

Accelerated computing cluster

The cluster consists of six servers that are equipped with the accelerating cards. Each server includes two cards; there are two servers with nVIDIA Kepler K80, two with Xeon Phi, and two with Altera FPGAs cards respectively.

Servers' parameters

Processor: 2 x Xeon E5 (20M Cache, 2.40 GHz)

RAM: 128 GB (1866MHz)

Disks: 2 x 200GB SSD SAS

Operating system: CentOS 7

Two servers equipped with two nVIDIA Kepler K80 GPGPU cards

Card parameters:

2x Kepler GK210

4992 CUDA cores

2.91 Tflops Double Precision

8.74 Tflops Single Precision

24 GB GDDR5

Programming:

CUDA

OpenCL

Tools:

NVIDIA CUDA Compiler

Two servers equipped with two Intel Xeon Phi 7120P cards

Card parameters:

61 cores

1.208 Tflops Double Precision

16 GB GDDR5

Programming:

OpenCL

OpenMP

MPI

Intel® Cilk™ Plus

Tools:

Intel C Compiler

Intel Fortran Compiler

Two servers equipped with two Nallatech cards with FPGA Altera Stratix V systems

Type 1 card parameters:

Nallatech 395-AB: Stratix V AB
32GB of DDR3

Type 2 card parameters:

Nallatech 395: Stratix V D8
32GB of DDR3

Programming:

OpenCL
Altera Quartus

Tools:

Altera OpenCL SDK
Altera Quartus

Contact

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