



Node Data Collection

Cloud Insights

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Node Data Collection

Cloud Insights gathers metrics from the node on which you install an agent.

Installation

1. From **Admin > Data Collectors**, click **+Data Collector**. Under **Hosts**, choose a platform.
2. Follow the instructions to configure the agent. The instructions vary depending on the type of Operating System or Platform you are using to collect data.

Objects and Counters

The following objects and their counters are collected as Node metrics:

| Object: | Identifiers: | Attributes: | Datapoints: |
|-----------------|-------------------------------------|---|--|
| Node Filesystem | Node UUID Device Path Type | Node IP Node Name Node OS Mode | Free Inodes Free Inodes Total Inodes Used Total Used Total Used |
| Node Disk | Node UUID Disk | Node IP Node Name Node OS | IO Time Total IOPS In Progress Read Bytes (per sec) Read Time Total Reads (per sec) Weighted IO Time Total Write Bytes (per sec) Write Time Total Writes (per sec) Current Disk Queue Length Write Time Read Time IO Time |

| Object: | Identifiers: | Attributes: | Datapoints: |
|----------|------------------|---------------------------------|---|
| Node CPU | Node UUID CPU | Node IP Node Name Node OS | System CPU Usage User CPU Usage Idle CPU Usage Processor CPU Usage Interrupt CPU Usage DPC CPU Usage |

| Object: | Identifiers: | Attributes: | Datapoints: |
|---------|--------------|---------------------------------|--|
| Node | Node UUID | Node IP Node Name Node OS | Kernel Boot Time Kernel Context Switches (per sec) Kernel Entropy Available Kernel Interrupts (per sec) Kernel Processes Forked (per sec) Memory Active Memory Available Total Memory Available Memory Buffered Memory Cached Memory Commit Limit Memory Committed As Memory Dirty Memory Free Memory High Free Memory High Total Memory Huge Page Size Memory Huge Pages Free Memory Huge Pages Total Memory Low Free Memory Low Total Memory Mapped Memory Page Tables Memory Shared Memory Slab Memory Swap Cached Memory Swap Free Memory Swap Total Memory Total Memory Used Total Memory Used Memory Vmalloc Chunk Memory Vmalloc Total Memory Vmalloc Used Memory Wired Memory Writeback Total Memory Writeback Tmp |

| Object: | Identifiers: | Attributes: | Datapoints: |
|--------------|--------------------------------|---------------------------------|--|
| Node Network | Network Interface Node UUID | Node Name Node IP Node OS | Bytes Received Bytes Sent Packets Outboud Discarded Packets Outboud Errors Packets Received Discarded Packets Received Errors Packets Received Packets Sent |

Setup

Setup and Troubleshooting information can be found on the [Configuring an Agent](#) page.

MacOS Memory Usage

Cloud Insights (via Telegraf) and macOS report different numbers for memory usage. Both Telegraf and the Mac activity monitor use metrics gathered from *vm_stat*, however the total memory usage is calculated differently for each.

Telegraf calculates *Memory Used Total* as follows:

$$\text{Memory Used Total} = \text{Memory Total} - \text{Memory Available Total}$$

Where *Memory Available Total* is derived from the sum of "Pages free" and "Pages inactive" in *vm_stat*.

The Mac activity monitor, on the other hand, calculates Memory Used as follows:

$$\text{Memory Used} = \text{App Memory} + \text{Wired Memory} + \text{Compressed}$$

Where:

- *App Memory* is derived from the difference between "Anonymous pages" and "Pages purgeable" in *vm_stat*,
- *Wired Memory* is derived from "Pages wired down" in *vm_stat*, and
- *Compressed* is derived from "Pages occupied by compressor" in *vm_stat*.

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