



Performance Evaluation in Theia Compass

Hervé KABAMBA

Michel Dagenais

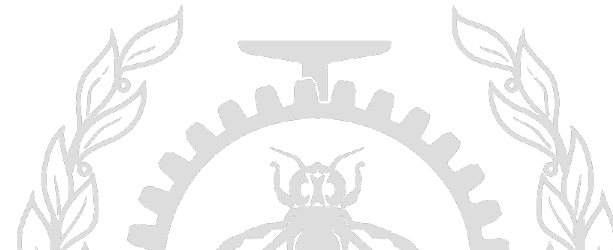
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Polytechnique Montréal

Laboratoire **DORSAL**

Agenda

- Introduction
- Ongoing work
- Objectives
- Expectations



Introduction (1)

■ Theia Trace Compass Extension?

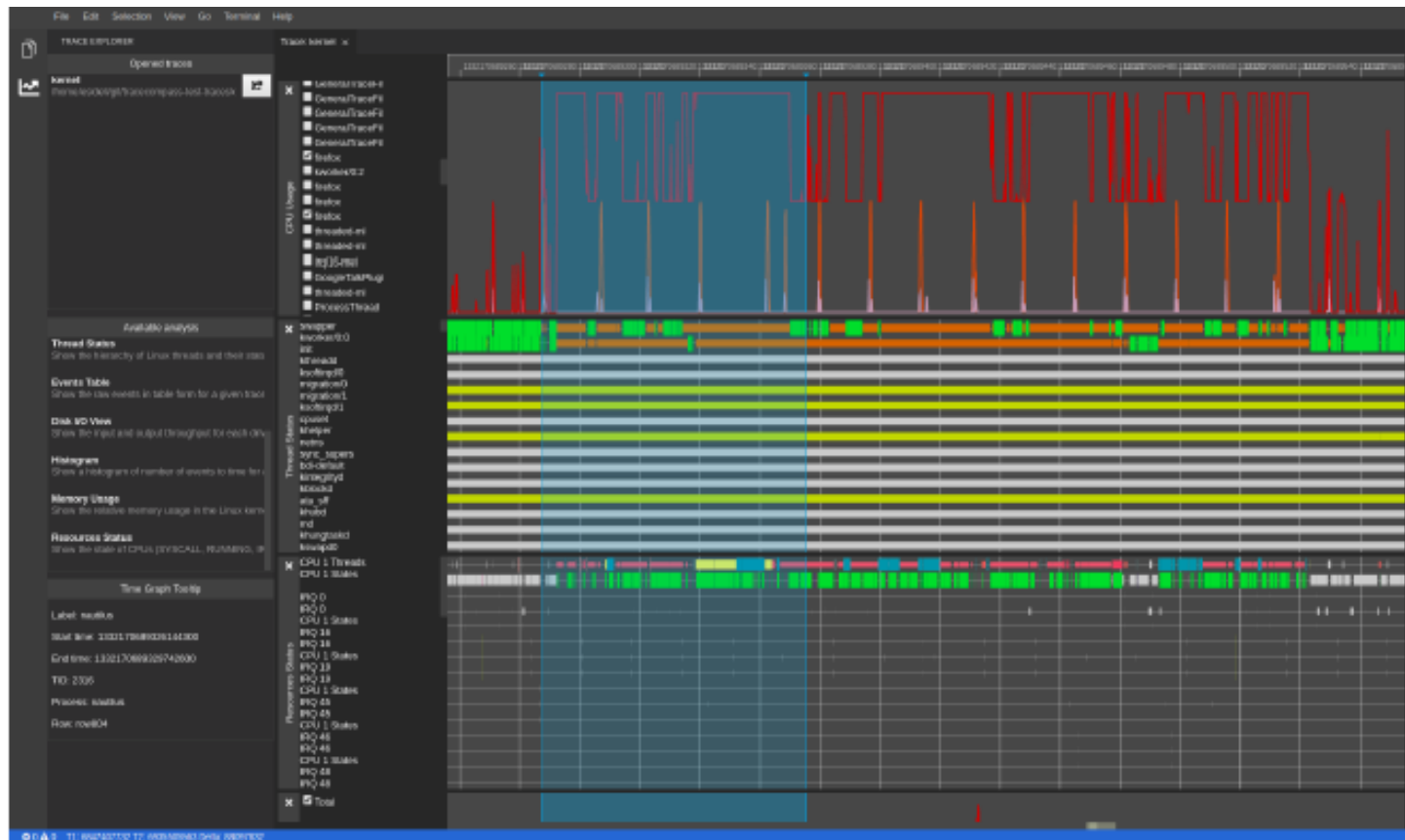
- **Web Based trace Viewer**

- **Complex Distributed application :**

- **Frontend** : Run by Chromium in java-script
- **Backend** : communicates with the Frontend and other components
- **Language Server Protocol** : Communicates with the Backend
- **Trace Server**: Communicates with the Frontend
- **GDB**: Communicates with the Backend

Introduction (2)

■ Viewing traces in Theia Compass



Introduction (3)

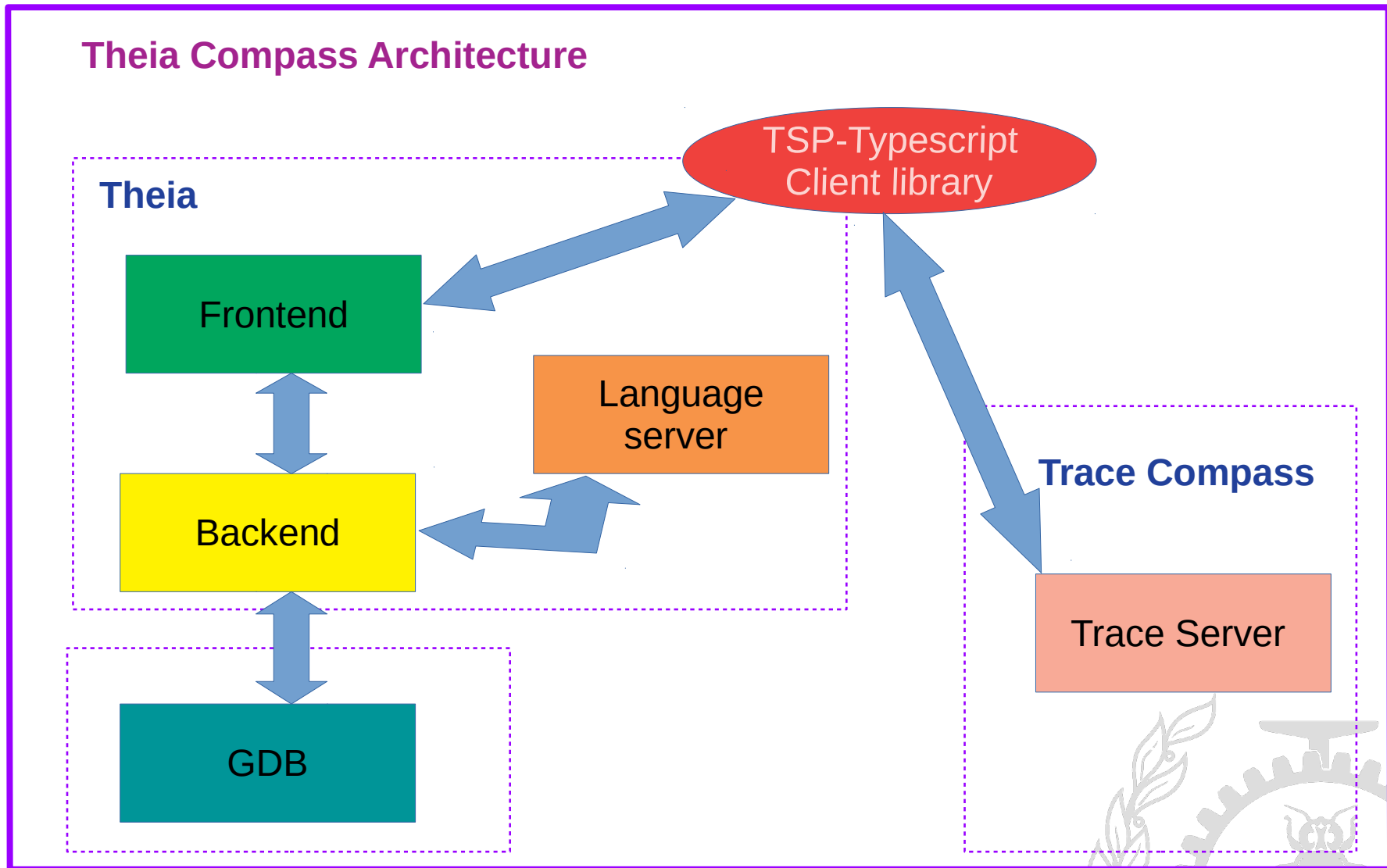
■ Problem addressed

- Theia is a complex modular and distributed application
- Frontend runs on chromium in java-script
- Users normal requests sometimes (open view, zoom, pn etc.) take more time than expected

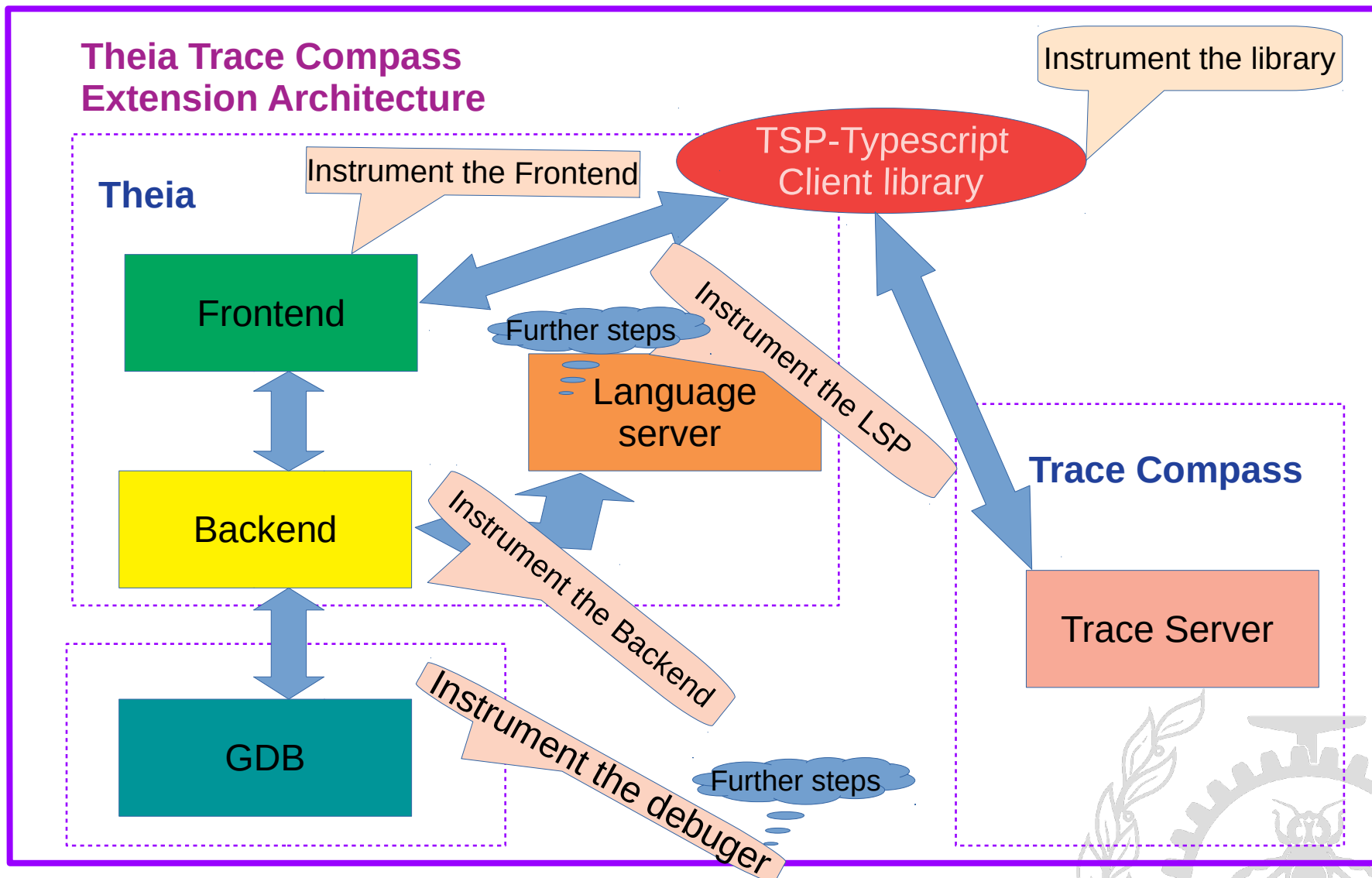
■ Question

- How to find the root causes in such a complex environment?
- it is extremely difficult to guess the underlying cause and the related modules

Introduction (4)



Ongoing work



Objectives

- **Gradually instrument Theia Compass to understand its performance**
 - **Instrument the calls from the Frontend (Tsp-Typescript library) to the Trace Compass Server**
 - **Instrument the calls from the Frontend to the Backend**
 - **Then if performance problems are identified in other modules , instrument the calls from the Backend to the LSP and probably to the GDB**

Expectations

- **We expect through our work**

- **To get full visibility, through tracing, into the execution of the different modules involved in Theia Compass**
- **To make Theia Compass easy to analyze and speedup**
- **To study how complex multi-level distributed applications can be traced and analyzed with Trace Compass.**

Questions?

herve.kabamba-mbikayi@polymtl.ca

