Resource Summary Report

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International Neuroinformatics Coordinating Facility: Blue Gene/L Access

RRID:SCR_001755
Type: Tool

Proper Citation

International Neuroinformatics Coordinating Facility: Blue Gene/L Access (RRID:SCR_001755)

Resource Information

URL: http://incf.org/about/programs/modeling/blue-gene-access

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Description: Through this site, INCF provides he neuroinformatics community with access to an IBM Blue Gene/L supercomputer. INCF owns a share of a BlueGene/L (BG/L) supercomputer located at the Parallel Computer Center (PDC) at The Royal Institute of Technology (KTH) in Stockholm. Allocations are now available through the INCF Secretariat. During an initial evaluation phase, a limited numbers of large-scale computing projects will be selected, based on the suitability of the project for supercomputing. Research groups with limited access to supercomputers at their home institutions are given priority. Approved projects are regularly re-evaluated. New projects are approved based on availability and usage load of the BG/L. The Blue Gene/L supercomputer project is aimed at expanding the horizon of high-performance computing to unprecedented levels of scale and performance. Blue Gene/L is the first supercomputer in the Blue Gene family. The full Blue Gene/L consists of 64 racks containing 65,536 high-performance compute nodes. Each node (nodes and chips are the same in the Blue Gene system) contains two embedded 32-bit PowerPC processors. Furthermore, the same chip that is used for compute nodes is also used for the 1,024 I/O nodes. A three-dimensional torus network and a collective network are used to interconnect all nodes. The full system contains 33 terabytes of main memory; it is designed to achieve 183.5 teraflops peak performance using one of the processors of each node for computation and the other processor for communication, and 367 teraflops using both processors for computation. Another key architectural feature of this supercomputer is the link chip component and five Blue Gene/L networks, the PowerPC 440 core and floating-point enhancements, the on-chip and off-chip distributed memory system, the node- and system-level design for high reliability, and the comprehensive approach to fault isolation. One of the key objectives in Blue Gene/L design is to achieve cost/performance comparable to the COTS (Commodity

Off The Shelf) approach, while at the same time incorporating a processor and network combination so powerful that it revolutionizes the performance of supercomputer systems. Sponsors: This resource is supported by the INCF.

Synonyms: INCF Blue Gene/L Access

Resource Type: data computation service

Keywords: gene, chip, computation, computing project, memory, neuroinformatics, node, parallel computer, processor, supercomputer

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: International Neuroinformatics Coordinating Facility: Blue Gene/L Access

Resource ID: SCR_001755

Alternate IDs: nif-0000-10263

Record Creation Time: 20220129T080209+0000

Record Last Update: 20260912T195530+0000

Ratings and Alerts

No rating or validation information has been found for International Neuroinformatics Coordinating Facility: Blue Gene/L Access.

No alerts have been found for International Neuroinformatics Coordinating Facility: Blue Gene/L Access.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.