

# A First Look at Windows NT Server

We know Microsoft for many years due to its DOS operating system for PC. Microsoft's Windows NT, on the other hand, is very new for users in this country even if it is existing in the international market for several years. Few weeks back I started installing Windows NT Server 3.51 in my EPSON 486 PC with great curiosity. By that time, I heard a lot of things about this powerful 32 bit stuff.

The installation procedure of NT appears to be quite simple. The setup screens bear the essence of Windows 3.1. The setup procedure follows the sequence as we watch in Windows 3.1. However, the knowledge of Windows 3.1 setup is not enough to answer all the queries on subjects like Domain Networking, File System, and Network Card Setup.

Let me provide you a plain description of NT installation. I had to boot from Windows NT boot diskette which ran the setup program automatically. A blue setup screen appeared in text mode with similar get-up as Windows 3.1's setup screen. It automatically identified the presence of IDE hard disk, CIRRUS LOGIC compatible VGA chip, NE2000 compatible network card. It asked my choice on file system. Windows NT can use three types of file systems. These are NTFS (NT File System), DOS FAT and HPFS (High Performance File System). DOS FAT is the industry's most widely used 16 bit file system. Compared to other operating systems, this possesses the least number of features. The HPFS, usually offered by IBM with its OS/2 operating system, can also be used by NT, but not DOS. The NTFS is a file system which is fast, fault tolerant and more secured from virus. This file system is not accessible when booted from DOS or OS/2. However, DOS programs can use it from DOS-shell when PC is running under NT. I did not choose NTFS, as I was afraid of mistakenly losing my present setup of Windows 3.1 along with many other applications, documents and data. I was rather interested to keep both of Windows 3.1 and NT in the C: drive.

I, therefore, chose installation of NT on the existing DOS FAT system. After copying the primary set of files into C:\WINDOWS\SYSTEM32, the setup program turned from text mode to graphics mode, similar to Windows 3.1, and copied rest of the NT files. At last, NT setup program floated a window telling me that the installation was completed and a reboot of PC was desired. NT files swallowed about 100MB of my C: drive.

While rebooting, a simple menu appeared on the screen listing the Windows NT and MS DOS. I did nothing but waited; NT started loading its kernel, it being the first item in the menu. The hard disk LED was blinking unusually fast then. I could sense that a stronger force, compared to the usual

DOS, was working on my PC to unleash the hidden power of it.

NT floated a small window saying to press Ctrl-Alt-Del to log in in the NT environment. This unique key combination surprised me as it did not mean to reboot a PC, a most common operation in DOS arena. After pressing this combination, I could log in to the NT as "administrator" a very long log-in name unlike NetWare 4.1 (admin) or UNIX (root). The log in procedure includes password feature to secure unauthorised access.

Lets go back to the scenario of my last log-in session. I could see the familiar Windows 3.1 program groups like 'Main', 'Accessories', 'Games' etc.; even the items in these groups were almost the same. It relaxed my tension of learning something new. The Windows-3.1 like appearance of NT, on the other hand, developed a negative feeling too. Now, I started wondering, whether NT was a program with power similar to Windows 3.1! Well, I did a small test to check its power. I ran the File Manager program and copied a directory containing 1544 files, spanning 31.4 MB of disk space, to another directory. It took just three minutes to do the job! Then, I deleted that directory with all 1544 files. NT did it in a bit. It took only thirty five seconds! [Later, I did the same experiment with NT on COMPAQ Pentium server with EISA bus and SCSI-2 PCI HDD; the copying took 1:34 minutes and deleting took 16 seconds!] I did the same tasks using Windows 3.1, which took twenty minutes to copy 1544 files and twelve minutes to delete all of them. It disappointed me. By this moment, I started to reveal that I have wasted my valuable time in using Windows 3.1. My faith on NT not only revived, rather it scored a stronger image in my mind.

I was eager to run my DOS and Windows programs. I ran MS Office for Windows (not for Windows NT). Yes, I could run WinWord 6.0 and all other windows based programs on my NT server. Also I could run DOS based programs. Running DOS and Windows based program in NT is possible as it features a 16 bit shell (process or subsystem) for windows or DOS applications. This shell would allow a program to run as long as it will not try to make a direct access to the hard disk. It means you can run a program that calls a hardware device subsystem through operating system interface.

I liked the using of NT Server as a operating system to run DOS or Windows 3.1 applications. In the Novell NetWare, you will find that it confines the PC server to NLM programs only. The DOS, Windows and OS/2 based applications cannot be run here to exploit the speed and power of NetWare. The scenario with NT is rather satisfactory. You can run many 16 bit DOS, Windows and OS/2 applications. Many 32 bit Windows applications will

run under NT. As for example, MS Office for Windows 95 will run on NT. There are many other NT-specific applications too.

NT uses separate memory area for each application. This protects the operating system from being hung due to a mis-behaving application. This results in a very stable operating environment compared to Windows 3.1. Therefore, the up time of NT is longer.

For power users NT is a good news. It supports upto 32 processors. With NT you are not confined to Intel processor even. It runs on some industry standard RISC processors. These are DEC Alpha AXP, MIPS and PowerPC. This will meet the requirement of high processing power as required in CAD operations, calculation intensive procedures etc.

Then, desirously I wanted to see the text based command prompt, which is known as DOS shell in Windows 3.1. To my comfort, I found a lot of usual DOS commands. As for example, ver, md, cd, rd, dir, copy, xcopy, format, fc, help, label, type, tree, backup, restore, diskcopy, chkdsk etc. all of them were there. In addition to these, there were TCP/IP all simple commands like ping, ftp, finger, netstat, telnet etc. Some of the DOS commands like xcopy, print, format, doskey, dir, del etc. have improved functionality in NT. The 'ver' command in DOS displayed "MS Windows NT 3.51".

I had some applications residing on Novell NetWare 3.12 server. However, in my first attempt, NT could not detect or connect the NetWare server from File Manager. (In NT, File Manager is the program which discovers the other servers running NT and Novell NetWare.) Later, I found that, listing and using of Novell NetWare servers require enabling of "Gateway Service for NetWare". So I enabled it from "Network" program of Control Panel of Main program group. Then, I could log in as "SUPERVISOR" into the NetWare 3.12 server. The NT, however, would not execute the system login script of NetWare. I had to map the NetWare volumes from File Manager to use the applications and documents there.

I ran SYSCON menu utility from /PUBLIC directory of SYS: volume in NetWare 3.12 server. Yes, I could do supervisory from here. Next, I logged in as "ADMIN" into our NetWare 4.1. I could map volumes to drive letters and use applications and documents here. However, I could not supervise (administrate) NetWare 4.1 unlike NetWare v3.1x. Actually, I could not run "NETADMIN" or "RWADMIN" program. The plain reason behind this inability was because NT does not support NDS technology of NetWare 4.1. However, administrating NetWare 4.1 is not a problem for me as there are many other DOS/Windows PCs in the same network which I may use to do the same.

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## NEWS WATCH

### Internet Fair of Grameen Cybernet

Grameen Cybernet, one of the online internet service provider in Bangladesh, organized an Internet fair from 3rd to 5th October at Alliance Francaise auditorium in Dhaka. Different techniques and facilities of Internet were shown in this fair and the browsing and web searching systems also be displayed.

Grameen Cybernet provided special offers for the spectators such as free internet connections, free advertisement in web page, surprise discount etc.

### New Web Page Floated

Recently, a new web page named Web Era Bangladesh (WEB) was floated in the Internet. An organization "Web Era Bangladesh" composed of multi-disciplinary professionals has initiated the Web Page and would update the page from time to time on regular basis with current affairs and items.

The main objectives of the venture will be to give exposure of our country to the outside world, to publicize products and companies and work for a better buyer-seller interactions, to foster international understanding and solidarity among the nations worldwide.

The Internet address of the web page is : [www.bangla.net/webera](http://www.bangla.net/webera) and the E-mail address of the organization is [webera@bangla.net](mailto:webera@bangla.net).

## Windows NT Server

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I was very much interested to check the TCP/IP connectivity of NT to SCO Unix PC server and HP-UX (unix) RISC-based Miniframe server. I configured the TCP/IP host name and addresses of my NT server first and activated the TCP/IP services. I succeeded to ping the SCO Unix server. Ping to HP-UX was also successful. I could telnet both the unix servers. The NT server offers FTP Server software as well as FTP client program. I ran FTP Client program from unix hosts (HP and SCO) to open connection with NT FTP Server. I could exchange some files between NT server and both unix hosts via ftp. I ran FTP program on NT to connect to unix hosts. This was also successful.

I executed the "Mail" (MS Mail) client program from "Accessories" program group. The NT program showed its smartness this time. It floated an informational message that MS Mail client could not be run as the WorkGroup Post Office or any other Post Office was not configured. By default, NT comes with a WorkGroup Post Office which allows e-mail distribution inside the network only. NT offered me to install the WorkGroup Post Office. I wanted to do that. After completing a form of several lines, the MS Mail Post Office for a WorkGroup was completed. I sent a mail to myself-which I received on-line within few seconds.

Everything in NT seemed very easy and visual. I could configure services like TCP/IP, Mail, NetWare Gateway. Printing very easily without knowing any command. Configuration of these types of services in other network operation systems, particularly in unix, is very complex and requires extensive experience. My experience of other network operating systems in conjunction with-usage-knowledge of Windows 3.1, easily led me to do so many things with NT in a very short period which I would never expect from other operating systems yet. The smartness of NT should also be mentioned with grace that saved valuable time and efforts. ♦

## Siemens Nixdorf Targets Asian Sales

Siemens Nixdorf AG aims to more than triple its Asia-Pacific sales by the year 2000. The Executive Vice President of Siemens Nixdorf Axel Hass said that by the year 2000 the most Asian growth would be in China, Indonesia, Malaysia and India. He also said, he was confident that the company would increase its Asian sales by 40 to 50 percent a year over the next four years. He claimed that Siemens Nixdorf is the fastest growing IT is Asia.

## ISN Provides Free

### Demonstration of Internet

First online Internet Provider, ISN, arranges free demonstration of Internet in every Saturday afternoon. This demonstration is opened to all. Everybody can attend to search and have knowledge of Internet from this demonstration. ISN sources expressed that the main objectives of this free demonstration is to expose the Internet facilities to the students as well as other people.

## Abaha Hishab— an Easy Accounting Software

Mr. Shamsul Haque Chowdhury, owner of Automation Engineers, said that their accounting software Abaha Hishab is fully tested and easiest one. Users of this software can get facilities to customize as their own demands. Automation engineers offers other

facilities like copy protection and password system with this Abaha Hishab software. Mr. Chowdhury claims that the demand of Abaha Hishab is increasing day by day.

## Hospital Computerization

National Institute for Cardiovascular and Hospital has been computerized. Each and every site & section of this hospital would be monitored through computer. Computerization of this hospital is one of the best steps in the field of computerization in Bangladesh. Another report adds that BIRDEM Hospital would also be computerized soon and all the official activities would be maintained through computer networking. This renowned hospital is under the process of computerization.

## Aminur Rusul Becomes CNE

Mr. Aminur Rusul has successfully completed CNE (Certified NetWare Engineer) course on Novell Netware ver.3.x & 4.x from Dataproc Infoworld Ltd, India. Dataproc Infoworld Ltd, India is a NAEC (Novell Authorized Education Center). He has successfully passed various module examinations and scored 100% to become a CNA (Novell Certified Administrator) of Novell, USA.

Mr. Rusul, a Computer Engineering graduate, also completed extensive training on networking from CMS Computers Ltd, Mumbai and has participated on a training program of SUN hardware and SOLARIS. Mr. Rusul is a Network Engineer in IBCS-PRIMAX Software (BD) Ltd.

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার, শিক্ষামন্ত্রণালয়, স্টাম্পস অনুমোদিত প্রতিষ্ঠান

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প্রিন্সিপাল