

Remote access to Linux (Unix) from Linux/macOS

Native applications (ssh, scp, display export) + Kerberos

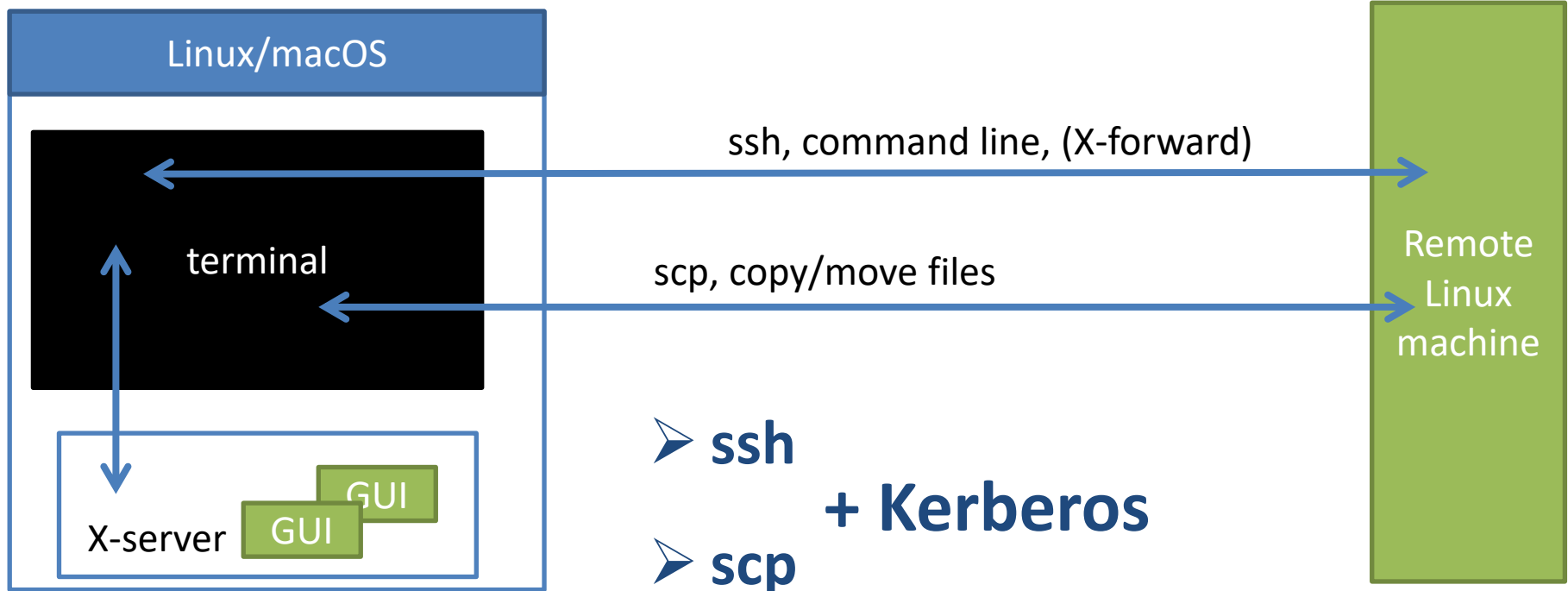
PS / 2020 Distance form of teaching: Rev3

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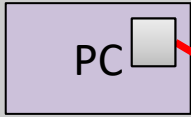
National Center for Biomolecular Research, Faculty of Science
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Remote Access



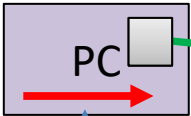
Kerberos - Workflow

A)



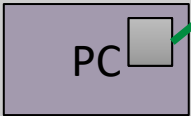
(the password is entered each time)

B)



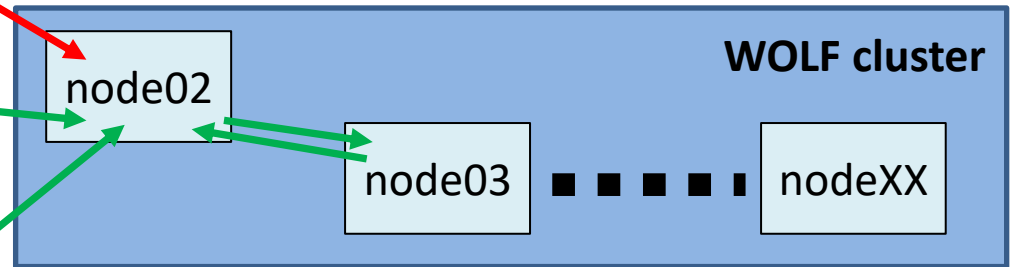
kinit (password required once)

C)



(pam_krb5)

- with password (your local account)
- with password (eINFRA for the WOLF cluster)
- without password for the period of validity of krb5 tickets



login between nodes of cluster without having to enter the password

B) Recommended mode for your personal computers with Linux / macOS OS.

Ubuntu 18.04 / 20.04

- Installation of Support for Kerberos

Ubuntu 18.04 / 20.04

1. Activating the NCBR package repository for Ubuntu:

<https://einfra.ncbr.muni.cz> » User Support » Ubuntu Packages

Choose **CEITEC MU/NCBR PUBLIC** from

- Ubuntu 18.04 LTS Native
- Ubuntu 20.04 LTS Native (Experimental)

Follow the instructions in the tab: "Instructions"

2. Installing packages:

```
$ sudo apt-get update
$ sudo apt-get install ncbr-krb5-einfra
$ sudo apt-get install ncbr-ssh-client-config
```

Linux (in general)

- Installation of Support for Kerberos

Installing Packages

1. Depending on your distribution, install the packages that provide the ssh (client) and kinit (krb5 implementation - MIT or Heimdal):
 1. ssh, scp (possible package names)
 - openssh-client
 - openssh
 - **if you don't know what you're doing, don't install an ssh server**
 2. kinit, klist, kdestroy (possible package names)
 - Heimdal-clients
 - krb5-user
 - krb5-workstation

Configuration

1. Kerberos configuration:
 1. Download configuration file `/etc/krb5.conf` from the WOLF cluster (the file is on each node) and save it in the `/etc` on your computer (leave the name the same, i.e., `krb5.conf`).
 2. Make sure you can get krb5 tickets
 1. `$ kinit username@META`
 2. `$ klist`
2. ssh client configuration:
 1. create file `~/.ssh/config`

username - Replace with your WOLF username

 1. `$ mkdir -p ~/.ssh`
 2. `$ chmod 700 ~/.ssh`
 3. `$ touch ~/.ssh/config`
 4. `$ chmod 600 ~/.ssh/config`
 2. open the file in a text editor and paste it into it:

```
Host *
  GSSAPIAuthentication yes
  GSSAPIDelegatedCredentials yes
  User username
```

For details: `man ssh_config`

macOS

- **Installation of Support for Kerberos**

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