Monitoring Cluster Status

ClustrixDB provides all of the information necessary for monitoring the cluster. The system database contains low-level information about all portions of the cluster, and proprietary SQL commands return high-level summary information. The following sections describe these features in detail.

As a best practice, unix sysadmin tools such as /usr/bin/top should not be used on ClustrixDB to monitor node status, as their results may not be reliable.

Listing Current Sessions

The following query will list all sessions in the cluster:

```
        sql> select * from system.sessions\G
*************************** 1. row ***************************
          nodeid: 1
      session_id: 1560577
       source_ip: NULL
     source_port: NULL
        local_ip: NULL
      local_port: NULL
            user: 4106
        database: NULL
       trx_state: closed
 statement_state: finished
             xid: NULL
             cpu: 3
       isolation: REPEATABLE-READ
  last_statement: delete from system.rebalancer_activity_log where finished < subdate(now(), interval @global.
rebalancer_activity_log_hours * 60 minute)
   time_in_state_s: 161
         created: 2016-01-11 20:31:41
         heap_id: 288230379201751147
         trx_age: NULL
        trx_mode: autocommit
trx_counter_select: 0
trx_counter_insert: 0
trx_counter_update: 0
trx_counter_delete: 1
    trx_is_writer: 1
1 row in set (0.01 sec)
```

Monitoring CPU Load

To display CPU load percentages (0 to 100) for CPU utilization, disk read/write utilization, and buffer cache miss rates, issue the SHOW LOAD command. In the cluster, CPU core 0 is used for specific tasks and therefore omitted from the load average when calculating the overall load.

Disk read and write values are calculated as a percentage using estimated maximums for solid state drives and might exceed 100% under certain conditions.

Monitoring Space Utilization per Table

The system.table_sizes table shows the size in bytes of each table in every database, including indexes, replicas, and row data. The value in the size column represents total storage on disk, rather than just the size of the data.

Monitoring Data Rebalancing Activity

ClustrixDB continuously monitors how data is distributed in the cluster. When it detects an imbalance, it rebalances data by moving, copying, and splitting as required. Data is also copied for protective purposes, such as when a disk or node is lost.

See ClustrixGUI Administration UI for more information on monitoring your cluster.