# Display a rate or count in a chart

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You can visualize errors, responses, requests, and other count metric data in a chart as a per second rate or as a total number of events over time. For high-precision Network Bytes and Network Packets metrics, you have the additional options to view the maximum, minimum, and average rate per second in a chart.

When editing a chart in the Metric Explorer ⧉, you can select a count or rate by clicking the drop-down menu link below the metric name, as shown in the following figure.
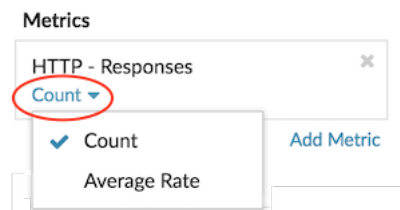
In addition, you can select from the following options for displaying rates and counts. Note that the type of metric you select affects which rate or count is automatically displayed.

Average rate

Calculates the average metric value per second for the selected time interval. For network-related metrics, such as Response L2 Bytes or NetFlow Bytes, the average rate per second is automatically displayed.

Count

Displays the total count of events for the selected time interval. For the majority of count metrics, such as errors, requests and responses, the count is automatically displayed.

Rate summary

Calculates the maximum, minimum, and average metric value per second. For high-precision metrics, such as Network Bytes and Network Packets, these three rates are automatically displayed in the chart as a summary. You can also select to view only the maximum, minimum, or average rate in a chart. High-precision metrics are collected with a 1-second level of granularity ⧉ and are only available when you configure your chart with a network or device source.
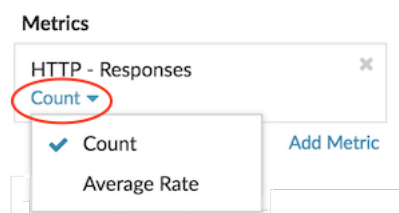
Display the average rate in a chart

If you configured a chart with an error, response, request, or other type of count metric, then the total number of events over time is automatically displayed. You can further edit the chart to display an average rate per second for your data.

Before you begin
Create a chart ⧉ and select a count metric, such as errors, requests, or responses, as your source. Save your chart to a dashboard.

The following steps show you how to add an average rate to an existing dashboard chart:

1. Log in to the ExtraHop system through `https://<extrahop-hostname-or-IP-address>`.
2. At the top of the page, click **Dashboards**.
3. Launch the Metric Explorer to edit the chart ⧉ by completing the following steps:
   a) From the dashboard dock, select a dashboard containing the chart that you want to edit.
   b) Click the chart title and select **Edit**.
4. Click **Count** below the metric name.

Metrics

HTTP - Responses   ✕
Count ▾

✔ Count   Add Metric

Average Rate

5.   Select **Average Rate** from the drop-down menu.

The unit "/s" is applied to metric units. You can toggle back to the count at any time.

6.   Click **Save** to close the Metric Explorer.

> 💡 **Tip:**   When you select more than one count metric in a chart, avoid displaying rates and counts together in the same chart. It can skew the scale of the y-axis. The y-axis will include a "/s" on tick labels only if all metrics are displaying rates.

Display the maximum rate in a chart

To display a maximum rate per second of a metric in a chart, you must configure a chart with a high-precision metric.

The following steps show you how to configure a chart that displays a maximum rate:

1.   Log in to the ExtraHop system through `https://<extrahop-hostname-or-IP-address>`.

2.   Complete one of the following steps:

- To create a new chart, click the command menu ⋮ in the upper right corner of the page and then select **Create chart**.
- To edit an existing chart, click **Dashboards** at the top of the page. From the dashboard dock, select a dashboard containing the chart that you want to edit. Click the chart title and select **Edit**.

3.   Click **Add Source** and select one of the following sources:

- A network source that is not a flow network, such as a site.
- A device, such as a server or client.

4.   Search for and select one of the following metrics:

For a network source
- Network Bytes (total throughput)
- Network Packets (total packets)

For a device source
- Network Bytes (combined inbound and outbound throughput by device)
- Network Bytes In (inbound throughput by device)
- Network Bytes Out (outbound throughput by device)
- Network Packets (combined inbound and outbound packets by device)
- Network Packets In (inbound packets by device)
- Network Packets Out (outbound packets by device)

5.   Select a chart type that is compatible with count metrics (includes line, value, column, bar, pie, and list charts).

The default display for a high-precision metric is a rate summary that automatically displays the maximum, average, and minimum rate.

6.   Click **Rate Summary** below the metric name.
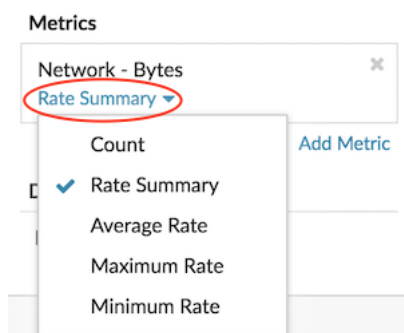
7. Select **Maximum Rate** from the drop-down menu.
8. Click **Save** to close the Metric Explorer.