# Bug review

## HPE Service Guard version implied

A.12.40.00 sur RHEL7

## Bug mecanism

During a SGL package life, HPE process modify the file /etc/multipath.conf in order to add reservation key for SAN LUN at start and remove those entries at stop.

Modified lines are as :

Package not running on the current server :

  multipath {

          wwid  36000144000000010f005c6f762e75997

          alias mpathM01

  }

Package running on the current server :

  multipath {

          wwid  36000144000000010f005c6f762e75997

#Reservation key entry added by SGLX

                reservation\_key xxxxxxxxxx

          alias mpathM01

  }

For more, the file /etc/multipath.conf is copied in /tmp with always the same name by HPE SErviceGuard. Then, it is modified. Lastly, the modified temporary file replace the current file /etc/multipath.conf.

## Rootcause

HPE Service Guard doesn’t have any lock mecanism when modifying the file /etc/multipath.conf .

So, when more than one modification are launched at the same time, they cause conflict between each other and the result is hazardous.

## Example with two modifications : (M1 and M2)

1. M1 copy the file /etc/multipath.conf in /tmp .
2. M1 modify the temporary file.
3. M2 copy the file /etc/multipath.conf in /tmp : Previous modification from M1 may be replaced.
4. M1 copy /etc/multipath.conf and delete the temporary file.
5. M2 try to modify a non-existant file and create a blank file instead.
6. M2 replace the file /etc/multipath.conf by the blank file from /tmp.

## Correcting

When the file /etc/multipath.conf is blank on a server, packages will not be able to start if they need SAN LUN.

We must correct /etc/multipath.conf manualy or restore a backup file from one of this cluster server.

## Work around

It is mandatory to avoid simultaneous actions on HPE ServiceGuard, specially if they may cause conflict between each other.