

Sophos SafeGuard Disk Encryption for Mac startup guide

Product version: 6

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1 Before you begin

System requirements

■ Hardware (Intel-based 64 bit CPU only)

- MacBook
- MacBook Pro
- MacBook Air
- iMac
- Mac mini
- Mac Pro

■ EFI

- EFI32 (firmware)

- EFI64 (firmware)

With the following terminal command, the EFI firmware can be verified:

```
"ioreg -l -p IODeviceTree | grep firmware-abi"
```

The return value should be **"firmware-abi" = <"EFI64" >** or **"firmware-abi" = <"EFI32" >**.

■ Operating system

- 10.7 (Lion) recent patch level (at least patch level of release date - February 2012)
- 10.6 (Snow Leopard) recent patch level
- 10.5 (Leopard) recent patch level

■ Update of Sophos SafeGuard Disk Encryption for Mac

Sophos SafeGuard Disk Encryption for Mac 5.50.1 and 5.55 can be updated to 6.0.

■ Update of Mac OS X versions

To update the operating system from Mac OS X 10.5 (Leopard) to 10.6 (Snow Leopard) or to 10.7 (Lion), you need to uninstall Sophos SafeGuard Disk Encryption for Mac first. This step includes a final decryption of encrypted partitions.

After the successful update you need to install Sophos SafeGuard Disk Encryption 6.0 and encrypt the partitions again.

Please change your exclude rules for your time machine configuration: Add "Library/LaunchDaemons/com.sophos.sgsd.plist" to the list.

What you will need

You will need the following information for installation and configuration:

- Administrator credentials of the Mac where you want to install the software.

2 Protecting Mac OS X computers

2.1 Installing Sophos SafeGuard Disk Encryption for Mac

Before you install Sophos SafeGuard Disk Encryption for Mac make sure that you have created a new Time Machine backup of your hard drive. For further information, see [Time Machine backups](#) (page 8).

1. Using the web address and download credentials, go to the Sophos web site and download the Sophos SafeGuard Disk Encryption installer for Mac OS X.
2. Locate the installer disk image in the folder to where it was downloaded. Open the disk image. Find Sophos SafeGuard.pkg and double-click it to start the installer.
3. Click **Continue**. Follow the steps.
4. Enter the Mac OS X administrator credentials when the installer prompts you to do so. This is necessary to allow the installer to make changes.
5. When the installer has finished, restart your Mac.
6. After the restart Sophos SafeGuard Disk Encryption is installed.
7. Power-on Authentication (POA) has not been activated yet, but only displays "Secured by SOPHOS". After about one second the operating system is started. The software will continue to display "Secured by SOPHOS" as long as no SafeGuard user has been created. When the first user is created, Power-on Authentication is activated.

Sophos SafeGuard Disk Encryption for Mac places an icon on the right-hand side of the menu bar. Clicking the icon gives you access to the Sophos SafeGuard Disk Encryption user and disk management functions.

Uninstalling Sophos SafeGuard Disk Encryption for Mac

To uninstall Sophos SafeGuard Disk Encryption for Mac, use the uninstaller package **Sophos SafeGuard Uninstaller.pkg** in /Library/Sophos SafeGuard. You need to decrypt the hard drive first.

2.2 Configuring Sophos SafeGuard Disk Encryption

After the installation of the software you have to add Sophos SafeGuard Disk Encryption users and specify which volumes of your Mac are to be encrypted.

Creating the first Sophos SafeGuard Disk Encryption Admin user

There must always be one Admin user. The first user created must be an Admin user. This is enforced by the user management and is the prerequisite for all administration tasks. When users are deleted it is not possible to delete the last Admin user, if more than one has been created.

1. Choose the Sophos SafeGuard Disk Encryption icon and click **User Management**.
2. Press Cmd+N.
3. Enter a name for the Admin user.

4. Enter the password in the **Password** and **Confirm Password** fields. Sophos SafeGuard Disk Encryption accepts only passwords with eight or more characters. Select the **Show Password** option to display the entered password.
5. Click **OK**.

Now you can create other users.

Encrypting a partition

Sophos SafeGuard Disk Encryption lets you encrypt the hard disk or partitions of your Mac. Every disk management task (encrypt/decrypt/pause/resume) requires an authentication as a SafeGuard Admin.

1. Choose the Sophos SafeGuard Disk Encryption icon and click **Disk Management**.
2. Enter your SafeGuard Admin credentials and click **OK**.
3. Choose **Partitions** in the management pane. All partitions available are displayed.
4. Click **Encrypt** right beside the partition you want to encrypt.
5. Encryption of the selected partitions starts immediately. To enhance encryption speed, check the **Fast Mode** option in the lower left corner of the **Disk management** pane.

Encryption/decryption can be paused by clicking the **Pause** button on the right end of the progress bar. To resume encryption, click the **Resume** button, which is displayed when the encryption has been paused. For both actions, you must authenticate as a SafeGuard Admin.

Paused encryption/decryption tasks are resumed automatically after you restart your Mac.

For a detailed description see the *Sophos SafeGuard Disk Encryption for Mac help*.

Connecting a Mac protected by Sophos SafeGuard Disk Encryption to a SafeGuard Enterprise environment

SafeGuard Enterprise is a modular security suite that enforces security on Windows endpoints using administrator-defined policies. SafeGuard Enterprise offers full disk encryption, file-based encryption, Active Directory integrated central management, reporting, multi-factor authentication and many more security features for Windows endpoints. Endpoints are managed by SafeGuard Enterprise security officers in the SafeGuard Management Center. For further information on SafeGuard Enterprise, see <http://www.sophos.com/products/enterprise/encryption/safeguard-enterprise/> and the SafeGuard Enterprise documentation.

With version 6.0 a Mac protected by Sophos SafeGuard Disk Encryption can be connected to a SafeGuard Management Center. To do so, a SafeGuard Enterprise client configuration package created in the SafeGuard Management Center must be installed on the Mac. For further details on how a client configuration package (.zip file) is created in the SafeGuard Management Center, refer to the *SafeGuard Enterprise 6.0 administrator help*.

Note: You need to select "SSL" as transport encryption. "Sophos" transport encryption is not supported by Macs.

Carry out the following steps on the Mac protected by Sophos SafeGuard Disk Encryption:

1. Select **File > Import configuration data...** to import the configuration data.

2. Authenticate with SafeGuard Admin credentials. If you have not created a SafeGuard Admin user yet, you need to create one first.
3. Locate the SafeGuard client configuration package (.zip file) and click **Import**.
Sophos SafeGuard Disk Encryption displays a success message.
4. Choose the Sophos SafeGuard Disk Encryption icon and click **Server Connection ...**
5. Details of the server connection are displayed and a **Synchronize** button is available. Click this button to start data synchronization between the Mac and the SafeGuard Enterprise server.

The **Inventory** view in the SafeGuard Management Center displays the machine details of the machine.

These steps can also be performed without user interaction by using the command line and SGADMIN –import-config. Man SGADMIN or sgadmin --help provide the necessary syntax.

Single Sign On (SSO) and password synchronization

Sophos SafeGuard Disk Encryption for Mac can be operated in a mode, where users only have to enter their credentials at Power-on Authentication and are automatically logged on to Mac OS X as individual users. For Single Sign On users need to have the same user names and passwords at Power-on Authentication and in Mac OS X.

When creating SafeGuard Users, a Sophos SafeGuard Disk Encryption Admin needs to make sure that their user names match the user names of the corresponding Mac OS X users for the Single Sign On.

Note: Sophos SafeGuard Disk Encryption 6.0 offers Single Sign On for local Mac OS X users and for Active Directory mobility accounts.

To set up Single Sign On:

1. A user needs to be created in Sophos SafeGuard Disk Encryption that matches the Mac OS X user. User names and passwords must be identical. The Mac OS X user can either be a local user or an Active Directory mobility account.
2. Single Sign On must be enabled in Sophos SafeGuard Disk Encryption. To do so, use the command line with the command `sgadmin --enable-sso`. The command `sgadmin --disable-sso` disables Single Sign On.

When a user logs on at the POA with this user ID, they will be logged on to Mac OS X automatically.

Note: The Mac OS X 10.7 setting **Display login window** as must be set to **List of user**.

Sophos SafeGuard Disk Encryption also offers a feature to change the passwords at Power-on Authentication and in Mac OS X and keep them synchronized.

- The password change dialog in Sophos SafeGuard Disk Encryption triggers the password change.
- If the currently logged on SafeGuard User and the Mac OS X user have identical user names, the **Change password** dialog displays the **Sync Passwords** check box. Choose **Sync Passwords**.

- If the user keeps the check box selected and clicks **Ok**, Sophos SafeGuard Disk Encryption attempts to change the password in Sophos SafeGuard Disk Encryption and Mac OS X (user password and keychain password) and to synchronize them.
- If this is successful, Sophos SafeGuard Disk Encryption simply updates the **Modified** timestamp.
- If any of the three passwords cannot be changed, then all passwords remain unchanged. This is for example the case, if a new password violates the password rules of Sophos SafeGuard Disk Encryption or Mac OS X or the Active Directory. In this case all passwords keep their old values.
- If the user deselects **Sync Passwords**, only the password in Sophos SafeGuard Disk Encryption is changed.

2.3 Time Machine backups

The following components of Sophos SafeGuard Disk Encryption should be excluded from Time Machine backups:

- /.com.sophos
- /System/Library/Extensions/sgbiodrv.kext
- /usr/sbin/sgd
- /usr/bin/sgadmin
- /Library/Sophos SafeGuard
- /Library/LaunchDaemons/com.sophos.sgd.plist
- /Library/LaunchDaemons/com.sophos.sgsd.plist
- /Library/LaunchAgents/com.sophos.sguimenu.plist
- /Library/LaunchAgents/com.sophos.sgsynclang.plist
- /Applications/sgui.app
- /usr/share/man/man1/sgadmin.1
- /usr/share/man/man1/sgsd.1
- /usr/bin/sgsd
- /Library/LaunchDaemons/com.sophos.sgsd.plist
- /Library/Security/SecurityAgentPlugins/Sophos_SSO.bundle
- /var/spool/sg
- /var/sg

3 Technical support

You can find technical support for Sophos products in any of these ways:

- Visit the SophosTalk forum at <http://community.sophos.com/> and search for other users who are experiencing the same problem.
- Visit the Sophos support knowledgebase at <http://www.sophos.com/support/>
- Download the product documentation at <http://www.sophos.com/support/docs/>
- Send an email to support@sophos.com, including your Sophos software version number(s), operating system(s) and patch level(s), and the text of any error messages.

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AES-NI

This software uses code from the `Intel_aes_lib`. The following is applicable to `Intel_aes_lib`:

```
/* intel_aes_lib source files come from Intel.
```

```
* Modified by Patrick Fay
```

```
*
```

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Issue Date: Aug 6, 2010

*/

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Gladman AES

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FreeType font driver for pcf fonts

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Zlib, Part of FreeType

zlib.h -- interface of the 'zlib' general purpose compression library version 1.1.4, March 11th, 2002

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <ftp://ds.internic.net/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](ftp://ds.internic.net/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](ftp://ds.internic.net/rfc/rfc1952.txt) (gzip format).

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