



Windows 2000 at CERN

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Outline

- History
- Key Components
 - Servers
 - Integration with Corporate DB's
 - Tools
 - SMS
 - NICE 95/NT coexistence
- Problems
- Installation
- Summary

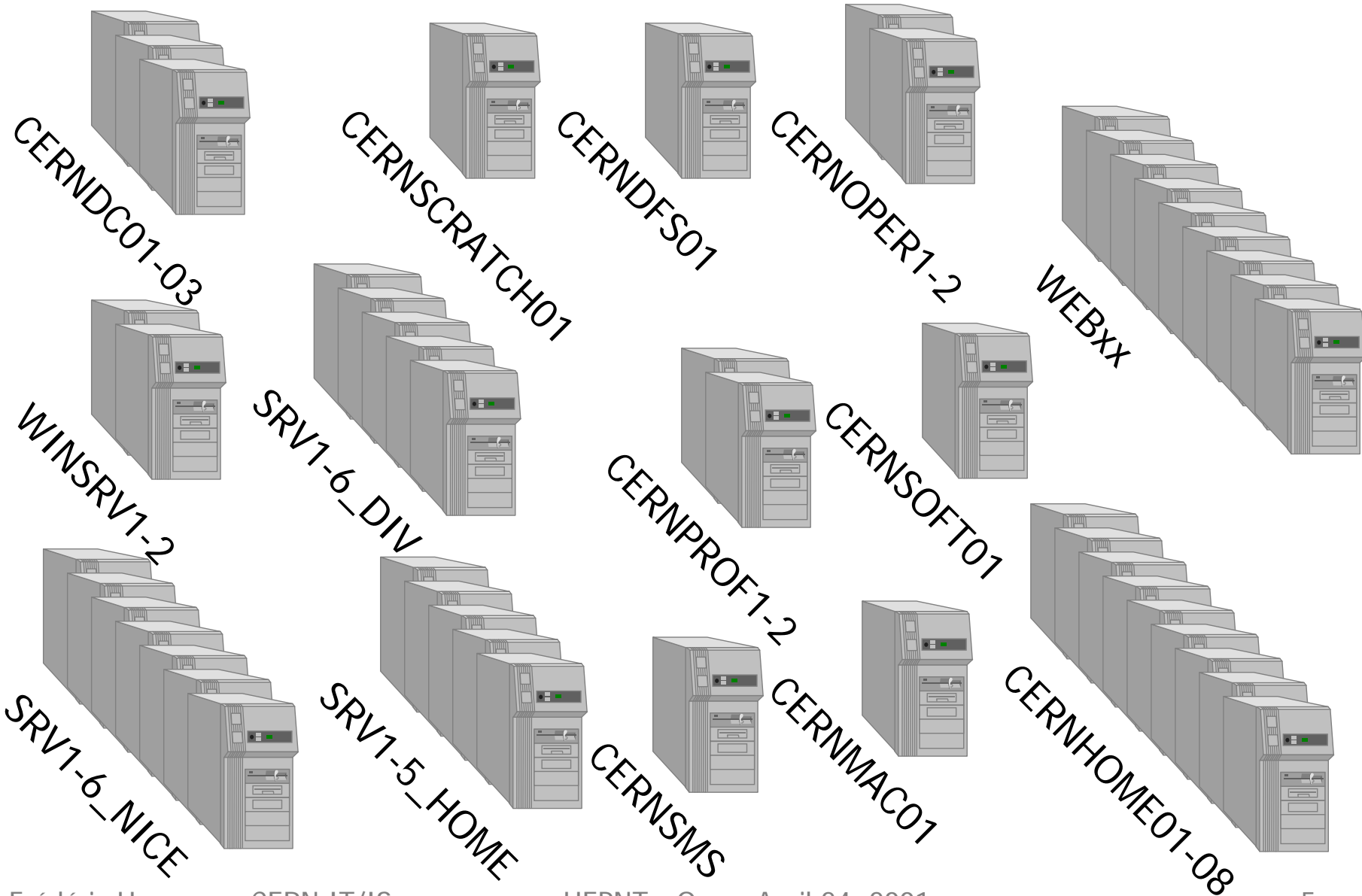
Time scale

July 1999	Project Proposal – study started
February 2000	Pilot started – MS release W2K
July 2000	Server migration – SP1 Released NetWare migration
November 2000	Install diskette; Web tools; Integration with Web Servers; Migration Task Force started
January 2001	NICE 2000 available with minimum applications
February 2001	NICE 2000 only on new laptops

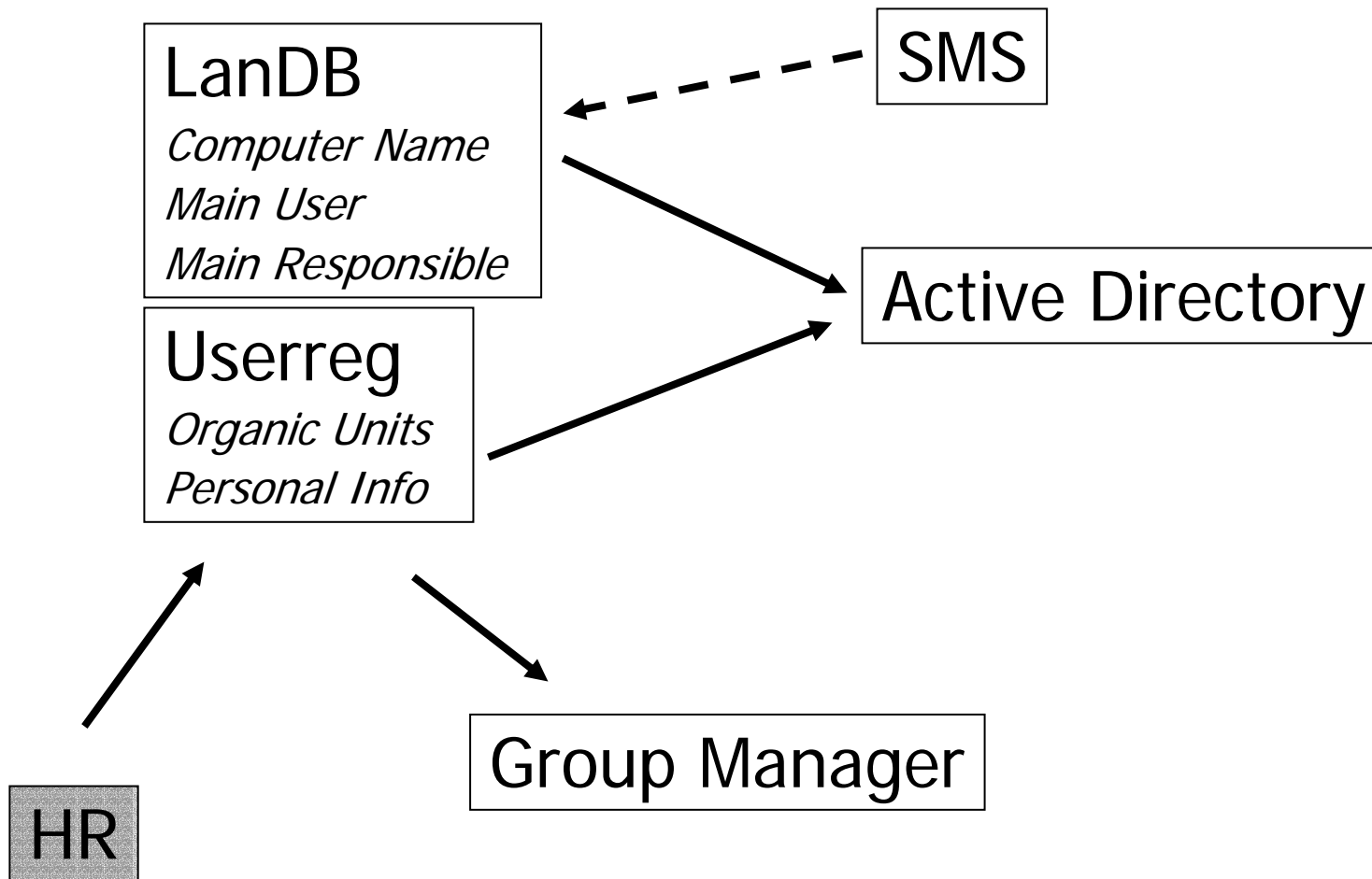
Key components

- Active directory in native mode
- Roaming profiles
- DFS
 - Allows for logical name space
- Redirected My documents
 - To 8 home directory servers (140 MB/user)
- Group policy for application deployment
- Logon scripts for local policies
 - E.g. local administrator password
- SMS for desktop management
 - Hardware/software inventories
 - Deployment of service packs
 - License monitoring/software usage
- Development of Web based tools for managing desktops and infrastructure
 - Reducing the support costs
- Extensive documentation provided (<http://cern.ch/win>)

NICE 2000 – Main Servers



Integration with Corporate DB's



Computer Account

The screenshot shows a web browser window titled 'User Services - Microsoft Internet Explorer'. The address bar contains the URL: <https://weba3.cern.ch/Winservices/Services/CheckComputerStatus/default.asp?ComputerName=pcfh01>. The main content area is titled 'Computer Account Information for computer 'pcfh01'' and features a table with three columns: Parameters, Value, and Action.

Parameters	Value	Action
Computer name	pcfh01	
Status	Enabled	Recreate Computer Account
Comment		
Main User (Description)	Hemmer Frederic (1789)	View Info from Network database
IP Address (Info)	DHCP (Mobile computer connected to portable sockets only)	
Location	31 1-0019	
Last Modified Time	Sunday 1 April 2001 at 08:54:15	
Created Time	Friday 30 March 2001 at 16:49:24	
<hr/>		
Responsible (ManagedBy)	CN=Hemmer Frederic (1789),OU=H,OU=Names,OU=People,DC=cern,DC=ch	
Main User (Manager)	CN=Hemmer Frederic (1789),OU=H,OU=Names,OU=People,DC=cern,DC=ch	
<hr/>		
Operating System	Windows 2000 Professional	
Operating System Version	5.0 (2195)	
Operating System Service Pack	Service Pack 1	
<hr/>		
Active Directory Path	CN=PCFH01,OU=Computers,OU=IS,OU=IT,OU=Organic Units,DC=cern,DC=ch	
LDAP Path	ldap://cern.ch/CN=PCFH01,OU=Computers,OU=IS,OU=IT,OU=Organic Units,DC=cern,DC=ch	
Object Category	CN=Computer,CN=Schema,CN=Configuration,DC=cern,DC=ch	
<hr/>		
Group Membership	Computers IT-IS Computers IT	Manage Membership

NICE 2000 – tools & documentation

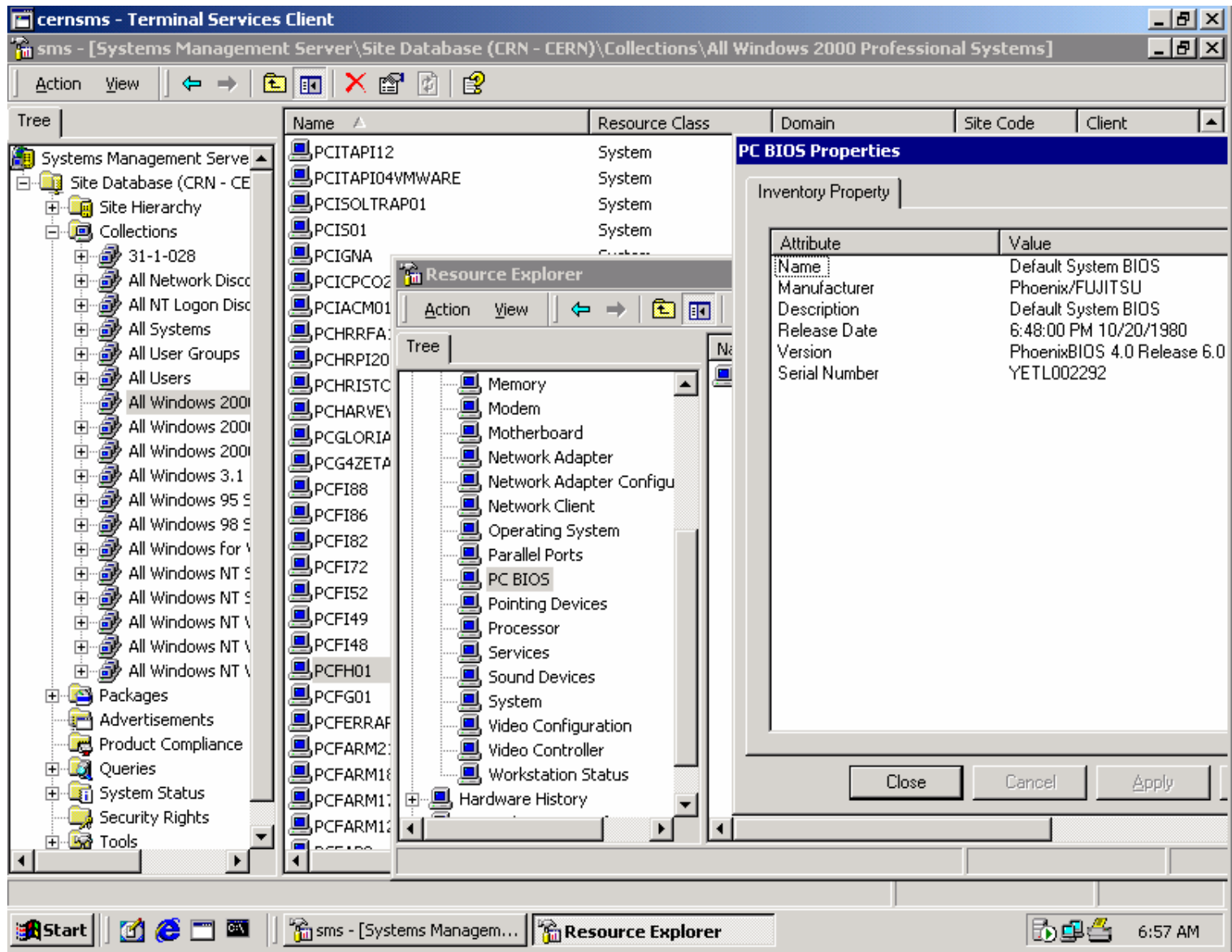
- Group Manager
- Quota Manager
- Trustee Manager
- Erase Roaming Profile
- Reset Password
- Recreate Computer Account
- Documentation
 - <http://cern.ch/win>
- ACB, 802.11
- Installation floppy

SMS – Desktop Management (I)

The screenshot displays the 'Terminal Services Client' window for 'sms - [Systems Management Server\Site Database (CRN - CERN)\Queries\CERN - Known Portable Computers]'. The interface includes a tree view on the left and a main table of computer records.

Name.Name	SMS_G_System_COMPUT...	SMS_G_System_C...	SMS_G_System_PC...	Memory...	Processor.Curr
PCAP5	Hewlett-Packard	HP OmniBook PC	TW10605629	261,616	800
PCASSOC01	IBM	26296VG	558393B	261,616	747
PCATLAS...	Hewlett-Packard	HP OmniBook PC	TW10605631	261,616	647
PCATM15	Hewlett-Packard	HP OmniBook PC	TW10605628	130,544	800
PCCEDI01	Hewlett-Packard	HP OmniBook PC	TW04115063	130,500	500
PCCMS113	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL002584	261,608	600
PCCMS114	Hewlett-Packard	HP OmniBook PC	TW10605634	130,544	647
PCCMS115	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL002588	261,608	600
PCCONF01	Hewlett-Packard	HP OmniBook PC	TW91823729	64,964	266
PCDELFINO	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL002286	261,608	600
PCDGDIO2	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL006293	261,608	600
PCDGDIO3	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL006326	261,608	600
PCDH11	Sony Corporation	PCG-F809K(GB)	28312061-5101069	130,544	844
PCDSUDO01	Hewlett-Packard	HP OmniBook PC	FR93574642	130,500	300
PCDUCCIO	Hewlett-Packard	HP OmniBook PC	FR00524327	130,500	400
PCEP48E03	Hewlett-Packard	HP OmniBook PC	TW11002385	130,544	800
PCEPAIT07	Hewlett-Packard	HP OmniBook PC	TW10605630	261,616	800
PCEPALIC...	Compaq	Workstation AP200	8947CTL80055	130,608	600
PCEPATI18	IBM	26443AG	55238CY	130,548	366
PCEPCM502	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL002291	261,608	600
PCEPCMT07	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL006300	261,608	600
PCEPDELPO2	Hewlett-Packard	HP OmniBook PC	TW04114922	130,516	500
PCEPDIA05	Hewlett-Packard	HP OmniBook PC	TW10605651	130,544	800
PCEPESS13	Hewlett-Packard	HP OmniBook PC	TW11002387	130,544	800
PCEPHC128	FUJITSU SIEMENS	LIFEBOOK 5 Series	YETL002293	261,608	600
PCEPHC134	Hewlett-Packard	HP OmniBook PC	TW10605639	130,544	800
PCEPHC136	Compaq	Armada E500	730AFFH49043	130,544	4

SMS – Desktop Management (II)



NICE 2000/NT/95 coexistence

- Home directories shared
 - J: for NICE 95/NT
 - My Documents for NICE 2000
 - \\cern.ch\dfs\Users\h\hemmer
 - \\cerndfs01\dfs\Users\h\hemmer
- Office format compatible
 - Except Access 97/2000
- Phone book allows mapping
- Divisional servers have not changed
 - Although they should in the future
 - \\cern.ch\Divisions\ST\...

NICE 2000 – Main problems

- Under configured/unsupported hardware
- NT4 – Windows 2000 coexistence
 - Roaming profiles
 - NTFS
- New application management model
 - New tools not always perfect
 - Centrally managed application can interfere with the (same) ones manually installed
 - Non centrally managed applications can be done manually (although not recommended) – no interference with Z:
- Address books/bookmarks automatic migration
- Applications accessing directly hardware
 - Games; CD Writers; etc.

NICE 2000 – Main problems (cont.)

- Outlook not the perfect tool
 - Needed at least as Schedule+ replacement
 - Parameterization very important
- Hardware problems mid-February
 - Power supplies – Memory
 - Underlines the need for system management tools
- Memory leakages on DC's
- Macintosh services
 - Up to 140 MB system memory
- Miscellaneous problems
 - Services.exe (AFS)
 - Null characters on network shares
 - SMS license metering
- GP's not applied anymore
 - No explanation – Disjoin/Join domain cured it

NICE 2000 – Main problems (cont.)

- Stability
 - People do not logoff anymore
 - What are logon/logoff scripts useful for?
 - Offline folders sometimes confusing
 - I've lost half of my folders !
 - Training obviously needed
- Integration with bind DNS tricky
- My documents redirection+Offline folders
 - Not easy to redirect to a new server
 - OK when dfs naming is used

Group Policy for Application deployment

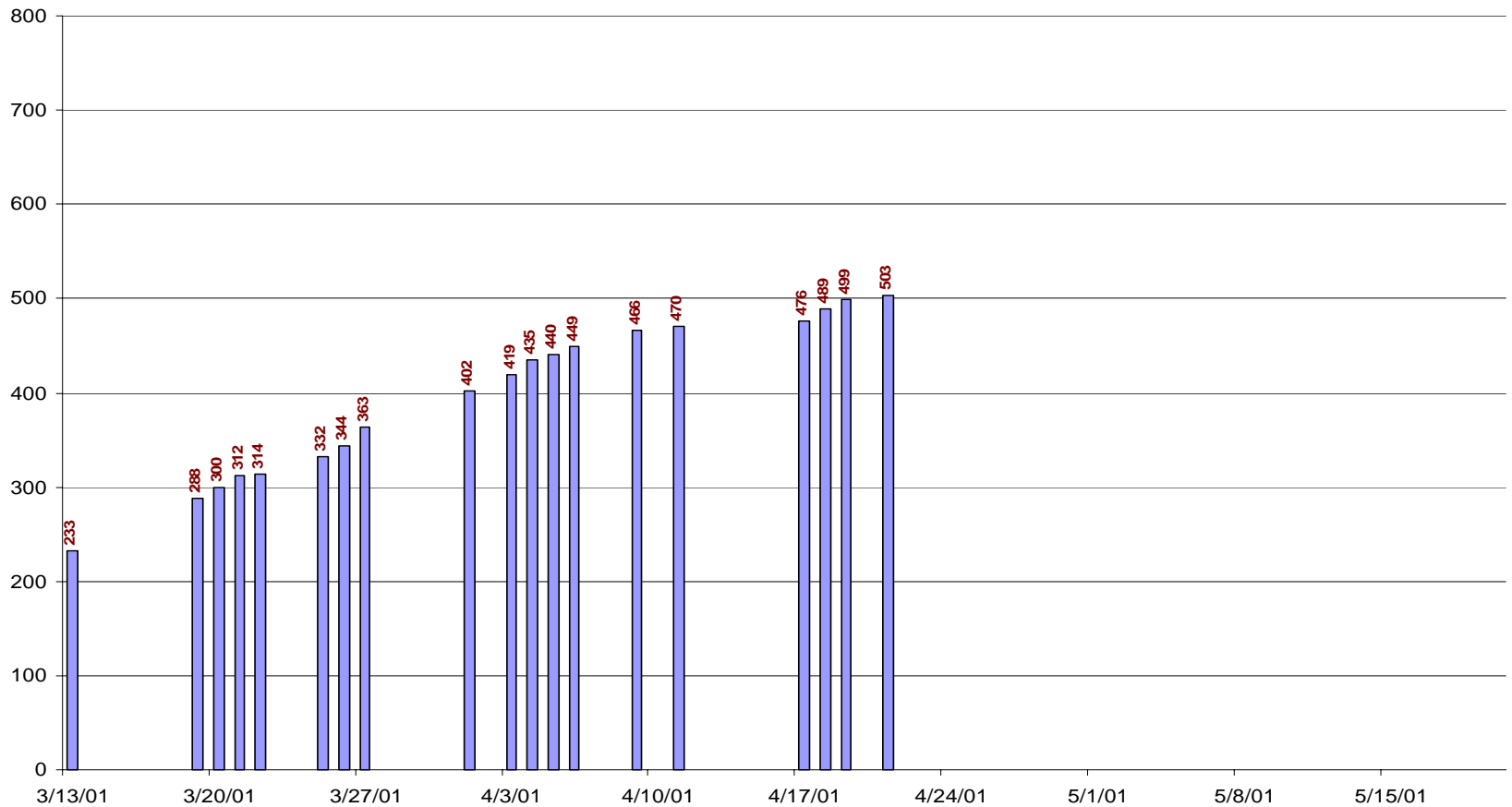
- Flexibility limited
 - Difficult to change from computer to user
- Debugging difficult
 - Some cumbersome reg. Keys can be enabled
 - Difficult to deploy to test users
 - Need to use a combination of allow/deny security groups
- No scheduling choice
 - Policy applied or not
 - Deploy Office XP to 5000 computers in one shot ?
 - Risk of deployment the first time you connect back to the domain
- We envisage having or own tool
 - Still based on MSI's
- Application management will be a long term activity

Installation

- Install diskette
 - Prompt for
 - Computer name
 - IP Address
 - Recreates Computer Account
 - Install Windows 2000
 - Computer assigned applications get deployed after last reboot
 - Takes 60-90 minutes
- Image
 - Uses sysprep
 - Computer name and IP address must be filled in
 - Image contains computer assigned applications
 - Takes 15 minutes from CD

NICE 2000 Today

W2K Professional Systems



Summary

- People usually happy with NICE 2000
 - Especially compared to NICE 95
- Complexity of the server environment & new technologies should not be underestimated
- Windows 2000 is maybe not perfect
 - But every time we looked a a problem, there was a solution
 - There are numerous tools and interfaces available
 - And ... we now have a PSS license !