

We have been informed that you have received two e-mail messages as per below from The Cyprus Institute with account details for the Euclid training HPC datacenter that will be used for the PRACE 2014 Winter School training workshops. The information below and attachments provide further instructions.

1st email:

Dear YYY ZZZZ,

An account has been created for you on the Euclid training cluster at the Cyprus Institute for the PRACE/LinkSCEEM Winter School. Access to the cluster is controlled by SSH Public Key Based Authentication. The SSH protocol is recommended for remote login and remote file transfer which provides confidentiality and security for data exchanged between two computer systems, through the use of public key cryptography.

To simplify access for you we have automatically generated a key pair for you. Your private key will be sent to you in a separate email. To use the key you also require a passphrase. The passphrase for your key you can see at the end of this email along with your username.

Kind regards,

The LinkSCEEM User Support Team

Your username on the euclid system is XXXXXXXXXXXXXXXX. The passphrase for the ssh key that has been sent to you is
#####

2nd email:

Dear YYY ZZZZ,

You can find attached the private key we have generated for you. The passphrase required for this key has been emailed to you separately.

You can choose between MAC/Linux/Unix key and Windows key (with the .ppk extension), according to the operating system you are using.

Instructions will be given to you, on how to access Euclid during the training sessions of the workshop.

Best Regards,

The LinkSCEEM User Support Team

INSTRUCTIONS FOR ACCESSING THE SYSTEM

For Windows:

1. Save all the files you've received in the 2nd email in one directory on your Desktop (e.g. PRACE)
2. You'll need to have the ability to ssh to **euclid.cyi.ac.cy** using [putty](#)
3. Open putty and in the "Connection → SSH → Auth" Category, browse and select the id_rsa.ppk file
4. In the Session Category write in the "Host Name (or IP address)" text insertion box :

yourusername@euclid.cyi.ac.cyl
(the username provided in the 1st email)

5. In the Session Category write in the "Saved Sessions" text insertion box:
euclid.cyi.ac.cy
6. Press the "Save" button and the "Open" button
7. Use the passphrase that was provided to you in the 2nd email
8. Next time you wish to connect just repeat steps 6-7

For Mac OSX/Linux/Unix:

1. Save all the files you've received in the emails in your home directory in the .ssh folder (~/.ssh/)
2. Open a terminal and execute the following command:
chmod 600 .ssh/id_rsa*
3. In a terminal execute the following command:
ssh [yourusername@euclid.cyi.ac.cy](#)

(the username provided in the 1st email)

4. Use the passphrase that was provided to you in the 2nd email
5. Next time you wish to connect just repeat steps 3-4

Please test your account as per these instructions and let us know if there are any problems. If you need further assistance or support regarding account configuration contact support@isragrid.org.il.

If you have not received the emails noted above, please contact support@isragrid.org.il or prace-2014@mail.iucc.ac.il immediately.

Testing the configuration will allow us to deal with any problems in a timely fashion and avoid any delays when the hands-on training starts on Monday afternoon, February 10, right after the “*The Future of HPC: Israeli Innovation*” workshop.

We've attached a PDF file that includes:

- Instruction for Windows on accessing Euclid from a Windows OS machine
- Instructions on accessing Euclid from a non-Windows OS machine (mac-linux-unix)
- Starter information for using the Euclid HPC datacenter

We recommend you use a more user-friendly program for ssh and x-forwarding such as [mobaXterm](http://mobaxterm.com). There will be people available to assist you using the software during the workshop if you encounter any difficulties.

We look forward to seeing you on February 10.

The PRACE 2014 Winter School Organizing Committee

support@isragrid.org.il

Prace-2014@mail.iucc.ac.il

www.iucc.ac.il

The CaSToRC HPC datacenter support

castorc.support@cyi.ac.cy

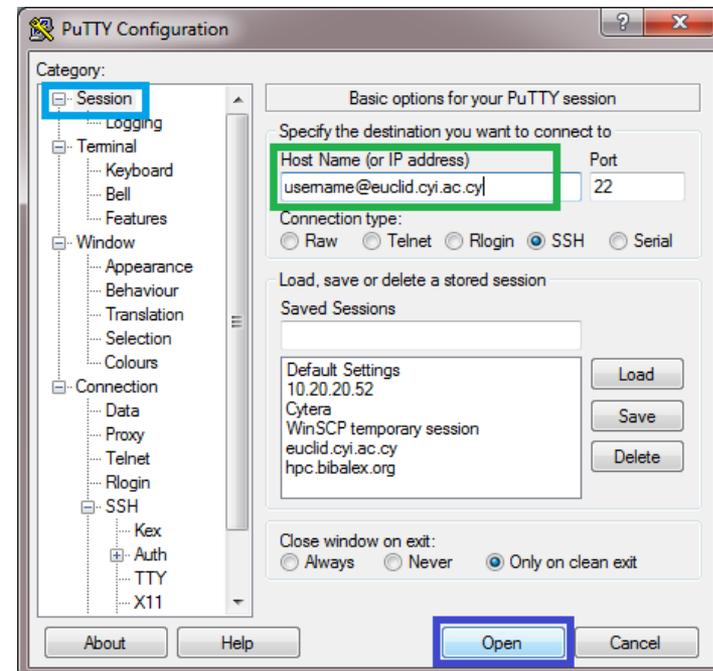
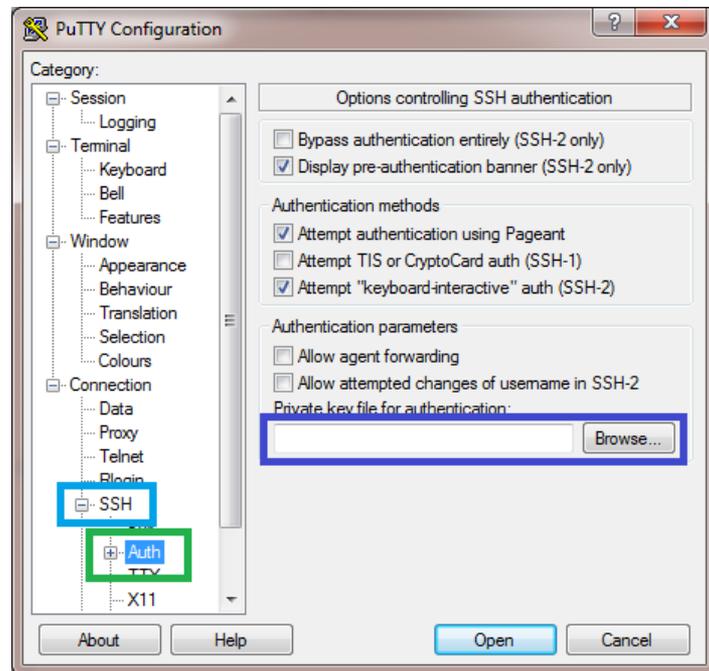
hpc-support@linksceem.eu

How to access the system

■ With Windows

– Use PuTTY

- First browse for and select your private key file
- Enter ssh login information



How to access the system

- To access the system you must have access to your private key
- With Mac OS X/Linux/Unix:
 - This should be found in your .ssh folder in your home directory

```
ssh username@euclid.cyi.ac.cy
```

- Should you encounter a problem with your folder permissions, do the following:

```
chmod 600 .ssh/id_rsa
```

User Support (WP6) Cheat Sheet Core Skills

To apply for an HPC account

To apply for Preparatory/Production Access:

<https://ssl.linksceem.net/applications/linksceem/>

To apply for Educational Access:

<http://www.linksceem.eu/ls2/user-resources/how-to-apply/how-to-apply-educational.html>

To get started

<http://eniac.cyi.ac.cy/display/UserDoc/Welcome+Pack>

<http://eniac.cyi.ac.cy/display/UserDoc/Guide+to+using+LinkSCEEM+HPC+resources>

<http://www.linksceem.eu/ATutor>

To connect to an HPC System

Example to access an HPC system:

```
ssh username@euclid.cyi.ac.cy
```

Modules commands examples

module avail # lists available modules

module list # lists currently loaded modules

module help <name> # help on a specific module

module whatis <name> # brief description of a specific module

module display <name> # displays the changes that loading a specific module makes to the environment without actually loading it

module load <name> # loads a specific module

module unload <name> # unloads a specific module

module clear # unloads all modules

To find cluster status & job summary

qstat -q # Queue summary

pbsnodes # Detailed information per node

qstat # job list; can be very long

qstat -an # job list including nodes allocated to each job

To start an interactive job

```
qsub -I -q gpuq -l nodes=1:ppn=8
```

-I starts an interactive job, -q specifies a queue, -l number of nodes and cores per node needed

Example MPI code: hello.c

```
#include <stdio.h>
#include <mpi.h>
int main(int argc, char ** argv) {
int size,rank;
int length;
char name[80];

MPI_Init(&argc, &argv);
MPI_Comm_rank(MPI_COMM_WORLD,&rank);
MPI_Comm_size(MPI_COMM_WORLD,&size);
MPI_Get_processor_name(name,&length);
printf(
"Hello MPI World! Proc %d out of %d on %s\n", rank,
size, name);
MPI_Finalize();
return 0;
}
```

To compile a parallel job

```
module load OpenMPI/1.6.4-GCC-4.7.2
mpicc -o hello hello.c
```

To create a job script

A job script is a list of instructions that tell PBS how to run your job. You can modify a job script in a text editor such as Vim, nano, joe, pico, emacs etc. You should do such work on the head node.

```
#!/bin/bash

#PBS -N mpi-hello_world
#PBS -j oe
#PBS -q batch
#PBS -l nodes=1:ppn=8

cd $PBS_O_WORKDIR

module load OpenMPI/1.6.4-GCC-4.7.2 # without this,
mpiexec may not be in path
mpiexec ./hello # execution depends on Software
Environment
```

To submit a job

```
qsub <name of script> # To submit a job in PBS
```

To contact staff for help

If you have any problems using an HPC system, feel free to contact User Support for assistance.

Email: hpc-support@linksceem.eu

Web: <http://www.linksceem.eu/ls2/user-resources/user-support/basics.html>