



# SonicWALL Hardware Failover License Synchronization

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## Document Scope

This document describes how to configure and manage the hardware failover license synchronization feature for SonicWALL security appliances.

This document contains the following sections:

- [“Hardware Failover License Synchronization Overview”](#) on page 1
- [“Using Hardware Failover License Synchronization”](#) on page 3
- [“Applying Licenses to SonicWALL Security Appliances”](#) on page 13

## Hardware Failover License Synchronization Overview

This section provides an introduction to the SonicWALL hardware failover license synchronization feature. This section contains the following subsections:

- [“What is Hardware Failover License Synchronization?”](#) on page 1
- [“Benefits”](#) on page 2
- [“How Does Hardware Failover License Synchronization Work?”](#) on page 2
- [“Platforms”](#) on page 2

## What is Hardware Failover License Synchronization?

Hardware failover license synchronization provides a way to share SonicWALL security services licenses between two SonicWALL security appliances when one is acting as a hardware failover system for the other. To use this feature, you must register the SonicWALL appliances on [mysonicwall.com](http://mysonicwall.com) as Associated Products. Both appliances must be the same SonicWALL model.

License synchronization allows your network security services to continue uninterrupted during a hardware failover. You can use the SonicOS user interface (UI) to enable hardware failover and configure the two appliances in Active/Passive mode. Two appliances configured in this way are also known as a High Availability (HA) pair.

## Benefits

Hardware failover license synchronization is a cost-effective option for deployments that provide high availability by using redundant SonicWALL security appliances. You do not need to purchase a second set of security services licenses for the passive unit in a High Availability pair.

## How Does Hardware Failover License Synchronization Work?

Hardware failover license synchronization copies the security services licenses from the primary SonicWALL appliance to the associated secondary appliance. When a hardware failover occurs, the secondary appliance is licensed and ready to take over network security operations.

## Platforms

Hardware failover license synchronization is currently available when running SonicOS Enhanced on the following SonicWALL security appliances:

- CSM 2100
- CSM 2200
- CSM 3200
- PRO 2040
- PRO 3060
- PRO 4060
- PRO 4100
- PRO 5060

# Using Hardware Failover License Synchronization

This section describes how to configure hardware failover license synchronization on mysonicwall.com, and shows an example hardware failover configuration on SonicOS Enhanced 3.2.

- [“Configuration Overview” on page 3](#)
- [“Configuration Procedures on Mysonicwall.com” on page 3](#)
- [“Configuring Hardware Failover on SonicOS” on page 12](#)

## Configuration Overview

You can configure hardware failover license synchronization by associating two SonicWALL security appliances as HF Primary and HF Secondary on mysonicwall.com. You must purchase a single set of security services licenses for the HF Primary appliance.

License synchronization is used during hardware failover so that the secondary appliance can maintain the same level of network protection provided before the failover. To enable hardware failover, you can use the SonicOS UI to configure your two appliances as a High Availability Pair in Active/Passive mode.

Mysonicwall.com provides several methods of associating the two appliances. You can start by registering a new appliance, and then choosing an already-registered unit to associate it with. Or, you can associate two units that are both already registered. Or, you can start the process by selecting a registered unit and adding a new appliance with which to associate it.

## Configuration Procedures on Mysonicwall.com

You can associate a SonicWALL security appliance with another appliance of the same model when you first register it, or at any time after both appliances are already registered on mysonicwall.com.

Procedures for different scenarios are provided in the following sections:

- [“Associating an Appliance at First Registration” on page 3](#)
- [“Associating Pre-Registered Appliances” on page 6](#)
- [“Associating a New Unit to a Pre-Registered Appliance” on page 7](#)
- [“Removing an HF Association” on page 9](#)
- [“Replacing a SonicWALL Security Appliance” on page 10](#)



**Note**

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You can remove an appliance from an association at any time.

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## Associating an Appliance at First Registration

To register a new SonicWALL security appliance and associate it as a secondary unit to an existing primary unit so that it can use hardware failover license synchronization, perform the following steps:

- 
- Step 1** Login to mysonicwall.com.
  - Step 2** On the main page, in the left pane, in the text box under Quick Register, type the appliance serial number and then press **Enter** or click the **arrow** button.
  - Step 3** On the My Products page, under Add New Product, type the friendly name for the appliance and the authentication code into the appropriate text boxes, and then click **Register**.

**Step 4** On the Product Survey page, optionally fill in the requested information and then click **Continue**.

**Step 5** On the Create Association Page, click the radio button for the SonicWALL appliance that you want to act as the parent, or primary, unit in the high availability pair. You can skip this step if you want your new appliance to be a primary unit itself.

The screen displays only units that are not already secondary to other units.

Do one of the following:

- To make this appliance a primary unit, click **Continue** without clicking a radio button.
- If one appliance is available as the parent product (primary unit), click the radio button to select it, and then click **Continue**.

Logged in: HFChanges LOGOUT

Create Association ?

Serial Number: 0006B112441C      Node Support: Unlimited  
 Product: SONICWALL PRO 5060      Reg. Code: 5JQHYENA  
 Platform: SonicWALL

Select the product you would like to designate as the parent product for the SONICWALL PRO 5060

Parent Product Type		Friendly Name	Serial Number
HF Primary	<input checked="" type="radio"/>	PRO 5060 1st	0006B1124416

CONTINUE

- If multiple appliances are available for the parent product, click the radio button for the one you want, and then click **Continue**.

Logged in: HFChanges LOGOUT

Create Association ?

Serial Number: 0006B1124422      Node Support: Unlimited  
 Product: SONICWALL PRO 5060      Reg. Code: K3YU89HX  
 Platform: SonicWALL

Select the product you would like to designate as the parent product for the SONICWALL PRO 5060

Parent Product Type		Friendly Name	Serial Number
HF Primary	<input checked="" type="radio"/>	PRO 5060 1st	0006B1124416
HF Primary	<input checked="" type="radio"/>	PRO 5060 2nd	0006B112441C

CONTINUE

**Step 6** If you clicked Continue without selecting a choice for HF Primary in the preceding step, click the radio button under Child Product Type to select a choice for HF Secondary, and then click **Continue**. Your new appliance will be the HF Primary unit for the device that you select.

Logged in: HFChanges LOGOUT

Create Association ?

Serial Number: 0006B112441C      Node Support: Unlimited  
 Product: SONICWALL PRO 5060      Reg. Code: 5JQHYENA  
 Platform: SonicWALL

Associate child products.

Child Product Type		Friendly Name	Serial Number
HF Secondary	<input type="checkbox"/>	PRO 5060 1st	0006B1124416

CONTINUE

**Step 7** On the next screen, you can verify that your product registered successfully and, at the bottom under Parent Product, verify the correct appliance and serial number for the parent (or child, if you chose that option).

**Figure 1** Parent Product for Serial Number 0006B1124422

Parent product			
Parent Product Type	Friendly Name	Serial Number	
HF Primary	PRO 5060 1st	<a href="#">0006B1124416</a>	REMOVE X

You can click the Serial Number link for the parent product to display the Service Management - Associated Products page and verify that the newly registered appliance is listed as a child product associated with this parent.

**Figure 2** Associated Products for Serial Number 0006B1124416

Associated Products	
Child Product Type	
<a href="#">SonicPoint</a>	0
<a href="#">SonicWALL SonicPoint G</a>	0
<a href="#">HF Secondary</a>	1

BACK

You can click HF Secondary to display the My Product - Associated Products page for the child, or secondary, unit. Note that you can also change the associated product (parent) for this child on this page.

**Figure 3** My Product Page for Child Product (HF Secondary) in the Association

Logged in: HFChanges LOGOUT

**My Product - Associated Products** ?

HF Secondary associated with PRO 5060 1st.  
Manage or associate products.

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**Associated Products**

Your Registered Products are listed below:

To search for Serial Number or the Product Name, Use your browser Find feature.

To view associated Service Details or buy New Services, click on the Product Name or Serial Number.

Name	Serial Number	Product Line		
1. <a href="#">PRO 5060P</a>	<a href="#">0006B1124422</a>	PRO 5060	2.5.0.0e	K3YU89HX

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**Associate new products**

Please enter the serial number of the new product to be registered. You may also specify a "Friendly Name" for the product.

Serial Number:

Friendly Name:   
May be up to 30 characters (Ex. "San Jose Branch Office") .

## Associating Pre-Registered Appliances

To associate two already-registered SonicWALL security appliances so that they can use hardware failover license synchronization, perform the following steps:

- Step 1** Login to mysonicwall.com.
- Step 2** On the main page under Most Recently Registered Products, click **View all registered products**.
- Step 3** On the My Products page, under Registered Products, scroll down to find the appliance that you want to use as the parent, or primary, unit. Click the product **name** or **serial number**.
- Step 4** On the Service Management - Associated Products page, scroll down to the Associated Products section.
- Step 5** Under Associated Products, click **HF Secondary**.
- Step 6** On the My Product - Associated Products page, in the text boxes under Associate New Products, type the **serial number** and the friendly **name** of the appliance that you want to associate as the child, or secondary, unit.

Figure 4 My Product Page for Parent Product (HF Primary) in the Association

Logged in: HFChanges LOGOUT

My Product - Associated Products ?

HF Secondary associated with PRO 5060 1st.  
Manage or associate products.

**Associated Products**

Your Registered Products are listed below:

To search for Serial Number or the Product Name, Use your browser Find feature.

To view associated Service Details or buy New Services, click on the Product Name or Serial Number.

Name ▼	Serial Number	Product Line		
1. <a href="#">PRO 5060P</a>	<a href="#">0006B1124422</a>	PRO 5060	2.5.0.0e	K3YU89HX

**Associate new products**

Please enter the serial number of the new product to be registered. You may also specify a "Friendly Name" for the product.

Serial Number:

Friendly Name:

May be up to 30 characters (Ex. "San Jose Branch Office").

**Step 7** Click **Register**.

## Associating a New Unit to a Pre-Registered Appliance

This section describes how to add a new appliance from the My Product - Associated Products page of an already-registered SonicWALL security appliance, and associate the two appliances so that they can use hardware failover license synchronization. You can add a new secondary unit to an existing primary unit, or add a new primary unit to an existing secondary unit. To use this method, perform the following steps:

- Step 1** Login to mysonicwall.com.
- Step 2** On the main page under Most Recently Registered Products, click **View all registered products**.
- Step 3** On the My Products page, under Registered Products, scroll down to find the appliance that you want to use as the existing unit. You can choose any supported appliance on the list, whether it is already an HF Primary or an HF Secondary, or neither. Click the product **name** or **serial number**.
- Step 4** On the Service Management - Associated Products page, scroll down to the Associated Products section.
- Step 5** Under Associated Products, do one of the following:
  - If the existing unit is an HF Primary or an unassociated appliance, click **HF Secondary**.

- If the existing unit is an HF Secondary appliance, click **HF Primary**.

**Step 6** On the My Product - Associated Products page, in the text boxes under Associate New Products, type the **serial number** and the friendly **name** of the new appliance that you want to register as the associated unit.

**Step 7** Click **Register**.

**Step 8** On the Product Survey page, optionally fill in the requested information and then click **Continue**.

**Step 9** On the Create Association page, if multiple qualifying existing appliances are displayed, click the radio button to select the unit with which you want to associate the new unit. If you selected an existing HF Primary unit or unassociated unit in [Step 3](#), the choices here will all be HF Primary. If you selected an existing HF Secondary unit in [Step 3](#), the available selections here will be HF Secondary units.

**Figure 5** Choosing an HF Primary Unit

Logged in: HFChanges LOGOUT

Create Association ?

Serial Number: 0006B1124440      Node Support: Unlimited  
 Product: SONICWALL PRO 5060      Reg. Code: 4C7TNXMU  
 Platform: SonicWALL

Select the product you would like to designate as the parent product for the SONICWALL PRO 5060

Parent Product Type		Friendly Name	Serial Number
HF Primary	<input checked="" type="radio"/>	PRO 5060 1st	0006B1124416
HF Primary	<input type="radio"/>	PRO 5060 2nd	0006B112441C

CONTINUE

**Figure 6** Choosing an HF Secondary Unit

Logged in: HFChanges LOGOUT

Create Association ?

Serial Number: 0006B1124422      Node Support: Unlimited  
 Product: SONICWALL PRO 5060      Reg. Code: K3YU89HX  
 Platform: SonicWALL

Associate child products.

Child Product Type		Friendly Name	Serial Number
HF Secondary	<input type="checkbox"/>	PRO 5060 1st	0006B1124416
HF Secondary	<input type="checkbox"/>	PRO 5060 2nd	0006B112441C

CONTINUE

**Step 10** Click **Continue**.

**Step 11** On the Service Management - Associated Products page, confirm at the top that the registration was successful, then scroll to the bottom to see the Associated Products and click either **HF Primary** or **HF Secondary** to display the unit(s) that are now associated with your newly registered appliance.

For example, continuing the example shown in [Figure 6](#), you would see the following:

**Figure 7 Associated Products for New Appliance**

ASSOCIATED PRODUCTS	
Child Product Type	Status
<a href="#">SonicPoint</a>	0
<a href="#">SonicWALL SonicPoint G</a>	0
<a href="#">HF Secondary</a>	1

## Removing an HF Association

You can remove the association between two SonicWALL security appliances on mysonicwall.com at any time. You might need to remove an existing HF association if you replace an appliance or reconfigure your network. For example, if one of your SonicWALL security appliances fails, you will need to replace it. Or, you might need to switch the HF Primary appliance with the HF Secondary unit after a network reconfiguration. In either case, you must first remove the existing HF association and then create a new association that uses a new appliance or changes the parent-child relationship of the two units.

See “[Replacing a SonicWALL Security Appliance](#)” on page 10.

To remove the association between two registered SonicWALL security appliances, perform the following steps:

- 
- Step 1** Login to mysonicwall.com.
  - Step 2** On the main page under Most Recently Registered Products, click **View all registered products**.
  - Step 3** On the My Products page, under Registered Products, scroll down to find the secondary appliance from which you want to remove associations. Click the product **name** or **serial number**.
  - Step 4** On the Service Management - Associated Products page, scroll down to the Parent Product section, just above the Associated Products section.
  - Step 5** Under Parent Product, to remove the association for this appliance, click **Remove**, wait for the page to reload, scroll down, and then click **Remove** again.

**Figure 8** Removing an Association**PARENT PRODUCT**

Parent Product Type	Friendly Name	Serial Number	
HF Primary	SonicWALL PRO 5060	<a href="#">0006B1124416</a>	<a href="#">REMOVE</a>

**Are you sure you want to remove this Parent product Association? If yes then click 'Remove' again.**

**PARENT PRODUCT**

Parent Product Type	Friendly Name	Serial Number	
HF Primary	SonicWALL PRO 5060	<a href="#">0006B1124416</a>	<a href="#">REMOVE</a>

## Replacing a SonicWALL Security Appliance

If your SonicWALL security appliance has a hardware failure while still under warranty, SonicWALL will replace it. In this case, you need to remove the HF association containing the failed appliance in mysonicwall.com, and add a new HF association that includes the replacement. If you contact SonicWALL Technical Support to arrange the replacement (known as an RMA), Support will often take care of this for you.

After replacing the failed appliance in your equipment rack with the new unit, you can update mysonicwall.com and your SonicOS configuration.

Replacing a failed HF Primary unit is slightly different than replacing an HF Secondary unit. Both procedures are provided in the following sections:

- [Replacing an HF Primary Unit](#)
- [Replacing an HF Secondary Unit](#)

### Replacing an HF Primary Unit

To replace an HF Primary unit, perform the following steps:

- 
- Step 1** In the SonicOS management interface of the remaining SonicWALL security appliance (the backup unit), on the Hardware Failover screen, uncheck **Enable Hardware Failover** to disable it.
  - Step 2** Clear the **Backup SonicWALL Serial Number** text box.
  - Step 3** Check **Enable Hardware Failover**.  
The old backup unit now becomes the primary unit. Its serial number is automatically displayed in the Primary SonicWALL Serial Number text box.
  - Step 4** Type the serial number for the replacement unit into the **Backup SonicWALL Serial Number** text box.
  - Step 5** Click **Synchronize Settings**.
  - Step 6** On mysonicwall.com, remove the old HF association.  
See [“Removing an HF Association”](#) on page 9.

- Step 7** On mysonicwall.com, register the replacement Sonicwall security appliance and create an HF association with the new primary (original backup) unit as the HF Primary, and the replacement unit as the HF Secondary.  
See [“Associating an Appliance at First Registration” on page 3](#).
- Step 8** Contact SonicWALL Technical Support to transfer the security services licenses from the former HF Pair to the new HF Pair.  
This step is required when the HF Primary unit has failed, because the licenses are linked to the primary unit in an HF Pair.

## Replacing an HF Secondary Unit

To replace an HF Secondary unit, perform the following steps:

- 
- Step 1** On mysonicwall.com, remove the old HF association.  
See [“Removing an HF Association” on page 9](#).
- Step 2** On mysonicwall.com, register the replacement Sonicwall security appliance and create an HF association with the original HF Primary, using the replacement unit as the HF Secondary.  
See [“Associating an Appliance at First Registration” on page 3](#).

## Configuring Hardware Failover on SonicOS

License synchronization is designed for use during a hardware failover. To enable this potential benefit, you must configure hardware failover in the SonicOS UI using the two associated SonicWALL appliances.

**Figure 9** Enabling Hardware Failover in SonicOS

**Hardware Failover > Settings** [Apply] [Cancel] [?]

**Hardware Failover Settings**

Enable Hardware Failover  
 Enable Preempt Mode  
 Generate/Overwrite Backup Firmware and Settings When Upgrading Firmware

Heartbeat Interval (seconds):   
 Failover Trigger Level (missed heartbeats):   
 Probe Interval (seconds):   
 Election Delay Time (seconds):

[Synchronize Settings]  Include Certificates/Keys  
 [Synchronize Firmware]

**Hardware Failover Status**

Primary Status:	Active
Dedicated HF-Link:	X5
Found Backup:	Yes
Primary State:	ACTIVE
Backup State:	IDLE

**SonicWALL Address Settings**

Primary SonicWALL: Serial Number:   
 Backup SonicWALL: Serial Number:

A basic configuration procedure is provided below. For complete information about setting up hardware failover, including details about ports and IP address requirements, see the *SonicOS Enhanced 3.2 (or 3.5) Administrator's Guide*.

To configure hardware failover in SonicOS:

- Step 1** Login as an administrator to the SonicOS user interface on the primary SonicWALL.
- Step 2** On the left navigation pane, click **Hardware Failover**.
- Step 3** On the Hardware Failover > Settings screen, check **Enable Hardware Failover**.
- Step 4** To back up the firmware and settings when you upgrade the firmware version, check **Generate/Overwrite Backup Firmware and Settings When Upgrading Firmware**.
- Step 5** Adjust time settings or heartbeat settings in the four text boxes.
- Step 6** Under SonicWALL Address Settings, type in the serial number for the Backup SonicWALL appliance.  
You can find the serial number on the back of the SonicWALL security appliance. The serial number for the Primary SonicWALL is automatically populated.
- Step 7** Click **Synchronize Settings**.

# Applying Licenses to SonicWALL Security Appliances

When you register a SonicWALL security appliance on mysonicwall.com, a license keyset is generated for the appliance. If you add a new security service license, the keyset is updated. However, until you apply the licenses to the appliance, it cannot perform the licensed services. This section describes two methods of applying the licenses to a SonicWALL security appliance.



**Note**

In a hardware failover deployment, you must apply the license keyset to **both** of the appliances in the high availability pair.

You can use one of the following procedures to apply a license keyset to an appliance:

- “Copying the License Keyset from Mysonicwall.com”
- “Activating Licenses from the SonicOS User Interface”

## Copying the License Keyset from Mysonicwall.com

You can follow the procedure in this section to view the license keyset on mysonicwall.com and copy it to the SonicWALL security appliance.

- Step 1** Log in to mysonicwall.com.
- Step 2** On the main page under Most Recently Registered Products, click **View all registered products**.
- Step 3** On the My Products page, under Registered Products, scroll down to find the appliance to which you want to copy the license keyset. Click the product **name** or **serial number**.
- Step 4** On the Service Management - Associated Products page, click **View License keyset**.
- Step 5** On the License Keyset page, use your mouse to highlight all the characters in the text box.

This is the license keyset for the SonicWALL security appliance that you selected in [Step 3](#).

- Step 6** To copy the license keyset to the clipboard, press **Ctrl+C**.
- Step 7** Log in to the SonicOS user interface.

- Step 8** On the Systems > Licenses screen, at the bottom under Manual Upgrade, press **Ctrl+V** to paste the license keyset into the **Or enter keyset** text box.

The screenshot shows a web interface titled "Manual Upgrade". It has two input fields: "Enter upgrade key:" and "Or enter keyset:". The "Or enter keyset:" field contains a long alphanumeric string: YTAzwv+pduKMxVchpvQ2hsSdWHizLK5LJLSSIp35LhgEnN+P0LhonCotESUN8Qctzublz2BOruHqEJlrPp1MtVx4nUlmhfX1oXOIhOwvuaUwDF77yuXMhAte7/FQzxP187CXvRdwbGr6cOB4eTpyKPR5GzQHas1rZdgdXfSU1wrw+pr9wSjkdYP/nJQAVraXKk8NvF8ZYN7bOnk4fZ1fxFYRT36H1xR7Ue+IJIdRM4zt01NnreCAJ uNz2urkJLJTyACHYAA==. Below the text boxes is a "Submit" button.

- Step 9** Click **Submit**.

## Activating Licenses from the SonicOS User Interface

You can follow the procedure in this section to activate licenses from within the SonicOS user interface.

- Step 1** Log in to the SonicOS user interface.
- Step 2** On the System > Licenses page, under Manage Security Services Online, click the link for **To Activate, Upgrade or Renew services, click here**.

The screenshot shows a section titled "Manage Security Services Online". It contains a "Synchronize" button next to the text "Synchronize licenses with mySonicWALL.com:". Below this, there are two links: "To Activate, Upgrade, or Renew services, [click here](#)." and "For Free Trials, [click here](#)."

- Step 3** In the Systems > Licenses page, type your mysonicwall.com user name and password into the text boxes.

The screenshot shows the "System > Licenses" page with a "mySonicWALL.com Login" section. It includes a paragraph of introductory text and a "Notice" box stating: "Notice: In order to take advantage of Gateway Anti-Virus, Anti-Spyware or Intrusion Prevention services, please upgrade to firmware 3.1 or newer." Below the notice are two input fields for "User Name:" and "Password:", and a "Submit" button.

- Step 4** Click **Submit**.

**Step 5** Under Manage Services Online, verify the services listed in the table.

System > Licenses <span style="float: right;">?</span>					
Manage Services Online					
Security Service	Status	Free Trial	Manage Service	Count	Expiration
Nodes/Users	Licensed			Unlimited	
Client AV Enforcement	Expired		<a href="#">Upgrade Renew Share</a>	3	17 Nov 2004
Gateway Anti-Virus, Anti-Spyware & Intrusion Prevention Service	Expired		<a href="#">Renew</a>		07 Jun 2004
Server Anti-Virus	Not Licensed		<a href="#">Activate</a>		
Content Filter	Expired		<a href="#">Renew</a>		31 Oct 2004
Premium Content Filtering Service	Expired		<a href="#">Renew</a>		31 Oct 2004
E-Mail Filtering Service	Not Licensed				
VPN	Licensed				
Global VPN Client	Licensed		<a href="#">Upgrade</a>	5	
Global VPN Client Enterprise	Not Licensed		<a href="#">Activate</a>		
Global Security Client	Not Licensed		<a href="#">Activate</a>		
ViewPoint	Licensed				