



# Chipcard & Security

## Release Notes (V4.3.000.3137 RTM)

### Infineon TPM Professional Package

Version: 1.20

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## 1 Introduction

This document provides information about the released version of the Infineon TPM Professional Package.

## 2 Release Notes

### 2.1.1 Purpose of the build

Version: V4.3.000.3137 RTM

### 2.1.2 Descriptive Name of Deliverable

Infineon TPM Professional Package

Marketing Version: 4.3.000.3137

### 2.1.3 Vendor Version Number

Build: 04.03.3137.00

### 2.1.4 Short Description

The Infineon TPM Professional Package Software is required to use your Security Platform Chip.

The Infineon TPM Professional Package Software is a TCG-compliant security solution for PCs.

### 2.1.5 New with this version

- New code signing certificate  
Windows might prevent running Setup.exe with „Windows protected your PC“ message. This might happen when Setup.exe is run from an untrusted (for example network) location or copied from an untrusted location and then started locally. This is because Infineon TPM Professional Package 4.3 uses new code signing certificate that has not yet established sufficient reputation with Windows SmartScreen Application Reputation service. User should continue the installation by selecting More Options -> Run Anyway.
- Adaptation of Owner Password handling to meet Win 8 compatibility
  - Quick Wizard and Platform Wizard  
Request for owner password is suppressed when the owner authorization is stored by the operating system.
  - Backup Wizard  
Request for owner password is suppressed for restoration flow when the owner authorization is stored by the operating system.
  - Dictionary Attack Reset  
The owner password is retrieved from operating system automatically and can be changed by user when the owner authorization is stored by the operating system.
  - Settings tool  
Request for owner password is suppressed for Migration Authorization, Disabling and Enabling the TPM when the owner authorization is stored by the operating system.

- Settings tool – Advanced Page  
Text about requiring Owner Password is removed from UI
- Settings tool - Change Owner Password  
The owner password is retrieved from operating system automatically and can be changed by user when the owner authorization is stored by the operating system.
- If owner password is retrieved from operating system, the Owner Verification dialog in TNA contains the hint "Retrieved automatically". The user however can still provide the owner password by typing it.
- Changed default behavior of Quick and Platform Wizard when TPM ownership has already been taken. TNA menu is aligned with the balloon action in this situation too.
  - Quick Wizard and Platform Wizard are defaulting to "Initialization" instead of "Restoration" flow, when TPM ownership has already been taken and no configuration settings exist. The taskbar notification icon menu items are also aligned to reflect this change.
- Default values of TPM Dictionary Attack defense parameters are changed for compatibility reasons with Windows 8
- Startup of necessary processes by Management Service
  - Management service uses System Event Notification Service's (SENS) logon event for starting process "ifxspmgt.exe". Since SENS doesn't work on Windows XP, the registry key IFXSPMGT under HKLM/Software/Microsoft/Windows/CurrentVersion/Run/ is still used in that case.
- TPM-related OS Information in "Control Panel Application -> Info -> More Details" added for Windows 8
  - Section WMI TPM information shows:
    - if TPM auto-provisioning is supported on the platform.
    - if the TPM is in fully functional mode (including a hex value containing additional information).
    - if the owner secret is available from the operating system.
    - the PPI versionThe info is being omitted, if the CPA is not running with administrative rights or the OS is not Windows 8 or later.
- Modified options in UI when configuring restore reason in Backup wizard
  - The "Broken hard disk or lost data" option has been replaced by a new option called "Trusted Platform Module already initialized".
- Modified TNA icon behavior
  - To improve the user experience the behavior of the TNA icon was modified. The online help page describing the icons has been updated accordingly.

- Policy <Purge keys when entering energy-saving state>  
Disable is not applicable for Windows 8.
- Name of Start menu link TPM help and readme are changed to "Security Platform Solution Help" and "Security Platform Solution Readme".

### **2.1.6 Supported Languages**

CS	--> Czech
DE	--> German
EN	--> English
ES	--> Spanish
FR	--> French
IT	--> Italian
JA	--> Japanese
KO	--> Korean
PT-BR	--> Brazilian Portuguese
RU	--> Russian
zh-Hans	--> Chinese Simplified
zh-Hant	--> Chinese Traditional

### **2.1.7 Supported Operating Systems**

Operating Systems (only for 32-bit product version):

- Microsoft Windows XP Service Pack 3  
(Professional , Home Edition, Media Center Edition 2005, Tablet PC Edition 2005)
- Microsoft Windows Vista Service Pack 2  
(Home Basic, Home Premium, Business, Enterprise, Ultimate)
- Microsoft Windows 7 Service Pack 1  
(Home Premium, Professional, Enterprise, Ultimate)
- Microsoft Windows Server 2008 Service Pack 2
- Microsoft Windows 8  
(Windows 8, Windows 8 Professional, Windows 8 Enterprise)

Operating Systems (only for 64-bit product version):

- Microsoft Windows XP Professional x64 Edition Service Pack 2 (AMD64)
- Microsoft Windows Vista Service Pack 2  
(Home Basic, Home Premium, Business, Enterprise, Ultimate)
- Microsoft Windows 7 Service Pack 1  
(Home Premium, Professional, Enterprise, Ultimate)
- Microsoft Windows Server 2008 R2 Service Pack 1



- Microsoft Windows 8  
(Windows 8, Windows 8 Professional, Windows 8 Enterprise)

### 2.1.8 Hardware Requirements

A PC capable to run one of the mentioned operating systems and equipped with an

- Infineon Security Platform Chip TPM SLD 9630TT1.1
- Infineon Security Platform Chip TPM SLB 9635TT1.2

### 2.1.9 Prerequisites

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### 2.1.10 Compatibility requirements

- Tested with Windows 8 RTM Build #9200
- Microsoft Office applications  
Microsoft Office 2003, Microsoft Office 2007 and Microsoft Office 2010 (for S/MIME and SSL client side authentication via Infineon TPM User CSP).
- Checkpoint  
Check Point VPN-1 SecuRemote/SecureClient NG with Application Intelligence (R55)  
Check Point VPN-1/FireWall-1 NG with Application Intelligence (R55)
- Adobe  
Acrobat 6.0 Professional for digitally signing of PDF documents as well as encryption.

### 2.1.11 Known Observations from Test Report

#### 2.1.11.1 *Not supported functionality*

- Archive with emergency recovery / password reset public key not selectable by Security Platform admin in platform init wizard

#### 2.1.11.2 *Setup*

- tpm00008578 Missing characters on Installation Wizard [Preparing to install...] page  
Service request raised at Flexera. Flexera rejected service request since they are not able to reproduce this behavior and engineering rejects any bugs that are not easily reproducible.
- tpm00006105 Warning message for unsupported operating systems  
Warning message for unsupported OS appears after the installation of prerequisites. According information is provided readme.txt as "Known Bugs and Limitation".
- tpm00006064 Fatal error during un-installation, If prerequisite package (e.g. VC++ Redistributable) is removed and then TPM software is un-installed. This is mentioned in readme.txt as "Known Bugs and Limitation".

- tpm00004826 If the software is installed on an operating system which does not support policies (e.g. XP Home), then the policies are missing after an upgrade to an operating system which supports this feature (e.g. Vista Business Edition) and cannot be enabled by repair/modify of the installation. The software has to be uninstalled and reinstalled to enable the policies. This is mentioned in the Readme.txt

#### **2.1.11.3 *Encrypting File System***

- tpm00008648 Unexpected User Authentication dialog will be displayed for EFS encrypted file if EFS encryption key is not longer available
- tpm00007939 EFS configuration shows problem if Win7 policy "Require smart card for EFS" is set  
During action "Initialize EFS ..." a balloon with title "Encrypting File System needs your smart card PIN" pops up. Clicking on the balloon another dialog is displayed. Select "Create a new smart card certificate" in the dialog. Dialog quits with error message "The smart card resource manager is not running" and Quick Wizard completes successfully. But when trying to encrypt a file the dialog as mentioned above comes up again and file cannot be encrypted.
- tpm00004960 UAC and BUP dialogs pop up when administrative user logs on if OS is upgraded from XP to Vista. Workaround mentioned in the Readme.txt file.

#### **2.1.11.4 *PSD***

- tpm00008828 Win8 / Internal error occurs  
Internal error occurs if user signs in and accesses PSD by clicking on desktop icon before TPM icon appears.
- tpm00006486 F5 to refresh PSD configuration pages does not work  
F5 does not refresh list box on page "Configure your Personal Secure Drive"
- tpm00003566 PSD TNA Load  
If PSD is configured to "Load at logon" and user does not provide Basic User Password (BUP) during that process but chooses to load PSD additionally from TNA an error message "Personal Secure Drive is in use by another process" pops up. PSD can still be loaded by providing BUP in first BUP dialog.
- tpm00002404 Delete PSD with save of content  
More space than really required is requested since calculation of required space for copy contains also space used by file system and system volume information of PSD drive.

#### **2.1.11.5 *Dictionary Attack***

- tpm00003550 Upgrade from Infineon TPM Professional Package 2.0 with IFX TPM1.2 to Infineon TPM Professional Package 3.0:  
TPM\_AT\_DELAY\_DOUBLE\_LOCK mode not set  
If a PC system with IFX 1.2 TPM is initially used with Infineon TPM Professional Package 2.0, the TPM chip is not initialized with TPM\_AT\_DELAY\_DOUBLE\_LOCK

mode while upgrading to Infineon TPM Professional Package 3.0.

If the user upgrades to Infineon TPM Professional Package 3.0, it does not behave the same as if he initialized with Infineon TPM Professional Package 3.0. TPM is still in TPM\_AT\_DELAY\_DOUBLE mode.

This issue is mentioned in Readme file with according workaround.

#### **2.1.11.6 Settings Tool**

- tpm00007752 CPA Update of BitLocker tab information  
To get BitLocker status updates (Encrypting, Decrypting etc.) user has to switch to another tab then change back to "BitLocker" tab.
- tpm00006609The "X" on upper right corner of system message box is shown but does not work.  
If platform or user is not initialized, clicking on "User" page will display a dialog informing the user if he wants to initialize now. The "X" on upper right corner is shown but does not work on this dialog. This is only visible systems with Vista and AERO effects enabled and is an operating system issue. SW uses system message box which should handle this. The "x" button is not enabled if the message box has buttons other than "OK", "Cancel". It is by design from MS since Windows 2000.

#### **2.1.11.7 Backup / Restore**

- tpm00008875 Restoration from System Backup fails, if policy "Allow Platform enrollment" is set to disabled.
- tpm00008876 Restoration from System Backup succeeds, even if policy "Allow Platform enrollment" is set to "Enabled / Allow Management Provider only".

#### **2.1.11.8 RSA SecurID**

- tpm00006110 RSA SecurID Software Token v3.07 does not load PKCS#11 crypto service provider.  
RSA provided a hot fix for Infineon (based on v3.07) that re-enables PKCS#11 support. But this hot fix does not work with Host Software versions 3.0 and higher. Presumably there will not be a version 3.08 of RSA SecurID.

#### **2.1.11.9 Miscellaneous**

- tpm00008807 Error event log (ID 16385) written when "Preparation of TPM setting" is enabled
- tpm00007764 Microsoft VPN connection when using EAP-TLS with certificates of keys with strong private key protection  
Issue is mentioned in readme.txt as "Known Bugs and Limitation".
- tpm00007538 TPM small icon in control panel is shown without key image.
- tpm00007522 TPM icon 'expansion/compression' problem in Vista control panel  
No support for 'large' & 'Extra large' TPM icons in control panel.

- tpm00006093 Volume Shadow Copy Service (VSS) shows issue at Vista, Windows Server 2003 and XP when a PSD is loaded.  
With Vista System Restore is not using System Restore service, but is utilizing Volume Shadow Copy Service (VSS). As VSS is affected when a PSD is loaded, creation of restore points is also affected when PSD is loaded and selected for automatic restore points.
- tpm00005457 After installation of SW, the warning event, 3004 from Windows Defender, is found in the system event log. This is a behavior of Microsoft Windows Defender and a service request is pending at Microsoft regarding this issue.
- tpm00005451 Warning 1517 of application event log is recorded on every reboot.
- tpm00005450 Warning 1524 of application event log is recorded after EFS access.
- tpm00005420 Warning 541 of TBS is recorded when the system resume from S3 and / or S4
- tpm00004526 Status update in TNA and the Security Platform Control panel is missing in case the TPM is managed from Vista TPM console/wizard. A possible workaround for Owner state: Restart system.
- tpm00004272 Basic User Password Dialog prevents Shutdown/Restart (Windows XP)  
When the Basic User Key password is present, the user cannot perform Shutdown or Restart. However Standby and Hibernate can be performed.

#### **2.1.11.10 Windows 8 related**

- VPN IPsec connection using L2TP/IKEv2 protocol with platform authentication by Infineon KSP is not supported due to changed KSP interface for Windows 8.
- If the system shuts down or goes into sleep or hibernation while performing Security Platform operation requiring access to the TPM (such as initializing the Security Platform, changing Basic User Password and others), the operation might not finish properly. It is recommended to avoid power state transitions while performing such operations. In case such failure is observed, please repeat the operation after system restart.
- Windows SmartScreen  
Windows 8 might prevent running Setup.exe with „Windows protected your PC“ message. This might happen when Setup.exe is run from an untrusted (for example network) location or copied from an untrusted location and then started locally. This is because Infineon TPM Professional Package 4.3 uses new code signing certificate that has not yet established sufficient reputation with Windows SmartScreen Application Reputation service. User should continue the installation by selecting More Options -> Run Anyway.
- tpm00008815 / tpm00008831 / tpm00008840 No shortcut to setting tool is available on Metro desktop.

- tpm00008802 Disabling the policy <Purge keys when entering energy-saving state> is not applicable for Windows 8 any longer.  
After get back from S3 key is not longer available, since keys will be purged by TBS.
- Event log entries when disabling TPM chip via Settings Tool  
When disabling TPM via Settings Tool, every action in Settings Tool (e.g. press button "More details ..") results in event log error entries with 'TPM' as source.  
Disabling via tpm.msc reduces the count of entries, but there is still one.
- Upgrade from Windows 7 x64 to Windows 8 x64  
CSP registration for 32 bit is lost. Workaround: Repair or reinstall Infineon Professional Package.

#### **2.1.12 Observations Fixed in this Release**

- tpm00008832 Typo in policy help
- tpm00008827 Win8 / Blank password is accepted in case reset of dictionary level
- tpm00008826 EFS and PSD options are selected but grayed out during feature reconfiguration
- tpm00008818 Win8 / Recovery wizard displays wrong reason for recovery after the TPM clear
- tpm00008817 Win8 / recovery explanation is not correct  
"Security Platform restoration from Backup Archive" is not selected by default in Platform Wizard
- tpm00008809 Settings Tool can be launched more than once  
Settings Tool can be launched more than once by using Window Key + B key.
- tpm00008803 Password is not cached if option is chosen during EFS log out.  
Password is not cached if option is chosen during EFS log out. After log from EFS next access to EFS encrypted file fails. Second access requires providing password again.
- tpm00008801 Win8 / "disable button causes error
- tpm00008800 Win8 / TNA balloon is not shown when sign-in as un-initialized user the first time at all
- tpm00008797 Win8 / "Reset of basic user password" screen is missing on Security Platform user initialization wizard.
- tpm00008790 Win8 / It is impossible to select except "Failure of hard disk or lost data" once "recover all" is requested  
Wording of restore reason is changed for Win 8 compliancy. This page does not offer to select an option.
- tpm00008789 Win8 / Metro shortcut file name is not easy to understand on  
Name of Start menu link TPM help and readme are changed to "Security Platform Solution Help" and "Security Platform Solution Readme".

- tpm00008783 Win8 / Recover all fails after the chip clear
- tpm00008782 Win8 / After quick initialization necessary characters are not shown
- tpm00008781/ tpm00008824 Win8 / EFS initialization fails with quick initialization
- tpm00008780 Win8 / after the first install, during the initialization of platform, message is incorrect
- tpm00008779 Win8 / TPM icon after chip clear is different from Win7  
Icon handling is changed for Win 8 compliancy
- tpm00008778 Win8 / Icon after TPM-UT install is different from Win7  
Icon handling is rework for Win 8 compliancy
- tpm00004357 Wrong tooltip in TNA if platform is temp disabled due to dictionary attack. TNA tooltip says "Ready to use" even when TPM 1.2 chip goes into defense state and DA mode of TPM 1.2 is configured to TPM\_AT\_DELAY\_DOUBLE\_LOCK.

#### **2.1.13 Obsolete Observations**

#### **2.1.14 Installation Instructions**

The module <Setup.exe> installs the Infineon TPM Professional Package Software.

Installing Infineon TPM Professional Package Software requires administrative rights.

## **2.1.15 Co-requisite hardware or software**

### ***2.1.15.1 BIOS Requirements***

BIOS ACPI plug and play support for the Security Platform Chip.

### ***2.1.15.2 Security Platform Chip***

- Security Platform Chip: TPM SLD 9630TT1.1  
Firmware: Version 1.05
- Security Platform Chip: SLB 9635TT1.2  
Firmware: Version 3.19

### 3 Debug Versions

PSD supports event logging also for debugging purposes.

The PSD event logging is controlled via registry entries at

HKEY\_LOCAL\_MACHINE\Software\Microsoft\Windows\CurrentVersion\App Paths\PSDapp

The event log level is set by the value 'EventLogging' as REG\_DWORD, this value is set at install time.

Following values are defined:

- No event log

0 No event log

1 Only error events

2 Error and warning events (**default** at installation)

3 Error, warning and information events

4 Error, warning, information and debug events ( EventDebugging value )

In case of debug events, an additional value 'EventDebugging' controls with module posts debug events as REG\_DWORD, one or more values can combined ( added ) together.

0x00000001 PSD.dll

0x00000002 PSDrt.exe

0x00000004 PSDsvc.exe

0x00000008 PSDCFGWZ.ocx

0x00000010 PSDShExt.dll

0x00000040 PSDrecovery.exe

0x00000100 unmount.exe ( only visible at uninstall time )

#### **Note:**

Enabling debug events for all modules will fill up the eventlog very fast.

Therefore the recommendation is to change the event log properties.

Increase the log size and enable the option "overwrite events as needed".