

Windows 2000 Advanced Server Installation & Configuration – Web Server

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INTRODUCTION

Purpose of Document

This document covers the initial installation and configuration of Microsoft Windows 2000 Advanced Server and associated Web software on Compaq Server hardware.

Audience

The intended audience is the Product Development group and anyone involved in building NT web servers.

Required Installation Information

- Server Name: (using Naming standards)
- Role: The server will be a standalone server in its own workgroup for Internet systems, or in the NTL-INTRANET domain for Intranet systems.

STEP BY STEP INSTALLATION GUIDE

Overview

The installation process is broken into four stages:

1. SmartStart which configures the necessary Compaq hardware and installs Microsoft Windows 2000 Advanced Server.
2. Windows 2000 Advanced Server Configuration which sets operating system specifics and updates.
3. Software installation. This is additional software required to run the web server.
4. Security Hardening which increases the security of the web server.

1. SmartStart Process

Step 1: Boot SmartStart

- Boot from the SmartStart CD labelled 'SmartStart and Support Software'

- If the server had an operating system previously installed you will be prompted to run the erase utility which erases all the disk and configuration information. (This is recommended even if there was no other OS installed).
- In the box labelled "Select an option" click on "Run System Erase Utility", click on Next.
- Click on 'OK' then 'Yes' to pass warning messages.
- Power cycle the server

Step 2: SmartStart Installation and Setup

- Click on "Click here to use English during the SmartStart process".
- Select "United Kingdom", click on Next.
- Select "British Keyboard" click on Next.
- Select the correct date, time, time zone (GMT) and check the "adjust for daylight savings" box, click on Next.
- Click on Continue to pass the summary page.
- Click the "I agree" box on the SmartStart License screen. Click on OK.

Step 3: Select Operating System

- Choose "Assisted Integration", click on begin.
- Insert a Server Profile disk into the floppy drive, click on Next.
- Click on the + next to Microsoft in the "Operating System" box.
- Check "Microsoft Windows 2000 advanced server, click on Next.
- Click on continue to confirm selection.

Step 4: Configure Hardware

- Press "Continue with SmartStart" at DOS GUI.
- Press "Enter" to continue and reboot the server.
- In the Array Configuration Utility select the "continue" radio button then Next to configure the controller.
- Click on the button representing the Smart Array and click next.
- Choose one of the following
 - Server with 2 disks - (RAID 1) Drive Mirroring
 - Server with >2 disks - (RAID 5) Distributed Data Guarding or custom configuration according to number of disks available. (C: drive with 2 x 4.3gb disks in a RAID 1 set and D: with 3 x 9.1gb disks in a RAID5 configuration is the preferred option.
 - Click on Continue, Click on finish.

Pre-Installation Interviews

Step 1: Auto Server Recovery setup

- Click "continue"
- Click "next"
- Check to see if the "Software error recovery" is checked, that "Boot operating system" is selected and that "Thermal shutdown" is checked and UPS Shutdown Threshold is unchecked.
- Click "next"
- Check that "Pager alert" has no check.
- Click "next"

Step 2: Integrated Remote Console setup

- Make sure that "use integrated remote console" is unchecked
- Click "next"
- Click "continue"

Step 3: Disk Carving

- You will receive a message about dynamic disks, click on OK.
- Set the size for the boot partition to 4080mb, format as NTFS and leave the label at the default, click on Next.

Step 4: Windows 2000 Advanced Server Setup

- Select the 'Per seat' Option, click on Next
- Leave the licence key blank and click continue
- When prompted to download support pak just click OK
- Click continue three times more and computer will restart and format the partition

Launch Installation

Step 1: Installation

- When prompted to insert the Windows 2000 CD, insert it and click OK
- When prompted, click restart and when prompted remove the CD and the floppy disk.
- The system will then restart
- Allow the system to start up by itself. Do not touch anything until you see a "Welcome to Windows 2000 setup wizard"

Step 2: Welcome to Windows 2000 Setup Wizard

- Click next to skip the information screen
- When prompted that the digital signature has not been found, click yes to continue the installation.
- When you are prompted that files cannot be found browse to the \$OEM\$ directory, then the TEXTMODE directory and you will find a file there. Click on it and click OK twice.
- Set the location to "(GMT) Greenwich Mean Time; Dublin, Edinburgh, London, Lisbon".
- Set the keyboard layout for the UK and delete the US layout and click OK
- You will receive a message that the US keyboard layout cannot be removed due to the fact it is currently being used. Click OK as it will be removed later.
- Enter your Name (NTL) and Organisation (NTL), and then your desired password. Then click next
- Adjust the Date to the current date, Time to the local time, and Location to "(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London" and check the box marked "Automatically adjust for daylight saving hours". Then click next.
- Change the next selection to "NO" and enter the desired workstation name.
- Click next, then finish.

Step 3: Welcome to the Network ID Wizard

- Click next to skip the information screen.
- Check "User must enter a user name and password to use this computer"
- Click Next then Finish

Step 4: Logging On

- Press Alt + Ctrl + Del and log on using your password
- If you receive any "Digital signature not found" error prompts, then just click yes to continue the installation.
- When you are prompted by a "Compaq Event Notification Wizard" just click cancel and the system will restart.

Step 5: Windows 2000 Advanced Server Startup

- Once the system has restarted, select the option "one or more servers are already running in my network" and then click next.
- Uncheck the box, "show this screen at startup" and close the window.

2. Windows 2000 Advanced Server Configuration

Post SmartStart Installation

Step 1: Download Compaq updates

- Install Compaq Support pak for Windows 2000 drivers by going to 'Run' and typing in; \\ntli-mptest\dkits\compaq_w2k_drivers, then run setup.exe from that folder.
- When prompted, click install.
- If you receive any messages, then just click the install button.
- If you receive a message about files needed,, then just click OK.
- When finished, click Close.

Step2: Control Panel configuration.

- Go to administrative tools and then go to computer management and right click on the computer management icon, go to properties and then network identification. In the Description box type in a description.
- "Services" - set the license logging service to manual start-up.
- Disable the Compaq Web Agent Service
- Disable Surveyor service
- Go to the Display applet select the 'Default' screen saver, and set it to 15 minutes password protected. Do not choose an OpenGL screensaver, they take up too much processing time.
- In the System applet go to the advanced tab and go down to the Startup and recovery section and set "Show list for" to 5 seconds.
- Reboot the server.
- !! Don't forget to remove the Windows 2000 CD or it will autoboot !!

Step 3: Event logging

- Start 'Event Viewer'
- Change the log settings for the System, Security and Application logs to 'Overwrite events older than 7 days' and the maximum log size to 10240 KB.

Step 4: Network Card Set-up

Do not set this until the server is installed in a Data Centre. The default Speed and Duplex setting is set to Automatic; this does not normally detect the correct values. Request a 100 Mbps Full Duplex Switch port from the networks team.

- Go into Control Panel, Compaq Network, highlight the adapter card and click Properties.
- Set the adapter media and duplex setting (Normally 100mb and Full for servers).
- OK and Close all options.
- Restart the server (may be done later).

Step 5: IIS Performance

To improve web server performance set as an application server.

Step 1, set as an application server

- Click Start, point to Settings, and click Network and Dial-up Connections.
- Select Local Area Connection and open its properties.
- Select File and Printer Sharing for Microsoft Networks and open its properties.
- On the Server Optimisation tab, select Maximize data throughput for network applications

Step 2, Maximise web server performance

- Go to Internet Information Services
- Go to Default Web Site properties, go to performance and move the slider to maximum

Create Disk Partitions

Step 1: Change CDROM drive letter

- Start computer management and go to disk manager.
- Right click on the CDROM.
- Change Drive letter or path...
- Change the drive letter to Z: and click on OK.

Step 2: Creating Logical Drives

- Create a D: drive using the remaining space less 20mb. Format as NTFS

Move files and folders ready for security hardening

- Create a folder in D:\ called "Inetpub"
- Go to c:\inetpub and cut the folder "wwwroot" and "scripts" and paste them on to D:\inetpub
- Go to Internet Services Manager, Stop the default website
- Inside the default website category, go to the properties of scripts, and change the virtual directory to D:\inetpub\scripts\
- Click OK and then go to properties on Default Website.
- Go to the Home Directory tab and change the directory to D:\inetpub\wwwroot\

Move IIS Log Files

- Create a new directory on D:\ called "IIS Logfiles"
- Go to "Start / Programs / Administration Tools / Internet services management"
- Right click on "Default Web Site and go to properties.
- Go down to "Enable Logging", and click on properties.
- Go down to "Log files directory" and click on "Browse".
- Select the folder you just created on D:\ and click OK.

3. Software installation

Install Time Service

- Run `\\ntli-mpstest\dkits\timeserv\install.cmd`

Remote Console Management

- Install Net Support V5.02 for **Internet** Servers; see the Net Support Installation document for installation details.

Backup Exec

- If required, install Backup Exec 8.0. Create a daily backup job to run at 02:00 that backs up all data on a 31-day backup cycle.

Site Server

- Go to computer management and then go to Local Users And Groups.
- Go to groups.
- Create an account called #Publishing with Administrator rights for Internet Servers, use the account NTL-INTRANET\#Publishing for Intranet Servers – To be used for Site Server Content Deployment. Uncheck User must change password at next logon
- Create an account called #Search with Administrator rights for Internet Servers, use the account NTL-INTRANET\#Search for Intranet Servers – To be used for Site Server Search. Uncheck User must change password at next logon
- Install Site Server version 3, when prompted “This program does not work correctly with this version of windows” then click “Run Program”, select Custom Install, select All and then de-select Access Database Support under Analysis.
- Place all but Program Files to D:
- DO NOT overwrite newer files with older ones.
- Install Site Server 3 Service Pack 3.

Index Server Security Hotfix

- Install from \\ntli-mptest\dkits\index server patch\Q251170_wk2_sp1_x86_en.exe
- Reboot as requested.

Test Standard Configuration

- Reboot and check event logs, Compaq Insight Manager, network and Internet connectivity and IIS.

Backup, Emergency Repair Disk & Performance Counters

- From Command prompt type, `DISKPERF -Y`. This enables disk counters when using performance monitor.
- Go to “Start / Program Files / accessories / system tools / Backup
- click on Emergency Repair Disk
- Check box to backup registry and repair directory.
- Insert a black, formatted 3.5inc floppy disk and click “OK”
- Archive the ERD, label as ‘sever name’ Initial W2K Config Data

- Store the disk in a safe place.

4. Security Hardening

IIS Security Checklist

Run through the Windows 2000 security checklist and file the completed report.

Install Custom Software

- Install Software as required.

Final Backup & Emergency Repair Disk

- From Command prompt type, `DISKPERF -Y`. This enables disk counters when using performance monitor.
- Go to “Start / Program Files / accessories / system tools / Backup
- click on Emergency Repair Disk
- Check box to backup registry and repair directory.
- Archive the ERD, label as “‘server name’ Final W2K Config Data”
- Store the disk in a safe place.

Post Installation

- Create an account called BackupOps with Backup Operator rights.
- Create an account called BackupExec with Administrator rights if this is a standalone server being backed-up by a remote system.
- Add to backups on a remote server if local tape drive is not available.
- Add to Insight Manager monitoring
- Add to Serversalive monitoring
- Add server to server listing spreadsheets.