GPU Recovery

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Topics Overview

Sharing an overview of the current status of GPU recovery. The overall idea follows these steps:

1. When a job cause a hang, call driver specific handler.

2. Stop the scheduler.

3. Handle the bad job, and keep the good jobs.

4. Reset the ring buffer.

5. Resume the scheduler.

Discussion around drm_sched_resubmit_jobs()

- Echoing the idea that drm_sched_resubmit_jobs() is now deprecated.
- Generally, drivers should have their own specific code for handling resubmission jobs and not use drm_sched_resubmit_jobs().
- We had some discussion about abstracting some of the driver-specific implementation to the scheduler.

GPU Reset debug

- Discussion around GPU reset limitations, such as the impossibility of confidently pinpointing the instruction that caused the issue.
- Get hints from userspace to improve the devcoredump output.

Avoid hang regressions

- Introduce IGT tests that exercise driver behaviour when dealing with bad instructions.
- Find new test cases to expand the HangTest suite.