

GGGG

Enabling Grids for E-sciencE

# Cluster computing and Grid environment

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www.eu-egee.org



## **Computer usage in Science**

Trivial text editing, Internet services, trivial calculations, programming, process monitoring...

Extensive numerical simulations, extensive calculations, data mining...





## **Computer Architectures**

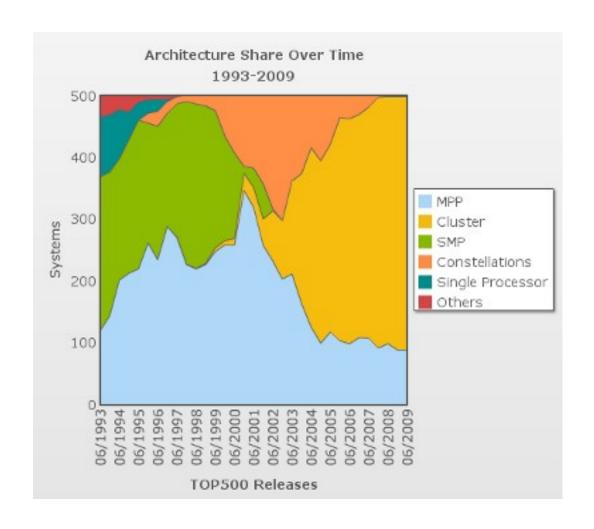
- Single processor
- Symmetric Multiprocessing SMP
- Massive Parallel Processing MPP
- Clusters





## **Cluster systems on TOP500**

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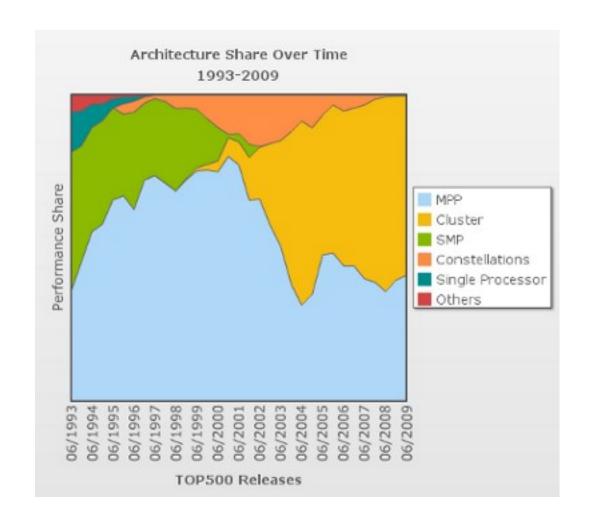






#### **Clusters performance on TOP500**

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- '90 computer grid as a metaphor to power grid
- SETI@HOME most known grid
- EU leader in grid computing trough EGEE
- Cloud computing

