



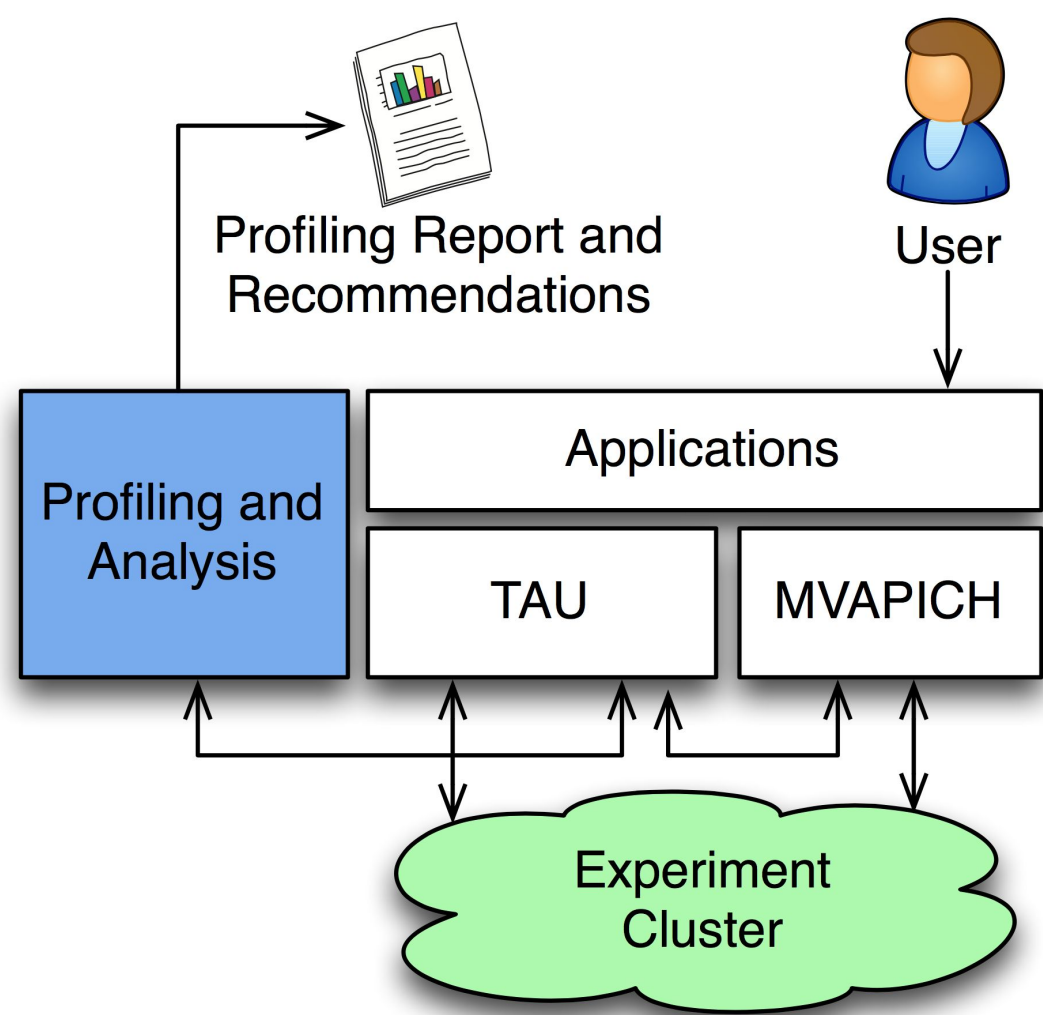
SI2-SSI: Collaborative Research: A Software Infrastructure for MPI Performance Engineering: Integrating MVAPICH and TAU via the MPI Tools Interface

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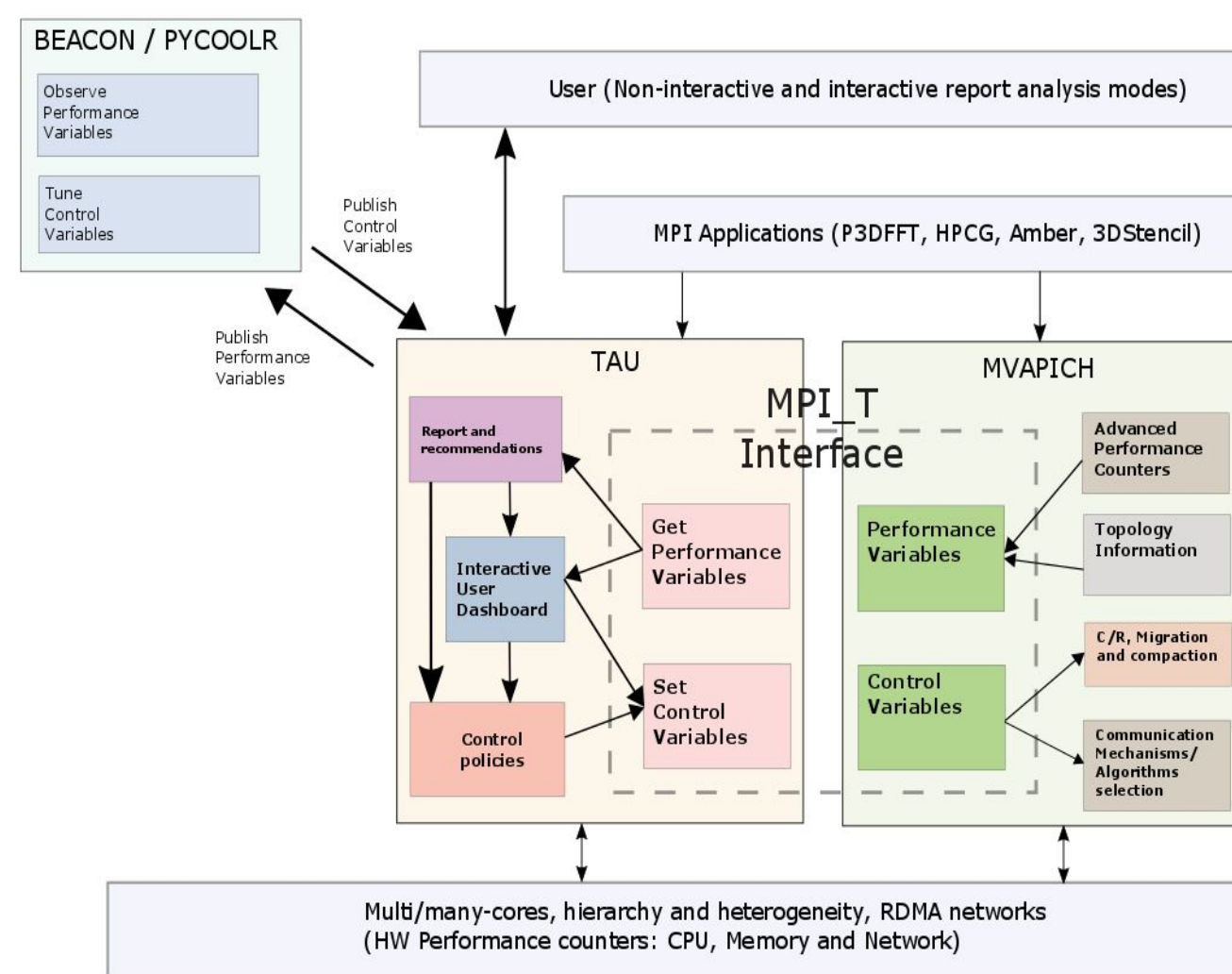
Research Challenges

Creating an MPI programming infrastructure that can integrate performance analysis capabilities more directly, through the MPI Tools Information Interface (MPI_T), monitor Performance metrics during run time, and deliver greater optimization opportunities for scientific applications.



Proposed Approach

The proposed tool infrastructure combines performance monitoring support through BEACON/PYCOOLR and a highly customizable plugin infrastructure in TAU to enable fine-grained performance analysis and control. MVAPICH2 enables the full use of this infrastructure by exposing a vast array of PVARs and runtime tunable CVARs



Usage Scenarios

Scenario #1 - Non-interactive mode

