Users’ Desktop Needs

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6th March 2002
Desktop Forum (DTF) Mandate

- Understand the technical and financial issues of desktop computing
- Establish and maintain coherence in the introduction of new hardware and/or software
- Suggest to the management means to keep under control the time and frequency of necessary changes
- Establish strong bi-directional links with users in the Divisions through Divisional Representatives and with external users through a representative of ACCU
Desktop Forum Members

- The Desktop Forum is made up of representatives from all Divisions in CERN plus some of the principal desktop service providers.

Chairman: Jürgen MAY /DG-DI
Secretary: Alan SILVERMAN /IT

Ex-Officio Members: John FERGUSON /AS, Jacques ALTABER /IT, Manuel DELFINO /IT, Denise HEAGERTY /IT, Flavio COSTA /SPL
General Considerations

- Users’ desktop needs are quite different and related to:
  - Degree of expertise in computing
  - Length of permanence at CERN.

- The **basic** request is:
  - support for some simple web and mail tools

- Most advanced users have specific wishes
  - i.e. hardware and/or software support for the latest UNIX desktop manager

- I attempt to list few items of general interest

-> no ambition to be exhaustive!
Current operating systems at CERN:

- Linux Red Hat 6.1
  → very widely used by physicists
- Windows 95/NT/2000
  ✓ Currently big effort from the IT Division migration team to convert all existing PCs at CERN (~5000) from Win95/NT to Win2K
  ✓ Regular report about progress at the monthly DTF meeting by F.Hemmer/IT
  ✓ Work hopefully completed by middle 2002
Migration Progress

February 25, 2002: 58% of 4936 machines Migrated
Technical Side

- Exceed 7.1 introduced
- Several IE security fixes (and more to come)
- RealPlayer security fix
- Oracle upgraded
- Corel Suite SP2 available
- AFS progress
  \cern.ch\dfs\Applications\IBM\OpenAFS1.2.2a\INSTALLME.txt
- SSH is coming (PuTTY)
- Norton AntiVirus 7.6 on its way
- Siemens Simatic Step7 available
- MP5 workaround available from ST
- Image shipped for the new “EOLA” PC
Desktop PC User Requests(1)

**PCs running Windows**

- NICE system at CERN for Windows PCs not easily updated by non-experts although nicely documented
  
  -> [http://winservices.web.cern.ch/WinServices](http://winservices.web.cern.ch/WinServices)

- Disk space limitation (50MB) but from Help Desk is possible to get 300MB and for special cases up to 1GB
Desktop PC User Requests(2)

PCs running LINUX

- PCs in most Home Institute already running Linux RedHat 7.2
  - big demand at CERN for an update from 6.1 to 7.2

- Situation at CERN:
  - LinuX RedHat 7.2 is at CERN under certification
  - Since February released the 7.2 beta2 version
  - Hope to switch in April 2002 to RedHat7.2
  - More information at http://linux.web.cern.ch/linux/
PCs running Linux/Windows

- Users need to access both Linux (data analysis) and Windows (MS office programs: i.e. PowerPoint, Word, Excel) on the same desktop, present solution:
  - Dual Boot

- Many users request a product to share them without booting:
  - i.e. VMware commercial software
    - gives Windows emulator under Linux and Linux emulator under Windows
  - IT Division is running a Pilot Project, soon are expected some conclusions.
General Requests

- Strong demand for a wider support on desktop PCs both for hardware and software problems
- Worries about ‘bad PCs’ bought by Home Institute via CERN (PC Vobis problem)
- Improve AFS service to access files and share directories
  - Sometimes very slow or it hangs->mostly on busy Linux machines mainly (lxplus, lxbatch)
  - File sharing important for the Physics Community
- Better e-mail filter, recently users complain about several junk mails.
Short-term Visitors

- They often require only access to web browsers and e-mail

- CERN could provide more small PC clusters to satisfy the above request (near i.e. Conference rooms, LHC secretary offices)

- “Internet café” outside User office and in Build. 513 greatly appreciated
Portable PCs

- An increasing number of users have mobile PCs. Need more DHCP and IP fixed addresses for portables in offices to access the network. DHCP service allows to move a laptop from office to office without reconfiguration.

- Although very easy to connect a portable, a web page could be publicized on the subject
  -> I found a WEB page on portable PC but it is quite hidden!

http://winservices.web.cern.ch/winservices/docs/PortableComputers/
Recently the use of wireless LAN cards with portable PCs is becoming more and more popular.

Very simple to connect, users need a PCMCIA card (cost 70$ in USA, a bit more expensive in Europe) and they require Access Points at CERN (cost ~1000CHF each).

Some Access Points already exist but insufficient.

-> Very strong user’s request of more Access Points!

WLAN CERN Pilot Project presented at the January DTF by P.S. Anderssen from IT-CS Division.
Goals of the Pilot Project

- To qualify available equipment;
- To evaluate the operational aspects of the WLAN technology;
  - Security;
  - Manageability;
- To collect user experience;
  
  -> First response from users very enthusiastic!
Access Points in Pilot Project

- Technology used:
  - Wireless LAN standard IEEE 802.11b at 2.4 GHz;

Access Points:

- Conference rooms with DHCP address allocation:
  - Buildings 30, 31, 40, 60, 160, 513;
- Technical Sites with fixed IP addresses:
  - Building 73, 181;
- Access needed to satisfy the security
- Security requires registration of the MAC address(es) prior to use of a computer on the CERN site.
Possible WLAN Applications

- Nomadic use of computers on the CERN site
  - Laptops can be connected outside office spaces!
- Backbone extensions to inaccessible areas and buildings
- Redundant backbone for site interconnection
- LAN connectivity on board carriages

P.S. Anderssen/IT-CS
WLan Pilot Project Proposal

- The IT division makes the WLAN service available through the support groups concerned with networking and system integration (WIN2000, LINUX, NETOPS, HELP DESK);

- An efficient MAC registration procedure is made available to legitimate visitors to the CERN site.

P.S. Anderssen/IT-CS
VideoConference

- Increased demand for Videoconference meetings from Home Institutes with CERN (to save travelling money)
- CERN has equipped several Physical Video Conference rooms: in Build 31, 14, 40 and 58. They are equipped with Packet (Internet) and/or Codec ISDN techniques
- Virtual Room Conferencing System (VRVS) is also very successful (Mac support also?)!
Printers

- Use of printers touches almost every aspect of users’ work and computing infrastructure
- Large number of requests to restart print queues for Tektronix printers
- Big demand for more colour printers and related support although the use of video-projectors is becoming more and more frequent and it should be encouraged to save money for colour slides!
- Moreover the most used conference rooms could be equipped with a PC to avoid very often connection problems between video-projectors and users’ laptops!
Conclusions

- Users’ desktop requests relatively modest
  -> they do not require a big investment!
- The inputs I got are coming from a few users (mainly physicists) and I apologize if they are not all!

A note of optimism

-> For most of the requests CERN is already on the way to find solutions/improvements (as far I can see from DTF meeting discussions)!