Overview

The client for "SPM for MongoDB" is an open-source mongodb monitoring agent that collects MongoDB metrics and sends them to SPM. It is available as npm package (see Installation & Configuration section below).

In addition to collecting MongoDB metrics, you can send Custom Metrics, such as the number of concurrent users, the number of items placed in a shopping cart, or any other kind of business transaction or KPI.

Installation and Configuration

1. Create an SPM App of type "MongoDB" in SPM
2. Click the "**Install Monitor**" button and follow the customized instructions for the created SPM App (basically how to install the NPM package and configure the SPM App Token)

Troubleshooting and "How To"

Generate diagnostics file for Sematext Support

If you are not seeing some or all MongoDB metrics, you can create a "diagnostics dump" and contact us via chat or email. To create the diagnostics dump just run the following in your application directory:

```
spm-client-diagnostics
```

The output of this script points to the ZIP file and shows the Sematext Support email address to which the ZIP file should be sent.

Using SPM for MongoDB behind Firewalls / Proxy servers

By default data is transmitted to SPM via HTTPS. If no direct connection is possible, a proxy server can be used by setting the environment variable HTTPS_PROXY=https://your-proxy.

Installation of native modules on Windows

The native modules are automatically compiled during "npm install" (using node-gyp). On Windows the required build tools like python or C++ compilers are typically not installed by default.
In this case please check https://github.com/TooTallNate/node-gyp for details about the required compiler and build tools.

Upgrading to a new node.js version

If you switch the node.js version (e.g. from 0.12 to 4.x), the spm-agent-mongodb package will need to be installed again (due to the fact that included native modules may change from version to version). After the version change please run a fresh installation "npm i spm-agent-mongodb -g"

Upgrading to the latest version of spm-agent-mongodb

To use the latest version of spm-agent-mongodb we recommend you install/upgrade using:

```
npm i spm-agent-mongodb@latest -g
```

Github Repository

The latest version and related information is available in the Github repository sematext/spm-agent-mongodb

Metrics

Metric Name	Key	Agg	Type	Description
flushes time	mongo.flushes.time	Sum	Long	Time spend in flushes during the collection interval

Metric Name	Key	Agg	Type	Description
flushes count	mongoFlushes	Sum	Long	Flushes in collection interval
created	mongoNetworkConnectionCreated	Sum	Long	Created total provides a count of all incoming connections created to the server. This number includes connections that have since closed.

Metric Name	Key	Agg	Type	Description
current	mongo.network.connections	Avg	Double	Reflects value of current corresponds to the number of connections to the database server from clients.
num requests	mongo.network.requests	Sum	Long	Number of network requests

Metric Name	Key	Agg	Type	Description
received	mongos network.rx.rate	Sum	long	The value of 'received' reflects the amount of network traffic, in bytes, received by this database.

Metric Name	Key	Agg	Type	Description
transmitted	mongos.network.transfer.tx.rate	Sum	Long	The value of 'transmitted' reflects the amount of network traffic, in bytes, sent by this database.
acquire count	mongos.locks	Sum	Long	Lock count

Metric Name	Key	Agg	Type	Description
acquire count waits	mongoSocks.vac...	Sum	Long	Number of times the acquireCount lock acquisitions encountered waits because the locks were held in a conflicting mode.
wait time	mongoSocks.acquiring...	Sum	Long	microsec Cumulative wait time for the lock acquisitions.

Metric Name	Key	Agg	Type	Description
deadlock count	mongodb.locks.deadlock	Sum	Long	Number of times the lock acquisitions encountered deadlocks.

8

Metric Name	Key	Agg	Type	Description
early commits	mongodb.journal.early_commits	Sum	Long	Number of times MongoDB requested a commit before the scheduled journal group commit interval. Use this value to ensure that your journal group commit interval is not too long for your deployment.

Metric Name	Key	Agg	Type	Description
commits write-lock time	mongodb.commits_in_write_lock.time	Sum	Long	Amount of time spent for commits that occurred while a write lock was held. Commits in a write lock indicate a MongoDB node under a heavy write load and call for further diagnosis.

Metric Name	Key	Agg	Type	Description
written files data	mongo.journal.data...	Sum	Long	Amount of data written from journal to the data files during the last journal group commit interval.

Metric Name	Key	Agg	Type	Description
written journal data	mongo.journal data	Sum	Long	Amount of data written to journal during the last journal group commit interval.
commits time	mongo.journal commits time	Sum	Long	Amount of time spent for commits.

Metric Name	Key	Agg	Type	Description
commits	mongo.journal.commits	Sum	Long	Number of transactions written to the journal during the last journal group commit interval.
collections count	mongo.database.collections	Avg	Long	Counts of collections/tables

13

Metric Name	Key	Agg	Type	Description
data size	mongo.database.datasize	Avg	Long	This total size in bytes of the data held in this database including the padding factor.
index size	mongo.database.indexsize	Avg	Long	This total size in bytes of all indexes created on this database.

Metric Name	Key	Agg	Type	Description
namespace size	mongo.database.namespace.size	Avg	Long	The total size of the namespace files (i.e. that end with .ns) for this database.
storage size	mongo.database.storage.size	Avg	Long	The total amount of space in bytes allocated to collections in this database for document storage.

Metric Name	Key	Agg	Type	Description
objects count	mongo.database.objects	Avg	Long	Count of objects in db
file size	mongo.database.file.size	Avg	Long	The total size in bytes of the data files that hold the database. This value includes pre-allocated space and the padding factor.

Metric Name	Key	Agg	Type	Description
mapped mem	mongo.mem.mapped	Avg	Long	The value of mapped provides the amount of mapped memory, in megabytes (MB), by the database. Because MongoDB uses memory-mapped files, this value is likely to be to be roughly equivalent to the total size of your database or databases.

Metric Name	Key	Agg	Type	Description
resident mem	mongo.mem.resident	Avg	Long	The value of resident is roughly equivalent to the amount of RAM, in megabytes (MB), currently used by the database process. In normal use this value tends to grow.

Metric Name	Key	Agg	Type	Description
virtualmem	mongo.mem.virtual	Avg	Long	Virtual displays the quantity, in megabytes (MB), of virtual memory used by the mongod process. With journaling enabled, the value of virtual is at least twice the value of mapped. If virtual value is significantly larger than mapped (e.g. 3

19

Metric Name	Key	Agg	Type	Description
mapped mem with journal	mongo.memmappedWithJournal	Avg	Long	mappedWithJournal provides the amount of mapped memory, in megabytes (MB), including the memory used for journaling. This value will always be twice the value of mapped. This field is only included if journaling is enabled.

Metric Name	Key	Agg	Type	Description
inserted	mongodb.documents.inserted	Sum	Long	Number of inserted documents.
returned	mongodb.documents.returned	Sum	Long	Total number of documents returned by queries.
updated	mongodb.documents.updated	Sum	Long	Number of updated documents.
deleted	mongodb.documents.deleted	Sum	Long	Number of deleted documents.
query	mongodb.ops.query	Sum	Long	Query operations
commands	mongodb.ops.command	Sum	Long	Commands

Metric Name	Key	Agg	Type	Description
query	mongodb.replica.ops.query	sum	long	Query operations
insert	mongodb.ops.insert	sum	long	Insert operations
insert	mongodb.replica.ops.insert	sum	long	Insert operations
update	mongodb.replica.ops.update	sum	long	Update operations
failed	mongodb.commands.failed	sum	long	Failed commands / operations (all DB commands/functions)
delete	mongodb.replica.ops.delete	sum	long	Delete operations
commands	mongodb.replica.ops.command	sum	long	Commands

Metric Name	Key	Agg	Type	Description
update	mongoSys.update	sum	Long	Update operations
delete	mongoSys.delete	sum	Long	Delete operations
getmore	mongoSys.getmore	sum	Long	Getmore operations
getmore	mongoSysReplica.getmore	sum	Long	Getmore operations