apply the filter in the Puppet Enterprise console, as shown in this example:



Set the exporter port (optional)

The default port for the Observability Data Connector exporter is 9100. However, you can specify any valid port number.

To set the port number, add the `puppet_data_connector::prometheus_exporter::port` parameter to the configuration data for the primary server and the compilers configured with the `puppet_data_connector` class. In the following example, an exporter port of 9500 is set:



For detailed instructions about using the Puppet Enterprise console for classification, see Grouping and classifying nodes.

Run the module

The Observability Data Connector runs automatically during catalog compilation, and the latest data is generated in Prometheus format.

You can also manually start the module by running the following command:

```
puppet agent -t
```

Test the module

You can test the module by accessing a URL that includes the fully qualified domain name for Puppet Enterprise and the port. The HTTP GET method then returns raw metrics.

Specify the URL as shown in the following example, where 9100 is the port, and *<puppet_enterprise_fqdn>* must be replaced with the fully qualified domain name:

```
http://<puppet_enterprise_fqdn>:9100/metrics
```

Troubleshooting and support

If the Observability Data Connector does not work as expected, the cause might be network issues or incorrectly configured Prometheus related collectors. For troubleshooting and support tips, see the following sections.

Verify the module installation

Ensure that the module is correctly installed in your module path. Run the following command:

```
puppet module list
```

Detect network and configuration issues

The configured port must be visible on the network. See Test the module.

Review log files

All logging information for the Observability Data Connector can be found in the following file:

```
/var/log/puppetlabs/puppetserver/puppetserver.log
```

Request support

Puppet offers two types of support: Premium and Standard. The details vary based on the purchased support package. For a detailed description of the Premium and Standard service-level agreements, see Puppet, Inc. -- Support and Maintenance Services Terms.

This module is licensed for Puppet Enterprise Advanced.