

## STATEMENT OF CONSIDERATIONS

ADVANCE WAIVER OF THE GOVERNMENT'S U.S. AND FOREIGN  
PATENT RIGHTS AND ADVANCE APPROVAL TO ASSERT COPYRIGHT  
RIGHTS UNDER SUBCONTACT B542702 ISSUED BY LAWRENCE  
LIVERMORE NATIONAL LABORATORY TO INTERNATIONAL  
BUSINESS MACHINES CORPORATION FOR THE BLUEGENE/P ASIC  
FEASIBILITY STUDY; DOE WAIVER NO. W(A)-04-053

The Petitioner, International Business Machines Corporation (IBM), has requested an Advance Waiver of the Government's Intellectual Property Rights in the above-cited research and development subcontract for the BlueGene/P ASIC Feasibility Study. In its request, IBM has agreed to accept the same terms and conditions that were negotiated for previous LLNL Subcontract B517552 with IBM for the BlueGene /L Program and which were authorized under DOE Advance Waiver W(A)-01-018 (SAN 688). See Enclosures 1 and 2, IBM's facsimile Request for Proposal No. B542702 and DOE Advance Waiver W(A)-01-018, respectively.

Background: The previous BlueGene/L subcontract No. B517552 was the first initiated under ASCI's Advanced Architecture program. The program's objective is to identify inadequacies in today's high-end computing systems and to promote R&D efforts exploring alternative high performance computing architectures that will address ASCI's complex applications. The BlueGene/P subcontract is for the development of a second generation system which builds on the first generation BlueGene/L design based on several proprietary hardware and software technologies. The leverage of these IBM technologies is expected to lead to a BlueGene/P design having significant improvement over BlueGene/L in cost performance. As in previous subcontracts under various aspects of the ASCI program, IBM has expressed its reluctance to accept a subcontract award if a waiver of intellectual property rights is not granted.

The BlueGene/P program contemplates three phases of research and development - the technology choice and architecture phase, the design and fabrication stage and the prototype hardware build-out phase. Subcontract No. 542702 is for the first phase of the BlueGene/P program - the BlueGene/P ASIC Feasibility Study having a project budget of \$2,916,666 with a 40/60 IBM/DOE cost-sharing allocation. The later phases will be reviewed by the ASCI program for further funding consideration during FY 2005 when/if the R&D under this subcontract proves successful.

Scope of the Waiver: IBM has agreed to accept the scope as in W(A)-01-018. See Enclosure 2, page 2, Scope of Waiver. Briefly, the Petitioner will be able to retain the patent rights to its sole or joint (undivided) subject inventions in accordance with the terms and conditions set forth at 48 CFR 52.227-12 as amended by 10 CFR 784.12. DOE will retain a royalty-free, non-transferable, irrevocable, nonexclusive license to practice any subject invention by or on behalf of the U.S. Government anywhere in the world, march-in rights and a preference for United States Industry provision comparable to those set forth in 35 U.S.C. 202 and 204. IBM will conduct R&D activities under this subcontract principally (LOE>90%) in U.S.-based facilities, and for a period

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of one year after the subcontract completion, subsequent R&D on subject technologies substantially (LOE>90%) in U.S.-based facilities. The agreed upon U.S. Competitiveness provision is made applicable to this subcontract. See Enclosure 3, U.S. Competitiveness Clause.

IBM is granted prior approval to establish copyright subsisting in all published and non-published data. DOE will retain a paid-up, nonexclusive, irrevocable worldwide license on behalf of the U.S. government in such copyrighted data to reproduce and prepare derivative works, and perform by or on behalf of the Government. In the case of computer software, after five (5) years from the date of production, this license will expand to include the right to distribute copies to the public, and perform publicly, and display publicly, by or on behalf of the Government.

Conclusion: Given the past progress of the ASCI program with the present parties under BlueGene/L program and the applicability of the previously negotiated terms and conditions of the BlueGene/L program to this second generation program, it is desirable to pursue the proposed design effort under the same terms and conditions in the proposed BlueGene/P program.

Accordingly, in view of the statutory purposes of DOE waiver policy, and the objectives of the Accelerated Strategic Computing program, and in view of the factors to be considered under DOE's statutory patent waiver policy, all of which have been considered, it is determined that this advance waiver will best serve the interest of the United States and the general public. It is therefore recommended that this waiver be granted.



William Daubenspeck  
Office of Counsel  
NNSA Service Center

Date: 9/20/2004

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Based on the foregoing Statement of Considerations, it is determined that the interests of the United States and the general public will best be served by waiver of the United States' domestic and foreign patent rights, copyright in software and a delay in the release of technical data as set forth herein, and therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the IBM subcontract where, through such modification or extension, the purpose, scope or DOE cost of the subcontract has been substantially altered. This waiver shall not affect any waiver previously granted.

CONCURRENCE:

[Redacted signature]

Date: 9/24/04

Dimitri Kusnezov  
Director of Office of Advanced Simulation  
And Computing (NA-114)

APPROVED:

[Redacted signature]

Date: 9-27-04

Paul Gottlieb  
Assistant General Counsel  
for Technology Transfer and  
Intellectual Property (GC-62)

Encl. (3)