

# How to RDS\_Aurora OS monitoring in SQL DM for MySQL

RDS/Aurora OS monitoring feature introduced with MySQL 8.1.0. SQL DM for MySQL makes use of the CloudWatch API and uses the different OS metrics available with the API to fetch and display the data. All the RDS/Aurora OS monitors are shown under the monitor group "RDS/Aurora Instance Metrics" in Monitors page and the corresponding charts are available on the Dashboard page. In order to be able to see the OS data, you should first enable system metric for the RDS/Aurora instance

## Enabling System Metrics

Go to **Servers**, select **Edit server**, and choose **Advanced** of the RDS/Aurora instance and **Enable System Metrics**. Once enabled, the user should enter the following four parameters:

1. **DB instance identifier:** A unique name to identify your RDS/Aurora instance.
2. **Instance region:** The region in which your instance is hosted, for e.g: us-east-1
3. **Access key ID:** It is a twenty character long key ID which can be created from the AWS Management Console. It is used to make a programmatic request to AWS.
4. **Secret access key:** It is a forty characters long and can be created from the AWS Management Console. You can refer to the documentation, on how to generate credential keys in the following page: [Getting your Access Key ID and Secret Access Key](#).

## RDS

CONFIG TAGS NOTIFICATIONS ADVANCED

System Metrics

Enable System Metrics

Data Collection

Enter AWS credentials for OS monitoring

Replication

DB INSTANCE IDENTIFIER

rds

Galera

MySQL Error Log

INSTANCE REGION

us-east-1

MySQL Query Log

Audit Log

ACCESS KEY ID

Sniffer

Deadlock

SECRET ACCESS KEY

Monitors

Real-Time

Click [here](#) for more information how to get the credential keys.

Connection Settings

TEST

SAVE

## Enabling RDS/Aurora Custom Objects

Once the System metrics is enabled, you start getting OS data in the monitor group **RDS/Aurora Instance Metrics**. The custom objects CPU Utilization, Freeable memory, Read IOPS, and Write IOPS are enabled by default, while rest are disabled. In order to enable the others:

Go to **Monitors**, select **RDS/Aurora Instance Metrics**, click the  icon, select **Manage RDS/Aurora Custom Objects**, and select **Yes** for the Enabled option for any of the listed custom objects.

**ADD/EDIT RDS/AURORA CUSTOM OBJECTS**
⊕
✕ Close

- CPUUtilization**
- DiskQueueDepth
- FreeableMemory
- FreeStorageSpace
- ReadIOPS
- SwapUsage
- WriteIOPS

**Name\***

CPUUtilization

Name of the Custom RDS/AURORA Object.

**Enabled?**

Yes  No

Select "Yes" to have MONyog evaluate this Monitor and display the output on the Monitors page.

**Server(s)**

A comma separated names of all the servers for which this Custom RDS/AURORA Object is applied. If this field is left empty, this Custom RDS/AURORA Object is applicable to all the servers added

Save

Cancel

## Adding New RDS/Aurora Custom Objects

Apart from the default metrics shipped with SQL DM for MySQL, any user can also add an RDS/Aurora Custom Object from the list of available CloudWatch metrics (Refer here for the [CloudWatch](#)

metrics available for RDS and here for the [Aurora instances](#)). Adding RDS/Aurora Custom Objects is a 2-step process:

### Adding a Custom Object

1. Go to Monitors, select **RDS/Aurora Instance Metrics**, click the  icon, select **Manage RDS/Aurora Objects**, and click **Add new RDS/Aurora custom object (+)**.
2. Enter the name of the CloudWatch Metric which you want to add under the Name field. You can also give the name of the servers comma separated for which you want this metric to be evaluated for.

### ADD/EDIT RDS/AURORA CUSTOM OBJECTS + Close

- CPUUtilization
- DiskQueueDepth
- FreeableMemory
- FreeStorageSpace
- ReadIOPS
- SwapUsage
- WriteIOPS

**Name\***

Name of the Custom RDS/AURORA Object.

**Enabled?**

Yes  No

Select "Yes" to have MONyog evaluate this Monitor and display the output on the Monitors page.

**Server(s)**

A comma separated names of all the servers for which this Custom RDS/AURORA Object is applied. If this field is left empty, this Custom RDS/AURORA Object is applicable to all the servers added

## Adding the Monitor

1. Go to Monitors, select **RDS/Aurora Instance Metrics**, click the + icon, and select **Add new monitor**.
2. Enter Monitor name and the Monitor group name in which you want to add this new monitor to (use "RDS/Aurora Instance metrics" if you want to add it in this group). Select **System** as "Type of counter" if you are adding a system metric.
3. Enter a simple JavaScript function in the Value field using the Cloudwatch metric like:

```
function()
{
  return GetAWSMetricVal("NetworkReceiveThroughput");
}
```

**ADD NEW MONITOR**
✕ Close ✓ Save

---

General
Advanced
Alerts

**Name\***

**Monitor Group\***

**Type of counter**

MySQL
  System
  Custom SQL

Select "MySQL" or "System" based on whether this Monitor or Dashboard chart displays MySQL or system-related information. Select "Custom SQL" if this Monitor is based on a Custom SQL Object. Refer [help](#) for more details.

**Enabled?**

Select "Yes" to have MONyog evaluate this Monitor and display the output on the Monitors page.

**Formula**

**Value\***

```

function()
{
  return GetAWSMetricVal("NetworkReceiveThroughput");
}
          
```

## Enabling RDS/Aurora Dashboard charts

Go to **Dashboard**, select **Manage Dashboard**, and **Enable the listed RDS/Aurora charts** under System Charts. The Dashboard page gives the flexibility to create a dashboard with a particular set of charts, so a user can create a dashboard with only RDS OS metrics charts for ease of monitoring.

## Adding New RDS/Aurora Dashboard charts

To add a RDS/Aurora chart in the dashboard page, the corresponding RDS/Aurora custom objects should be defined and enabled at **Monitors -> RDS**

**/Aurora Instance Metrics -> click the  icon -> select Manage RDS/Aurora Objects**. Once enabled, follow the steps below to add the chart:

1. Go to **Dashboard**, select **Manage Dashboard**, and click **Add new chart **.
2. Select **System** as the "Type of counter" and give a proper chart name.
3. Enter the **RDS/Aurora custom object** in the series caption field and the corresponding MOM (Monyog Object Model) variable in Series values field.

**EDIT CHART** ✕ Close [✓ Save](#)

---

**Type of Counter**  
 MySQL  System  
Select "MySQL" or "System" based on whether this Monitor or Dashboard chart displays MySQL or system-related information.

---

**Chart Name\***

---

**Series Caption\***  
  
Specify a JavaScript array of strings to be used as captions for each series in the chart

---

**Series Values\***  
  
Specify an array of JavaScript expressions which, after being evaluated, will be displayed by MONyog as series on the chart.

---

**On/Off Y-Axis**   
Enable for indicating boolean values on Y-Axis. This property is useful when charting parameters such as availability of MySQL/System on a chart.

---

**Custom Y-Axis Unit**   
Enable for indicating boolean values on Y-Axis. This property is useful when charting parameters such as availability of MySQL/System on a chart.

---

**Chart value**  
 Delta  Current  
Controls how values in the series are plotted. Specifying "Delta" causes the difference between values from the last two data collections to be plotted; specifying "Current" causes the current value to be plotted as it is.