

## Script Documentation

Due to 3CX having long uptimes and constant transmitted data it can sometimes break the system. The following script uses Bash to print critical information to the user that the PBX relies on. This centralised report allows for an easy process for fault and bug finding. At the end of the script, it prints additional information about the memory. Sometimes due to adding more extensions the system can break as it simply does not have enough resources to host the number of extensions.

```
#!/bin/bash

clear

echo "=====
System Information Report"
echo "=====
Current uptime =====
# Prints the up time of the Instance
uptime -p
echo "===== Memory Usage =====
# Prints line Memory Information
echo "Free Memory"
free -h
echo "===== Network Information =====
echo "Public IP address -WAN:"
# Easily allows for you to find your public IP address
curl -s ifconfig.me
echo ""
echo "Network Traffic(Real Time):"
# Uses vnstat to see the inbound and outbound traffic. It extracts information from the rx and tx rows and prints the 2nd and 3rd columns (Unix & Linux Stack Exchange, 2022)
echo "Inbound Traffic: $(vnstat -tr 5 | grep 'rx' | awk '{print $2, $3}')"
echo "Outbound Traffic: $(vnstat -tr 5 | grep 'tx' | awk '{print $2, $3}')
```

Output:

```
=====
                        System Information Report
=====
===== Current uptime =====
up 3 days, 16 hours, 46 minutes
===== Memory Usage =====
Mem:          total      used      free      shared  buff/cache   available
Swap:          0B         0B         0B
===== Network Information =====
Public IP address -WAN:
54.79.207.50
Network Traffic(Real Time):
Inbound Traffic: 163 bit/s
Outbound Traffic: 0 bit/s
```

References:

freeCodeCamp. (n.d.). Bash scripting tutorial – Linux shell script and command line for beginners. freeCodeCamp. <https://www.freecodecamp.org/news/bash-scripting-tutorial-linux-shell-script-and-command-line-for-beginners/>

Wallen, J. (2022, March 6). Classic SysAdmin: Linux 101: 5 commands for checking memory usage in Linux. The Linux Foundation. <https://www.linuxfoundation.org/blog/blog/classic-sysadmin-linux-101-5-commands-for-checking-memory-usage-in-linux>

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Unix & Linux Stack Exchange. (2022, March 22). *Using find, grep, awk in combination* [Answer]. Stack Exchange. <https://unix.stackexchange.com/questions/672777/using-find-grep-awk-in-combination>