Update on DESY Hamburg UNIX Environment

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HEPiX @ Fermilab

Update on DESY Hamburg UNIX Environment

I. Server Computing

- Update on AFS
- Operating Systems
- SGI MP Machines

II. Linux

III. Misc

IV. Mass Storage

V. Security

Dirk Wetter, DESY Hamburg, HEPiX 1998, FNAL

I. Server Computing

Update on AFS

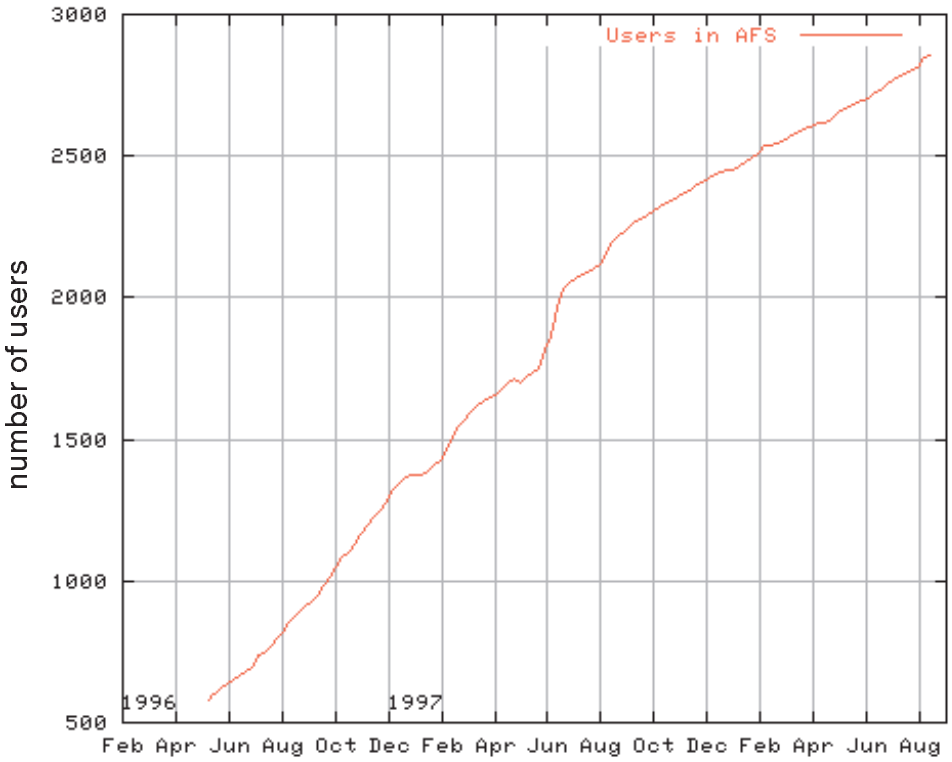
- **still growing rate:**
  - **~ 2900 users now,**
  - **~ 220 WGS in Hamburg**

  → **extension of AFS service (home dirs):**
  2 additional servers (SUN E 250), fibre channel
  Comparex RAID (level 5), 100 GB

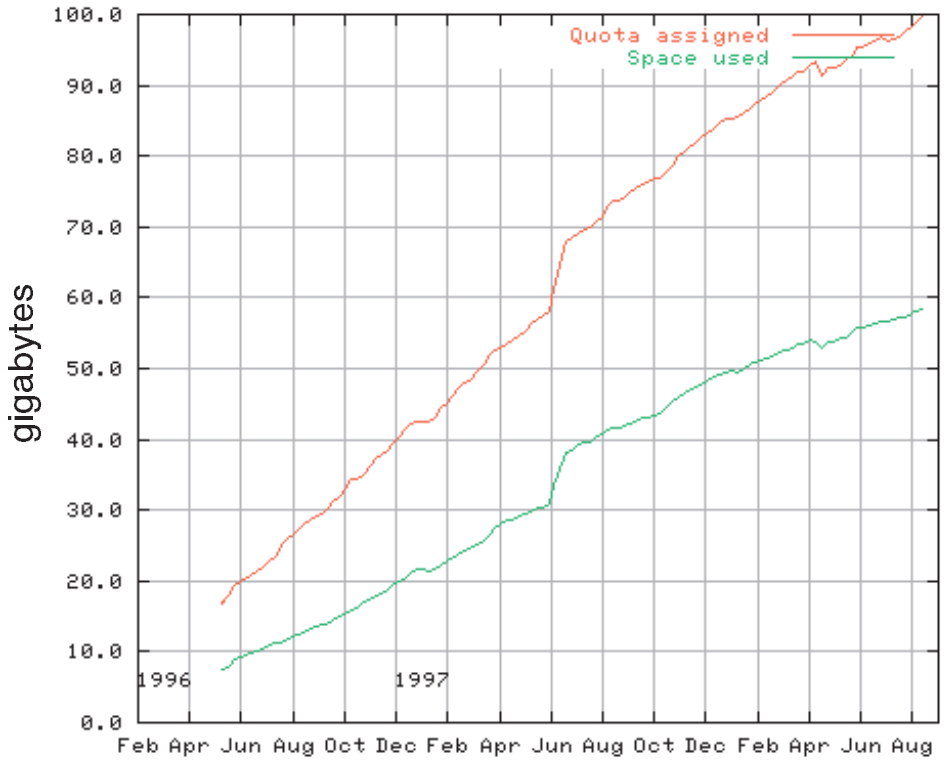
- **DCE/DFS tests stopped (though some tests on Linux)**

I. Server Computing

Update on AFS (cont.)



users



AFS space (home dirs)

I. Server Computing

Operating Systems

- new machines:
  - only SUNs and Linux PCs bought
  - no new IBM / HP / SGI boxes, no Digital support since last year
  - SUNs: "high end": dual Ultra E2,
    "low end": Ultra 5
- 2.5.1 is still only supported Solaris version (manpower)
- HP-UX: migration to 10.20 for all boxes finished

I. Server Computing

Operating Systems (cont.)

- **SGI/IRIX:**
  - **soon tests with IRIX 6.5 + AFS (Indy and Challenge)**
  - **extention of SGI Challenge XL / Origin systems:**

    currently 13 systems with

    193 CPUs

    12 GB memory ↗

    4.7 TB diskspace ↗ (+ 570 GB on stack)

II. Linux

- see separate talk (from me ;))

  - workgroupserver/farm:
    official support, new: same as for other platforms

  - desktop:
    working on providing installation support,
    to be finished ~4th quarter 1998
    (already ~40 test installations)

III. Misc

- **LDAP:**
  official server (ldap.desy.de)
  software: from umich, with Berkeley db

- **Mail:**
  - **NT mail server (only IMAP & encrypted PWs)**
  - **UNIX server project: new hardware: 2 SUN E 250, 1 system standby**
  - **pine 4.02 tests (incl. ldap)**

- **SAP:**
  tests on Solaris for R3 (preferred to NT)
  old R2 (MVS) system not Y2K compliant

IV. Mass Storage

- OSM (DESY version):
  - efficient to use until ~2001
- Grau robot (120 TB) is nearly full,
  looking for new hardware
- EUROSTORE (March 1998 - 2000):
  - (European project, sponsored by EU: CERN, DESY, QSW, HCSA, ...)
  - additional four people at DESY
  - March next year prototype ready

V. Security

- **problem:**
  - **130 (routed || switched) CLASS C subnets**
  - **~6400 IP numbers**
  - **centrally administered:**
  - **~2270 systems (800 NT, 1200 Xterms ~270 UNIX)**

→ lots of insecure systems on the site

- **# of incidents increased**

  hackers best friend ;-) currently:
  - **IRIX (open accounts, X, webserver)**
  - **Linux (named, popd)**

V. Security (cont.)

- sniffers found, also IRC servers
- computer security committee
  has to work out rules (organizational, technical, legal)
- better intrusion detection needed
- actions:
  further extending of portfiltering
  + restricted access to several subnets