# **GALERA STATUS VARIABLES**

These variables are *Galera Cluster* 0.8.x status variables. There are two types of wsrep-related status variables:

- Galera Cluster-specific variables exported by Galera Cluster
- Variables exported by MySQL. These variables are for the general wsrep provider.

This distinction is of importance for developers only. For convenience, all status variables are presented as a single list below. Variables exported by MySQL are indicated by an *M* in superscript.

Status Variable	Example	Support
wsrep_apply_oooe	0.671120	1+
wsrep_apply_oool	0.195248	1+
wsrep_apply_window	5.163966	1+
wsrep_cert_deps_distance	23.88889	1+
wsrep_cert_index_size	30936	1+
wsrep_cert_interval		1+
wsrep_cluster_conf_id M	34	1+
wsrep_cluster_size M	3	1+
wsrep_cluster_state_uuid M		1+
wsrep_cluster_status M	Primary	1+
wsrep_commit_oooe	0.000000	1+
wsrep_commit_oool	0.000000	1+
wsrep_commit_window	0.000000	1+
wsrep_connected	ON	1+
wsrep_desync_count	0	3+
wsrep_evs_delayed		3.8+
wsrep_evs_evict_list		3.8+
wsrep_evs_repl_latency		3.0+
wsrep_evs_state		3.8+
wsrep_flow_control_paused	0.184353	1+
wsrep_flow_control_paused_ns	20222491180	1+
wsrep_flow_control_recv	11	1+
wsrep_flow_control_sent	7	1+
wsrep_gcomm_uuid		1+
wsrep_incoming_addresses		1+
wsrep_last_committed	409745	1+
wsrep_local_bf_aborts	960	1+
wsrep_local_cached_downto		1+
wsrep_local_cert_failures	333	1+
wsrep_local_commits	14981	1+
wsrep_local_index	1	1+
wsrep_local_recv_queue	0	1+
wsrep_local_recv_queue_avg	3.348452	1+
wsrep_local_recv_queue_max	10	1+
wsrep_local_recv_queue_min	0	1+
wsrep_local_replays	0	1+
wsrep_local_send_queue	1	1+

Status Variable	Exan	nple	Support
wsrep_local_send_queue_avg	0.145000		1+
wsrep_local_send_queue_max	10		1+
wsrep_local_send_queue_min	0		1+
wsrep_local_state	4		1+
wsrep_local_state_comment	Synced		1+
wsrep_local_state_uuid			1+
wsrep_protocol_version	4		1+
wsrep_provider_name M	Galera		1+
wsrep_provider_vendor M			1+
wsrep_provider_version M			1+
wsrep_ready M	ON		1+
wsrep_received	17831		1+
wsrep_received_bytes	6637093		1+
wsrep_repl_data_bytes	265035226		1+
wsrep_repl_keys	797399		1+
wsrep_repl_keys_bytes	11203721		1+
wsrep_repl_other_bytes	0		1+
wsrep_replicated	16109		1+
wsrep_replicated_bytes	6526788		1+

## wsrep\_apply\_oooe

How often applier started write-set applying out-of-order (parallelization efficiency).

```
SHOW STATUS LIKE 'wsrep_apply_oooe';
+----+
| Variable_name | Value |
+----+
```

Example Value	Location	Introduced	Deprecated
0.671120	Galera		

## wsrep\_apply\_oool

How often write-set was so slow to apply that write-set with higher seqno's were applied earlier. Values closer to 0 refer to a greater gap between slow and fast write-sets.

```
SHOW STATUS LIKE 'wsrep_apply_oool';
 | Variable_name | Value |
```

+    wsrep_apply_ood   +	ol   0.19524	<del>+</del> 48	
Example Value	Location	Introduced	Deprecated

## wsrep\_apply\_window

0.195248

Average distance between highest and lowest concurrently applied seqno.

Galera

Example Value	Location	Introduced	Deprecated

5.163966 Galera

#### wsrep\_cert\_deps\_distance

Average distance between highest and lowest sequo value that can be possibly applied in parallel (potential degree of parallelization).

Example Value	Location	Introduced	Deprecated
23.888889	Galera		

#### wsrep cert index size

The number of entries in the certification index.

Example Value	Location	Introduced	Deprecated
30936	Galera		

#### wsrep\_cert\_interval

Average number of transactions received while a transaction replicates.

When a node replicates a write-set to the cluster, it can take some time before all the nodes in the cluster receive it. By the time a given node receives, orders and commits a write-set, it may receive and potentially commit others, changing the state of the database from when the write-set was sent and rendering the transaction inapplicable.

To prevent this, Galera Cluster checks write-sets against all write-sets within its certification interval for potential conflicts. Using the <a href="mailto:wsrep\_cert\_interval">wsrep\_cert\_interval</a> status variable, you can see the average number of transactions with the certification interval.

This shows you the number of write-sets concurrently replicating to the cluster. In a fully synchronous cluster, with one write-set replicating at a time, <u>wsrep\_cert\_interval</u> returns a value of 1.0.

Example Value	Location	Introduced	Deprecated
1.0	Galera		

## wsrep\_cluster\_conf\_id

Total number of cluster membership changes happened.

Example Value	Location	Introduced	Deprecated
34	MySQL		

#### wsrep\_cluster\_size

Current number of members in the cluster.

Example Value	Location	Introduced	Deprecated
3	MySQL		

#### wsrep\_cluster\_state\_uuid

Provides the current State UUID. This is a unique identifier for the current state of the cluster and the sequence of changes it undergoes.



Note: See Also: For more information on the state UUID, see wsrep API.

Example Value	Location	Introduced	Deprecated
e2c9a15e-5485-11e0 0900-6bbb637e7211	. MySQL		

## wsrep\_cluster\_status

Status of this cluster component. That is, whether the node is part of a PRIMARY or NON\_PRIMARY component.

+		+	
Example Value	Location	Introduced D	Deprecated
Primary	MySQL		

#### wsrep\_commit\_oooe

How often a transaction was committed out of order.

Example Value	Location	Introduced	Deprecated
0.000000	Galera		

#### wsrep\_commit\_oool

No meaning.

Example Value	Location	Introduced	Deprecated
0.000000	Galera		

#### wsrep commit window

Average distance between highest and lowest concurrently committed seqno.

Example Value	Location	Introduced	Deprecated
0.000000	Galera		

## wsrep\_connected

If the value is OFF, the node has not yet connected to any of the cluster components. This may be due to misconfiguration. Check the error log for proper diagnostics.

+			
Example Value	Location	Introduced	Deprecated
ON	Galera		

#### wsrep\_desync\_count

Returns the number of operations in progress that require the node to temporarily desync from the cluster.

Certain operations, such as DDL statements issued when <u>wsrep\_OSU\_method</u> is set to Rolling Schema Upgrade or when you enable <u>wsrep\_desync</u>, cause the node to desync from the cluster. This status variable shows how many of these operations are currently running on the node. When all of these operations complete, the counter returns to its default value 0 and the node can sync back to the cluster.

Example Value	Location	Introduced	Deprecated
0	Galera	3.8	

#### wsrep\_evs\_delayed

Provides a comma separated list of all the nodes this node has registered on its delayed list.

The node listing format is

```
uuid:address:count
```

This refers to the UUID and IP address of the delayed node, with a count of the number of entries it has on the delayed list.

Example Value	Location	Introduced	Deprecated
	Galera	3.8	

#### wsrep\_evs\_evict\_list

Lists the UUID's of all nodes evicted from the cluster. Evicted nodes cannot rejoin the cluster until you restart their mysqld processes.

Example Value	Location	Introduced	Deprecated
	Galera	3.8	

## wsrep\_evs\_repl\_latency

This status variable provides figures for the replication latency on group communication. It measures latency from the time point when a message is sent out to the time point when a message is received. As replication is a group operation, this essentially gives you the slowest ACK and longest RTT in the cluster.

For example,

The units are in seconds. The format of the return value is:

```
Minimum / Average / Maximum / Standard Deviation / Sample Size
```

This variable periodically resets. You can control the reset interval using the <a href="evs.stats\_report\_period">evs.stats\_report\_period</a> parameter. The default value is 1 minute.

Example Value	Location	Introduced	Deprecated
0.00243433/0.144033/ 0.581963/0.215724/13	Galera	3.0	

#### wsrep\_evs\_state

Shows the internal state of the EVS Protocol.

Example Value	Location	Introduced	Deprecated
	Galera	3.8	

#### wsrep\_flow\_control\_paused

The fraction of time since the last FLUSH STATUS command that replication was paused due to flow control.

In other words, how much the slave lag is slowing down the cluster.

Example Value	Location	Introduced	Deprecated
0.174353	Galera		

#### wsrep\_flow\_control\_paused\_ns

The total time spent in a paused state measured in nanoseconds.

Example Value	Location	Introduced	Deprecated
20222491180	Galera		

#### wsrep\_flow\_control\_recv

Returns the number of FC\_PAUSE events the node has received, including those the node has sent. Unlike most status variables, the counter for this one does not reset every time you run the query.

Example Value	Location	Introduced	Deprecated
11	Galera		

#### wsrep\_flow\_control\_sent

Returns the number of FC\_PAUSE events the node has sent. Unlike most status variables, the counter for this one does not reset every time you run the query.

		·	·	
Ex	ample Value	Location	Introduced	Deprecated
7		Galera		

#### wsrep\_gcomm\_uuid

Displays the group communications UUID.

Example Value	Location	Introduced	Deprecated
7e729708-605f-11e5-8ddd-8319a704b8c4	Galera	1	

#### wsrep\_incoming\_addresses

Comma-separated list of incoming server addresses in the cluster component.

Example Value Location Introduced Deprecated

10.0.0.1:3306, 10.0.0.2:3306, undefined Galera

## wsrep\_last\_committed

The sequence number, or seqno, of the last committed transaction. See wsrep API.

Note: See Also: For more information, see wsrep API.

Example Value	Location	Introduced	Deprecated
409745	Galera		

#### wsrep\_local\_bf\_aborts

Total number of local transactions that were aborted by slave transactions while in execution.

Example Value	Location	Introduced	Deprecated
960	Galera		

#### wsrep\_local\_cached\_downto

The lowest sequence number, or seqno, in the write-set cache (GCache).

Example Value	Location	Introduced	Deprecated
18446744073709551615	Galera		

### wsrep\_local\_cert\_failures

Total number of local transactions that failed certification test.

```
SHOW STATUS LIKE 'wsrep_local_cert_failures';
+-----+
```

Example Value	Location	Introduced	Deprecated
333	Galera		

#### wsrep\_local\_commits

Total number of local transactions committed.

Example Value	Location	Introduced	Deprecated
14981	Galera		

#### wsrep\_local\_index

This node index in the cluster (base 0).

I	Example Value	Location	Introduced	Deprecated
1		MySQL		

## wsrep\_local\_recv\_queue

Current (instantaneous) length of the recv queue.

```
Example Value Location Introduced Deprecated

O Galera
```

#### wsrep\_local\_recv\_queue\_avg

Recv queue length averaged over interval since the last FLUSH STATUS command. Values considerably larger than 0.0 mean that the node cannot apply write-sets as fast as they are received and will generate a lot of replication throttling.

	·	·
Example Value	Location Introdu	uced Deprecated

3.348452

Galera

#### wsrep\_local\_recv\_queue\_max

The maximum length of the recv queue since the last FLUSH STATUS command.

Example Value	Location	Introduced	Deprecated
10	Galera		

#### wsrep\_local\_recv\_queue\_min

The minimum length of the recv queue since the last FLUSH STATUS command.

Example Value	Location	Introduced	Deprecated
0	Galera		

## wsrep\_local\_replays

Total number of transaction replays due to asymmetric lock granularity.

Example Value	Location	Introduced	Deprecated
0	Galera		

#### wsrep\_local\_send\_queue

Current (instantaneous) length of the send queue.

Example Value	Location	Introduced	Deprecated
1	Galera		

## wsrep\_local\_send\_queue\_avg

Send queue length averaged over time since the last FLUSH STATUS command. Values considerably larger than 0.0 indicate replication throttling or network throughput issue.

```
| wsrep_local_send_queue_avg | 0.145000 |
```

Example Value	Location	Introduced	Deprecated
0.145000	Galera		

#### wsrep\_local\_send\_queue\_max

The maximum length of the send queue since the last FLUSH STATUS command.

```
SHOW STATUS LIKE 'wsrep_local_send_queue_max';
| wsrep_local_send_queue_max | 10 |
+----+
```

Example Value	Location	Introduced	Deprecated
10	Galera		

## wsrep\_local\_send\_queue\_min

The minimum length of the send queue since the last FLUSH STATUS command.

```
SHOW STATUS LIKE 'wsrep_local_send_queue_min';
| wsrep_local_send_queue_min | 0
```

	Example Value	Location	Introduced	Deprecated
0		Galera		

## wsrep\_local\_state

Internal Galera Cluster FSM state number.

```
SHOW STATUS LIKE 'wsrep_local_state';
| Variable_name | Value |
| wsrep_local_state | 4 |
+----+
```

Note: See Also: For more information on the possible node states, see Node State Changes.

Example Value	Location	Introduced	Deprecated
4	Galera		

## wsrep\_local\_state\_comment

Human-readable explanation of the state.

```
SHOW STATUS LIKE 'wsrep_local_state_comment';
+----+
```

+		Value	
wsrep_local_stat		·	
+	_		
Example Value	Location	Introduced	Deprecated

Synced Galera

#### wsrep\_local\_state\_uuid

The UUID of the state stored on this node.

Note: See Also: For more information on the state UUID, see wsrep API.

Example Value Location Introduced Deprecated

e2c9a15e-5385-11e0- 0800-6bbb637e7211 Galera

### wsrep\_protocol\_version

The version of the wsrep Protocol used.

Example Value	Location	Introduced	Deprecated
4	Galera		

## wsrep\_provider\_name

The name of the wsrep Provider.

Example Value	Location	Introduced	Deprecated
Galera	MySQL		

#### wsrep\_provider\_vendor

The name of the wsrep Provider vendor.

Example Value Locatio	n Introduced	Deprecated
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Codership Oy <info@codership.com> MySQL

## wsrep\_provider\_version

The name of the wsrep Provider version string.

```
SHOW STATUS LIKE 'wsrep_provider_version';
+-----+
```

Example Value	Location	Introduced	Deprecated
25.3.5-wheezy(rXXXX)	MySQL		

#### wsrep\_ready

Whether the server is ready to accept queries. If this status is OFF, almost all of the queries will fail with:

```
ERROR 1047 (08S01) Unknown Command
```

unless the wsrep\_on session variable is set to 0.

```
SHOW STATUS LIKE 'wsrep_ready';

+-----+
| Variable_name | Value |
+-----+
| wsrep_ready | ON |
+-----+
```

Example Value	Location	Introduced	Deprecated
ON	MySQL		

#### wsrep\_received

Total number of write-sets received from other nodes.

```
SHOW STATUS LIKE 'wsrep_received';

+-----+
| Variable_name | Value |
+-----+
| wsrep_received | 17831 |
+-----+
```

Example Value	Location	Introduced	Deprecated
17831	Galera		

### wsrep\_received\_bytes

Total size of write-sets received from other nodes.

Example Value	Location	Introduced	Deprecated
6637093	Galera		

#### wsrep\_repl\_data\_bytes

Total size of data replicated.

Example Value	Location	Introduced	Deprecated
6526788	Galera		

## wsrep\_repl\_keys

Total number of keys replicated.

```
SHOW STATUS LIKE 'wsrep_repl_keys';
| Variable_name | Value |
+----+
| wsrep_repl_keys | 797399 |
+----+
```

Example Value	Location	Introduced	Deprecated
797399	Galera		

797399

## wsrep\_repl\_keys\_bytes

Total size of keys replicated.

```
SHOW STATUS LIKE 'wsrep_repl_keys_bytes';
| Variable_name | Value |
| wsrep_repl_keys_bytes | 11203721 |
+----+
```

Example Value	Location	Introduced	Deprecated
11203721	Galera		

#### wsrep\_repl\_other\_bytes

Total size of other bits replicated.

```
SHOW STATUS LIKE 'wsrep_repl_other_bytes';
| Variable_name | Value |
+----+
| wsrep_repl_other_bytes | 0
```

Example Value	Location	Introduced	Deprecated
0	Galera		

#### wsrep\_replicated

Total number of write-sets replicated (sent to other nodes).

```
SHOW STATUS LIKE 'wsrep_replicated';
```

++
Variable_name
++
wsrep_replicated   16109
++
The second section sec

#### Example Value Location Introduced Deprecated 16109 Galera

## wsrep\_replicated\_bytes

Total size of write-sets replicated.

Example Value	Location	Introduced	Deprecated

6526788 Galera