

Cluster Technologies

Parallel & Distributed Processing Laboratory
<http://www.it.uom.gr>



University of Macedonia
Thessaloniki - Greece

There are two different cluster technologies.

- 1) Electra's cluster concerns scientific computations**
- 2) Irida's cluster concerns system load balancing**

Electra's Cluster

<http://electra.it.uom.gr>

Electra's Cluster implemented in Macedonia University from the staff of Parallel and Distributed Processing Laboratory. It consists of 65 nodes (Pentium 166 - 266 MHz) & 1 server (Electra - Pentium IV 1,5 GHz). It is based on NPACI (National Partnership for Advanced Computational Infrastructure) Rocks cluster management tool

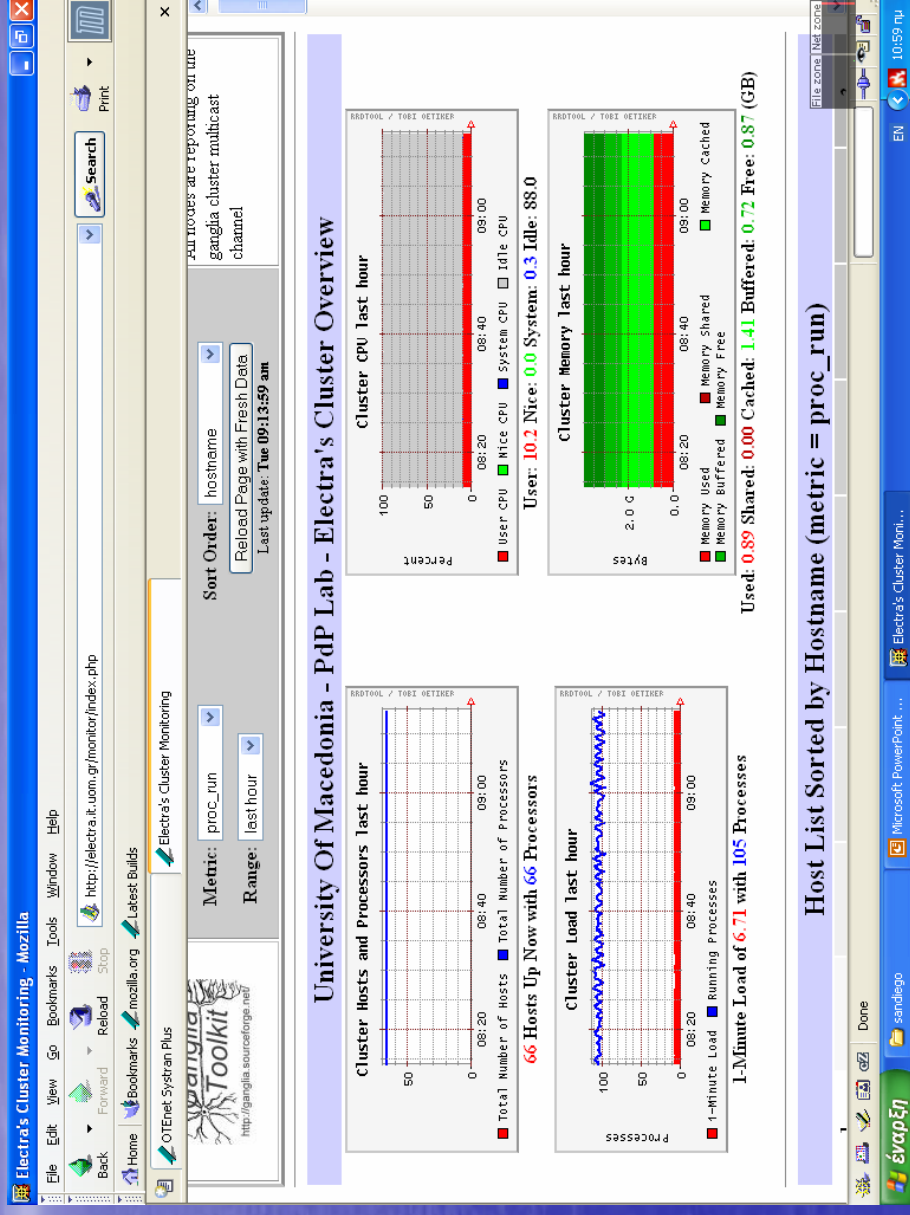
The cluster is mainly used for research projects of the Lab students and staff.

Currently there are ongoing projects on performance modelling of scientific computations on heterogeneous systems, fault tolerance in scientific computations, parallel evolutionary computations, approximate string matching, and non-linear optimization.

Electra's Cluster

<http://electra.it.uom.gr>

Monitoring with
Ganglia Toolkit



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Electra's Cluster

<http://electra.it.uom.gr>



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Irida's Cluster

<http://irida.it.uom.gr>

Irida's cluster implemented from the stuff of Parallel and Distributed Processing Laboratory.

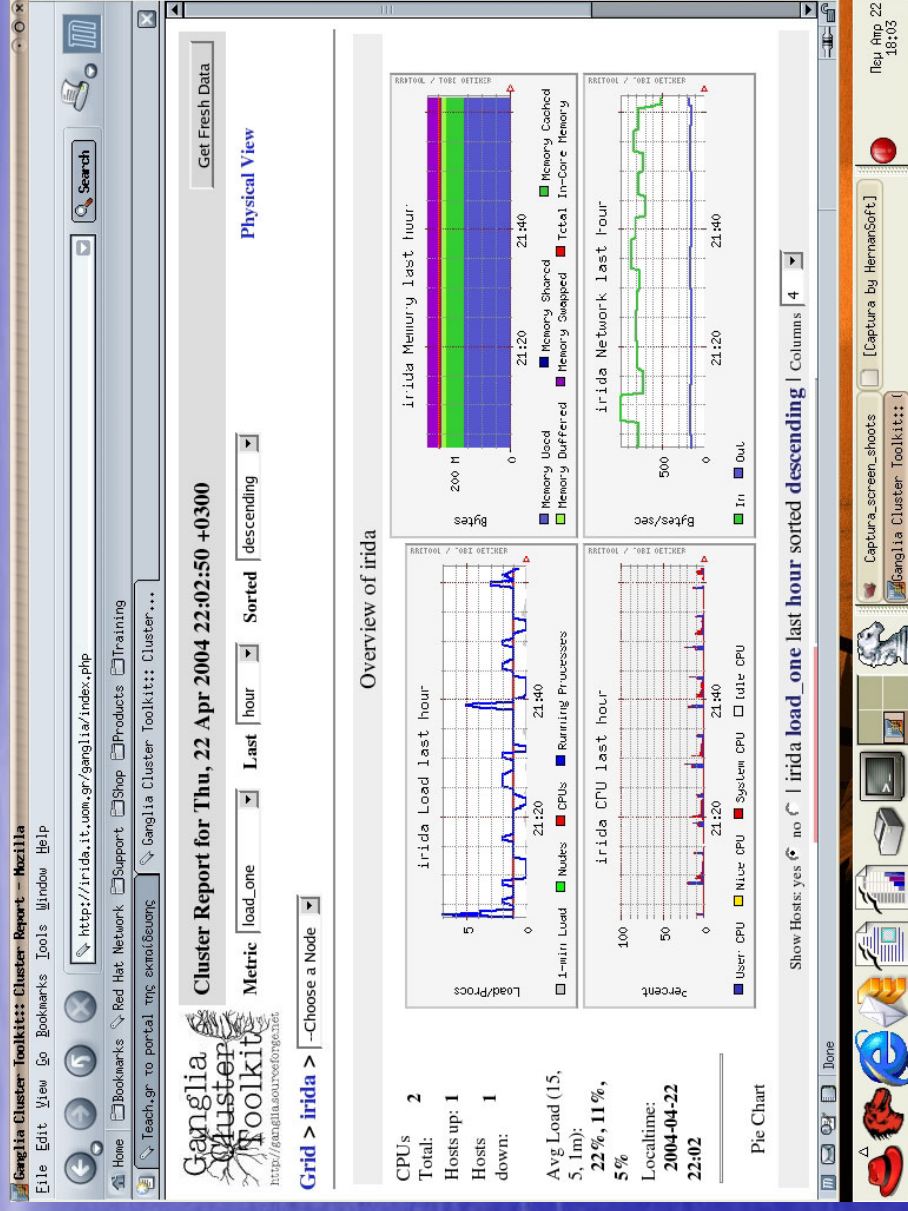
It consists of 6 peer nodes (Pentium II 450 MHz) and it is based on Cluster Knoppix distribution.

A Debian modified Linux distribution with Open Mosix Kernel. This system offers load balancing technology totally transparent for the end user

Irida's Cluster

<http://irida.it.uom.gr>

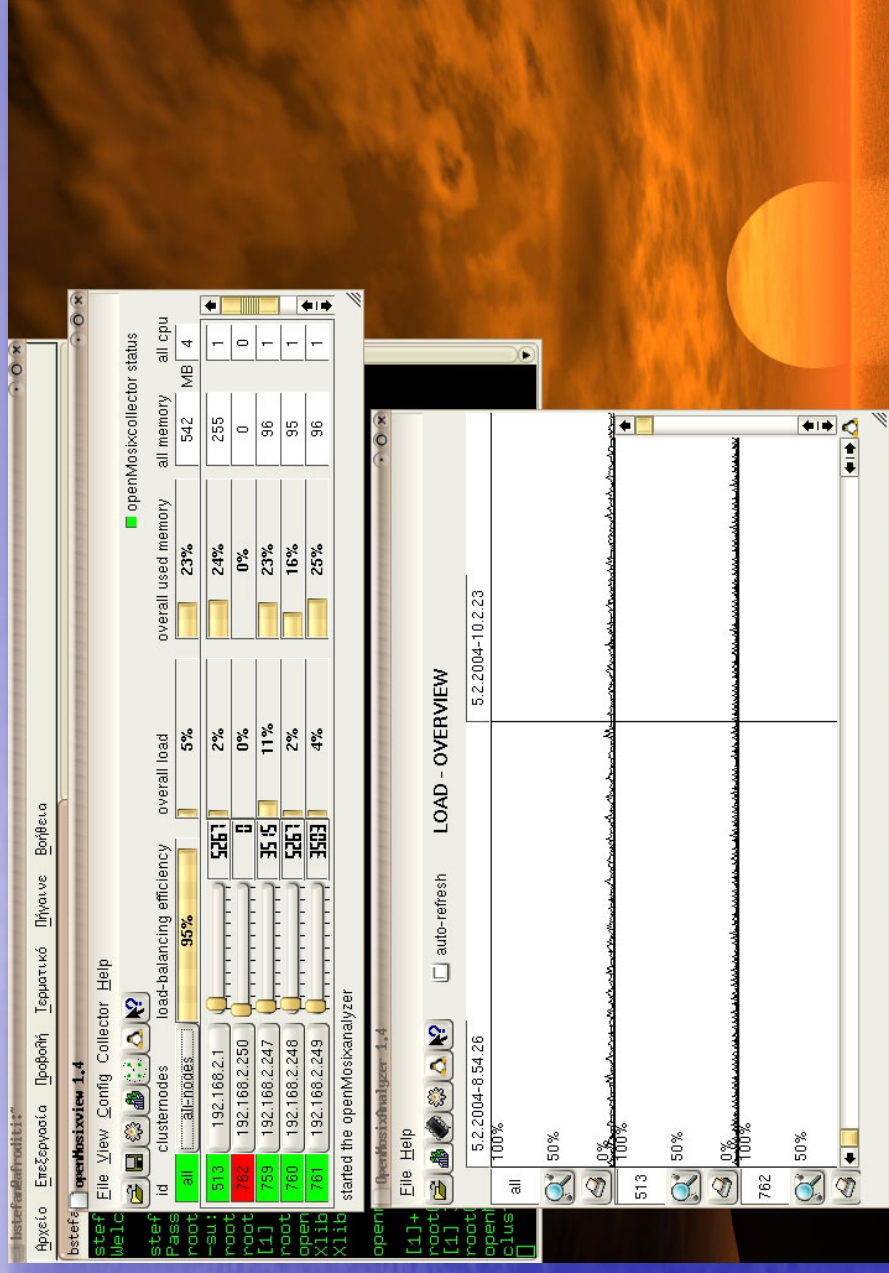
Monitoring with
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Irida's Cluster

<http://irida.it.uom.gr>

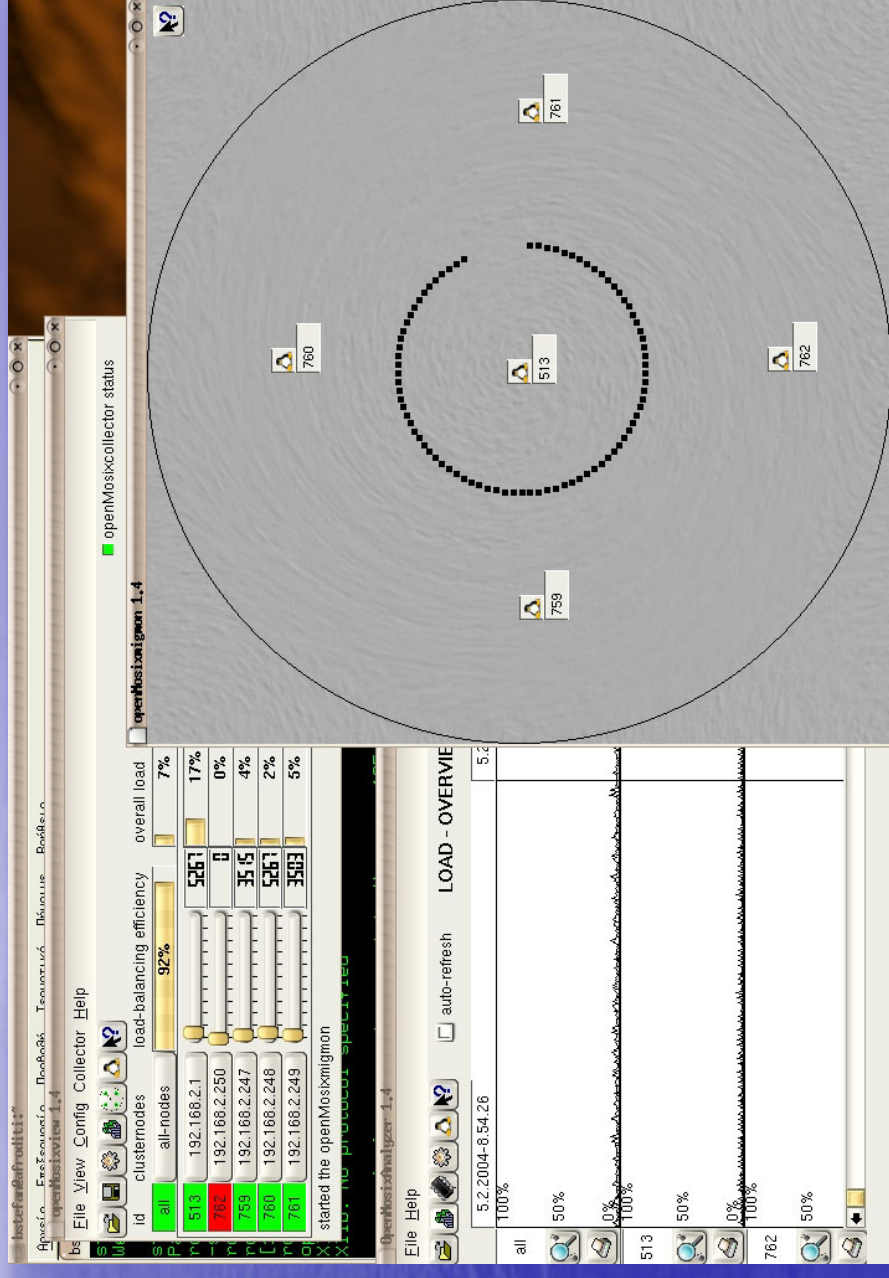
Monitoring with
Open Mosix View
Toolkit



Irida's Cluster

<http://irida.it.uom.gr>

Monitoring with
Open Mosix View
Toolkit
and Open Mosix
Collector Activities



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