C2110 *UNIX and programming*

Lesson 3

PS / 2020 Distance form of teaching: Rev3

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Revision

➢ **Kerberos**

➢ **Documentation (manual pages)**
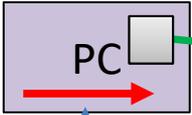
➢ **File System**

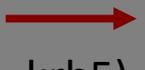➢ **Copying Remote File**

Workflow

A)

(**the password is entered each time**)

B)

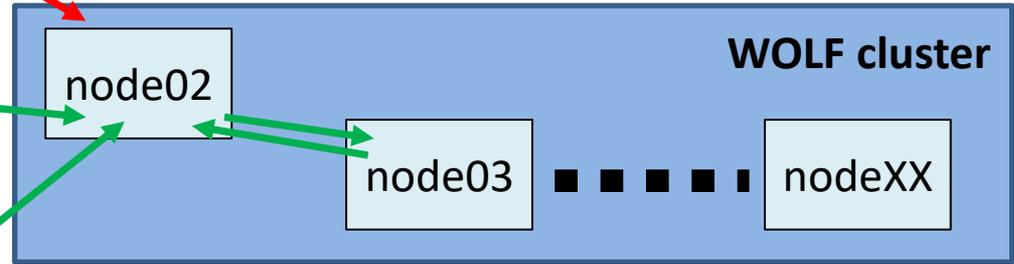**kinit** or equivalent
(password required once)

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

WOLF cluster

node02

node03 ▪ ▪ ▪ ▪ ▪ nodeXX

login between cluster nodes
without having to re-enter the password

A) Default state for your personal computers regardless of OS.
B) Recommended mode for your personal computers (see homework) regardless of OS.
C) WOLF cluster (where PC is a cluster node), personal computer with Linux OS (recommended configuration for serious work), details C2115

!!! In an environment that uses krb authentication, ssh keys are NOT RECOMMENDED !!!

Command Help

Manuals sites (or what to do, when I get lost):

   **man**   lists manual page of given command

```
$ man [section_number] stoker
```

name of command, function, topic, chapter etc.

Available sections:

- *Section 1* user commands
- *Section 2* system calls
- *Section 3* library functions
- *Section 4* special files
- *Section 5* file formats

- *Section 6* games
- *Section 7* conventions and miscellany
- *Section 8* administration and privileged commands
- *Section L* math library functions
- *Section N* tcl functions

File System on the WOLF cluster

wolf01	wolf02	wolf03	wolf04	....

/home

/scratch   /scratch   /scratch   /scratch
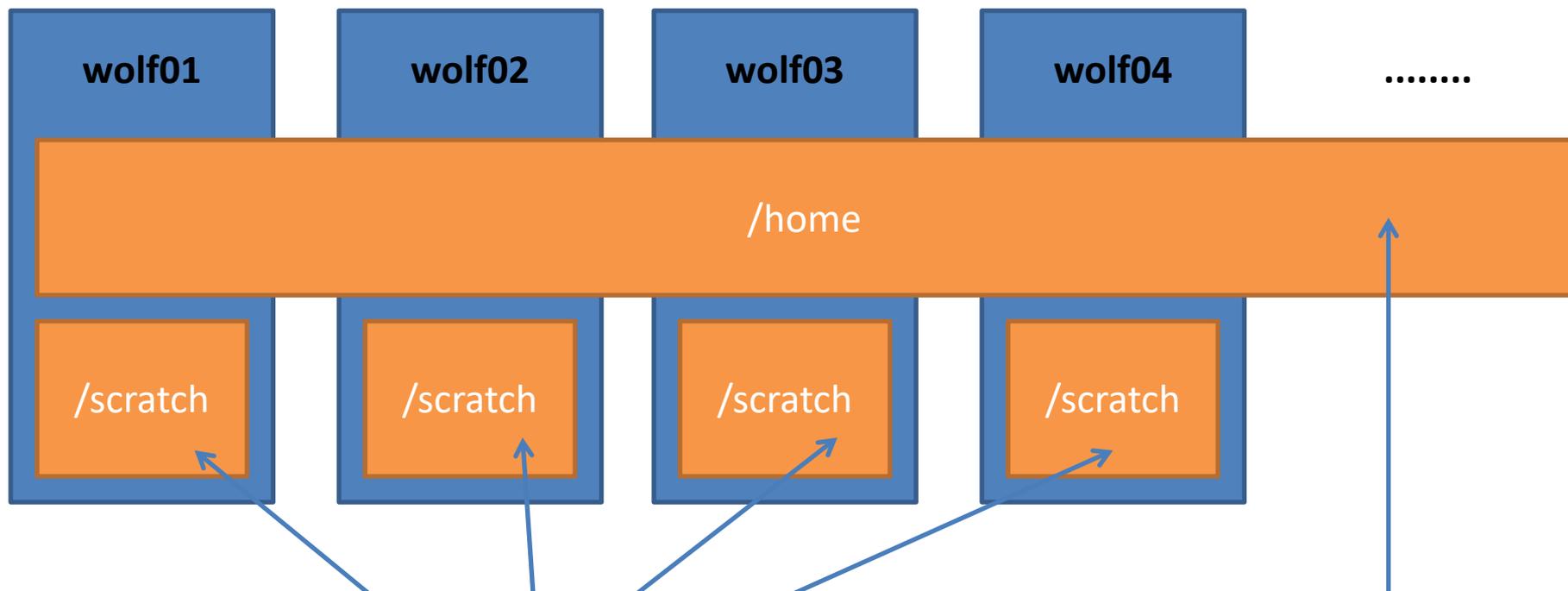
Different content on each node. Data on volume /scratch up **are not backed up** and can be **deleted at any time** without prior notice. Capacity **is not limited** by quota per user.
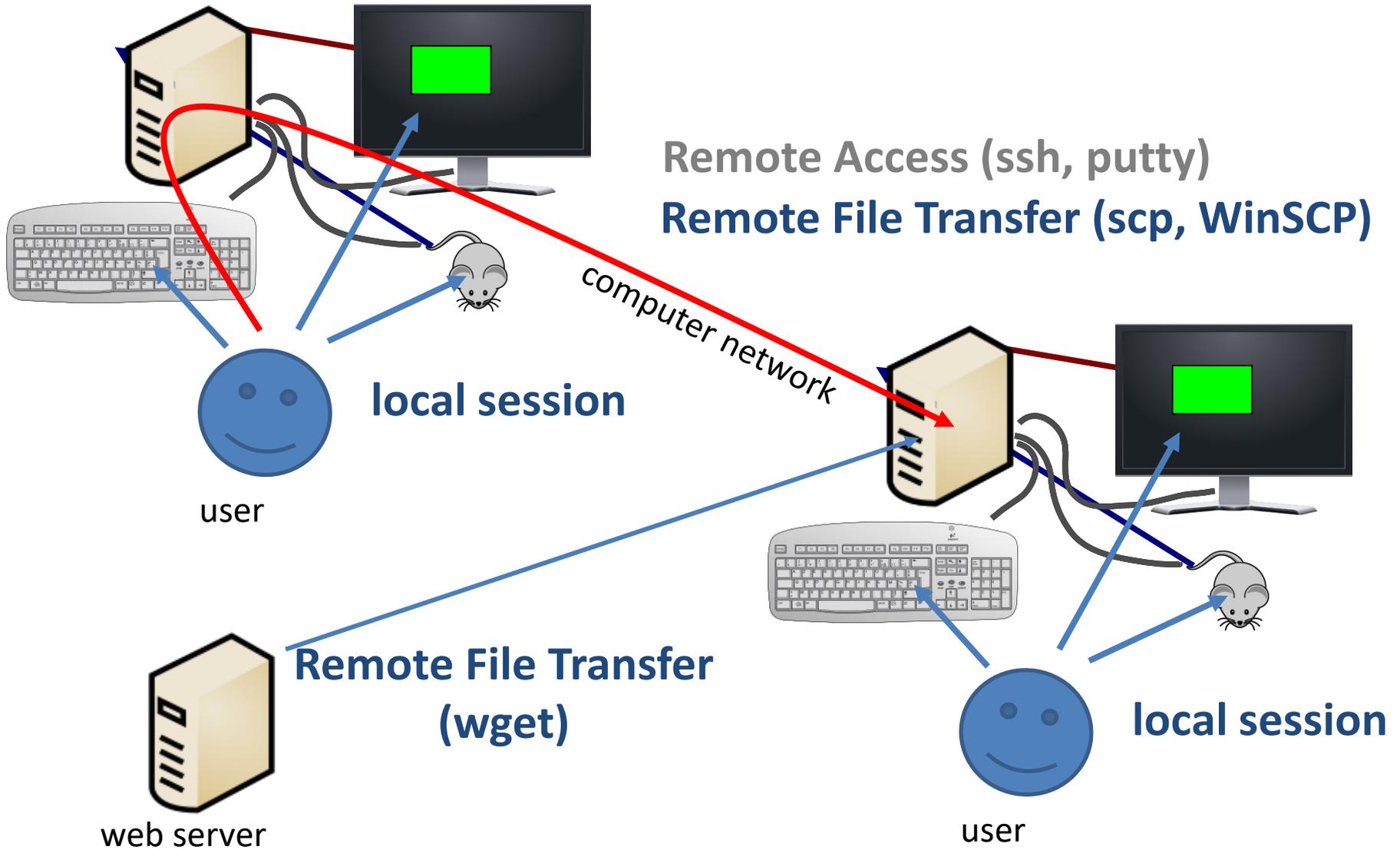
Shared content on all nodes of the WOLF cluster. Data are **backed up**. Backups are available in form of snapshots in the directory **/backup/<date>/WOLF/wolf.ncbr.muni.cz/home** Capacity per user is limited by quota **1.5 GB**.

Remote Access

Remote Access (ssh, putty)

Remote File Transfer (scp, WinSCP)

computer network

local session

user

Remote File Transfer (wget)

web server

local session

user

Next Subject

> **Basic Work with Linux**

Content

➢ **Processes**

- **process, multitasking, monitoring**
- **process startup, PATH variable**
- **signály**

➢ **Communication of Process with Environment**

- **standard input and output, error output, redirection**
- **pipes, commands**

➢ **Virtualization**

- **what is virtualization, typical use, overview of hypervisors, installation of Ubuntu OS**