



PatchLink Corporation

**WebConsoleTM
for NetWare
User's Guide**

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WebConsole for Netware User's Guide, Version 4.0

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Introduction

Let us introduce you briefly to WebConsole. What is WebConsole? WebConsole is an effective solution for web-based network management that enables you, as a network administrator, to securely access and manage NetWare file servers using any standard web browser. As a network system administrator with proper access rights, you can use WebConsole to manage a network from almost any location or any client. After proper authentication to the network, you can do the following:

- Access NDS to add, delete, modify and move users, organizational units and other NDS objects.
- Issue NetWare system console commands.
- Automatically update remote server files with Gravitix.
- Manage NLMs throughout a LAN or WAN.
- Use simple drop-down lists to load and unload NLMs.
- Manage mounted and dismounted volumes and view their statistics.
- Edit key server configuration files that affect the booting process.
- View the address and any open files of a particular connection.
- View mounted volume, server configuration, and INI files.
- Use Java-enabled or non-Java user interface
- Send messages or keys to the server.
- Manage files in both mounted volumes and local DOS partitions.
- Manage user accounts, issue passwords, and set time restrictions.
- Create, schedule, and modify management tasks to run NCF files.
- Obtain detailed listings of all LAN cards installed on the server.
- Create detailed reports of a server, view system information, check server parameters and inventory, and diagnose encountered problems.
- Manage printers, print servers, and the print queue.
- Manage problems with a full HelpDesk utility.

All these features are discussed in greater detail in *WebConsole Features*.

When you use WebConsole to manage a network, first verify and authenticate

INTRODUCTION

your identity with NDS or Bindery to gain access to network resources. RSA encryption and SSL technology keep passwords confidential.



Note

For security, RSA encryption and SSL technology are provided by your web server and web browser (not by WebConsole). Before you can utilize this technology, you must properly configure your web server for this feature. Refer to your web server documentation for additional information on implementing SSL support.

You can manage NetWare file servers from any client platform supporting web browser technology. All you need is a web browser that supports frames, access rights, and a connection to the Internet or Intranet. You do not need any additional client software with WebConsole.

WebConsole is an intuitive browser interface utilizing navigation buttons, frames, and drop-down lists. It allows the administrator to quickly jump back and forth among management functions with a click of the mouse. WebConsole makes network management easy and almost effortless.

WebConsole dramatically reduces the resources required to perform updates of NLMs, Disk Drivers, and LAN Drivers. The administrator can immediately identify and automatically update old NLMs throughout the entire LAN or WAN. WebConsole downloads the latest NLM and Driver updates from a defined user or from PatchLink.com's master web site and automatically applies them to selected NetWare file servers and their DOS Partitions.

Administrators can view a list of all NLMs running on the server, select a particular NLM for "real time" interaction and viewing, view the System Error Log file for a list and description of console error messages, and send network broadcast messages to all users. This is just a sample of the features available in WebConsole. For further information, refer to the next chapter, *WebConsole Features*, and to the online documentation included with the product.

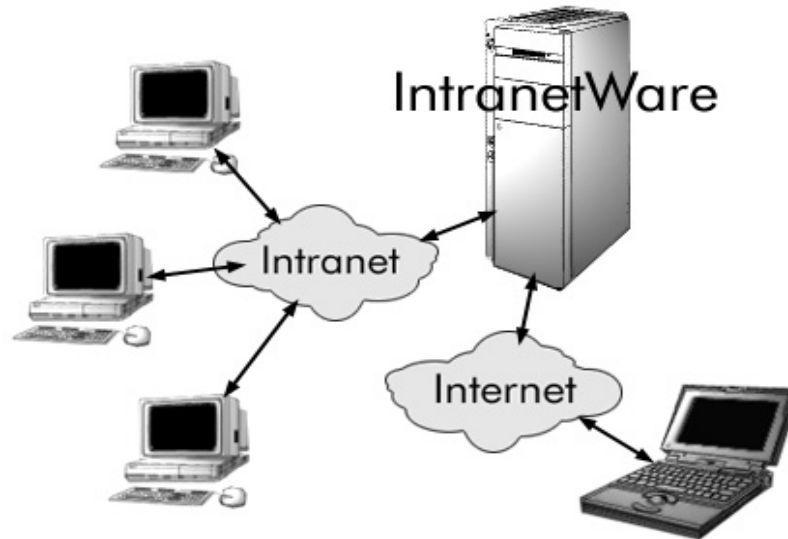


FIG. 1: WebConsole is a central administrative utility interface between the NetWare Server and any client. WebConsole is accessible from within the Internet or Intranet.

How to use this manual

This manual contains all you need to know about WebConsole's concepts, features, installation, configuration, and operation. It is intended for use by administrators planning to install WebConsole on one or more of their NetWare servers. It will guide you through the planning and installation stages, and through the initial log-on phase. Before installing WebConsole, be sure to review the *Hardware and Software Requirements* section. At the end of the manual, there is an appendix for detailed troubleshooting. In addition, a full context-sensitive online documentation section is provided within the product itself.

Before installation, you should first read the *Readme* file. It contains the most recent updates and other information.

Conventions Used

You can type commands in upper case, lower case, or in a mixture of both. Throughout the manual, the following conventions are used to help the reader use this resource effectively.

INTRODUCTION

- Short names of keys and key sequences are in SMALL CAPS, for example ENTER
- Long names of keys, buttons, and standard abbreviations are in *Italics*.
E.g.: *Settings*, *IP*, and *URL*.
- File names, volume names, and drive letters are in UPPERCASE.
- User-typed commands and code are in **Courier New, bold**
- Screen-displayed materials and code are in Courier New.



Quick Installation Guide

If you are an experienced user of WebConsole and all you need is a quick way to install WebConsole, follow the installation steps presented in this chapter. In this case, you are familiar with both hardware and software requirements and have already chosen a master or remote server. For best results, however, you still need to review the latest information updates in the *Readme* file.

CDROM Contents:

The WebConsole CDROM contains the following directories (*Table 1*).

Table 1: Stored components on CDROM and their corresponding directories.

Component	File name	Directory
WebConsole Setup program	SETUP.EXE	\WCNW
IntranetWare Support Pack	IWSP51.EXE	\UPDATES\NETWARE
IntranetWare Support Pack 6a	IWSP61.EXE	\UPDATES\NETWARE
Netscape Enterprise Server	NESN351A.EXE	\UPDATES\NETWARE
Novell 3.1 web server	NVWE331.EXE	\UPDATES\NETWARE
NetWare 5 Support Pack 2a	NW5SI2A.EXE	\UPDATES\NETWARE
TCP/IP Update Kit	TCPN01A.EXE	\UPDATES\NETWARE
TCP/IP Update Kit	TCPN01.EXE	\UPDATES\NETWARE
Novell 3.1 web server patch	WS31011.EXE	\UPDATES\NETWARE

Installation

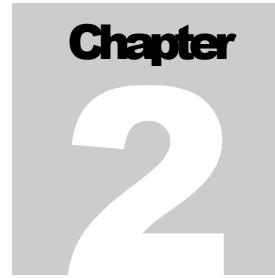
Install the following components in the order shown prior to installing WebConsole:

- 1) **Master Server NetWare 4.11 or higher, Remote Server can use 3.X or higher**
- 2) **Server Support Packs, see Table 4 located in Chapter 4**
- 3) **Web server Novonyx/Netscape or Novell 3.1 loaded and running on Master Server**
- 4) **TCP/IP loaded on Master and Remote Servers**
- 5) **Admin or Admin equivalent rights to Master and Remote Servers**
- 6) **Must use Novell Client32 as default client on workstation**

NOTE: *A Master Server is defined as a NetWare 4.11 or higher server with a running web server. A Remote Server is defined as a NetWare 3.X or higher server with or without an installed web server. **WebConsole for NetWare** must be installed on a Master Server before installing on a Remote Server.*

Install the Support Packs and other updates to your NetWare server *before* installing the Novell Web Server 3.1. These two updates have already been extracted on the WebConsole CDROM and are ready for installation on your server (located in the \UPDATES\NETWARE directory).

- Install a master or remote server
 1. Log on to the NetWare server as a user with administrative rights.
 2. Map a drive to the SYS: volume of the NetWare server so that the WebConsole setup program can have access to setup files.
- Run the WebConsole setup program. The WebConsole SETUP program is accessed by clicking NetWare from the AutoPlay program, or by running the SETUP.EXE program in the /WCNW directory on the WebConsole CDROM.
- Follow the instructions on all the WebConsole setup screens to complete the installation.

A graphic for Chapter 2, featuring the word "Chapter" in a bold, black, sans-serif font above a large, white, stylized number "2" set against a dark gray square background.

WebConsole Features

WebConsole integrates many administrative functions into a single web-based network management solution. All of the capabilities within WebConsole are provided by a discrete NLM. This NLM is loaded and unloaded dynamically during a WebConsole session and it is controlled by the Net2000 NMX engine that is a part of NetBasic. WebConsole's main screen presents the major features of WebConsole. (Illustrated in Fig. 2.) Each icon in the main menu gives rise to a variety of other submenus, buttons, and screens. The submenus also give rise to other buttons, screens, or services. While clicking these icons leads to the execution of different tasks, their menus and submenus are transparently interactive. Collectively, using hyperlinks, these icons make WebConsole an expedient central collection point for administering information and performing management tasks.

For greater feature details, refer to *Online Help*. The main features contributing to the functionality of WebConsole are explained as follows:

Boot Sequence

This feature controls the boot process. It lets the network administrator edit key server configuration files such as AUTOEXEC.NCF, STARTUP.NCF, AUTOEXEC.BAT, and CONFIG.SYS. Administrators can then reboot the server directly for the changes to take effect.



FIG. 2: WebConsole main screen.

Connection Management

This feature provides the network administrator with a convenient list of all current connections to a specified server. From this list, the network administrator can select a particular connection and view its various statistics including address information, a list of its open files, and log on and log off times. If required, individual connections can be cleared with a click of the mouse, releasing open files and thereby allowing backup procedures to run unhindered.

Console

This is a new feature in WebConsole. You have the choice for a Java- or non-Java-enabled view of the *View Console Screen* by selecting the *Yes* or *No* choice of the pull-down menu in the *Settings* section under the *Set Defaults* page. It is important to note that in order to view the console in Java mode you must have a Java-enhanced browser that is capable of supporting JDK 1.1.5 or later. The *Netscape Communicator*, Standard or Professional 4.04 or 4.05 edition (or later), or the *Microsoft Internet Explorer* 4.01 (or later) provide such capability.

In the Java console (*Fig. 3*), the applet defaults to the system console screen.

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

The number of module screens contained in the pull-down menu varies according to the number of loaded modules on the server at a given time.

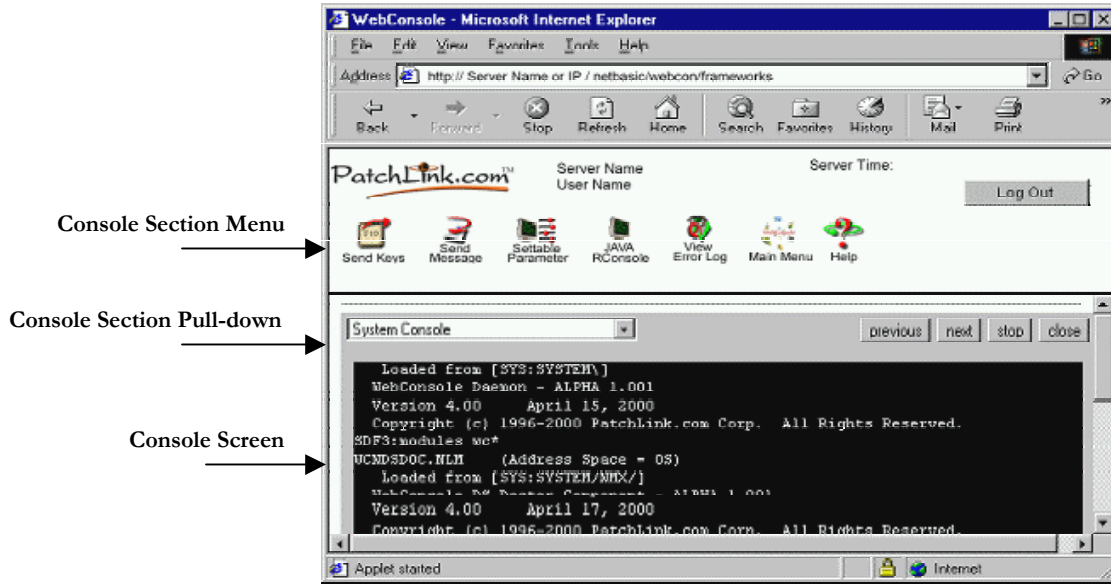


FIG. 3: The Console Monitor screen from within the Java Console utility.

To the right of the pull-down menu, there are four buttons to manipulate the content of the screen panel. These buttons are *Previous*, *Next*, *Start*, and *Close*. To move from one module to another, click the *Previous* or *Next* buttons. The *Start* button controls the updating of the screen panel. The *Start* button toggles to *Stop* when it is clicked on. To shut down the running applet and return to the previous screen, click the *Close* button.

When you click on the screen panel itself, you can write and send messages or keys to the server. There are a number of conventional shortcuts relevant to console screen operations such as using the *Esc* key to exit a module or using the Up arrow key to get the last command prompt.

Diagnostics and Reports

With these features, administrators can create detailed reports of any given server system, view operating system information, check user information, file systems, server parameters, security, and server inventory. The administrator can easily check to see which NLMs are loaded, view mounted volumes, and quickly view server configuration and INI files. By viewing past reports and

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

making comparisons to the servers' present status, troubleshooting becomes almost effortless.

Files

This feature offers the equivalent of a File Manger-type view onto your remote server, providing access to both mounted volumes and to the local DOS partition. In addition to browsing the directory tree to view file and directory information, you can perform file management functions such as modifying trustee rights, creating new directories, deleting files in the current directory, or deleting the current directory. Once a file has been selected, you can view it and add trustee rights and list all current connections that have the file open. For example, the network administrator can check to see that critical files are closed before triggering a backup procedure.

Gravitix

This is an extremely powerful feature that allows the network administrator to maintain a *reference server* containing the latest patch kits and updates. WebConsole checks local NLMs, disk drivers, and LAN drivers against the *reference server*, and highlights those that are out of date.

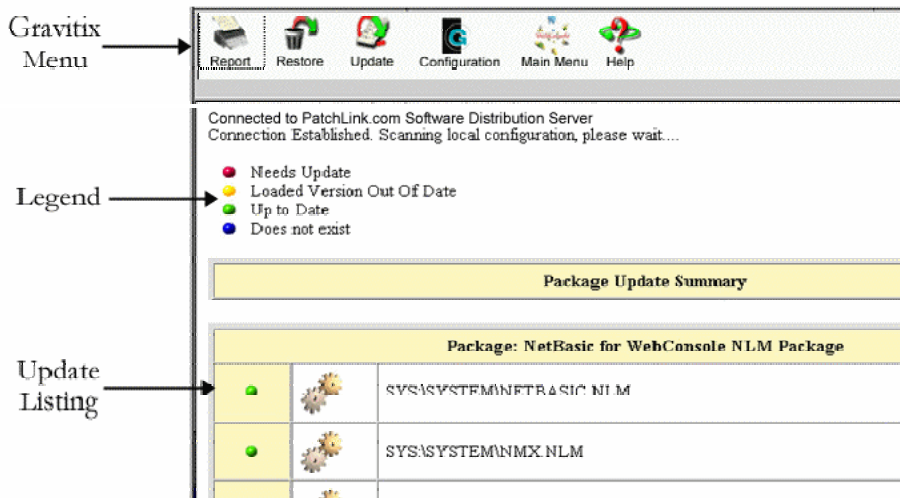


FIG. 4: Gravitix Update Summary

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

With a click of the mouse, WebConsole downloads the latest updates from the *reference server* and automatically applies them to local file servers and to their DOS partitions.

For additional convenience, PatchLink.com maintains a *reference* site that is set as the default site in the shipping software. This server will always contain the most current patches, thus, keeping network administrators up to date without continually having to search and download patches. A screen representing the features of Gravitix and its menu is shown in *Fig. 4*.

HelpDesk

HelpDesk closes the gap between the system administrator and HelpDesk personnel. A HelpDesk member is granted limited administrator rights. This member can thus issue passwords, set time restrictions, create incident reports, add and delete users, reset user accounts, and give printer access, all while keeping everything contained in one cohesive unit. With proper authentication and setup, a HelpDesk user can take advantage of the remote console component to control a client workstation. An example of the HelpDesk screen is shown in *Fig. 5*.

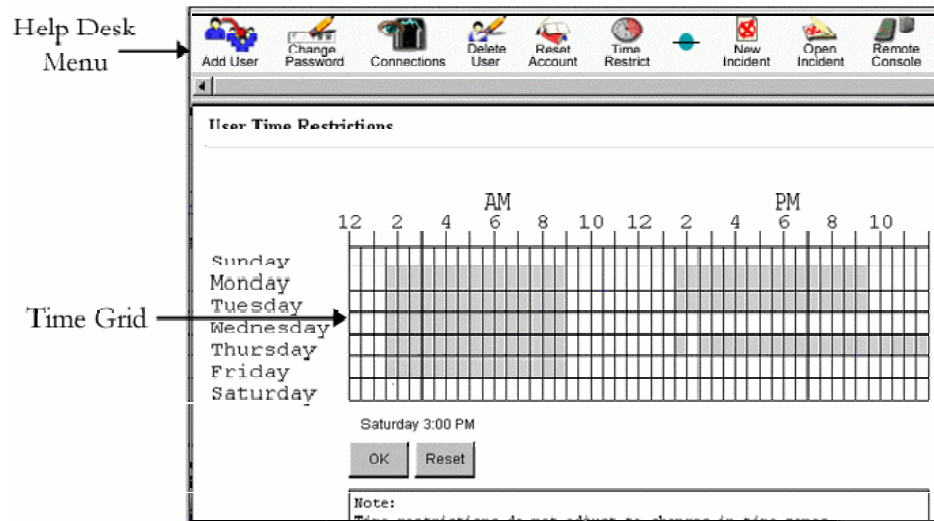


FIG. 5: A screen in the Help Desk Menu shows time restrictions that can be set (shaded areas) by dragging through specific time segments.

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

With incident reporting, anybody can create a HelpDesk incident even those who do not have access to WebConsole. Email alerting occurs whenever a new incident is assigned to a HelpDesk support person or whenever an open incident has been modified. The administrator and the HelpDesk manager have the ability to monitor activities, generate statistics and create reports for the HelpDesk. The HelpDesk records and reports can easily be imported and exported utilizing standard CSV (comma separated) files.

The HelpDesk also allows the administrator to create a link from a web page, such as your Corporate Intranet web site, to the *User Incident Report*. This easy to use report allows users to add their own incident reports without having to rely on HelpDesk personnel. The report is processed exactly like standard incident reports made by HelpDesk personnel, so it is readily available for setting priority, codes, and assignment. You can view a sample web page to get the source code to employ this option in your HelpDesk system by opening the file UINCDNT.HTM from the browser. The default location is <SERVER_IPADDRESS>/UINCDNT.HTM (or WEBCON directory under the web server root path). This file is created when you install WebConsole.

LAN Card

This feature provides detailed listings of all LAN cards installed on the server together with their configurations.

Module Management

This feature brings up a list of all NLMs available in SYS:SYSTEM, their version numbers, and descriptions. The network administrator can then load and unload NLMs from a drop-down list and can view loaded NLMs on a given server.

NDS and Bindery Management

This feature provides partition management capabilities such as viewing partition details and forcing synchronization, as well as the ability to change context, and browse the NDS tree or Bindery Structure. Browsing the tree begins at the Organization level, showing all the Organizational Units, Users, Groups, Servers, Volumes, and other objects below it (*Fig. 6*). Some of the functionality available to administrators is adding, deleting, or modifying Bindery and NDS objects.

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

If a container object is selected, a similar view of its contents is provided, thus allowing the administrator to browse up and down the tree. A button is also provided to create new objects.

If a leaf object is selected, an additional menu is presented offering the ability to *View/Edit Properties* or to *Rename, Move, or Delete* the object in question. These options change depending on the object type.

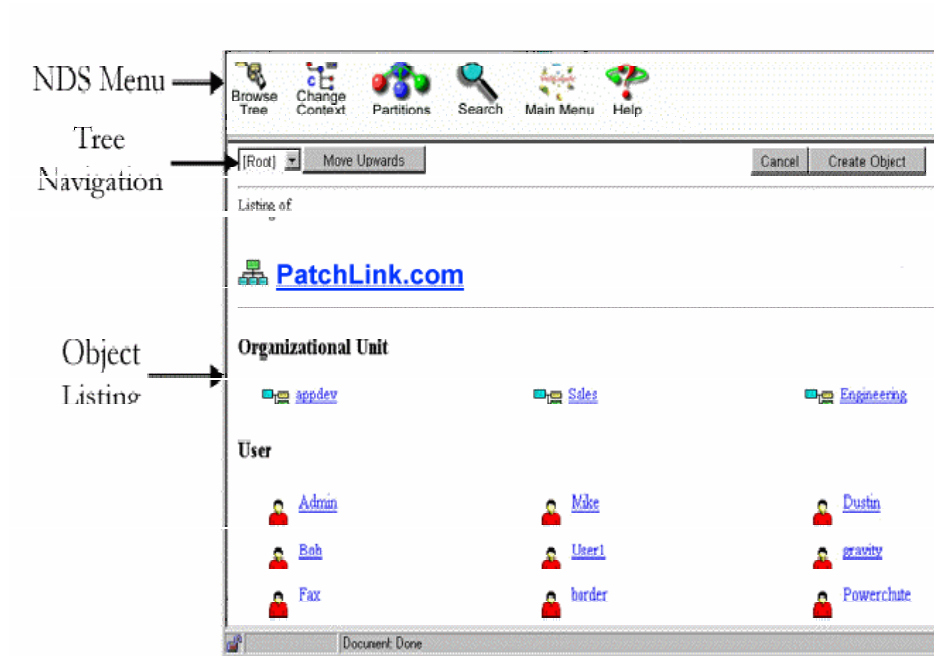


FIG. 6: The Network Directory Service (NDS) menu features NLM Management

As you may notice, the NDS browse capability is much more than just a browser; it actually provides most of the functionality of Nwadmin.

Note: Whether the Bindery Structure or the NDS Tree is available for a server is dependant on that servers' version number. 4.x servers utilize the NDS tree, while 3.x servers use the Bindery Structure. It is also required that a copy of the NDS Tree must reside on the server in order to login and access it.

Printer Management

The Printer section gives the administrator the ability to add, delete, modify, and view printers, printer servers, and available print queues attached to the server. Printer and Print Queue attributes such as identification, assignments, users, operator, page layout, and various configuration settings, can easily be modified.

Task Management

This is one of those features that most network administrators will wonder how they ever did without it. WebConsole includes a server-based task scheduler, known as Task Manager. Task Manager lets administrators create, schedule, and modify management tasks to run NCF files. It also provides the means to load and unload the scheduled NLM, and it adds and deletes tasks from the queue. Flexible automation of management tasks is performed through a simple, user friendly, web browser interface. Thus, administrators can quickly edit, view, and delete tasks in the task queue of the file server.

A Task can be any server command including the name of an NCF file or NetBasic script, and it can be scheduled to run as once only or every minute, hour, day, week, or year. Start and end dates and run times can also be specified. Once a task has been added to the queue, it can be modified at will.

Volume Management

WebConsole lets administrators manage the volumes currently mounted on a specified server. Administrators can select a particular volume and view its vital statistics and loaded name spaces (Fig. 7).

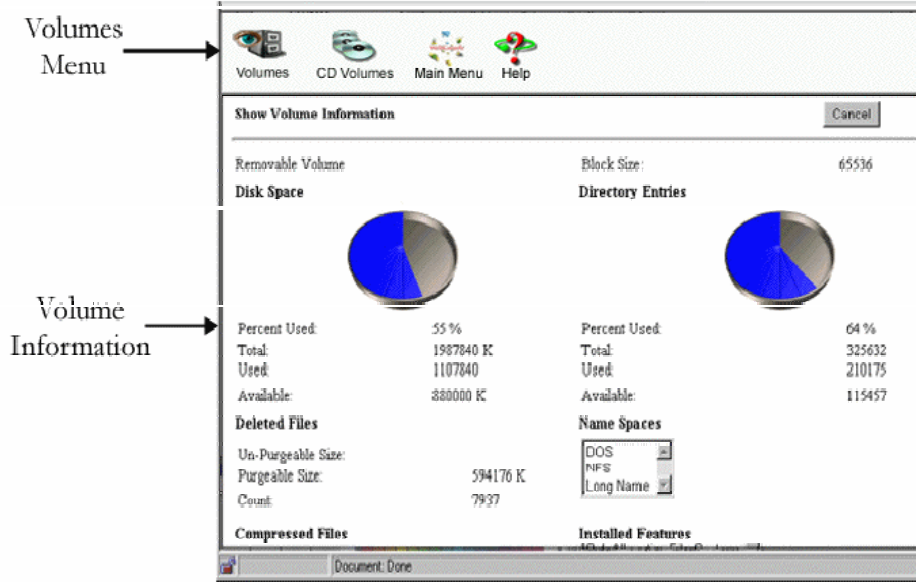


FIG. 7: A WebConsole screen for monitoring the status of volume space and content.

Volumes can also be mounted and dismounted as needed. Not only do administrators have access to the volumes, but they can also create new directories, delete files, or grant and modify trustee rights to files and directories.

In addition, administrators can select files, view the files' current users, and clear the user connections, thereby releasing the file. This feature allows you to mount and dismount volumes as needed. From a list of volumes currently mounted on a specified server, the network administrator can select one volume and view its total space, space used, free space, total directory space, used directory space, and available directory space.

Hardware and Software Requirements

Before installing WebConsole, you should be aware of its system requirements. This chapter lists both the hardware and software required for installing an operational WebConsole. So take a few moments to be aware of these requirements. Once you have fulfilled these requirements and have read the next chapter, *Before beginning installation of WebConsole*, you will be ready to begin your installation of WebConsole.

WebConsole is supplied on a single CDROM along with easy-to-follow installation procedures. The product is straightforward to install and use.

Hardware Requirements

Essentially, memory (RAM) is the only hardware requirement. *Table 2* gives the minimum system requirements for NetWare servers running WebConsole.

Table 2: RAM requirements.

NetWare OS Version	Master Server RAM	Remote Server RAM
NetWare 5.0	64 MB	32 MB
IntranetWare	32 MB	32 MB
NetWare 4.10	N/A	24 MB
NetWare 3.12	N/A	16 MB

Hardware requirements should not cause problems for existing sites since the parameters range from 16MB RAM for a NetWare 3.12 server to 128 MB RAM for an NetWare 5.0 server, the minimum specification employed by most systems. If additional software is loaded on the file server, more memory is required. WebConsole also utilizes 2MB of system memory to run on a NetWare server. A master server requires 12MB of disk space for WebConsole. A remote server requires 5.5MB of disk space.



Note

The previously mentioned requirements are based on the assumption that your system fits the requirements for the various clients or servers of NetWare. Refer to the next chapter, *Before you begin installation of WebConsole*, for details.

Software Requirements

WebConsole requires Windows 9x or Windows NT on a workstation for installation. Windows 3.1 is not supported. Before installing WebConsole, install and configure certain software components: These components are shown in *Table 3*.

Table 3: Software Requirements.

COMPONENT	SOURCE	INSTRUCTIONS
Novell NetWare OS (any configuration)	Novell reseller (Or for a two-user Demo version, call PatchLink.com. This is NOT Freeware or for permanent use, you will need to purchase NetWare)	Included
Novell Support Pack	Novell web site (support.novell.com)	Included
TCP/IP Protocol Stack (if	Load Novel's INETCFG program,	Novell online

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

needed)	configure, and reboot.	documentation
Web Server	WebConsole CDROM:\UPDATES\NETWARE	See Netscape Enterprise or Novell 3.1 web server

Web Server WebConsole requires a web server (either Netscape Enterprise Server or Novell 3.1 web server) to direct requests to the remote NetWare 4.10 and 3.x servers. Access the installation files of the web server of your choice by one of the following means:

1. Netscape Enterprise Server

- Mount the WebConsole CDROM on the NetWare server.
- Login to the NetWare server as a user with administrative rights.
- Map a drive to the SYS: volume of the NetWare server so that the Netscape setup program can have access to setup files.
- Run the installation program NES451A.EXE found on the WebConsole CDROM in the \UPDATES\NETWARE directory.

2. Novell 3.x web server

- Mount the WebConsole CDROM on the NetWare server
- OR, copy the contents of the \WEBSERV directory and its subdirectories into the temporary directory SYS:WEBSERV on your NetWare server. Delete this temporary directory after having installed the Web Server.
- To load the Novell INSTALL.NLM, at the system console prompt type > LOAD INSTALL.
- Select *Product Options* from the main menu, and then choose *Install a product not listed* from the submenu.
- Press the <F3> key to specify the path to the Web Server 3.x installation directory. If you copy the files to SYS:WEBSERV, the path is SYS:WEBSERV. If you mount the WebConsole CDROM as a volume on your server, the path is WEBCON:WEBSERV.

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

- Follow the installation and configuration instructions that are displayed on the screen.
- Access your NetWare 3.x Web Server by loading a web browser and typing the *URL* of your server. For example, if your NetWare server's IP address is 110.90.50.7, type **110.90.50.7**. Your browser will display your NetWare 3.x Web Server index page.

WebConsole comes with the necessary updates for NetWare, TCP/IP, and web server, so you can easily update or start using a web server on your NetWare Server.

It is important to note that in order to view the console in Java mode, you must have a Java-enhanced browser that is capable of supporting JDK 1.1.5 or later. The *Netscape Communicator*, Standard or Professional 4.04 or 4.06 edition (or later) and the *Microsoft Internet Explorer* 4.01 (or later) provide such capability.

Additionally, you need at least one server running NetWare 5 or IntranetWare to act as a master server. This server should run the latest TCP/IP protocol stack and the latest NetWare Support Pack, both of which are available from Novell web site. You also need a web server like Netscape Enterprise Server or the Novell Web Server version 3.1.

Once the Support Pack and web server are installed, you are ready to install WebConsole. You can install WebConsole on any personal computer running Windows 9x or on an NT Workstation. The installation wizard is typical of most of today's Windows packages, and it gives you the option of installing either a master server or a remote server.

Choosing a Master or Remote Server

The option of installing either a master server or a remote server is an advanced feature of WebConsole. A single master server provides remote access to any number of remote servers. Two or more independent master servers can also provide access to same remote servers (*Fig. 8*). Only master servers are required to be running both NetWare and a web server.

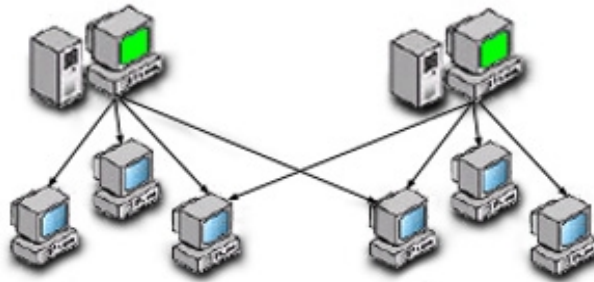


Fig. 8: More than one master server (shown with mini-towers) may provide access to the same remote server(s) (shown without mini-towers).

The remote server must be registered with a master server via WebConsole. It can run any version of NetWare from 3.12 to NetWare 5.0. It also has a few key NLMs that provide communication between WebConsole-enabled servers.

The network administrator makes the initial connection to the Web Server on any master server. Once the connection has been made, the administrator can pull down a menu listing of all of the available master and remote servers that are registered with that particular master server.

After selecting the appropriate server, an on-screen prompt will appear requesting the user name, password, and NDS or Bindery context. These security prompts ensure that only approved network users are able to verify and authenticate their identity with either NDS or Bindery. The log on process is identical to that used when logging on to a server locally. RSA encryption and SSL technology ensure that passwords remain confidential. Check to see that you have properly configured your servers for RSA encryption and SSL technology. As a final element of security, if the WebConsole-loaded computer is left on with no activity for a predetermined amount of time, the connection will be terminated.

Before You Install

Apart from the hardware and software requirements discussed in the previous chapter, a minimal WebConsole installation will require one NetWare server running the a web server. WebConsole requires the NetWare server to host the web server, and to direct requests to the remote NetWare 5.0, 4.11, 4.10 and 3.x servers that are located elsewhere on the Intranet.



Note

If you do not currently have a NetWare server installed on your network, you must install one before you can install and configure WebConsole. For additional instructions on setting up a NetWare server, refer to the section entitled “Installing NetWare” later in this chapter

The following list outlines the required software components that must be installed and configured to have a fully functional WebConsole. (If you have already installed WebConsole on a master server, please refer to the section entitled *Installing Remote Server*, later in this chapter.)

1. Install NetWare on a server
2. Install the Support Pack (if needed) on the NetWare server
3. Configure the TCP/IP protocol stack on the NetWare server

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

4. Install the web server (either Novell 3.1 web server or Netscape Enterprise Server) on the NetWare server
5. Install WebConsole on your NetWare server.

Installing NetWare

Set up the adequate hardware for installing a copy of Novell NetWare network operating system. Purchase a copy of Novell NetWare operating system from your local reseller. Any user configuration will suffice, even a minimal two-user license. Refer to the installation instructions that accompany NetWare to install and configure the operating system for use. Once you have completed this step, move on to installing the support pack, detailed in the following section.

NetWare Support Pack

Before you install the web server, you need to make sure you have the Novell NetWare Support Pack installed. This is extremely important if you are running IntranetWare (NetWare 4.11). If you are running this version then you need to make sure Support Pack II (or later) is installed on your IntranetWare server. The web server requires components from the support pack, and will not operate correctly without them. Support packs are available from Novell's web site, *support.novell.com*, on the World Wide Web. Download the support pack, and follow the provided instructions for installing it on your NetWare server

SERVER SUPPORT PACK MINIMUM
REQUIREMENTS FOR WEBCONSOLE FOR
NETWARE INSTALLATION

Table4: Service Pack Requirements.

NetWare OS Version	Support Pack Requirement
3.12, 3.2, 4.1	Latest update for CLIB and TCPIP
4.11, 4.2	Support Pack 6a
5.0, 5.1	No Support Pack Required

Configure TCP/IP

If your NetWare server is not currently configured to use the TCP/IP protocol stack, you need to do this now. Load the INETCFG program supplied by Novell and configure the protocol stack for use on your server. For information on installing and configuring TCP/IP on a NetWare server, refer to Novell online documentation. When you have completed this step, be sure to reboot your server so that the changes made can take effect.

Novell 3.1 or Netscape Web Server

For your convenience, a copy of the Novell 3.1 web server and Netscape Enterprise Server have been included on the WebConsole CDROM. It has been extracted into the directory \UPDATES\NETWARE off the root on the CDROM. To install the web server, you need to do one of the following:

1. Netscape Enterprise Server

- Mount the WebConsole CDROM on the NetWare server.
- Login to the NetWare server as a user with administrative rights.
- Map a drive to the SYS: volume of the NetWare server so that the Netscape setup program can have access to setup files.
- Run the installation program NES451A.EXE found on the WebConsole CDROM in the \UPDATES\NETWARE directory.

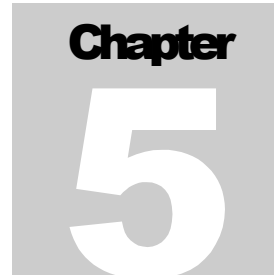
2. Novell 3.x web server

- Mount the WebConsole CDROM on the NetWare server
- OR copy the contents of the \WEBSERV directory and its subdirectories into the temporary directory SYS:WEBSERV on your NetWare server. Delete this temporary directory after having installed the Web Server.
- To load the Novell INSTALL.NLM, at the system console prompt type > LOAD INSTALL.
- Select *Product Options* from the main menu, and then choose *Install a product not listed* from the submenu.

BEFORE BEGINNING INSTALLATION OF WEBCONSOLE

- Press the <F3> key to specify the path to the Web Server 3.x installation directory. If you copy the files to SYS:WEBSERV, the path is SYS:WEBSERV. If you mount the WebConsole CDROM as a volume on your server, the path is WEBCON:WEBSERV.
- Follow the installation and configuration instructions that are displayed on the screen.
- Access your NetWare 3.x Web Server by loading a web browser and typing the *URL* of your server. For example, if your NetWare server's IP address is 110.90.50.7, type **110.90.50.7**. Your browser will display your NetWare 3.x Web Server index page.

If the web server index page is displayed, your web server is properly configured, and you are ready to install WebConsole.



Installing WebConsole

Only after reading the previous two chapters, *Hardware and Software Requirements* and *Before You Install*, will you be ready for the WebConsole installation. This chapter will guide you through steps to follow for the installation of WebConsole on your network. After installing WebConsole, you will be ready to configure it.

There are two types of installations available for WebConsole: master and remote. A master installation is performed on a NetWare server that is configured to run the Novell 3.1 web server. A remote installation is performed on all other servers (those that are not configured to run the Novell 3.1 web server). Provided you have purchased the appropriate number of licenses, you can install one or more master servers and one or more remote servers. The following two sections discuss the installation procedures for each type of WebConsole installation.

CDROM Contents

The WebConsole CDROM includes the following components:

- WebConsole Setup Program in the \WCNW directory
- A web server in the \UPDATES\NETWARE directory

The AutoPlay program executes when the CDROM is placed into a Windows 9x CDROM drive with the auto detection feature enabled. If the AutoPlay mode is not enabled on your system, run the Setup from within Windows Explorer. From the AutoPlay program, you can launch the Windows Explorer program to view the contents of the CDROM or launch the WebConsole Setup program.

Installing Master Servers

A master server is a NetWare server configured to run the Netscape Enterprise Server or Novell 3.x Web Server. A remote server is not configured to run the web server. You can install WebConsole on all master and remote servers for which you have purchased licenses.

A WebConsole master server consists of the following components:

- Novell NetWare Operating System
- A web server
- WebConsole software
- WebConsole online documentation

To install a WebConsole master server, you must first map a drive to the SYS: volume of the NetWare server so the setup program can access it to copy the required files.



Note

You must be logged into the NetWare server as a user with administrative rights in order for the setup program to properly install and configure WebConsole.

Run the WebConsole Setup program either by loading the CDROM on your Windows 9x or Windows NT workstation and clicking the WebConsole for NetWare button on the AutoPlay program or by running WC31B.EXE from the /WCNW directory on the CDROM. Follow the on-screen instructions and be sure to click the *MASTER* button on the *Installation Type* setup screen. Additional information on running the setup program is provided in the next chapter entitled *Running WebConsole SETUP*.

Installing Remote Servers

As mentioned previously, a remote server is not configured to run a web server.

A **WebConsole remote server** consists of the following components:

- NetWare 3.12, 4.10, 4.11, 5.0 or NetWare Operating System
- PatchLink.com/Novell RCGI2NMX Interface NLM
- WebConsole software

To install a WebConsole remote server, you must first map a drive to the SYS: volume of NetWare server that you wish to install on, so the setup program can access it to copy the required files.

In conclusion, to install a master or remote server:

- Log on to the NetWare server as a user with administrative rights.
- Map a drive to the SYS:volume of NetWare server so that the WebConsole setup program can access to setup files.

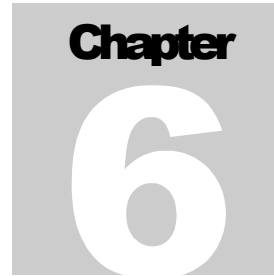
Uninstalling WebConsole

At some point, you may want to remove WebConsole. To remove WebConsole from your system properly, use the utility `wcrem` from the system console. Uninstallation begins by entering the following statement at the console prompt:

```
>load wcrem
```

In response, the WebConsole Uninstall screen appears with a window listing three choices, *Uninstall*, *Readme file*, or *Exit*. If you elect to remove the WebConsole program, select *Uninstall*. The uninstall utility begins reading files in `WCREM.INI` and proceeds to delete these files. During the removal of the files, the uninstall utility creates a log file in the system root called `WCREM.LOG`, which contains the names of the cleared files with, if any, associated error message(s).

Note: Your WebConsole configuration will also be removed. You may want to copy pertinent WebConsole configuration information before running this utility. This information becomes handy for optimal reinstallation of WebConsole.



Running SETUP

The WebConsole SETUP program is accessed by clicking INSTALL from the AutoPlay program, or by running the WC31B.EXE program in the /WCNW directory on the WebConsole CDROM. To install WebConsole, you must be running Windows 9x or Windows NT workstation. Installation from a Windows 3.1 workstation is not supported.

Note: Client32 is necessary for the installation. Drives do not map properly without it.

Setup Screens

As the setup program runs, it displays the following screens in the order listed:

Welcome

When the setup program starts, it displays a *Welcome* screen, and uses the familiar wizard interface for the remainder of the installation. The BACK and NEXT buttons allow you to navigate through the setup process.

License

The second screen displays the license agreement in a scrollable text window. Please review the entire license and, if you accept the terms, click the *YES* button to proceed.

User Information

The *User Information* screen asks you for your name, company name, and the WebConsole serial number. You must enter a valid serial number in order to continue. The serial number is listed on the product box and on

the CDROM jewel case.

Setup Options

The *Setup Options* screen allows you to choose the type of installation you wish to perform. The available options are *Master* and *Remote*. Select the appropriate server type of installation by clicking the corresponding button.

Destination Drive

The *Destination Drive* screen presents a list of valid drive mappings for the type of installation you want to perform. When performing a master server installation, only drives mapped to the SYS: volume of a server with a web server installed will be displayed in the list. When performing a remote server installation, any drive mapped to a server's SYS: volume will be displayed. However, remember that you must be logged on to the server as a user with administrative rights; otherwise, the setup program will discard the drive mapping.

Select Program Folder

The *Select Program Folder* screen allows you to choose the desktop folder where WebConsole-related shortcuts will be placed. For each master server installed, the setup program will insert a shortcut into the folder that will launch your web browser and access the required *URL* to invoke WebConsole on that server. A shortcut to the README file is also placed into the program folder.

Start Copying Files

The *Start Copying Files* screen provides a summary of the selections you made during execution of the wizard. Verify that all your choices are correct and click the NEXT button to begin the installation process. When the file copying process is complete, you are presented with the final dialog box that allows you to launch NOTEPAD to view the README file and finish the installation process.



Logging on to WebConsole

Once you have successfully installed WebConsole on your master server, you are ready to begin utilizing WebConsole’s functions to manage your server. The first time you access WebConsole, you are presented with a log on screen (Fig. 9) where you must supply a valid user name and a password to access your server. If you do not have any remote servers installed, the main WebConsole log on screen is always presented as the initial access point to WebConsole. Once you install remote servers and configure the master server to access them, the initial screen becomes a server selection screen, where you pick the server you want to access. The log on screen is then displayed, allowing you to supply a valid user name, a password, and desired context for the server that has been selected.

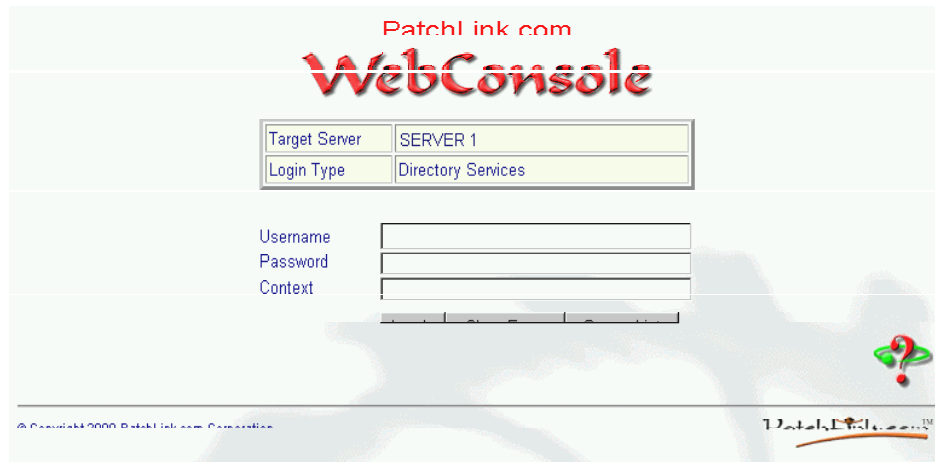


FIG. 9: WebConsole Log on Screen.

StartWebConsole

To access WebConsole, either double-click the appropriate shortcut in the PatchLink.com WebConsole folder from the Start Menu on your desktop, or start your web browser and enter the appropriate *URL*. The following example illustrates accessing WebConsole, hosted on the server `www.acme.com`:

`http://www.acme.com/netbasic/webcon/`

A Uniform Resource Locator such as this one or similar ones you type in your web browser's *Location* field consists of three parts:

Scheme is the first part that is either HTTP or HTTPS, depending on whether you are using an insecure or a secure web server. Unless you have configured your web server for secure access and installed the required certificates, you must use the HTTP scheme when accessing WebConsole.

Domain or *IP* address is the second part of the *URL*; in this case the domain is `www.acme.com`. Alternatively, you can specify the *IP* address directly, if it is known. For example, if `www.acme.com` were hosted on a server whose *IP* address was `101.90.50.7`, the *URL* to access WebConsole can be entered as follows:

`http://101.90.50.7/netbasic/webcon/`

The use of domain names depends entirely on how your particular environment is configured. For more information, refer to your web browser documentation.

Path is the final part of the *URL* that locates the WebConsole application. The installation procedure sets up the NetBasic directory and the WebConsole NLMs. WebConsole is a NetBasic program, and therefore is accessed through the NetBasic CGI extension CGI2NMX. NetBasic is registered in the web server as a CGI application that is accessed through CGI2NMX. Thus, when any *URL* beginning with this prefix is specified, it is fetched, and the web server passes the request to the CGI2NMX extension program. CGI2NMX then uses the remaining part of the path to identify which program should be invoked to process the request. In this case, the program WEBCON is invoked, which is the main entry point into the WebConsole application.

Select a Server

Once remote servers have been added, the user is presented with the *Server Selection Screen* (Fig. 10) prior to the *Login Screen* (Fig. 9),



FIG. 10: Server Selection Screen.

Click a server from the *Select a Server* selection list and click *Accept*. This will present you with the *Login Screen*

Logging on to a 4.x (or higher) Server

On the WebConsole log on screen

- Type your user name in the *Username* text field,
- Type your Password in the *Password* text field,
- Type a context in the *Context* text field, only if you are logging on as a user outside the server default context (blank text field), and
- Click *Login*.

To clear the *Username*, *Password*, and *Context* text fields, click *Clear Form*. To return to the previous page and select a different server from the *Select a Server* list, click *Server List*.

Logging on to a 3x Server

Type your username in the *Username* text field. Type your password in the *Password* text field. Click *Login*.

To clear the *Username* and *Password* fields, click *Clear Form*. To return to the previous page and select a different server from the *Select a Server* list, click *Server List*.

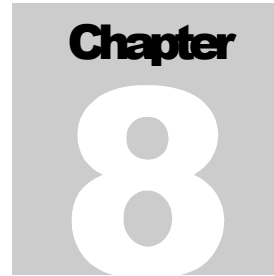
Log on Security Levels

You must log on as an “Administrator” or as a user with an equivalent security level to access all WebConsole components. If you log on with minimum access, only **Help**, **NDS**, **Files**, **Printers** and **HelpDesk** menus are available. If you log on with no access, no WebConsole components are available.

Although the HelpDesk section is visible, you must be a HelpDesk user to access the HelpDesk functions.

An Administrator or an equivalent security level user can grant minimum access rights to a user with no access by permitting that user *read* rights in the SYS:\NETBASIC\CONTROL directory.

It is suggested that a group be created that has these rights, and users who need access can be easily added as members of that group.



Configuring NetWare Servers

Configuring NetWare servers is integral to WebConsole operations. It should be performed to provide WebConsole full functionality. Before you access a remote server on which you have installed WebConsole, you must load RCGI2NMX and NetBasic. RCGI2NMX which can be loaded by adding it into the AUTOEXEC.NCF file or manually typing the following from the command prompt on your server's console screen:

```
>Load rcgi2nmx
```

If these are not part of your AUTOEXEC.NCF file, WebConsole will lose its connection to the server when using the reboot function. By having RCGI2NMX and NetBasic load from the AUTOEXEC.NCF file, you must ensure that the connection between WebConsole and the server is re-established.

Configuring remote servers

If you have installed WebConsole on one or more remote servers, you need to perform additional configurations before you can begin to access them. For each remote server that you want to access, you need to perform the following steps:

- Add LOAD RCGI2NMX to the AUTOEXEC.NCF on the remote server
- Configure the master server to identify the remote server

Each of these steps is detailed in the following sections

Loading RCGI2NMX

The RCGI2NMX program was installed into the SYS:SYSTEM directory on each remote server where you have installed WebConsole. To ensure that WebConsole is always available on the remote server, it is recommended that you add the following statements to your remote server's AUTOEXEC.NCF file:

```
load netbasic  
load rcgi2nmx
```

These lines should be added at the end of the AUTOEXEC.NCF for the remote server. Once you have made these changes, you should reboot the remote server to commit the changes and ensure that the RCGI2NMX NLM will successfully load each time the server is rebooted. This is especially useful when the Reboot Server option is selected from within WebConsole. Since the reboot procedure must be completed, you will need the RCGI2NMX application. Otherwise, you will be unable to continue accessing that remote server. If the AUTOEXEC.BAT file does not restart the server, the Reboot function will restart the server, but will leave it in DOS mode.

Configuring the Master Server

The second step required to configure access to a remote server is the addition of an entry to the web server's SRM.CFG configuration file that identifies the remote alias to the web server. Although you could add this entry using an ASCII editor, it is strongly suggested that you use the configuration support of the remote server in WebConsole.

To configure access to a remote server, you need the IP address that is being used on the remote server. In addition, to simplify administration, you should decide on a naming convention to use for remote servers. For best results, use the file server name as the remote server name, since this is the easiest way to determine which server is being accessed. However, you are not restricted to this format, and you may choose whatever naming convention that best suites the needs of your organization.

The configuration procedure of the master server is as follows:

- Start WebConsole by double-clicking the shortcut in the PatchLink.com WebConsole program group or by typing the appropriate URL in your web browser.
- Log on to the master server (see previous chapter, *Logging on to WebConsole*), select *Settings* from the main menu, and *Remote Servers* from the *Settings* sub-menu. A list box is presented with all currently defined remote servers. Click the **ADD** button to add a new entry to the remote server list. In response, a dialog box requesting the host name, IP address and port number is presented.
 - In the *Host name* field, type the name that you would like to use when accessing the remote server.
 - In the *Address* field, type the IP address of the remote server.
 - Accept the port field at the default value of 8003, unless you have overridden the port at the remote server, when RCGI2NMX was loaded.
 - Click the **ADD** button.
- Provided you have supplied all the information, the selection list on the *Remote Servers* page is redisplayed. The new entry you have added will now appear in the list.
- Before you will be able to access the remote server, you must reboot the web server, in order for it to reinitialize its list of remote servers. You can do this by
 - **NETSCAPE**: issue the command **NSWEBDN** command, followed by the **NSWEB** command at the master server console.
 - **NOVELL**: either running the WEBMGR.EXE program supplied by Novell, or simply issuing an **UNLOAD HTTP** command, followed by a **LOAD HTTP** command at the master server console. Note: If any switches are used in loading HTTP, they should be supplied as well.
- Log on to WebConsole again and note that prior to displaying a log on screen, the host name of the newly added remote server should appear in a list box of servers--the *Select a Server* selection box. Select the server you wish to access and click the *OK* button. You will subsequently move to the log on screen for the selected server.

WebConsole in the Corporate Environment

Network administrators in charge of extensive computer networks spanning vast geographical territories can use WebConsole to eliminate the need for costly and time consuming site visits to remote server locations. Using hyperlinks, WebConsole becomes the central collection point to manage information and to perform management tasks. For example, administrators can quickly change user rights, passwords or attributes in NDS, from any location. Administrators can perform typical network management and administration functions from any location using a laptop and a web browser.

Let's say you are the network manager of a large corporate network. There are several branch offices situated around the country each with at least one, and often several NetWare servers.

You are the only experienced network administrator in the organization faced with the task of regularly commuting between branch offices to fix relatively minor problems.

The organization has locations around the globe. Because you have to travel regularly and cannot be in multiple places at one time, problems tend to get out of hand. You find yourself unable to gain immediate access to servers from remote locations. In turn, you have to communicate with non-technical users at each site to ascertain the problem. In addition, you must talk them through complicated procedures to try to solve the problem. Often, the simplest

solution is yet another trip to the problem site with all the costs that entails, including your valuable time and traveling costs.

A Live WebConsole Scenario:

The Solution to Your Network Management Problems

You install WebConsole and the Netscape Enterprise Server on your local server that becomes the master. You then install WebConsole on all your remaining servers designating these servers as remote. You can now gain access to all the corporate servers over the Internet.

You can dial into a local Internet from anywhere in the world, and with any standard web browser, you select a server to access from a pull-down menu. So access to your network is virtually unlimited, whether you are on a plane, at home, in the office, or on the other side of the world.

NetWare's powerful security and authentication mechanism takes over at this point to request your usual NDS login ID and password. After being authenticated, NetWare allows access to the web server where you are then presented with a comprehensive list of options.

First, you elect to view the system console to check any error messages that may have appeared. Noticing that one particular NLM has generated an error, you select that NLM and view the console screen. The error is one that appears infrequently and causes no real damage to the system. The cure is simply to reload the offending NLM. So, using WebConsole via your browser, you select the NLM, unload it, and reload it; the problem is fixed within two minutes of logging on to the Internet.

Then, you can log on to another server located on the other side of the world and still only pay for a local call into the nearest Internet. For instance, the new server shows problem signs with one of the disks. You use WebConsole to check for any open files on the volume, send a message asking those users to log off, and then monitor the volumes to see when the open files are closed.

Next, clear the connections to the server so that no more users access the faulty drive, dismount the volume, and run the Novell VREPAIR utility to fix the problem.

Once the drive has been remounted, you use WebConsole to browse the volume. You notice that there are a large number of .BAK files in several

directories. To create space, you schedule a task to run at 3:00 a.m., which will search for and remove all .BAK files on the system that are more than one week old.

Another site has reported a problem with a user account. You flip into the NDS browser utility and scan the appropriate container the object records via your web browser. Noticing that the user does not have access to certain essential data files, you use WebConsole to amend the trustee rights, change the Group membership list, and save everything back to the NDS database.

Finally, someone reports a problem on a server that has been tracked down to an out-of-date NLM. You switch WebConsole to the offending server, run Gravitix, which checks all key NLMs against the "reference server" at the PatchLink.com web site. Once Gravitix has identified which NLMs need updating, You can simply run the automatic update routine, which will download the new files and update the old/faulty files. Once the files have been updated, you amend the STARTUP.NCF file for that server to include different command line switches for the new drivers, save it on disk, then reboot the server to make the change.

Because WebConsole never loses contact to remote servers even following a reboot, provided that it is configured properly, you are able to check and make sure everything is running as expected following the update.

WebConsole at a Glance

Growing demands for effective management and administration of information among networks have been met with comprehensive solutions such as RCONSOLE. Rendering RCONSOLE obsolete, WebConsole with its powerful features is beyond what is expected from just the RCONSOLE functionality. Distinctly, WebConsole is featured with NWAdmin, File Manager, MONITOR.NLM, EDIT.NLM, and a HelpDesk. In addition, WebConsole possesses a task scheduler and a powerful configuration management tool. Above all, WebConsole is ready to be used with any standard web browser.

It is a fact that the Internet is becoming a necessity in our daily lives. It is indispensable both for today's business and communications. For the ever-growing information age, it is only natural that the Internet should be used as a convenient remote access medium for our daily tasks. WebConsole underscores the convenience of remote access.

In addition to being the ideal tool for network administrators, WebConsole provides the ideal means for VARs and System Integrators. WebConsole provides added value services to their customers, managing all their clients' networks from a single point in the most cost-effective manner possible.

Web-based management provides an extremely flexible and cost effective means of administering your network. With multi-site global installations, the advantages and cost savings are obvious. However, even with single-site operations, where multiple devices and servers are involved, it still offers

WEBCONSOLE AT A GLANCE

tremendous benefits and allows you to perform management tasks from a single personal computer using one software package. Despite Novell reluctance to provide such tools, ISV's have moved to fill the gap. WebConsole provides a comprehensive suite of remote management utilities for the NetWare environment.

Summary of WebConsole features

Boot Sequence

- Edit boot sequence files such as AUTOEXEC.NCF, STARTUP.NCF
- Reboot servers

Connections

- List current connections
- View connection statistics
- View connection open files
- Clear unwanted connections

Console Access

- Java based R-Console
- View any NLM console screen
- View the console error log
- Send messages to current users of the server
- Send keystrokes or commands to any NLM console screen
- Access server diagnostics

Diagnostics

- View Operating System version information
- View configuration files
- View INI information

Reports

- View file system information
- View user information
- Check server settable parameters
- View server inventory

WEBCONSOLE AT A GLANCE

Files

- Select any NetWare volume or DOS drive
- View and navigate its directory file structure
- Display file attributes
- Create and delete files and directories
- Edit text files
- Manage trustee assignments and rights
- View and/or clear connections using a file

Gravitix

- Automatic queries to detect which patches are outdated
- Download and apply the latest NLM patches, drivers, and applications over the Internet.
- Automatic backout of a package update

Help Desk

- Administrate passwords
- Add/delete users
- Clear connections
- Create/view/modify incident reports
- Incident Email alerting
- Set user account time restrictions
- Remote Console
- Reset user accounts
- Reporting
- Monitoring
- Import/export records

LAN Card

- View LAN card configuration, interrupts, and DMA information

Module

- Load and/or unload NLMs
- View loaded NLM information

NDS

- Create, delete, rename and move Users, Organizational Units and NDS or Bindery objects
- View and edit user information (properties)
- Change user passwords

WEBCONSOLE AT A GLANCE

- Disable user accounts
- Synchronize directory partitions
- Browse NDS tree
- Manage Printers, Print Queue, & Print Servers

Printers

- Print server management
- Modify the print queue
- Schedule print jobs
- Assign users and operators

Tasks

- Automated Task Scheduler
- Schedule loading or unloading of applications
- Schedule execution of NCFs or NetBasic Programs
- Edit, view and delete tasks in the file server's job queue

Volumes

- View currently mounted volumes on a specified server
- View the volume statistics
- Mount and dismount volumes

Miscellaneous

- Add snap-ins written in NetBasic or other languages
- Utilize SSL and RSA Encryption for the latest in security

Troubleshooting and Technical Support

Before contacting PatchLink.com Technical Support Staff, try to solve the problem by reading this chapter. Some of the common problems that may be encountered during installation, logging on to, running, or configuring WebConsole and associated servers are discussed and summarized in *Table 4* (next page). You may find a solution to the problem at hand. If you could not find a solution, contact PatchLink.com Technical Support Staff. How to contact PatchLink.com Technical Support Staff for solution or additional information is as follows.

Have the license serial number of your purchased WebConsole ready. Provide your company name. You may describe the problem or ask a question via:

- E-mail: support@patchlink.com.
- Phone: (480) 970-1025 x145
- Fax: (480) 970-6323

Table 4: Cases for troubleshooting.

Question, Problem, or Error Message	Troubleshooting
<p>• Message:</p> <pre>Sub [BTV:OPEN] Line [5] Col [0] Abs [384 Function is unknown or has invalid statement BTX:CALL Error running script WEBCON (WEBCON:FRAMEWORK S?S=1[]) IE 4.0</pre>	<p>There are two ways to fix this:</p> <p>The first is the easiest, reboot the server and everything should work fine.</p> <p>The second is to make sure that the NET2000 NMX Library manager is not loaded. If the NET2000 NMX Library manager is still loaded, there are NMX libraries still in use. There are the two NCF files that can be executed from the server console. The first is WCSTOP.NCF; this is installed into the system directory when WebConsole is installed. The second file is NB6Stop.NCF; this file is available on the PatchLink.com FTP site. These two files will unload all libraries that are not currently in use but have not timed out yet. If the NET2000 NMX Library manager is still loaded, there are NetBasic scripts/NLMs still running on the server. Stop all scripts and try again. Once the screen disappears unload and reload NetBasic.</p>
<p>• Question:</p> <p><i>How do I start WebConsole?</i></p>	<p>Shortcuts to the Readme file and the WebConsole startup are created in the startup menu on the computer when you install the</p>

	<p>product. The default location for the Readme file is under the HTS directory.</p> <p>You can access WebConsole by typing the following URI into your browser where IPADDRESS is the IP address of the master server. Make sure your web server is running.</p> <p>http://IPADDRESS/network/basic/webcon/</p> <p>Note that it is important to type a trailing slash.</p>
<ul style="list-style-type: none"> • Problem: Running the Java applet. 	<p>The zipped Java applet code is located in the SYS:Web/Docs/webcon directory. You should see two files: JavaCon.Jar and timerest.jar.</p> <p>To use the Java capabilities in WebConsole, the JDK 1.5 or later is required. This is available in Netscape Communicator 4.04 or 4.05 and Internet Explorer 4.01.</p>
<ul style="list-style-type: none"> • Question: <i>What do I need to do to begin setting up WebConsole?</i> 	<p>Under Settings you can add and modify remote servers if they exist. Make sure you set the time zone in the default settings. Time Zone is the time difference between your local server's time and GMT (Greenwich Mean Time).</p> <p>For initial HelpDesk setup, you</p>

	<p>must add a password (minimum 5 character). For the Desk Admin, add at least one user to the HelpDesk User Group, and add at least one user to the Help Desk Support Group.</p>
<p>• Question: <i>How secure is WebConsole?</i></p>	<p>NetWare provides password security features to lock out unauthorized users of the file server console. From the WebConsole log on screen, the user can enter the username, password, and NDS context. These security prompts ensure that only approved network users are able to verify and authenticate their identity with either the NDS or the Bindery. The log on process is identical to that used when logging on to a server locally. RSA encryption and SSL technology can be added to ensure that passwords remain confidential. As a final element of security, if a WebConsole session is left on with no activity for a predetermined amount of time, the connection is terminated automatically.</p>
<p>• Question: <i>I tried installing WebConsole but it failed, so I tried again and it failed. What do I do now?</i></p>	<p>Do the following:</p> <ol style="list-style-type: none"> 1. Delete all the files and directories in the temp directory. On Windows 95 the directory is usually C:\WINDOWS\TEMP, and on Windows NT it is usually C:\TEMP. Do not

	<p>delete the temp directory, just remove all files and directories under it.</p> <ol style="list-style-type: none"> 2. Run regclean. 3. On Windows NT make sure you are using the NetWare client and not the Microsoft client for NetWare.
<p>• Question:</p> <p><i>I get multiple error messages when browsing the NDS tree. They appear randomly in the list of objects in the tree but all of the objects appear to be correctly displayed. I am running NetWare 5 and the Novonyx web server. How do I get rid of these messages?</i></p>	<p>The error messages do not interfere with browsing the NDS tree, they only alter the layout of the display. The error messages are WebConsole Error Message boxes listing an error number 0-6 and details stating "An internal error has occurred please contact the software vendor. WCERR -022". The CGI2NMX.NLM in the NetBasic/Lcgi directory needs to be updated. Replace with the current version of this file.</p> <p>After updating the file, down and then restart the webserver.</p>
<p>• Question:</p> <p><i>When trying to look at the Queue job list, I'm getting a "-10054 Unknown" error. How can I view my Queue job list?</i></p>	<p>In order to view the Queue Joblist you must 1) be running WebConsole from the server where the Queue directory resides and 2) have installed bindery emulation on the server.</p> <p>To install bindery emulation type "bindery add context=<context>" at the system console where</p>

	<context> is the NDS context.
<p>• Question:</p> <p><i>I have been unable to install your product. I receive an error message that states “Error, no valid drives found”, then shows me a blank box with no way to tell it where my Novell Web Server is mapped.</i></p>	<p>From the client computer make sure you are mapped to the S:\S volume of the server with administrator or administrator-equivalent rights. Also you must be using the Novell Client for NetWare not the Microsoft Client for NetWare.</p>
<p>• Question:</p> <p><i>I have a proxy server with an internal IP address. When I use WebConsole from the outside, I see the first screen up. However, when I click login I am unable to access WebConsole.</i></p>	<p>To fix this you must make sure you disable caching for the <SERVER>/netbasic path. Also change the SYS:NETBASIC/CONTROL/SERVER.INI to point to the correct IP address or simply go to <SERVER>/netbasic/webcon/main2/</p>
<p>• Question:</p> <p><i>When Using Gravitix in WebConsole I'm getting the following error</i></p> <p>Getting Configuration file...nw001.grv</p> <p>Error 100 Getting Configuration File.</p> <p><i>On the Server Console I have the following error message.</i></p> <p>"Unable to Set OSName space"</p>	<p>Please check your fire wall/Proxy setting so that you are able to get files from your server. Set your firewall so that you can access the IP address /Netbasic from your Master server. Make sure caching is disabled for this directory. Lastly, since the FTP uses OS2 name space you need to load long name space on your server.</p>

<p>• Question: <i>What do I do if I get database errors?</i></p>	<p>Most database problems can be traced back to an incorrect setup of BTRIEVE on the NetWare server. Check your database setup by loading BSTART at the system console and checking its values. (Look up our values and verify against theirs.) After making changes, reboot the server instead of restarting BTRIEVE. (Because many applications use this (NDS for example) we recommend a reboot to prevent loss of data.</p>
<p>• Question: <i>WebConsole is set up properly but I'm getting a "Procedure not found" error when I type in the URL to access WebConsole. What is going on?</i></p>	<p>Make sure when you are typing the URL you have a slash at the end. http://<IPADDRESS> /netbasic/webcon/</p>
<p>• Question: <i>Is there any special setup for WebConsole if I have a Novonyx Web Server?</i></p>	<p>In order to see the image files in Web Console, you need to add the line found below to obj.conf for the web server. Once you edit this file and save it, go into your Fasttrack Admin Server and click the Apply button to load the new configuration. Stop and Start the server.</p> <pre>NameTransform="pfx2dir from="/lcgi/netbasic" dir="/inw_web/shared/locs/lcgi/ netbasic"</pre>

	<p>This line must be before</p> <pre>NameTrans fn="pfx2dir from="/lcgi" dir="/novonyx/suitespo /lcgi-bin" name="lcgi" and NameTrans fn="pfx2dir from="/netbasic" dir="/novonyx/suitespo /lcgi- bin/cgi2nmx.nlm" name="lcgi"</pre>
<ul style="list-style-type: none"> • Question: <i>How do I login if my context is inside an organization within a country ?</i> 	<p>If you are using country as part of your path, you have to use a typed name.</p> <p>for example:</p> <pre>UserName: "CN=User1" Context: "O=Org2.C= JS"</pre>
<ul style="list-style-type: none"> • Question: <i>Is there some reason my web console doesn't work? Do I need to insert some holes into my BorderManager to let web console authenticate?</i> 	<p>You need to configure BorderManager so that the IP address for you server can be recognized. Also turn off the cache for SYS:Netbasic/ directories.</p>
<ul style="list-style-type: none"> • Question: <i>When running Taskman the following error ALWAYS occurs:</i> <i>"Cannot create job queue <nameserver> , Program Terminating"</i> 	<p>In order to use Taskman, you must have Bindery Emulation on your server.</p>

<p>• Question: <i>After installing the downloaded and installing the software from your site, the following error occurred on our server when httpd.nlm starts:</i></p> <p>Loader cannot find public symbol NMXC_ContentValueSet</p> <p>Loader cannot find public symbol Netbasic_GetKey</p> <p>httpd not loaded</p>	<p>If you are loading the glia web server, i.e.. httpd.nlm, you have to load NetBasic first so that the NMX engine is loaded. For web servers 2.5 and newer, the webstart.ncf file was recreated so that it would load the http.nlm. Make sure that the ncf you are using to load the web server is the correct one.</p>
<p>• Question: <i>How do I handle NAT/Reverse Proxy with WebConsole?</i></p>	<p>The NAT/Reverse Proxy fix is actually a fairly simplistic one.</p> <ul style="list-style-type: none"> - Install WebConsole on your Internal network web server. - Set up your proxy server /firewall to proxy that web server do not cache anything coming from the /netbasic/ directory so your information will properly refresh). - Go to your proxy server http://<proxy server>/netbasic/webcon/main2 (The default is /main but we need to set something else first) - Login - do not worry about the java errors that will pop up. - Go to WebConsole settings.

- Click on Web Proxy.
- Enter in the IP address of your proxy server.
- Logout (it may give you an error, do not worry if it does).
- Go to `http://<proxy>, netbasic/webcon/`

It should work fine now.

--

- Put your Novell web server on your server (internal IP use).
- Put WebConsole on the same server (this for case it is the same as your border manager box but it doesn't have to be).
- In Border Manager -> HTTP Acceleration -> details, add an accelerator:
 - Enable this particular accelerator – yes.
 - Accelerator name - this name for web server (the IP it is assigned to is the public side of your border manager) - if you do not have a name assigned to that then just anything will do.
 - Web server port – 80
 - Name/IP – IP address of the private web server (internal IP address) and put port number in: default 80.
 - Proxy IP - this is the public IP

	<p>address of your border manager server – use port 80.</p> <ul style="list-style-type: none">- Hit ok.- Turn on border manager :- Login internally to your internal web server WebConsole- put in the public/proxy IP address for your web proxy IP address.- Logout of WebConsole <p>Now it should be ready to run. Just go to the public IP address (or its dns name) and you should be ready to go.</p>
--	--

Additional WebConsole Utilities

WebConsole Unload components (WCSTOP.NCF)

This NCF file will unload all WebConsole components currently loaded on the server.

WC2.11 component list:

wcbind, wcboot, wconct, wconsl, wcdiag, wcfile, wcgrav, wchdesk, wclan, wcm modul, wcn ds, wcn dsc, wcpintr, wcreport, wctask, wcutil, wcvol, webcon, NDSUTIL, nweb3, Javacon

WebConsole Uninstall (WCREM.NLM)

This utility will remove the WebConsole product from your system by deleting all the files related to WebConsole. Please note that your WebConsole configuration will also be removed. You may want to copy pertinent WebConsole configuration information before running this utility.

UTILITIES

Note: images used by WebConsole and NDS objects for HelpDesk will also be deleted.

[CONTROL]

Title=control files
Directory=SYS:NETBASIC\CONTROL\
MasterOnly=False
DeleteType=files
F1=WebCon.INI
F2=WebCon.btv
F3=Gravity.ini
F4=Wcctrl.btv

[NMX]

Title=NMX components
Directory=SYS:SYSTEM\NMX\
MasterOnly=False
DeleteType=files
F1=JAVAICON.NLM
F2=NDSUTIL.NLM
F3=NWEB3.NLM
F4=WCBIND.NLM
F5=WCBBOOT.NLM
F6=WCCONCT.NLM
F7=WCCONSL.NLM
F8=WCDIAG.NLM
F9=WCFILE.NLM
F10=WCGRAV.NLM
F11=WCHDESK.NLM
F12=WCLAN.NLM
F13=WCMODUL.NLM
F14=WCNDS.NLM
F15=WCNDSC.NLM
F16=WCPRINTR.NLM
F17=WCREPORT.NLM
F18=WCTASK.NLM
F19=WCUTIL.NLM
F20=WCVOL.NLM
F21=WEBCON.NLM

UTILITIES

[SYSTEM]
Title=WebConsole system files
Directory=SYS:SYSTEM\
MasterOnly=False
DeleteType=files
F1=WCDAEMON.NLM
F2=WCSTOP.NCF
F3=WCTM.NLM

[IMAGES]
Title=image files and directory
MasterOnly=True
DeleteType=dir
Path=Sys:\INW_WEB\Shared\Docs\Lcgi\NetBasic
Directory=\WEBCON

[HELPDESK1]
Title=helpdesk files and directory
MasterOnly=False
NDSOnly=True
DeleteType=dir
Path=Sys:\NETBASIC\CONTROL
Directory=\HELPDESK

[HELPDESK2]
Title=Helpdesk NDS objects
MasterOnly=False
NDSOnly=True
DeleteType=NDS
NDS1=HiTecSoft-HELPDESK
NDS2=HiTecSoft-HDUSER
NDS3=HiTecSoft-SUPPORT

[JAVA1]
Title= Java files for Novell
MasterOnly=False
DeleteType=dir
Path=Sys:\WEB\DOCS
Directory=\WEBCON

UTILITIES

[JAVA2]

Title=Java files for Novonyx

MasterOnly=False

DeleteType=dir

Path=Sys:\NOVONYX\SUITESPOT\DOCS

Directory=\WEBCON

WC Daemon component (WCDAEMON.NLM)

From the system console, type WCDAEMON. This will start the monitor utility that maintains and displays the current login user database for WebConsole. The Daemon removes the user from the WebConsole database once the user logs out of WebConsole. In addition, it removes any users from the database who are has expire login time. Expired login time is define as the idle time since the last WebConsole function performed by a login user. If the user idle time is more than the time allowed by the WebConsole setting, the user is considered "expired" and their connection is terminated.

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BorderConsole User's Guide Version 1.1

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Introduction

The BorderManager section of WebConsole allows you to fully manage Internet access settings for your entire network. The applets contained in this section follow the look and feel of the NWAdmin BorderManager snap-in. Unlike NWAdmin, however, WebConsole can be used from any computer with a web browser and access to the Internet.

The BorderManager section of WebConsole allows you to:

- View and edit network settings for Access Rules
- Configure settings for Alerting
- Modify the BorderManager Setup including Caching, SOCKS Client, Proxy Authentication, DNS, and more
- Monitor system resources on the server

These features comprise a comprehensive solution for managing the settings found in BorderManager.

BorderManager Features and Usage

BorderManager includes numerous features for managing a variety of Internet access settings for NetWare networks. Since the BorderManager section of WebConsole provides functionality similar to that of the NWAdmin BorderManager snap-in please refer to [Novell's help documentation](#) for further information.

IMPORTANT NOTES:

- BorderManager must be initialized through NWAdmin prior to being used with WebConsole.
- Some of the applets contained in the BorderManager section of WebConsole are very large. Downloading the applets may require a few extra moments.
- To close any of the java pop-up windows without saving changes, always click the *Cancel* button inside the window.
- To save changes and close the java pop-up window, always click the *OK* button.
- You may need to slightly resize the window in order to see the *OK* and *Cancel* buttons.
- **CLICKING THE X IN THE UPPER RIGHT HAND CORNER WILL NOT CLOSE A WINDOW.**
- For changes to take effect, you must unload and reload the brdsrv.nlm.

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The main features of BorderConsole include the following:

Access Rules

Access rules allow you to create detailed specifications about which Internet resources can be accessed by users in your network. Using access rules, you can define which URLs may be accessed, what types of files may be downloaded, which protocols can be used, etc.

Clicking the *Access Rules* menu button starts a Java applet for this section. Use this applet to set up Novell BorderManager access rules for a particular object in your NDS tree. Access rules determine how and when NDS objects are granted or denied access through the firewall.

Using the buttons above the main text box, you can add, delete, or modify access rules.

Click *Effective Rules* to view the effective rules that apply to an NDS container or a BorderManager server.

Click *Refresh Server* to have the server rebuild its effective rules list.

Alerting

Clicking the *Alerting* menu button starts a Java applet for this section. Use this applet to set up Novell BorderManager Alerting to send e-mail whenever certain server conditions occur.

In the Notification Scheme section select the radio button for Inherit, Send alert, or None.

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Inherit

Select *Inherit* to get server information and e-mail recipient from the NDS tree with an alert configuration.

Click *Effective Configuration* to display the server information and e-mail recipient that is inherited from the NDS tree.

Note: *Effective Configuration* is only available when *Inherit* is selected.

Click *Refresh Server* to force BorderManager to read the alert configuration from NDS for the local server only. Use Refresh Server after you configure alert information for an entire Organization (O) or Organizational Unit (OU) and you want to use the new configuration immediately.

Note: The *Refresh Server* button is only available for a server object, and it is only available when you have *Inherit* selected. If you make changes to the alert configuration of the Server object, this option will be disabled.

SendAlert

Select *Send alert* to customize your server information and e-mail information. *E-Mail Recipients* specifies the e-mail addresses for those you wish to notify whenever a certain server condition occurs. You must have at least one e-mail recipient when using the *Send Alert* option. *E-Mail Servers* specifies the e-mail server(s) that service the e-mail recipients. Valid entries can either be the IP address or server's name. You must have at least one e-mail server when using the *Send Alert* option. (To increase performance speed for Alerting, use the e-mail server's IP address in order to bypass DNS hostname resolution.)

None

Select *None* to deactivate BorderManager Alerting.

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Setup

Clicking *Setup* starts a Java applet that allows a user to view and configure Novell BorderManager Proxy services. Once the applet appears, you may select the configuration you would like to set. Select the tab on the top section of the applet that you want to configure. Available tabs include Application Proxy, Acceleration, Gateway, VPN and Transparent Proxy. Also, click on any of the buttons at the bottom of the applet to set additional configuration values. Available buttons include Caching, SOCKS Client, IP Addresses, Authentication Context, DNS, and Transport.

To enable or disable all access rules on the server, check or uncheck the Enforce Access Rules box. Access rules are enabled by default.

For all tabbed items

To activate/deactivate access control rules on the server, click inside the checkbox to the left of a particular service. Access rules are enabled by default. To go to the detail section for a particular service either double click the item in the service list or highlight the item and click *Details*. The details section will appear in a new pop-up window. From here you can modify the configuration for the service.

Note: WebConsole does not manage the Virtual Private Network (VPN) settings. To do this, use the NIASCFG utility from the server's system console.

Button Items

Caching button

Click this button to modify the proxy cache configuration including cache directory and maximum size per file. Here you can also configure Time-To-Live (TTL) information for cached URLs.

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SOCKS Client button

This feature allows you to enable and configure the SOCKS client information.

IP Addresses button

In order to use the functions contained in BorderManager, you must specify the server's IP Addresses (private and public). Click on this button to input the server's IP address information.

Authentication Context button

Use this button to configure and enable (or disable) proxy authentication. This section also includes SSL configuration.

DNS button

Click here to configure items such as default transport protocol, DNS lookup, TTL, and threshold parameters.

Transport button

Here you can configure connection timeouts and intervals.

Monitor

Click the *Monitor* menu button to start the Java applet for BorderManager Server Monitoring. The server monitor is only available when Java is enabled. To enable/disable Java please look at the WebConsole Settings (see the Settings help section for more information).

This java applet displays real-time monitoring similar to the one in the Diagnostics/Performance Monitoring section.

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The display is split into two displays: gauges and a histogram. The gauges display their specific data at specific times while the histogram plots that same data over time.

The minimum and maximum values are labeled directly to the left of the gauge. The non-percentile value, read in from the server, is below the gauge. Directly to the right of the value is a green triangle. Click on this triangle to stop the gauge (it will turn red). Click on it again to start it. To the left is another triangle that controls the plotting of that value to the histogram. It will either be the same color as the title of the gauge (turned on) or black (turned off). To close, or shutdown the java applet, click on the close button at the bottom. To the right of the close button is the sleep value. This time (in seconds) is how long the program will wait before going to get the next set of values from the server and update the gauge(s). To either side of the sleep time display are arrow buttons that increase or decrease your sleep time when you click on them. To the left of the close button are plus and minus buttons that increase or decrease the total time across the histogram display.