

Time Range Comparisons

This page provides an overview of time range comparisons in AppDynamics.

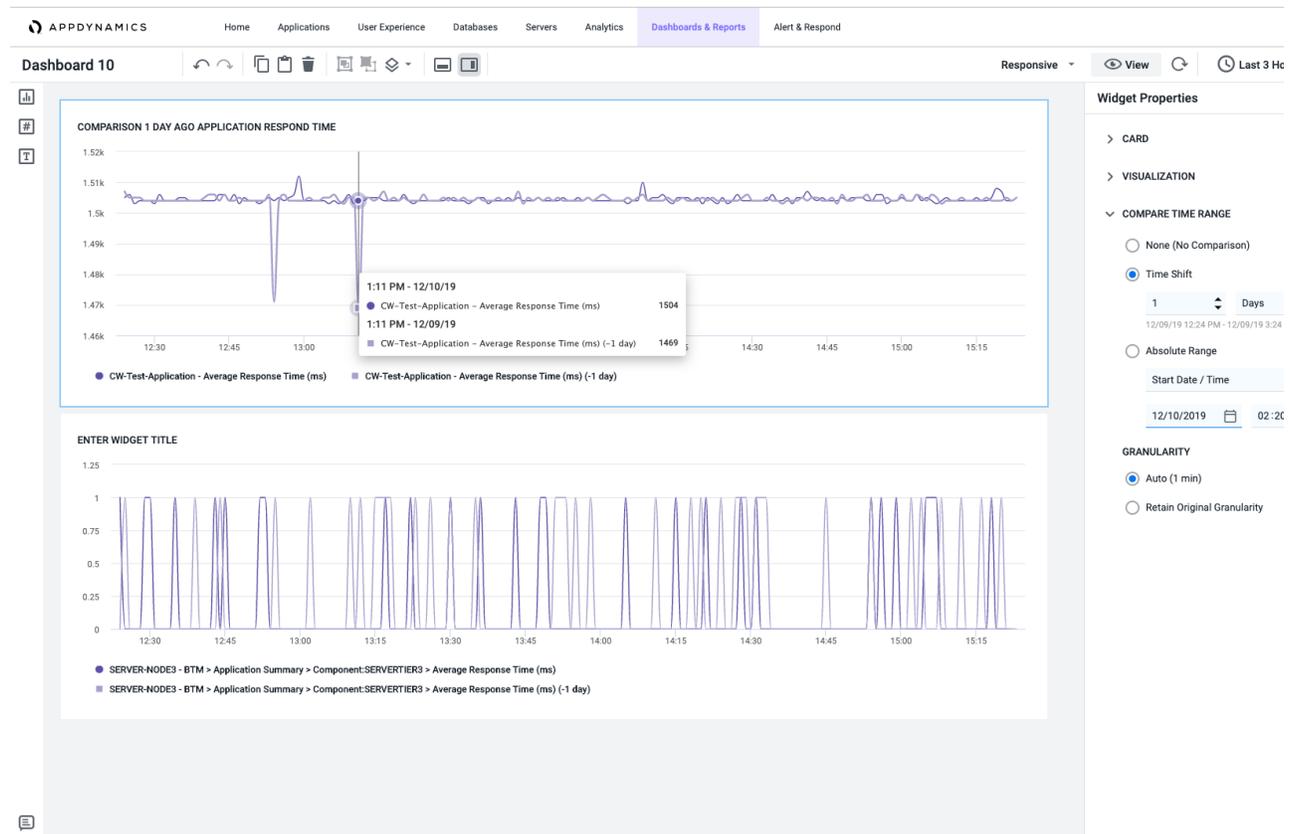
Time range comparison in Dash Studio helps identify differences in application performance trends for two time periods. You can line up two time periods of the same data and compare. For instance, it might be useful to compare an application's average response time on the previous day with the same day last week.



Comparisons are currently only available for Time Series widgets.

All Data Panel options for Time Series support comparisons.

A global time range (for example "Last 4 hours") is selected for the entire dashboard by default.



The default global time range is denoted as T1. Time comparisons are done against this time range. All comparisons are set using **Widget Properties**.

To compare two time periods:

1. Once you add a Time Series widget to the canvas, go to the **Widget Properties** panel and expand the **Compare Time Range** section.
2. Set a second time range (denoted as T2) with the same duration as the global time range set on the widget by default. T2 can be shifted back in time based on the settings in the **Compare Time Range** section.

There are three options available within the **Compare Time Range** section:

- **None**: This is the default setting for all Time Series widgets when initially placed on the canvas. Select this option if you do not want to add comparison to the chart.
- **Time Shift**: This takes the current widget time range (T1) and shifts it back by the selected amount of time to become T2. For example, if T1 is "Last 1 hour" and the Time Shift is set to 2 Hours, T2 is 2 hours earlier than T1. When this option is selected, you first specify a whole number in the first input and select from one of the time options in the selected dropdown. The available options in the dropdown are minutes, hours, days, and weeks.

- **Absolute Range:** This option allows you to specify the T2 comparison time range by selecting either the start date/time or the end date/time of the range. For instance, if T1 is "Last 1 hour" and this option is selected, you can use the date and time inputs to select a start of 8 days ago at 11 am. T2 would thus be 11 am to 12 pm on that specific day. Once the second or third options in this set are specified, T1 and T2 are superimposed over the same chart space in the Time Series widget.

Granularity

By default, Dash Studio matches granularities if they are different between T1 and T2 time ranges. Less recent data in AppDynamics is stored at a lower granularity, which means there are fewer data points present on the data series when it is displayed using Dash Studio. To help you perform an apples-to-apples comparison, Dash Studio is by default set to **Auto** and shows both T1 and T2 time ranges using the same granularity (even if they differ). However, this behavior can be changed by selecting the **Retain Original Granularity** option instead of selecting **Auto**. When you select this option, both T1 and T2 show data at their original granularities. This makes comparing behaviors difficult, but the newer data is highly granular.



Showing the time range comparison doubles the number of data series on the chart. If initially three lines are shown in the widget time range without the comparison, six are shown when the comparison is defined. As new data is received, the widget and its comparisons are updated continuously.

AppDynamics stores a reduced granularity (fewer data points) for older time ranges.