# How to navigate inside openlab servers

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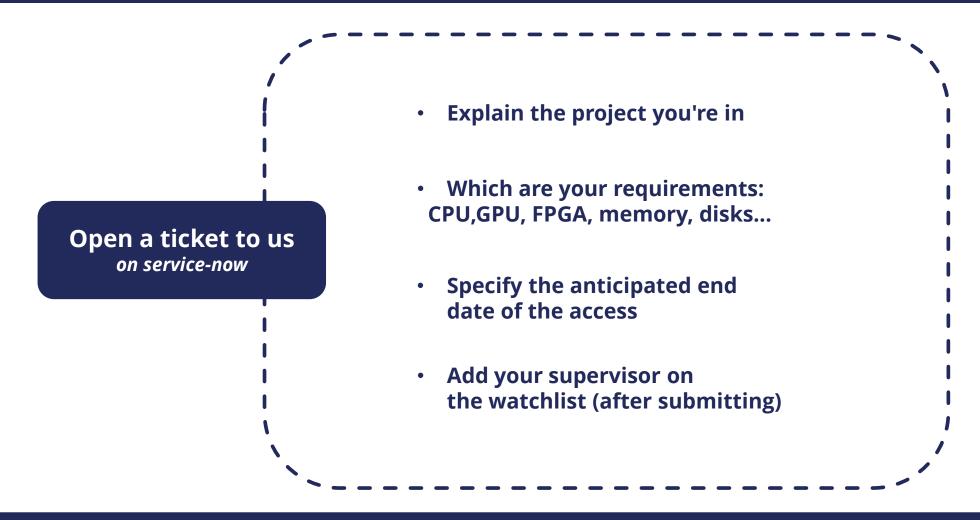
Personal space and different filesystems available

**Documentation** 

How to contact us



## How to request access



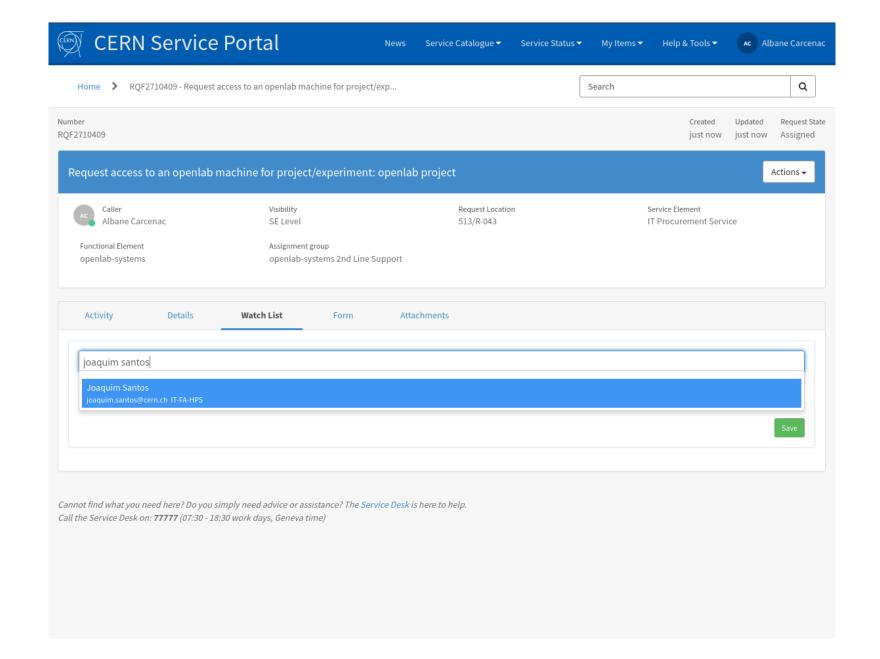
ServiceNow - Request access to an openlab machine



Request access to an openlab machine ①  IT Procurement Service - Ticket assigned to openlab-systems 2nd Line Support	☆
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 or regular basis and user data is permanently deleted at the end of each test slot.	on a
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	
* 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	









## 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:
            CPU utilization
user
Currently used frequency scaling driver is: intel pstate
[acarcena@olcsl-02 ~]$
```

Managing personal user space - SSH connection



## 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:
           CPU utilization
Currently used frequency scaling driver is: intel_pstate
[acarcena@olcsl-02 ~]$
```



## Inside the servers





## 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/

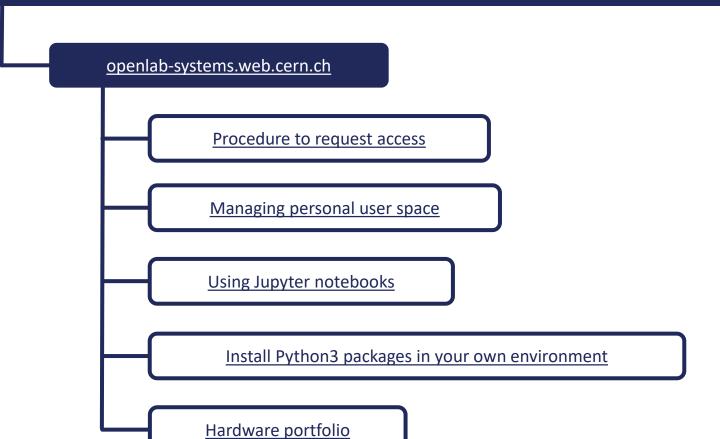
Managing personal user space - User personal directories



```
[acarcena@olcsl-02 ~]$ echo $HOME
              /afs/cern.ch/user/a/acarcena
 AFS
              [acarcena@olcsl-02 ~]$ pwd
              /afs/cern.ch/user/a/acarcena
              [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
/data/
              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 ~]$
              Facarcena@olcsl-02 ~1$ 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/
 EOS
             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





### 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?

