

# Microsoft Windows 2000 Server Installation & Configuration – Stand-alone Domain Controller

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# INTRODUCTION

## Purpose of Document

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

## Audience

The intended audience is Network Administrators who are intending to set-up a Windows 2000 Server as a Stand-Alone Domain Controller

## Required Installation Information

- Server Name: (using Naming standards)

Role: The server will be a standalone domain controller in the UNITY domain for Windows and Linux based 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 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”.
- Under “Country/Keyboard” Select “United Kingdom” for the country and British for the Keyboard.
- Select “British Keyboard” click on Next.
- Select the correct date, and time 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**

- Under “Choose the desired SmartStart path” choose “Assisted Integration”, and 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 Server – English”, and click on Next.
- Click on continue to confirm selection.
- The system will reboot

### **Step 4: Configure Hardware**

- Press “Continue with SmartStart” at BIOS GUI.
- Press “Enter” to continue and reboot the server.
- The system will reboot
- On the “Welcome” screen select the “continue” radio button then click Next to configure the Compaq Array 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.
  - The system will reboot.

## Select Software

### Step 1: Product Selection

- Click "next"
- Make sure "Yes, I want to create a replication profile from this installation." Is unchecked
- Click "next"

## 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: Network setup

- Check to see if "10/100 Base-T (RJ-45)" is selected.
- Click "next"

### Step 3: Integrated Remote Console setup

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

### Step 4: Disk Carving

- You will receive a message that Windows 2000 implements a new feature set called Dynamic Disks. Click on OK.
- Set the size for the boot partition to 4080mb, format as NTFS, click on "continue".

### Step 5: Windows 2000 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 Server CD, insert it and click OK
- Setup will display a message box. Click "OK", and it prompts for the CD-KEY. Enter the CD-KEY and click "next"
- When prompted, click restart and when prompted remove the CD and the floppy disk, and click "OK"
- 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.
- Under "General" Set the system locale (location) to "English (United Kingdom)" and click "Apply".
- Under "Input Locales" 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 and Organisation, and then your desired password. Then click next
- Enter a Computer name, and a administrator password, and 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 workgroup name and click "next".
- When the "Completing the Windows 2000 Setup Wizard" information screen is displayed, click "finish" and the system will automatically resart.

### 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
- After you have logged on, the Compaq Installation Utility will automatically install the Compaq software and drivers.
- 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 Server Startup**

- Once the system has restarted, Press Alt + Ctrl + Del and log on using your password.
- Select the option "This is the only server in my network" and then click "next".
- Click "next"
- Enter the desired domain name, and enter "local" as the DNS name
- Click "next"
- Read the information and click "next"
- Do not touch anything until Active directory has configured itself.
- A message will be displayed requesting the Windows 2000 Server CD-ROM.
- Insert the Windows 2000 Server CD-ROM and click "OK"
- Click Yes to restart the system.
- Press Alt + Ctrl + Del to log on
- Uncheck the box, "show this screen at startup" and close the window.

## **2. Windows 2000 Advanced Server Configuration**

### **Post SmartStart Installation**

#### **Step 1: Install Windows 2000 Server Components**

- Click Start > Settings > Control Panel
- Double click on "Add / Remove Programs"
- Click "Add/Remove Windows Components"
- From the "Windows Components Wizard", single click on "Internet Information Services (IIS)" and then click "Details..."

- Check “File Transfer Protocol (FTP) Server”, and click “OK”
- Uncheck “Management and Monitoring Tools” and then re-check it.
- Uncheck “Networking Services” and then re-check it.
- From the “Other Network File and Print Services”, single click on “Internet Information Services (IIS)” and then click “Details...”
  - Check “Print Services for Unix” and click “OK”
- Check “Remote Installation Services”
- Check “Remote Storage”
- Check “Windows Media Services”
- Click “Next”
- When prompted, insert the Windows 2000 Server CD and click “OK”
- Setup will copy files for the selected services.
- When the “Completing the Windows Components Wizards” window is displayed, click “Finish”
- When Prompted, click “Yes” to restart the system.

### **Step2: Network setup and configuration for**

- Click Start > Settings > Network and Dial-up Connections
- Right-click on “Local Area Connection” and click “Properties”
- Click on “Internet Protocol (TCP/IP)” and click “Properties”
  - Make sure “Use the following IP Address” is selected
  - Change the “IP address” to 169.254.14.40
  - Change the “Subnet mask” to 255.255.0.0
  - Check that “Default Gateway” is blank
- Under “Use the following DNS server addresses”
  - Make sure that “Preferred DNS server” is blank
  - Click “OK”
  - You will be prompted that the DNS Server list is empty. Click “OK”.
- Click “Install”
  - Select “Protocol” and click “Add”
    - Select “NetBEUI Protocol” and click “OK”
- Click “Install”
  - Select “Protocol” and click “Add”
    - Select “NWLink IPX/SPX/NetBIOS Compatible Transport Protocol” and click “OK”
- Click “Close”

### **Step2: Service Pack 4 Installation**

- Log on using the administrator name and password
- Click Start > Run

- Type, [\\192.168.0.30\install\Windows 2000 Service Pack\w2ksp4.exe](http://192.168.0.30/install/Windows%2000%20Service%20Pack/w2ksp4.exe) and click “OK”
- Windows 2000 Service Pack 4 will verify and extract the files
- When the “Welcome to the Windows 2000 Service Pack 4 Setup Wizard” screen is displayed. Click “next” to pass the information screen
- Select the “I Agree” radio button and click “next”
- Select the “Do Not Archive Files” radio button and click “next”
- Windows 2000 Service Pack 4 will install
- During the installation, you will be prompted that a file on the computer was installed by the computer vender. Click “Yes” to overwrite this file.
- When the “Completing the Windows 2000 Service Pack 4 Setup Wizard” screen is displayed, make sure that “Do not restart now” is unchecked, and click “Finish” to complete Service Pack 4 installation and restart the system.

### **Step3: Control Panel configuration.**

- Click Start > settings > Control panel > Administrative Tools > Services
- 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.

### **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.

## **Create Disk Partitions**

### **Step 1: Change CDROM drive letter**

- Start computer management and go to disk management.
- You will be prompted with “Welcome to the Write Signature and Upgrade Disk Wizard. Click “next”
  - Make sure “Disk 1” is checked and click “next”
  - Click Finish

- Right click on the CDROM.
- Change Drive letter or path...
- Click "Edit"
- Assign the CD-ROM Z: and click "OK"
- You will be prompted that changing the drive letter could cause some programs to no longer run. Click "yes"

### **Step 2: Creating Logical Drives**

Create a new logical drive (D:) using the remaining space. Format as NTFS with no label

- Right click on the diagram representation of the second logical drive and click "Create Volume..."
- You will be presented with the "Welcome to the Create Volume Wizard" screen. Click "next"
- Make sure that "Simple Volume" is selected, and click "next"
- Make sure "Disk 1" is in the "selected dynamic disks" list , and the maximum available size is selected under the "Size". Click "next"
- Assign the drive letter of D: to the drive and click "next"
- Make sure the "Format this volume as follows:" radio button is selected, and format the drive as NTFS, with the default allocation size. Delete the volume label so it is blank, make sure that "Perform a Quick Format" and "Enable file and folder compression" are both unchecked and click "next"
- Review the summary and then click "Finish"
- The Disk Manager will format the drive. Do not touch anything until this has finished.
- Once it has finished, close the computer management applet.

## **3. Software installation**

### **Remote Console Management**

- Install Remote Administrator V2.1

### **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 blank, formatted 3.5inc floppy disk and click “OK”
- Archive the ERD, label as ‘server name’ Initial W2K Config Data
- Store the disk in a safe place.

## 4. Security Hardening

### 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.