**GCP Logs & Traces**

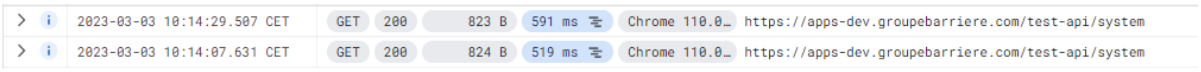
**Context** : https://github.com/googleapis/google-cloud-dotnet/issues/9868

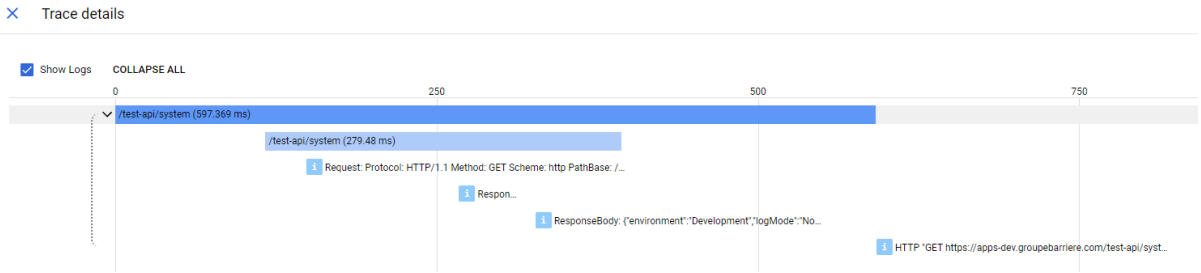
**Summary** :
When using `AddGoogleDiagnosticsForAspNetCore` with CloudRun and BufferOptions.NoBuffer(), it causes a big latency
However, with CloudRun, this settings seems required

**Process** :
Create a simple app where we can just change log and trace buffer options with env var
Deploy on CloudRun

**Results** :

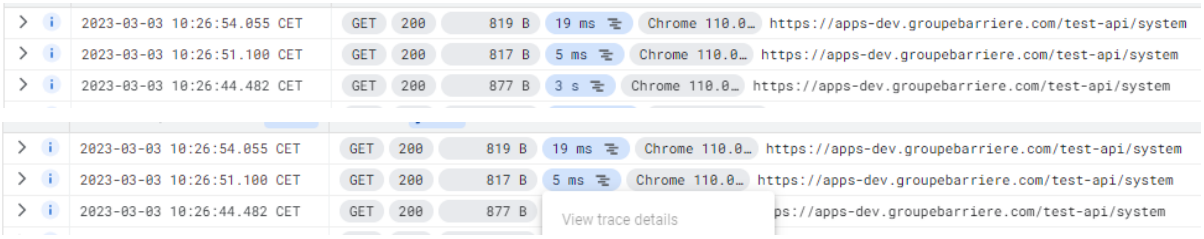
**NoBuffer / NoBuffer**
2 requests sent from browser
2 traces correctly working
Huge latency



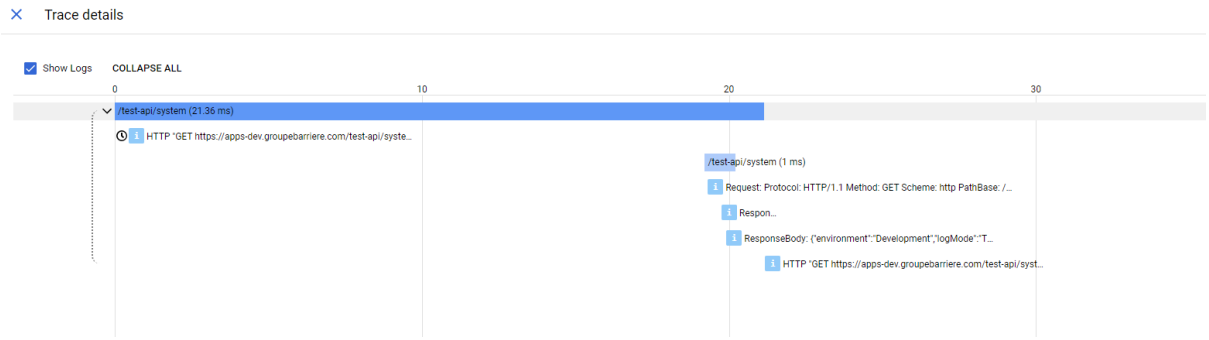

After each log, we have “white” => this is the time needed to upload log/trace
Around 100ms for each “white”

**Timed0 / Timed0** (which means 10ms timedbuffer for both logs and traces)
3 requests sent from browser (ignoring 1st request response time because of cold start)
2 traces correctly working, the 1st and the 3rd (2nd one only has logs but no trace …)
No Latency



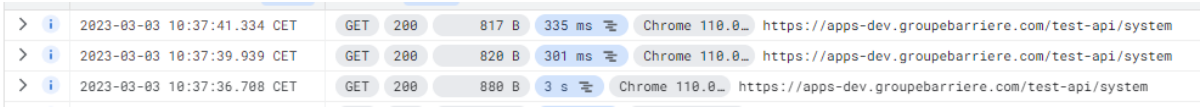

Unable to explain what is going on here : if the 3rd request correctly has a trace, why the 2nd one does not

=> is this a thread throttling by CloudRun ? if yes, why the 3rd request correctly sent its logs / traces (should have also picked the previous trace, it is a buffer common to all requests …)




The “white” area is the load balancer part, but then we can see that there are no more latency between log statements

**Timed0 / NoBuffer** (which means 10ms timedbuffer for logs and no buffer for traces)
3 requests sent from browser (ignoring 1st request response time because of cold start)
0 trace working




=> this was the recommendation from Google team to be sure to have traces, it does not work …

**Sized2 / Sized1** (which means 64Ko buffer for logs, 4Ko buffer for traces)
3 requests sent from browser (ignoring 1st request response time because of cold start)
0 trace working
Incomplete logs (i.e even after cloud run stops the service)


Logs in cloud run showing “Hosting stopped”