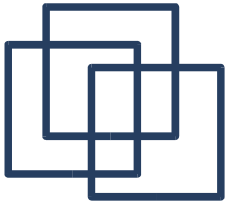


# Migration to Scientific Linux in Padova

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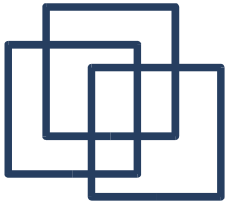
Roberto Stroili



# Status of migration

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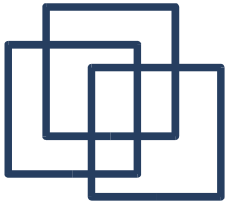
- almost all the machines have been migrated to SL3.0.2
- 2 servers missing
  - monitoring machine
    - a new monitoring machine with SL3.0.2 is ready but there's work on the monitoring software so it's not in production
  - a front-end machine (bbr-user)
    - kept with old installation if we need to make some test with some old release (i.e. not gcc 3.2.3)



## Status of migration (cont.)

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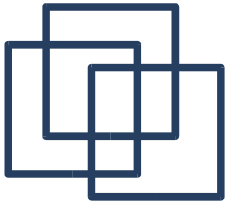
- some other old servers (used for objectivity) still to be migrated
  - but they will be converted to clients
- 80 new clients
  - to be installed next week when network cabling in place
- Upgrading to SL 3.0.3
  - some tests underway
    - we're planning to just upgrade the rpm's
      - need to understand the sequence
      - it takes few minutes to upgrade a single machine



# Migration

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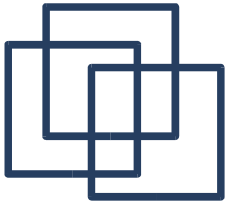
- use xCAT software from IBM
  - based on kickstart
  - open software
    - but you need an IBM server to download it
  - <http://www.alphaworks.ibm.com/tech/xCAT/>
- hardware in Padova
  - ~230 clients
  - ~50 servers



# Statistics

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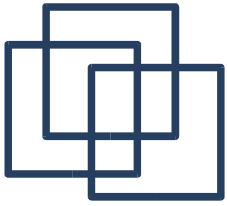
- it took 1 month to complete the migration:
  - 3 days to prepare the configurations
  - 2 days to prepare and test the kernel
    - some raid controllers we use (IBM megaIDE and 3ware 9xxx sata) are not supported in the standard kernels
  - during migration we upgraded the firmware of all the computers
    - estimated 7 days of work



## Statistics (cont.)

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- during release migration some other migrations were done:
  - DNS, BIND -> LDAP
  - webserver
  - pbs
  - mysql
  - xCAT management server
  - Time Navigator
- difficult to estimate the time requested for only these migrations



## tuning SL3

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- RHEL3 (and SL3) behave differently from previous RH distributions
  - especially in memory management
  - we found poor resource usage when testing a full reconstruction farm
    - most of the problems are related to memory and swapping on the opr servers
    - needed to tune some system parameters
      - some documentation found on the web
    - need to add memory to some machines