

# smoothwall®

The Web You Want

## **Unified Threat Management**

### **Advanced Firewall Upgrade Guide**

**For future reference**

Advanced Firewall serial number:

Date installed:

Smoothwall contact:

## Smoothwall® Advanced Firewall, Upgrade Guide, March 2015

Smoothwall publishes this guide in its present form without any guarantees. This guide replaces any other guides delivered with earlier versions of Advanced Firewall.

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of Smoothwall.

For more information, contact: docs@smoothwall.net

© 2001 – 2015 Smoothwall Ltd. All rights reserved.

### Trademark notice

Smoothwall and the Smoothwall logo are registered trademarks of Smoothwall Ltd.

Linux is a registered trademark of Linus Torvalds. Snort is a registered trademark of Sourcefire INC.

DansGuardian is a registered trademark of Daniel Barron. Microsoft, Internet Explorer, Window 95, Windows 98, Windows NT, Windows 2000 and Windows XP are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Netscape is a registered trademark of Netscape Communications Corporation in the United States and other countries. Apple and Mac are registered trademarks of Apple Computer Inc. Intel is a registered trademark of Intel Corporation. Core is a trademark of Intel Corporation.

All other products, services, companies, events and publications mentioned in this document, associated documents and in Smoothwall software may be trademarks, registered trademarks or service marks of their respective owners in the UK, US and/or other countries.

### Acknowledgements

Smoothwall acknowledges the work, effort and talent of the Smoothwall GPL development team:

Lawrence Manning and Gordon Allan, William Anderson, Jan Erik Askildt, Daniel Barron, Emma Bickley, Imran Chaudhry, Alex Collins, Dan Cuthbert, Bob Dunlop, Moira Dunne, Nigel Fenton, Mathew Frank, Dan Goscomb, Pete Guyan, Nick Haddock, Alan Hourihane, Martin Houston, Steve Hughes, Eric S.

Johansson, Stephen L. Jones, Toni Kuokkanen, Luc Larochelle, Osmar Lioi, Richard Morrell, Piere-Yves Paulus, John Payne, Martin Pot, Stanford T. Prescott, Ralf Quint, Guy Reynolds, Kieran Reynolds, Paul Richards, Chris Ross, Scott Sanders, Emil Schweickerdt, Paul Tansom, Darren Taylor, Hilton Travis, Jez Tucker, Bill Ward, Rebecca Ward, Lucien Wells, Adam Wilkinson, Simon Wood, Nick Woodruffe, Marc Wormgoor.

Advanced Firewall contains graphics taken from the Open Icon Library project

<http://openiconlibrary.sourceforge.net/>

<b>Address</b>	Smoothwall Limited 1 John Charles Way Leeds. LS12 6QA United Kingdom
<b>Email</b>	info@smoothwall.net
<b>Web</b>	www.smoothwall.net
<b>Telephone</b>	USA and Canada: 1 800 959 3760 United Kingdom: 0870 1 999 500 All other countries: +44 870 1 999 500
<b>Fax</b>	USA and Canada: 1 888 899 9164 United Kingdom: 0870 1 991 399 All other countries: +44 870 1 991 399

# Contents

	<b>About This Guide .....</b>	<b>1</b>
	<b>Audience and Scope .....</b>	<b>1</b>
	<b>Organization and Use .....</b>	<b>1</b>
	<b>Conventions.....</b>	<b>2</b>
	<b>Related Documentation.....</b>	<b>2</b>
<b>Chapter 1</b>	<b>Upgrading to Advanced Firewall .....</b>	<b>3</b>
	<b>Warning! .....</b>	<b>3</b>
	<b>Messages and Conventions.....</b>	<b>3</b>
	<b>Running Advanced Firewall's Quick Upgrade.....</b>	<b>4</b>
	<b>Running Advanced Firewall's Advanced Upgrade.....</b>	<b>7</b>
	<b>Upgrading Failover-Enabled Systems.....</b>	<b>11</b>
<b>Chapter 2</b>	<b>Accessing Advanced Firewall .....</b>	<b>13</b>
	<b>Accessing Advanced Firewall .....</b>	<b>13</b>
	<b>Connecting to the Internet .....</b>	<b>15</b>
	<b>Installing Updates .....</b>	<b>17</b>



# About This Guide

Advanced Firewall is a licenced feature of your Smoothwall System.

This manual provides guidance for installing and managing Advanced Firewall.

## Audience and Scope

This guide is aimed at system administrators maintaining and deploying Advanced Firewall.

This guide assumes the following prerequisite knowledge:

- An overall understanding of the functionality of the Smoothwall System
- An overall understanding of networking concepts

---

**Note:** We strongly recommend that everyone working with Smoothwall products attend Smoothwall training. For information on our current training courses, contact your Smoothwall representative.

---

## Organization and Use

This guide is made up of the following chapters and appendices:

- [Chapter 1, Upgrading to Advanced Firewall on page 3](#)
- [Chapter 2, Accessing Advanced Firewall on page 13](#)

# Conventions

The following typographical conventions are used in this guide:

Item	Convention	Example
Key product terms	Initial Capitals	Advanced Firewall Smoothwall System
Menu flow, and screen objects	<b>Bold</b>	<b>System &gt; Maintenance &gt; Shutdown</b> Click <b>Save</b>
Cross-references	Blue text	See <a href="#">Chapter 1, Upgrading to Advanced Firewall on page 3</a>
References to other guides	Italics	Refer to the <i>Advanced Firewall Administration Guide</i>
Filenames and paths	Courier	The <code>portal.xml</code> file
Variables that users replace	<i>Courier Italics</i>	<code>http://&lt;my_ip&gt;/portal</code>
Links to external websites	<a href="#">Blue text, underlined</a>	Refer to <a href="http://www.smoothwall.net/support">http://www.smoothwall.net/support</a>

This guide is written in such a way as to be printed on both sides of the paper.

## Related Documentation

The following guides provide additional information relating to the Advanced Firewall feature:

- *Advanced Firewall Installation Guide* explains how to install the latest version of Advanced Firewall
- *Advanced Firewall Administration Guide* contains information on configuring and maintaining Advanced Firewall
- *Advanced Firewall User Portal Guide* contains information on using the Advanced Firewall portal for reporting and other tasks
- Add-on module guides explain how to use Smoothwall add-on modules with Advanced Firewall
- <http://www.smoothwall.net/> contains the Smoothwall support portal, knowledge base and the latest product manuals.

# 1 Upgrading to Advanced Firewall

This chapter describes how to upgrade from an earlier, compatible version of a Smoothwall System product to Advanced Firewall, including:

- [Warning! on page 3](#)
- [Messages and Conventions on page 3](#)
- [Running Advanced Firewall's Quick Upgrade on page 4](#)
- [Running Advanced Firewall's Advanced Upgrade on page 7](#)
- [Upgrading Failover-Enabled Systems on page 11](#)

## Warning!

Advanced Firewall's upgrade program **ERASES ALL DATA** on the hard disk or storage volume it detects. This includes any inserted USB storage device. Smoothwall cannot be held responsible for any loss of data.

Do not interrupt the upgrade process. If you cancel after confirming you want to upgrade, your previous settings will be lost.

---

**Note:** For a detailed description of how to upgrade Advanced Firewall's failover units, see [Upgrading Failover-Enabled Systems on page 11](#).

---

## Messages and Conventions

Advanced Firewall's upgrade and initial setup programs use a text-based interface that is compatible with all types of graphic card.

The following keyboard controls are used to interact with the programs:

Key	Explanation
<b>Arrows</b>	Move the cursor/focus/highlight between options.
<b>Tab</b>	Advances the focus to the next screen object.
<b>Space</b>	Clicks a button if it has the focus.
<b>Enter or Return</b>	Clicks a button if it has the focus. Will click the <b>Ok</b> button if the focus is not currently on a button.

The following on-screen buttons are used throughout the installation and setup process:

Button	Explanation
<b>Cancel</b>	Exits the current program without saving or activating any changes. If the Setup program is being run as part of the first-time setup process, the Cancel button will exit the setup program and require the upgrade process to be restarted.
<b>Done</b>	Indicates that configuration of the current feature is complete. Changes will be saved and activated and control will return to the menu or upgrade procedure.
<b>Finished</b>	Exits once all configuration changes have been completed in the Setup program.
<b>Ok</b>	Confirms the selection of the highlighted option, acknowledges a message or proceeds to the next screen.

## Running Advanced Firewall's Quick Upgrade

---

**Note:** Before you start, we strongly recommend that you archive your current Advanced Firewall settings. For more information, refer to the *Advanced Firewall Administration Guide*.

---

Advanced Firewall's quick upgrade automatically checks the computer and its hardware components, and upgrades your Smoothwall System accordingly.



**To upgrade to Advanced Firewall:**

1. Insert the Advanced Firewall installation CD into the CD-ROM drive and reboot the computer. The following screen is displayed:



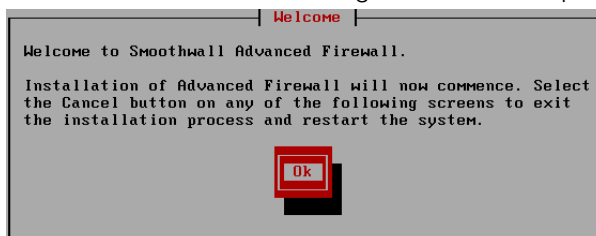
2. Press **Enter**. The following screen is displayed:



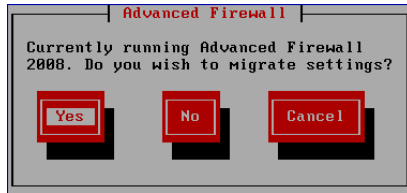
3. When the installation program has initialized the drivers, the following screen is displayed:



4. Wait 5 seconds for the following screen to be displayed:



- Press Enter to continue. You are prompted to confirm that you want to upgrade, for example:



- Select **Yes** and press Enter. The upgrade program saves your current settings and displays the following screen:



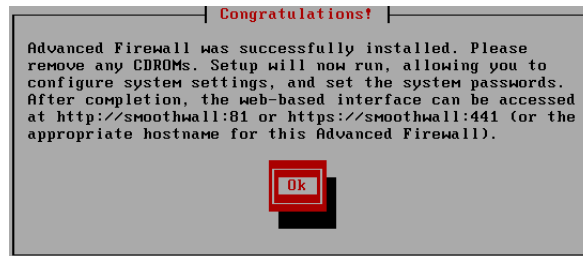
---

**Note:** Installing Advanced Firewall will **ERASE ALL DATA** from the computer's hard disk, storage device or any inserted USB storage device. Ensure that all valuable data is safely backed up before you continue.

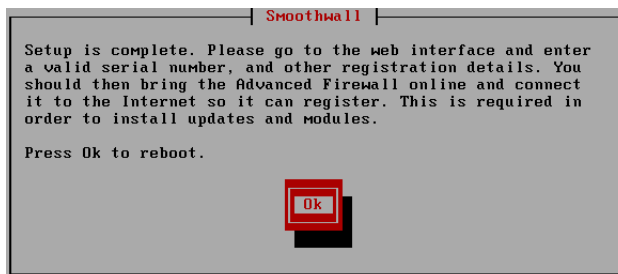
This screen is the last opportunity you have to cancel the installation before data is erased. Smoothwall cannot be held responsible for any loss of data.

---

- Press Enter to continue. Advanced Firewall files are installed. When complete, the Congratulations! screen is displayed:



- Select **Ok** and press Enter. The following screen is displayed:



- Select **Ok** and press Enter to reboot the computer.

After rebooting, you can access Advanced Firewall from a network client running a web browser. For more information, see [Chapter 2, Accessing Advanced Firewall on page 13](#).

# Running Advanced Firewall's Advanced Upgrade

Advanced Firewall's advanced upgrade enables you to install and remove Advanced Firewall modules to suit your environment.

---

**Note:** Before you start, we strongly recommend that you archive your current Advanced Firewall settings. For a detailed description of how to do this, refer to your *Advanced Firewall Administration Guide*.

---

## To upgrade to Advanced Firewall:

1. Insert the Advanced Firewall installation CD into the CD-ROM drive and reboot the computer. The following screen is displayed:



```
smoothwall® Advanced Firewall

[ F1: intro ] [ F2: license ] [ F3: modules ] [ F4: support ]

-----

WELCOME to Smoothwall Advanced Firewall 2008 SP6 [08:32:26-2011/08/04]

Thank you for purchasing an Advanced Firewall license - the complete firewall
and enterprise-class networking platform.

***** WARNING : ALL EXISTING DATA WILL BE ERASED FROM THIS SYSTEM'S HARD DISK *****

This software is subject to a proprietary license; press [F2] to view a summary
of this license. See LICENSE.html on the installation media for the complete
license text. All other software is subject to Open Source licenses, including
the GNU General Public License. This product and associated modules are not
activated when shipped. Internet access for automatic registration with the
Smoothwall Registration Server is required for product activation.

PRESS the [F2] key to view the license summary and continue.

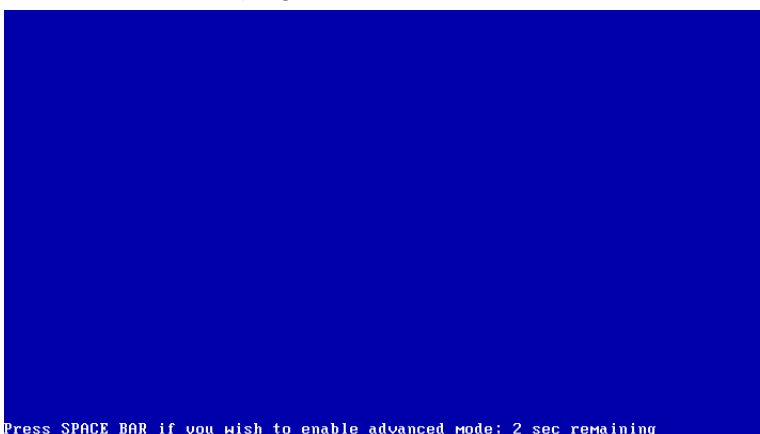
boot: _
```

2. Press **Enter**. The following screen is displayed:



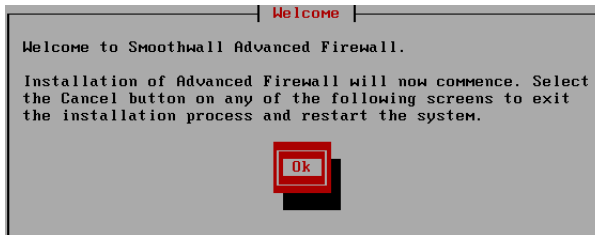
```
Smoothwall
Initialising drivers...
```

3. When the installation program has initialized the drivers, the following screen is displayed:



```
Press SPACE BAR if you wish to enable advanced mode; 2 sec remaining
```

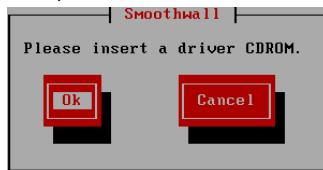
4. Press the space bar to access Advanced Firewall's advanced install. The following screen is displayed:



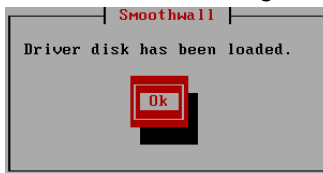
5. Press **Enter** to continue. The following screen is displayed:



6. If you are installing Advanced Firewall on a computer which requires non-standard drivers, this is where you install them. If you are not installing drivers, select **Done**, press Enter and go to [step 11](#).
7. Select the medium on which the drivers are stored, select **Ok** and press Enter. You are prompted to insert the medium, for example:



8. Insert the medium into the appropriate drive and press Enter. The installation program loads the drivers and the following screen is displayed:



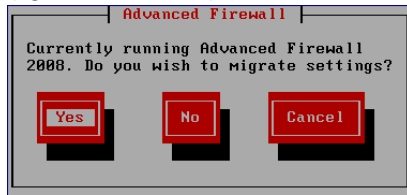
9. Press Enter. The following screen is displayed:



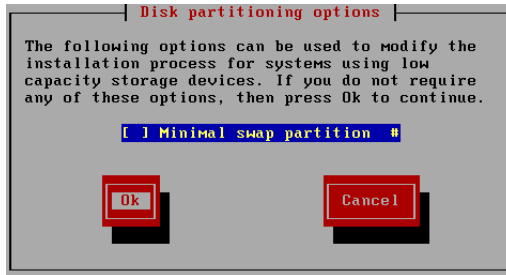
10. Repeat [step 7](#). to [step 9](#). above if you need to install more drivers. To continue, select **Done** and press Enter. The following screen is displayed:



11. When the drivers have been initialized again, you are prompted to confirm that you want to upgrade, for example:



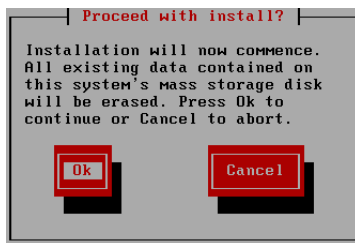
12. Select **Yes** and press Enter. The upgrade program saves your current settings and displays the disk partitioning options screen:



13. Here you can configure partition options.

Option	Description
<b>Minimal swap partition</b>	Select this option to reduce swap partition requirements.

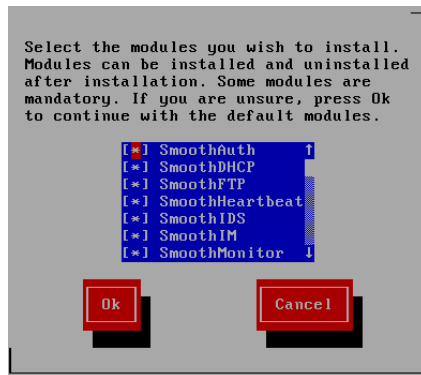
14. Select **Ok** to continue. The following screen is displayed:



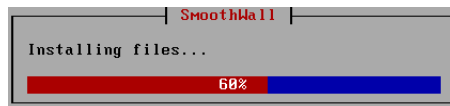
**Note:** Installing Advanced Firewall will **ERASE ALL DATA** from the computer's hard disk, storage device or any inserted USB storage device. Ensure that all valuable data is safely backed up before you continue.

This screen is the last opportunity you have to cancel the installation process before data is erased from the hard disk/storage device. Smoothwall cannot be held responsible for any loss of data.

15. Select **Ok** to continue. The installation program prepares the computer and installs Advanced Firewall. The Modules screen is displayed.



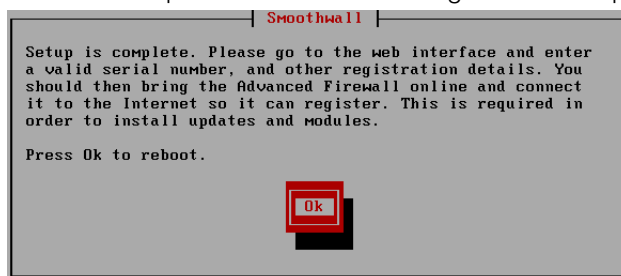
16. Select the modules you want to install, select **Ok** and press Enter to continue. Installation progress is displayed, for example:



Once complete, the Congratulations! screen is displayed:



17. Select **Ok** and press Enter. The following screen is displayed:



18. Select **Ok** and press Enter to reboot the computer.

After rebooting, you can access Advanced Firewall from a network client running a web browser. For more information, see [Chapter 2, Accessing Advanced Firewall on page 13](#).

# Upgrading Failover-Enabled Systems

The following section describes the order in which to upgrade Advanced Firewall with hardware failover.

---

**Note:** When upgrading a hardware failover-enabled system, all settings on the failover unit are deleted.

For full information about configuring and working with hardware failover-enabled systems, refer to the *Advanced Firewall Administration Guide*.

---

## To upgrade the system:

1. On the master Advanced Firewall, navigate to the **System > Hardware > Failover** page and click **Enter standby mode**. The master enters standby mode and the failover unit becomes active.
2. Refresh your browser to ensure you have the correct settings displayed.
3. Upgrade and reboot Advanced Firewall, for more information, see [Running Advanced Firewall's Quick Upgrade on page 4](#). This upgrades the failover unit. After rebooting, the master comes online again.
4. Refresh your browser to ensure you have the correct settings displayed.
5. Upgrade Advanced Firewall. This upgrades the master. See all of the previous sections in this document for full information about how to do this.
6. As all settings on the failover unit have been deleted during the upgrade process, you must reconfigure the unit by generating and applying a new failover unit setup archive. For more information about how to do this, refer to the *Advanced Firewall Administration Guide*.





# 2 Accessing Advanced Firewall

This chapter describes how to access your upgraded Advanced Firewall, including:

- [Accessing Advanced Firewall on page 13](#)
- [Connecting to the Internet on page 15](#)
- [Installing Updates on page 17](#)

## Accessing Advanced Firewall

---

**Note:** All examples are illustrated using a Google Chrome browser. For a list of supported browsers, contact your Smoothwall representative.

---

**To access Advanced Firewall for the first time, do the following:**

1. In the browser of your choice, enter the address of your Advanced Firewall, using the format:

`https://<Advanced Firewall_IP_Address>:411`

For example:

`https://10.0.0.3:441`

---

**Note:** The address above uses HTTPS to ensure secure communication with your Advanced Firewall. It is possible to use HTTP on port 81 if you are satisfied with less security.

---

2. If accessing over port 441, accept Advanced Firewall's certificate.
3. From the login page, enter the following information:

Field	Information
<b>Username</b>	Enter <code>admin</code> . This is the name of the default Advanced Firewall administrator account.
<b>Password</b>	Enter the admin password.

- Click **Login**.

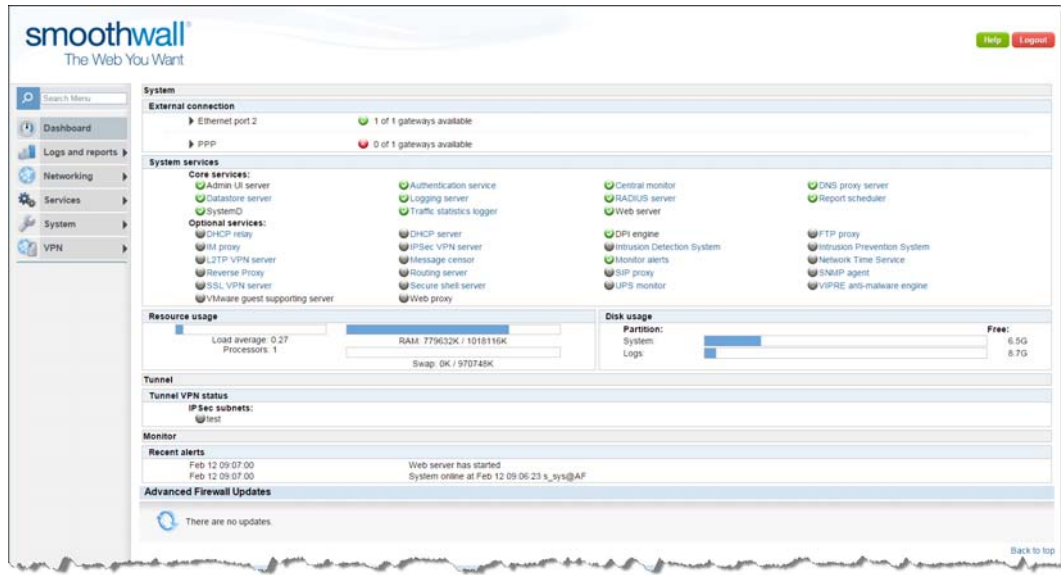
The **Registration** page opens:

- Enter the following information:

Information	Enter:
<b>Serial number</b>	The serial number you received with your copy of Advanced Firewall. Serial numbers are not case sensitive and can be entered with or without spaces. If you do not have a serial number, contact your Smoothwall representative or, visit <a href="http://www.smoothwall.net/">http://www.smoothwall.net/</a> for more information.
<b>Name</b>	The name of the administrative contact person for Advanced Firewall.
<b>Organization</b>	The name of the organization in which Advanced Firewall will reside.
<b>Department</b>	The name of the department in which Advanced Firewall will reside.
<b>Locality or town</b>	Location information for Advanced Firewall.
<b>State</b>	Regional location information for Advanced Firewall.
<b>Country</b>	The country in which Advanced Firewall will reside
<b>Email</b>	The email address of the administrative contact for Advanced Firewall. This should be a valid and actively used email account.

- Click **Save**.
- When prompted, review the information you have supplied, and then click **Confirm**.

The **Dashboard** opens.



The **Dashboard** is Advanced Firewall's default home page.

For a detailed description of the Dashboard, refer to the *Advanced Firewall Operations Guide*.

## Connecting to the Internet

If the Smoothwall System you are upgrading from was connected to the Internet, the upgrade program preserves the connection. If an external connection does not exist, you can choose to create one.

**To connect Advanced Firewall to the Internet, do the following:**

1. Browse to **Networking > Configuration > Interfaces**:

Networking » Configuration » Interfaces [Interfaces](#) | [DNS](#) | [Link load balancing](#) | [Source NAT & LLB policies](#) | [Port forwards](#)

**Ethernet interfaces** [Add new interface](#)

	Link	Name	Interface info	
<input type="checkbox"/>		<b>NIC 1</b> Ethernet port 1	Role	Basic interface
			IP address	192.168.137.186
			MAC address	08:00:27:fb:2a:8a
			MTU	1500 bytes
			Device	82540EM Gigabit Ethernet Controller (Intel Corporation)
		<a href="#">IP addresses</a>		
<input type="checkbox"/>		<b>NIC 2</b> Ethernet port 2	Role	Basic interface
			MAC address	08:00:27:3e:15:50
			Device	82540EM Gigabit Ethernet Controller (Intel Corporation)
		<a href="#">IP addresses</a>		

[Delete](#)

---

**Note:** The interface you use to connect to the Internet must exist as a physical port on your appliance, that is, as a NIC as shown above.

---

2. Highlight the relevant interface, and click **Edit**.
3. Configure the following:
  - **Name** — Configure a meaningful name for this connection.
  - **Use as** — Select **External**.
  - **Spoof MAC** — If MAC address spoofing is required, enter the new MAC address here.
  - **MTU** — If required, you can set the Maximum Transmission Unit (MTU) size, in bytes, for packets using this connection.
  - **Comment** — Configure an optional comment for this external interface.

An additional button, **Show comments**, is displayed on the **Ethernet interfaces** table if any comments are configured. Clicking this displays configured comments under the interface name.

4. Click **Add**.

You must assign the IP address, and gateway if provided, as advised by your ISP. This can either be a static IP address or one assigned dynamically. For a detailed description of how to do this, refer to the *Advanced Firewall Administration Guide*.

---

**Note:** IPv6 is not yet supported. For more information, refer to your Smoothwall representative.

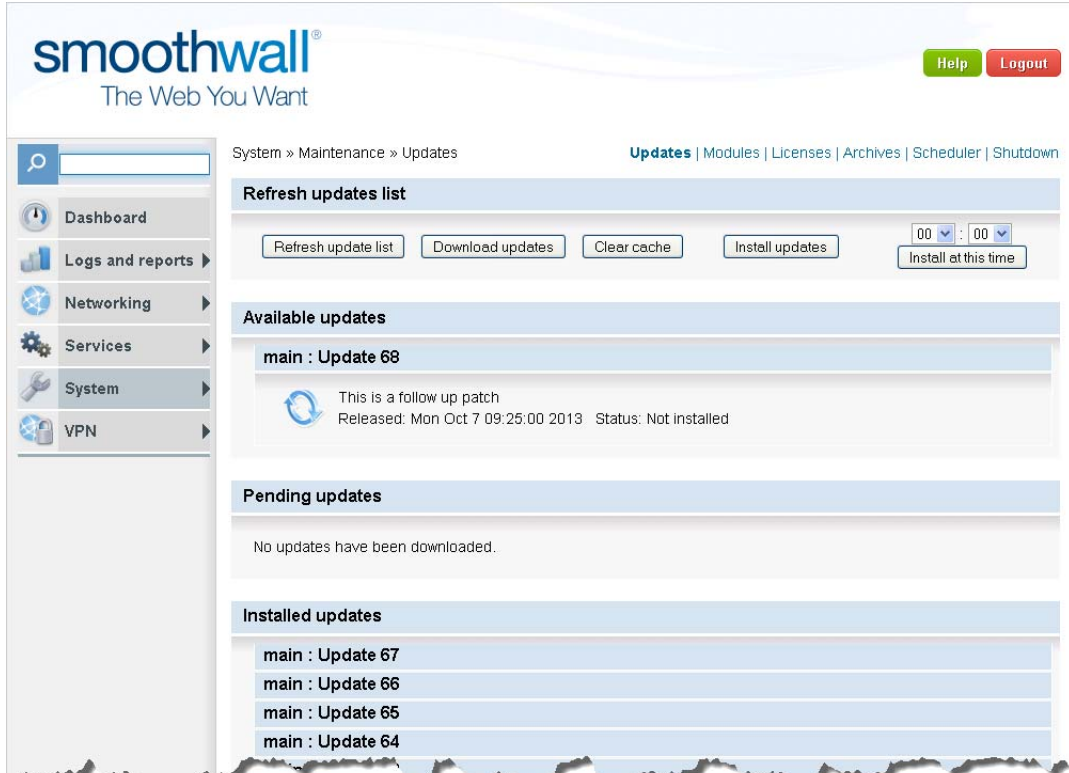
---

# Installing Updates

You should ensure that Advanced Firewall has the latest updates installed.

**To check for and install updates, do the following:**

1. Browse to **System > Maintenance > Updates** :



The screenshot shows the Smoothwall web interface. The top navigation bar includes the Smoothwall logo, the tagline "The Web You Want", and "Help" and "Logout" buttons. The breadcrumb trail is "System » Maintenance » Updates". The main content area is titled "Updates" and contains several sections:

- Refresh updates list:** Contains buttons for "Refresh update list", "Download updates", "Clear cache", and "Install updates". There is also a timer set to "00 : 00" and an "Install at this time" button.
- Available updates:** Shows a single update: "main : Update 68". Below it, a message states: "This is a follow up patch Released: Mon Oct 7 09:25:00 2013 Status: Not installed".
- Pending updates:** Displays the message: "No updates have been downloaded."
- Installed updates:** Lists four previously installed updates: "main : Update 67", "main : Update 66", "main : Update 65", and "main : Update 64".

2. Click **Refresh update list**.  
The **Available updates** panel displays any updates available.
3. Click **Download updates**.
4. Once all updates have downloaded, click **Install updates**.

You may need to reboot Advanced Firewall once all updates have been installed. Follow the instructions on the pages.





**smoothwall**<sup>®</sup>

The Web You Want