

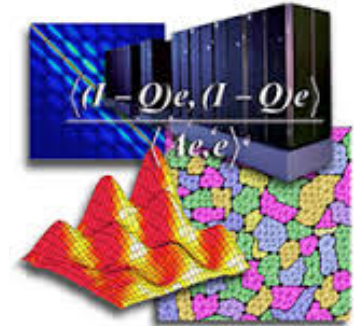
Impact of PIPER Technology on ...

... Application Performance

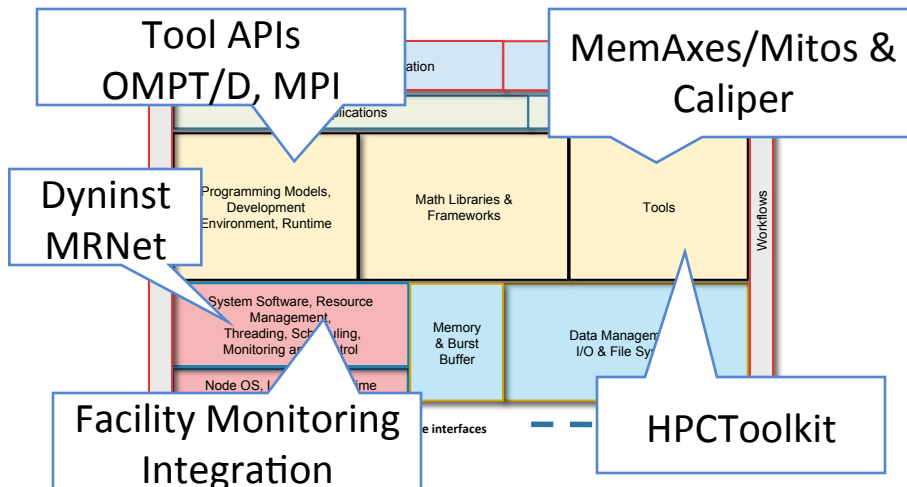
- Active Harmony+Caliper auto-tuning **converged 40% faster** on **Lulesh**
- Blame Data Centric profiling of a **high-level parallel language** led to **38-56% speedup**
- Network bottleneck analysis on **NWChem** led to **20% speedup**

... Application Development

- Caliper has been integrated into the hypre solver library and LLNL IC codes
- New tools interfaces have started to become widely used, providing users with critical information during development



... The ECP/ATDM SW Stack



... Advances in R&D

- Tool integration between PIPER components
- The PALM Modeling Toolkit
- Networks and Contention Analysis

