

**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**

- Face-to-face meeting in Austin (TX)
- Significant progress related to tickets and prototypes of mappers, deep copy, concurrent construct

**OpenMP  
Scalable  
Runtime**

- Completed OpenMP runtime milestone
- Synchronized BOLT's functionality with LLVM OpenMP runtime
- BOLT 2<sup>nd</sup> release (Beta 1)

**LLVM Compiler**

- Implemented transformations: region merging, barrier removal (baseline for future parallel IR solutions)
- Prototyped new parallelism and locality transformations; tested on Intel Skylake

**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

**OpenMP Services**

**ECP  
Value**

Accelerator

Affinity

Parallelism

Tasking

Memory  
Management