

User access and file transfer

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After successful **Isabella** user-registration, you will receive an **email containing your username and password**.



The address of the access node **teran** is **teran.srce.hr**, and it is accessed using the SSH protocol. Direct access to the cluster is possible only via **CARNET network**.

The address of the dedicated server **keybella** for connections outside of **CARNET network** is **keybella.srce.hr**, and it is accessed using the SSH protocol as well.

Windows

Applications used in the tutorials below are free and can be downloaded from their respective websites:

- **PuTTY and PuTTYgen**
- **WinSCP**
- **Xming**

Accessing from within CARNET network or via parent institution's VPN

Connecting to **teran**

Connecting to **teran** can be easily done by using **PuTTY**:

- in the category **Session**, in the field **Host Name (or IP address)** it is required to fill-in the data with **<username>@teran.srce.hr** and to click **Open**
- after the terminal windows pops up, it is required to fill-in the password into the prompt.



Inside **PuTTY**'s terminal window, copy/paste won't work with usual commands, but rather:

- if you want to **paste** something into the terminal, use **right click** (without dedicated paste option),
- if you want to **copy** the text from the terminal, just **highlight it** (without dedicated copy option).



After the first connection to the remote server is established, you will be prompted:

`Are you sure you want to continue connecting?`

You are required to type **yes** into the prompt.

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Copying files

Copying from and to Isabella is made simple when you are using **WinSCP**

- in the **Host name** field you are required to fill in **teran.srce.hr**, and in the field **Port number**, you are required to enter **22**,
- in **User name** and **Password** fields you are required to fill in your username and password and to click **Login**,
- parallel view of your local machine and the remote server will be displayed, inside which you can use the usual copy and paste.

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Accessing outside CARNET network or w/o parent institution's VPN

Creating SSH keys

If you need to access Isabella cluster outside CARNET network, you have to create SSH keys and send us a request containing your **public key** at isabella@srce.hr. Request has to be sent from the email you used for user-registration.

In order to access the cluster outside CARNET network or when you are not using VPN of your parent institution, you are required to create SSH keys to access **keybella**, which will act as a tunnel towards **teran**. SSH keys are easily created by using **PuTTYgen**.

- when using default settings, click **Generate**,
- two keys will be created:
 - **private** key, with .ppk extension,
 - **public** key, without any extensions,
- in order to secure your key, enter a **Key passphrase** and confirm it in the **Confirm passphrase** field,
- click **Save public key** and **Save private key** to save them into a directory of your liking,
- email us a **public key** at isabella@srce.hr



When creating SSH keys, use a strong passphrase in order to secure your private key.

Do not email us your private key (the one with .ppk extension) - keep it locally on your machine and **never** give it to third parties.

If your private is lost or compromised, email us urgently at isabella@srce.hr

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Connecting to *teran*

First you are required to connect to **keybella**, which can be easily accomplished by using **PuTTY**:

- in the category **Session**, in the field **Host Name (or IP address)** you are required to enter **<username>@keybella.srce.hr**,
- in the category **Connection→SSH→Auth**, in the field **Private key file for authentication**, enter (or browse to) the path to your **private** key (.ppk).

After successfully connecting to **keybella**, you can connect to **teran**, from the **same terminal**, by entering the **ssh** command in the prompt:

```
ssh <username>@teran.srce.hr
```

... after which you are required to enter your password.



After the first connection to the remote server is established, you will be prompted:

`Are you sure you want to continue connecting?`

You are required to type `yes` into the prompt.

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Copying files

First you are required to create a tunnel by using **PuTTY**:

- in the category **Session**, in the field **Host Name (or IP address)** you are required to enter `<username>@keybella.srce.hr`,
- in the category **Connection→SSH→Auth**, in the field **Private key file for authentication**, enter (or browse to) the path to your **private** key (.ppk),
- in the category **Connection→SSH→Tunnels**, in the field **Source port** enter **2222**, and in the field **Destination** enter **teran.srce.hr:22** and click **Add**,
- click **Open**.

After the connection is established, **do not exit the terminal**. Open **WinSCP** application:

- in the **Host name** field, enter **127.0.0.1**, and in the **Port number** field, enter **2222**,
- in **User name** and **Password** fields, you are required to enter your username and password and to click **Login**,
- parallel view of your local machine and the remote server will be displayed, inside which you can use the usual copy and paste.

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Linux

Accessing from within CARNET network or via parent institution's VPN

Connecting to *teran*

Connecting to **teran** is simply accomplished by entering the **ssh** command into the terminal:

```
ssh <username>@teran.srce.hr
```

... after which you are required to enter your password.



After the first connection to the remote server is established, you will be prompted:

`Are you sure you want to continue connecting?`

You are required to type `yes` into the prompt.

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Copying files

Local machine → Isabella

Copying files from your local machine to Isabella is accomplished by using the **scp** command:

```
scp <local-path>/<file> <username>@teran.srce.hr:<remote-path>
```

... after which you are required to enter your password.

! `scp` command is ran from your **local machine**.

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Isabella → local machine

Copying files from Isabella to your local machine is accomplished by using the `scp` command:

```
scp <username>@teran.srce.hr:<remote-path>/<file> <local-path>
```

... after which you are required to enter your password.

! `scp` command is ran from your **local machine**.

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Using graphical user interface

Connecting to **teran** with the option to use graphical user interface is accomplished by entering the `ssh` command into the terminal and by forwarding **X11**:

```
ssh -X <username>@teran.srce.hr
```

After the connection is established, you can test the connection by entering the command:

```
xterm
```

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Accessing outside CARNET network or w/o parent institution's VPN

Creation of SSH keys

If you need to access Isabella cluster outside CARNET network, you have to create SSH keys and send us a request containing your **public key** at isabella@srce.hr. Request has to be sent from the email you used for user-registration.

In order to access the cluster outside CARNET network or when you are not using VPN of your parent institution, you are required to create SSH keys to access **keybella**, which will act as a tunnel towards **teran**.

SSH keys are created by simply entering the command into the terminal:

```
ssh-keygen
```

- when using default settings, private (`id_rsa`) and public (`id_rsa.pub`) keys will be stored in the `~/.ssh` director,
- you have to email us your public key (`id_rsa.pub`) at isabella@srce.hr

! When creating SSH keys, use a strong *passphrase* in order to secure your private key.

Do not email us your private key (`id_rsa`, without `.pub` extension) - keep it locally on your machine and **never** give it to third parties.

If your private is lost or compromised, email us urgently at isabella@srce.hr

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Connecting to **teran**

First you are required to connect to **keybella**:

```
ssh -i ~/.ssh/id_rsa <username>@keybella.srce.hr
```

After the successful connection to **keybella** has been established, you can connect to **teran**, from the **same terminal**:

```
ssh <username>@teran.srce.hr
```

... and enter your password.



After the first connection to the remote server is established, you will be prompted:

```
Are you sure you want to continue connecting?
```

You are required to type **yes** into the prompt.

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Copying files

Local machine → Isabella

In the **first terminal window**, you are required to create a tunnel towards **keybella**. It is important to keep this terminal window open.

```
ssh -NL 2222:teran.srce.hr:22 -i ~/.ssh/id_rsa <username>@keybella.srce.hr
```

Copying files to **teran** is executed in **another terminal window**:

```
scp -P 2222 <local-path>/<file> <username>@localhost:<remote-path>
```



scp command is ran from your **local machine**.

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Isabella → Local machine

In the **first terminal window**, you are required to create a tunnel towards **keybella**. It is important to keep this terminal window open.

```
ssh -NL 2222:teran.srce.hr:22 -i ~/.ssh/id_rsa <username>@keybella.srce.hr
```

Copying files from **teran** is executed in **another terminal window**:

```
scp -P 2222 <username>@localhost:<remote-path>/<file> <local-path>
```



scp command is ran from your **local machine**.

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