I think I may have an explanation as to why our system is crashing. I read the documentation of sysstat again.

```
06:19:27 AM   CPU    %user    %nice  %system  %iowait  %steal    %idle
06:19:28 AM   all    15.58    0.13   19.67    4.09     0.00      60.54
06:19:29 AM   all    43.73    0.00   9.21     1.53     0.26      45.27
06:19:30 AM   all    17.05    0.00   5.98     1.53     0.13      75.32
```

They give the idle time across all cores (for us 8). From 2400 actions onwards, I always on the border of 100% utilisation. And that is when the system begins to crash.

Few more observations I made.

1. We are using Load Balancer subservice of controller which selects an invoker to run the action and publishes message to the message service. Before I realised that sysstat output is across all cores. I thought controller might be failing due to overload, so I configured 2 controllers with extra memory. Apparently that is not the case.
2. Invoker spins the node.js containers to handle the submitted function. The default for invoker is 1 and max number of containers invoker can spin is 8. I changed it to 2 invokers and 100 containers. So, I should have 400 node.js containers to handle 2600 actions. At this point the system gave "500 Internal Error". After checking the CPU utilisation, it reached 100%.
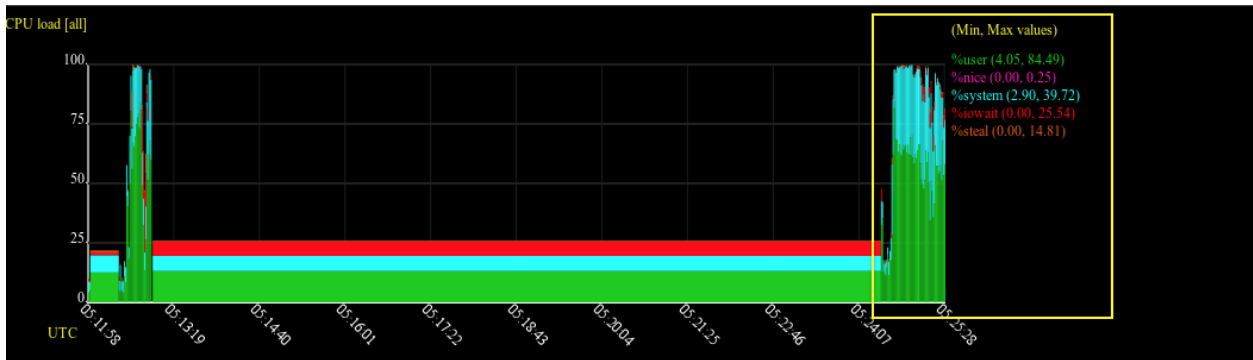
3. On reading the describe information, I saw the insufficient memory.

```
Events:
  FirstSeen      LastSeen        Count   From                     SubObjectPath    Type          R
eason                    Message
  ---------      ---------       -----   ----                     -------------    --------       -
-----                    -------
  4m             4m              2       default-scheduler                         Warning        F
ailedScheduling No nodes are available that match all of the following predicates:: Insufficien
: memory (1).
```

4. We fixed this issue by decreasing the allocated memory to each function container. Earlier the default value was 256Mi. With that we could only launch 2400 actions. After changing to 128Mi, we could launch 3000 actions.