



Technical Support Bulletin

Product	SUBJECT		Dossier	Number	Rev
BullSequana Server	TS21.02 Emergency Patch on EMM & FPGA		400	19-04	2
Issue Date	Writer	Approved by	Domain	Exp. Date	
August 14, 2019	P. ARBENZ	H. GLOAGUEN	FIRMWARE	Undef.	

Issues:

- (1) Risk of CPB damage with Emergency Power Off on some corner cases.
- (2) Risk of SHC Hang after TS21.02 Update when working in Mono-Module S200.

Descriptions:

(1) As described by the VR vendor, when the VR Voltage regulator of the CPU is coming out of the "phase shed", and when a phase is added and is immediately followed by a "transient", the controller, under very specific conditions, could issue multiple pulses on this new phase and potentially cause inductor saturation.

There is a very low probability of occurrence, but this inductor saturation can damage the VR/CPB mother board.

Emergency Updates:

- Modification of Voltage Regulator VR Parameters related to High-speed phase balance (HSPB) monitoring and Synthesized phase currents (Isyn).
- Improvement of EMM & FPGA firmware to manage EPO (Emergency Power Off) and protect the VR and the CPU about over Voltage/Current damages.

(2) After update in TS21.02, the Server Hardware Console (SHC) can hang and needs a BMC reset. This issue is linked to a wrong management of internal message logs when the BullSequana is working in mono-module S200. In this configuration, the /var directory is full after several hours/days and the BMC/SHC needs a restart (without impact on the running OS).

Emergency Updates:

- Emergency patch implemented in release EMM 33.38.01 build 01.

Procedure:

- After installation of **TS21.02**, update the firmware with EMM 33.38.01 build 0001 and FPGA_CPB 3.1.1.0
- These 2 Emergency updates are available on SOL:
<https://support.bull.com/ols/product/platforms/bullion/bullsequana-s/dl/pkgf/cs/download21.02/>

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