libIS and SENSEI in transit architecture

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IXPUG In Situ Hackathon

Santa Fe, NM
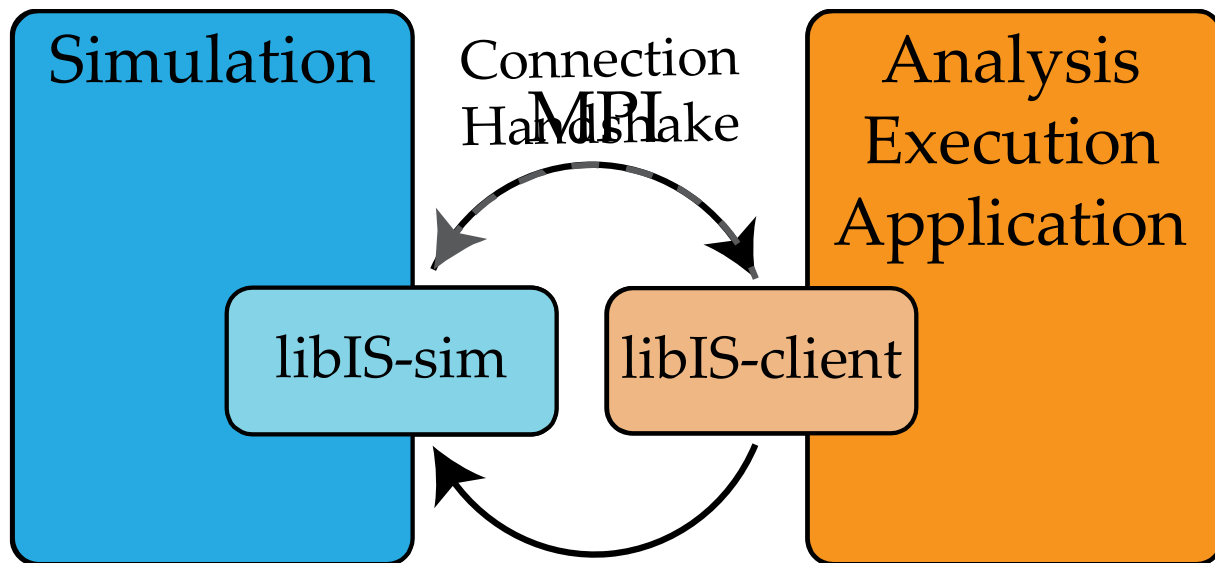
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Slides courtesy: Will Usher, SCI Institute, Univ. of Utah and Intel Corp.
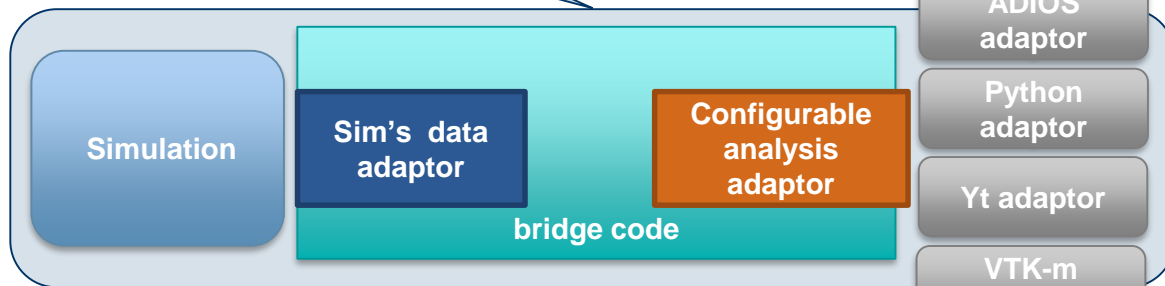Burlen Loring, Berkeley Lab and the SENSEI team

The libIS library

Simulation acts as a data server providing timesteps to clients

Clients can connect/disconnect for on-demand execution

Usher, W., Rizzi, S., Wald, I., Amstutz, J., Insley, J., Vishwanath, V., Ferrier, N., Papka, M.E. and Pascucci, V., 2018, November. libIS: a lightweight library for flexible in transit visualization. In *Proceedings of the Workshop on In Situ Infrastructures for Enabling Extreme-Scale Analysis and Visualization* (pp. 33-38). ACM.
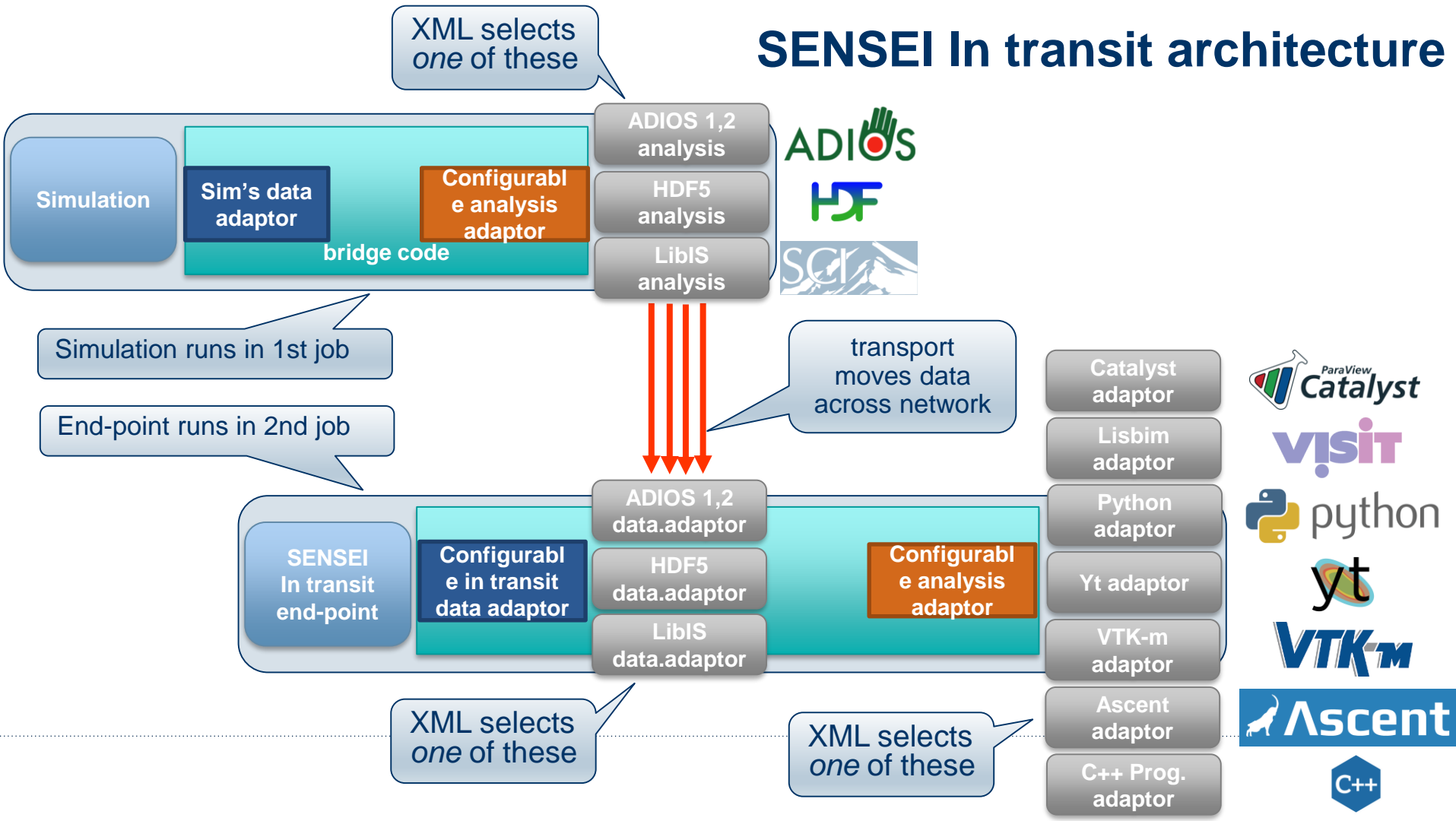
SENSEI In situ architecture

SENSEI In transit architecture

Progress

- Based on ADIOS1 implementation by Burlen
- Added libIS data adaptor, analysis adaptor and endpoint
- Commits in Kitware Gitlab repo
  https://gitlab.kitware.com/sensei/sensei/merge_requests/154
- Still work in progress

To-Do
- Finalize implementation
- Regression tests
  https://gitlab.kitware.com/sensei/sensei/tree/in_transit_data_adaptor/sensei/testing