



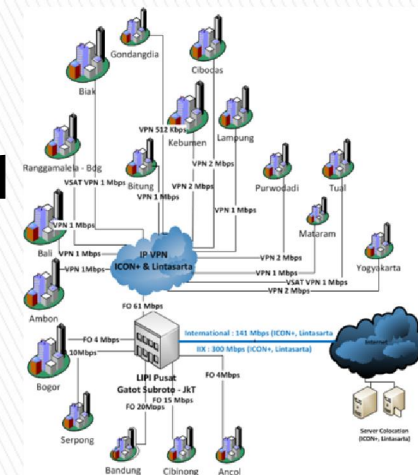
# HPC at Indonesian Institute of Sciences Indonesia

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# LIPI overview

- ▶ Indonesian Institute of Sciences In Bahasa: Lembaga Ilmu Pengetahuan Indonesia (LIPI) owned by a Gol and receives government funding
- ▶ Total Staffs about 4520 working for various research topics such as Economic, Culture, Physics, Chemistry, Computing, etc
- ▶ Headquarter in Jakarta, others division in 31 place in different City and Island, 26 location connected to LIPI WAN





# HPC at LIPI

- ▶ Preparation of HPC and facilities started from the end of last year
- ▶ Physically located at 2 different location / 2 cluster (Cibinong and Bandung)
- ▶ Procurement and installation of of Hardware completed by end of August 2013
- ▶ Installation of OS (CentOS and SL) together with middleware on August – September





# HPC H/W

- ▶ **Bandung**
  - 2 Master node
  - 34 Working node without GPGPU
  - 4 Working node with GPGPU
- ▶ **Cibinong**
  - 2 Master Node
  - 80 Working node without GPGPU
  - 16 Working node with GPGPU





# HPC H/W (cont)

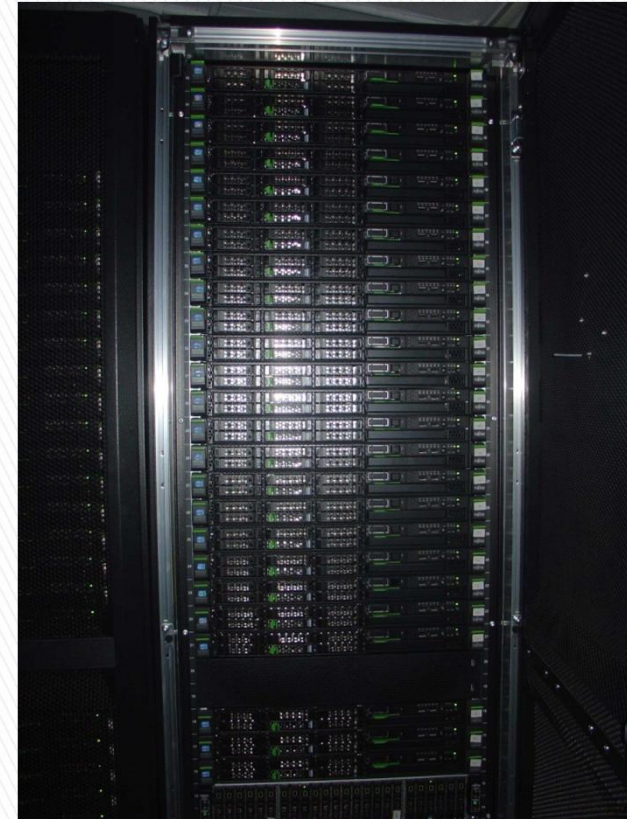
- ▶ **Master Node**
  - 2 x 8 core processor, 2 GHz, 20 MB Cache
  - Memori 128 GB
  - SATA, RAID5, 24 TB
  - LAN 2x10 GbE, 2x1 GbE





# HPC H/W (cont)

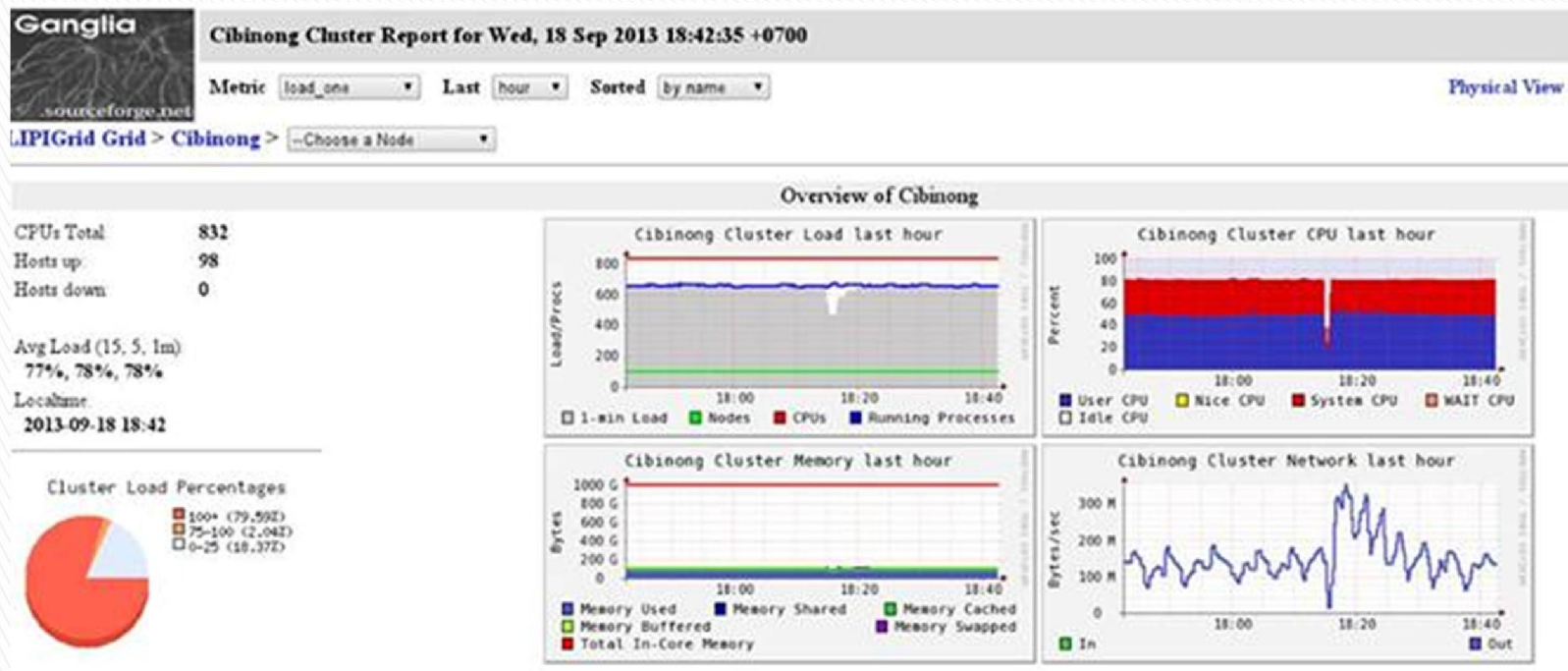
- ▶ **Worker node without GPGPU**
  - 2x4 core processor, 2,4 GHz, 10 MB Cache
  - Memori 8 GB
  - SATA, 500 GB
  - LAN 2x1 GbE
- ▶ **Worker node with GPGPU**
  - 2x4 core processor, 2,4 GHz, 10 MB Cache
  - Memori 8 GB
  - SATA, 500 GB
  - LAN 2x1 GbE
  - GPGPU Tesla M2075, 448 Core





# HPC S/W

- ▶ OS: CentOS 6 / SL
- ▶ Monitoring: Ganglia
- ▶ Resource & Queue manager: Torque
- ▶ Shared File System: GlusterFS
- ▶ Authentication: LDAP



# Planning

- ▶ **Freely access/usage by Academic and research in Indonesia**
- ▶ **Colaboration with ALICE –CERN**





**LIPI**

**Thank you**

