DATASHUR® SD
KEYWRITER | User Manual

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Innovation made **simple.**

Technical Support: If you encounter any difficulty using your datAshur SD KeyWriter application, please contact our technical support team by email - support@istorage-uk.com or by phone on +44 (0) 20 8991 6260.

Introduction

datAshur SD KeyWriter Application

The patented iStorage datAshur SD KeyWriter application allows users to clone as many drives as required with the same encrypted encryption key, thereby enabling secondary drives to be cloned as backups and also allows organisations to share encrypted iStorage microSD cards with as many authorised users of cloned datAshur SD drives as required, without compromising on data security.

Key features

datAshur SD KeyWriter application clones all critical security parameters including the randomly generated encryption key, all PINs and administrator defined configurations between the Master datAshur SD drive and as many secondary datAshur SD drives as required using any off the shelf USB hub (we recommend using a 10 port USB hub), allowing authorised users to securely share data stored on iStorage microSD cards with one another.

The critical security parameters never leave the datAshur SD drive and are stored in a Common Criteria EAL 5+ certified secure microprocessor.

The process of cloning the encrypted encryption key and all critical credentials between the Master datAshur SD drive and secondary datAshur SD drives is protected by a secure protocol incorporated within the iStorage datAshur SD secure microcontroller. The protocol is implemented using cryptographic algorithms, all of which are FIPS certified. Every datAshur SD drive has a unique certificate issued by a root of trust, which ensures that only iStorage datAshur SD drives can be used during the key exchange process.

The datAshur SD drive will never output the established session key when running the secure protocol and the sensitive data being copied is only decrypted in the validated recipient datAshur SD drive.

The iStorage KeyWriter software (app) running on the PC coordinates the operations required by the secure protocol, however the software has zero visibility of both the session key and decrypted data, making it impossible for a hacker to access or retrieve any critical security parameters stored within the datAshur SD drive.

The following user manual can be found by clicking the link below:

• datAshur SD drive user manual

https://istorage-uk.com/datashur-sd-manual

Table of Contents

1. Activating, installing and registering datAshur SD KeyWriter

1. After purchasing your datAshur SD KeyWriter license, you will receive an email containing your 'License number', 'PIN' and license 'Capacity'. Click the **Activate License** button to continue.

Image 1

2. Complete the fields under 'Activate your license' (image 2) and click the **Activate License** button to continue.

Note: The License Number field will be automatically populated with the License Number, if not, please enter manually.

Image 2

3. You will receive a notice of an activation email sent from iStorage (Image 3). Refer to the email from iStorage and click on the link to complete activation.
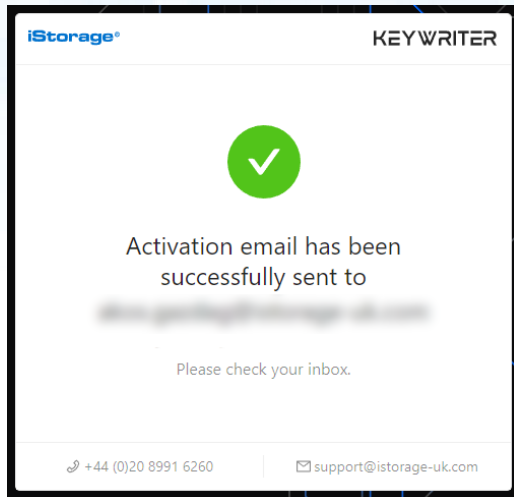

Image 3

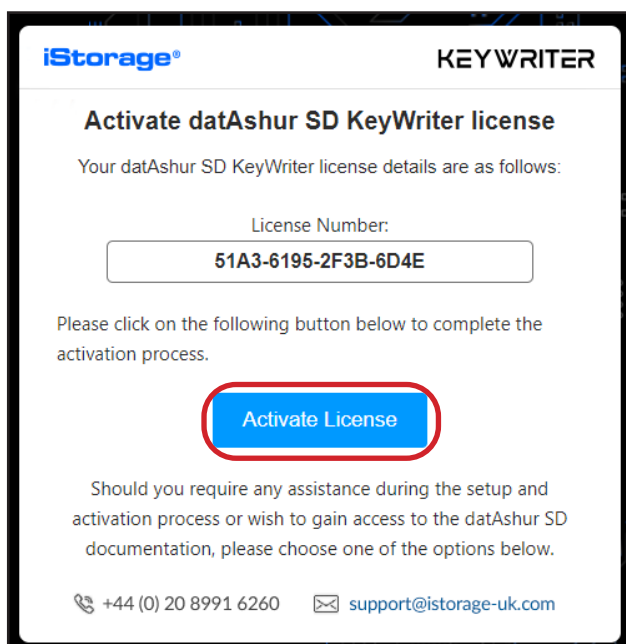4. Click **Activate License** button to continue.

Image 4

5. An **Activation Successful** dialog window will pop up (Image 5). You will now receive another email from iStorage (Image 6) containing a link to download and install the KeyWriter app.
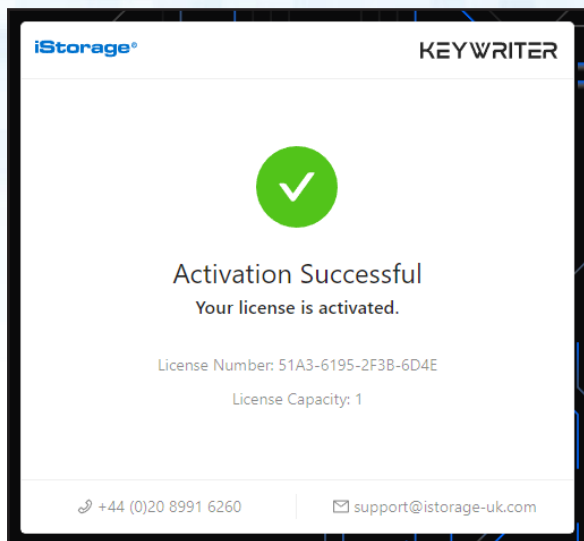
Image 5

6. Open the new email from iStorage (Image 6) and click the 'Download datAshur SD KeyWriter' button to download and install the KeyWriter app.

Image 6

7. Once the installation has completed, unlock your datAshur SD drive by entering your 8-64 digit Admin PIN, then connect the unlocked datAshur SD drive (blinking GREEN LED) to a USB port on your computer and finally double click the 'datAshur SD KeyWriter.exe' app (Image 7) to launch the KeyWriter app.

Image 7

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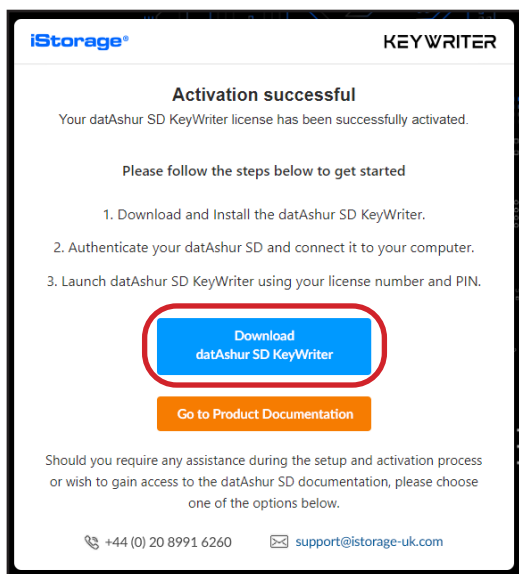**Note**: You may be prompted to update the software to the latest version, if so, click the **Update** button to continue.

8. Click the **Register** button to continue. If you do not have a license, click on the '**Don't have a license?**' link and follow the instructions to purchase your KeyWriter license.

Image 8

9. Enter your **License number** and **PIN** (sent to you by email) and then click **Next** to complete registration.
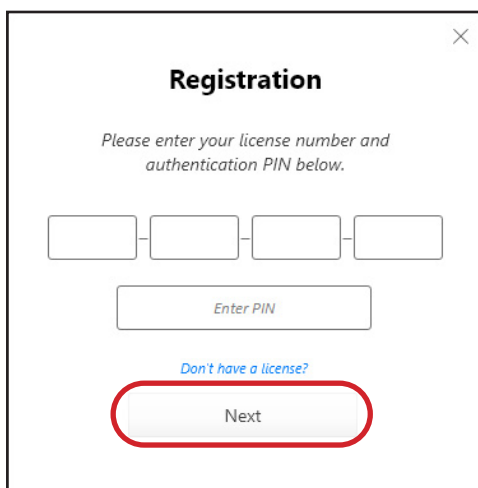

Image 9

10. Click **OK** (Image 10) to launch the KeyWriter app (Image 11).
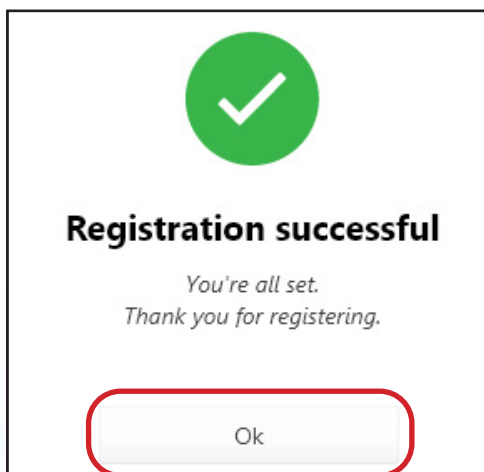
Image 10

11. The connected datAshur SD will need to be assigned as a '**Master Device**' by clicking the '**Set as Master**' button before connecting secondary devices to start the keywriting process which will clone all the cryptographic parameters including the randomly generated encryption key, all PINs and administrator defined configurations from the Master device to all connected secondary devices.

Click **OK** and refer to section 2 'Setting your datAshur SD Master Device' to continue.

Image 11

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2. Setting your datAshur SD Master Device

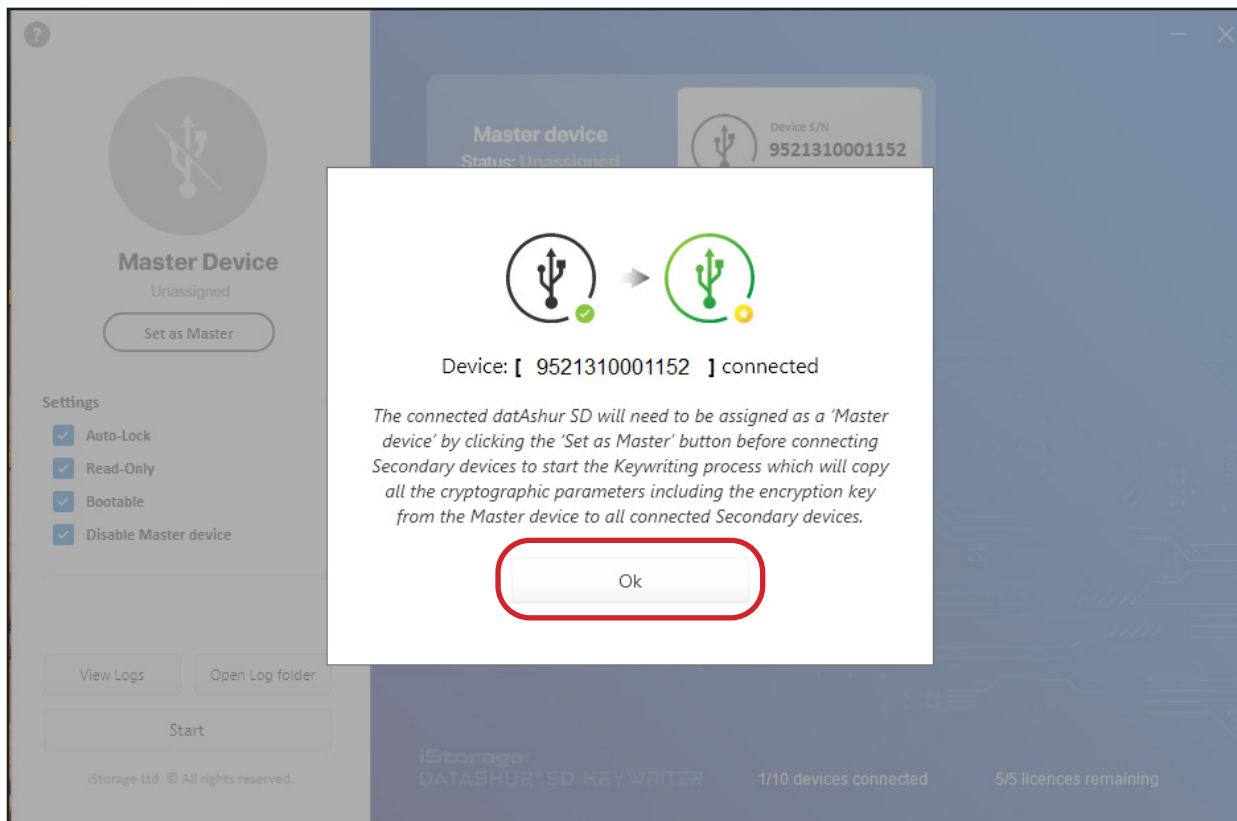datAshur SD KeyWriter application clones all critical security parameters including the randomly generated encryption key, all PINs and administrator defined configurations between the Master datAshur SD drive and as many secondary datAshur SD drives as required using any off the shelf USB hub (we recommend using a 10 port USB hub), allowing authorised users to securely share data stored on iStorage microSD cards with one another. The software has zero visibility of both the session key and decrypted data, making it impossible for a hacker to access or retrieve any critical security parameters stored within the datAshur SD drive.

Important!

Before Cloning: As you will be cloning all security parameters from one datAshur SD drive (Master Device) to any number of secondary datAshur SD drives, it is important to ensure the 'Master Device' has been pre-configured by the administrator to include as many of the following configurable features.

Please refer to the datAshur SD user manual for detailed instructions on how to configure the datAshur SD drive.

Note: The Admin PIN is automatically cloned from the Master device to all connected secondary drives.

Configurable Features

1. Setting a User PIN Policy
2. Adding a User PIN (Independent from the Admin PIN)
3. Setting your datAshur SD drive to enable KeyWriter cloning
4. Configuring the datAshur SD drive Encryption Mode - AES-XTS (default) or AES-ECB or AES-CBC
5. Configuring a Self-Destruct PIN
6. Setting the unattended Auto-Lock
7. Configuring the datAshur SD as Read-Only
8. Setting a User Brute Force limitation
9. Enabling the datAshur SD Bootable feature

Note: If your datAshur SD drive has been disabled from cloning, refer to section 39 of the datAshur SD user manual for detailed instructions of how to enable KeyWriter cloning and configuration of all the other security features.

Setting the Master Device

Remember: You will be required to enter your **KeyWriter PIN** each time you launch the datAshur SD KeyWriter app. This is the PIN that was sent in an email to you together with the license number. The KeyWriter app PIN can be changed see section 4: '**Change your KeyWriter PIN**'. In addition, ensure your 'Master Device' is unlocked and connected to your computer before setting the Master device.

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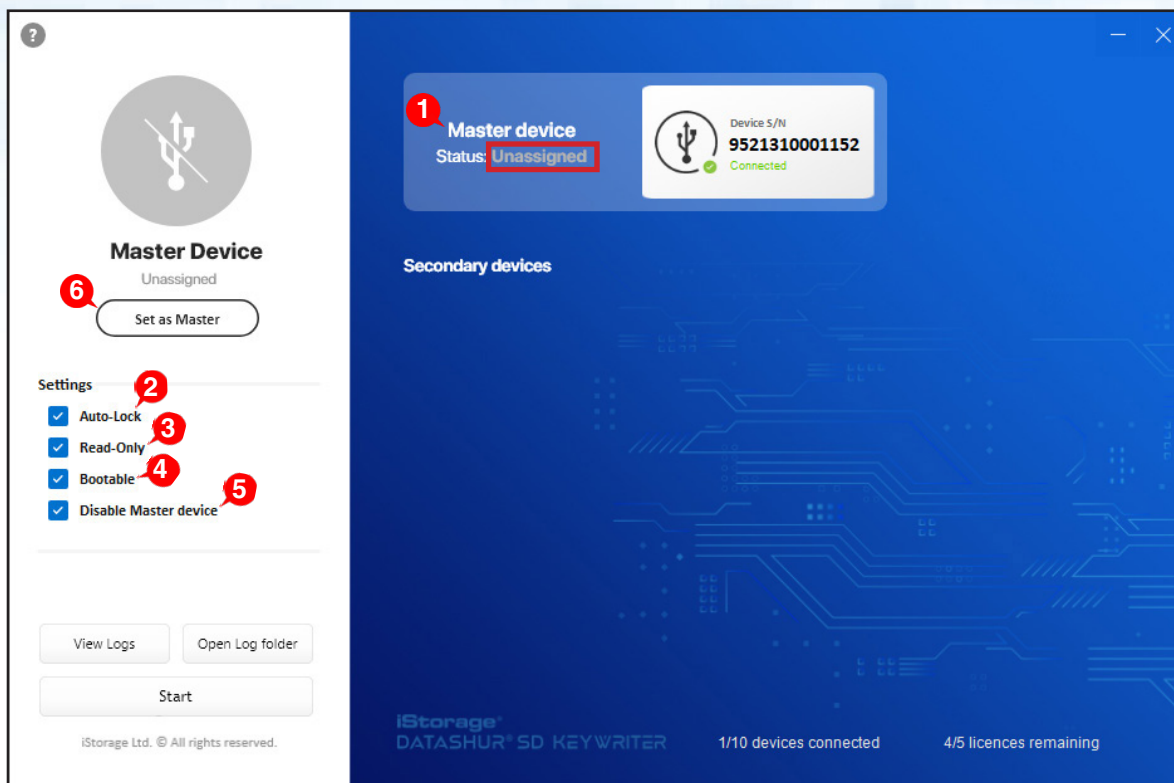Select your settings as described below before clicking on the 'Set as Master' button.

Image 12

Settings

1. **Master Device** - (Image 12) when you connect your Master datAshur SD drive to the KeyWriter for the first time, the datAshur SD drive will show as 'Master device - Status '**Unassigned**' together with the device serial number.

2. **Auto-Lock** - checking this box will copy the 'Auto-Lock' setting, if one has been configured, from the master datAshur SD drive to all secondary datAshur SD drives. Please refer to the datAshur SD user manual for further information about the 'Auto-Lock' feature.

3. **Read-Only** - iStorage datAshur SD drives can be set as Read-Only (Write-Protected). Checking this box will configure the datAshur SD drive as Read-Only. Please refer to the datAshur SD user manual for further information about the 'Read-Only' feature.

4. **Bootable** - iStorage datAshur SD drives incorporate a bootable feature to accommodate power cycling during a host boot process. Checking this box will set the datAshur SD as bootable. Please refer to the datAshur SD user manual for further information about the 'Bootable' feature.

5. **Disable Master Device** - checking this box will disable the cloning feature of the Master datAshur SD device once a cycle of the cloning process has successfully completed. If you intend to continue to clone from the Master device to additional secondary devices, leave the checkbox unchecked.

6. **Set as Master -** Once you are happy with your settings (steps 2-5 above), click the '**Set as Master**' button. Your Master datAshur SD status will now show up as '**Active**' as seen in 'Image 13'.

> **Note:** For quick access to information on cloning and KeyWriter app settings click on ⊘ located on the top left corner of the launched KeyWriter app as shown in 'Image 12' above.

After successful configuration, your 'Master datAshur SD' will become **Active** as shown in Image 13 below, click '**OK**' and refer to section 3 'Cloning from Master Device to Secondary Devices' to continue.
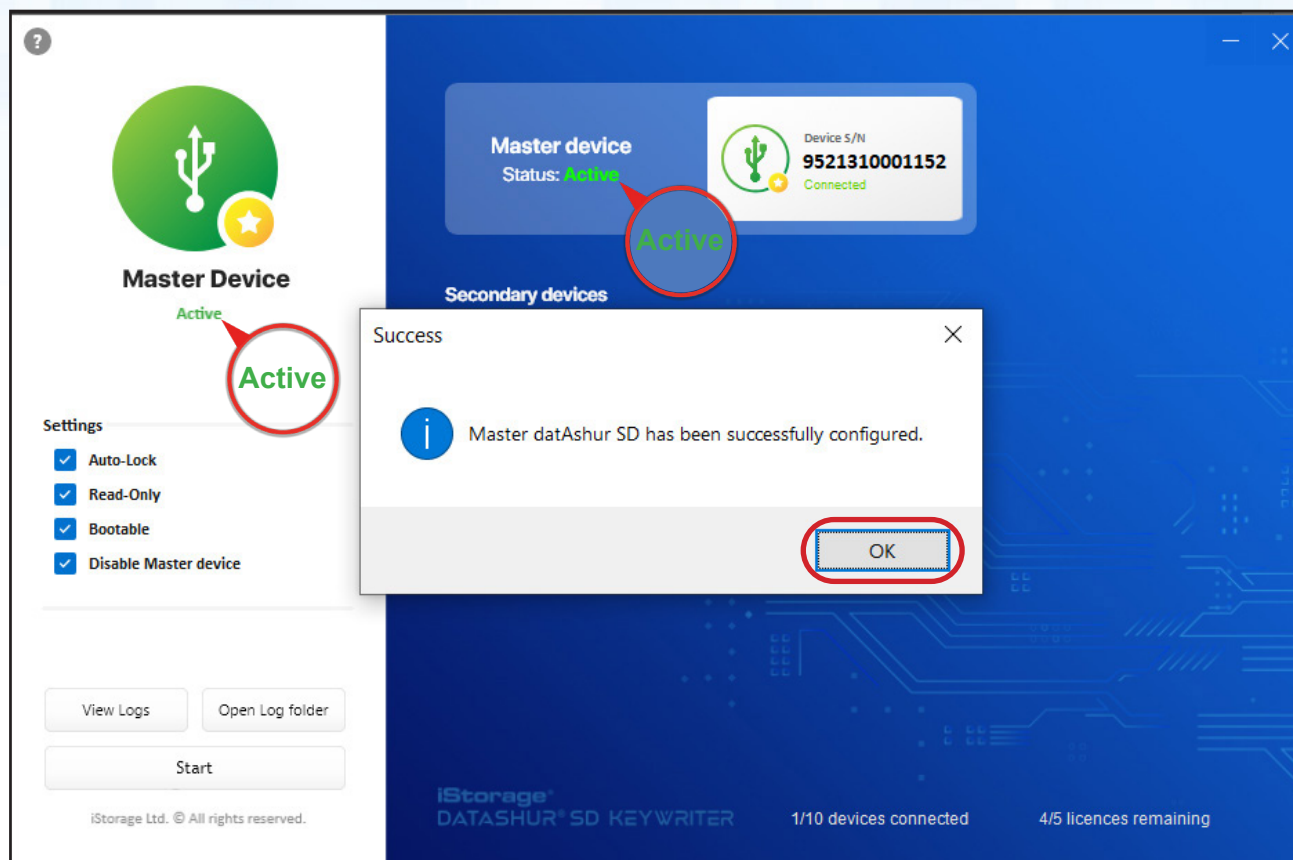

Image 13

3. Cloning from Master Device to Secondary Devices

Start Cloning

With your datAshur SD Master device '**Active**', (Image 14) insert up to 9 datAshur SD '**Secondary devices**' (on a 10 port USB hub) and proceed as follows.

- Click the '**Start**' button. Every secondary device will be cloned one at a time until cloning of all devices is complete. The datAshur SD drives are now ready for use see 'Image 15'.
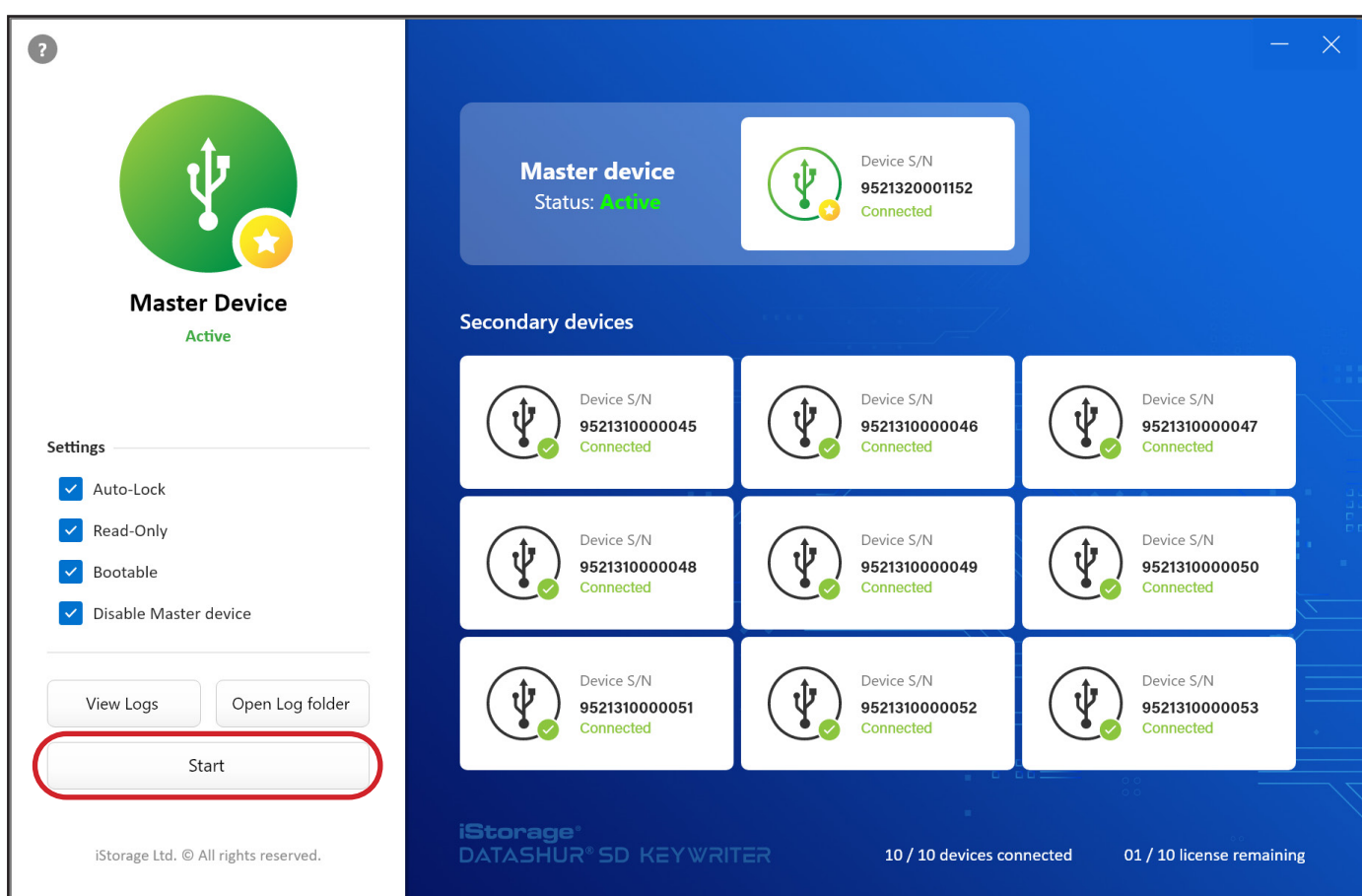

Image 14

Cloning Complete

Once cloning is complete, all datAshur SD secondary devices that have been successfully cloned will appear with a checkmark beside the device serial number and show as 'Clone completed' see below 'Image 15'.

> **Note:** The Administrator can use any of the cloned (secondary) datAshur SD drives to set as a 'Master Device', please refer to the datAshur SD user manual to first ensure that your secondary device is enabled to allow cloning.
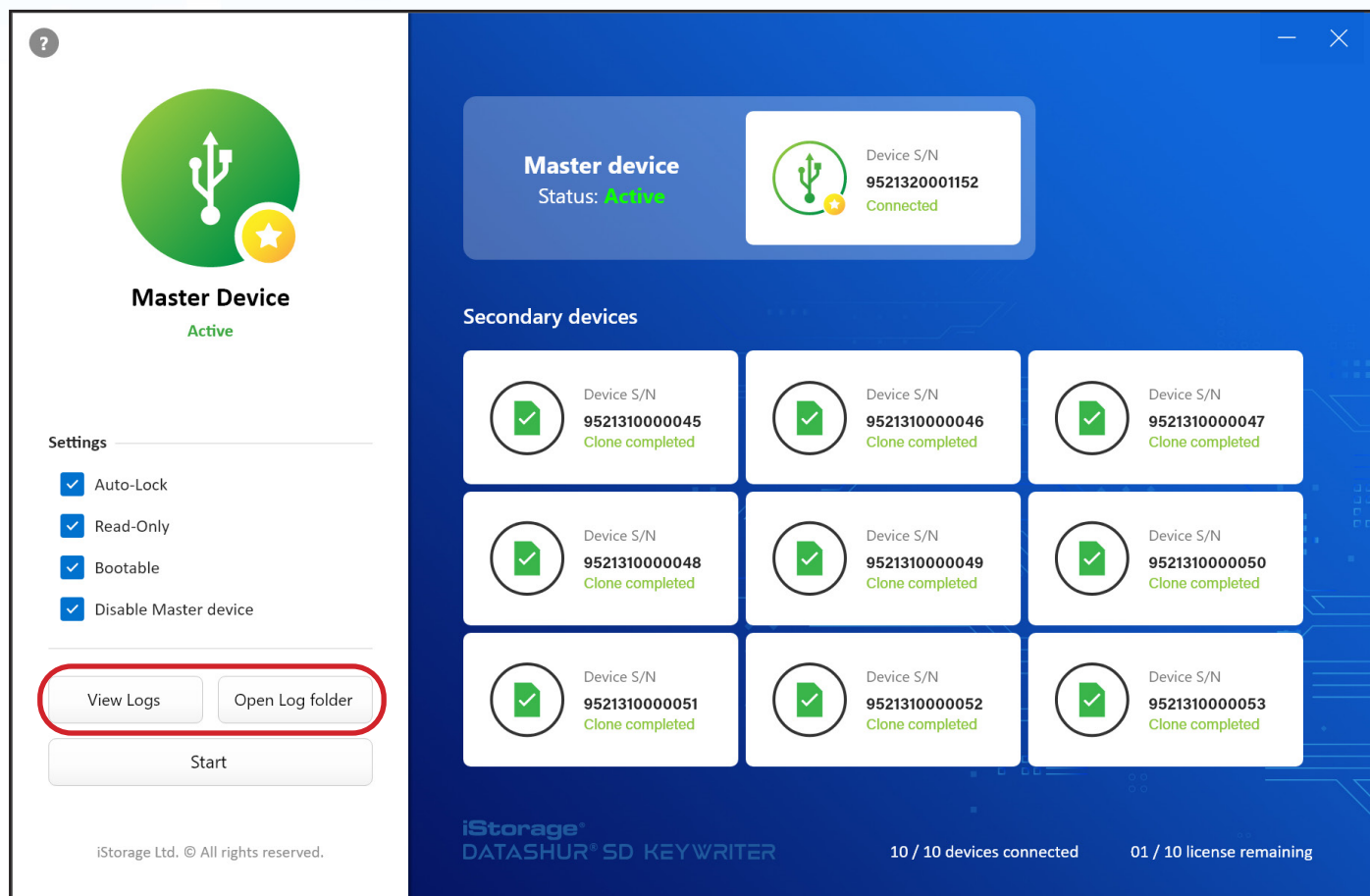

Image 15

> **Note:** To view logs or open the log folder, click on either the 'View Logs' or 'Open Log folder' buttons.

4. Change your KeyWriter PIN

To change your KeyWriter PIN (Image 16), click on '**Change PIN**' as shown below.
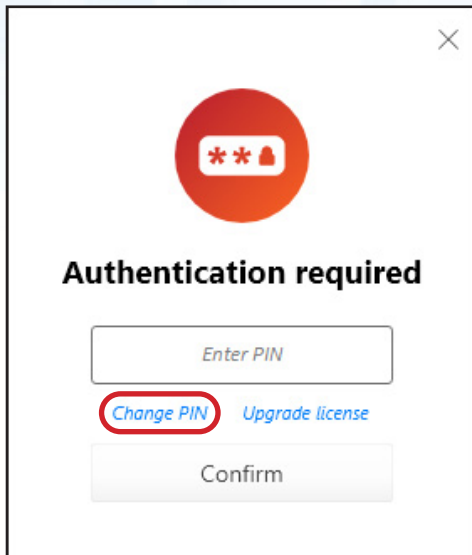

Image 16

Note: To upgrade your license, click on '**Upgrade License**' and complete the form to upgrade.

After clicking 'Change PIN', complete the form (Image 17) by entering your **Current PIN**, next enter your **New PIN**, then **Confirm PIN** and finally click the '**Submit**' button and your KeyWriter PIN will change and become active the next time you log into your datAshur SD KeyWriter app.

Note: The License Number field will be automatically populated with the License Number, if not, please enter manually.

Image 17

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