

Introduction

SQL Diagnostic Manager for MySQL provides monitors and advisors for MySQL database administrators, helping you to manage more database servers, tune your database infrastructure, and identify any issues with your database applications. It monitors enterprise environments and provides expert advice so that even someone new to MySQL can tighten security, optimize performance, and reduce downtime of MySQL powered systems.

Features

In technical terms, SQL DM for MySQL is essentially a web server with a very low resource footprint. As such, it has much in common with popular web servers such as Apache, Nginx, IIS, Lighttpd and so on, but there are some important differences.

In order to access SQL DM for MySQL, you need a web browser that is capable of handling AJAX. This has been tested on Google Chrome, Internet Explorer (versions 11.0.96 and later), Mozilla Firefox and related browsers, and all recent releases of the Opera browser.

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Monitoring Optimization

Where web servers are general purpose applications, SQL DM for MySQL is a more specialized server application. It is built for collecting and storing information on MySQL database servers and the systems that host them. You can not use it to host your own webpages as it is locked to only display those pages that the SQL DM for MySQL application was designed to serve.

SQL DM for MySQL uses the Asynchronous JavaScript and XML (AJAX) language to communicate with the server and generate pages divided into small, independent objects that it can then individually update as required. This reduces bandwidth consumption, given that you do not need to reload the entire page for updates and allows you to display data on as many MySQL servers as you want.

Each of the HTML objects in SQL DM for MySQL AJAX pages refresh automatically when new data becomes available. This refresh is independent for each MySQL server being displayed on the page. Refreshes happen at the server-level.

Unlimited Servers Side-by-Side

When using SQL DM for MySQL Enterprise, Charts show real-time graphs of all import metrics that provide a consolidated view into the availability and performance of all the MySQL servers across the enterprise. From these real-time charts, the MySQL database administrator can instantly see:

- The availability status of all MySQL servers,
- Import operating system metrics that may affect MySQL,
- Side-by-side comparison of similar servers,
- Which MySQL servers need attention, and
- Where and how they need to spend limited time.

Scripting with JavaScript

SQL DM for MySQL includes an embedded JavaScript engine, similar to most modern browsers. The entire SQL DM for MySQL application logic is handled through JavaScript objects, such as defining threshold values, calculating performance metrics and sending alerts. The complete source code for these JavaScript objects is available for customization, making them fully editable, extensible, and configurable as your use-cases require.

Agent-less Monitoring

Typically, monitoring and advisory tools use external PHP or Java agents to allow traditional web servers to connect to MySQL. Unlike these tools, SQL DM for MySQL is compiled with the MySQL client code through the C API, allowing to connect directly to MySQL database servers without needing agents.

This greatly simplifies SQL DM for MySQL deployments, given that you don not need to install and maintain agents on each MySQL host. Instead, SQL DM for MySQL uses the MySQL client to connect to and retrieve database information. To retrieve operating system-level metrics it uses SSH when connecting to Linux hosts.

You install SQL DM for MySQL on one host and that's it. It can retrieve whatever information it needs using the same sources and methods as a database administrator.

Built-in High Performance Database

Internally, SQL DM for MySQL manages the data it collects using a high-performance embedded database. Whatever server parameters it retrieves from MySQL servers are also stored in this database. Various methods in displaying counters or metrics are based on the data it provides.