

# System health monitoring & alert

```
[root@man1 ~]# top -bn1
0
1
%Cpu(s):  2.8 us,  5.6 sy,  0.0 ni, 91.7 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
MiB Mem:  2.3 total, 1475.1 free,   813.7 used,   457.0 buff/cache
0(-2)  1(-1) 0.0 total, 2560.0 free,    0.0 used. 1758.6 avail Mem
```

```
---
- name: system health report & alert
  hosts: all
  tasks:
    - name: check cpu
      command: top -bn1
      register: cpu_output

    - name: check memory
      command: free -m
      register: memory_output

    - name: check disk
      command: df -h
      register: disk_output

    - name: report of system health report
      local_action:
        module: copy
        content: |
          Hosts: {{ inventory_hostname }}
          {{ cpu_output.stdout }}
          {{ memory_output.stdout }}
          {{ disk_output.stdout }}
        dest: /adhamplaybooks/{{ inventory_hostname }}.txt

    - name: install mail service
      yum:
        name: postfix
        state: present
```

```
- name: ensure that postfix is enable and running
  service:
    name: postfix
    state: started
    enabled: true

- name: cofiguration of postfix
  lineinfile:
    path: /etc/postfix/main.cf
    regexp: '^relayhost ='
    line: 'relayhost ='
    state: present
    backup: true
  notify:
    - restart postfix

- name: send email when high cp
  mail:
    to: "adhmkhlliid@gmail.com"
    subject: "high cpu on host {{ inventory_hostname }}"
    body: "high cpu detect on host {{ inventory_hostname }}"
  when: "'%Cpu(s):' in cpu_output.stdout and
        (cpu_output.stdout.split('us,')[0].split()[-1] | float > 85)"
```

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handlers:
  - name: restart postfix
    service:
      name: postfix
      state: restarted
```

```

[root@control adhamplaybooks]# vim sys-health-report-alert.yml
[root@control adhamplaybooks]# ansible-playbook sys-health-report-alert.yml --syntax-check

playbook: sys-health-report-alert.yml
[root@control adhamplaybooks]# ansible-playbook sys-health-report-alert.yml

PLAY [system health report & alert] *****

TASK [Gathering Facts] *****
ok: [192.168.1.100]
ok: [192.168.1.100]

TASK [check cpu] *****
changed: [192.168.1.100]
changed: [192.168.1.100]

TASK [check memory] *****
changed: [192.168.1.100]
changed: [192.168.1.100]

TASK [check disk] *****
changed: [192.168.1.100]
changed: [192.168.1.100]

TASK [report of system health report] *****
changed: [192.168.1.100] -> localhost
changed: [192.168.1.100] -> localhost

TASK [install mail service] *****
ok: [192.168.1.100]
ok: [192.168.1.100]

TASK [ensure that postfix is enable and running] *****
ok: [192.168.1.100]
ok: [192.168.1.100]

TASK [configuration of postfix] *****
ok: [192.168.1.100]
ok: [192.168.1.100]

TASK [send email when high cp] *****
skipping: [192.168.1.100]
skipping: [192.168.1.100]

PLAY RECAP *****
192.168.1.100 : ok=8    changed=4    unreachable=0    failed=0    skipped=1    rescued=0    ignore=0
red=0
192.168.1.100 : ok=8    changed=4    unreachable=0    failed=0    skipped=1    rescued=0    ignore=0
red=0

```

```
[root@control adhamplaybooks]# ls
192.168.1.7.txt auto-backup.yml disk-space-report.yml firewall-rules.yml
192.168.1.8.txt auto-server-setup.yml filee.txt sys-health-report-alert.yml
[root@control adhamplaybooks]# cat ^C
[root@control adhamplaybooks]#
[root@control adhamplaybooks]#
[root@control adhamplaybooks]# ^C
[root@control adhamplaybooks]# cat 192.168.1.7.txt
Hosts: 192.168.1.7
top - 16:38:33 up 1:55, 2 users, load average: 0.17, 0.10, 0.03
Tasks: 222 total, 2 running, 219 sleeping, 1 stopped, 0 zombie
%Cpu(s): 2.7 us, 10.8 sy, 0.0 ni, 86.5 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 2572.3 total, 1272.7 free, 852.6 used, 628.2 buff/cache
MiB Swap: 2560.0 total, 2560.0 free, 0.0 used, 1719.8 avail Mem

  PID USER      PR  NI   VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
  780 root        20   0  528048  12076  6600 R   6.2   0.5   0:04.15 account+
 10594 root        20   0  225908   4096  3328 R   6.2   0.2   0:00.03 top
    1 root        20   0  175304  18100 10944 S   0.0   0.7   0:07.61 systemd
    2 root        20   0        0        0        0 S   0.0   0.0   0:00.08 kthreadd
    3 root        20   0        0        0        0 S   0.0   0.0   0:00.00 pool_wor
    4 root         0 -20        0        0        0 I   0.0   0.0   0:00.00 kworker+
```

```

Mem:           2572      848      1277      13      628      1724
Swap:          2559         0      2559
Filesystem            Size  Used Avail Use% Mounted on
devtmpfs               4.0M    0    4.0M   0% /dev
tmpfs                  1.3G    0    1.3G   0% /dev/shm
tmpfs                   515M  7.8M  507M   2% /run
/dev/mapper/cs-root    22G  4.7G   17G  22% /
/dev/nvme0n1p1         960M  349M  612M  37% /boot
tmpfs                   258M   52K  258M   1% /run/user/42
tmpfs                   258M   36K  258M   1% /run/user/0

```

```
[root@man1 ~]# stress --cpu 2 --timeout 60
stress: info: [11698] dispatching hogs: 2 cpu, 0 io, 0 vm, 0 hdd
```

```
TASK [send email when high cp] *****
skipping: [192.168.1.18]
ok: [192.168.1.18]
PLAY RECAP *****
192.168.1.18 : ok=9  changed=4  unreachable=0  failed=0  skipped=0  rescued=0  igno
red=0
192.168.1.18 : ok=8  changed=4  unreachable=0  failed=0  skipped=1  rescued=0  igno
red=0
```