



# SYMPOSIUM'16

## AMERICA – EUROPE – ASIA



THE ASIAN SPEC SYMPOSIUM ON SERVER EFFICIENCY

## SPEC - Designing Better Benchmarks

### Overview

- A global non-profit consortium formed in 1988 to establish, maintain and endorse a standardized set of relevant benchmarks that can be applied to the newest generation of high-performance computers
- Development of benchmark suites, review and publication of submitted results
- 120+ computer hardware and software vendors, educational institutions, and government agencies
- Large repository of well documented, peer reviewed, benchmark results
- Understanding of workloads, benchmark code, fair comparisons across different platforms
- Stands ready to offer guidance on workloads and benchmark development
- SPEC organizations to join and participate in our work

### Philosophy

- Ensure that the marketplace has a fair and useful set of metrics to differentiate systems
- Provide a standardized suite of code that has already been ported to a wide variety of platforms

### Advantages

- Costs of benchmarking are kept down since:
  - Benchmarks are applicable to a range of platforms from single processor systems to clusters
  - Benchmark code, drivers, and detailed run and reporting rules are provided by SPEC
  - Peer review saves over 3rd party audits
- Benchmarks are retired and replaced every 3-7 years to keep pace with technology
- New benchmarks can be created whenever there is sufficient interest

### Membership benefits

- Access to the cutting edge benchmark development
- Access to all benchmarks of a specific group
- Participation in development meetings
- Contribute their ideas - get information on the latest thinking in commercial engineering
- Real world experience for grad students aiding in dissertation research and job searches
- Connect with dozens of leading universities globally for research collaboration
- Participate in ICPE conference with ACM - the premier performance evaluation conference in the world

