



POLITECNICO
MILANO 1863

DataCloud

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- Interdipartimental laboratory
- Objective
 - *to build effective data science approaches and techniques and to experiment with them to address concrete scientific problems and practical applications, considering and giving high priority to ethical and privacy considerations.*
- <https://datacloud.polimi.it>

- Partners
 - DEIB
 - DMAT
 - DASTU
 - DABC
- Funds by the Rectorate 134.698,73
- Origin PoliCloud

Services

- Computational resources
 - Virtual Machines
 - operating systems: ubuntu and windows
 - Containers (Docker)
 - Weekly and monthly backup
- Consultancy
- Participation into research initiatives

Computational resources



Computational resources

Datcenter

Search

Summary

Cluster

Ceph

Options

Storage

Backup

Replication

Permissions

Users

API Tokens

Groups

Pools

Roles

Authentication

HA

ACME

Firewall

Metric Server

Support



Online

15

Offline

0

Cluster: POLICLOUD-DEIB, Quorate:
Yes



HEALTH_OK

Resources

CPU

2%

of 612 CPU(s)

Memory

51%

864.90 GiB of 1.67 TiB

Storage

23%

16.13 TiB of 71.46 TiB

Running
Stopped
Templates

37
4
1

Running
Stopped

3
2

Nodes

Name	ID	Onl	Su	Server ...	CPU usage	Memory usage	Uptime
policloud-2-node-1	1	✓	-	10.75.4.1	9%	58%	4 days 06:50:19
policloud-2-node-10	10	✓	-	10.75.4.10	2%	79%	13 days 23:50...
policloud-2-node-11	13	✓	-	10.75.4.11	1%	42%	13 days 23:48...
policloud-2-node-12	14	✓	-	10.75.4.12	5%	31%	13 days 23:47...
policloud-2-node-13	15	✓	-	10.75.4.13	0%	28%	13 days 23:47...
policloud-2-node-18	12	✓	-	10.75.4.21	0%	35%	13 days 23:44...
policloud-2-node-2	3	✓	-	10.75.4.2	2%	45%	13 days 23:57...
policloud-2-node-3	2	✓	-	10.75.4.3	1%	43%	14 days 00:04...
policloud-2-node-4	5	✓	-	10.75.4.4	1%	33%	13 days 23:57...
policloud-2-node-5	4	✓	-	10.75.4.5	0%	49%	13 days 23:56...
policloud-2-node-6	7	✓	-	10.75.4.6	0%	38%	13 days 23:54...
policloud-2-node-7	8	✓	-	10.75.4.7	0%	38%	13 days 23:51...
policloud-2-node-8	9	✓	-	10.75.4.8	1%	19%	13 days 23:50...
policloud-2-node-9	6	✓	-	10.75.4.9	1%	75%	13 days 23:26...
policloud-external-no...	11	✓	-	10.75.4.19	10%	80%	13 days 23:44...

Development plan

- Consolidate the existing infrastructure with more memory and storage
- Acquisition of new computational resources equipped with GPUs

Sustainability

- Rack mountable vs towers



Four servers

21 servers
124 CPUs
600+ cores



Sustainability



- Continuous evolution to guarantee an increasing computational power and energy saving
- Shared usage of hardware as opposed to an exclusive usage

How to ask for a resource



<https://datacloud.polimi.it/contacts/>

HOME

FACILITIES

SERVICES

CONTACTS

CONTACTS

For information about the computational services offered by the laboratory, please reach us here datacloud-lab@polimi.it.

If you want to apply for some computational resources please fill in the form [here](#) (only research groups internal to Politecnico di Milano can apply).

For information about research collaborations and consultancy services, please get in touch with one of the lab management committee members:

- [Elisabetta Di Nitto](#) (DEIB)
- [Ilenia Epifani](#) (DMAT)
- [Paola Pucci](#) (DABC)
- [Massimo Tadi](#) (DABC)
- [Maria Gabriella Signorini](#) (DEIB)

The computational infrastructure is operated by the DEIB system administrators under the responsibility of [Roberto Resmini](#).