EGOSECURE

A MATRIX42 COMPANY

EgoSecure Full Disk Ecnryption

Release Notes

Version 14.1.933.0

07/03/2019

Contents

Introduction

EgoSecure Full Disk Encryption provides strong authentication and protection for standard hard disks via sector-based Full Disk Encryption (FDE) and Pre-Boot Authentication (PBA). This provides perfect 'turn-off-protection', which means that the implemented security mechanisms provide the highest security for the operating system, as well as for the data – provided the computer is turned off at the time of theft. The optional use of a security token or smart card at pre-boot is the high-end solution for secure key management in conjunction with two-factor authentication.

System Requirements

To use EgoSecure Full Disk Encryption, your system must meet the following system requirements.

Hardware Requirements

Component	Requirements
Hard disk	▸ 500 MB Partition size ▸ File system of internal hard disk: NTFS ▸ Computer bus to hard disk: P-ATA (standard hard disks only), S-ATA (standard, SSD and SED are supported), PCI Express (NVMe SSD for UEFI devices) ▸ Sector size: 4 Kbyte (AF) or 512 Byte
Card reader	EgoSecure FDE uses CCID middleware to access a smart card using SCard API (PC/SC). That is a common driver standard and used by a wide range of smartcards. To see if your hardware is supported, follow this **link.**
Touchscreen	▸ Surface Pro 3 ▸ Devices with eGalaxTouch EXC3188 Currently touchscreen support during Pre-Boot Authentication (PBA) is very limited. If your device is not in the list of supported ones, we recommend to test the compatibility by installing FDE and performing the PBA.

Software Requirements

Operating systems	Firmware
▸ Windows XP 32-bit (Professional or Home Editions) with Service Pack 2 or higher ▸ Windows XP 64-bit Professional with Service Pack 3 ▸ Windows Vista 32-bit with Service Pack 2 ▸ Windows Vista64-bit with Service Pack 2 ▸ Windows 7 32-bit/64-bit. ▸ Windows 8 32-bit/64-bit ▸ Windows 8.1 32-bit/64-bit ▸ Windows 10 32-bit/64-bit	▸ BIOS Note: The system with MBR may have 4 primary partitions at most. EgoSecure Full Disk Encryption needs one entry in the primary partition table. ▸ UEFI (only x64)

Installation & Usage

Setup

For an initial installation of EgoSecure Full Disk Encryption, please find a detailed description in the EgoSecure FDE - Installation and Troubleshooting Guide:

Download EgoSecure FDE - Installation and Troubleshooting Guide (PDF, EN)

Administration

For details about deployment and configuration see the Administration & Usage Guide:

Download EgoSecure FDE - Administration & Usage Guide (PDF, EN)

Support

Hotline

Before you contact the Support team, please check the following article about how to get help for technical issues:

Getting help for technical issues

Phone and Mail Support:

+49 (0)69 - 667 738 222

helpdesk@matrix42.de

Online Resources

Customer Support Portal:
https://support.egosecure.com/portal/home

English Knowledge Base:
https://support.egosecure.com/portal/kb/knowledge-base-en

German Knowledge Base:
https://support.egosecure.com/portal/kb/knowledge-base-de

Documentation

Download the latest product documentation and datasheets (english and german):
https://support.egosecure.com/portal/kb/articles/documents

EGOSECURE
A MATRIX42 COMPANY

Release Notes

14.1.933.0

FDE

New

▶ Now it is possible to protect encryption keys with an additional hardware-based key.

Fixed

▶ Accelerated encryption process.

▶ A problem with FDE initialization when audit java archives launch was enabled.

▶ Systemcheck.exe helpdesk application updated.

PBA

Modified

▶ New Linux kernel 4.19.20

UI

Modified

▶ Improved UI for PBA and FDE.

13.2.920.0

Agent

New

▶ Added a validation during installation if Secure Boot is enabled on the target system.

Fixed

▶ An issue where repairing of an encrypted disk was started, once a computer woke up from hibernation.

▶ A problem where the storage location of the FDE application wasn't displayed in the Inventory panel.

▶ A bug where FDE couldn't be installed on Windows XP.

FDE

New

▶ Added support of primary partition decryption with ERI-file, when FDE partition has beend deleted.

Modified

▶ Now an error message appears if the password for ERI file couldn't be changed.

Fixed

▶ An issue which caused BSOD after FDE uninstall and reinstall without a reboot.

▶ A problem where the Eri file was generated only after the whole disk encryption.

▶ An issue where a BSOD occured during FDE installation on a Silicon Power 128 SSD.

▶ An issue where a partition was converted into raw format after encryption.

▶ Changed determination method for partition type (primary or logical) on MBR-drives. The wrong determination of partition type leads to starting problem or broken partition data.

▶ A problem where FDE initialization via MSI parameters didn't work with UEFI.

▶ A black screen error appeared when restarting the computer after FDE initialization.

▶ A bug that prevented drive encryption on Win XP.

PBA

New

▶ Added support for changing PBA screen resolution in PBA Administration >> Pre-Boot Options.

▶ Added new entries in the PBA menu: 1) BIOS → Full Disk Encryption PBA (ACPI, KICKSTART=BIOS) low resolution 2) UEFI → Full Disk Encryption PBA (KICKSTART=BIOS) low resolution

Fixed

▶ An issue where incorrect notifications were displayed during a PBA logon.

▶ A problem where self-initialization didn't work.

▶ An error message appeared after typing the right password in Simple PBA when a wrong password was entered before.

▶ An issue where Single Sign On (SSO) didn't work
  - when Windows logon was configured to use a smart card
  - when Secure boot was enabled
  - after Hibernate mode.

Default

New

▶ Now the EgoSecure icon appears in the notification area of the Windows taskbar once the encryption of a disk is started locally by a user or remotely by an administrator. When clicking this icon, the **EgoSecure FDE** dialog appears, where the encryption progress is shown.

12.3.907.10

FDE

Fixed

▶ An issue where a partition was converted into raw format after encryption.

▶ Changed determination method for partition type (primary or logical) on MBR-drives. The wrong determination of partition type leads to starting problem or broken partition data.

PBA

New

▶ Added support for Elo Touch Screens during PBA.

Fixed

▶ A problem on SurfacePro devices where the touch screen was not working during PBA.

12.3.907.8

Agent

Fixed

▶ A problem where the storage location of the FDE application wasn't displayed in the Inventory panel.

▶ A problem where drivers were not updated during an FDE update.

FDE

Fixed

▶ An issue which caused BSOD after FDE uninstall and reinstall without a reboot.

▶ An issue where Windows could not start when AES-128 encryption algorithm was used on an UEFI system.

▶ A problem where the Eri file was generated only after the whole disk encryption.

▶ A problem where logical partitions on the system disk couldn't be encrypted.

▶ A problem with Windows Fast startup where Windows started to scan and repair an encrypted drive after shutdown or Windows freezed after hibernate.

▶ A problem where FDE could not be uninstalled.

▶ An issue where a BSOD occured during FDE installation on a Silicon Power 128 SSD.

PBA

New

▶ Added Secure Boot Support for UEFI x64 systems.

    ▶ Added new entries in the PBA menu:
        1) BIOS → Full Disk Encryption PBA (ACPI, KICKSTART=BIOS) low resolution
        2) UEFI → Full Disk Encryption PBA (KICKSTART=BIOS) low resolution

12.3.907.1

Agent

New

▶ Added a validation during installation if Secure Boot is enabled on the target system.

Fixed

▶ An issue where repairing of an encrypted disk was started, once a computer woke up from hibernation.

FDE

New

▶ Multidisk support for encrypting all available drives has been enhanced.

Fixed

▶ An issue where a computer froze during disk encryption.

▶ An issue with displaying the list of logical drives in WinPE.

▶ An issue where it was not possible to boot Windows after disk reencryption (Windows 10, UEFI).

▶ An issue which caused BSOD after FDE uninstall and reinstall without a reboot.

▶ A problem where Windows was not able to start after deinstallation of FDE (Error during boot: missing NAC partition).

PBA

New

▶ Added Surface Pro 5 type cover support.

▶ Added cryptovision PKCS#11 provider.

Modified

▶ Added support for changing PBA screen resolution in **PBA Administration » Pre-Boot Options**.

Fixed

▶ An issue where Single-Sing-On (SSO) did not work if Windows logon was configured to use a smart card.

▶ An issue where incorrect notifications were displayed during a PBA logon.

▶ An issue where single sign-on didn't work after the latest windows 10 update.

▶ An issue where user capturing failed during PBA on Lenovo Yoga 370.

UI

▶ General text and UI changes.

12.2.896.1

Agent

Fixed

▶ An issue where it was not possible to copy an ERI-file from Console.

FDE

Modified

▶ Now two or more system drives are supported in the system. The target hard disk can be installed as any disk number in the computer.
▶ Disk layer encryption initialisation in encryption driver nbfdenc.sys to prevent issues.
▶ Text changes in the the commandline utility tcosconfig.exe.

Fixed

▶ A bug caused the Emergency Recovery Password that was provided in a configuration profile to not be written into the ERI-file. To use the ERI-file, the previously used password was required.
▶ An issue where entering the encryption key manually in WinPE wasn't available.
▶ An issue with the drive encryption (error code -1).
▶ An issue during start up, if the computer has been shut down during encryption or decryption process.
▶ A problem during encryption on Windows XP SP3 x32 system.
▶ A problem which results in "unmountable boot volume"-error after Windows Anniversary update when the drive was encrypted.

PBA

New

▶ Added a driver specially developed for Emirates Java Card to enhance smart card support. Name in the list of PKSC#11 providers: Emirates eID.
▶ Added cryptovision PKCS#11 provider.
▶ Added support for friendly network during PBA.
▶ Added an option in expert mode to disable Adaptive Boot Mode (ABM).

Modified

▶ Now you can press 'g' key or press 'Ctrl' + 'g' combination to launch grub menu.

Fixed

▶ An issue with login into the log viewer in the PBA UI.
▶ A problem with smartcard Aladdin Etoken in PBA.

12.1.888.3

FDE

Fixed

▶ Problem during start up, if the computer has been shut down beforehand during encryption or decryption process.

▶ Bug while copying ERI file from console.

12.1.888.0

Agent

Fixed

▶ Problem where it was not possible to save an ERI-file without a password.

▶ Problem where Windows was not able to start after deinstallation of FDE (Error during boot: missing NAC partition.

FDE

New

▶ Added option in expert mode to disable Adaptive Boot Mode (ABM).

Modified

▶ Now FDE can be installed on the 2nd physical drive in the system (if it's "System drive").

Fixed

▶ Bug where it was not possible to decrypt with the ERI-file via WinPe if two or more volumes are present.

▶ Bug where it is not possible to boot up from hibernate if the drive was encrypted.

PBA

New

▶ Added NVM express (NVMe) support for BIOS devices.

▶ Added module "simple PBA" for GRUB (for BIOS and UEFI).

▶ Added network stack to PBA.

▶ Added provider for Emirates Java Card to enhance smart card support.

▶ Added support for friendly network during PBA.

▶ Implemented Adaptive Boot Mode (ABM) for PBA.

Modified

▶ Added extended NVMe driver to PBA.

▶ Updated pcsc-lite to version 1.8.20 and ccid to version 1.4.26 to enhance hardware support.

Fixed

▶ Problem which results in "Unknown file system" error in Grub-menu after Windows Anniversary update when the drive was encrypted.

▶ Problem with logging into the log viewer in the PBA UI.

UI

▶ Removed external Media Encryption from local FDE console.

General

▶ Disabled hardware encryption for Seagate Momentus drives due to incompatibility.

11.2.879.13

Agent

Fixed

▶ Rare problem during installation which caused the installation to fail.

FDE

Fixed

▶ Problem with nbfdenc driver update.

▶ Problem with decryption via WinPE in UEFI-mode.

▶ Improved encryption logic for "used sector"-encryption to prevent errors.

▶ Problem with LowerFilter driver order sequence which caused BSOD on Windows startup after Windows upgrade.

PBA

Fixed

▶ Problem with Single Sign-on (SSO) on Windows 7, BIOS.

▶ Incorrect PBA-login UI on SurfacePro 3.

▶ Problem with PBA deinitialization on Windows 7, UEFI.

11.2.879.8

Agent

Modified

▶ Media Encryption is discontinued and has been removed from FDE.

Fixed

▶ Problem while upgrading FDE (error status: 1603).

▶ When uninstalling FDE on Windows 10 drivers were not removed from the system in rare cases.

FDE

Modified

▸ Problem related to Windows shutting down while encrypting.

▸ Modified synchronisation of all encryption threads to prevent problems during encryption/decryption.

▸ Older FDE versions can now be upgraded as long as they were not initiated.

Fixed

▸ Problem where Windows was not able to start after encrypting drive C:\ on Windows 10 x64, UEFI-Mode.

▸ Problem with raising privileges (error 0x183) while deinitialisation.

▸ Rare bluescreen (BSOD) after encryption of drive C:\ on Windows XP.

▸ Rare problem which could occur when a drive is encrypted, decrypted and re-encrypted.

▸ Boot security could not be installed on Windows 8, UEFI-Mode.

▸ Error while Creating NAC Partition (error code -280).

▸ In rare cases when locking the PC via "Windows + L", the password would already be entered when unlocking the PC.

▸ Problem with the drive encryption (error code -1).

▸ Rare bluescreen caused by encrypting drive C:\.

▸ Some minor fixes for FDE UEFI driver and error handling.

▸ Problem with decryption via WinPE in UEFI-mode.

PBA

New

▸ Added PBA boot menu for UEFI mode.

▸ WINDOWS\NAC\snbreportapicp.dll and WINDOWS\NAC\SBS\dmiconfig.exe have been added to the installer.

Modified

▸ Removed option BootChain > Repair BootChain from PE_ERD_W32.exe.

Fixed

▸ Single-sign-on (SSO) not working on Windows 7 (UEFI).

▸ Problem with SSO where Windows Logon Screen was shown even after successful authentication during PBA.

▸ Problem with single-sign-on (SSO) that Windows Logon Screen was shown even after successful authentication during PBA.

▸ Added kickstart mode "PBA (KICKSTART=BIOS) without DRM" to the GRUB menu to be able to boot without Kernel mode settings (KMS) for direct rendering manager (DRM). This addresses an issue where the graphics-card is not compatible with the kernel.

▸ Added support for Windows 10 anniversary update while the system drive is encrypted.

▶ Problem that made it impossible to deinitialise PBA.

▶ Problem with the first initialisation of smartcard etoken.

▶ Rare problem where the computer was not booting after PBA initialisation.

▶ Uninstalling the FDE while PBA is active will no longer cause bluescreens when booting the PC.

▶ Incorrect PBA-login on Surface Pro 3.

▶ Problem with SSO on Lenovo l540 ThinkPad (Windows 7, BIOS).

11.1.869.4

FDE

Modified

▶ Removed all encryption algorithms except AES in UEFI-Mode.

Fixed

▶ Bug in encryption driver if verifier was set up for all FDE drivers.

▶ Problem with the PBA Helpdesk feature which could lead to a bluescreen (BSOD) while using challenge response grace login.

▶ Rare bluescreen (BSOD) after encryption of drive C:\.

▶ Rare error during disc encryption that could lead to an unbootable computer.

▶ New smart-card user can't be initialised during PBA in UEFI-Mode.

PBA

New

▶ Added Aladdin Safenet token support for PBA.

▶ Added SmartCard reader support for Broadcom Corp 5880.

▶ Added on-screen touch keyboard support for SurfacePro 3 devices in PBA.

▶ Added support for changing on screen keyboard layout on the fly by using Advanced PBA configuration (Ctrl + F11).

▶ Preparation for on-screen touch keyboard support for SurfacePro 3 devices in PBA.

Modified

▶ Added new optional parameter (PBA_ENCRYPTION_TIMEOUT) for KICKSTART=BIOS mode to dmi.ini config file (use Dmiconfig utility). Minimum value is 30 seconds, maximum is 300 seconds.

▶ Modified shortcut for opening GRUB menu during boot phase to 'ctrl+g'.

▶ Syntax of the dmi.ini config file:

```
1.  [default]
2.  KICKSTART=BIOS
3.  PBA_ENCRYPTION_TIMEOUT=60
```

Fixed

▶ "Kernel panic" problem by adding a new method in the EFI module to locate the PBA partition.

▶ Problem where PBA would not work in UEFI mode.

▶ Problem causing PBA to not function.

▶ Problem with input devices in PBA.

▶ Removed option "reset PIN (PUK unknown)" from PBA GUI.

10.3.859.1

FDE

Fixed

▶ Bug in encryption driver nbfdenc.sys that could cause a bluescreen (BSOD).

▶ Problem that the drive could not be encrypted (Error status = -217).

▶ Problem that the drive cannot be encrypted (Error status = -217).

▶ Installation was not possible under a certain condition due to a bug in the registry.

PBA

New

▶ Added FDE recovery for 64-bit platform.

Modified

▶ Updated KICKSTART parameter "KEXEC" to improve compatibility with more hardware models.

▶ Added support for the DRM driver in the ACPI Kernel in case the generic VESA video driver is not working (can be enabled in dmi.ini by using parameter "KERNEL=/boot/bzImage-acpi" or on-the-fly via GRUB menu using "Ctrl + g" during startup).

Fixed

▶ UEFI boot manager containing two records of 'Windows Boot Manager (Backup)'.

10.1.843.6

Agent

Fixed

▶ A rare crash of the FDE administration UI.

FDE

Fixed

▶ A rare bluescreen (BSOD) after encrypting disk C:\.

PBA

New

▸ Added GRUB menu to change the KICKSTART option on the fly (accessible via ESC during boot phase).

▸ Added Microsoft SurfacePro3 typed cover support.

▸ Added Yubico Yubikey NEO OTP+U2F+CCID support.

▸ Added Aladdin e-Token PRO 64k support.

▸ Added Omnikey CardMan driver to support the following devices:

- OMNIKEY 1021 USB
- OMNIKEY 3121 USB
- OMNIKEY 3621 USB
- OMNIKEY 3821 USB
- OMNIKEY 6121 USB
- OMNIKEY 4321 USB

Modified

▸ Removed all obsolete entries from default.dmi.ini.

Fixed

▸ Problem with initialisation of PBA because SBS image could not be written.

▸ Added support for the DRM driver in the Kernel and disabled GFX in GRUB menu in case the generic VESA video driver is not working.

▸ Single-sign-on (SSO) not always working.

10.2.2

Agent

Fixed

▸ Rare problem while allocating a new partition during installation.

FDE

Modified

▸ Increased FDE partition size to about 500 MB (update from earlier versions is not possible).

PBA

New

▸ Added FDE und PBA support in UEFI-Mode.

▸ Added UEFI boot manager record: "Windows Boot Manager (backup)" for emergencies.

10.1.1

Agent

Fixed

▸ Problem where it was not possible to change PBA settings.

▸ Problem that made it impossible to change PBA settings.

▸ A rare crash of the PBA administration UI.

▸ Added verification during FDE upgrade if versions are compatible.

FDE

Fixed

▸ Problem during encryption which could lead to the drive being in RAW-format.

▸ Problem in driver nbfdenc.sys which could lead to a bluescreen (BSOD) after installation and restart.

▸ Problem in driver nbfdenc.sys which could lead to a bluescreen (BSOD) while connecting a USB 3.0 drive.

▸ Problem that the automatic reboot has not been performed before encrypting.

▸ Drive C:\ can not be encrypted (Error 0x80004005).

PBA

New

▸ Added optional GRUB menu to switch KICKSTART and kernel parameters on the fly (can be opened with <Esc> during boot phase).

▸ Updated Linux Kernel to 3.15 to enhance hardware compatibility.

Modified

▸ Added Omnikey CardMan driver to linkux kernel for enhanced hardware support.

▸ Added the option to the GRUB menu to boot from Windows partition if PBA fails to initialize (can be opened with <Esc> during boot phase).

▸ Changed default KICKSTART mode in dmi.default.ini to BIOS.

Fixed

▸ Problem when Windows was not able to start after PBA initialisation.

▸ Problem with user self-initialisation not working.

▸ Disabled the utilization of all unknown Opal SEDs (hardware encryption) to avoid problems.

▸ Problem that the PBA is not starting after initialization.

▸ Problem when logs can not be saved onto a flash drive using "Ctrl+F1".

▸ Problem with single-sign-on (SSO) because of wrong conversion of user name and domain name.

▶ Certificates on Aladdin eTokens couldn't be accessed

EGOSECURE
A MATRIX42 COMPANY

Imprint

EgoSecure GmbH
Pforzheimer Str. 128b
76275 Ettlingen
Phone: +49(0)7243 / 354 95-0
Fax: +49(0)7243 / 354 95-10
Email: contact@egosecure.com
Internet: **http://www.EgoSecure.com**