Sereniti.

User Manual

SMART HOME NETWORKING SERVICE

Specifications Statement

SPECIFICATIONS

Model:	SHS-2000
Description:	Smart Home Server
Radio:	802.11g, 802.11b compatible
Ports:	WAN: One 10/100 RJ-45 port LAN: Four 10/100 RJ-45 ports
LEDs:	On, Status, Disk, WiFi, WAN, LAN (1,2,3,4)
Power:	External 12V DC, 1.5A
Dimensions:	9.25”W 6.38” D 1.38” H
Weight:	1.4 Lbs.

Sereniti

we make the home network fit to live with

www.sereniti.com

SMART HOME NETWORKING SERVICE

USER MANUAL

While every effort has been made to ensure this document is correct and current, Sereniti reserves the right to revise this document without notice. You can download the latest version of this manual at www.sereniti.com/download/documentation.

COPYRIGHT

This book and the computer programs to which it relates are original, proprietary materials, the copyright of which is owned by Sereniti Inc. All exclusive rights under the copyright laws are expressly reserved, except to the extent of express license granted to persons acquiring the copyrighted material from Sereniti Inc. In particular, attention is drawn to section 109 of the Copyright Statute, which prohibits the rental, lease, or lending of copyrighted computer programs.

Copyright © 2006 by Sereniti Inc. All rights reserved.
UM-(v1.0.0.1)
Published January, 2006.

Printed in the United States of America.

While every effort has been made to ensure this document is correct and current, Sereniti reserves the right to revise this document without notice. The customer is responsible for compliance with all applicable local, state, and federal laws and regulations in connection with customer use of this product.

Sereniti Inc.
111 Pavonia Ave., Suite 700
Jersey City, NJ 07310
www.sereniti.com

CONTENTS

1 Introduction 1

Welcome 1

Command Center 1

Overview of the Manual 3

2 Using the Command Center 7

Overview 7

Tray Icon 8

Logging In and Out 9

Logging In 9

Logging Out 11

Change Login Accounts 12

Launch Options 13

Main Menu 14

Home Page 17

Network Map 17

Dashboard 19

To Do List 21

Open the To Do List 21

Understanding Alerts 22

Responding to Alerts 23

3 Connecting PCs to Your Network 27

Overview 27

Network Map 28

Device Information Page 29

Device Information 29

Current Status 30
Connection Detail 31
Device Management Page 32
Security Summary Page 34
Backup Status Page 35
Manage Firewall Page 37
Set a PC to Auto Login 37
Change a PC's Name 39
Change a PC's Type 39
Change a PC's Icon 39
Connect the PC to Another Wireless Network 40

4 Connecting Non-PC Devices to Your Network 43

Overview 43
Wireless Devices 43
Network Map 44
Other Pages 44
Register a Device 45
Set a Device to Auto login 46
Open Ports for a Device 47

5 User Accounts 49

Overview 49
Types of Accounts 49
Privileged Accounts 50
Non-Privileged Accounts 50
User Name and Password Guidelines 51
User Name Guidelines 51
Password Guidelines 52
Create a User Account 52
View a List of Existing Accounts 54

Modify a User Account 55
Delete a User Account 58
Set Up User Notifications 58

6 Parental Controls 61

Overview 61
Choose a Content Filter 62
Available Filters 62
Bar Graph 62
Create Allowed and Restricted Sites Lists 64
Set a User's Time Filter 65
Create a Time Filter Override 67
Unblock a Site 68
Blocked by Content Filter 68
Blocked by Time Filter 70

7 Backup and Restore 71

Overview 71
Scheduled Backups 72
Customize the Backup Schedule 73
How Backups are Stored 73
Versions 73
Example 74
Set the Backup Schedule 77
Time and Frequency 77
Set the Schedule 77
Select Folders for Backup 79
Select Common Folders 79
Select Other Folders (this PC only) 80
Track the Status of Scheduled Backups 81
Perform an Unscheduled Backup 82
View the Contents of the Most Recent Backup 83
Display the Folders and Files 83

Understanding the Display 84
Restore Files and Folders 85
Restore All Files and Folders in the Most Recent Backup 86
Restore Specific files and Folders in the Most Recent Backup 87
Restore an Old Version of a File or Folder 89
Clean Up Old Backups 90
Monitor Disk Usage 91
Clean Up Unneeded folders 92
Open Ports for Backups 94

8 Shared Server Drives and Network Devices 97

Overview 97
Sereniti Shared Drive 97
USB Ports 98
Use the Sereniti Shared Drive 99
Windows Explorer 99
Internet Explorer 99
External Storage Devices 100
Connect the Device 100
Rename the Device 101
Monitor Disk Usage 101
View the Contents of the Device Using the Command Center 102
View the Contents of the Device Using the Windows Explorer or Internet Explorer 102
Repair a Hard Drive 102
Reformat a Hard Drive 103
Remove the Device 103
Network Printers 103
Connect the Printer 104
Change the Printer's Name 109

9 Folder and Printer Sharing 111

Overview 111
Folder Sharing 111
Printer Sharing 111

Workgroups 112
Folder Sharing 113
Create a Shared Folder 113
Unshare a Folder 115
Access a Shared Folder from the Command Center 116
Access a Shared Folder from a Browser 116
Printer Sharing 117
Create a Shared Printer 117
Connect a PC to a Shared Printer 120
Disconnect a Printer from a PC 120

10 Port Forwarding 121

Overview 121
Ports 121
Port Forwarding 122
Enable Universal Plug and Play 122
Select a System Defined Rule 124
Create a User Defined Rule 125
Delete a Rule 126

11 Monitoring Network Security 129

Overview 129
Check the Security Summary Page 130
Understanding the Security Summary Page 131
Resolving a Problem 132
What the Page Shows 132
How to Resolve a Problem 133
Using the To Do List 133

12 Managing the Smart Home Server 135

Overview 135
Check the Wired Settings 135

WAN IP and MAC Addresses....136
LAN IP and MAC Addresses....137
Check the Wireless Settings....137
Wireless Settings....138
Attached Wireless Devices....139
Change the Wireless Channel....139
Monitor Disk Usage....140
Change the Time Zone and Workgroup....141
Change the Time Zone....141
Change the Workgroup....141
Manage an External Storage Device....142
Rename Network Printers....143

13 Managing Your PC....145
Overview....145
View a PC Inventory....145
Defragment the Hard Drive....146
Repair Connectivity Problems....148

14 Error Messages....151
Overview....151
Antivirus Messages....152
Antispyware Messages....154
Firewall Messages....157
Backup and Restore Messages....159
Sereniti Shared Drive Message....160
Multiple Connection Message....160

Appendices
Appendix A: About IP Addresses....163
Appendix B: Backing Up Microsoft Outlook....169

Appendix C: Resolving DNS Problems..... 171

Index..... 175

FCC Interference Statement..... 183

LIST OF FIGURES

2 Using the Command Center

FIGURE 2-1 Login Fields 10
FIGURE 2-2 Welcome Message 10
FIGURE 2-3 Blocked Access Message 11
FIGURE 2-4 Change Login Account Button 12
FIGURE 2-5 User Name/Password Dialog 13
FIGURE 2-6 Command Center Main Menus 14
FIGURE 2-7 Network Map 17
FIGURE 2-8 Device Information Page (Wireless PC) 19
FIGURE 2-9 Dashboard 20
FIGURE 2-10 To Do List 22

3 Connecting PCs to Your Network

FIGURE 3-1 Device Information Page 29
FIGURE 3-2 Device Management Page (Sereniti Enabled PCs) 33
FIGURE 3-3 Device Settings Page 33
FIGURE 3-4 Security Summary Page 34
FIGURE 3-5 Backup Status Page 35
FIGURE 3-6 Manage Firewalls Page 37
FIGURE 3-7 Auto Login Page 38

4 Connecting Non-PC Devices to Your Network

FIGURE 4-1 Device Management Page (Non-PC Devices) 44
FIGURE 4-2 Manage Firewalls Page (Unknown Device) 45
FIGURE 4-3 Device Registration Page 45

FIGURE 4-4 Auto Login Page 47

5 User Accounts

FIGURE 5-1 Add User Page 53
FIGURE 5-2 Users List 55
FIGURE 5-3 User Settings Page 56
FIGURE 5-4 Notifications Page 59

6 Parental Controls

FIGURE 6-1 Parental Controls Page 64
FIGURE 6-2 Content Filter Settings Page 65
FIGURE 6-3 Time Filter Settings Page 66
FIGURE 6-4 Start and Stop Fields and Time Filter Override 67
FIGURE 6-5 Blocked Access Message (Content Filter) 68
FIGURE 6-6 Unblock Requests List 69
FIGURE 6-7 Blocked Access Message (Time Filter) 70

7 Backup and Restore

FIGURE 7-1 Backup Status Page 78
FIGURE 7-2 Backup Settings Page 78
FIGURE 7-3 Select Additional Folders Window 80
FIGURE 7-4 Backed Up Folders Window 84
FIGURE 7-5 Restore Page 86
FIGURE 7-6 Select Folders to Restore Window 88
FIGURE 7-7 Backup Disk Usage Page (Totals) 91
FIGURE 7-8 Backup Disk Usage Page (Folders) 92
FIGURE 7-9 Backup Cleanup Page 93
FIGURE 7-10 Backup Cleanup Details Page 93

8 Shared Server Drives and Network Devices

FIGURE 8-1 Attached USB Devices Page 101
FIGURE 8-2 Printers and Faxes Window 104
FIGURE 8-3 Add Printer Wizard (1) 105
FIGURE 8-4 Add Printer Wizard (2) 106
FIGURE 8-5 Add Printer Wizard (3) 106
FIGURE 8-6 Add Printer Wizard (4) 107
FIGURE 8-7 Add Printer Wizard (5) 108
FIGURE 8-8 Add Printer Wizard (6) 108

9 Folder and Printer Sharing

FIGURE 9-1 Folder Sharing Page 114
FIGURE 9-2 Folder Sharing Wizard (1) 114
FIGURE 9-3 Folder Sharing Wizard (2) 115
FIGURE 9-4 Printer Sharing Page 118
FIGURE 9-5 Printer Sharing Wizard (1) 118
FIGURE 9-6 Printer Sharing Wizard (2) 119
FIGURE 9-7 Printer Sharing Wizard (3) 119

10 Port Forwarding

FIGURE 10-1 Manage Firewalls Page 123
FIGURE 10-2 Firewall Settings Page 123
FIGURE 10-3 Add Firewall Rules Page 124
FIGURE 10-4 Port Forwarding Rules Page 125

11 Monitoring Network Security

FIGURE 11-1 Security Summary Page 130
FIGURE 11-2 Device Security Page 132

12 Managing the Smart Home Server

FIGURE 12-1 Smart Home Server Status Page 136
FIGURE 12-2 Wireless Settings Page 138
FIGURE 12-3 Smart Home Server Settings Page 141
FIGURE 12-4 Attached USB Devices Page 142

13 Managing Your PC

FIGURE 13-1 PC Inventory 146
FIGURE 13-2 PC Status Page 147
FIGURE 13-3 Windows Disk Defragmenter 148
FIGURE 13-4 Connectivity Manager 149

List of Tables

1 Introduction

TABLE 1-1 User Manual Chapters 3

2 Using the Command Center

TABLE 2-1 Tray Icon Menu Options 8
TABLE 2-2 Command Center Options 16
TABLE 2-3 Dashboard Options 20
TABLE 2-4 Alert Fields 22

6 Parental Controls

TABLE 6-1 Content Filters 63

14 Error Messages

TABLE 14-1 Antivirus Messages 152
TABLE 14-2 Antispyware Messages 154
TABLE 14-3 Firewall Messages 157
TABLE 14-4 Backup and Restore Messages 159

1 INTRODUCTION

WELCOME

Congratulations. You have chosen to subscribe to the Sereniti Smart Home Networking Service. Our unique combination of hardware, software and around-the-clock technical support can help you overcome the complexities and frustrations that all too frequently accompany the installation and management of a home network.

COMMAND CENTER

The *User Manual* explains how to operate the Sereniti Command Center. The Command Center is an easy to use home network management program that you can install on any PC in your network running the Microsoft Windows XP operating system.

The Command Center does two things:

Manages the network The Command Center helps you set up and manage a Smart Home Network. Using the Command Center, you can:

- Create user accounts so that others can log into the network, use its broadband connection to access the Internet, send and receive email, chat with friends, etc.
- Set up parental controls to restrict the types of web sites your children can access and the hours of the day they can access them

- Ensure antivirus, antispyware and firewall programs are installed on each PC, and are enabled and up to date
- Create a backup schedule to automatically back up key files and folders on each PC
- Share folders and printers among network users

Improves network usability In addition to helping you manage your network, installing the Command Center on a PC serves another purpose – it makes it much easier to:

- Log the user into the network
- Apply the appropriate parental controls
- Monitor the antivirus, antispyware and firewall programs
- Ensure key files are backed upon on a regular basis
- Connect to the two Sereniti shared drives, any printers or storage devices connected to the Smart Home Server, and all other shared printers and folders

For these reasons, we recommend you install the Command Center on all PCs in your household, as well as any PCs that will connect to the network on a regular basis, such as laptops you bring home from the office, a college student returning home for vacations, etc. Complete installation instructions can be found in the *Installation Manual*.

To get the benefits of the Command Center, the program does not have to be open, only installed and running. The only thing the user will notice is a small icon in the Windows system tray.

Tip: If a user will not be using the Command Center to manage the network, you can set the user's PC to auto login. The user will then be logged in automatically when the PC is started and need never open the Command Center. Parental controls will still apply. For details, see Chapter 3.

OVERVIEW OF THE MANUAL

TABLE 1-1 briefly summarizes the contents of each chapter in the *User Manual*.

TABLE 1-1 User Manual Chapters

This chapter...	Explains how to...
Chapter 2. Using the Command Center	• Use the Command Center's tray icon • Log in and out of the Command Center • Change login accounts • Set the Command Center's launch options • Use the Command Center's Main Menu • Use the Network Map and Dashboard, which are found on the Command Center's Home page • Use the To Do List, which shows all alerts issued by the system
Chapter 3. Connecting PCs to Your Network	• Find a newly connected PC in the Network Map and other Command Center pages • Use the Network Map and Device Management page to track the PC's status and respond to security and backup problems • Use the Security Summary page to track the status of the antivirus, antispyware and firewall programs running on the PC • Use the Backup Status page to track the status of scheduled backups on the PC • Use the Manage Firewalls page to track the port forwarding rules in effect for the PC • Set the PC to auto login • Change the PC's settings (name, type, icon) • Connect the PC to another wireless network

TABLE 1-1 User Manual Chapters (Continued)

This chapter...	Explains how to...
Chapter 4. Connecting Non-PC Devices to Your Network	• Register a non-PC device • Set a non-PC device to auto login • Open firewall ports for non-PC devices
Chapter 5. User Accounts	• Create privileged and non-privileged user accounts • View a list of existing user accounts • Modify the details of a user account • Delete a user account • Set up user notifications
Chapter 6. Parental Controls	• Choose a content filter to assign to a user • Create Allowed and Restricted Sites Lists • Set a user's time filter • Create a time filter override • Unblock a web site
Chapter 7. Backup and Restore	• Set the backup schedule • Select folders for backup • Track the status of scheduled backups • Perform an unscheduled backup • View the contents of the most recent backup • Restore files and folders • Clean up old backups • Open ports for backups

TABLE 1-1 User Manual Chapters (Continued)

This chapter...	Explains how to...
Chapter 8. Shared Server Drives and Network Devices	• Access the Sereniti Shared Drive (S: drive) • Connect an external storage device to the Smart Home Server • Rename an external storage device • Access, monitor, format, repair and remove an external storage device • Connect a network printer to the Smart Home Server • Rename the printer
Chapter 9. Folder and Printer Sharing	• Create and access shared folders • Create and print to shared printers
Chapter 10. Port Forwarding	• Enable Universal Plug and Play (UPnP) • Select a system defined port forwarding rule • Create a user defined port forwarding rule • Delete a port forwarding rule
Chapter 11. Monitoring Network Security	• Identify and evaluate the severity of any problems with the security programs running on any of your network PCs • Take action to resolve the problems • Use the To Do List to identify and resolve problems
Chapter 12. Managing the Smart Home Server	• Check the Smart Home Server's wired and wireless settings • Change the wireless channel • Monitor hard disk usage on the Smart Home Server • Change the Smart Home Server's time zone and workgroup • Manage external storage drives • Rename network printers

TABLE 1-1 User Manual Chapters (Continued)

This chapter...	Explains how to...
Chapter 13. Managing Your PC	• Display an inventory of a PC's hardware and software resources • Defragment a PC's hard drive • Resolve connectivity problems
Chapter 14. Error Messages	• Respond to Antivirus error messages • Respond to Antispyware error messages • Respond to Firewall error messages • Respond to Backup and restore error messages • Respond to Sereniti shared drive messages • Respond to Multiple connection message

USING THE COMMAND CENTER

2

THIS CHAPTER

Explains how to:

- Use the Command Center's tray icon
- Log in and out of the Command Center
- Change login accounts
- Set the Command Center's launch options
- Use the Command Center's Main Menu
- Use the Network Map and Dashboard, which are found on the Command Center's Home page
- Use the To Do List, which shows all alerts issued by the system

OVERVIEW

The Command Center interface provides subscribers of the Smart Home Networking Service with a powerful set of tools to set up and manage their Smart Home Network. It consists of:

- A tray icon to represent the Command Center
- Launch options to determine how the Command Center opens
- A Main Menu to access the Command Center pages you need to set up and manage the network
- A Home page with a Network Map showing at a glance all devices connected to the network and a Dashboard to help manage the PC you are currently using

- A To Do List showing all outstanding alerts and the actions needed to resolve them

TRAY ICON

When the Command Center is installed on a PC, it places an icon in the Windows system tray. The system tray is usually located at the bottom right of the screen.

The appearance of the icon depends on whether or not the user is logged into the Command Center.

= Logged in

= Not logged in

Right-clicking on the tray icon pops up a menu with seven options. **TABLE 2-1** explains what each option does.

TABLE 2-1 Tray Icon Menu Options

Option	What it does...
Go to Sereniti.com	If you are logged in, it opens the Sereniti home page in a browser. If you are not logged in, it is grayed out because login is required for Internet access.
Command Center	If you are logged in, it brings the Command Center to the front of the screen. If you are not logged in, it opens the Command Center so you can log in.
Reset to Default Settings	Resets the Command Center software to the default settings. Select this option whenever you connect to a new Smart Home Server.
Help	Launches the on-line help window

TABLE 2-1 Tray Icon Menu Options (Continued)

Option	What it does...
About	Displays the version of the Command Center software currently installed
Sign Out/Sign In	Signs you in and out of the Command Center. Signing in opens the Command Center and allows you to log in. Signing out logs you out of the Command Center but leaves the Command Center running.
Exit	Closes the Command Center

LOGGING IN AND OUT

To connect to your home network and use your broadband Internet connection, all users must log in. Users attempting to access the Internet without logging in will be blocked by the Smart Home Server and asked to login.

Users remain logged in until they log out (or until exiting the Command Center or turning off the PC). Users can change login accounts without logging out (see "Change Login Accounts" below).

Note: PCs can be set to auto login so that the user is logged in automatically when the PC is turned on. For additional information, see Chapter 3.

LOGGING IN

Users can log in through the Command Center or through a browser.

Logging in through the Command Center To log in through the Command Center, follow the steps below:

1 The Command Center should open automatically when your PC starts. If it does not, right-click the tray icon and select **Sign In**.

2 When the Command Center is open and the Home page displayed, type a user name and password in the **Username** and **Password** fields (**FIGURE 2-1**).

FIGURE 2-1 Login Fields

Note: The **Username** and **Password** fields appear at the bottom of every Command Center page. Users can log in and out from any page.

3 Click **LOGIN**. A message pops up indicating you are being logged in. In addition, a welcome message with your user name appears on the upper left of every page (**FIGURE 2-2**) and the **LOGIN** button becomes a **LOGOUT** button.

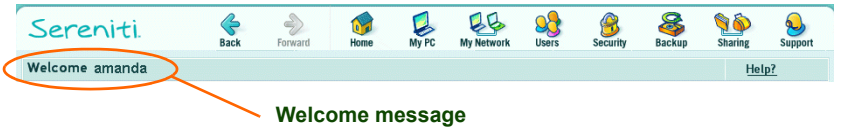


FIGURE 2-2 Welcome Message

Logging in through a browser To log in through a browser, follow the steps below:

1 Open a browser such as the Internet Explorer. The browser attempts to connect to the Internet and then displays a Blocked Access message (**FIGURE 2-3**).

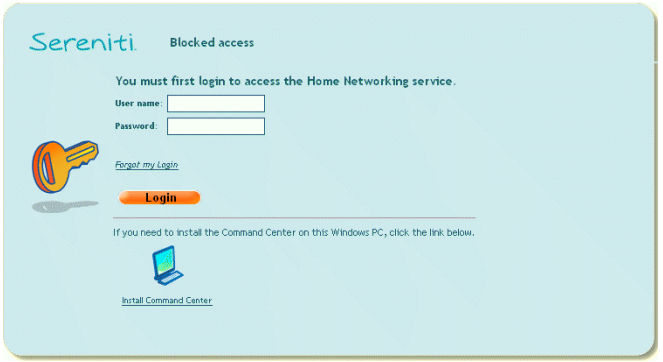


FIGURE 2-3 Blocked Access Message

2 Type your user name and password in the **User name** and **Password** fields.

3 Click **LOGIN**. The browser now connects to the Internet and displays the browser's home page.

LOGGING OUT

Users can log out through the Command Center or through a browser.

Logging out through the Command Center If you logged in through the Command Center, there are two ways to log out:

1 Click the **LOGOUT** button at the bottom right of any Command Center page.

or

2 Right-click the tray icon and select **Sign Out**.

Logging out through a browser If you logged in through a browser such as Internet Explorer, you have to logout through the browser:

1 Open the browser and enter **logout.sereniti.com** in the **Address** field.

2 Click **Go**. When you are logged out, a Blocked Access message appears in the browser window. To log back in, enter your user name and password and click the **LOGIN** button.

CHANGE LOGIN ACCOUNTS

Sometimes it is necessary to change accounts and log in as a different user. To do this:

1 Click the **CHANGE** button. It is found at the bottom right of every Command Center page (**FIGURE 2-4**).

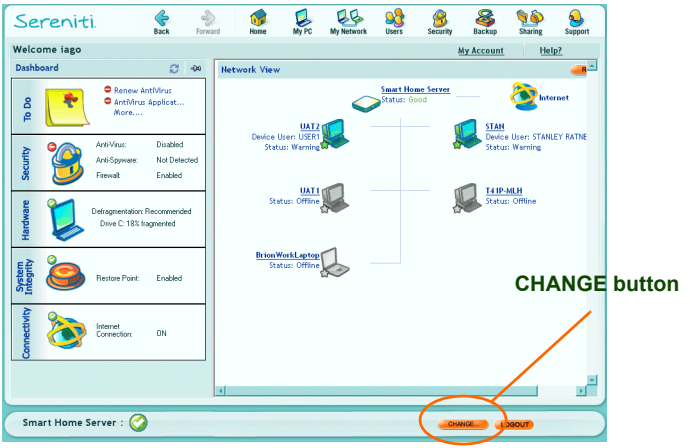


FIGURE 2-4 Change Login Account Button

2 A dialog box pops up and prompts you for a user name and password (**FIGURE 2-5**).

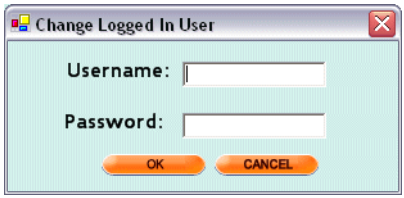


FIGURE 2-5 User Name/Password Dialog

3 Enter a user name and password in the **Username** and **Password** fields.

4 Click **OK**. The login account is immediately changed. Any parental controls associated with the new account now apply to you.

LAUNCH OPTIONS

The Command Center is set to launch automatically every time you start your PC. If you do not intend to use the Command Center, you can close the Command Center window by clicking this icon or minimize the window by clicking this icon . In either case, the Command Center remains running, just not visible, and the icon still appears in the Windows system tray.

If you logged in before you closed or minimized the window, you remain logged in even though the Command Center is not visible. The tray icon shows you are logged in (see “Tray Icon” above).

If you did not log in before closing or minimizing the window, the tray icons shows you are not logged in. If you attempt to connect to the Internet, you will be prompted to log in. Once you do, the tray icon will change. If you re-open the Command Center, you will not have to log in again.

Note: To turn the Command Center off, so that it is not running at all, right-click the tray icon and select **Exit**.

SOLUTION: *How do I turn off auto launch?*

If you would rather not have the Command Center launch automatically every time you start your PC:

1. Go to the text Main Menu (see "Main Menu" below).
2. Click **File**.
3. Select **Options**.
4. Select **Auto Launch Sereniti Command Center**.

Now, when you start your PC, the Command Center will not launch, but the icon will appear in the system tray. To open the Command Center, right-click the icon and select **Command Center**.

MAIN MENU

Every Command Center page has a horizontal Main Menu across the top. The menu appears twice, once as text and once as icons (**FIGURE 2-6**).

FIGURE 2-6 Command Center Main Menus

The two versions are essentially the same. These are the primary similarities and differences:

File menu The text version has a **File** menu that is not found in the icon version. The **File** menu enables you to:

- Return to the Home page from any other Command Center page (the icon version has a **Home** option that does the same thing)
- Auto launch Sereniti wireless. This auto launch feature is automatically turned on when you set a PC up to connect to the Smart Home Server wirelessly. You can turn this feature off by selecting it. You only need to do this when you connect to a different wireless network.
- Auto launch the Command Center. This auto launch feature is turned on by default. This means the Command Center opens automatically when the PC starts. You can turn this feature off by selecting it.
- Exit the Command Center

Help menu The text version has a **Help** menu that is not found in the icon version. The **Help** menu enables you to:

- Launch a window that shows the version of the Command Center software currently running on this PC
- Access the Sereniti web site to view the company's copyright information, privacy policy and home page, and to contact the company for support

Support menu The icon version has a **Support** menu that is not found in the text version. The Support menu enables you to:

- Access the Sereniti support portal
- Contact a Sereniti support agent by chat or email
- Diagnose and repair connectivity problems

Command Center menu The primary portion of the two Main Menus are the six Command Center options. These are the same on both menus. They enable you to set up and manage your network. **TABLE 2-2** explains what each option does.

TABLE 2-2 Command Center Options

Option	What it does...
My PC	Helps manage the PC you are currently using. Lets you check its status, defragment its hard drive, set up restore points and repair connectivity problems.
My Network	Helps monitor the PCs in the network. Lets you check the status of their security programs and backups, set auto login and repair connectivity problems. Also helps manage the Smart Home Server, check its status and settings and monitor its hard disk usage.
Users	Helps manage access to your network. Lets you create, modify and delete user accounts. Also lets you set up parental controls.
Security	Helps manage network security. Lets you monitor the security programs on each PC and resolve any problems. Also lets you open ports on the network firewall and set up parental controls.
Backup	Helps protect against information loss. Lets you create a backup schedule, choose the folders to be backed up, perform unscheduled backups and restore old backed up files. Also lets you monitor backup disk usage and clean up unneeded backup files.
Sharing	Helps make network resources available to all users. Lets you set up folder and printer sharing. Also lets you view the contents of the Sereniti Shared Drive (S: drive) and manage any external storage devices and printers attached to the Smart Home Server.

HOME PAGE

The Home page is the first page that appears after you log into the Command Center. You can return to the Home page from any Command Center page by clicking **Home** in the Main Menu.

The Home page consists of a Network Map and a Dashboard.

NETWORK MAP

The Network Map shows all the PCs and other devices connected to your network. The devices do not have to be powered on to show up on the Network Map.

FIGURE 2-7 shows a typical network map.

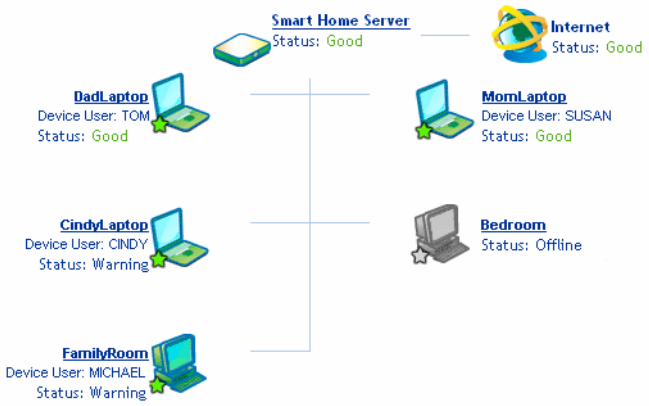


FIGURE 2-7 Network Map

Note: You can also display the Network Map by clicking **My Networks** and then clicking the **Network Map** icon.

On or offline The appearance of the icon tells you if the device is online or offline. If the device is online, the icon appears in full color, as shown below:

The green star only appears on PCs running the Command Center. It indicates the Command Center is up and connected to the Smart Home Server. If the PC is not connected to the Smart Home Server, a red star appears.

If the device is offline, the icon appears grayed out, as shown below:

IP and MAC addresses To display the IP and MAC addresses of a device, rest your mouse cursor on the icon. The IP and MAC addresses pop up, as shown below:

Additional device information To view additional information about a device, click the device's name to display the Device Information page (**FIGURE 2-8**).

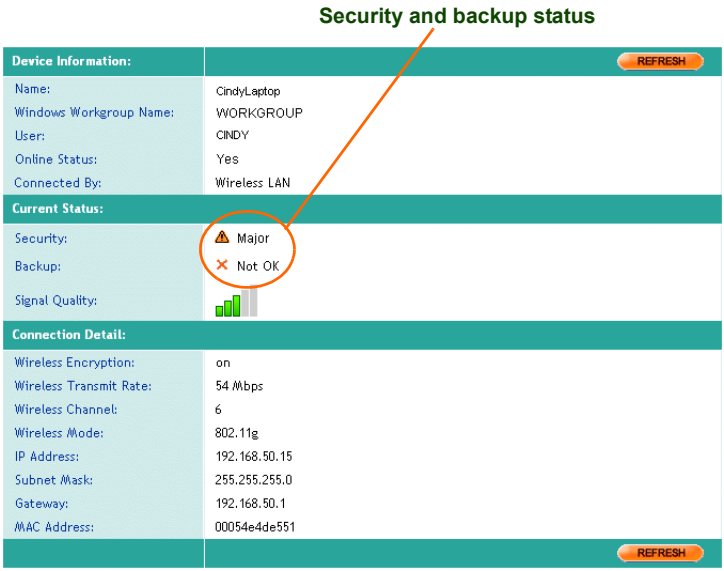


FIGURE 2-8 Device Information Page (Wireless PC)

If the device is a PC running the Command Center, the page warns you if the PC is experiencing security or backup problems (see **FIGURE 2-8**), and provides links to the Device Security and Backup Status pages so you can resolve them.

DASHBOARD

The Dashboard appears along the left side of the Home page (**FIGURE 2-9**). It lets you open the To Do List and provides links to Command Center pages to help you manage and troubleshoot the PC you are currently using.

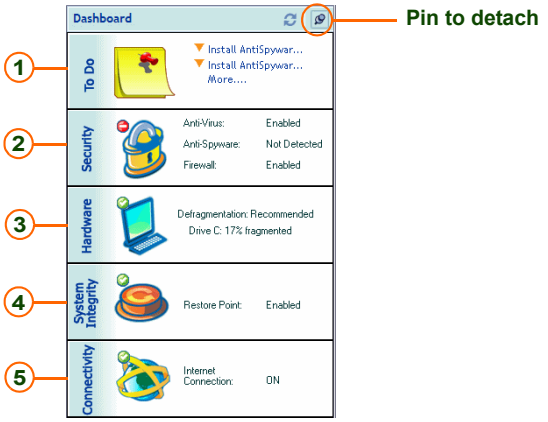


FIGURE 2-9 Dashboard

Note: The Dashboard is detachable. You can separate the Dashboard from the Command Center and pin it to the desktop so it can be accessed more easily. To do this, click the pin icon at the top-right of the Dashboard (see **FIGURE 2-9**). To unpin it, click the pin icon a second time.

TABLE 2-3 explains what each Dashboard option does.

TABLE 2-3 Dashboard Options

Option	What it does...
(1) To Do	Opens the To Do List (see "To Do List" below for a description and explanation).
(2) Security	Displays the Device Security page for the PC you are currently using. This page shows the status of the security programs and helps you resolve any problems.
(3) Hardware	Displays the PC Status page, which lets you defragment the PC's hard disk

TABLE 2-3 Dashboard Options (Continued)

Option	What it does...
4 System Integrity	Displays the Restore Point page, which lets you create new restore points and perform restore operations
5 Connectivity	Displays an icon page that lets you repair connectivity problems and perform a new setup on the Smart Home Server and this PC

TO DO LIST

When an event occurs that could cause a problem, the Command Center issues an alert. Two things then happen:

- An Alert Box pops up near your system tray and warns you of the problem.
- An entry is placed in the To Do List, where it remains until you remove it.

Examples of events that can trigger an alert are:

- New device connected to your network
- No firewall, antivirus or antispyware programs installed or enabled on a specific PC
- New definitions available for the antivirus and antispyware programs
- A PC has not been backed up for at least seven days

For each alert, the To Do List recommends action to resolve the issue.

OPEN THE TO DO LIST

To open the To Do List, follow the steps below:

1 Click **Home** to display the Dashboard.

2 Click the **To Do** icon in the Dashboard to display the To Do List (**FIGURE 2-10**).

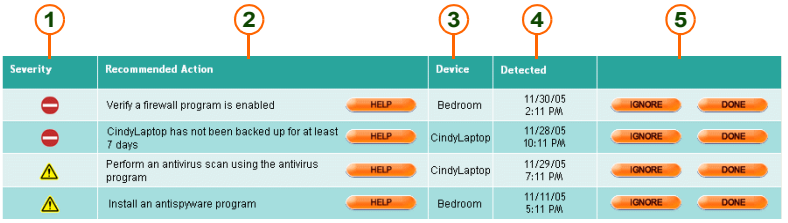


FIGURE 2-10 To Do List

UNDERSTANDING ALERTS

The To Do List lists each outstanding alert in chronological order, starting with the most recent alert. Each alert consists of four fields of information and two action buttons.

Fields The fields are explained in **TABLE 2-4**.

TABLE 2-4 Alert Fields

Field	What it means...
(1) Severity	The seriousness of the problem triggering the alert. Expressed by these icons. ▽ = Warning – potential problem identified ⚠ = Major – problem identified, act soon ⛔ = Critical – serious problem identified, act immediately
(2) Recommended Action	The action to take to resolve the issue that triggered the alert. For assistance, click **HELP** next to the action.
(3) Device	The device experiencing the problem
(4) Detected	The date and time the problem was first detected

5 **Buttons** At the far right of each alert are two action buttons.

- **IGNORE** If an alert does not represent a security threat or cannot be addressed, click **IGNORE** to mark it as ignored and remove it from the list.
- **DONE** If the problem that caused an alert has been resolved, click **DONE** to mark the alert as resolved and remove it from the list.

SOLUTION: *When should I ignore an alert?*

Here is an example of an alert that can be ignored. You connect a device to the network and then disconnect it without registering it. An alert is issued instructing you to register the device, but since the device is no longer connected to the network, it cannot be registered. Click **IGNORE** to remove the alert from the To Do List.

RESPONDING TO ALERTS

The **Recommended Action** column tells you what to do to resolve the problem that caused the alert. The following lists some of the more common recommended actions and explains how to carry them out.

Unknown device detected Whenever the Smart Home Server detects a device it cannot identify, it issues an alert. This happens when you connect a new device to your network. You should register the device. To do this, follow the steps below:

1 Click **Home** to display the Home page.

2 Locate the unknown device on the Network Map. It should look like this:

3 Click the device to display the Device Registration page (see Chapter 4, **FIGURE 4-3**).

4 In the **Device Name** field, replace **UNKNOWN** with a name of your choice. Use only letters, numbers, a hyphen (-) or an underscore (_). Do not use spaces.

5 In the **Device Type** field, select the type of device from the drop-down list.

6 In the **Icon** field, click **CHANGE** to open a pop-up window showing other available icons.

7 Select an icon and click **Select** to close the window and return to the Device Registration page. The new icon appears in the **Icon** field.

8 Click **SUBMIT**.

Install a firewall/antivirus/antispyware program To protect your PCs, each PC should be running personal firewall, antivirus and antispyware programs. Whenever the Smart Home Server detects a PC that is missing one or more of these programs, it issues an alert. You should install the missing program(s).

The Serenity Security Suite, which is provided free of charge with the Smart Home Networking Service, contains all three programs, as well as a pop-up blocker. To install the suite, click **Security** and then click the **Install Security Suite** icon.

Enable a firewall/antivirus/antispyware program To protect your PCs, the personal firewall, antivirus and anti-spyware programs running on them should be enabled at all times. Whenever the Smart Home Server detects a PC with one or more of these programs disabled, it issues an alert. You should enable the program(s).

Most security programs put an icon in the Windows system tray that can be used to enable and disable them. If you are not sure how to enable your security programs, consult the documentation that comes with the software.

Download and install new antivirus/antispyware definitions To be effective, antivirus and antispyware programs should be equipped with the latest definitions and signatures. Whenever the Smart Home Server detects a program lacking the latest definitions and signatures, it issues an alert.

Most antivirus and antispyware programs put an icon in the Windows system tray that can be used to download and install the latest definitions and signatures. If you are not sure how to do this, consult the documentation that comes with the software.

PC has not been backed up for at least seven days To protect important information, your PCs should be backed up on a regular basis. Whenever the Smart Home Server detects a PC that has not been backed up in seven days, it issues an alert.

You should check to see why the scheduled backups have been failing. The most common reason is that the PC is turned off when the backups are scheduled. To check the backup schedule:

1. Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page.
2. Locate the PC and click **EDIT** to display the Backup Settings page (see Chapter 7, **FIGURE 7-2**).
3. Check the scheduled time. If the PC tends to be off at that time, select a time when you can leave it on.
4. Click **SUBMIT**.

Since the PC has not been backed up in at least a week, as a precaution you might also want to perform an unscheduled backup. The unscheduled backup will not affect the backup schedule.

To perform an unscheduled backup:

1. Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page (see Chapter 7, **FIGURE 7-1**).
2. Locate the PC and click **BACKUP**.

3

CONNECTING PCS TO YOUR NETWORK

THIS CHAPTER

Explains how to:

- Find a newly connected PC in the Network Map and other Command Center pages
- Use the Network Map and Device Management page to track the PC's status and respond to security and backup problems
- Use the Security Summary page to track the status of the antivirus, antispyware and firewall programs running on the PC
- Use the Backup Status page to track the status of scheduled backups on the PC
- Use the Manage Firewalls page to track the port forwarding rules in effect for the PC
- Set the PC to auto login
- Change the PC's settings (name, type, icon)
- Connect the PC to another wireless network

OVERVIEW

To connect a new PC to your Smart Home Network, follow the instructions in Chapter 3 of the *Installation Manual*. They explain how to install the Command Center software and establish the wired or wireless connection.

Once the connection is established, the Smart Home Server detects the presence of the new PC and passes this information to the Command Center. By opening specific Command Center pages, you can monitor the PC's security programs and backups, and open ports when required.

Note: If you connect a PC that does not have the Command Center installed, the Smart Home Server treats it the same way it treats a non-PC device. See Chapter 4 for details.

NETWORK MAP

Log into the Command Center from the PC. There should be an entry for the PC in the Network Map on the Home page. The entry appears as a desktop computer icon. Next to the icon are the PC's name, the Windows user name and a status message. The following shows what a typical entry looks like:

In the example above, **FamilyRoom** is the name of the PC, **MICHAEL** is the Windows user name, and the status message is **Warning**, indicating a problem with the security programs on the PC. The green star indicates the Command Center is connected to the Smart Home Server. If it were not connected, the star would be red.

Note: To find out the name of a computer, click **Start** on the Windows taskbar, right-click **My Computer** and select **Properties**. The **Computer Name** tab shows the computer name and allows you to change it.

If you pass the mouse cursor over the icon, the IP and MAC addresses of the PC pop up.

DEVICE INFORMATION PAGE

If you click the PC name or icon in the Network Map, the Device Information page displays (**FIGURE 3-1**).

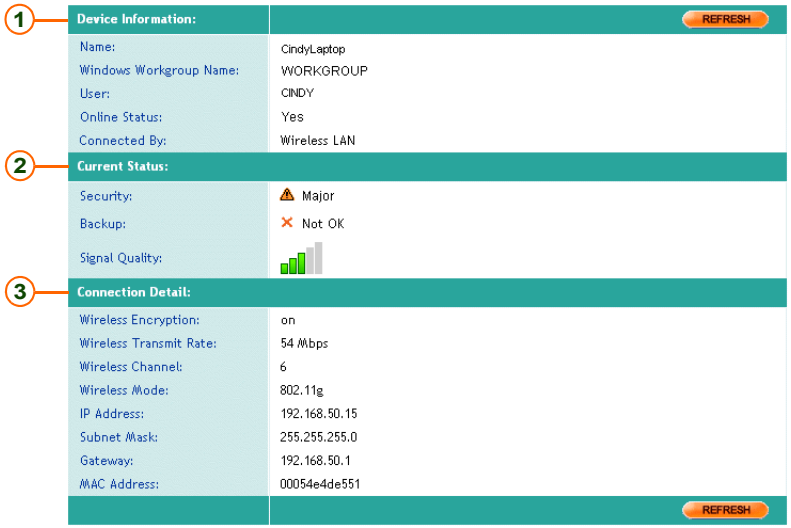


FIGURE 3-1 Device Information Page

This page shows provides basic device information, shows the current status of the device, and gives some basic connection details. The following explains:

1 DEVICE INFORMATION

Device information includes:

- **Name**
  The full computer name of the PC. To view and change the name on the PC, click **Start** in the Windows taskbar, right-click **My Computer** and select **Properties**. Click the **Computer Name** tab in the Properties window and then click the **Change** button.

- **Windows Workgroup Name**
  The workgroup to which the PC belongs. The Smart Home Server and all PCs must be in the same workgroup to share folders and printers. To change the workgroup, click **Start**, right-click **My Computer** and select **Properties**. Click the **Computer Name** tab and then click the **Change** button.
- **User**
  The user account currently logged in. To view the user accounts on a PC, and add or change an account, click **Start** and select **Control Panel**. Then, double-click the **User Accounts** entry in the **Control Panel**.
- **Online Status**
  Yes = PC currently online
  No = PC currently offline
- **Connected By**
  Wired LAN or Wireless LAN

② CURRENT STATUS

Current status information includes:

- **Security**
  Indicates the status of the antivirus, antispyware and firewall programs using these symbols:

  = Good – no action required

  = Warning – potential problem identified

  = Major – problem identified, act soon

  = Critical – serious problem identified, act immediately

  If Warning, Major or Critical appears, click **Security** and then click the **Security Summary** icon to display the Security Summary page. This page shows the security problems on each network PC and helps you resolve them. See Chapter 11 for details.

- **Backup**
  Indicates the status of the last backup using these symbols:

  = Last backup successful

  = Last backup unsuccessful

  If the last backup was unsuccessful, click **Backup** and then click the **View Backup Status** icon to display the Backup Status page. Locate the PC and position the mouse cursor on the icon. The cause of the failure will pop up (e.g., PC was offline when backup started). You can fix the cause and then either wait for the next scheduled backup or perform an unscheduled backup. See Chapter 7 for details.

- **Signal Quality (*wireless PCs only*)**
  The strength of the Smart Home Server's radio signal. No green bars means no signal. One green bar is the weakest; five green bars is the strongest. The icon below shows three green bars, which represents good signal quality.

3 CONNECTION DETAIL

Connection detail information includes:

- **Wireless Encryption (*wireless PCs only*)**
  Should always be on. You were instructed to create an encryption key when this PC was initially set up using the Quick Install CD. All wireless PCs connecting to your network need this key. To identify your WEP key, click **Security** and then click the **Wireless Settings** icon to display the Wireless Settings page. See Chapter 12 for details.

- **Wireless Transmit Rate (*wireless PCs only*)**
  Your current transmission speed. If your wireless mode is 802.11g, the maximum speed is 54 mbps. If it is 802.11a or b, maximum speed is less.

- **Wireless Channel (*wireless PCs only*)**
  The channel the radio transmitter in the Smart Home Server is using to broadcast. By default, it broadcasts on channel 6.
- **Wireless Mode (*wireless PCs only*)**
  The wireless protocol. The Sereniti system is compatible with 802.11a, b or g. Most newer devices use 802.11g.
- **IP Address**
  The IP address of the PC. This is assigned by the Smart Home Server, and is usually 192.168.50.X, where X depends on the number of devices in your network.
- **Subnet Mask**
  A number that the Smart Home Server uses with the IP address to help identify the various devices connected to your network.
- **Gateway**
  The IP address of the Smart Home Server. By default, the address is 192.168.50.1. The Smart Home Server is your gateway to the Internet.
- **MAC Address**
  The MAC address of the wireless card in the PC. The MAC address is a unique number that is burned into all Internet devices at the factory.

DEVICE MANAGEMENT PAGE

In addition to the Network Map and Device Information page, an entry is also placed in the Device Management page under the heading **Sereniti Enabled PCs**. Click **My Network** and then click the **Device List** icon to display this page (**FIGURE 3-2**).

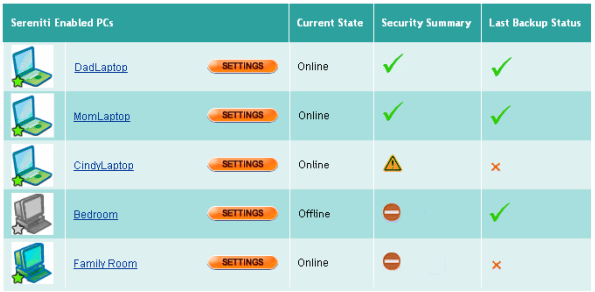


FIGURE 3-2 Device Management Page (Sereniti Enabled PCs)

You can do the following from this page:

- **Display the Device Information page**
  Click the name of any PC to display the Device Information page for that PC (**FIGURE 3-1**).
- **Display the Device Settings page**
  Click the **SETTINGS** button to the right of any PC to display the Device Settings page (**FIGURE 3-3**) You can change the PC's name, device type or icon from this page.

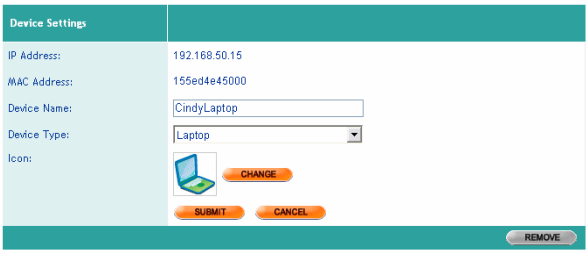


FIGURE 3-3 Device Settings Page

- **Display the Device Security page**
  This page uses the same icons as the Device Management page

to represent security program problems (see page 30). Click the icon in the **Security Summary** column for any PC to display the Device Security page (Chapter 11, **FIGURE 11-2**). This page provides a closer look at the status of the PC's personal firewall, antivirus and antispyware programs. See Chapter 11 for details.

- **Display the Backup Status page**
  This page uses the same icons as the Device Management page to represent backup problems (see page 31). Click the icon in the **Last Backup Status** column for any PC to display the Backup Status page. This page show the status of the last backup for each PC and allows you to perform a number of backup-related functions. See Chapter 7 for details.

SECURITY SUMMARY PAGE

An entry for the new PC also appears in the Security Summary page. Click **Security** and then click the **Security Summary** icon to display this page (**FIGURE 3-4**).

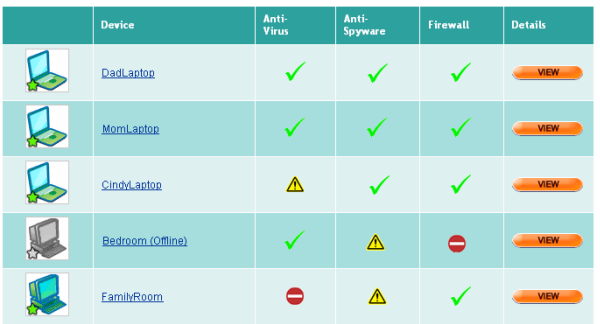


FIGURE 3-4 Security Summary Page

This page shows the status of the antivirus, antispyware and personal firewall programs running on each PC. It uses the same icons as the Device Information page (see page 30).

If any PC has a problem, Click **VIEW** in the **Details** column to display the Device Security page for that PC. This page spells out the nature of the problem and provides links to help you solve it. See Chapter 11 for details.

You can also click the name of any PC to display the Device Information page for that PC (**FIGURE 3-1**).

BACKUP STATUS PAGE

An entry for the new PC appears in the Backup Status page. Click **Backup** and then click the **View Backup Status** icon to display this page (**FIGURE 3-5**).

FIGURE 3-5 Backup Status Page

For each PC, this page shows:

1. The PC name

2. The date and time of the last backup attempt
3. The outcome of that attempt
   - ✓ = Backup successful
   - ✗ = Backup unsuccessful

   If the backup was unsuccessful, position the mouse cursor on the ✗. A box will pop up and give the reason the backup failed.
4. The date and time of the next scheduled backup

You can do the following from this page:

- **Display the Backup Settings page**
  Click **EDIT** for any PC to display the Backup Settings page for that PC. This page allows you to change the PC's backup schedule and select the folders to be backed up. See Chapter 7 for details.
- **View the last successful backup**
  Click **VIEW** for any PC to look at the folders in this PC's last successful backup.
- **Perform an unscheduled backup**
  Click **BACKUP** for any PC to perform an unscheduled backup right now.

MANAGE FIREWALLS PAGE

An entry for the new PC appears in the Manage Firewalls page. Click **Security** and then click **Network Firewall Settings** to display this page (**FIGURE 3-6**).

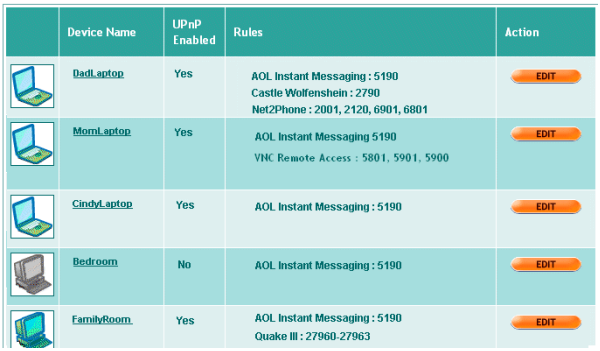


FIGURE 3-6 Manage Firewalls Page

For each device in your network, this page indicates if Universal Plug and Play (UPnP) is enabled and shows any port forwarding rules in effect for the device.

Click **EDIT** for any device to display the Firewall Settings page for that device. This pages allows you to enable Universal Plug and Play (UPnP) and select or create additional rules. See Chapter 10 for details.

SET A PC TO AUTO LOGIN

When the Command Center is installed on a PC, users have to log into the Command Center to obtain Internet access. If they do not do this, they are blocked and prompted to enter their user name and password.

You have the option of setting the PC to auto login to avoid this. When a PC is set to auto login, login takes place automatically as soon as the PC

is turned on. The user does not have to enter a user name and password. This is especially useful for young children.

When you set up auto login, you have to enter a user account. The parental controls associated with the account are in effect for auto login, and apply to everyone who uses the PC.

To set a PC to auto login, follow the steps below:

1 Click **My Network** and then click the **Device Auto Login** to display the Auto Login page (**FIGURE 3-7**).

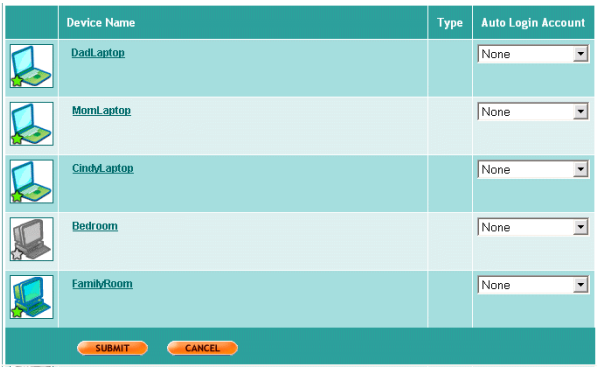


FIGURE 3-7 Auto Login Page

2 Locate the PC.

3 Select a user account from the drop-down list in the **Auto Login Account** field. All parental controls associated with the account will apply to whoever uses this PC to access the Internet.

Note: In addition to showing all existing user accounts, the drop-down list also has an entry called **Non-PC Device**. This entry is intended for game consoles, media servers and other non-PC devices. It is the equivalent of a non-privileged user with unlimited Internet access.

4 Click **SUBMIT.**

CHANGE A PC'S NAME

All new PCs are identified by their internal computer name. You can change the name to something more easily recognizable. The new name replaces the old name wherever it appears in the Command Center.

Note: Changing a PC's name only changes the name that appears in the Command Center. The PC's internal computer name remains the same. This can only be changed on the PC itself.

To change the name, follow these steps:

1. Click **My Network** and then click the **Device List** icon to display the Device Management page (**FIGURE 3-2**).
2. Locate the PC and click **SETTINGS** to display the Device Settings page (**FIGURE 3-3**).
3. Type a new name in the **Device Name** field.
4. Click **SUBMIT**.

CHANGE A PC'S TYPE

New PCs are always identified as PCs, regardless of whether they are desktop or laptop units. To change the type to laptop, follow these steps:

1. Click **My Network** and then click the **Device List** icon to display the Device Management page (**FIGURE 3-2**).
2. Locate the PC and click **SETTINGS** to display the Device Settings page (**FIGURE 3-3**).
3. Select **Laptop** from the drop-down list in the **Device Type** field.
4. Click **SUBMIT**.

CHANGE A PC'S ICON

New PCs are always assigned an icon that depicts a desktop PC. You can change the icon to a laptop, a PC with flat panel display, or a tower PC. The new icon replaces the old icon wherever it appears in the Command Center.

To change the icon, follow these steps:

1. Click **My Network** and then click the **Device List** icon to display the Device Management page (**FIGURE 3-2**).
2. Locate the PC and click **SETTINGS** to display the Device Settings page (**FIGURE 3-3**).
3. Click **CHANGE** in the **Icon** field to open a pop-up window showing other available icons.
4. Select an icon and click **Select** to close the window and return to the Devices Settings page. The new icon appears in the **Icon** field.
5. Click **SUBMIT**.

CONNECT THE PC TO ANOTHER WIRELESS NETWORK

If your PC was set up to connect to your home network wirelessly (see Chapter 3 of the *Installation Manual)*, the Sereniti wireless agent was turned on. The agent instructs the wireless adapter in the PC to look for the Smart Home Server and connect to it.

When you take your PC out of your home and attempt to connect to another wireless network, such as your office network or a public hotspot, you will need to turn the Sereniti wireless agent off. This allows the Windows wireless agent to take over and search for available networks to connect to.

To turn the Sereniti wireless agent off:

1. Go to the text Main Menu (see Chapter 2 for an explanation of the two Main Menus).
2. Click **File**.
3. Select **Options**.
4. Select **Auto Launch Sereniti wireless**.

   This option was turned on when the PC was configured for wireless. Selecting it now turns it off. When you return home and want to reconnect to you Smart Home Server, repeat the procedure above. This turns the wireless agent back on.

4

CONNECTING NON-PC DEVICES TO YOUR NETWORK

THIS CHAPTER

Explains how to:

- Register a non-PC device
- Set a non-PC device to auto login
- Open firewall ports for non-PC devices

OVERVIEW

Many types of non-PC devices can be connected to your Smart Home Network. The following lists a few of the more common ones:

- Personal data assistants (PDAs)
- Game consoles
- Digital video recorders
- Print and media servers

Note: PCs that do not have the Command Center installed are treated as non-PC devices.

WIRELESS DEVICES

If the device is wireless, make sure its wireless adapter is enabled and it is configured to connect to the Smart Home Server. This may require you to enter your network's SSID and WEP key. These can be found by clicking **My Networks** and then clicking the **Wireless Settings** icon. (For help in configuring a device, refer to the documentation that comes with it.)

NETWORK MAP

Log into the Command Center. The non-PC device you just connected appears on the Home page in the Network Map. The entry for the device appears as an unknown device icon. The name of the device is also **UNKNOWN**, and the status is simply "online." The following shows what such an entry looks like:

Tip: It is not a good idea to connect several devices at the same time, because each device shows up as **UNKNOWN** and it is sometimes difficult to tell which device is which. A better approach is to connect one and register it (see below) so that it has a name to identify it, and then connect and register another, etc.

OTHER PAGES

In addition to the Network Map, **UNKNOWN** entries are also placed in the Device Management page (see Chapter 3, **FIGURE 3-2**) and the Manage Firewalls page (see Chapter 10, **FIGURE 10-1**).

Device Management Page The entry in the Device Management page appears under the heading **Non-Enabled PCs and Other Devices**. Click **My Network** and then click the **Device List** icon to display this page (**FIGURE 4-1**).

FIGURE 4-1 Device Management Page (Non-PC Devices)

Manage Firewalls page To display the Manage Firewalls page, click **Security** and then click the **Network Firewall Settings** icon (**FIGURE 4-2**).

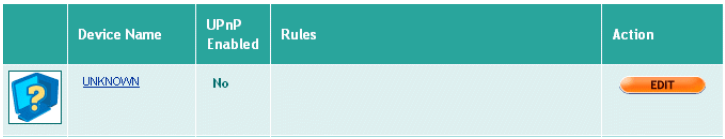


FIGURE 4-2 Manage Firewalls Page (Unknown Device)

REGISTER A DEVICE

To give the device a name and icon so that you can more easily identify it in the Command Center, you have to register it. To register a device, follow the steps below:

1 Locate the device in the Network Map and click the name or icon to display the Device Registration page (**FIGURE 4-3**).

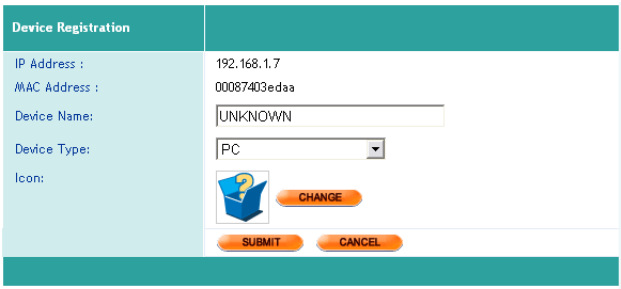


FIGURE 4-3 Device Registration Page

Note: You can also display the Device Registration page by clicking **UNKNOWN** or **SETTINGS** in the Device Management page.

2 In the **Device Name** field, replace **UNKNOWN** with a name of your choosing. Use only letters, numbers, a hyphen (-) or an underscore (_). **Do not use spaces.**

3 In the **Device Type** field, select the type of device from the drop-down list.

4 In the **Icon** field, click **CHANGE** to open a pop-up window showing other available icons.

5 Select an icon and click **Select** to close the window and return to the Devices Registration page. The new icon appears in the **Icon** field.

6 Click **SUBMIT**.

SET A DEVICE TO AUTO LOGIN

Non-PC devices that have to access the Internet must be set to auto login. This is because they do not have a login screen where you can enter a user name and password.

When setting a device to auto login, you have to select either **Non-PC Device** or a specific user account which serves as the auto login account:

- **Non-PC Device** Gives the device unlimited Internet access (but not privileged status).
- **User Account** Limits the device's Internet access, based on the content and time filters associated with the account

> **SOLUTION:** *When should I select a user account?*
>
> Select a user account instead of **Non-PC Device** when you want to restrict Internet access. For example, if you do not want your children to use a game console after 10 pm, create an account with a time filter that blocks access from 10 pm until 10 am the following morning.

To set a device to auto login, follow the steps below:

1 Click **My Network** and then click the **Device Auto Login** to display the Auto Login page (**FIGURE 4-4**). It shows each device.

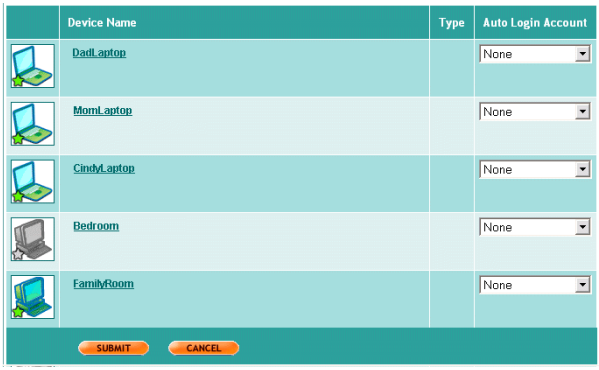


FIGURE 4-4 Auto Login Page

2 Locate the device.

3 Select **Non-PC Device** or a user account from the drop-down list in the **Auto Login Account** field. All restrictions associated with the account will apply to the device.

4 Click **SUBMIT**.

OPEN PORTS FOR A DEVICE

The Smart Home Server creates a firewall between your network and the Internet. Many non-PC devices have to communicate with other devices on the Internet and exchange two-way traffic with them. The firewall prevents incoming traffic from reaching your device, unless you open the appropriate ports to let the traffic through.

There are three ways to open firewall ports:

- **Enable Universal Plug and Play (UPnP)** This works for devices that support the UPnP protocol.
- **Select a port forwarding rule** Port forwarding rules open firewall ports. The Command Center provides system defined rules for many popular devices and applications.
- **Create a port forwarding rule** If no system defined rule exists for a device, it is possible to create one yourself. This requires some networking knowledge. You can contact Sereniti technical support for assistance.

For a more detailed discussion of port forwarding, including step-by-step instructions for enabling UPnP, selecting a rule and creating a rule, see Chapter 10.

5 User Accounts

THIS CHAPTER

Explains how to:

- Create privileged and non-privileged user accounts
- View a list of existing user accounts
- Modify the details of a user account
- Delete a user account
- Set up user notifications

OVERVIEW

To protect your network from unauthorized access, the Smart Home Networking Service requires users to enter a user name and password in order to log into your network. If they do not enter a correct user name and password, they cannot connect to the network and use your broadband connection to access the Internet.

To provide a user with a user name and password, you have to create a user account. In addition to setting up the user name and password, the account defines the user's privileged status (see below) and determines the content and time filters, if any, that apply to the user.

TYPES OF ACCOUNTS

There are two types of user accounts:

- Privileged accounts
- Non-privileged accounts

PRIVILEGED ACCOUNTS

Privileged accounts can log into the Command Center and perform all administrative functions. Privileged accounts can do all of the following, which non-privileged accounts cannot do:

- Log into the Command Center remotely
- Create, edit and delete user accounts
- Set up parental controls to determine which web sites other users can access
- Monitor the security software running on network PCs and access the To Do List
- Create a backup schedule, perform unscheduled backups and restore old backups
- Reset and upgrade the Smart Home Server

More than one user can log into the Command Center at the same time using the same account. For this reason, you need to decide how many privileged accounts to create.The more privileged accounts you create, the harder it is to control access to the Command Center.

NON-PRIVILEGED ACCOUNTS

Non-privileged users can log into your network, access shared resources such as folders and printers, and use your broadband connection to access the Internet. If their email programs are configured properly, they can send and receive email.

Non-privileged users can also log into the Command Center (not remotely) and perform certain minimal functions that involve their own PCs.

USER NAME AND PASSWORD GUIDELINES

User accounts specify the user name and password the user must enter to log in. When creating user names and passwords, there are certain guidelines you must follow. If you do not follow these guidelines, the Command Center will reject the account and prompt you to enter the user name or password again.

USER NAME GUIDELINES

When entering user names, follow these guidelines:

Valid names User names must be unique across all users of the Sereniti Smart Home Networking Service. This means that when you assign a name to a new user, this name cannot be in use anywhere in the Sereniti system. If it is, you will receive an error message requesting you to enter another name.

The reason for this is that Sereniti allows privileged users to access and manage their networks remotely by logging in with a browser. To prevent an unauthorized user with the same user name from logging into your network, your user name must be unique.

If your first choice for a name is already taken, you can try to create other variations or you can add a numeric suffix. For example if john.adams is already taken, try one of the following:

j.adams

jadams

john.q.adams

jqadams

adamsj

john.adams123

Valid characters User names can contain between 3 and 30 characters. All the following characters are valid:

- a-z (uppercase letters are converted to lowercase)
- 0-9
- Period (.)
- Hyphen (-)
- Underscore (_)

Spaces are NOT permitted. User names are NOT case-sensitive. "John.Adams" is treated the same as "john.adams."

PASSWORD GUIDELINES

Passwords do NOT have to be unique across the entire Sereniti system. Passwords can contain between 5 and a 30 characters. All the following characters are valid:

- a-z
- A-Z
- Period (.)
- Hyphen (-)
- Underscore (_)

Spaces are NOT permitted. Passwords ARE case-sensitive. It matters how the user enters the password. If the password was created with capital letters, the user must capitalize the same letters to log in.

CREATE A USER ACCOUNT

To add a new user account, follow the steps below:

1 Click **Users** and then click the **Add User** icon to display the Add User page (**FIGURE 5-1**).

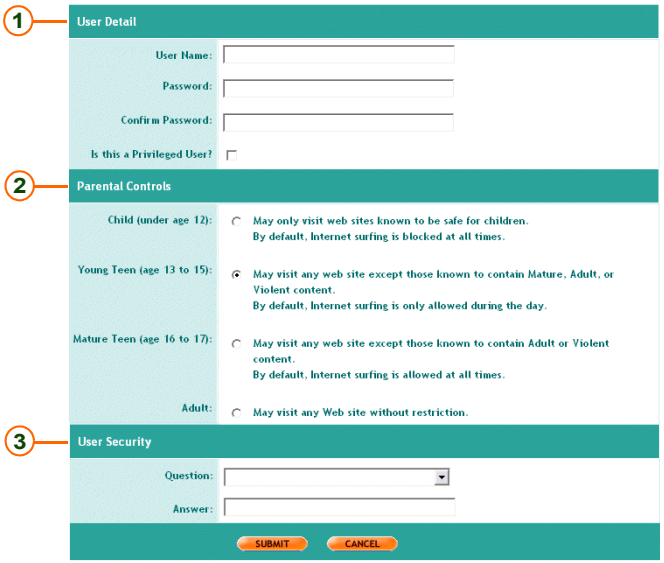


FIGURE 5-1 Add User Page

2 Go to **User Detail** (1) and type a name in the **User Name** field. This is the name the user enters to log into your network.

3 Type a password in the **Password** field. This is the password the user enters to be authenticated.

Note: The Command Center will reject user names and passwords that are not formulated correctly. See "User Name and Password Guidelines" above.

4 Type the password again in the **Confirm Password** field. Passwords are case-sensitive, so be sure to capitalize the same letters each time you type the password.

5 To make this account a privileged user, click the **Is this a Privileged User?** check box.

Note: For an explanation of the types of user accounts, see "Types of Accounts" above.

6 Go to **Parental Controls** (2) and select the appropriate content filter for the user. Your choices are:

- Child (under 12)
- Young teen (ages 13-15)
- Mature teen (ages 16-17)
- Adult (no restrictions)

Note: For help in selecting a content filter, See Chapter 6, **TABLE 6-5** for a more detailed description of the contents filters.

7 Go to **User Security** (3) and select a security question from the drop-down list in the **Question** field.

8 Enter an answer to the security question in the **Answer** field. Users who forget their password will have to provide this answer to obtain a new password.

9 Click **SUBMIT**.

VIEW A LIST OF EXISTING ACCOUNTS

To display a list of the user accounts that have been created to date, follow the steps below:

1 Click **Users** and then click the **Users List** icon.

2 The Users List appears (**FIGURE 5-2**). Accounts that have a check mark in the **Privileged** column are privileged accounts.

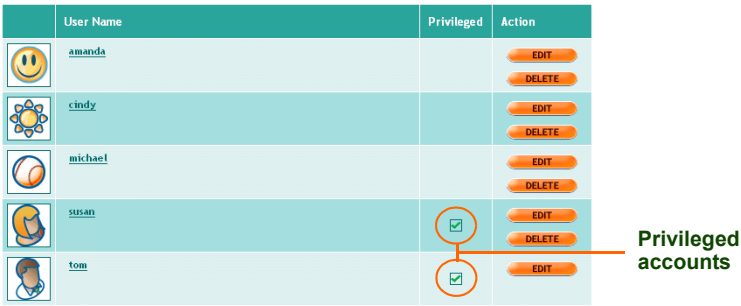


FIGURE 5-2 Users List

MODIFY A USER ACCOUNT

You can change any of the details in a user account except the user name. To change a user name, you have to delete the account and create a new one.

To modify the details of a user account, follow the steps below:

1 Click **Users** and then click the **Users List** icon to display the Users List (see **FIGURE 5-2**).

2 Locate the user account and click the user's name or click **EDIT** in the **Action** column to display the User Settings page (**FIGURE 5-3**).

FIGURE 5-3 User Settings Page

3 All new user accounts are automatically assigned this icon:

This icon appears to the left of the account in the Users List. To change the icon:

- **a** In the **Image** field, click **EDIT** to display a selection of other icons.
- **b** Click the radio button under the icon you want to select it.
- **c** Click **SUBMIT**. You are returned to the User Settings page. The icon you selected is displayed.

4 To change the user's password, type a new password in the **Password** field, and then type it again in the **Confirm Password** field. Capitalize the same letters each time.

Note: The Command Center will reject user names and passwords that are not formulated correctly. See "User Name and Password Guidelines" above.

5 To change the user's privileged status, select or unselect the check box in the **Is this a Privileged User?** field. Selecting the check box gives the user privileged status and unselecting it removes privileged status. You cannot change the privileged status on your own account.

Note: For an explanation of privileged accounts, see "Types of Accounts" above.

6 To change the content filter:

a Locate the Content Filter Bar Graph and click **EDIT**. This displays the Content Filter Settings page (see Chapter 6, **FIGURE 6-2**).

b Select a new content filter from the four offered.

Note: See Chapter 6 for a more detailed description of the content filters.

c Click **SUBMIT**. You are returned to the User Settings page.

7 To change the time filter:

a Locate the Time Filter Bar Graph and click **EDIT**. This displays the Time Filter Settings page (see Chapter 6, **FIGURE 6-3**).

b Select a period of time by entering start and stop dates and times in the **Start** and **Stop** fields under the weekly time grid.

c Click **BLOCK** to block Internet access during the selected time period, or click **ALLOW** to allow access.

d Repeat Steps b – c until the time grid is what you want.

e Click **SUBMIT**. You are returned to the User Settings page.

8 To change the security question, select a new question from the drop-down list in the **Question** field, and then type the answer in the **Answer** field.

9 When you have finished making changes, click **SUBMIT**. You are returned to the Users List.

DELETE A USER ACCOUNT

User accounts that are no longer needed should be deleted. You cannot delete a user account that is currently logged in.

To delete a user account, follow the steps below.

1. Click **Users** and then click the **Users List** icon to display the Users List (**FIGURE 5-2**).
2. Locate the user and click **DELETE** in the **Action** column. A dialog box pops up and asks you if you are sure you want to delete this user.
3. Click **OK** to confirm the deletion and close the pop-up. When the deletion is complete, a second dialog box pops up and tells you the user account has been successfully deleted.
4. Click **OK** to close the pop-up. You are returned to the Users List. The deleted user is no longer on the list.

SET UP USER NOTIFICATIONS

You can enter up to three email addresses and telephone numbers for Sereniti support staff to contact you. To do this, follow the steps below:

1 Click **Users** and then click the **Setup Notifications** icon to display the Notifications page (**FIGURE 5-4**).

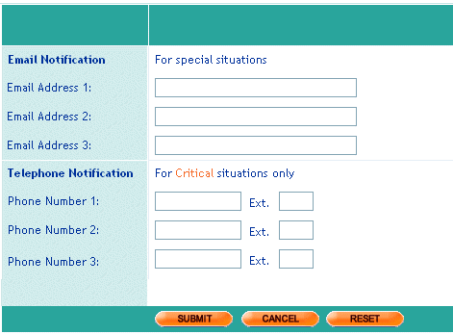


FIGURE 5-4 Notifications Page

2 In the **Email Notification** field, enter up to three email addresses in the standard

`myname@myaddress.com`

format. Sereniti will send an email to each address when special situations arise.

3 In the **Telephone Notification** field, enter up to three telephone numbers (including area code). If a critical situation is detected, Sereniti will call you at these numbers, starting with the first one you enter.

4 Click **SUBMIT**.

6 PARENTAL CONTROLS

THIS CHAPTER

Explains how to:

- Choose a content filter to assign to a user
- Create Allowed and Restricted Sites Lists
- Set a user's time filter
- Create a time filter override
- Unblock a web site

OVERVIEW

Many parents believe that much of the content on the Internet is inappropriate for their children. In addition, they often feel that time spent on the Internet is time not spent on more important activities, such as schoolwork, reading and athletics.

For these and other reasons, parents believe it is their responsibility to supervise their children's Internet experience to ensure their children do not visit offensive web sites or spend too much time aimlessly surfing the web or chatting with friends.

To provide parents with the means to fulfill their responsibilities, the Smart Home Networking Service provides a powerful set of Internet filtering tools to control the sites users can visit and the time of day they can access the Internet.

CHOOSE A CONTENT FILTER

Once the Smart Home Networking Service is installed, no one is permitted to access the Internet without a user account. When you create the user account, you have to assign it a content filter. The content filter determines the sites the user can visit and the hours the user can access the Internet.

AVAILABLE FILTERS

There are four content filters to choose from. They are described in **TABLE 6-5** on the next page.

Each user is assigned one of these four filters when the user 's account is created. If the user tries to visit a site that is blocked by the filter, a Blocked Access message appears and the user is refused permission to land on the site.

Note: See Chapter 5 for instructions on creating a user account and assigning a content filter. Chapter 5 also explains how to change a user's content filter.

BAR GRAPH

The Command Center provides a Content Filter Bar Graph. It gives an approximation of the percentage of web sites blocked by a user's content filter. You can use these to compare content filters.

The bar graph appears on the Parental Controls (**FIGURE 6-1**), Control Filter Settings (**FIGURE 6-2**), and User Settings (Chapter 5, **FIGURE 5-3**) pages.

The following is an example of a typical Content Filter Bar Graph:

Orange represents the percentage of sites blocked and white the percentage of sites allowed. The above example shows the graph for the mature teen filter.

TABLE 6-5 Content Filters

Filter	Intended For	Does this
Child	Children under 12	• Only allows access to sites known to be safe for children • Blocks Internet access at all times (you must modify the time filter to allow access)
Young Teen	Children 13-15	• Allows access to much of the Internet, but blocks much inappropriate content, including sites dealing with: • Abortion • Alcohol • Criminal skills • Cult • Drugs • Gambling • Hacking • Hate • Nudism • Occult • Personals and dating • Pornography • Sexual advice • Sexual orientation • Tobacco • Chat • Gaming • Sex education • Suicide • Violence • Weapons • Allows Internet access during daytime hours
Mature Teen	Children 16-17	• Allows access to most sites, except for hate sites and sites dealing with extremely violent or sexual content • Allows Internet access at all times
Adult	Over 18	• No restrictions

CREATE ALLOWED AND RESTRICTED SITES LISTS

To complement the content filters, the Smart Home Networking Service provides two lists you can also use to control Internet access:

- **Allowed Sites List** — a collection of URLs that all users can access, regardless of their content filter
- **Restricted Sites List** — A collection of URLs that only adult users can access

When you first install the Command Center, these lists are empty. You can add URLs to them as you see fit. To add a URL to either list, follow the steps below:

1 Click **Users** or **Security** and then click the **Parental Controls** icon to display the Parental Controls page (**FIGURE 6-1**).

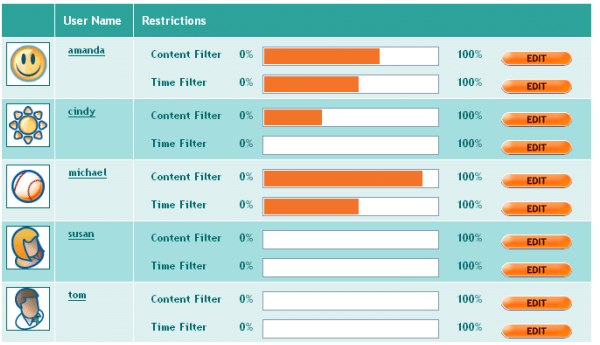


FIGURE 6-1 Parental Controls Page

2 Select a user and click **EDIT** to the right of the Content Filter Bar Graph. It does not matter which user you select because the two lists apply to all users. The Content Filter Settings page displays (**FIGURE 6-2**).

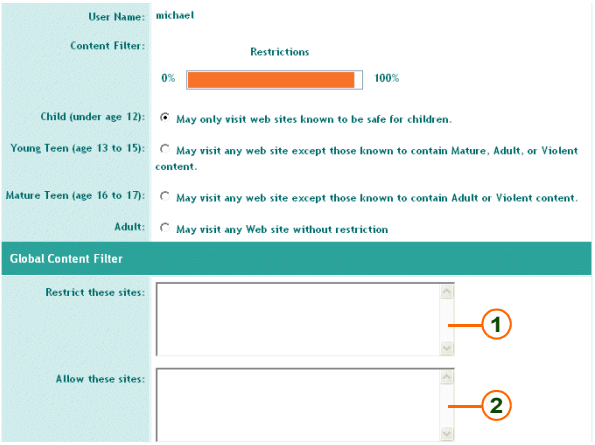


FIGURE 6-2 Content Filter Settings Page

3 Go to the **Restrict these sites** (1) or **Allow these sites** (2) panels and enter the URLs. Enter one URL per line. (To remove a URL, select it and delete it).

4 When you are finished entering URLs, click **SUBMIT**. You are taken to the User Settings page for this user.

Note: If a user has made a request to unblock a web site, a third panel is shown with the request in it. When working with the Allowed and Restricted Site Lists, you may ignore this panel. See "Unblock a Site" below.

SET A USER'S TIME FILTER

The content filter also determines when the user can access the Internet (see **TABLE 6-5**). However, you can modify this part of the content filter

– called the *time filter* – and customize it to suit you and your user's needs.

To set a user's time filter, follow the steps below:

1 Click **Users** or **Security** and then click the **Parental Controls** icon to display the Parental Controls page (**FIGURE 6-1**).

2 Locate the user, and then click **EDIT** to the right of the Time Filter Bar Graph to display the Time Filter Settings page (**FIGURE 6-3**).

This page is a grid showing all the hours of the week. Hours shown in orange are blocked – Internet access is denied. Hours shown in white are unblocked – access is permitted.

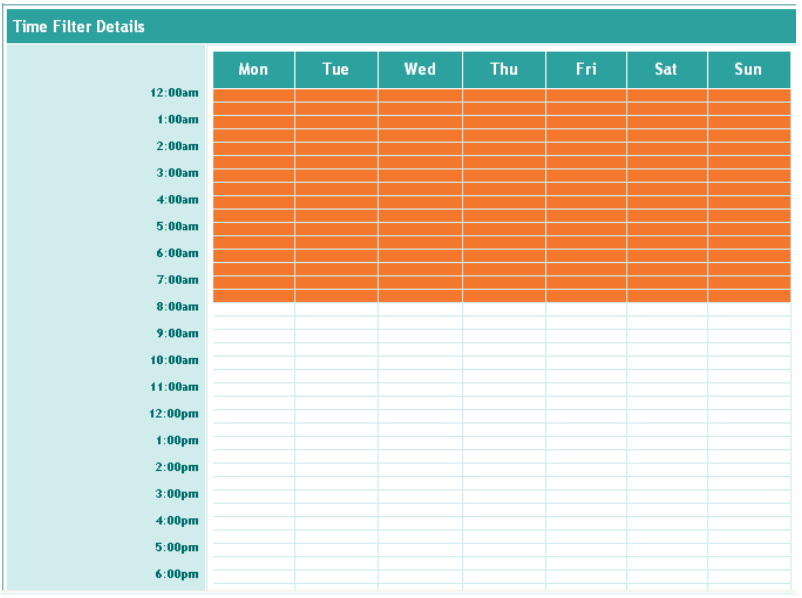


FIGURE 6-3 Time Filter Settings Page

3 To block or unblock a period of time:

a Go to the **Start** and **Stop** fields (**FIGURE 6-4**) under the weekly time grid and select a period of time by entering start and stop dates and times.

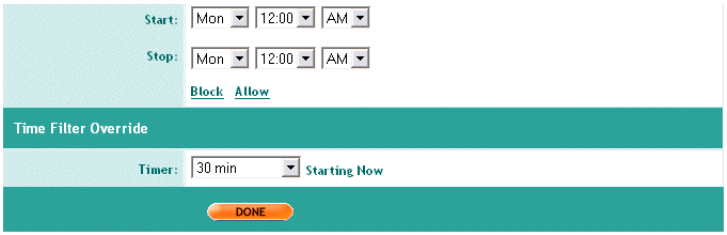


FIGURE 6-4 Start and Stop Fields and Time Filter Override

b Click **BLOCK** to block Internet access during the selected time period, or click **ALLOW** to allow access.

c Repeat Steps a – b until the time grid is what you want.

4 Click **DONE**. You are taken to the User Settings page for the user you selected.

CREATE A TIME FILTER OVERRIDE

If a user has to access the Internet during a period of time blocked by the user's time filter, you can create a time filter override to give the user temporary permission to access the Internet. The override lasts for a specified period of time (up to 24 hours) and then expires.

To create a time filter override, follow the steps below:

1 Click **Users** or **Security** and then click the **Parental Controls** icon to display the Parental Controls page (**FIGURE 6-1**).

2 Locate the user requesting the override and click **EDIT** to the right of the Time Filter Bar Graph. The Time Filter Settings page displays (**FIGURE 6-3**).

3 Go to the **Timer** field at the bottom of the page (see **FIGURE 6-4**) and select a period of time from the drop-down list. You can select from 30 minutes to 24 hours.

4 Click **DONE**. You are taken to the User Settings page for the user you selected. Permission to access the Internet begins now and ends when the override expires.

UNBLOCK A SITE

A user's access to the Internet can be blocked by the content filter or the time filter.

BLOCKED BY CONTENT FILTER

When a user attempts to browse to a web site blocked by the content filter, a message appears in the browser indicating the site has been blocked (**FIGURE 6-5**).

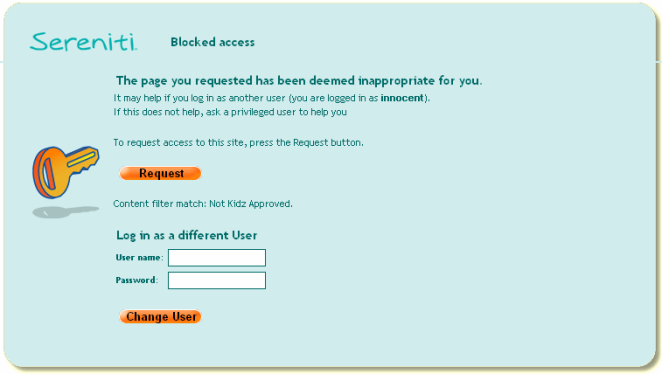


FIGURE 6-5 Blocked Access Message (Content Filter)

The user has two choices:

- Enter a different user name and password and click **Change User**. This only works if the user knows a user name and password with a less restrictive content filter.
- Click **Request** to submit a request to unblock the site. The request is emailed to the addresses you entered on the Notifications page (see Chapter 5). The user has to wait until the request is granted.

Respond to a request To respond to a request to unblock a web site, follow the steps below:

1 Click **User** or **Security** and then click the **Parental Controls** icon to display the Parental Controls page (**FIGURE 6-1**).

2 Select any user – the user does not matter – and click **EDIT** to the right of the Content Filter Bar Graph. This displays the Content Filter Settings page, which now contains an Unblock Requests List along with the Allowed and Restricted Sites Lists (**FIGURE 6-6**).

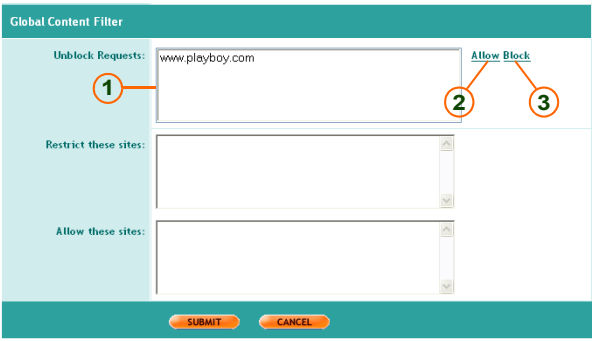


FIGURE 6-6 Unblock Requests List

The Unblock Requests List (1) contains the blocked URL.

3 To allow the request, select the URL and click **Allow** (2). This moves the URL to the Allowed Sites List. It can now be accessed by all users.

4 To disallow the request, select the URL and click **Block** (3). This moves the URL to the Restricted Sites List. Only adult users can now access this site.

5 Click **SUBMIT**.

Note: The Unblock Requests List only shows when there are outstanding requests. When all requests have been cleared – either allowed or blocked – the List is removed.

BLOCKED BY TIME FILTER

When a user attempts to browse to a web site during a period of time blocked by the time filter, a message appears in the browser indicating the site has been blocked (**FIGURE 6-7**).

FIGURE 6-7 Blocked Access Message (Time Filter)

The user has two choices:

- Enter a different user name and password and click **Change User**. This only works if the user knows a user name and password with a less restrictive time filter.
- Contact a privileged user and ask for a time filter override (see“Create a Time Filter Override” above).

7 BACKUP AND RESTORE

THIS CHAPTER

Explains how to:

- Set the backup schedule
- Select folders for backup
- Track the status of scheduled backups
- Perform an unscheduled backup
- View the contents of the most recent backup
- Restore files and folders
- Clean up old backups
- Open ports for backups

OVERVIEW

All the information you have accumulated using the PCs in your network is stored in folders located on each PC's hard drive. The folders may contain information that someone in your family has created – for example, correspondence, financial records, school work, digital photographs, etc. – or they may contain content that has been obtained elsewhere, such as digital music that has been purchased and downloaded from an Internet site.

In either case, the information is susceptible to loss. Folders and hard disks can become damaged and unreadable. Files can be mistakenly deleted, overwritten or corrupted in other ways. If any of this happens,

you and your family could lose valuable information that cannot be easily replaced.

For these and other reasons, it is critically important that you back up your essential files onto an external device on a regular basis. Copying the files to another folder on the same PC can prevent some information loss, but it cannot ensure that your files are protected in the event of hard disk or other catastrophic failure.

SCHEDULED BACKUPS

The Smart Home Networking Service automatically backs up the common folders on all PCs running the Command Center at 3 am every morning…unless you choose to change the folders or the schedule. The common folders are:

My Documents The My Documents folder is a convenient location to store important files, especially files you need to access frequently. When you open the Windows Explorer, the My Documents folder always appears as the first folder under your desktop. This makes it easy to locate. In addition, key Windows programs, such as WordPad and Paint, automatically save files to this folder (unless you instruct the programs otherwise).

Favorites The Favorites folder stores all the favorite web sites that you flagged using the Internet Explorer (by opening the **Favorites** menu at the top of Explorer window and selecting **Add to List)**. Since these web sites are presumably important to you, it is a good idea to regularly back this folder up.

Email The Email folder stores all your saved email messages. If this folder is selected, the Sereniti system will automatically back up the Microsoft Outlook file that contains your email (see Appendix B for details) – providing you did not change the default folder in which Outlook file is stored.

If you changed the default, or if you are using a mail program other than Outlook, selecting the Email folder will not back up your email. You

need to select the specific folder where the email is stored using the Command Center's select additional folders feature (see "Select Folders for Backup" below)

Desktop The Desktop folder stores all files, folders and icons found on the desktop (which is actually the c:\Documents and Settings\<*user name*>\Desktop directory).

CUSTOMIZE THE BACKUP SCHEDULE

There are three changes you can make to the backup schedule:

Time and frequency You can change the time of day the backups take place and the number of times each week the backups are performed. You can set different schedules for different PCs, so that some are backed up at different times and more frequently than others.

Folders You do not have to back up all the common folders. You can remove any or all of them from the backups. You can also back up other folders in addition to the common folders. You can back up a different selection of folders on each PC.

Turn scheduled backups off If you unselect all the common folders and select no additional folders for a PC, that PC will not be backed up automatically. This is not recommended.

HOW BACKUPS ARE STORED

The folders that you select for backup are copied onto the hard disk on the Smart Home Server. The complete contents of each folder is copied, so you have a backup of each subfolder and file in the folder.

VERSIONS

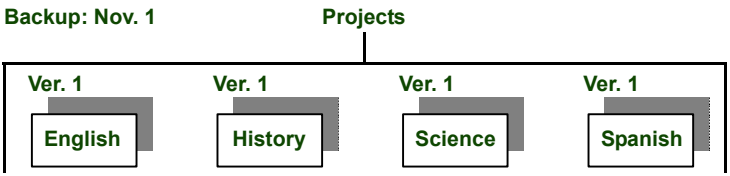
Backups are stored on the Smart Home Server by date. You can take a look at the backups for any PC in your network, and you will see them listed by date. Here is how the folders are stored:

- The first time a folder is backed up, it is copied in its entirety to the Smart Home Server, so that one copy of each file is stored.
- After that, the individual files in the folder are only copied to the Smart Home Server *when they change*. If they do not change, the most recent version of the file is moved from the previous backup to the current backup.
- The Smart Home Server can store up to eight versions of a file. If a file never changes, only one version is stored. Each time a backup is performed, this version is moved from the previous backup to the current backup.
- If eight versions of a file are stored, and the file changes again, the oldest version is dropped and the new version stored. This process continues with each subsequent change.

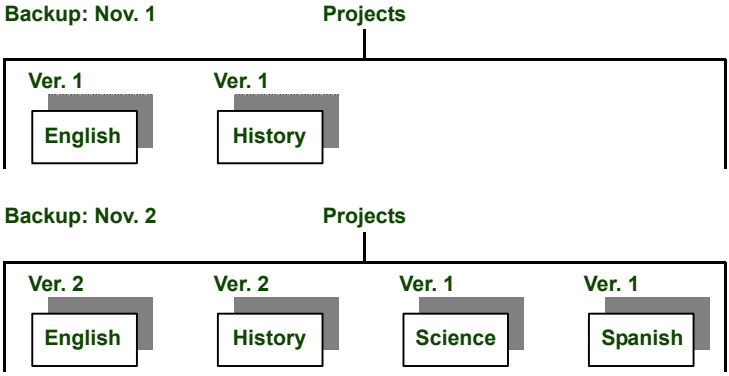
EXAMPLE

To make this clearer, let's consider a specific example:

1 Young Johnny creates a folder called **Projects** for school assignments. He then prepares first drafts of English, history, science and Spanish papers, and saves them as files in the **Projects** folder. On the morning of Nov. 1, the folder is backed up for the first time. This is what the backup looks like:



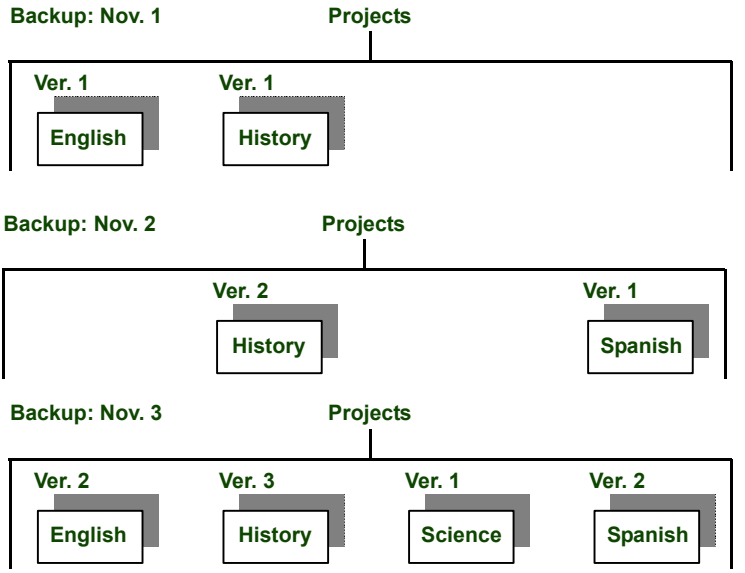
2 That night, Johnny makes changes to the English and History files, but does nothing to the Science and Spanish files. On Nov. 2 the next backup is performed. This is what the backups now look like:



The Nov. 2 backup contains the new versions of the English and History files and the old versions of the Science and Spanish files. The Nov. 1 backup retains the first versions of the English and History files, but no longer contains the first versions of the Science and Spanish files, because these files did not change and were moved to the Nov. 2 backup.

At this point, the Smart Home Server is storing two versions of the English and History files and one version of the Science and Spanish files.

3 That night, Johnny makes changes to the History and Spanish files, but leaves the other two alone. On Nov. 3 the next backup is performed. This is what the backups now look like:



The Nov. 3 backup contains the new versions of the History and Spanish files and the old versions of the English and Science files. The versions that did not change were moved from the previous backup.

At this point, the Smart Home Server is storing three versions of the History File, two versions of the English and Spanish files and one version of the Science file.

4 This process continues as Johnny's school year progresses. If a file is stored eight times, and then changes again, the most recent version is backed up and the oldest deleted.

By storing up to eight versions of a file, the Smart Home Networking Service allows users like Johnny to go back and recover earlier versions of files, should that ever be necessary.

SET THE BACKUP SCHEDULE

By default, the Smart Home Networking Service automatically backs up each PC running the Command Center at 3 am every morning. The only requirements are that the PCs are turned on and connected to the network at the time of backup.

TIME AND FREQUENCY

You can change the backup time and frequency for any PC from the PC you are currently using.

- You can schedule the backups for any hour of the day or night
- You can schedule the backups to take place once a day, once every three days or once a week

Tip: When setting backup time, select an hour when the PC is most likely to be online. And prioritize your backups – back up PCs containing vital files every day, while backing up other PCs once every three days or even once a week.

SET THE SCHEDULE

To set the backup schedule for a PC, follow the steps below:

1 Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page (**FIGURE 7-1**).

FIGURE 7-1 Backup Status Page

2 Locate the PC you want to schedule and click **EDIT** to display the Backup Settings page (**FIGURE 7-2**).

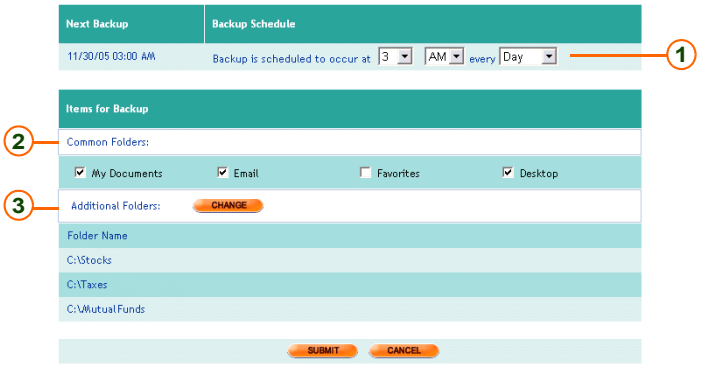


FIGURE 7-2 Backup Settings Page

Tip: If you are backing up the PC you are using, you can click **Backup** and then click the **Edit Backup Settings** icon to go directly to the Backup Settings page.

3 In the **Backup Schedule** field (1), go to the first drop-down list and select the hour of the day.

4 Go to the second drop-down list and select **AM** or **PM**.

5 Go to the third drop-down list and select the frequency. Your choices are once a day, once every three days or once a week.

6 Click **SUBMIT**. You are returned to the Backup Status page. The time and frequency you entered are reflected in the entry in the **Next Backup Scheduled** field.

SELECT FOLDERS FOR BACKUP

By default, the Smart Home Networking Service backs up the four common folders on each PC (see "Overview" above for a description of each common folder).

You can change this. You can remove some, or even all, of the common folders, and you can add other folders. However, these rules apply:

- You can change the common folders on any PC in your network from the PC you are currently using
- You can only add other folders to the backup on the PC you are currently using. To do this on another PC, you have to log into the Command Center on that PC.

SELECT COMMON FOLDERS

To select common folders for backup, follow the steps below:

1 Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page (**FIGURE 7-1**).

2 Locate the PC to be backed up and click **EDIT** to display the Backup Settings page (**FIGURE 7-2**).

Tip: If you are backing up the PC you are using, you can click **Backup** and then click the **Edit Backup Settings** icon to go directly to the Backup Settings page.

3 Go to **Common Folders** (2) and uncheck any folders you do not want to back up. Leave those to be backed up checked.

4 Click **SUBMIT**. You are returned to the Backup Status page.

SELECT OTHER FOLDERS (THIS PC ONLY)

To select other folders for backup, follow the steps below:

1 Click **Backup** and then click the **Edit Backup Settings** icon to display the Backup Settings page (**FIGURE 7-2**).

2 Go to **Additional Folders** (3) and click **CHANGE** to display a Select Additional Folders window (**FIGURE 7-3**).

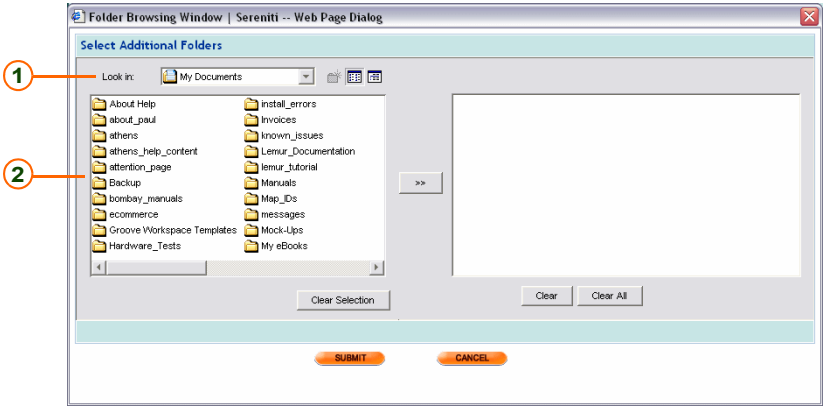


FIGURE 7-3 Select Additional Folders Window

3 Go to the **Look in** field (1) and select the drive containing the folders you want to back up. The folders are shown in the pane directly below the **Look in** field (2). Only folders are shown, not files.

4 Select the folders you want to back up. You cannot select individual files.

- To open a folder so that you can select a subfolder, double-click the folder.
- To select a single folder, click it once.
- To select multiple folders, hold down the **[CTRL]** key and click each folder once, or hold down the **[SHIFT]** key and select two folders. Those two folders and all folders in between are selected.

Note: To unselect all files selected in the left pane, click **Clear Selection**.

5 When you have made your selection, click the arrow button between the two panes to copy the folders to the right pane. These are the folders that will be backed up.

Note: To remove a single file from the right pane, click the file to select it and click **Clear**. To remove all the files, click **Clear All**.

6 When you have selected all the folders to be backed up, click **SUBMIT**. You are returned to the Backup Settings page. The full path of each folder you selected appears in the **Folder Name** field.

7 Click **SUBMIT** again to save the selection. You are taken to the Backup Status page.

TRACK THE STATUS OF SCHEDULED BACKUPS

Scheduled backups can fail to take place. The two most common reasons are:

- The PC was not turned on and connected to the Internet when the backup was scheduled.
- The network was experiencing connectivity problems when the backup was scheduled, and the PC could not communicate with the Smart Home Server.

The Smart Home Networking Service issues an alert whenever a PC has not been backed up for seven straight times. This means:

- If the backup schedule is set for once a day, you will be alerted after seven backups fail
- If the schedule is set for once every three days, you will be alerted after the third failure
- If the backup schedule is set for one a week, you will be alerted after the first failure

However, you do not have to wait for an alert to check on the status of a scheduled backup. To do this, follow the steps below:

1 Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page (**FIGURE 7-1**).

2 Locate the PC and look in the **Last Backup Status** column:

✓ = Backup successful

✗ = Backup NOT successful

If the backup was not successful, you can find out why by resting the mouse cursor on the ✗ icon. A box will pop up with the reason the backup failed (e.g., "PC was offline when backup started").

3 Look in the **Last Backup Attempt** column. When a backup fails, this shows the date and time the unsuccessful backup was attempted.

4 Look in the **Next Backup Scheduled** column. This indicates the date and time of the next scheduled backup. If the backup is taking place now, the column will say **In Progress**.

PERFORM AN UNSCHEDULED BACKUP

Although your PCs are backed up automatically, sometimes it is necessary to perform an unscheduled backup. Performing an unscheduled backup has no effect on regularly scheduled backups.

You can back up any PC in your network from the PC you are currently using. Just make sure the PC you are backing up is turned on and connected to the network.

To perform an unscheduled backup, follow the steps below:

1. Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page (**FIGURE 7-1**).
2. Locate the PC to be backed up and click **BACKUP**. A dialog box pops up and warns you that the backup could take a while if many files are backed up.

   Tip: Before starting the backup, make sure the correct folders have been selected. If you are not sure, click **EDIT**.
3. Click **OK** to continue. You may resume your work while the backup is in progress.

   Another pop-up notifies you when the backup is complete. The date and time of the backup should then appear in the **Last Backup Completed** column on the Backup Status page.

   Note: When a backup begins, a **STOP** button is inserted in the **Actions** column. If for any reason you need to terminate the backup before it completes, click this button.

VIEW THE CONTENTS OF THE MOST RECENT BACKUP

You can take a look at the folders and files in the most recent backup of any PC in your network from the PC you are currently using.

DISPLAY THE FOLDERS AND FILES

To display the contents of the most recent backup, follow the steps below:

1 Click **Backup** and then click the **View Backup Status** icon to display the Backup Status page (**FIGURE 7-1**).

2 Locate the PC and click **VIEW** to display a Backed Up Folders window (**FIGURE 7-4**).

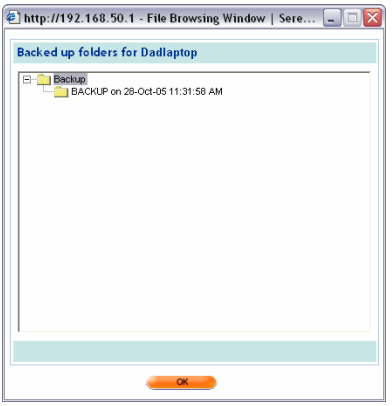
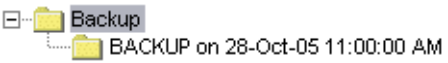


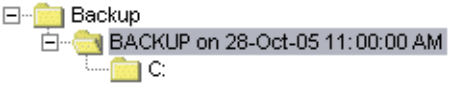
FIGURE 7-4 Backed Up Folders Window

UNDERSTANDING THE DISPLAY

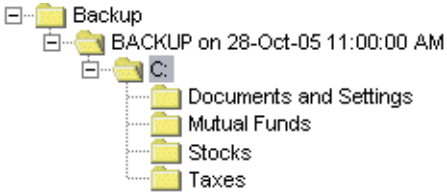
The following is a close-up of the display in **FIGURE 7-4**. All backups look like this when first viewed.



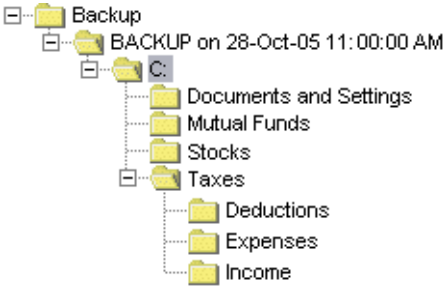
As you can see, the first entry indicates that this is a backup and the second entry gives the date and time of the backup. In the above example, the backup took place on October 28, 2005 at 11:00 am. Double-click the date and time to display the disk drive(s) that were backed up. This is what the display looks like:



Only the C: drive was backed up. To display the folders that were backed up from the C: drive, double-click **C:**. This is what the display now looks like:



Four folders were backed up from the C: drive. To display the contents of one of these folders, double-click the folder icon or name. This is what the display now looks like if the *Taxes* folder is double-clicked.



All backups adhere to this format. To display other folders or subfolders, double-click them and they will open.

RESTORE FILES AND FOLDERS

If a file or folder becomes lost or corrupted, or you need an earlier version of it, you can locate the version you want in one the backups on the Smart Home Server and restore it. You can restore complete folders, or you can restore specific files.

You can restore a file that was originally backed up from any PC in your network, but you can only restore it to the PC you are currently using. You can restore the file to its original location or to a new location.

RESTORE ALL FILES AND FOLDERS IN THE MOST RECENT BACKUP

You can restore all the folders in the most recent backup. This restores all subfolders and files as well. To do this, follow the steps below:

1 Click **Backup** and then click the **Restore Backed Up Files** icon to display the Restore page (**FIGURE 7-5**).

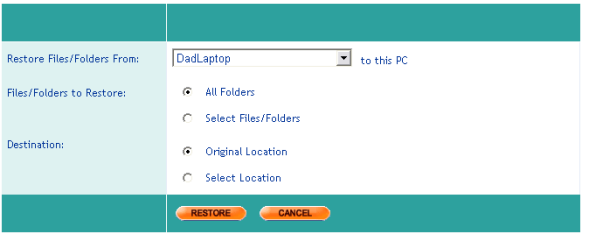


FIGURE 7-5 Restore Page

2 In the **Restore Files/Folders From** field, select a PC from the drop-down list. This is the PC from which these files and folders were originally backed up. You can select any PC in the network.

3 Go the **Files/Folders to Restore** field and click **All Folders**.

4 Go to the **Destination** field and select a location on your PC's hard drive to put the restored files and folders. Click **Original Location** or **Select Location**.

- If you clicked **Original Location**, the files and folders are restored to the location from which they were originally backed up. If they were originally backed up from another PC, make sure the same location exists on your PC.
- If you clicked **Select Location**, a **CHOOSE** button appears. Click it to display a browse window and select the location to put the restored files and folders. The location is displayed to the right of the **CHOOSE** button on the Restore page.

5 Click **RESTORE**. A window pops up and prompts you to confirm the restore.

6 Click **OK**. The Restore starts. While the restore operation is taking place, you cannot perform a back up or clean up backed up files on the Smart Home Server.

RESTORE SPECIFIC FILES AND FOLDERS IN THE MOST RECENT BACKUP

You can restore specific files and folders in the most recent backup. Restoring a folder restores all the subfolders and files in it.

To select specific files and folders and restore them, follow the steps below:

1 Click **Backup** and then click the **Restore Backed Up Files** icon to display the Restore page (**FIGURE 7-5**).

2 In the **Restore Files/Folders From** field, select a PC from the drop-down list. This is the PC from which these files and folders were originally backed up. You can select any PC in the network.

3 Go the **Files/Folders to Restore** field and click **Select File/Folders**. A **CHOOSE** button appears.

4 Click **CHOOSE** to display a Select Folders for Restore window (**FIGURE 7-6**). The most recent backup is shown in the left pane.

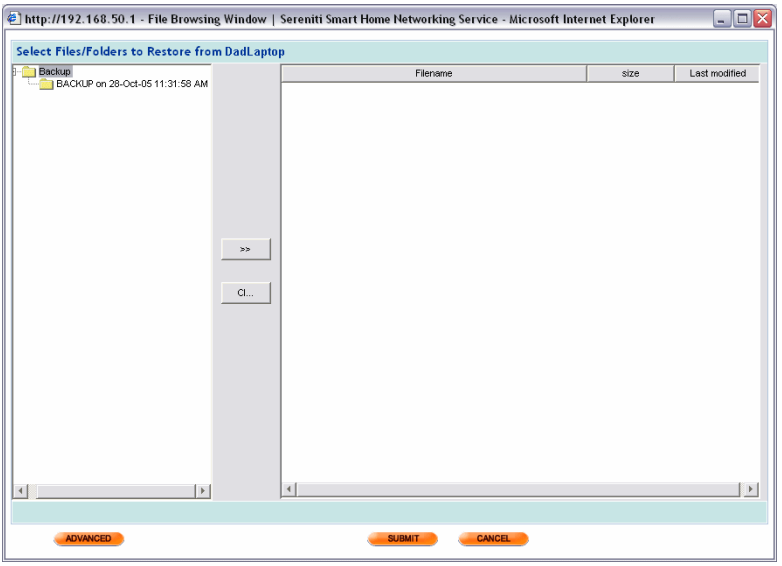


FIGURE 7-6 Select Folders to Restore Window

5 Select a file or folder from the most recent backup and click the arrow button >> between the two panes to copy it to the right pane. Repeat until all files and folders to be restored are in the right pane.

Note: For help in expanding the most recent backup and locating specific files and folders, see "View the Contents of the Most Recent Backup" above. To remove a file or folder from the right pane, click it to select it and click the **Clear** button between the two panes.

6 Go to the **Destination** field and select a location on your PC's hard drive to put the restored files and folders. Click **Original Location** or **Select Location**.

- If you clicked **Original Location**, the files and folders are restored to the location from which they were backed up. If they were originally backed up from another PC, make sure the same location exists on your PC.
- If you clicked **Select Location**, a **CHOOSE** button appears. Click it to display a browse window and select the location to put the restored files and folders. The location is displayed to the right of the **CHOOSE** button on the Restore page.

7 Click **RESTORE**. A window pops up and prompts you to confirm the restore.

8 Click **OK**. The Restore starts. While the restore operation is taking place, you cannot perform a back up or clean up backed up files on the Smart Home Server.

RESTORE AN OLD VERSION OF A FILE OR FOLDER

You can restore old versions of files and folders. To do this, follow the steps below.

1 Click **Backup** and then click the **Restore Backed Up Files** icon to display the Restore page (**FIGURE 7-5**).

2 In the **Restore Files/Folders From** field, select a PC from the drop-down list. This is the PC from which these files and folders were originally backed up. You can select any PC in the network.

3 Go the **Files/Folders to Restore** field and click **Select File/Folders**. A **CHOOSE** button appears.

4 Click **CHOOSE** to display a Select Folders for Restore window (**FIGURE 7-6**). This window shows the most recent backup.

5 Click **ADVANCED**. Up to eight previous backups for each folder and file are shown in the left pane.

6 Select a file or folder from one of the backups and click the arrow button between the two panes to copy it to the right pane. Repeat until all files and folders to be restored are in the right pane.

Note: For help in expanding old backups and locating specific files and folders, see "View the Contents of the Most Recent Backup" above. To remove a file or folder from the right pane, click it to select it and click the **Clear** button between the two panes.

7 Go to the **Destination** field and select a location on your PC's hard drive to put the restored files and folders. Click **Original Location** or **Select Location**.

- If you clicked **Original Location**, the files and folders are restored to the location from which they were backed up. If they were originally backed up from another PC, make sure the same location exists on your PC.
- If you clicked **Select Location**, a **CHOOSE** button appears. Click it to display a browse window and select the location to put the restored files and folders. The location is displayed to the right of the **CHOOSE** button on the Restore page.

8 Click **RESTORE**. A window pops up and prompts you to confirm the restore.

9 Click **OK**. The Restore starts. While the restore operation is taking place, you cannot perform a back up or clean up backed up files on the Smart Home Server.

CLEAN UP OLD BACKUPS

You should keep an eye on the amount of space on the Smart Home Server's hard disk used to store backups, and the amount of space remaining for future backups. If the Smart Home Server runs out of space, future backups will fail.

Note: The amount of space used to store documents on the Sereniti Shared Drive (S: drive) also affects the amount of space available for backups. The less space taken up by the S: drive, the more space available for backups. To determine the amount

of space used by the S: drive, click **My Network** and then click the **View Smart Home Server Status** icon to display the Smart Home Server Status page (see Chapter 12, **FIGURE 12-1**).

MONITOR DISK USAGE

To obtain a snapshot of the amount of space currently used by backups, and the amount of space available, follow the steps below:

1 Click **Backup** and then click the **View Backup Disk Usage** icon to display the Backup Disk Usage page (**FIGURE 7-7**).

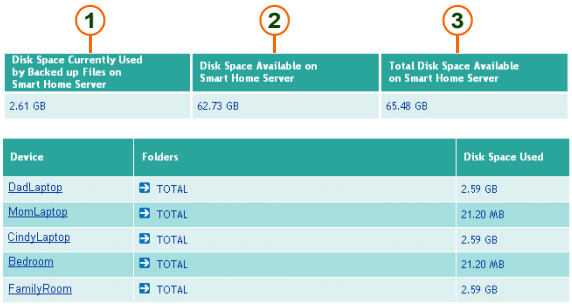


FIGURE 7-7 Backup Disk Usage Page (Totals)

2 The three fields across the top of the page show, from left to right:

- (1) The amount of disk space currently used by all backed up folders
- (2) The amount of disk space available for future backups
- (3) The total amount of disk space available on the hard disk

3 Underneath these three fields, the page lists each PC in your network and shows the total amount of space used to back up each PC's files and folders. To break the totals down by folder, click the arrow icons next to the totals. **FIGURE 7-8** shows what this page now looks like,

FIGURE 7-8 Backup Disk Usage Page (Folders)

CLEAN UP UNNEEDED FOLDERS

If the hard disk on the Smart Home Server does not have enough space to store the next backup, the backup will not take place. In such a situation, you need to "clean up" the hard disk by removing enough old folders to create space for future backups. You can only remove folders, not individual files.

Tip: Before selecting folders for cleanup, take a look at the size of the folders you have backed up and the amount of space available for future backups. This can help you decide which folders to remove. You might also consider eliminating unneeded files from future backups to avoid facing this problem in the future.

To clean up old backup folders:

1 Click **Backup** and then click the **Clean Up Historical Backups** icon to display the Backup Cleanup page (**FIGURE 7-9**).

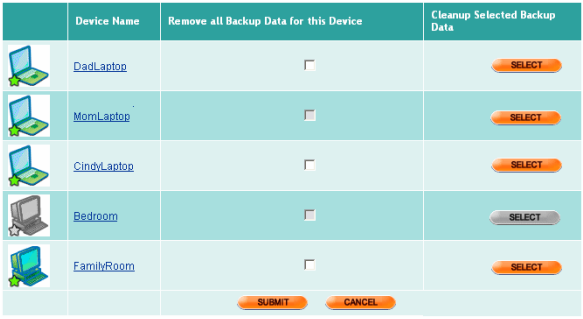


FIGURE 7-9 Backup Cleanup Page

2 Locate the PC whose backed up folders you want to clean up.

3 To clean up all the backed up folders for this PC, click the check box in the **Remove all Backed Up Data for this Device** column.

4 To clean up specific backed up folders, click **SELECT** in the **Cleanup Selected Backed Up Data** column. This displays the Backup Cleanup Details page (**FIGURE 7-10**).

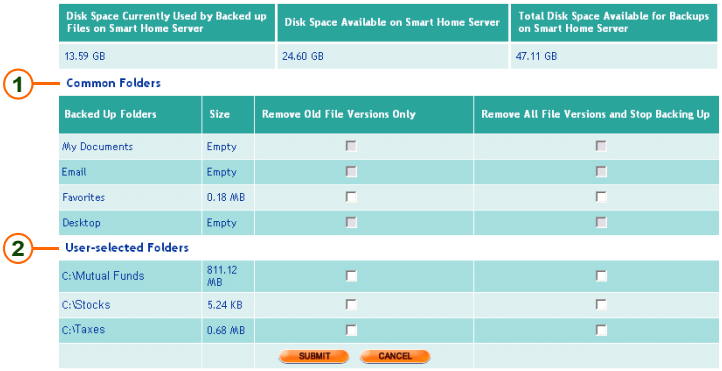


FIGURE 7-10 Backup Cleanup Details Page

5 On the Backup Cleanup Details page:

a Decide if you want to remove any common folders. If you do, go to **Common Folders** (1) and click one of the two check boxes next to the folders you want to remove. For each folder, you have two choices:

- Click **Remove Old File Versions Only** to remove existing backups of this folder, but continue to include the folder in future backups.
- Click **Remove All File Versions and Stop Backing Up** to remove existing backups, but drop the folders from future backups.

b Decide if you want to remove any of the other backed up folders. If you do, go to **User Selected Folders** (2) and follow the same procedure described in Step a.

c Click **SUBMIT**. A message pops up and asks you to confirm the cleanup.

d Click **OK**. A message pops up telling you that the cleanup has begun.

e Click **OK**. You are returned to the Backup Cleanup page.

OPEN PORTS FOR BACKUPS

If one of your PCs is running a personal firewall *other than* the Windows firewall, you may get a message that a backup failed because the personal firewall on the PC blocked access to TCP ports 873 and 6001.

You need to open these ports. If you do not know how to do this, consult the manuals and other documentation that come with the firewall you are using.

Note: Do not confuse opening ports in a personal firewall running on a PC with creating a port forwarding rule to open ports in the network firewall in the Smart Home Server. These are two different firewalls.

8

SHARED SERVER DRIVES AND NETWORK DEVICES

THIS CHAPTER

Explains how to:

- Access the Sereniti Shared Drive (S: drive)
- Connect an external storage device to the Smart Home Server
- Rename an external storage device
- Access, monitor, format, repair and remove an external storage device
- Connect a network printer to the Smart Home Server
- Rename the printer

OVERVIEW

The Smart Home Server is equipped with an internal hard disk and two USB ports. You can use the hard disk to store files and exchange information with other network users, and you can use the USB ports to connect storage devices and printers to the network.

SERENITI SHARED DRIVE

When the Smart Home Server is installed, an area on its hard disk is set aside as a shared drive that you and other members of your family can use to store files and exchange information.

You can use the S: drive as you would any other disk drive on your PC.

Error: *System Failed to Map to S: Drive on <PC Name>*

If you already have an S: drive on your PC, an Alert Box will pop up when you log into the Command Center and tell you that the system failed to map the Sereniti Shared Drive to the S: drive. To allow the system to map the Sereniti Shared Drive to the S: drive, you have to remap your existing S: drive to another letter. To do this:

1. Close the Command Center.
2. Open the Windows Explorer.
3. Click **Tools** and select **Map Network Drive**.
4. In the **Drive** field, click the drop-down list and select an unused letter.
5. In the **Folder** field, click **Browse** and select the folder currently mapped to the S: drive.
6. Click **Finish**. This maps the folder to the drive letter you selected in Step 4.
7. Right-click the S: drive and select **Disconnect**. This unmaps the drive from the old letter.
8. Open the Command Center. The drive should now map properly.

Note: The Smart Home Server's hard disk is also used to store backup files. Therefore, the more files stored on the S: drive, the less space available for backups.

USB PORTS

You can connect external storage devices (such as hard drives and flash drives) and printers to the two USB ports on the back of the Smart Home Server. You can connect two storage devices, two printers or one of each. You can connect devices supporting either USB 2.0 or USB 1.1.

USE THE SERENITI SHARED DRIVE

The hard disk on the Smart Home Server is divided into two parts:

- Backups
- Sereniti Shared Drive (S: drive)

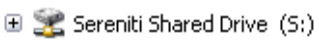
The backups are not a drive and are not accessible through the Windows or Internet Explorers. You have to use the Command Center to view and restore backup files. See Chapter 7 for details.

The S: drive is accessible through the Windows and Internet Explorers.

WINDOWS EXPLORER

To view files or folders stored on the S: drive in the Windows Explorer, follow the steps below:

1. Log into the network.
2. Open the Windows Explorer.
3. In the Folders panel on the left, find **My Computer** and click it to expand it.
4. Scroll down until you come to this entry:



INTERNET EXPLORER

To view files or folders stored on the S: drive in the Internet Explorer, follow the steps below:

1. Log into the network.
2. Open the Internet Explorer.
3. In the **Address** field, type

   `\\<pc name>`

   where <*pc name*> is the name of your PC.
4. Click **Go**.

5 Click the drop-down list in the **Address** field and look for this entry:

EXTERNAL STORAGE DEVICES

You can connect up to two external storage devices to the USB ports on the back of the Smart Home Server. Two popular types of storage devices are hard drives and flash drives. The devices give you:

- Extra space to store files (if you have large files, such as video, this can be very useful)
- Another way to exchange data among network users

CONNECT THE DEVICE

To connect a storage device to the Smart Home Server, follow the steps below:

Note: Make sure the device is formatted before you connect it. If it is not, you will get an error message and you will have to format it through the Command Center.

1 Connect the storage device to one of the USB ports on the back of the Smart Home Server.

2 Log into the Command Center.

3 Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 8-1**). The device you

just connected is shown – if it is the first device connected, it is named EXT_HDD_1 (the second is named EXT_HDD_2).

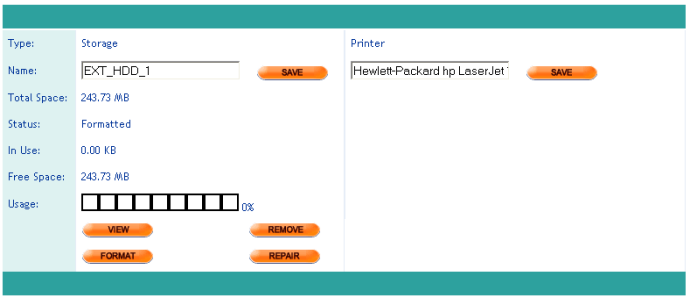


FIGURE 8-1 Attached USB Devices Page

RENAME THE DEVICE

To give the device a more easily recognizable name:

1. Type a new name in the **Name** field.
2. Click **SAVE**.

MONITOR DISK USAGE

To keep track of the amount of space available on an external storage device, follow the steps below:

1. Log into the Command Center.
2. Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 8-1**).
3. Locate the device. The following information is shown:
   - Total amount of space on the device
   - Amount of space currently in use
   - Amount of space currently available for use
   - Percentage of space currently in use

VIEW THE CONTENTS OF THE DEVICE USING THE COMMAND CENTER

To use the Command Center to view the files and folders stored on the device, follow the steps below:

1. Log into the Command Center.
2. Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 8-1**).
3. Click **VIEW**. The files and folders in the drive are shown in an Internet Explorer window.

VIEW THE CONTENTS OF THE DEVICE USING THE WINDOWS EXPLORER OR INTERNET EXPLORER

To use the Windows Explorer or Internet Explorer to view the files and folders stored on the device, follow the steps below:

1. Log into the PC.
2. Open the Windows Explorer or Internet Explorer.
3. In the **Address** field, type:

   `\\SERENITISHS\<device name>`

   where `<device name>` is the name of the hard disk.
4. Click **Go**. The files and folders in the drive are shown in the Explorer window.

REPAIR A HARD DRIVE

To repair a hard drive without causing loss of data, follow the steps below.

1. Log into the Command Center.
2. Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 8-1**).
3. Click **REPAIR**. A message pops up and prompts you to confirm the repair operation.
4. Click **OK** to proceed or **CANCEL** to terminate.

REFORMAT A HARD DRIVE

To reformat a hard drive, follow the steps below:

WARNING: Reformatting a hard drive erases all files and folders.

1. Log into the Command Center.
2. Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 8-1**).
3. Click **FORMAT**. A message pops up and warns you that all data on the disk will be erased if you proceed with the format operation.
4. Click **OK** to proceed or **CANCEL** to terminate.

REMOVE THE DEVICE

To remove a device's records from the Command Center, follow the steps below:

WARNING: Disconnecting a device without first removing it from the Command Center's records could damage the device and cause loss of data.

1. Log into the Command Center.
2. Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 8-1**).
3. Click **REMOVE**. A message prompts you to confirm the remove operation.
4. Click **OK** to proceed or **CANCEL** to terminate.
5. Disconnect the drive from the USB port on the back of the Smart Home Server.

NETWORK PRINTERS

You can connect up to two printers to the USB ports on the back of the Smart Home Server. These become network printers, and anyone who can log into your network can print to them.

WARNING: Do not connect a multi-function printer to the Smart Home Server. A multi-function printer is a printer that also scans, faxes and copies. These printers will not work because they require two way communication with the Internet.

CONNECT THE PRINTER

To connect a printer to one of the USB ports on the Smart Home Server, follow the steps below:

1. Using a USB cable, connect the printer to a USB ports on the back of the Smart Home Server.
2. Log into your PC, click **Start** on the Windows task bar and select **Printers and Faxes**. This displays the Windows Printers and Faxes window (**FIGURE 8-2**).

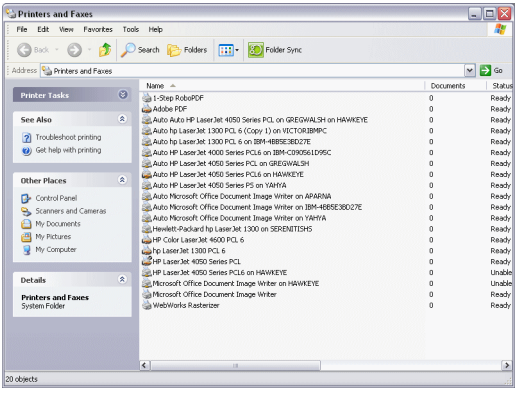


FIGURE 8-2 Printers and Faxes Window

3 Click **File** and select **Add Printer**. This launches the Add Printer wizard (**FIGURE 8-3**).

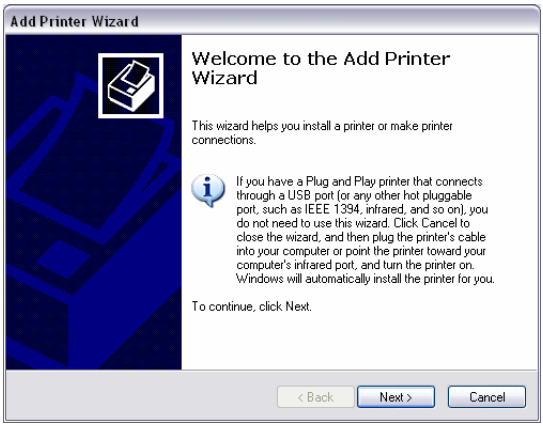


FIGURE 8-3 Add Printer Wizard (1)

4 Read the text on the opening Wizard screen and click **Next** to display the next Wizard window (**FIGURE 8-4**).

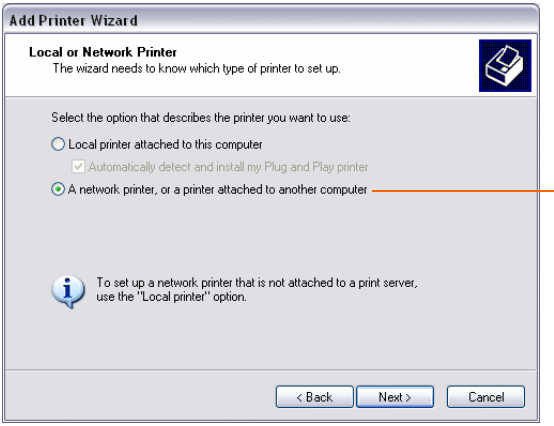


FIGURE 8-4 Add Printer Wizard (2)

5 You have to indicate the type of printer. Select **Network Printer** (not local) and click **Next** to display the next Wizard screen (**FIGURE 8-5**).

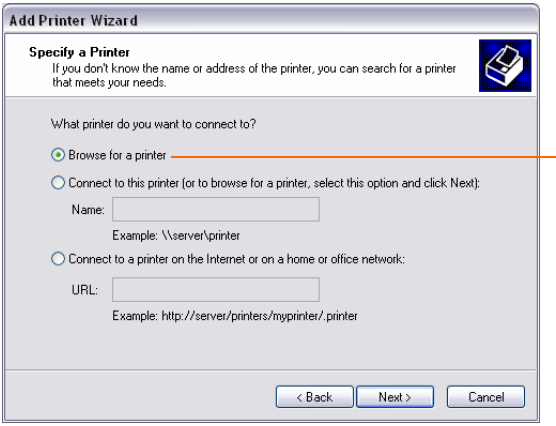


FIGURE 8-5 Add Printer Wizard (3)

6 You now need to identify the printer. Select **Browse for a printer** and click **Next** to display the next Wizard window (**FIGURE 8-6**).

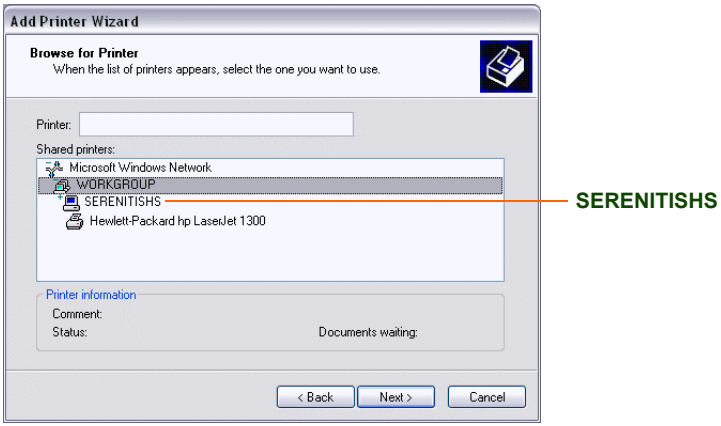


FIGURE 8-6 Add Printer Wizard (4)

7 This Wizard window shows all available printers. Locate the Smart Home Server's workgroup (WORKGROUP if you did not change the default) and look for **SERENITISHS**.

8 Double-click **SERENITISHS** to display the printer you just connected.

9 Select the printer and click **Next**. The Wizard will prompt you to select a driver for the printer. Follow the on-screen instructions. When the driver has been installed, the Wizard will prompt you to make the new printer the default printer (**FIGURE 8-7**).

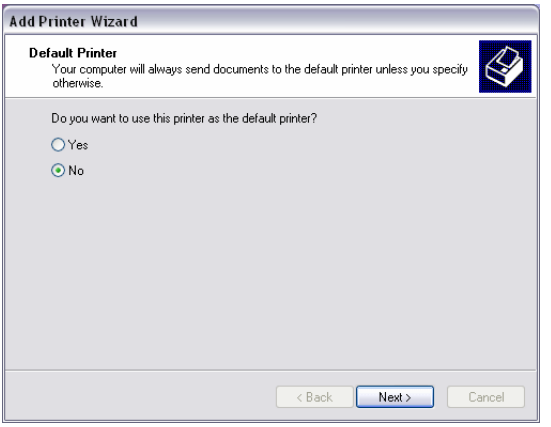


FIGURE 8-7 Add Printer Wizard (5)

10 It this is the printer you will be using most of the time, click **Yes**. Otherwise, click **No**. Then click **Next** to display the final Wizard window (**FIGURE 8-8**).

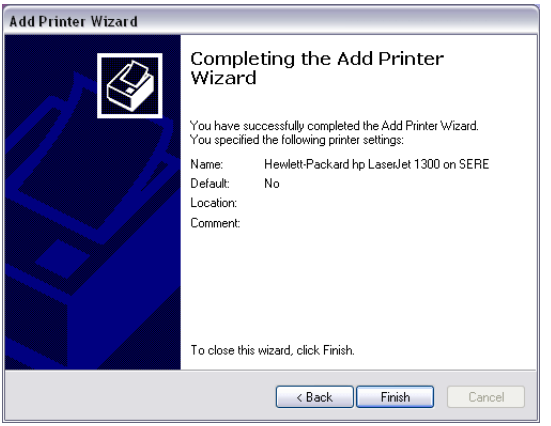


FIGURE 8-8 Add Printer Wizard (6)

11 This window shows the printer settings. If they are acceptable, click **Finish** to close the wizard. You can now select this printer from any application and print to it.

CHANGE THE PRINTER'S NAME

The Command Center identifies any printers connected to the Smart Home Server by vendor and model. You can change this to a more easily recognizable name, such as "upstairs" or "photos." To do this, follow the steps below:

1 Log into the Command Center.

2 Click **Sharing** and then click the **Setup Network Printer** icon to display the Attached USB Devices page (**FIGURE 8-1**). The printer you just connected is shown.

3 Type a new name in the **Name** field.

4 Click **Save**.

9

Folder and Printer Sharing

THIS CHAPTER

Explains how to:

- Create and access shared folders
- Create and print to shared printers

OVERVIEW

You can use the Command Center to turn folders and printers into shared folders and printers, so that other members of your household can make use of them.

FOLDER SHARING

Folder sharing is a way to take a folder that has been saved on one PC and allow other network users to view the folder on their PCs, open files stored in the folder, and put files of their own in the folder.

Note: Shared folders are not to be confused with the Sereniti Shared Drive (S: drive) that is made available on the Smart Home Server. See Chapter 8 for a description of this drive.

PRINTER SHARING

Printer sharing is a way to take a printer that is connected to one PC and allow other network users to print to it, so long as the PC is turned on and connected to the network.

Printer sharing is especially useful if you have more users than printers, or if you have different kinds of printers – for example, a laser printer and a photo quality inkjet printer – and want users to be able to print to both.

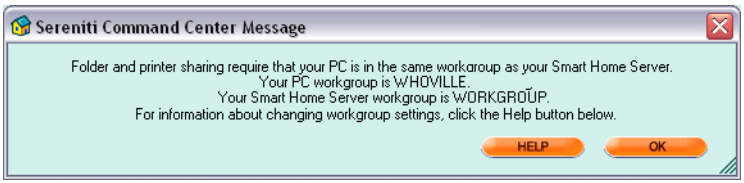
Tip: Before sharing a printer, consider connecting it directly to the Smart Home Server and making it a network printer. This allows all users to print to it at any time. See Chapter 8 for instructions.

WORKGROUPS

For folder and printer sharing to work properly, all the PCs and the Smart Home Server must be in the same Windows workgroup.

The Smart Homer Server is initially assigned to the workgroup "WORKGROUP." This is the same workgroup that all PCs running Windows XP Professional are initially assigned to. However, PCs running Windows XP Home Edition are assigned to the MSHOME workgroup.

If you attempt to set up folder or printer sharing, and your PC belongs to a different workgroup than the Smart Home Server, you will see the message shown below:



You need to change one of the workgroups.

Change the Smart Home Server workgroup To change the Smart Home Server's workgroup:

1. Click **My Network** and then click the **Edit Smart Home Server Settings** icon. The Smart Home Server Settings page appears (see Chapter 12, **FIGURE 12-3**).
2. Type a new workgroup in the **Windows Workgroup Name** field.

3 Click **SUBMIT**.

Change the PC's workgroup To change a PC's workgroup:

1 Click **Start** on the Windows taskbar, right-click **My Computer** and select **Properties**. The System Properties window appears.

2 Click the **Computer Name** tab. The workgroup name is shown in the middle of the window.

3 To change the workgroup name, click **Change**, enter a new workgroup in the **Workgroup** field, and click **OK** twice to save the new workgroup and close the System Properties window.

4 When instructed, restart your PC for the new workgroup to take effect.

FOLDER SHARING

To create a shared folder and, if necessary, unshare it, you must be using the PC on which the folder is saved. To access a shared folder, you can be using any PC that is logged into the network.

CREATE A SHARED FOLDER

To share a folder so that other users can access it from their PCs, follow the steps below:

1 Click **Sharing** and then click the **Folder Sharing** icon to display the Folder Sharing page (**FIGURE 9-1**). This page shows each PC in your network and the shared folders on each PC. For each shared folder, it gives the share name and the full path to the folder.

FIGURE 9-1 Folder Sharing Page

2 Click **Share** to launch the Folder Sharing Wizard (**FIGURE 9-2**).

FIGURE 9-2 Folder Sharing Wizard (1)

3 Type the complete path to the shared folder in the first field of the opening Wizard screen, or click **Browse,** find the folder and select it.

4 The folder name is automatically copied into the second field. This is the share name users will look for when accessing the folder. You can leave it or replace it with another, more recognizable name.

5 Click **Next**. The next page of the Wizard shows the path and share name you just entered (**FIGURE 9-3**).

FIGURE 9-3 Folder Sharing Wizard (2)

6 If you want to share additional files, click **SHARE MORE** to return to the first Wizard screen.

Otherwise, click **Finish**. You are returned to the Folder Sharing page. The shared folder you just created is shown next to the PC on which it is saved.

UNSHARE A FOLDER

If you no longer want to share a folder with other users, you can unshare it. The folder still exists on the PC where it is saved, but it can no longer be accessed by the other PCs in the network.

To unshare a folder, you must be using the PC on which the folder is saved. Follow the steps below:

1 Click **Sharing** and then click the **Folder Sharing** icon to display the Folder Sharing page (**FIGURE 9-1**).

2 Locate the PC on which the folder is saved, and click the folder to select it.

3 Click **Unshare**. A box pops up and tells you the folder is unshared.

4 Click **OK**. The shared file no longer is shown on the Folder Sharing page.

ACCESS A SHARED FOLDER FROM THE COMMAND CENTER

Users running the Command Center can access a shared file without leaving the Command Center. To do this, follow the steps below:

1 Click **Sharing** and then click the **Folder Sharing** icon to display the Folder Sharing page (**FIGURE 9-1**).

2 Locate the PC on which the folder is saved and click the folder to select it.

3 Click **VIEW**. The Windows Explorer opens and shows the subfolders and files in the shared folder.

ACCESS A SHARED FOLDER FROM A BROWSER

Users not running the Command Center can access a shared folder from a browser. To do this, follow the steps below:

1 Open the Internet Explorer or a compatible browser.

2 In the **Address** field, enter

`\\<computer_name>\<share_name>`

where `<computer_name>` is the name of the PC on which the folder is saved and `<share_name>` is the share name you gave this folder when you made it a shared folder (see “Create a Shared Folder” above).

Tip: You can also access a shared folder from the Windows Explorer. Go to **My Network Places → Entire Network Microsoft → Windows Network** and look for the PC. Its shared folders should be listed under it.

PRINTER SHARING

Sharing a printer with other users is a two step process. First, you have to make the printer a shared printer. This can only be done from the PC to which the printer is connected.

Then, you have to connect the other PCs that will be using the printer to the printer. This has to be done from the various PCs. Once the connection is made, users can print to the shared printer.

To print to a shared printer, you have to have the printer's driver installed on the PC you are using. The printer driver can be found on the CD that comes with the printer or by downloading it from the printer vendor's web site.

Tip: An easy way to install a printer driver is to physically connect the PC to the printer and follow the on-screen instructions.

CREATE A SHARED PRINTER

To create a shared printer, follow the steps below:

1 Click **Sharing** and then click the **Printer Sharing** icon to display the Printer Sharing page (**FIGURE 9-4**).It shows each PC in your network and the shared folders on each PC. For each printer, it gives the share name and the full path to the folder.

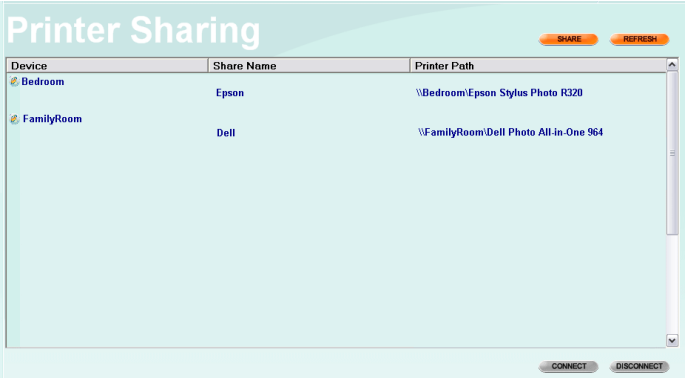


FIGURE 9-4 Printer Sharing Page

2 Click **Share** to launch the Printer Sharing Wizard (**FIGURE 9-5**).

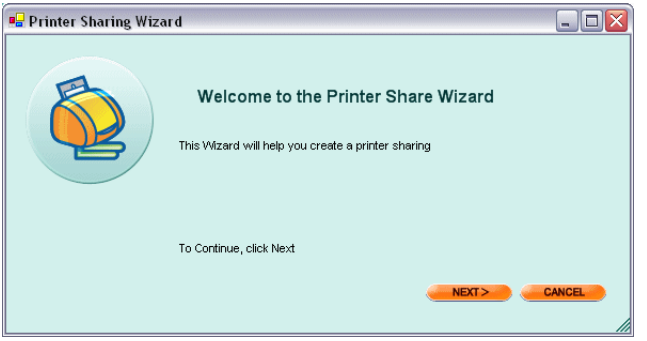


FIGURE 9-5 Printer Sharing Wizard (1)

3 The Wizard will help you create a shared printer. Click **Next** to display a Wizard screen showing the printers available to share.

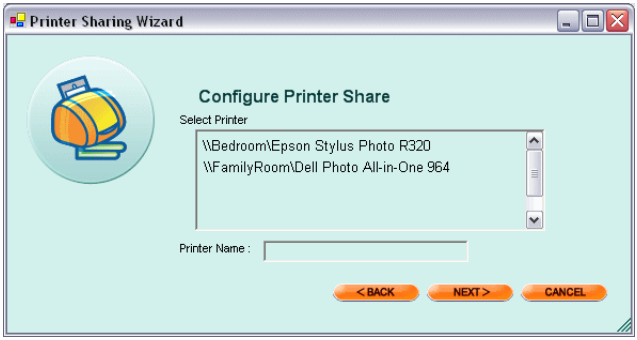


FIGURE 9-6 Printer Sharing Wizard (2)

4 Click a printer to select it. The name of the printer is copied to the **Printer Name** field. This is the shared printer name users will look for to print to it. You can leave it or replace it with another, more recognizable name.

5 Click **Next**. The next page of the Wizard shows the printer name and share name you just entered (**FIGURE 9-3**).

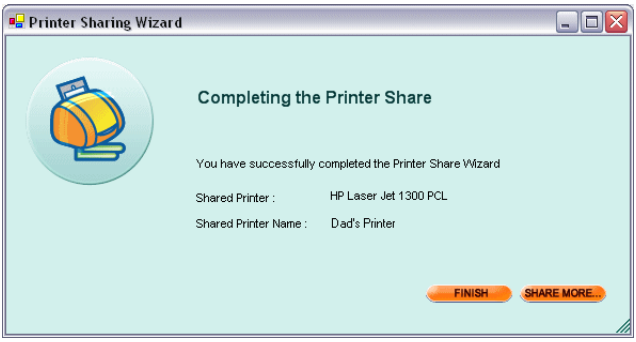


FIGURE 9-7 Printer Sharing Wizard (3)

6 If you want to share additional printers, click **SHARE MORE** to return to the first Wizard screen.

Otherwise, click **FINISH**. You are returned to the Printer Sharing page. The shared printer you just created is shown next to the PC to which it is connected.

CONNECT A PC TO A SHARED PRINTER

To print to a shared printer, you first have to connect the user's PC to the printer. To do this, follow the steps below:

1 Click **Sharing** and then click the **Printer Sharing** icon to display the Printer Sharing page (**FIGURE 9-4**).

2 Locate the PC to which the printer is connected, find the printer and click the printer to select it.

3 Click **CONNECT**. A message pops up when the connection is established.

4 Click **OK** to dismiss the message. You should now be able to print to the printer.

DISCONNECT A PRINTER FROM A PC

If you no longer want to share a printer with other users, you can disconnect it from their PCs. To do this, follow the steps below:

1 Click **Sharing** and then click the **Printer Sharing** icon to display the Printer Sharing page. It shows every shared printer in your network.

2 Find the printer and click it to select it.

3 Click **DISCONNECT**. This disconnects the PC from the printer.

10 PORT FORWARDING

THIS CHAPTER

Explains how to:

- Enable Universal Plug and Play (UPnP)
- Select a system defined port forwarding rule
- Create a user defined port forwarding rule
- Delete a port forwarding rule

OVERVIEW

The Smart Home Server creates a firewall between your network and the Internet. To protect your network, the firewall closes all ports on the Server to incoming traffic. This does not affect your ability to access the Internet, send and receive email, download files, etc., but it does prevent intruders from penetrating your network from the outside.

PORTS

When a program running on one computer attempts to communicate with a program running on another computer, it does so by connecting to a port on that computer. A port is a logical connection point that allows two computers to "talk" to each other.

Ports are identified by number. A computer has more than 65,000 ports, but most common Internet applications use a very small subset of these ports – specifically those numbered 0-1023. These are referred to as "well known ports."

Perhaps the most well known port is port 80, the default port for the HTTP protocol (the basis for all Internet traffic). Whenever you visit a web site, your browser is connecting to the web site through port 80.

PORT FORWARDING

Some programs and devices have to receive incoming traffic from the Internet in order to work. Devices such as game consoles and VoIP telephones, and programs such as instant messaging and remote access applications, all need open ports to receive incoming traffic.

There are three ways to open ports for incoming traffic:

Enable Universal Plug and Play UPnP is a protocol that enables a device to configure itself for the Internet and communicate with other UPnP devices on the Internet. You should always enable UPnP on the non-PC devices you connect to your network. If they support UPnP, they will tell the firewall to open the necessary ports, and you will not have to use a port forwarding rule.

Select a system defined rule In cases where UPnP is not supported, you have to provide the firewall with a port forwarding rule telling it which ports to open for a specific program or device.

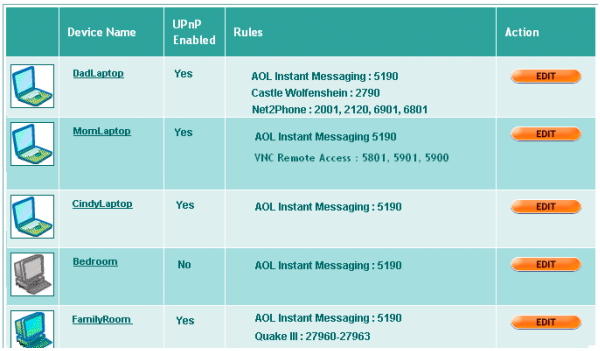
The Command Center provides port forwarding rules for a number of popular programs and devices. These are called *system defined* rules. Check to see if one exists for the program or device you are using. If it does, select it and the ports will be opened.

Create a user defined rule In situations where no system defined rules exist, you have to create the rules. These are called *user defined* rules. You should only attempt this if you are familiar with networking and firewalls. If not, contact Sereniti technical support for assistance.

ENABLE UNIVERSAL PLUG AND PLAY

To turn on UPnP, follow the steps below:

1 Click **Security** and then click the **Network Firewall Settings** icon to display the Manage Firewalls page (**FIGURE 10-1**). It shows each PC in your network and the port forwarding rules in effect.



	Device Name	UPnP Enabled	Rules	Action
	DadLaptop	Yes	AOL Instant Messaging : 5190 Castle Wolfenshein : 2790 Net2Phone : 2001, 2120, 6901, 6801	EDIT
	MomLaptop	Yes	AOL Instant Messaging 5190 VNC Remote Access : 5801, 5901, 5900	EDIT
	CindyLaptop	Yes	AOL Instant Messaging : 5190	EDIT
	Bedroom	No	AOL Instant Messaging : 5190	EDIT
	FamilyRoom	Yes	AOL Instant Messaging : 5190 Quake III : 27960-27963	EDIT

FIGURE 10-1 Manage Firewalls Page

2 Locate the device that needs the open ports and click **EDIT** to display the Firewall Settings page (**FIGURE 10-2**).

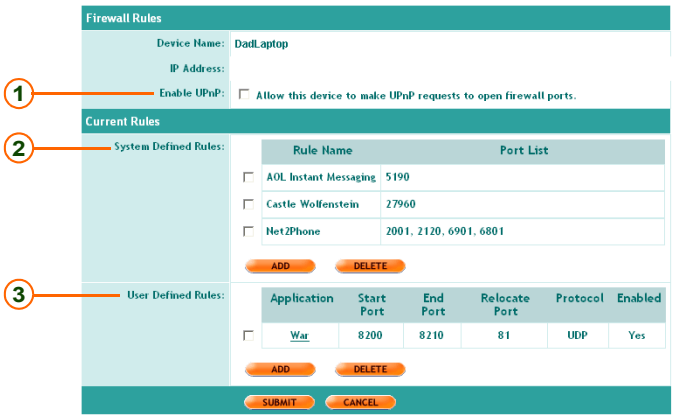


FIGURE 10-2 Firewall Settings Page

3 Click the **Enable UPnP** check box (1).

4 Click **SUBMIT**. You are returned to the Manage Firewalls page.

SELECT A SYSTEM DEFINED RULE

To select a system defined port forwarding rule, follow the steps below:

1 Click **Security** and then click the **Network Firewall Settings** icon to display the Manage Firewalls page (**FIGURE 10-1**).

2 Locate the device that needs the open ports and click **EDIT** to display the Firewall Settings page (**FIGURE 10-2**).

3 Go to **System Defined Rules** (2) and click **ADD**. The Add Firewall Rules page displays (**FIGURE 10-3**).

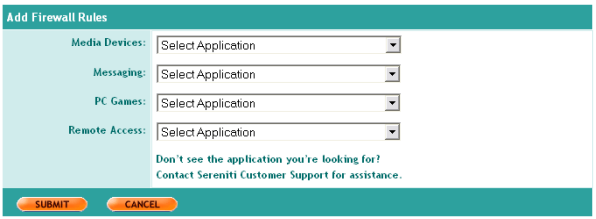


FIGURE 10-3 Add Firewall Rules Page

This page contains four drop-down lists of rules for these types of programs and devices:

- Media devices
- Messaging applications
- PC games
- Remote access programs

4 Go to the appropriate drop-down list and select a rule. You can select rules in more than one drop-down list.

Note: To select two or more rules in the same list, select them one at a time. Select one rule and click **SUBMIT**. Return to this page and repeat as often as necessary.

5 Click **SUBMIT**. You are returned to the Firewall Settings page. The rule you selected is displayed, along with the numbers of the ports that have been opened.

CREATE A USER DEFINED RULE

Do not attempt this unless you are familiar with networking and firewalls. If you need help, contact Sereniti technical support for assistance.

To create a user defined port forwarding rule, follow the steps below:

1 Click **Security** and then click the **Network Firewall Settings** icon to display the Manage Firewalls page (**FIGURE 10-1**).

2 Locate the device that needs the open ports and click **EDIT** to display the Firewall Settings page (**FIGURE 10-2**).

3 Go to **User Defined Rules** (3) and click **ADD**. The Port Forwarding Rules page displays (**FIGURE 10-4**).

FIGURE 10-4 Port Forwarding Rules Page

4 In the **Application** field, type a name to help you identify the program or device in need of open ports.

5 In the **Start Port** and **End Port** fields, type the numbers of the ports to be opened. If you only need to open one port, enter the number in both fields.

Note: Refer to the documentation that comes with the program or device, or contact their support personnel, to determine which ports have to be opened.

6 In the **Relocate Port** field, type a number only if you want to redirect incoming traffic to a different port on a PC. This field is optional and is rarely used in home networks.

Note: If this rule is opening a single port, all traffic on that port will be redirected to the relocate port. If this rule is opening a range of ports, traffic on the first port in the range will be redirected to the relocate port. Traffic on other ports in the range will be redirected to the following sequence of ports. For example, if you enter a port range of 80 – 85 and a relocate port of 90, incoming traffic on ports 80-85 will be redirected to ports 90-95.

7 In the **Protocol** field, select either **TCP** or **UDP** from the drop-down list.

Note: TCP (Transmission Control Protocol) and UDP (User Datagram Protocol) are protocols for exchanging data on the Internet. Refer to the documentation that comes with the program or device, or contact their support personnel, to determine which protocol is used.

8 In the **Enabled** field, click the check box if you want the rule to take effect immediately. If not, leave the box unchecked and return to it when you need to activate the rule.

9 Click **ADD** to save the rule. You are returned to the Firewall Settings page. The rule you created is displayed.

DELETE A RULE

You should delete any rules you no longer need. You can delete both system and user defined rules. If you delete a system defined rule and

discover you subsequently need it, you can select it again. If you delete a user defined rule you later need, you have to re-create it.

To delete a port forwarding rule, follow the steps below:

1. Click **Security** and then click the **Network Firewall Settings** icon to display the Manage Firewalls page (**FIGURE 10-1**).
2. Locate the device for which the rule was written and click **EDIT** to display the Firewall Settings page (**FIGURE 10-2**).
3. Locate the rules you want to delete and click the check boxes to their left. You can select either system defined rules or user defined rules (but not both at the same time).
4. Click **DELETE**. The rules are removed from the Firewall Settings page.

11

MONITORING NETWORK SECURITY

THIS CHAPTER

Explains how to:

- Identify and evaluate the severity of any problems with the security programs running on any of your network PCs
- Take action to resolve the problems
- Use the To Do List to identify and resolve problems

OVERVIEW

Your home network is a valuable and highly personal resource. It represents a sizable investment on your part in terms of money and time. Depending on how you use it and what information you store on it, it can reveal as much about your family's life and habits as your wallet, tax returns or intimate correspondence.

For these reasons and more, you need to install these three types of security programs on each PC in your network:

- **Personal firewall program** Prevents hackers, intruders and other unwelcome visitors from gaining access to the PC
- **Antivirus program** Prevents viruses, worms, Trojan horses and other malicious software from infecting the PC
- **Antispyware program** Prevents spyware in all its forms from gathering and distributing personal information about you, your family and your Internet browsing habits

The Serenity Security Suite, which is provided free of charge with the Smart Home Networking Service, contains these three programs, as well as a pop-up blocker. To install any of the programs in the suite, click **Security** and then click the **Install Security Suite** icon.

CHECK THE SECURITY SUMMARY PAGE

The Security Summary page lists each PC in your network and shows the status of the three security programs running on each PC.

To display the page, click **Security** and then click the **Security Summary** icon (**FIGURE 11-1**).

FIGURE 11-1 Security Summary Page

UNDERSTANDING THE SECURITY SUMMARY PAGE

For each security program, the Security Summary page tells you if there are any problems. If there are, it indicates the seriousness of the problem, using the icons shown below:

- ✓ No problems. No action is required on your part.
- ▽ Minor problem. For example, new definitions are available for the antispyware program on a PC, or an antispyware scan has not been performed in the last seven days. Immediate action is not required.
- ⚠ More serious problem. For example, new definitions are available for the antivirus program on a PC, or an antivirus scan has not been performed in the last seven days. You need to act soon to prevent additional, more serious problems.
- ⛔ Critical problem. For example, an antivirus program is not installed or enabled on a PC. The security of the PC is in danger. You need to act immediately.

You should see a green check ✓ next to each program, indicating the program is installed, enabled and up to date. Anything other than a green check indicates a problem. The degree of seriousness should dictate how quickly you react.

RESOLVING A PROBLEM

If any PC has a security problem, click **VIEW** to display the Device Security page (**FIGURE 11-2**).

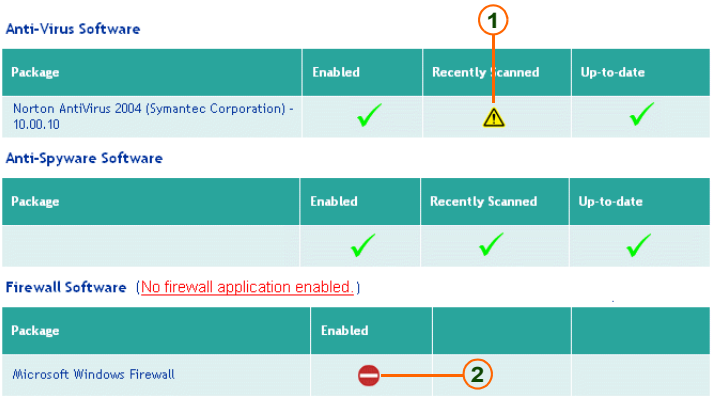


FIGURE 11-2 Device Security Page

Tip: You can display the Device Security page for the PC you are currently using by clicking **Security** and then clicking the **My PC** icon, or directly from the Dashboard by clicking **Security**.

WHAT THE PAGE SHOWS

The Device Security page provides a closer look at the three security programs. For the antivirus and antispyware programs, it shows:

- The current status of the program (enabled or disabled)
- The date and time the last scan was performed
- The update status of the program (are there new antivirus or antispyware definitions that need to be downloaded and installed?)

For the firewall program, this page indicates whether or not the firewall is currently enabled.

HOW TO RESOLVE A PROBLEM

In the example in **FIGURE 11-2**, the PC shown has two problems:

1. No antivirus scan has been performed recently

and

2. The personal firewall program is currently disabled.

To resolve either problem click the appropriate icon. The system will either resolve the problem for you, or provide information explaining how to resolve it.

USING THE TO DO LIST

Security problems also cause alerts to be issued and placed in the To Do List. First, an Alert Box pops up near the tray icon and warns you of the problem.

Then, if you open the To Do List, you will see a related alert. For example, if the antivirus program on one of your network PC is out of date, you will see this alert:

```
Download and install new anti-virus definitions from
your vendor's website
```

Similarly, if no antispyware program were installed, this message would appear:

```
Install an anti-spyware program
```

To resolve the problem, open the Security Summary page and follow the procedure described in “Resolving a Problem” above.

For additional details about the To Do List, see Chapter 2.

12

MANAGING THE SMART HOME SERVER

THIS CHAPTER

Explains how to:

- Check the Smart Home Server's wired and wireless settings
- Change the wireless channel
- Monitor hard disk usage on the Smart Home Server
- Change the Smart Home Server's time zone and workgroup
- Manage external storage drives
- Rename network printers

OVERVIEW

The Smart Home Server was installed and configured for wired and wireless operation when you set up the Sereniti Home Networking Service (see the *Installation Manual* for details).

CHECK THE WIRED SETTINGS

To display a page showing the device name, software version and wired settings of the Smart Home Server, click **My Network** and then click the **View Smart Home Server Status** icon to display the Smart Home Server Status page (**FIGURE 12-1**).

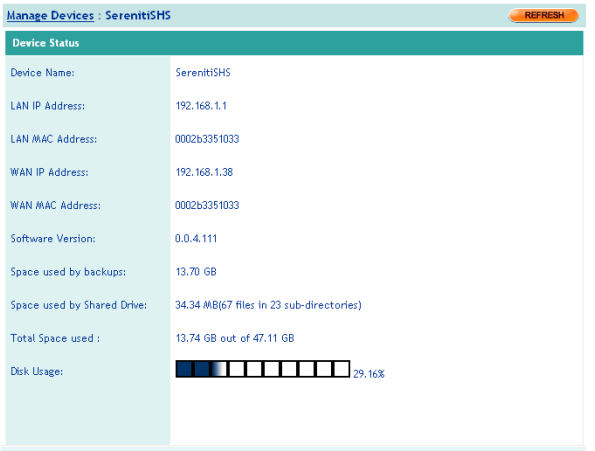


FIGURE 12-1 Smart Home Server Status Page

This page shows the Smart Home Server's name (SerenitiSHS) and the version of the software running on the Smart Home Server. It also shows its two IP and MAC addresses. The reason the Smart Home Server has two such addresses is because it connects to both the Internet and your home network.

WAN IP AND MAC ADDRESSES

The IP and MAC addresses of the Internet connection are referred to as the WAN (Wide Area Network) addresses. The Ethernet port on the back of the Smart Home Server labeled **WAN** is the port that connects the Smart Home Server to the Internet via your broadband modem.

The WAN IP address is assigned by your Internet service provider. The MAC address is burned into the WAN port's network interface card (NIC).

LAN IP AND MAC ADDRESSES

The IP and MAC addresses of the home network connection are referred to as the LAN (Local Area Network) addresses. The Ethernet ports on the back of the Smart Home Server labeled 1 - 4 are the LAN ports. These are the ports that connect PCs and other devices to the Smart Home Server. These ports have a single IP and MAC address. The IP address is set to 192.168.50.1.

The Smart Home Server automatically assigns all devices that connect to the network an IP address. The IP addresses will be on the same subnet as the LAN IP address. The first device that connects will be given the IP address 192.168.50.10, the second 192.168.50.11, and so on.

CHECK THE WIRELESS SETTINGS

The Smart Home Server is equipped with a radio transmitter that enables wireless PCs and other devices to connect to your network without using an Ethernet cable.

To display a page showing the wireless settings and the wireless devices currently connected to your network, click **My Network** and then click the **Wireless Settings** icon to display the Wireless Settings page (**FIGURE 12-2**).

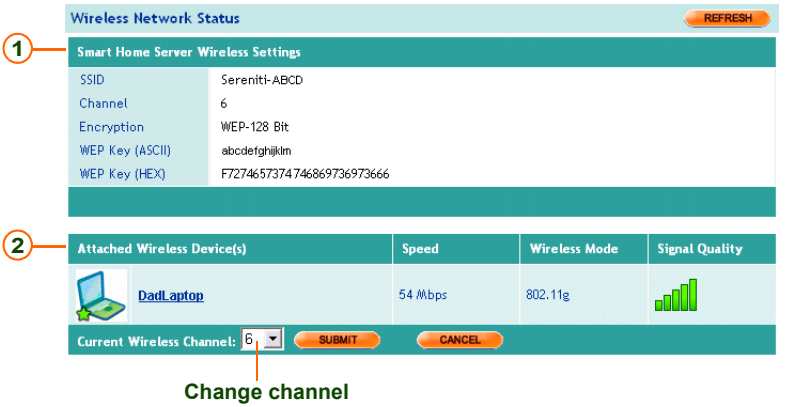


FIGURE 12-2 Wireless Settings Page

1 WIRELESS SETTINGS

The Wireless Settings page shows the following settings:

SSID Your network's Service Set Identifier. The SSID is a string of characters that identifies your network. Wireless devices use this identifier to connect to your network.

Channel The channel the radio transmitter is using to broadcast its wireless signal. By default, the Smart Home Server broadcasts on channel 6. You can change the channel by selecting a different one in the **Current Wireless Channel** field (see **FIGURE 12-2**) and clicking **SUBMIT**.

Encryption The encryption strength. The Smart Home Server provides 128-bit encryption, which is the most difficult to break.

WEP Key (ASCII) The ASCII version of the WEP key. When you installed the Smart Home Server, you were asked to enter a WEP key. Wireless devices attempting to connect to your network must know this key to connect. When setting up wireless devices, you will have to enter this key. Most devices accept the 13 character ASCII version of the key.

WEP Key (HEX) The hexadecimal version of the WEP key. Some older wireless devices can only accept the hexadecimal version of the WEP key. If you are configuring such a device, enter the hexadecimal value shown.

② ATTACHED WIRELESS DEVICES

The Wireless Settings page also shows each wireless device currently connected to your network. For each device, it shows:

Connection speed 54 Mbps is the maximum wireless connection speed. Your actual speed may be less.

Wireless mode WiFi version. It can be 802.11 a/b or g. Most new devices are 802.11g.

Signal strength The quality of the signal. It is expressed graphically, as shown below.

 = No signal

= Poor signal

= Weak signal

= Good signal

= Excellent signal

= Strongest signal

CHANGE THE WIRELESS CHANNEL

The Smart Home Server is designed to broadcast on channel 6. If you are experiencing weak signals – possibly because nearby networks are

also broadcasting on channel 6 – you may want to consider changing channels to see if this helps.

To change the channel the Smart Home Server is broadcasting on, follow the steps below:

1. Click **My Network** and then click the **Wireless Settings** icon to display the Wireless Settings page (**FIGURE 12-2**).
2. Go to the **Current Wireless Channel** field and select a new channel from the drop-down list.
3. Click **SUBMIT**.

MONITOR DISK USAGE

The hard disk on the Smart Home Server is used for two purposes:

- To store backups of all the PCs in your network running the Command Center
- To provide space for the Sereniti Shared Drive (S: drive), which network users can access and use to store and exchange files (see Chapter 8 for additional details).

To monitor hard disk usage, click **My Network** and then click the **View Smart Home Server Status** icon to display the Smart Home Server Status page (**FIGURE 12-1**). This page shows:

- Status of the drive (formatted or not formatted)
- Total capacity of the drive
- Amount of space currently in use
- Amount of space currently available
- Percentage of disk space in use

CHANGE THE TIME ZONE AND WORKGROUP

When the Smart Home Server was initially set up, its internal clock detected the time zone and it was assigned to the workgroup called "WORKGROUP."

CHANGE THE TIME ZONE

To change the Smart Home Server's time zone, follow the steps below:

1 Click **My Network** and then click the **Edit Smart Home Server Settings** icon to display the Smart Home Server Settings page (**FIGURE 12-3**).

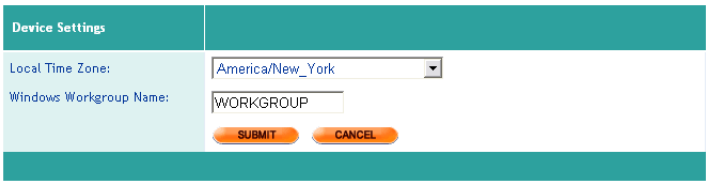


FIGURE 12-3 Smart Home Server Settings Page

2 Select a new time zone from the drop-down list in the **Local Time Zone** field.

3 Click **SUBMIT**.

CHANGE THE WORKGROUP

Be careful when changing the Windows workgroup. For folder sharing to work, all PCs sharing folders must be in the same workgroup, along with the Smart Home Server.

To change the Smart Home Server's workgroup, follow the steps below:

1 Click **My Network** and then click the **Edit Smart Home Server Settings** icon to display the Smart Home Server Settings page (**FIGURE 12-3**).

2 Type a new workgroup in the **Windows Workgroup Name** field.

3 Click **SUBMIT**.

MANAGE AN EXTERNAL STORAGE DEVICE

You can connect up to two external storage devices (hard drives, flash drives, etc.) to the USB ports on the back of the Smart Home Server. Once they are connected, all network users can access them.

The external drives can be viewed and managed from the Attached USB Devices page. To do this, follow the steps below:

1 Click **Sharing** and then click the **Setup External Hard Drive** icon to display the Attached USB Devices page (**FIGURE 12-4**).

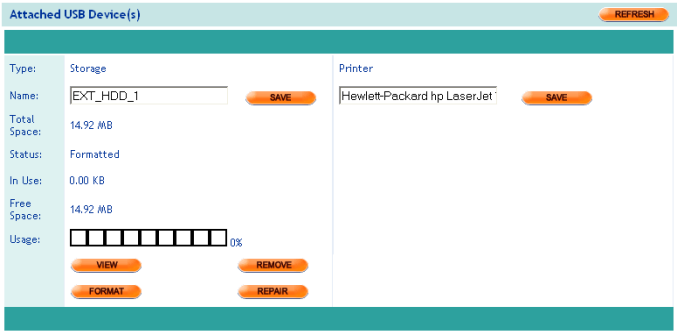


FIGURE 12-4 Attached USB Devices Page

2 For each external drive, it shows:

- Status of the drive (formatted or not formatted)
- Total capacity of the drive
- Amount of space currently in use
- Amount of space currently available
- Percentage of disk space in use

3 The hard drives are initially named “EXT_HDD_1” and “EXT_HDD_2.” To change either name, type a new name in the **Name** field and click **SAVE**.

4 To view the contents of a drive, click **VIEW**. The files and folders stored on the drive are displayed in the Windows Explorer.

5 To fix a drive with formatting problems, click **REPAIR**. This attempts to repair the problem without causing data loss.

6 If the drive cannot be repaired, you may have to reformat it. Do this only as a last resort because it erases all files and folders stored on the drive. To reformat a drive, click **FORMAT**.

7 To disconnect a drive, first remove it from the Command Center’s records to avoid damage or data loss. Click **REMOVE**, and then when the Command Center indicates the drive has been removed, disconnect it.

RENAME NETWORK PRINTERS

You can connect up to two printers to the USB ports on the back of the Smart Home Server. These become network printers. Once they are connected, all network users can print to them.

The Smart Home Server has the ability to detect the printer’s vendor and model and use this as the printer name. To change the printer name to something more recognizable (for example, “upstairs” or “photos”), follow the steps below:

1 Click **Sharing** and then click the **Setup Network Printer** icon to display the Attached USB Drive page (**FIGURE 12-4**).

2 Type a new name for the printer in **Printer** field.

3 Click **SAVE**.

13

MANAGING YOUR PC

THIS CHAPTER

Explains how to:

- Display an inventory of a PC's hardware and software resources
- Defragment a PC's hard drive
- Resolve connectivity problems

OVERVIEW

The Command Center provides a number of tools to help Smart Home Network users manage their own PCs and diagnose and resolve problems. These tools are available from the My PC option in the Main Menu.

VIEW A PC INVENTORY

A PC inventory is a window that shows all of a PC's software resources, hardware components and security programs. To launch this window,

click **My PC** and click the **View Detailed PC Inventory** icon. **FIGURE 13-1** shows a typical PC Inventory.

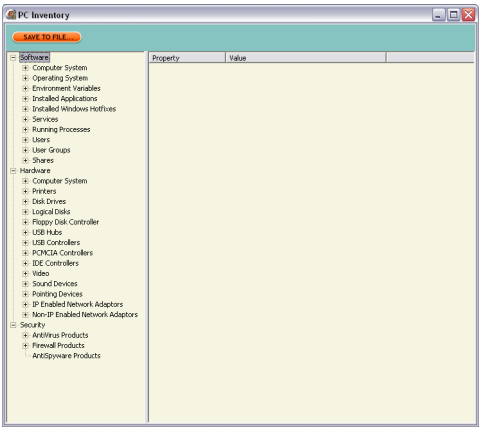


FIGURE 13-1 PC Inventory

To save the inventory in a file, click **Save to File**. It is saved as an xml file

`PCInv.xml`

in the directory

`c:\Documents and Settings\<user name>\Application Data\Sereniti\Smart Client\Data`

DEFRAGMENT THE HARD DRIVE

Files are not always stored in one place on a PC's hard disk. If necessary, they are divided into pieces and stored on separate segments of the disk. If the files on the disk become too fragmented, the PC may slow down.

To avoid this, you should periodically analyze the storage patterns on the disk and, if necessary, perform a defragmentation. This can be done directly from the Command Center. Follow the steps below:

1 Click **My PC** and then click the **Manage PC Hardware** icon to display the PC Status page.

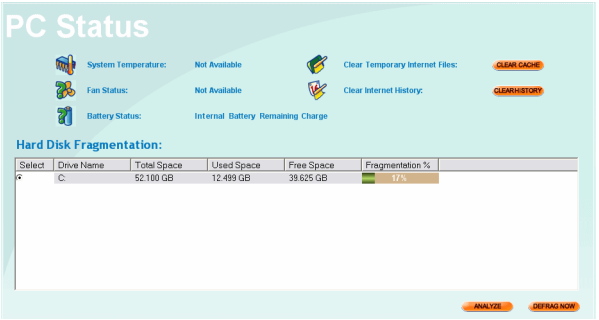
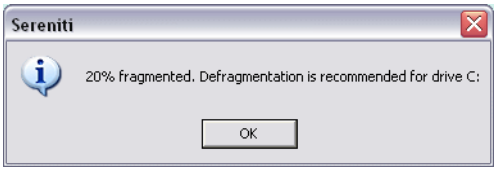


FIGURE 13-2 PC Status Page

Tip: You can also get to the PC Status page directly from the Dashboard by clicking the **Hardware** icon.

2 Click **ANALYZE** to determine whether the disk needs to be defragmented now. A message like the one below will pop up and show the percentage of fragmentation and indicate whether you should perform a defragmentation now.



3 To perform a defragmentation, click **DEFRAG NOW** to launch the Windows Disk Defragmenter.

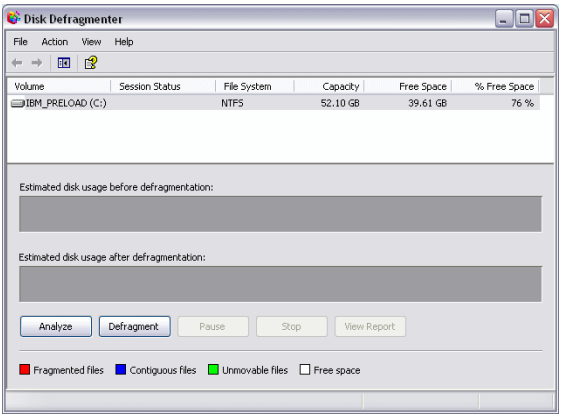


FIGURE 13-3 Windows Disk Defragmenter

4 Click **Defragmentation** to begin defragmenting the hard disk. You can stop the defragmentation at any time by clicking **Stop** on the Windows Disk Defragmenter.

REPAIR CONNECTIVITY PROBLEMS

If your PC is having trouble connecting to the Internet, you can repair many connectivity problems directly from the Command Center. Follow the steps below:

1 Click **My PC**, click the **Troubleshoot and Repair** icon, and then click the **Repair Network Connection** icon to display the Connectivity Manager (**FIGURE 13-4**).

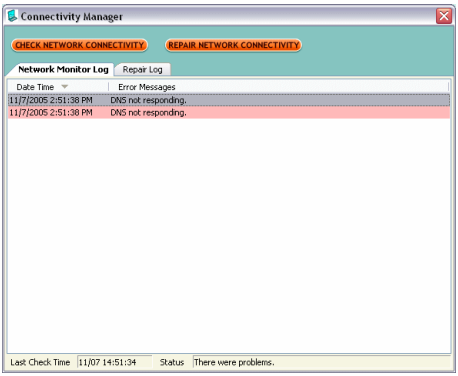


FIGURE 13-4 Connectivity Manager

2 Click **Check Network Connectivity** to check connectivity status.

3 If there is a connectivity problem, click **Repair Network Connectivity**. The Connectivity Manager will run a number of diagnostic tests and make any necessary repairs. The results are displayed in the Repair Log tab on the Connectivity Manager.

14

ERROR MESSAGES

THIS CHAPTER

Explains how to respond to:

- Antivirus error messages
- Antispyware error messages
- Firewall error messages
- Backup and restore error messages
- Sereniti shared drive messages
- Multiple connection message

OVERVIEW

When the Command Center detects certain problems on the PCs connected to your network (and running the Command Center), it displays an error message to make you aware of the problem and point you toward a solution. These problems include:

- Security program problems
- Backup and restore problems
- Sereniti Shared Drive problems
- Multiple connection problems

This chapter lists the most common error messages in each category and explains what you should do to resolve the problem that caused the message to appear.

ANTIVIRUS MESSAGES

TABLE 14-1 lists the error messages that apply to antivirus programs and explains how to respond to them.

TABLE 14-1 Antivirus Messages

Message	Do this...
Antivirus program not installed	Install an antivirus program The Sereniti Security Suite, which is provided free of charge with your subscription to the Smart Home Networking Service, contains an antivirus program. To install the program, click **Security** and then click the **Install Security Suite** icon.
Multiple antivirus programs installed	Uninstall the extra antivirus programs Running more than one antivirus program on the same PC can cause problems. Decide which one you want to keep and remove the rest. 1. Open the Windows Control panel. 2. Select **Add or Remove Programs**. 3. Follow the on-screen instructions to remove the program.
Antivirus program not enabled	Enable the antivirus program Pass your cursor over the tray icon. This should indicate if the antivirus program is enabled. If not, 1. Right-click the icon and enable it, or 2. Open the program console and enable it from there.
Multiple antivirus programs enabled	Disable the extra antivirus programs Enabling more than one antivirus program on the same PC can cause problems. Decide which one you want to enable and disable the rest. 1. Right-click the tray icon. 2. Select **Disable** from the pop-up menu, or 3. Open the program console and disable it from there.

TABLE 14-1 Antivirus Messages (Continued)

Message	Do this...
Antivirus definitions out of date	Update the antivirus program New antivirus definitions are available 1. Right-click the tray icon. 2. Open the program console. 3. Perform an update.
Antivirus scan overdue	Scan the hard disk for viruses 1. Right-click the tray icon. 2. Open the program console 3. Perform a scan of the hard disk. 4. If viruses are found, follow up and delete or quarantine them
Sereniti cannot verify the product vendor for your antivirus package Sereniti cannot determine whether your antivirus package is enabled Sereniti cannot determine when your antivirus program was last updated Sereniti cannot determine when the last antivirus scan was performed Sereniti cannot determine if the definitions for your antivirus package were received	These messages appear if your PC is running an antivirus program that is NOT supported by the Smart Home Networking Service In all cases, consider installing the antivirus program that is included in the Sereniti Security Suite, which is provided free of charge with your subscription to the Smart Home Networking Service. To install the program, click **Security** and then click the **Install Security Suite** icon.

ANTISPYWARE MESSAGES

TABLE 14-2 lists the error messages that apply to antispyware programs and explains how to respond to them.

TABLE 14-2 Antispyware Messages

Message	Do this...
Antispyware program not installed	Install an antispyware program The Sereniti Security Suite, which is provided free of charge with your subscription to the Smart Home Networking Service, contains an antispyware program. To install the program, click **Security** and then click the **Install Security Suite** icon.
Multiple antispyware programs installed	Uninstall the extra antispyware programs Running more than one antispyware program on the same PC can cause problems. Decide which one you want to keep and remove the rest. 1. Open the Windows Control panel. 2. Select **Add or Remove Programs**. 3. Follow the on-screen instructions to remove the program.
Antispyware program not enabled	Enable the antispyware program Pass your cursor over the tray icon. This should indicate if the antispyware program is enabled. If not, 1. Right-click the icon and enable it, or 2. Open the program console and enable it from there.

TABLE 14-2 Antispyware Messages (Continued)

Message	Do this...
Multiple antispyware programs enabled	Disable the extra antispyware programs Enabling more than one antispyware program on the same PC can cause problems. Decide which one you want to enable and disable the rest. 1. Right-click the tray icon. 2. Select **Disable** from the pop-up menu, or 3. Open the program console and disable it from there.
Antispyware definitions out of date	Update the antispyware program New antispyware definitions are available 1. Right-click the tray icon. 2. Open the program console. 3. Perform an update.
Antispyware scan overdue	Scan the hard disk for spyware 1. Right-click the tray icon. 2. Open the program console 3. Perform a scan of the hard disk. 4. If spyware is found, follow up and delete or quarantine it.

TABLE 14-2 Antispyware Messages (Continued)

Message	Do this...
Sereniti cannot verify the product vendor for your antispyware package Sereniti cannot determine whether your antispyware package is enabled Sereniti cannot determine when your antispyware program was last updated Sereniti cannot determine when the last antispyware scan was performed Sereniti cannot determine if the definitions for your antispyware package were received	These messages appear if your PC is running an antispyware program that is NOT supported by the Smart Home Networking Service In all cases, consider installing the antispyware program that is included in the Sereniti Security Suite, which is provided free of charge with your subscription to the Smart Home Networking Service. To install the program, click **Security** and then click the **Install Security Suite** icon.

FIREWALL MESSAGES

TABLE 14-3 lists the error messages that apply to firewall programs and explains how to respond to them.

TABLE 14-3 Firewall Messages

Message	Do this...
Firewall program not enabled	Enable the firewall program Pass your cursor over the tray icon. This should indicate if the firewall program is enabled. If not: 1. Right-click the icon and enable it, or 2. Open the program console and enable it from there.
Firewall program not installed	Install a firewall program The Sereniti Security Suite, which is provided free of charge with your subscription to the Smart Home Networking Service, contains a firewall program. To install the program, click **Security** and then click the **Install Security Suite** icon.
Multiple firewall programs installed	Uninstall the extra firewall programs Running more than one firewall program on the same PC can cause problems. Decide which one you want to keep and remove the rest. 1. Open the Windows Control panel. 2. Select **Add or Remove Programs**. 3. Follow the on-screen instructions to remove the program.

TABLE 14-3 Firewall Messages (Continued)

Message	Do this...
Multiple firewall programs enabled	Disable the extra firewall programs Enabling more than one firewall program on the same PC can cause problems. Decide which one you want to enable and disable the rest. 1. Right-click the tray icon. 2. Select **Disable** from the pop-up menu, or 3. Open the program console and disable it from there. The Windows XP operating system includes a personal firewall. This program is enabled by default. To disable it: 1. Click **Start** on the Windows task bar 2. Select **Control Panel**. 3. On the Control Panel, locate **Windows Firewall** and double-click it. 4. Click **Off** 5. Click **OK**.
Sereniti cannot determine whether your firewall program is enabled	This message only occurs when your PC is running a firewall program that is not supported by the Smart Home Networking Service. Consider installing the firewall program that is included in the Sereniti Security Suite, which is provided free of charge with your subscription to the Smart Home Networking Service.To install the suite, click **Security** and then click the **Install Security Suite** icon.

BACKUP AND RESTORE MESSAGES

TABLE 14-4 lists the error messages that apply to the backup and restore features and explains how to respond to them.

TABLE 14-4 Backup and Restore Messages

Message	Do this...
Backup failed as the Smart Home Server was powered cycled.	A backup failed because the Smart Home Server was turned off and on during the backup. You have two choices. You can wait for the next scheduled backup, or you can perform an unscheduled backup.
Directory does not exist on the host	The Sereniti system could not find a folder that had been selected for backup. Open the Windows Explorer and verify that the folder named in the message does, in fact, exist. It is possible it could have been moved or deleted.
Network failure during restore	You lost network connectivity while trying to restore a previously backed up file, and as a result the restore failed. Check to determine the cause of the failure. Make sure the broadband modem and any installed routers are running properly, and all cables are connected. When connectivity is returned, perform the restore again.
PC was offline when backup started	A backup failed because the PC being backed up was not online. Make sure the PC is turned on and connected to the network. Then, you can either wait fort the next scheduled backup, or you can perform an unscheduled backup.

TABLE 14-4 Backup and Restore Messages (Continued)

Message	Do this...
Please free up more space on your Smart Home Server	There is not enough space available on the Smart Home Server to back up your folders. You need to delete some backed up files to free up space on the Server's hard disk. See Chapter 7 for details. You also might consider looking at the folders you are backing up with an eye toward reducing the number of folders so that your backups occupy less space on the Server.

SERENITI SHARED DRIVE MESSAGE

The following message applies to the Sereniti Shared Drive:

```
System failed to map to S: drive
```

```
Your PC cannot connect to the S: drive on the Smart Home Server. Check to make sure you are logged into the Command Center and connected to the Smart Home Server.
```

Make sure the S: drive is not already in use. If it is, you will have to remap it to another letter. For instructions, see the Error box on page 98.

MULTIPLE CONNECTION MESSAGE

If you have a PC connected to the Smart Home Server, and also connected to another networking device such as a router or modem, you will get an error message.

It does not matter if the connections are wired or wireless. In either case, the Command Center will not work properly if another network connection is active. To resolve this problem, you have to disable the connection to the other networking device.

To disabled a wired connection, remove the Ethernet cable from the Ethernet port on the PC.

To disabled a wireless connection:

1. Click **Start** on the Windows taskbar, select **Connect to** and then select **Wireless Network Connection**. The Wireless Network Connect Status window appears.
2. Click **Disable** to disable the connection and close the window.

Note: To re-enable the connection, click **Start** → **Connect to** → **Wireless Network Connection** again.

APPENDIX A

ABOUT IP ADDRESSES

WHAT IS AN IP ADDRESS?

Every device that connects to the Internet must have an Internet Protocol (IP) address. This address enables the device to contact other devices on the Internet, establish a connection with those devices, and pass information back and forth.

FORMAT

An IP address consists of four numbers (each containing from one to three digits) separated by decimal points, which are usually referred to as "dots." The numbers below are all examples of IP addresses:

204.171.64.20

165.113.245.2

111.22.3.444

SUBNET MASK

Every IP address consists of two parts:

- **Network part** Identifies the network that the device belongs to
- **Host part** Identifies the device itself

Both parts are determined by a third number called a subnet mask. When one PC attempts to contact another – for example, when you visit a web site – the subnet mask tells the routers that establish the connection:

- Which numbers in the IP address represent the network

- Which numbers represent the PC itself.

A USEFUL ANALOGY

One way of understanding IP addresses is to think of them as the Internet's version of telephone numbers. Every telephone has a unique number that identifies it; without this number, it cannot make or receive calls.

Like an IP address, a telephone number consists of multiple parts: a network part (called the area code), a subnetwork part (the exchange), and a device part that indicates the specific telephone to be rung.

The switches that perform the same function that routers perform on the Internet use the number to find a distant telephone and set up a connection to it.

HOW DOES A PC OBTAIN AN IP ADDRESS?

A PC can obtain an IP address in one of two ways:

- **Static IP address** A network administrator can assign the PC a specific IP address. This is called a static IP address because it does not change from day to day.
- **Dynamic IP address** A program called DHCP (Dynamic Host Configuration Protocol) can "lease" the PC an IP address whenever it connects to the Internet. This is called a dynamic IP address because it can change from day to day.

DHCP is the more common method. The usual procedure is for a household's Internet Service Provider (ISP) to include DHCP as part of the package. All you have do is make sure all household PCs are configured to use DHCP.

CONFIGURE A PC TO USE DHCP

To check to see if a PC is configured to use DHCP, and to configure it if it is not, follow the steps below:

1 Click **Start** on the Windows task bar, select **Connect to,** and then select **Show all connections**. The Network Connections window displays (**FIGURE A-1**).

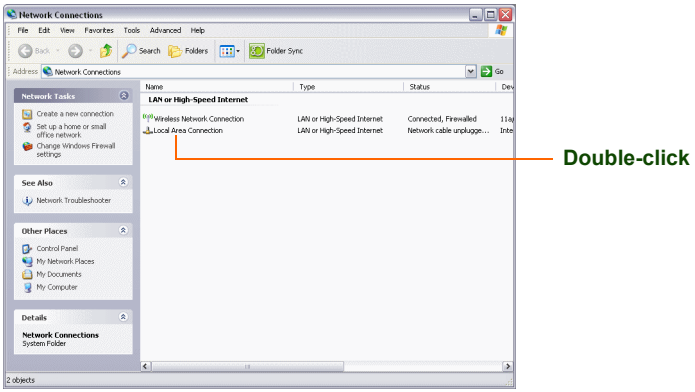


FIGURE A-1 Network Connections Window

2 Locate the local area connection and double-click it to display the Local Area Connections Properties window (**FIGURE A-2**).

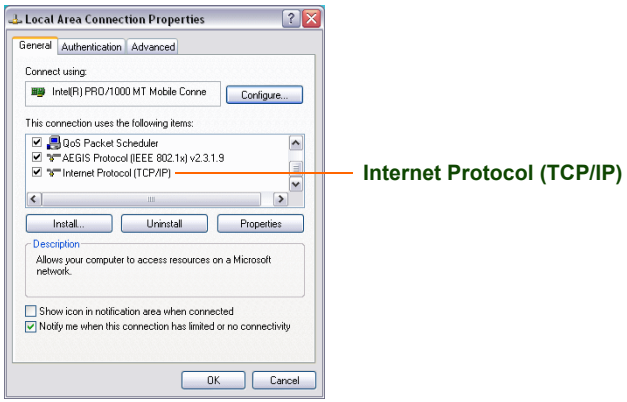


FIGURE A-2 Local Area Connections Properties Window

3 Go to the panel labeled **This connection uses the following items** and scroll down until you come to Internet Protocol (TCP/IP).

4 Select **Internet Protocol (TCP/IP)** and click **Properties**. The Internet Protocol (TCP/IP) Properties window displays (**FIGURE A-3**).

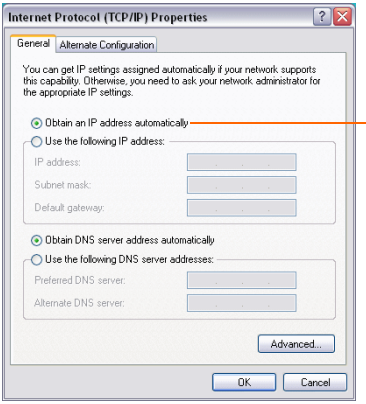


FIGURE A-3 Internet Protocol (TCP/IP) Properties Window

5 Find the radio button labeled **Obtain an IP address automatically**. This button enables DHCP. It should be selected. If it is not, select it.

6 Click **OK** twice to return to the Network Connections window, and then close the Network Connections window.

WHY DON'T I HAVE TO KNOW A WEBSITE'S IP ADDRESS?

By now you may have noticed that in one important respect IP addresses differ from telephone numbers. To call someone, you have to know that person's telephone number. You cannot simply enter the person's name and expect the telephone system to identify it. But to contact a web site, you can enter the site's name. For example, to connect to Amazon's web site, you can enter

http://www.amazon.com

The reason for this is a program called DNS (Domain Name System). DNS is like a large telephone directory that contains the name and telephone number of all telephone users. When you enter the name of a website in the Address field of a browser and click GO, your PC contacts a computer called a DNS server and "looks up" the IP address of the website you entered. It then uses this address to find and connect to the computer running the website you are interested in.

APPENDIX B

BACKING UP MICROSOFT OUTLOOK

Microsoft Outlook is a personal information and communications management program that is included in all editions of the Microsoft Office suite. The program allows users to send and receive email and maintain a to do list, a calendar of appointments, and a directory of key business and personal contacts. Outlook is a very popular program, and many home network users employ this program to handle their email and other tasks.

OUTLOOK FILES

All your Outlook data is stored in a personal folders file. This is a file with a .pst extension. If you have not changed the default name, this file is called "Outlook.pst" and is found in this folder on your PC:

C:\Documents and Settings\<*user name*>\Local Settings\Application Data\Microsoft\Outlook

where <*user name*> is your Windows user account name.

In addition to this file, Outlook places an Archive.pst file in the same folder. This file contains all the old Outlook data that you have archived.

BACKING UP THE FILES

To back up both the Outlook.pst and Archive.pst files, select Email as one of the common folders to be included in each backup. See Chapter 7 for details.

APPENDIX C

RESOLVING DNS PROBLEMS

WHAT IS DNS?

The Domain Name System (DNS) converts domain names into IP addresses. Whenever you enter a domain name such as amazon.com into a browser, the name is sent to a DNS server, which looks up its IP address. Without DNS, you would have to know the IP address of every web site you want to visit.

For the Sereniti system to work properly, each PC in your network must use the Smart Home Server for its DNS server. To make this happen, you need to configure the PCs to obtain their DNS server addresses automatically. This ensures that the PCs ask the Smart Home Server for a DNS address, and the Server gives its own.

WHAT CAN GO WRONG?

Problems arise if a PC is given a fixed DNS address instead of configured to obtain its DNS address automatically. This can happen for two reasons:

- **You deliberately entered a fixed DNS address**
  Some users may need to enter a fixed DNS address; for example, to connect to a network in their work environment. If this is the case, the Sereniti system will reconfigure the PC to obtain its DNS address automatically when you bring it home and connect it to your home network. However, you will have to reconfigure the PC when you return to your office. The procedure below explains how to do this.
- **The PC became misconfigured**
  For a variety of technical reasons, it is possible that a PC can

be set to obtain its DNS address automatically, but become misconfigured and given a fixed DNS address instead. When this happens, the Sereniti system displays a message indicating it has detected the problem, and then automatically corrects the problem. No action on your part is required.

RECONFIGURE A PC TO USE A FIXED DNS ADDRESS

To reconfigure a PC to use a fixed DNS address, follow the steps below:

1 In the Windows taskbar, click **Start**, right-click **My Network Places** and select **Properties**. This displays the Network Connections window.

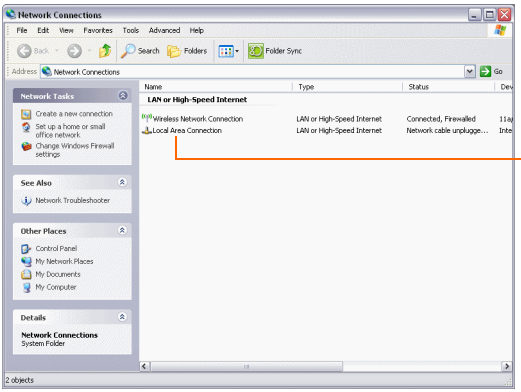


FIGURE C-1 Network Connections Window

2 Right-click the active network connection and select **Properties**. This displays the Local Area Connection Properties window.

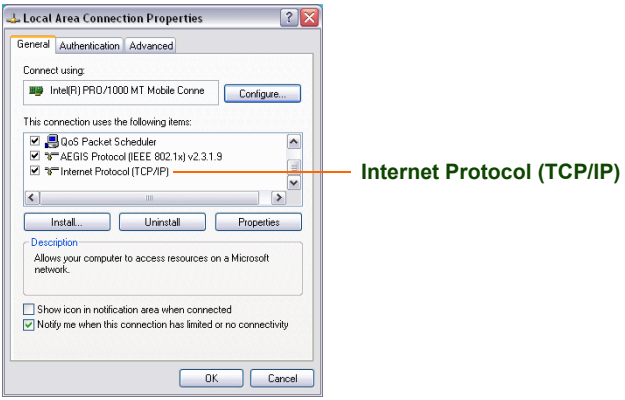


FIGURE C-2 Local Area Connections Properties Window

3 Scroll down until you come to **Internet Protocol (TCP/IP)**. Click it once to select it, and then click the Properties button. This displays the Internet Protocol (TCP/IP) Properties window.

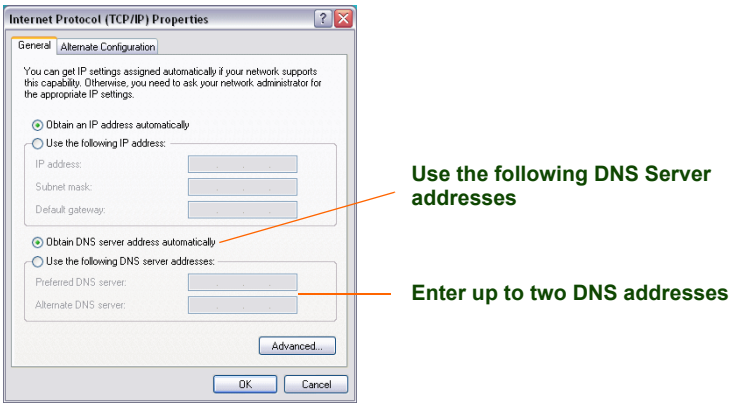


FIGURE C-3 Internet Protocol (TCP/IP) Properties Window

4 Click the button labeled **Use the following DNS server addresses**, and then enter up to two DNS addresses in the fields below.

5 Click **OK** twice to close the two Properties windows, and then close the Network Connections window.

INDEX

A

Add Firewall Rules Page 124
Add User Page 53
Allowed Sites List 64–65
Antispyware Program 129
Antivirus Program 129
Attached USB Devices Page 101, 142
Attached Wireless devices 139
Auto Launch
    Command Center 13
    Sereniti Wireless 41
Auto Login 37–38, 46–47
Auto Login Page 38

B

Back Up Microsoft Outlook 169
Backed Up Folders Window 84
Backup Settings Page 78
Backup Status Page 35–36, 78
Backups 71–85
    How they are Stored 73–76
    Scheduled 72–73, 77
    Select Folders 79
    Unscheduled 82
    View the Contents 82

C

Change
    Content Filter 57
    Login Accounts 12
    PC Icon 39, 56
    PC Name 39
    PC Type 39
    PC Workgroup 113

Privileged Status 57
Security Question 57
Smart Home Server Workgroup 112
Time Filter 57
User Password 56
Wireless Channel 139
Channel (Wireless) 138, 140
Clean Up Old Backups 90–94
Clean Up Unneeded folders 92
Command Center
Launch Options 13
Main Menu 14
Tray Icon 8
Common Folders 72
Connect a PC to a Shared Printer 120
Connect External Storage Device 142
Connect the PC to Another Wireless Network 40
Connectivity Manager 149
Content Filter 57, 62–63
Content Filter Settings Page 65
Create
Shared Folder 113
Shared Printer 117
User Accounts 52–54
User Defined Port Forwarding Rule 48, 125–126

D

Dashboard 19–21
Defragment the Hard Drive 146
Delete
Port Forwarding Rule 126
User Account 58
Desktop Folder 73
Device Information Page 29
Device Management Page 32–34, 44
Device Security Page 132
Device Settings Page 33
DHCP 164–166
Disconnect a Printer from a PC 120
Dynamic IP Address 164

E

Email Folder 72
Email Notifications 58, 59
Enable Universal Plug and Play (UPnP) 122
Encryption 138
Error Messages 151–160
    Antispyware Messages 154
    Antivirus Messages 152
    Backup and Restore Messages 159
    Firewall Messages 157
    Sereniti Shared Drive Messages 160
External Storage Device 142

F

Favorites Folder 72
Firewall Program 129
Firewall Settings Page 123
Folder Sharing 113–116
    Access A Shared Folder from a Browser 116
    Access a Shared Folder from the Command Center 116
    Connect a PC to a Shared Printer 120
    Create Shared Folder 113
    Disconnect a Printer from a PC 120
    Unshare a Folder 115
Folder Sharing Page 114

H

Home Page 17–21

I

Install Security Suite 24
IP Address
    Dynamic 164
    Format 163
    Static 164
    Subnet Mask 163

L

Launch Options 13
Logging In 9, 10

Through a Browser 10
Through the Command Center 9
Logging Out 11
Through a Browser 11
Through the Command Center 11

M

S: Drive Failed to Map 98
Main Menu 14
Manage Firewall Page 37, 123
Manage Firewalls Page 45
Map a Network Drive 98
Modify User Accounts 55–57
Monitor Disk Usage 91
Monitor Network Security 129–133
Firewall Program 129
Resolve a Problem 132
Monitor Network SecurityAntivirus Program 129
My Documents Folder 72

N

Network Map 17–19, 44
Network Printer 143
Non-Privileged Accounts 50
Notifications
Email 58, 59
Telephone 58, 59

P

Parental Controls 61–68
Allowed Sites List 64–65
Content Filter 62–63
Restricted Sites List 64–65
Time Filter 65–67
Time Filter Override 67
Unblock a Web Site 68
Parental Controls Page 64
Password 52
PC Icon 39, 56
PC Inventory 145

PC Name 39
PC Status Page 147
PC Type 39
Personal Firewall Program
Port Forwarding 121–127
    Create User Defined Rule 125
    Delete a Rule 126
    Relocate Port 126
    Select System Defined Rule 124
Port Forwarding Rule 48
    System Defined Rule 48
    User-Defined Rule 48
Port Forwarding Rules Page 125
Printer Sharing 117–120
    Create a Shared Printer 117
Printer Sharing Page 118
Privileged Accounts 50

R

Register a Device 45–46
Relocate Port 126
Rename a Network Drive 101
Rename a Network Printer 143
Repair Connectivity Problems 148
Restore Files and Folders 85–90
    Restore All Files and Folders in the Most Recent Backup 86
    Restore an Old Version of a File or Folder 89
    Restore Specific files and Folders in the Most Recent Backup 87
Restore Page 86
Restricted Sites List 64–65

S

Security Question 57
Security Summary Page 34–35, 130
Select a System Defined Port Forwarding Rule 48, 124
Select Additional Folders Window 80
Select Folders to Restore Window 88
Sereniti Security Suite 24
Sereniti Shared Dive 98
Sereniti Wireless Agent 40, 41

Set the Backup Schedule 77
Smart Home Server 135–143
    Disk Usage 140
    IP Address (LAN) 137
    IP Address (WAN) 136
    MAC Address (LSN) 137
    MAC Address (WAN) 136
    Time Zone 141
    Wired Settings 135
    Wireless Settings 137
    Workgroup 141
Smart Home Server Settings Page 141
Smart Home Server Status Page 136
SSID 138
Static IP Address 164
Subnet Mask 163
System Defined Port Fowarding Rule 48

T

Telephone Notifications 58, 59
Time Filter 57, 65–67
Time Filter Override 67
Time Filter Settings Page 66
Time Zone 141
To Do List 21–25, 133
Tray Icon 8
Turn off
    Command Center Auto Launch 14
    Sereniti Wireless Agent 41

U

Unblock a Web Site 68
Universal Plug and Play (UPnP) 48, 122
Unshare a Folder 115
User Accounts 49–58
    Create 52
    Delete 58
    Modify 55–57
    Non-Privileged Accounts 50
    Privileged Accounts 50

View 54
User Icon 56
User Name 51–52
Valid Characters 52
Valid Names 51
User Settings Page 56
User-Defined Port Forwarding Rule 48
Users List 55

V

View User Accounts 54

W

WEP Key (ASCII) 138
WEP Key (HEX) 139
Wired Settings 135
Wireless Devices 43
Wireless Settings 137
Authentication 140
Change Channel 139
Channel 140
SSID 138
Wireless settings
Channel 138
Encryption 138
WEP Key (ASCII) 138
WEP Key (HEX) 139
Wireless Settings Page 138
Wireless Signal Strength 139
Workgroups 112, 141

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that o which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE: FCC RADIATION EXPOSURE STATEMENT:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

We declare that the product is limited in CH1~CH11 by specified firmware controlled in the USA.