**Summary of Outputs If needed**

**1. Timestamp:**

[Fri Nov 29 03:31:30 2024]

This is the timestamp when the system usage was logged. It uses the ctime() function to get the current date and time when the log is created. In this case, the log entry is from **November 29, 2024, at 03:31:30**.

**2. CPU Usage:**

CPU Usage: cpu 14716 0 11184 155214 0 644 0 0 0 0

This line is from /proc/stat, which shows CPU usage statistics. Here's what each number represents:

* **cpu**: This refers to the overall CPU stats.
* **14716**: The total number of jiffies (time slices) the CPU has spent in **user space** (non-kernel mode).
* **0**: The number of jiffies spent in **nice user space** (low-priority processes).
* **11184**: The number of jiffies spent in **system space** (kernel mode).
* **155214**: The number of jiffies spent in **idle** (the CPU was doing nothing).
* The other numbers (644, 0, 0, 0) represent various additional CPU statistics like IO wait time, hardware interrupts, software interrupts, and the time spent in the virtualized environment, though they are mostly 0 here, indicating minimal activity in those areas.

**3. Memory Usage (from /proc/meminfo):**

MemTotal: 8282936 kB

MemFree: 3970880 kB

This information comes from /proc/meminfo and shows the **total** and **free** memory in the system:

* **MemTotal**: The total amount of physical RAM in system, which is **8,282,936 kB** or approximately **8 GB**.
* **MemFree**: The amount of **unused** RAM in system, which is **3,970,880 kB** or about **3.8 GB**.

So, the system has about **3.8 GB of free memory** available, and **4.4 GB** of memory is likely in use.

**4. Disk Usage:**

Disk Usage: Total: 120881 MB, Used: 94406 MB, Free: 26475 MB

This line shows the disk usage statistics for the system:

* **Total Disk Space**: The total amount of disk space available on the filesystem being measured, which is **120,881 MB** or roughly **120 GB**.
* **Used Disk Space**: The amount of space that is already used, which is **94,406 MB** or **94 GB**.
* **Free Disk Space**: The amount of free space available, which is **26,475 MB** or about **26 GB**.

So, the disk is **78% full**, and about **26 GB** is still available.

**5. Processes:**

Processes: 0.52 0.58 0.59 1/5 42

This information shows the **load average** of the system:

* **0.52**: The system's load average for the past 1 minute.
* **0.58**: The system's load average for the past 5 minutes.
* **0.59**: The system's load average for the past 15 minutes.

A load average represents the number of processes that are either in a runnable or uninterruptable state (e.g., waiting for IO). Typically:

* If the load average exceeds the number of CPU cores, it may indicate the system is overloaded.
* **1/5**: This indicates that there is **1 running process** out of a **maximum of 5 allowed processes**.
* **42**: This is likely the number of processes currently running on the system.

**6. Network Usage:**

Network Usage (eth0/wlan0): eth0: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

This line shows the network interface usage statistics for the **eth0** interface (typically Ethernet):

The columns show various network metrics like:

* **Received bytes** (amount of data received by the interface)
* **Transmitted bytes** (amount of data sent from the interface)
* **Received packets**, **errors**, etc.

Since all the values are 0, it indicates that there was no network activity detected during the time this log entry was created.

**7. Swap Usage:**

SwapTotal: 15472892 kB

SwapFree: 15444312 kB

This information is also from /proc/meminfo and shows the **total swap space** and the **free swap space**:

* **SwapTotal**: The total amount of swap space available in the system, which is **15,472,892 kB** or about **15 GB**.
* **SwapFree**: The amount of free swap space available, which is **15,444,312 kB** or approximately **15 GB**.

Swap space is used when the physical RAM is full, but since the system has plenty of free RAM, swap is not being used much here.