

SOLLVE Thrust Areas Updates

Application requirements

- Collected MPI+OpenMP affinity requirements and use-cases for memory management
- Launched ticket system for user feedback/interactions

Standard and Specification Evolution

- Release of OpenMP 5.0 specification (Nov. 2018)

OpenMP Scalable Runtime

- Completed OpenMP runtime milestone
- Upgraded BOLT to LLVM 7.0
- BOLT/Argobots 3rd release (RC1)

LLVM Compiler

- Implemented transformations: region merging, barrier removal (baseline for future parallel IR solutions)
- Developed new locality and parallelism transformations for multi- and many-core processors

Verification and Validation Suite

- Launched V&V website
- Release of V&V suite
- Increased compiler coverage for Titan and SummitDev.
- Summit V&V in progress

Training and Outreach

Webinars, Workshops, ECP Annual Meeting Hybrid Optimization (OpenMP + MPI) Tutorial, Hackathons

ECP Value

OpenMP Services

Accelerator

Affinity

Parallelism

Tasking

Memory Management