1、虚拟机指标。

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| --- | --- | --- | --- | --- |
| 名称 | 类型 | 单位 | 资源 | 说明 |
| cpu | c | ns | inst ID | CPU time used |
| cpu\_util | g | % | inst ID | Average CPU utilization |
| vcpus | g | vcpu | inst ID | Number of VCPUs |
| memory | g | MB | inst ID | Volume of RAM allocated in MB |
| memory.usage | g | MB | inst ID | Volume of RAM used by the instance from the amount of its allocated memory |
| disk.total.size | g | GB | inst ID | Size of disk allocated in GB |
| disk.read.bytes | c | B | inst ID | Volume of reads in B |
| disk.read.bytes.rate | g | B/s | inst ID | Average rate of reads in B per second |
| disk.write.bytes | c | B | inst ID | Volume of writes in B |
| disk.write.bytes.rate | g | B/s | inst ID | Average rate of writes in B per second |
| network.incoming.bytes | c | B | iface ID | Number of incoming bytes on a VM network interface |
| network.incoming.bytes.rate | g | B/s | iface ID | Average rate per sec of incoming bytes on a VM network interface |
| network.outgoing.bytes | c | B | iface ID | Number of outgoing bytes on a VM network interface |
| network.outgoing.bytes.rate | g | B/s | iface ID | Average rate per sec of outgoing bytes on a VM network interface |

2、物理机指标。

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| 名称 | 类型 | 单位 | 资源 | 说明 |
| compute.node.cpu.percent | g | % | host ID | CPU utilization |
| compute.node.memory.total | g | MB | host ID | Volume of total RAM in MB |
| compute.node.memory.used | g | MB | host ID | Volume of RAM used in MB |
| compute.node.disk.total | g | GB | host ID | Size of disk in GB |
| compute.node.disk.used | g | GB | host ID | Size of disk used in GB |
| compute.node.disk.read.bytes.rate | g | B/s | host ID | Average rate of reads in B per second |
| compute.node.disk.write.bytes.rate | g | B/s | host ID | Average rate of writes in B per second |
| compute.node.network.incoming.bytes.rate | g | B/s | iface ID | Average rate per sec of incoming bytes on a network interface |
| compute.node.network.outgoing.bytes.rate | g | B/s | iface ID | Average rate per sec of outgoing bytes on a network interface |
| compute.node.network.bandwidth | g | Mb/s | iface ID | Bandwidth of network interface |

3、Cinder。

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| --- | --- | --- | --- | --- |
| 名称 | 类型 | 单位 | 资源 | 说明 |
| capacity.total.size | g | GB | pool/backend | total physical capacity of a pool/backend |
| capacity.free.size | g | GB | pool/backend | real physical available capacity of a pool/backend |
| capacity.allocated.size | g | GB | pool/backend | physical capacity allocated directly through Cinder |
| capacity.provisioned.size | g | GB | pool/backend | capacity provisioned in a pool/backend |
| capacity.virtual\_free.size | g | GB | pool/backend | available virtual capacity in a pool/backend |

Ceilometer使用的3种指标类型定义：

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| --- | --- |
| 类型 | 定义 |
| Cumulative | Increasing over time (instance hours) |
| Gauge | Discrete items (floating IPs, image uploads) and fluctuating values (disk I/O) |
| Delta | Changing over time (bandwidth) |