



CPU-GPU tracing using ROCm

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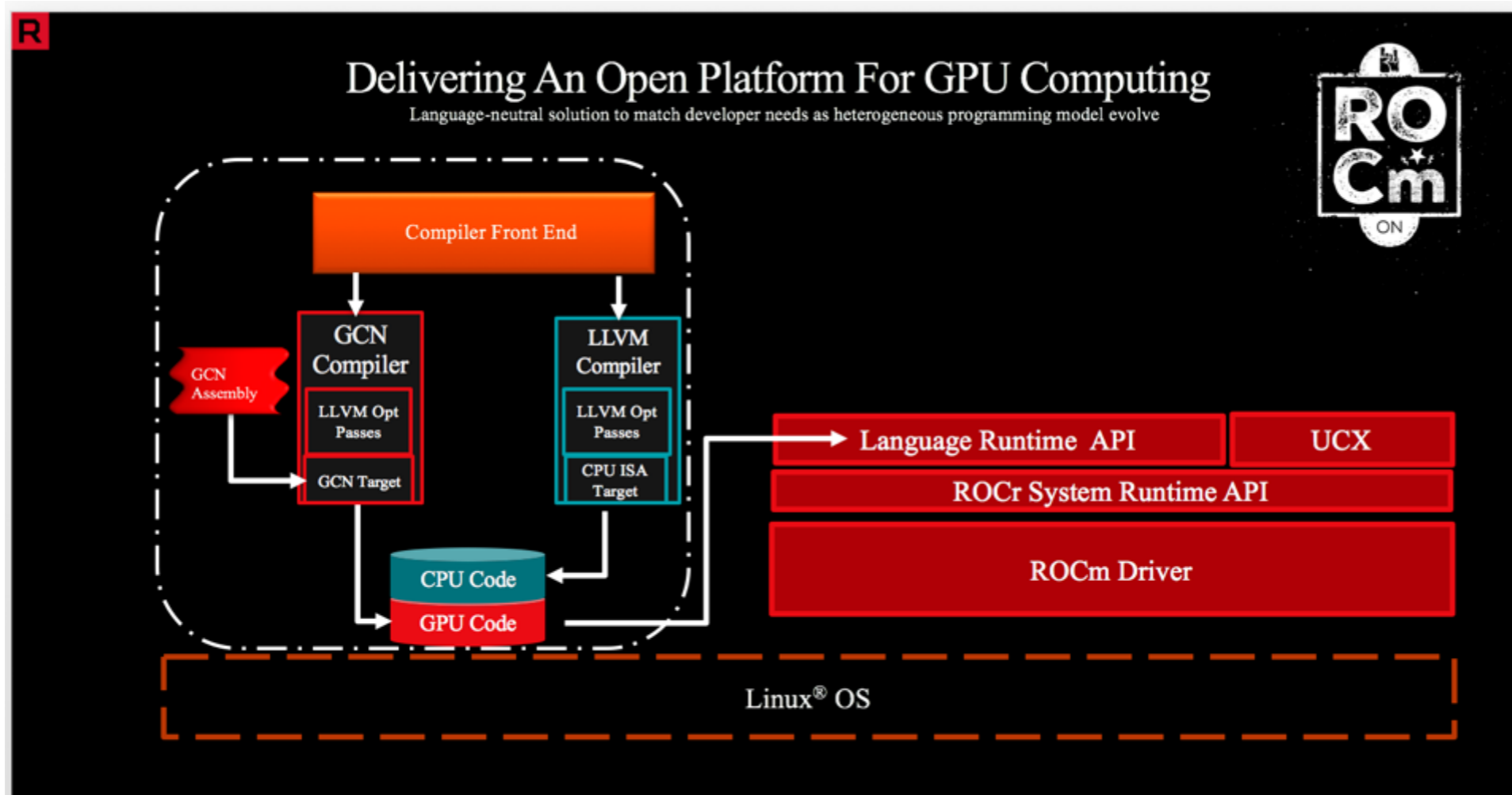
Polytechnique Montreal
DORSAL Laboratory

Agenda

- Background
- Tracing pipeline changes
- Demo
- Future Work



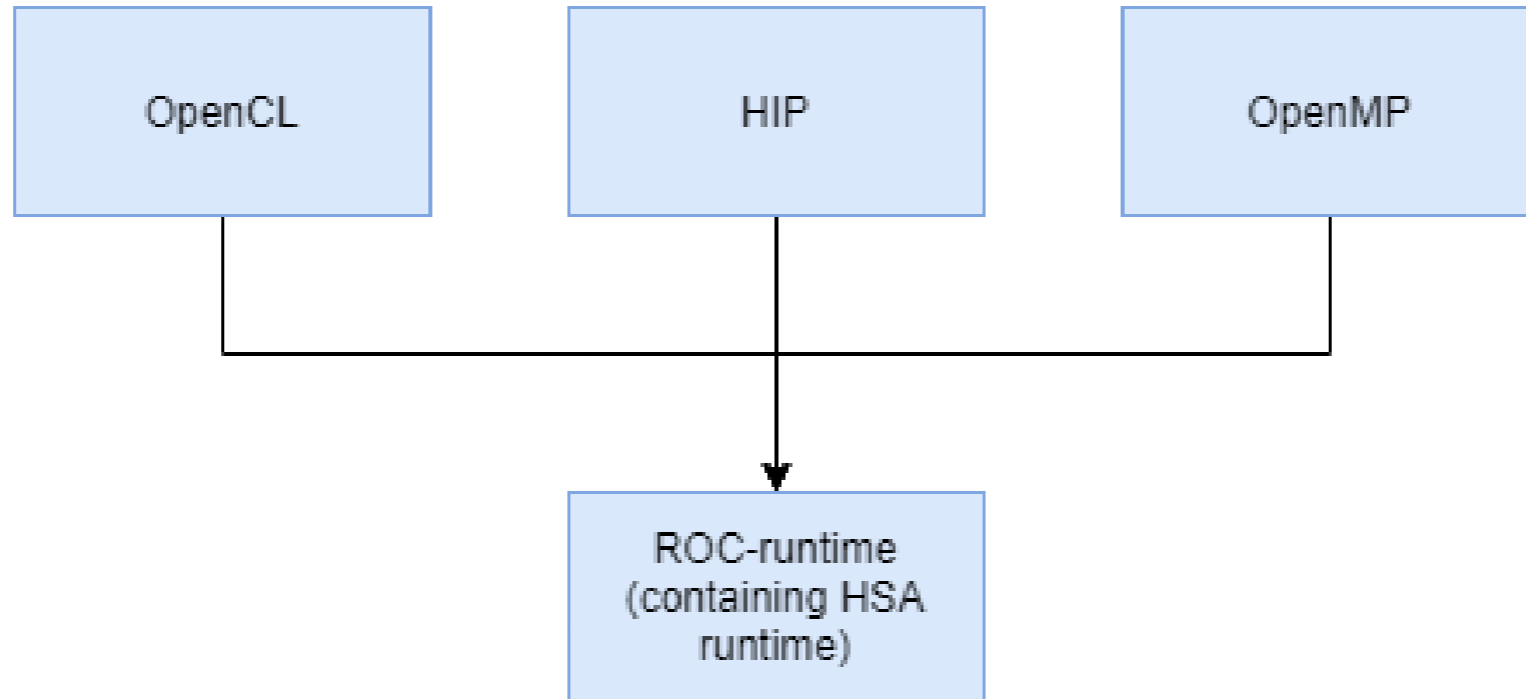
Background



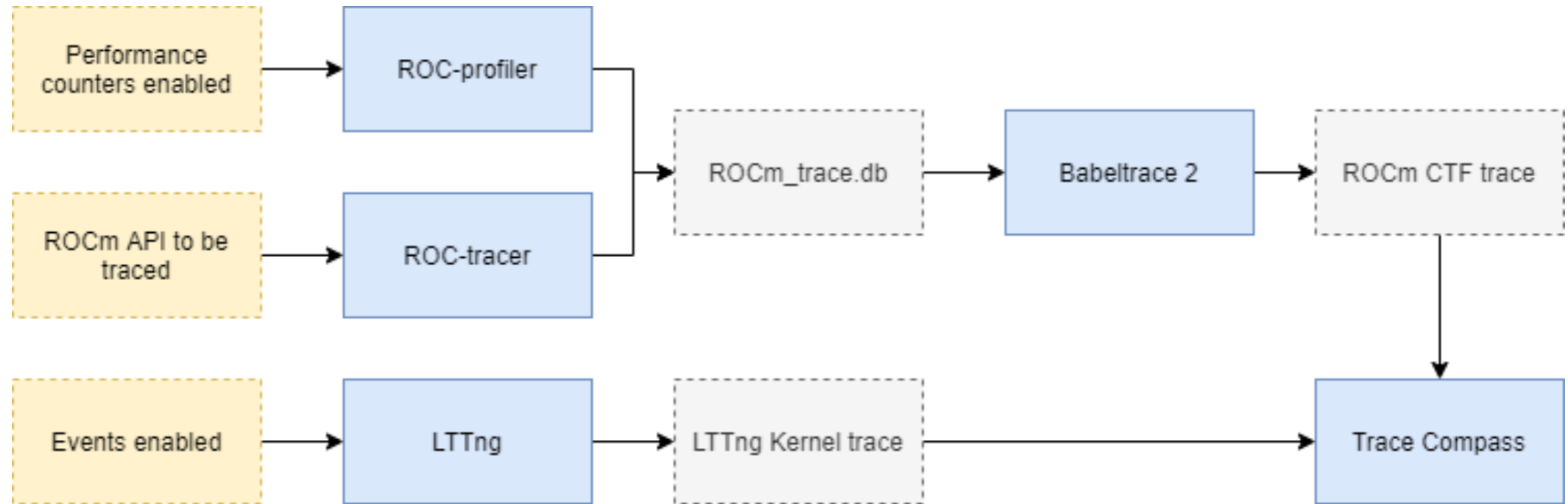
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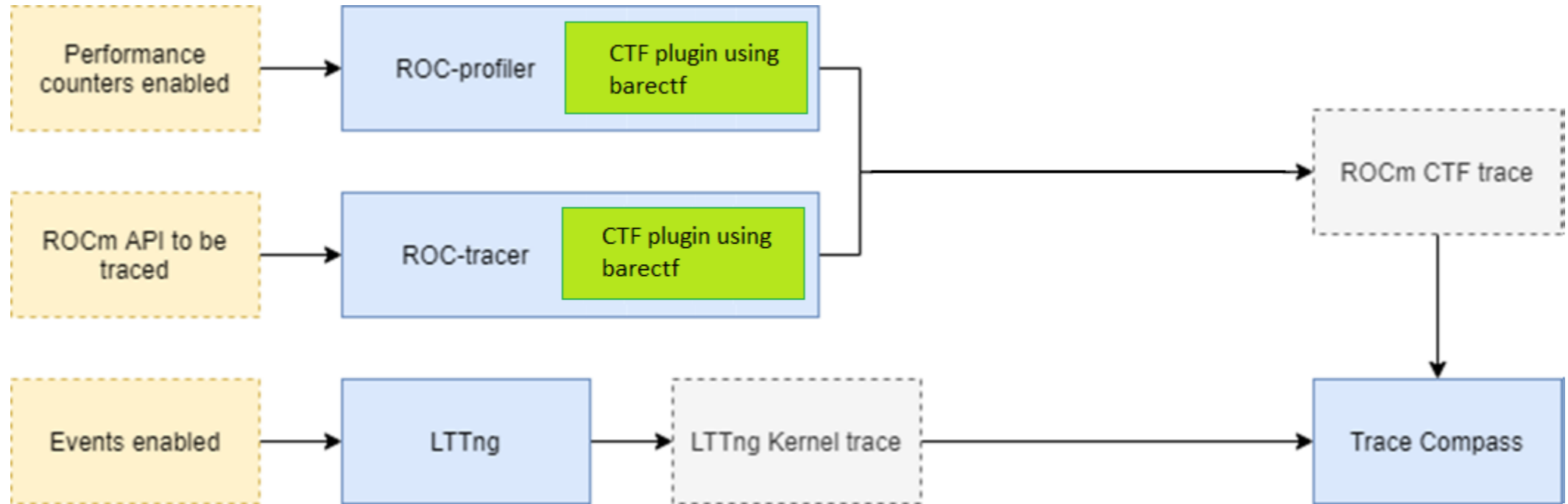
Background



Background

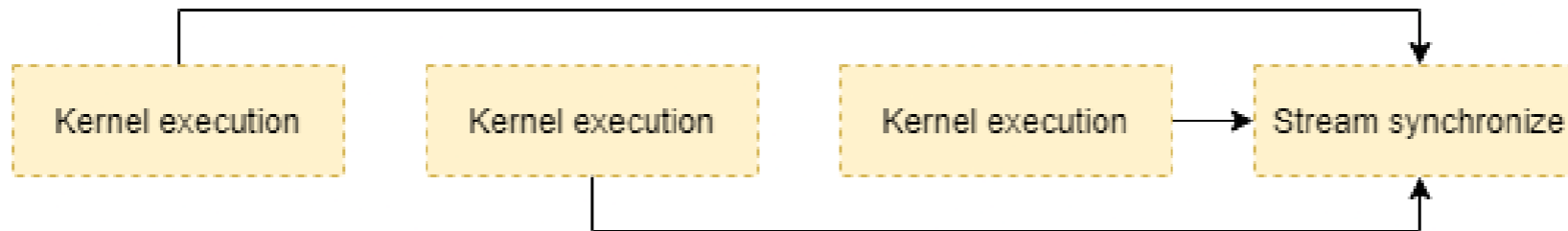


Background

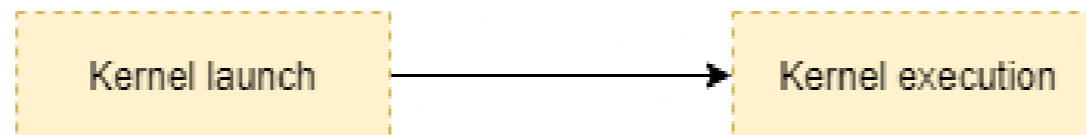


Tracing Pipeline Changes

- Backward dependencies
 - GPU activity to API directive

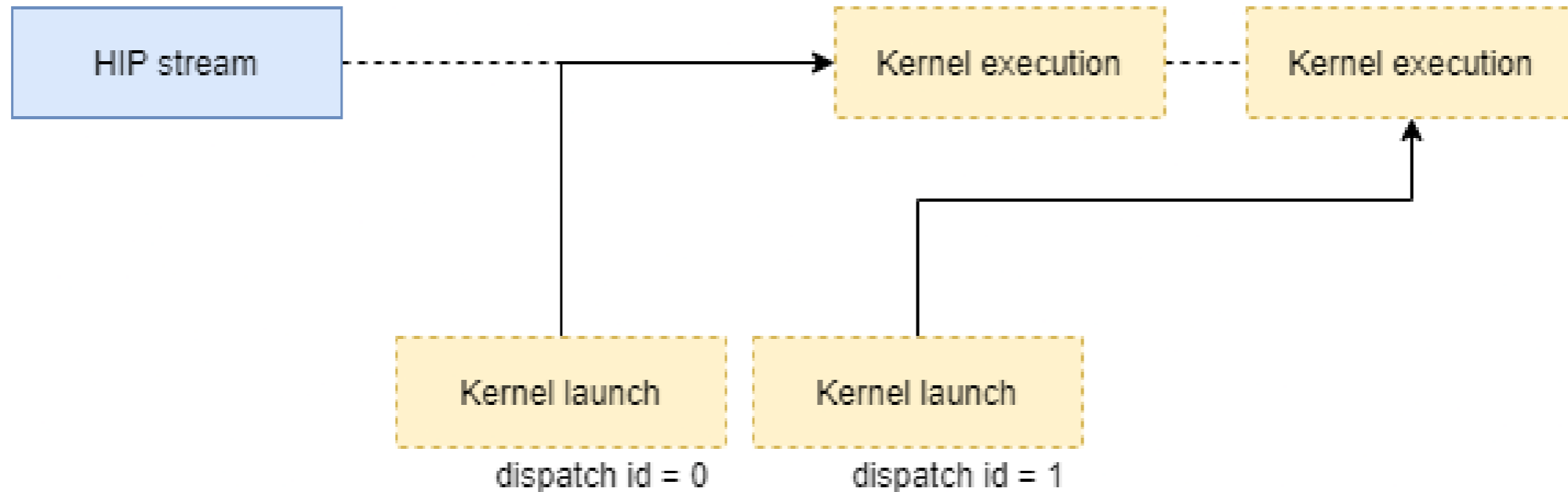


- Forward dependencies
 - API directive to GPU activity



Tracing Pipeline Changes

- Associating kernels to streams and kernel launch to kernel executions.

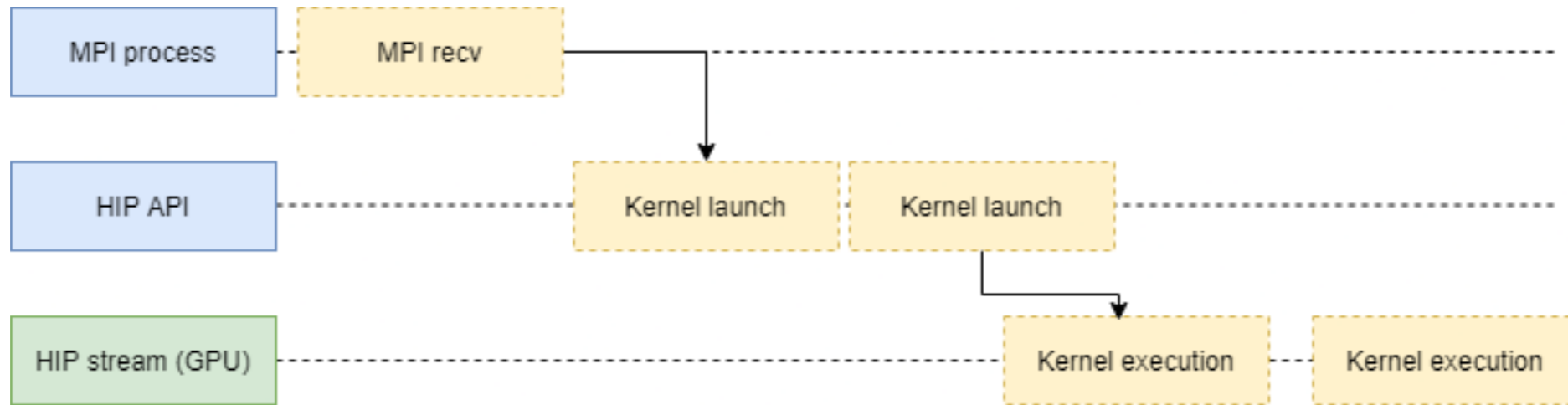


Demo



Future Work

- Full support for dependencies



Future Work

- Full support for dependencies
- A common GPU trace analysis with THAPI
- Combined multi-node view
- Performance counters analysis



Q&A

