

Technology's description

FRAMBOISINE is aimed at providing low-cost solution for cluster computing for Southern Countries as well as portable solutions for bioinformatics training. In that respect, we tested and validated solutions based on Single-Board Computers, such as the RaspBerry Pi, working on ARM processors.

The idea is to combine such SBC to obtain 2000€ clusters comprising a master node and 10 slaves, as well as storage and networking. Three prototypes exist (using Rpi, CubieTruck and OlinuXino-A20Lime2) and are deployed to Southern partners for in situ validations.

Mini-cluster assembly methodology could be developed with other types of card including 64bits processors cards. This technology could be used in various scientific program such as ecology, genomic, astronomy etc..

Advantages

- Attractive cost - less than 2000€ for a 10 nodes cluster
- No Internet access needed
- A low power supply needed (5V for each card)
- High Resistance to humidity and heat
- Cards can be easily replaced, added or purchased via the Internet
- A turnkey solution

Applications

- Research /Formation/ Teaching/ Parallel computations/ Bioinformatics

Intellectual property

Know-how

Development level

System complete and qualified



Technology transfer

- License

