



## SMI Cluster Level Metrics

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### CPU Category

#### **node\_cpu\_seconds\_total**

Description: Seconds the cpus spent in each mode

Sample Query: `avg(irate(node_cpu_seconds_total{mode=~\"irq|softirq\"}[1m])) by (instance) * 100`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: controlplane-0, control-0, dra-director-1, etc
- Label: `job`  
Label Description: the name of job  
Example: node\_exporter
- Label: `cpu`  
Label Description: the cpu number  
Example: cpu0, cpu1, etc
- Label: `mode`  
Label Description: the cpu mode  
Example: system, user, sotirq, irq, idle, iowait, etc

# Disk Category

## **node\_disk\_bytes\_read**

Description: This metrics gives the total number of bytes read successfully.

Sample Query: `sum(irate(node_disk_bytes_read[1m])) by (instance)`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: `controlplane-0`, `control-0`, `dra-director-1`, etc
- Label: `job`  
Label Description: the name of job  
Example: `node_exporter`
- Label: `device`  
Label Description: the name of the disk device  
Example: `vdb`, `vdd`, `sr0`

## **node\_disk\_read\_time\_seconds\_total**

Description: This metrics gives the total number of seconds spent by all reads

Sample Query: `sum(irate(node_disk_read_time_seconds_total[1m])) by (instance) / sum(irate(node_disk_reads_completed_total[1m])) by (instance)`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: `controlplane-0`, `control-0`, `dra-director-1`, etc
- Label: `job`  
Label Description: the name of job  
Example: `node_exporter`
- Label: `device`  
Label Description: the name of the disk device  
Example: `vdb`, `vdd`, `sr0`

## **node\_disk\_reads\_completed\_total**

Description: This metrics gives the total number of reads completed successfully.

Sample Query: `sum(irate(node_disk_reads_completed_total[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: `controlplane-0`, `control-0`, `dra-director-1`, etc

Labels:

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

- Label: `device`

Label Description: the name of the disk device

Example: `vdb`, `vdd`, `sr0`

### **node\_disk\_write\_time\_seconds\_total**

Description: This metrics gives the total number of seconds spent by all writes

Sample Query: `sum(irate(node_disk_write_time_seconds_total[1m])) by (instance) / sum(irate(node_disk_writes_completed_total[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: `controlplane-0`, `control-0`, `dra-director-1`, etc

Labels:

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

Labels:

- Label: `device`

Label Description: the name of the disk device

Example: `vdb`, `vdd`, `sr0`

### **node\_disk\_writes\_completed\_total**

Description: This metrics gives the total number of writes completed successfully.

Sample Query: `sum(irate(node_disk_writes_completed[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: controlplane-0, control-0, dra-director-1, etc

Labels:

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

Labels:

- Label: `device`

Label Description: the name of the disk device

Example: `vdb`, `vdd`, `sr0`

### **node\_disk\_written\_bytes\_total**

Description: This metrics gives the total number of bytes written successfully.

Sample Query: `sum(irate(node_disk_written_bytes_total[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: controlplane-0, control-0, dra-director-1, etc

Labels:

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

Labels:

- Label: `device`

Label Description: the name of the disk device

Example: `vdb`, `vdd`, `sr0`

## File System Category

### **node\_filesystem\_free\_bytes**

Description: This metrics gives the total number of bytes of the free disk space available on the instance

Sample Query: `sum(node_filesystem_free_bytes{mountpoint=\"/data\"}) by (device, instance)`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: `controlplane-0`, `control-0`, `dra-director-1`, etc
- Label: `job`  
Label Description: the name of job  
Example: `node_exporter`
- Label: `device`  
Label Description: the name of the disk device  
Example: `/dev/vda3`, `/dev/vdb`
- Label: `fstype`  
Label Description: the file system type  
Example: `ext4`
- Label: `mountpoint`  
Label Description: the file system mount directory  
Example: `/data`, `/tootfs`

### **node\_filesystem\_size\_bytes**

Description: This metrics gives the total number of bytes of the total disk space provisioned on the instance

Sample Query: `sum(node_filesystem_size_bytes{mountpoint="/data"}) by (device, instance)`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: `controlplane-0`, `control-0`, `dra-director-1`, etc
- Label: `job`  
Label Description: the name of job  
Example: `node_exporter`
- Label: `device`  
Label Description: the name of the disk device  
Example: `/dev/vda3`, `/dev/vdb`
- Label: `fstype`  
Label Description: the file system type  
Example: `ext4`
- Label: `mountpoint`  
Label Description: the file system mount directory

Example: /data, /toofs

## Load Category

### **node\_load1**

Description: This metrics gives the 1m load average.

Sample Query: `avg(irate(node_load1[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: controlplane-0, control-0, dra-director-1, etc

- Label: `job`

Label Description: the name of job

Example: node\_exporter

### **node\_load15**

Description: This metrics gives the 15m load average.

Sample Query: `avg(irate(node_load15[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: controlplane-0, control-0, dra-director-1, etc

- Label: `job`

Label Description: the name of job

Example: node\_exporter

### **node\_load5**

Description: This metrics gives the 5m load average.

Sample Query: `avg(irate(node_load5[1m])) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: controlplane-0, control-0, dra-director-1, etc

Labels:

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

## Memory Category

### **`node_memory_MemFree_bytes`**

Description: This metrics gives the total number of bytes of the free memory available on the node

Sample Query: `sum(node_memory_MemFree_bytes) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: `controlplane-0`, `control-0`, `dra-director-1`, etc

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

### **`node_memory_MemTotal_bytes`**

Description: This metrics gives the total number of bytes of the total memory provisioned on the node

Sample Query: `sum(node_memory_MemTotal_bytes) by (instance)`

Labels:

- Label: `instance`

Label Description: the virtual machine/instance

Example: `controlplane-0`, `control-0`, `dra-director-1`, etc

- Label: `job`

Label Description: the name of job

Example: `node_exporter`

## Network Category

### **`node_network_receive_bytes_total`**

Description: This metrics gives the total number of bytes received over the network device

Sample Query: `sum(irate(node_network_receive_bytes_total[1m])) by (device)`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: controlplane-0, control-0, dra-director-1, etc
- Label: `job`  
Label Description: the name of job  
Example: node\_exporter
- Label: `device`  
Label Description: the name of the network device/interface  
Example: ens3, ens4

### **node\_network\_transmit\_bytes\_total**

Description: This metrics gives the total number of bytes sent over the network device

Sample Query: `sum(irate(node_network_transmit_bytes_total[1m])) by (device)`

Labels:

- Label: `instance`  
Label Description: the virtual machine/instance  
Example: controlplane-0, control-0, dra-director-1, etc
- Label: `job`  
Label Description: the name of job  
Example: node\_exporter
- Label: `device`  
Label Description: the name of the network device/interface  
Example: ens3, ens4

## System Status Category

### **cluster\_sync\_count\_cancel**

Description: Shows the count of all cancelled cluster sync runs.

Sample Query: `cluster_sync_count_cancel`

Labels:

- Label: `cluster`  
Label Description: The name of the cluster the sync is running for  
Example: cluster-smf-22, up-upf-cluster01



**cluster\_sync\_count\_failed**

Description: Shows the count of all failed cluster sync runs.

Sample Query: `cluster_sync_count_failed`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

**cluster\_sync\_count\_init**

Description: Shows the count of all initiated cluster sync runs.

Sample Query: `cluster_sync_count_init`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

**cluster\_sync\_count\_success**

Description: Shows the count of all successful cluster sync runs.

Sample Query: `cluster_sync_count_success`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

**cluster\_sync\_duration**

Description: Shows the duration of the cluster sync run.

Sample Query: `cluster_sync_duration`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

**cluster\_sync\_running**

Description: Indicate status of cluster sync run. Value 1 = Cluster sync running. Value 0 = Cluster sync not running.

Sample Query: `cluster_sync_running`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

### **node\_sync\_count\_cancel**

Description: Shows the count of all cancelled cluster node sync runs.

Sample Query: `node_sync_count_cancel`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

Labels:

- Label: `node`

Label Description: The name of the node the sync is running for

Example: `kvmnode01, controlplane01`

### **node\_sync\_count\_failed**

Description: Shows the count of all failed cluster node sync runs.

Sample Query: `node_sync_count_failed`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22, up-upf-cluster01`

Labels:

- Label: `node`

Label Description: The name of the node the sync is running for

Example: `kvmnode01, controlplane01`

### **node\_sync\_count\_init**

Description: Shows the count of all initiated cluster node sync runs.

Sample Query: `node_sync_count_init`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22`, `up-upf-cluster01`

Labels:

- Label: `node`

Label Description: The name of the node the sync is running for

Example: `kvmnode01`, `controlplane01`

### **node\_sync\_count\_success**

Description: Shows the count of all successful cluster node sync runs.

Sample Query: `node_sync_count_success`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22`, `up-upf-cluster01`

Labels:

- Label: `node`

Label Description: The name of the node the sync is running for

Example: `kvmnode01`, `controlplane01`,

### **node\_sync\_duration**

Description: Shows the duration of the cluster node sync run.

Sample Query: `node_sync_duration`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22`, `up-upf-cluster01`

Labels:

- Label: `node`

Label Description: The name of the node the sync is running for

Example: `kvmnode01`, `controlplane01`

**node\_sync\_running**

Description: Indicate status of cluster node sync run. Value 1 = Cluster node sync running. Value 0 = Cluster node sync not running.

Sample Query: `node_sync_running`

Labels:

- Label: `cluster`

Label Description: The name of the cluster the sync is running for

Example: `cluster-smf-22`, `up-upf-cluster01`

Labels:

- Label: `node`

Label Description: The name of the node the sync is running for

Example: `kvmnode01`, `controlplane01`