TIP SHEET
Using pg_stat_monitor

Top tips for getting the most out of pg_stat_monitor

pg_stat_monitor is a custom extension for PostgreSQL. It gathers and aggregates query performance data, enabling your business to achieve better and faster query analysis.

pg_stat_monitor can be used alone, but its capabilities are enhanced when combined with the latest release of Percona Monitoring and Management (PMM).

PMM is a best-of-breed open source database monitoring solution. It helps you reduce complexity, optimize performance, and improve the security of your business-critical database environments, no matter where they are located or deployed.
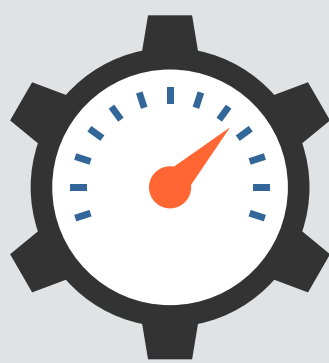
PMM allows you to easily analyze your PostgreSQL queries using pg_stat_monitor metrics, facilitating swift identification and remedy of scaling issues, bottlenecks, and potential outages.

This new PostgreSQL extension, currently available in technical preview, delivers several key features.

TIP - 01   Time Bucketing

Instead of supplying one set of ever-increasing counts, pg_stat_monitor computes statistics for a configurable number of time intervals. This allows you to achieve much better data accuracy, especially in the case of high traffic or an unreliable network, as you can adjust the granularity to meet your unique requirements.

This value is configured through the parameter pg_stat_monitor.pgsm_bucket_time, which sets the lifetime of the bucket. The system switches between buckets on the basis of this value. The default value is 60 <seconds> but it can be set to expire within a range, from 1 to 2147483647 seconds.

TIP - 02   Capture Actual Parameters in the Queries

pg_stat_monitor allows you to choose whether you want to see queries with placeholders for parameters, or actual query examples. Having the full query example is helpful, as you can run EXPLAIN on the query or easily play with modifying the query to make it run better. It also makes discussions about query improvement easier since an actual instance of the query is used instead of a generalized instance. Be aware that this may be an issue when sensitive data is being queried since valid parameters are included.
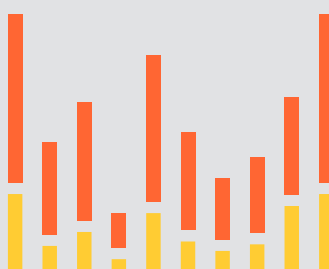
This is managed with the pg_stat_monitor.pgsm_normalized_query parameter. The default value of 0 means that a query shows the actual parameter instead of a placeholder. You can set the parameter value to 1 to change it to show value placeholders.

TIP - 03   Response Time Distribution Histogram

Within Percona Monitoring and Management, you can view minimum, maximum, and average query execution statistics. While these statistics are helpful, they are harder to understand when reviewed over a long period of time. To make this easier, we have added a query response time histogram which offers you clearer insight.

As well as our top tips, there are many other great features in pg_stat_monitor for you to explore. While you are able to collect and analyze data without Percona Monitoring and Management, using our monitoring tool provides clear graphical displays of activities, as well as delivering a set of predefined ways of reviewing data gathered by pg_stat_monitor.

Visit our website to download pg_stat_monitor and Percona Monitoring and Management to get improved insight into query performance in your PostgreSQL environment.