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How to request access

Open a ticket to us
on service-now

- Explain the project you're in

- Which are your requirements: CPU,GPU, FPGA, memory, disks...

- Specify the anticipated end date of the access

- Add your supervisor on the watchlist (after submitting)

ServiceNow - Request access to an openlab machine

CERN openlab

Request access to an openlab machine ⓘ

☆

Please fill this form to request access to one of the various hardware platforms maintained by openlab.

For more information, and to get an idea of the available resources, please check: https://openlab-systems.web.cern.ch

Please note: *openlab systems are operated as evolving, test systems, on a best effort basis, and must not be used for production work or with sensitive data. Hosts are reinstalled on a regular basis and user data is permanently deleted at the end of each test slot.*

Description of your use of the openlab system

* Please give the name of your experiment/project

> openlab project

* What are the goals that your project or team is trying to achieve using openlab hardware?

> Benchmark the hardware

3978 remaining of 4000 characters

Could you explain what technical features you are planning to exploit in particular on the openlab system you are interested in? ❓

> CPU, GPU, FPGA, 128G of memory

3970 remaining of 4000 characters

CERN User(s) requiring access

* Please fill the list below with all users requiring access

> Albane Carcenac

* Please give CERN login corresponding to users in the above list

> acarcena

Other information

* Anticipated End Date

> 30-08-2024 📅

Other requirements and remarks

>

4000 remaining of 4000 characters

📎 Add attachments

Submit

Home ▸ RQF2710409 - Request access to an openlab machine for project/exp...

Search 🔍

Number		Created	Updated	Request State
RQF2710409		just now	just now	Assigned

Request access to an openlab machine for project/experiment: openlab project

Actions ▾

Caller	Visibility	Request Location	Service Element
AC Albane Carcenac	SE Level	513/R-043	IT Procurement Service

Functional Element	Assignment group
openlab-systems	openlab-systems 2nd Line Support

Activity   Details   **Watch List**   Form   Attachments

joaquim santos

Joaquim Santos
joaquim.santos@cern.ch IT-FA-HPS

Save

Cannot find what you need here? Do you simply need advice or assistance? The *Service Desk* is here to help.
Call the Service Desk on: **77777** (07:30 - 18:30 work days, Geneva time)

CERN openlab

How to connect to the openlab machines

SSH connection

Inside CERN's Network

○ You can connect directly from your computer with your CERN username:

local_user@user-pc-name:~$ ssh cern_user@openlab-node-name

```
acarcena@cern-laptop-acarcena:~$ ssh acarcena@olcsl-02
* ********************************************************************
* Welcome to olcsl-02.cern.ch, Red Hat Enterprise Linux release 8.7 (Ootpa)
* Archive of news is available in /etc/motd-archive
* Reminder: you have agreed to the CERN
*   computing rules, in particular OC5. CERN implements
*   the measures necessary to ensure compliance.
*   https://cern.ch/ComputingRules
* Puppet environment: qa, Roger state: build
* Foreman hostgroup: openlab_systems/intel/opacluster
* Please set a host or hostgroup parameter 'comment' to describe your host or hostgroup.
* ********************************************************************
Collectd alarm dnf_distro_sync_wrong in FAILURE state
Collectd alarm puppet_agent_has_run_errors in FAILURE state
Register this system with Red Hat Insights: insights-client --register
Create an account or view all your systems at https://red.ht/insights-dashboard
Last login: Fri Jun 21 12:11:35 2024 from 188.184.106.50
Following users are logged in to olcsl-02.cern.ch:
user          CPU utilization
--------------------------------------------------------
acarcena     5%
--------------------------------------------------------
Currently used frequency scaling driver is: intel_pstate
--------------------------------------------------------
[acarcena@olcsl-02 ~]$
```

Managing personal user space - SSH connection

CERN openlab

How to connect to the openlab machines

SSH connection

Outside CERN's Network

You first need to connect to lxplus.cern.ch with your CERN username:

[local_user@user-pc-name]:~$ ssh cern_user@lxplus.cern.ch

From there, you can access to the node:

[cern_user@lxplus ~]$ ssh cern_user@openlab-node-name

```
acarcena@cern-laptop-acarcena:~$ ssh acarcena@lxplus.cern.ch
* *******************************************************************
* Welcome to lxplus974.cern.ch, Red Hat Enterprise Linux release 9.4 (Plow)
* Archive of news is available in /etc/motd-archive
* Reminder: you have agreed to the CERN
*    computing rules, in particular OC5. CERN implements
*    the measures necessary to ensure compliance.
*    https://cern.ch/ComputingRules
* Puppet environment: production, Roger state: production
* Foreman hostgroup: lxplus/nodes/login
* Availability zone: cern-geneva-a
* LXPLUS Public Login Service - http://lxplusdoc.web.cern.ch/
* Please read LXPLUS Privacy Notice in http://cern.ch/go/TpV7
* 2024-06-27 - lxplus7 CC7 termination https://cern.ch/otg0147045
* *******************************************************************
Last login: Fri Jun 21 12:11:07 2024 from 2001:1458:204:1::102:2954
[acarcena@lxplus974 ~]$ ssh acarcena@olcsl-02
* *******************************************************************
* Welcome to olcsl-02.cern.ch, Red Hat Enterprise Linux release 8.7 (Ootpa)
* Archive of news is available in /etc/motd-archive
* Reminder: you have agreed to the CERN
*    computing rules, in particular OC5. CERN implements
*    the measures necessary to ensure compliance.
*    https://cern.ch/ComputingRules
* Puppet environment: qa, Roger state: build
* Foreman hostgroup: openlab_systems/intel/opacluster
* Please set a host or hostgroup parameter 'comment' to describe your host or hostgroup.
* *******************************************************************
Collectd alarm dnf_distro_sync_wrong in FAILURE state
Collectd alarm puppet_agent_has_run_errors in FAILURE state
Register this system with Red Hat Insights: insights-client --register
Create an account or view all your systems at https://red.ht/insights-dashboard
Last login: Fri Jun 21 12:08:49 2024 from 194.12.138.164
Following users are logged in to olcsl-02.cern.ch:
user            CPU utilization
---------------------------------------------------------
acarcena        11%
---------------------------------------------------------
Currently used frequency scaling driver is: intel_pstate
---------------------------------------------------------
[acarcena@olcsl-02 ~]$
```

Inside the servers

The environment

Shared Bare metal access only

RHEL/ALMA 8 and 9

CERN's filesystems available

The hardware

Different CPU architectures

Different GPUs

Space to use

/data/\<username\> *(local)*   **Your personal <u>local</u> directory in each server**

Preferred working & storage space

AFS *(not local)*   **Where you arrive when you log in, your home folder**

~/ *or* */afs/cern.ch/user/\<1st letter of the CERN username\>/username/*

EOS *(not local)*   **You can access your EOS folder, as well**

/eos/home-\<1st letter of the CERN username\>/username/

Managing personal user space - User personal directories

AFS

```
[acarcena@olcsl-02 ~]$ echo $HOME
/afs/cern.ch/user/a/acarcena
[acarcena@olcsl-02 ~]$ pwd
/afs/cern.ch/user/a/acarcena
```

/data/

```
[acarcena@olcsl-02 ~]$ ls -l /data/
total 32
drwxrwx---. 2 acarcena root          4096 May  3 17:39 acarcena
drwxrwxr-x. 2 root     daos_daemons  4096 May  8 06:39 daos
drwxrwx---. 2 jpmarque root          4096 Jan 31  2023 jpmarque
drwx------. 2 root     root         16384 Jan 31  2023 lost+found
drwxrwx---. 2 luatzori root          4096 Jan 31  2023 luatzori
[acarcena@olcsl-02 ~]$
```

EOS

```
[acarcena@olcsl-02 ~]$ ls -l /eos/home-
home-a/ home-d/ home-g/ home-j/ home-m/ home-p/ home-s/ home-v/ home-y/
home-b/ home-e/ home-h/ home-k/ home-n/ home-q/ home-t/ home-w/ home-z/
home-c/ home-f/ home-i/ home-l/ home-o/ home-r/ home-u/ home-x/
[acarcena@olcsl-02 ~]$ ls -ld /eos/home-a/acarcena/
drwx------. 2 acarcena it 4096 Jun 18 15:17 /eos/home-a/acarcena/
[acarcena@olcsl-02 ~]$
```

Documentation

openlab-systems.web.cern.ch

- Procedure to request access
- Managing personal user space
- Using Jupyter notebooks
- Install Python3 packages in your own environment
- Hardware portfolio

How to contact us

Where to open request / incident tickets

https://cern.service-now.com/service-portal?id=functional_element&name=openlab-systems

Our email address

openlab-systems@cern.ch

Thank you!

Questions?

CERN openlab