




Nikhef Site Report

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Outline

- NL research organization
- dCache
- user administration
- information screens
- cluster
- cloud
- procurement

NL research organization

- NWO
 - traditional lines
- FOM, STW, ...
- institutes, universities
 - Nikhef (FOM), ...
- new NWO (per 1-1-2017) 
 - domains: exact, social, technical, medical
 - institutes
 - administration

dCache (setup)

- Evaluated possible solutions
 - replacing gluster
- 3 VM's
 - master
 - billing DB
 - metadata DB + NFS server
- 5 Supermicro
 - Opteron 6320, 128 GB RAM, 110 TB disk
- Centos 6

dCache (usage)

- NFS
 - high load, bugs found
 - Thanks dCache Team for fixing
 - Centos 7
- local farm
 - /dcache
 - appending to files
 - xrootd
 - gridftp

user administration

- separate UNIX / Windows
 - >20 years
 - user / group
 - existence / capitalization / membership
- LDAP
 - pushed to Windows
- AD
 - users (nikhef.nl)
 - computers (ad.nikhef.nl)

information screens (I)

- many stand-alone
 - events
- xibo.org.uk
 - php web server
 - client windows / android / linux (beta)
 - minix (android) + xibo license (both low cost)
 - users / groups
 - per screen / part

information screens (II)

- client display
 - many layouts
 - regions
 - ticker
 - schedule
 - android
 - no powerpoint
 - text data
 - no auto-start embedded video
 - cookies

cluster

- Fujitsu Primergy RX2530
 - 58 nodes
 - 2 x 12 cores E5-2650 2.20 GHz
 - 8 GB/core
 - 5 Samsung 480 GB SSD
 - /tmp 2.1 GB
 - 17.04 HEP SPEC/core

cloud

- Juniper QFX 10008
 - 36 x 40 Gb/s (2)
 - 16 x 10 Gb/s core router
 - 100 Gb/s Netherlight
- Arista and Juniper switches (2 x 40 Gb/s)
- Fujitsu cluster
 - 10 Gb/s per machine
- Openstack / Opencontrail
 - MPCS / EVPN, offloading traffic

procurement

- 3 or 4 parties
 - not always real competition
- one broker
 - SURFnet, SURFsara, Nikhef
 - compute- and storage-equipment, maintenance
 - general or specific
 - contact manufacturer
 - order through broker
 - see offers made to broker

Questions?