Enterprise Servers and Data Centers: Opportunities for Energy Savings
January 31, 2006 – Sun Microsystems Conference Facility

Call for Abstracts

Enterprise servers are increasingly critical to the missions of companies and governments around the world. As the need for computing power grows, so does the energy consumption by data centers, globally. Many organizations are identifying and implementing strategies to improve the efficiency within data centers thus driving down the cost of ownership.

If you are one of these organizations, we invite you to submit an abstract that highlights measures implemented to overcome barriers and maximize efficiency within data centers. We are particularly interested in receiving abstracts in the following areas:

Energy Benchmarking
- Server performance benchmarks – relationship to energy efficiency, e.g. performance/watt
- Server energy benchmarking - where are we now? Future projections?
- Benchmark data - primarily at the facility level

Equipment
- Server design, optimizing subsystems and components for energy efficiency
- Matching power consumption to compute load
    - Frequency / voltage scaling
    - Powering down clustered servers
- Virtualization
- Optimization, consolidation to fewer physical servers
- Scale up/scale out
- Efficient power systems- supplies, voltage regulators, direct DC powering
- Voluntary efficiency standards (servers, power supplies, network equipment, storage, etc)
- Improved management of equipment, services

Facility and Operations
- Identifying data center needs based on applications, space considerations, etc. and relationship to power consumption
- Server configurations, effective airflow
- Utility contributions to power savings (e.g., incentive programs)
- Effective cooling systems
- Use of efficient UPS/power conditioning
- Commissioning/retro-commissioning
- Monitoring/metering power consumption
- Enabling tele-working as an alternative -- remote access; portal-based computing
- Thin client computing, moving cycles from the desktop to the data center
- Existing Resource Utilization -- maximization of existing/legacy resources and decreases in the power, real estate and hazardous material footprints of the data center

Abstracts should be no longer than 500 words. All abstracts will be reviewed by the Case Study Review Committee, comprised of 5 industry and energy efficiency experts. The Committee will choose 5 case studies to be presented by the author(s) during the conference. Authors may submit more than one abstract for consideration, but only one abstract per author and organization will be selected for presentation during the conference. Abstracts will be chosen based on the following factors:

- Applicability to the discussion areas provided above
- Size and magnitude of energy savings potential
- Unique approach to maximizing efficiency
- Use of innovative and new technologies
- Applicability to a wide range of stakeholders and end users

Each presenter will be given approximately 15 minutes to present their case study to the group. All stakeholders submitting abstracts will be given an opportunity to provide their abstract and/or related case studies for inclusion on the conference Web site, along with their contact information, at www.energystar.gov/serverconference. EPA will compile and post all abstracts, case studies, and presentations, with submitter approval, to the Web site for review prior to the conference to encourage attendees to bring ideas and solutions to the discussions.

Please submit your abstract to Katharine Osdoba, EPA, at osdoba.katharine@epa.gov by December 23, 2005. Provided below is a timeline of the submittal and review process.

Abstract and Case Study Presentation Review Schedule

Deadline to Submit Abstracts	December 23 2005
Authors Informed of Abstract Status	January 5, 2005
Draft Presentations due to Review Committee	January 18, 2006
Presentation Review Period	January 18-20, 2006
Final Presentations due to EPA	January 27, 2006