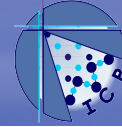




Infrastructure@ICP

11 November 2013

Olaf Lenz

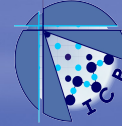


Support Group

- Over the last years, the computer system has grown
 - Larger group
 - CIP-Pool
 - Student accounts
- “Support Group” since April 2013
 - Currently trying to reduce the number of exceptions
- Members: Frank, Olaf, Kai, Florian W., Andreas, Rudolf W.
- Mail to: `support@icp.uni-stuttgart.de`
 - Do not mail to Frank directly!

Storage

- /home/<user>
 - For really important data
e.g. mail, program code, theses, publications, ...
 - Strict quota (~10GB)
 - Safety: Remote backup to RUS
 - Time-back: one week daily, one month weekly, one year monthly
- /data/<user>
 - For important data
e.g. condensed simulation data, large repositories
 - Currently still /data/data<N>/<user>
 - Less strict quota (~100 GB)
 - Safety: Local backup
 - Time-back: limited: last Monday, last week, last months
- /work/<user>
 - For bulk data
e.g. raw simulation output
 - Not yet on all machines
 - No quota, no safety, no time-back
- Quotas
 - are defined by group leader
(CH, AA, OL, JS, MF, RH)
 - When you need an increase, contact group leader, not support
 - Group leaders will get regular report on disc usage (not yet)



Special Storage

- /scratch/
 - Local directory for analysis, fast compilation, ...
 - Behaves like /tmp: everyone can create files and dirs, only owner can delete and modify
 - Will be gone when machine is reinstalled
- /mnt/<user>_external_disc
 - Local dedicated hard disc for a user
 - internal or external
 - Request via group leader
- Tape Archive!
 - For data that shall be archived for several years (reproducible science!)
 - Request via support
 - Get a tape, archive data



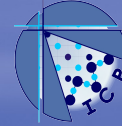
Groups

- Groups for several members that cooperate
- Useful when people want to use the same software (e.g. GROMACS, OpenFOAM), exchange files, ...
- Examples: icp, allatom (People doing all-atom simulations), cgl (Lecture “Computergrundlagen”)
- Consists of
 - One responsible person (as contact for support)
 - Directory: /group/<group>
 - Like /home/<user>: quota, remote backup, time-back
 - Unixgroup <group>
 - Mailing list <group>@icp.uni-stuttgart.de



Remote Services: SSH

- From University network (VPN, eduroam)
 - Everybody can login to all machines
- From outside the University network
 - Connect to `ssh.icp.uni-stuttgart.de` (others are blocked)
 - Support can unblock trusted users (people that know to protect their SSH-key)
 - Alternative: Support can unblock “allowssh”
 - Log in to `http://www.icp.uni-stuttgart.de/allowssh/`
 - Requires special password
 - Unblocks source IP address for 3 days
- Servers (anoa, eland, elk) are not accessible



Remote Services: Mail

- Outgoing (SMTP):
 - smtp.icp.uni-stuttgart.de:25
 - Only from inside the University network
 - Accessible via SSH-tunnel from outside
 - Will hopefully change with new server: SSL authentication
- Incoming
 - Local (pine, mutt, Thunderbird)
 - Webmail
 - <http://webmail.icp.uni-stuttgart.de>
 - Extra authentication password, request via support
 - IMAP
 - Server imap.icp.uni-stuttgart.de:993 (SSL/TLS)
 - Accessible from anywhere
 - Extra authentication password, request via support (same as webmail)



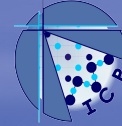
WWW

- Homepage: <http://www.icp.uni-stuttgart.de>
- ICP Wiki
 - Internal Pages accessible when logged in or at ICP
 - Internal Pages contain lots of information
 - Too much → Florian F. cleans up
 - Every user has a “home page”
 - <http://www.icp.uni-stuttgart.de/~icp/<Name>>
- Other homepages can be requested via support
 - e.g. <http://www.icp.uni-stuttgart.de/~<user>/>
 - Accessible in `/web/<user>`



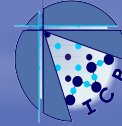
Plans

- Short-term
 - New OS: OpenSUSE 12.3
 - Some machines are already transformed
 - New system management tool
 - New /usr/local directory
 - New storage server: Open-E
 - Intermediate solution
 - Currently /work
 - Soon /data
 - New server: Mail, Homedirs, ...
- Long-term
 - New compute cluster
 - New parallel storage



Condor

- Queueing system
- Runs jobs on many machines when idle
- Responsible: Rudolf W.



ICP SVN

- ICP uses a SVN repository
- URL
 - `file:///home/svn/icp/repos/trunk`
 - Only locally
 - `svn+ssh://<user>@icp/home/svn/repos/icp/trunk/bibtex`
 - Requires SSH access
 - Shall be moved to `/group/icp/repos`
- Git mirror is to be set up
- Should be used for
 - Publications
 - Theses
 - Proposals
 - Lectures
 - Posters
 - Talks
 - ICP BibTeX file

ICP BibTeX File and PDF library

- In SVN: `bibtex/icp.bib`
- All references cited in any of our papers should end up in the file
- Some conventions
 - Naming of the entries: `<first-author><two-digit-year><abcdef>`
 - e.g. `deserno98a`
 - Sort order: By entry name
- Conventions will be enforced
- Python scripts to help:
 - `bibcheck` – Checks whether the file conforms to the conventions
 - `bibsort` – Sort the file according to the conventions
 - `bibfix` – Sort and try to fix the file
 - `bibcommit` – `bibcheck`, `bibsort` and `svn commit`
- `/group/icp/bib/`: PDFs of interesting articles
 - Keep to naming convention
 - Accessible via `http://www.icp.uni-stuttgart.de/~icp/bib/<name>.pdf`
 - No links!



Questions, Suggestions, Remarks?