MariaDB MaxScale TEE Filter

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Overview

The tee filter is a filter module for MaxScale is a "plumbing" fitting in the MaxScale filter toolkit. It can be used in a filter pipeline of a service to make a copy of requests from the client and dispatch a copy of the request to another service within MaxScale.

Configuration

The configuration block for the TEE filter requires the minimal filter parameters in it's section within the MaxScale.cnf file, stored in $MAXSCALE_HOME/etc/MaxScale.cnf, that defines the filter to load and the service to send the duplicates to.

```
[DataMartFilter]
type=filter
module=tee
service=DataMart
```

Filter Options

The tee filter does not support any filter options.

Filter Parameters

The tee filter requires a mandatory parameter to define the service to replicate statements to and accepts a number of optional parameters.

Match

An optional parameter that can be used to limit the queries that will be replicated by the tee filter. The parameter value is a regular expression that is used to match against the SQL text. Only SQL statements that matches the text passed as the value of this parameter will be sent to the service defined in the filter section.

```
match=insert.*into.*order*
```

All regular expressions are evaluated with the option to ignore the case of the text, therefore a match option of select will match both `insert`, `INSERT` and any form of the word with upper or lowercase characters.

Exclude

An optional parameter that can be used to limit the queries that will be replicated by the tee filter. The parameter value is a regular expression that is used to match against the SQL text.

SQL statements that match the text passed as the value of this parameter will be excluded from the replication stream.

```
exclude=select
```

All regular expressions are evaluated with the option to ignore the case of the text, therefore an exclude option of select will exclude statements that contain both select, SELECT or any form of the word with upper or lowercase characters.

Source

The optional source parameter defines an address that is used to match against the address from which the client connection to MaxScale originates. Only sessions that originate from this address will be replicated.

```
source=127.0.0.1
```

User

The optional user parameter defines a user name that is used to match against the user from which the client connection to MaxScale originates. Only sessions that are connected using this username are replicated.

```
user=john
```

Examples

Example 1 - Replicate all inserts into the orders table

Assume an order processing system that has a table called orders. You also have another database server, the datamart server, that requires all inserts into orders to be replicated to it. Deletes and updates are not however required.

Set up a service in MaxScale, called Orders, to communicate with the order processing system with the tee filter applied to it. Also set up a service to talk the datamart server, using the DataMart service. The tee filter woudl have as it's service entry the DataMart service, by adding a match parameter of "insert into orders" would then result in all requests being sent to the order processing system, and insert statements that include the orders table being additionally sent to the datamart server.

```
[Orders]
type=service
router=readconnroute
servers=server1, server2, server3, server4
user=massi
passwd=6628C50E07CCE1F0392EDEEB9D1203F3
filters=ReplicateOrders

[ReplicateOrders]
type=filter
module=tee
service=DataMart
match=insert[    ]*into[    ]*orders

[DataMart]
type=service
router=readconnroute
servers=datamartserver
user=massi
passwd=6628C50E07CCE1F0392EDEEB9D1203F3
filters=QLA_DataMart

[QLA_DataMart]
type=filter
module=qlafilter
options=/var/log/DataMart/InsertsLog

[Orders Listener]
type=listener
service=Orders
protocol=MySQLClient
port=4011

[DataMart Listener]
type=listener
service=DataMart
protocol=MySQLClient
port=4012
```