



# Luna HSM 5.4.7

## UPGRADE INSTRUCTIONS

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## Overview

This document describes how to upgrade your Luna SA appliance software to Luna HSM 5.4.7. This update includes the Shellshock/Shellout patch as part of the Luna SA appliance version, which ensures that if you update to a newer version in future, you will not need to re-apply that patch.

### About Luna HSM 5.4.7

For more information regarding Luna HSM 5.4.7, refer to the customer release notes. The most up-to-date version of the Luna HSM 5.4.x Customer Release Notes document is at:

[http://www.securedbysafenet.com/releasenotes/luna/crn\\_luna\\_hsm\\_5-4.pdf](http://www.securedbysafenet.com/releasenotes/luna/crn_luna_hsm_5-4.pdf)

## Upgrade Paths

These are the upgrade paths supported for Luna 5.4.7.

Component	From version...	To version...
Luna SA appliance software	5.2.4, 5.2.6 5.3.3, 5.3.5 5.4.0, 5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.6	5.4.7

### Component Firmware Versions

The following table lists the supported firmware versions for the various components supported in Luna HSM 5.4.4.

Component	Version
Luna SA HSM firmware	6.21.0
Luna [Remote] Backup HSM firmware	6.21.0
Luna G5 firmware	6.21.0
PED II	2.5.0-3 or newer
PED IIr (Remote PED) (requires PED workstation s/w on PC) [optional]	2.5.0-3 or newer

## Preparing for the Upgrade

Before attempting to upgrade to Luna HSM 5.4.7, ensure that you have satisfied the following prerequisites:

- you have the upgrade software (downloaded from the SafeNet Service Portal).
- you have the authentication credentials required to perform the upgrade.
- you have prepared your HSMs for the upgrade.

Each of these prerequisites is discussed in detail in the following sections.

## Obtaining the Software

All of the software and firmware required to upgrade to Luna HSM 5.4.7 is available via download from the SafeNet Service Portal (formerly Customer Connection Center or C3).

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**Note:** Authorization codes are required to install firmware. To obtain the authorization codes for your firmware, contact SafeNet Technical Support.

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The following packages are included in the upgrade software:

Luna HSM 5.4.7
<ul style="list-style-type: none"><li>630-010165-024 Luna SA 5.4.7 appliance software</li><li>Luna HSM 6.21.0 firmware</li></ul>



## Required Authentication Credentials

You must be able to login to the HSM as the security officer (SO) to perform the upgrade. On PED-authenticated HSMs, you need the blue PED key. On password-authenticated HSMs, you need the SO password. On Luna SA, you also need to be able to login to the appliance using an admin-level account before you can login to the HSM as the SO.

## Preparing your HSMs for the Upgrade

Perform the following tasks to prepare your HSM for the upgrade:

1. Ensure that your client and appliance software, and firmware, are at a version listed in the "Upgrade Paths" section above.
2. Connect your HSM appliance to an uninterruptible power supply (UPS), if available. Although this is not a requirement, use of a UPS is strongly recommended to ensure a successful completion of all upgrade activities.
3. If the Secure Recovery Key (SRK) on the HSM is enabled, it must be disabled before you can upgrade the HSM firmware. The SRK is an external split of the HSM's Master Tamper Key (MTK) that is imprinted on the purple PED key. When you disable the SRK, the SRV (Secure Recovery Vector) portion of the MTK is returned to the HSM, so that the SRV is no longer external to the HSM. It is only in this state that you can upgrade the HSM firmware. After you upgrade the firmware, you can re-enable SRK, if desired, to re-imprint a purple PED key with the SRV.
4. Backup the content of your HSM or HSM partitions to Luna SA Backup HSMs (if you have the Backup option).
5. Use your favorite archiving program to untar the archive.
6. Stop all applications and services that are using the HSM.

## Performing the Upgrade

This update is for Luna SA appliance and Luna HSM firmware, only. There is no LunaClient software update for release 5.4.7.

### To upgrade the Luna SA Appliance software to Luna HSM 5.4.7

1. Copy the Luna HSM 5.4.7 appliance package file (.spkg) to the Luna SA appliance you want to upgrade:

Windows	<code>pscp &lt;path&gt;\lunasa_update_5.4.7-x.spkg admin@&lt;LunaSA_hostname&gt;</code>
Unix/Linux	<code>scp &lt;path&gt;/lunasa_update_5.4.7-x.spkg admin@&lt;LunaSA_hostname&gt;</code>

2. Stop all client applications that are connected to the Luna SA.
3. At the console, log in to the Luna SA appliance using an admin-level account (the default account is admin).
4. Log in to the Luna SA HSM as the HSM admin user:

```
lunash :> hsm login
```

For Luna SA with PED authentication, the blue PED Key is required. For Luna SA with password authentication, you are prompted for the HSM Admin (SO) password.

5. Verify that the upgrade package file that you copied is present (optional):

```
lunash :> package listfile
```

6. Verify the upgrade package (optional):

```
lunash :> package verify lunasa_update_5.4.7-x.spkg -authcode <authorization_code>
```

The verification process requires approximately 90 seconds.

7. Install the upgrade package:

```
lunash :> package update lunasa_update_5.4.7-x.spkg -authcode <authorization_code>
```

The installation/upgrade process takes approximately 90 seconds. During that time, a series of messages are displayed that detail the progress of the upgrade. At the end of this process, a message "Software upgrade completed!" is displayed.

## Upgrading the HSM Firmware

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**Note:** Upgrade the HSM firmware only after you have upgraded the appliance software. This ensures that the correct version is ready to be installed.

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### HSM Firmware 6.21.0 and FIPS 140-2

At the time of writing, firmware 6.2.1 (6.2.3 for Luna G5) is the latest FIPS-validated firmware. If you require FIPS-validated firmware, do not upgrade the firmware as part of this upgrade. Refer to the Customer Release Notes for more information.

### To upgrade the Luna SA HSM firmware

1. Log in to the HSM as the HSM admin user if you are not already logged in.

```
lunash :> hsm login
```

2. Run the firmware upgrade command. The HSM will reset when the upgrade is complete:

```
lunash :> hsm update firmware
```

3. Use the **hsm show** command to verify that the firmware upgrade was successful:

```
lunash :> hsm show
```

If the upgrade was successful, the new firmware version is displayed.

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**Note:** If you did not reboot the appliance before upgrading the firmware (remote PED case) the following error message is displayed:

**Error: Unable to communicate with HSM.**

**Please run 'hsm supportInfo' and contact customer support.**

You can ignore the error message.

---

4. If you disabled the SRK prior to performing the firmware upgrade, re-enable it if desired. Refer to the Luna documentation for details. If you attempted to upgrade the firmware without disabling the SRK, the firmware upgrade fails with the following error:

```
Error: 'hsm update firmware' failed. (10A0B : LUNA_RET_OPERATION_RESTRICTED)
```

5. If you logged into the HSM using a remote PED, ensure that all client connections are terminated and then enter the following command to reboot the appliance:

```
sysconf appliance reboot
```

## Returning the HSM to Operation

After performing the upgrade, you must reactivate the HSM partitions (if applicable) and re-register the Luna client, to return the HSM to operation.

### To return the HSM to operation

1. Reactivate all partitions that were activated before the upgrade (applies to Luna SA with PED Authentication).

## Technical Support Information

If you have questions or need additional assistance, contact Technical Support through the listings below:

Contact method	Contact information	
Address	SafeNet, Inc. 4690 Millennium Drive Belcamp, Maryland 21017 USA	
Phone	United States	(800) 545-6608, (410) 931-7520
	Australia and New Zealand	+1 410-931-7520
	China	(86) 10 8851 9191
	France	0825 341000
	Germany	01803 7246269
	India	+1 410-931-7520
	United Kingdom	0870 7529200, +1 410 931-7520
Web	<a href="http://www.safenet-inc.com/Support">www.safenet-inc.com/Support</a>	
Support and Downloads	<a href="http://www.safenet-inc.com/Support">www.safenet-inc.com/Support</a> Provides access to the SafeNet Knowledge Base and quick downloads for various products.	
Customer Connection Center	<a href="https://serviceportal.safenet-inc.com">https://serviceportal.safenet-inc.com</a> Existing customers with a Customer Connection Center account can log in to manage incidents, get the latest software upgrades, and access the SafeNet Knowledge Base.	

## Trademarks and Disclaimer

Although we have attempted to make this document as complete, accurate, and useful as possible, we cannot guarantee its contents. Errors or omissions will be corrected, as they are identified, in succeeding releases of the product. Information is subject to change without notice.

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