

用户申请

你需要在本地机器上使用下面的命令生成 SSH 密钥对，请将 `USERNAME` 换成你想申请的用户名：

```
1 ssh-keygen -t rsa -b 4096 -C "USERNAME@hepnnu.com"
```

按照提示会有三个需要的输入：

1. 公私钥存储位置及名字，最好换成不一样的名字，以防覆盖其他私钥 e.g. `.ssh/id_rsahepnnu`
2. 为你的私钥设置密码 可以输入回车 `Enter` 设置空白密码，这样就能无需密码登陆
3. 再次输入密码

```
1 # Generating public/private rsa key pair.
2 # Enter file in which to save the key (/Users/al23123/.ssh/id_rsa): .ssh/id_rsahepnnu
3 # Enter passphrase (empty for no passphrase):
4 # Enter same passphrase again:
5 # Your identification has been saved in .ssh/id_rsahepnnu
6 # Your public key has been saved in .ssh/id_rsahepnnu.pub
7 # .....
```

你将在对应文件夹中找到生成的公钥(e.g. `.ssh/id_rsahepnnu.pub`)私钥(e.g. `.ssh/id_rsahepnnu`)将公钥文件 `.pub` 发送管理员(feng.zhu@cern.ch, 抄送 to: yik@fnal.gov,)，等待确认，管理员发送给你确认的信息之后，你就能进行相关设置登陆集群了。请保留好自己的私钥文件！

本地设置

你有两种登陆方式：1) 先登陆到登陆节点后再登陆到计算节点 2) 通过代理命令直接登陆到计算节点，更推荐后者

1. 你可以通过 `ssh USERNAME@hepnnu.com -i ~/.ssh/id_rsahepnnu` 的方式登陆登陆节点，将 `USERNAME` 和 `~/.ssh/id_rsahepnnu` 分别替换为你的用户名和私钥文件的位置。请不要在登陆节点上做任何工作！

登陆后你会在一个主机名为 `hepnnu` 的登陆节点上，使用 `ssh -p 54035 USERNAME@hepnnu.com` 可以登陆到计算节点，名为 `node00`。初次登陆密码为 `USERNAMEp@sswd`，请将 `USERNAME` 替换为你自己申请的用户名。成功登陆之后，请使用 `passwd` 命令更改你的初始密码。

2. 你可以通过修改本地的 `~/.ssh/config` 文件，添加下面的命令，替换 `#` 为你对应的用户名及私钥文件
保存文件后，就能使用 `ssh USERNAME@hepnnucluster` 的方式直接登陆到计算节点，基于此方法，可以使用 `vscode` 插件 `ssh-remote` 在 `hepnnu` 集群工作

```
1 Host hepnnucluster
2     HostName hepnnu.com
3     Port 54035
4     User USERNAME #替换USERNAME为你的用户名
5     ForwardX11 yes
6     ForwardX11Trusted yes
7     ServerAliveInterval 20
8     ProxyCommand ssh -q -W %h:%p -i ~/.ssh/YOURKEY USERNAME@hepnnu.com #替换YOURKEY,
    USERNAME
```

太长不看版

Step 1. 生成公私钥

```
1 cd ~; mkdir -p .ssh
2
3 ssh-keygen -t rsa -b 4096 -C "USERNAME@hepnnu.com" #请将`USERNAME`换成你想申请的用户名,
  之后按三次回车, 下面是一个例子
```

```
zhufeng@node00:~$ssh-keygen -t rsa -b 4096 -C "zhufeng@hepnnu.com"
Generating public/private rsa key pair.
Enter file in which to save the key (/storage/home/zhufeng/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /storage/home/zhufeng/.ssh/id_rsa
Your public key has been saved in /storage/home/zhufeng/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:tgkkkkFr0HocJlp1/wlgJBGIqmGuJSjetLcfurk08cw zhufeng@hepnnu.com
The key's randomart image is:
+----[RSA 4096]-----+
|  . +o. |
|  . . o |
|  . . . + |
| .o o o o |
| *.B. S |
| B0 += . . |
| B.*o.E..o o |
| ++o.o+o.. |
| .. ooB*. |
+-----[SHA256]-----+
```

```
1 cat ~/.ssh/id_rsa.pub #将这个的输出复制之后, 发送给管理员等待确认
```

```
zhufeng@node00:~$cat ~/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQCLvKrcYJa3rF8mhKqRsAd8+mS3rxFyzGu1JG14D1aBti/UF8Vdu8IlZevmYe
VWFJjwRRcvtmZ600Yysy/80aLkidPqp87d3wvX+77zdXHXN+MmckX8MyGadFGg02uMsRKPI0uHR7DKSJ5w0+fp0hvjz06CEX2u
DT8c0nPIgW52YBnt8vDV+uEHcqXVhYlc0dYIuGePrjQSQGo3uovnsuwr2xnbgEg7Cn6F30JlFrwCtKoz6ItHxpwFdCjh4EKvK
X0sqc0jq/3+MLirJ/CPvEon68HKVLqX3BtMUMSjAXyW0AYiBcw1jurds5Myk7dHEtPN8mLXw5jjxfY7raISXlPT//eGaVfpB5J
6boJxFeqzefVDdFrkiMfJetVwEMIBwRX9NkwKqQE/2052U06Psz5etqiMbEsA10V8HnskrLDVNmNayvtszq5ksf2snErdjx+yj
susmulxkaIn7efjFcBNwoYeT0cRTEfmEWZkouaxE3wEjDKYP+9Y2LPmVAtAiMmzoMEhQ0w4kpUoEmWWVZ7xY4ndyYh3ToHiV5f
PMUhZvv96lat2o/1vKuqI0aYBYyDQJvHGwMAZjMRZHCIB9bpEridhcrFtXP0RmBt12Ylh0aw6WM6s+rnmqTlVpdkdBqie360Jl
XxZGLcwfIdIg6EdI0Rv5uvk+R3l6YqIAYrRQ== zhufeng@hepnnu.com
```

Step 2. 登陆集群

```
1 ssh USERNAME@hepnnu.com -i ~/.ssh/id_rsa #请将`USERNAME`换成你的用户名
```

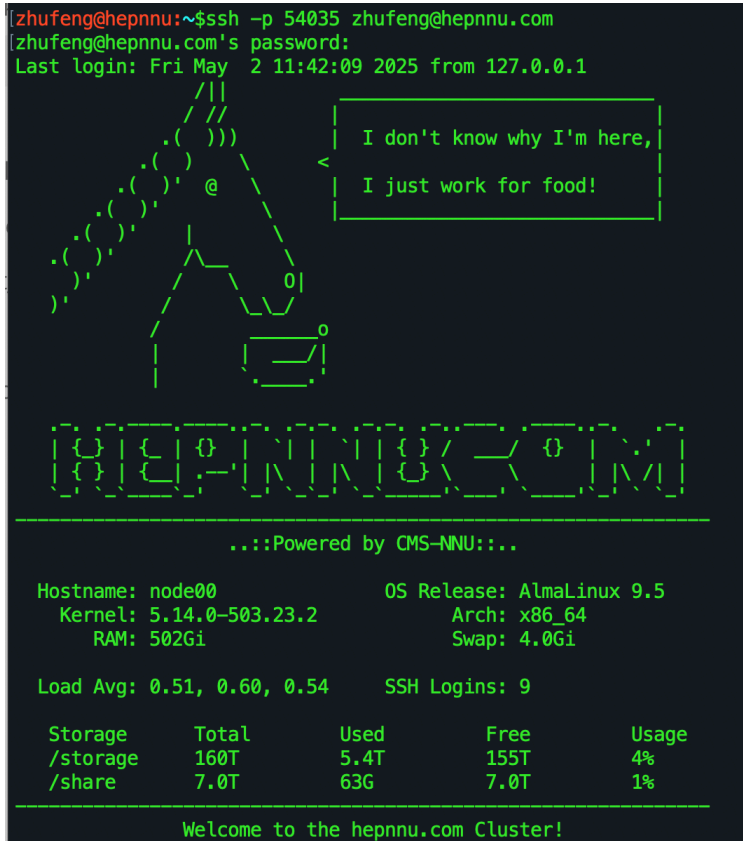
```
% ssh zhufeng@hepnnu.com -i ~/.ssh/id_rsahepnnu

Welcome to Alibaba Cloud Elastic Compute Service !

Updates Information Summary: available
  22 Security notice(s)
    11 Important Security notice(s)
    11 Moderate Security notice(s)
Run "dnf upgrade-minimal --security" to apply all updates.More details please refer to:
https://help.aliyun.com/document_detail/416274.html
Last login: Fri May 2 15:20:51 2025 from 223.2.17.253
#####
#                                     #
#          ❸ !! 请不要再在这里做任何工作 !! ❸          #
#                                     #
#          ❸ !!! 这里只是作为登陆节点使用 !!!          #
#          ❸                                     ❸          #
#####
```

```
1 ssh -p 54035 USERNAME@hepnnu.com #请将`USERNAME`换成你的用户名，默认密码是
  USERNAMEp@sswd, 比如我的密码就是zhufengp@sswd, 输入密码的时候不会显示，直接输入就可以
```

```
zhufeng@hepnnu:~$ssh -p 54035 zhufeng@hepnnu.com
zhufeng@hepnnu.com's password:
Last login: Fri May 2 11:42:09 2025 from 127.0.0.1
```



```

      .(  ))
     .(  ))
    .(  ))
   .(  ))
  .(  ))
 .(  ))
.(  ))
)

@

0|
 0|
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HEPNNU

...:Powered by CMS-NNU:...

Hostname: node00          OS Release: AlmaLinux 9.5
Kernel: 5.14.0-503.23.2   Arch: x86_64
RAM: 502Gi               Swap: 4.0Gi

Load Avg: 0.51, 0.60, 0.54  SSH Logins: 9

Storage   Total    Used    Free    Usage
/storage  160T     5.4T    155T     4%
/share    7.0T     63G     7.0T     1%

Welcome to the hepnnu.com Cluster!
```

Step 3 更改密码

```
1 passwd #第一次登陆请更改自己的默认密码，注意密码强度，如果强度不高会提示更改失败
```

```
zhufeng@node00:~$passwd
Changing password for user zhufeng.
Current Password:
New password:
Retype new password:
Password change failed. Server message: Password fails quality checking policy
passwd: Authentication token is no longer valid; new one required
```