Overview of Metrics in AppDynamics

How are metrics reported in AppDynamics?

AppDynamics collects metrics data that helps you evaluate the performance of your Application. How are these metrics gathered and made available to you? Let’s take a moment to understand the monitoring structure.

The Application Server agent is deployed on your JVM, .NET, PHP or node.js application. The agent uses Byte Code Instrumentation to gain visibility into your business transactions. Therefore no code changes are required. This agent is simply dropped into a set directory and the application is restarted.

The agent communicates to the controller via a one-way HTTP connection. The controller does not initiate any connections to the agents.

The Machine Agent gathers statistics about infrastructure health (like CPU and memory usage) that is correlated with business transaction performance to aid in root cause diagnosis. The Machine Agent also executes the workflows for cloud orchestration and dynamic scaling. Just like the Application Server agent, the Machine Agent also communicates to the Controller via a one-way HTTP connection.

The AppDynamics Controller collects and stores the information that is sent from the Application Server and Machine Agents once per minute.

You are accessing the metrics simply by looking at the dashboard, but if you need more detailed information, the Metric Browser under Analyze is a great place to examine various metrics.

To graph a metric, drag it from the left pane to the graph. If you drag multiple metrics, each metric is shown using a different color.

You can overlay the baseline value from here, and you can remove a metric by highlighting the metric and clicking the “Remove from Graph” button.

Let’s say you wanted to examine the average response time of a Tier for the last 2 hours, and compare it against the baseline.

First let’s change the time frame from the default ‘Last 15 minutes’ to ‘Last 2 Hours’.

Then get the mz_ui Tier’s Average response time…and double click, or drag and drop it on to the graph.

To add the baseline, we will choose the value calculated based on the Last 15 days of performance. By the way, how AppDynamics determines the baseline is discussed in the Baseline video.

Now the baseline value appears as a dotted line. Looks like we just experienced a huge spike that is almost 3 times the baseline value.

That is it! Now you know not only how AppDynamics reports metrics, but how to access them in the Metric Browser.