



Braswell Platform – Intel® Trusted Execution Engine (Intel® TXE) 2.0 Firmware

Release Notes HF4

7 December 2015

Version History/Revision History

These are the main releases of Braswell FW:

Date	Milestone	Version	Title
Jul 23 2014	Pre Alpha	2.0.0.1014	BSW Windows 8.1 Pre Alpha
Nov 06 2015	Alpha	2.0.0.1029	BSW Windows 8.1 Alpha
Jan 08 2015	Beta	2.0.0.2042	BSW Windows* 8.1 Beta
Feb 09 2015	Beta	2.0.0.2048	BSW Windows* 8.1 & Windows* 7 Beta
Mar 24 2015	PV	2.0.0.2056	BSW Windows* 8.1 & Linux PV
Apr 17 2015	Beta	2.0.0.2058	BSW Windows* 10 Beta
Apr 21 2015	PV	2.0.0.2060	BSW Windows* 7, 8.1 & Linux PV
Jun 26 2015	PC	2.0.0.2073	BSW Windows* 7, 8.1, 10 & Linux PC
Jul 09 2015	PV	2.0.0.2073	BSW Windows* 7, 8.1, 10 & Linux PV
Jul 23 2015	PV	2.0.0.2077	BSW Windows* 7, 8.1, 10 & Linux PV
Aug 27 2015	HF1	2.0.1.2084	BSW Windows* 7, 8.1, 10 & Linux HF1
Sept 10 2015	RCR	2.0.1.2087	BSW Windows* 7, 8.1, 10 & Linux HF1
Oct 15 2015	HF2	2.0.2.2092	BSW Windows* 7, 8.1, 10 & Linux HF2
Dec 7 2015	HF4	2.0.4.3098	BSW Windows* 7, 8.1, 10 & Linux HF4

Intended Audience

OEM/ODM software developers, test and validation engineers, system integrators, end-users and or consumers.

Customer Support

For technical support, including answers to questions not addressed in this product, visit the technical support forum, FAQs, and other support information at or contact your Intel Field Application Engineer.

To submit an issue, go to Intel Premier Support:

(<https://employeeportal.intel.com/irj/portal/IntelPremierSupportUser>)

For more information on registering to Intel Premier Support, go to: <http://software.intel.com/en-us/articles/performance-tools-for-software-developers-intel-premier-support>

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1 Introduction

This document covers the following Intel® Trusted Execution Engine (Intel® TXE) 2.0 Firmware Release Notes for future Intel® Pentium® processor or future Intel® Celeron® processor N-series based platform.

Important Notes:

- It is highly recommended to use the FIT tool provided in this kit.
- Please make sure to use Intel TXE FW and System Tools from the same kit. Versioning combinations may cause unexpected issues.
- This kit includes both Unsigned (Pre-production) FW and Signed (Production) FW. Combination of Unsigned Intel TXE Firmware and Production Silicon is not supported and will result in unexpected behavior.
- Please use SPI Flash parts that align with the Braswell Platform SPI Flash Compatibility Requirements (IBL# 550046, section 3)
- Sample Signer tool reference code kit details available in section 5 (Related Documentation).
- The Intel® TXEI driver in this kit has passed the Microsoft* Windows Hardware Quality Labs (WHQL) test and has been certified by the Microsoft* Company.

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To learn more about this product, see:

- New features listed in the [New in this Release](#) section below, or in the help.
- Reference documentation listed in the [Related Documentation](#) section below

2 New in This Release

New Features

- Intel® TXE Driver version has changed to version 2.0.0.1094 (New MSFT SID #1763523 (x32b), #1763525 (x64b)).
- The VCN (Version Control Number) value has increased in Intel® TXE FW version 2.0.4.3098 (HF4) to '5'. As a result downgrades from Intel® TXE FW Version 2.0.4.3098 to earlier Intel® TXE FW versions will not be possible. Full Intel® TXE FW updates from earlier releases to version 2.0.4.3098 are supported.

Changes to Existing Features

NA

Unsupported or Discontinued Features

As communicated previously, Intel has re-evaluated Android support for Braswell platforms and Android has been removed from the Braswell Plan of Record (POR).

3 Known Issues

Issue #	Title	Description/ Affected Component/ Impact / Status
217378	TXEInfo showing wrong status on last reset reason	<p>Description: After issuing global reset, Last Intel® TXE reset reason shows "Power Up" instead of "Global system reset"</p> <p>Workaround: Using RW Everything tool, go to Access → "IO Index/Data", Select "0072/0073" index, then locate offset 0x51. Last reset is in bits [7:4] & last reset-1 reset in bits[3:0]. Decode the resets to the following: 0x9 = Warm Reset, 0xB = Cold Reset, 0x2 = Global Reset, 0x0 = Power up.</p>
NA	Intel® IPT EPID provisioning affected by MSFT security advisory for Windows* 7 .	<p>Microsoft released a security advisory about loading external libraries in Windows*7 OS. – "The issue is caused by applications passing an insufficiently qualified path when loading an external library". Link to the article: http://technet.microsoft.com/en-us/security/advisory/2269637</p> <p>This issue affects Intel® IPT EPID provisioning and therefore OEM is required to install the appropriate patch provided by Microsoft* : http://support.microsoft.com/kb/2533623?wa=wsignin1.0</p>

4 Fixed Issues

Issue #	Details
RCR 155407	HDCP2 RX: Encrypting SEC FW Encrypting this module is mandatory for meeting HDCP2 license requirements in the situation where Intel distributes CSE FW to OEMs that are HDCP2 licensees.
217896	TXEInfo fail Error 460: failed getting FPF "Anti Replay Protection FPF" entry from FPF Support Table
CL 223955	[LAB126] Fixed memory access bug when PlayReady/Widevine are calling AFWS.

5 Related Documentation

- Braswell Intel® TXE FW Bring Up Guide
- Braswell Intel® TXE System Tools User Guide
- Braswell Intel® TXE FW Application PRD
- Braswell SPI Programming Guide
- Braswell External Architecture Specification
- Braswell Intel® TXE FW Compliance Guide

Braswell Platform - Intel® Trusted Execution Engine (Intel® TXE) Firmware Compliance – User Guide – Rev. 0.8	CDI / IBL: 554334
Sample Signer Tool Reference Code	Test Software Collateral ID: 1000653
Intel® Trusted Execution Engine (Intel® TXE) Firmware Verified Boot Solution	CDI/IBL: #543127
Braswell Platform SPI Flash Compatibility Requirements	CDI/IBL: #550046
Intel® Trusted Execution Engine HW DRM Playback Failure	CDI/IBL: #561499
Intel® TXE Impact on Platforms Designed without Coin-Cell Batteries	CDI/IBL: #560933

6 Where to Find the Release

This release can be found on the Intel® VIP site: <https://platformsw.intel.com>

How to Install this Release

This kit can be installed in one of two optional ways:

1. Run SetupTXE.exe located in the Installers sub-directory of the kit.
2. To run silent install, you may use "-s" option as "SetupTXE.exe -s"

7 Release Content

Typical release version numbering is as follows: 2.x.y.z (for example: 2.0.0.zzzz) where:

- '2' refers to the Intel® Trusted Execution 2.x Firmware SKU for Braswell Platforms.
- 'x' represents point releases where new features or changes to existing features may be added.
- 'y' refers to Maintenance and Hot Fix release designations.
- 'z' refers to firmware release revision

Table 1-1 Revision numbers of components of the Production Version release.

Subproject (component)	Location	Revision
Flash Image Tool (FIT)	...\System Tools\	2.0.4.3098
Flash Programing Tool (FPT)	...\System Tools\	2.0.4.3098
TXEInfo	...\System Tools\	2.0.4.3098
TXEManuf	...\System Tools\	2.0.4.3098
FWUpdate	...\System Tools\	2.0.4.3098
Flash Manifest Generation Tool (FLAMinGO)	...\System Tools\	2.0.0.1059
Sample Signer	...\System Tools\	2.0.0.1059
SetupTXE.exe	...\Installers\	2.0.0.1094

8 Hardware and Software Compatibility

- Intel® Pentium® N3700/N3710 Processor
- Intel® Celeron® N3000/N3010 Processor
- Intel® Celeron® N3050/3060 Processor
- Intel® Celeron® N3150/3160 Processor
- Intel® Pentium® J3710 Processor
- Intel® Celeron® J3060 Processor
- Intel® Celeron® J3160 Processor

Supported Operating Systems

Windows* 7, Windows* 8.1, Windows* 10, Linux

9 Acronyms and Terms

The following acronyms and terms are used in this document (arranged in alphabetic order):

Acronym/Term	Description
CRB	Customer Reference Board
HECI	Host Embedded Controller Interface
Intel® FIT	Flash Image Tool
FPT	Flash Programming Tool
Intel® TXE	Intel® Trusted Execution Engine (Intel® TXE)
Intel® TXEI	Intel® Trusted Execution Environment Interface (Intel® TXEI)

10 Legal Information

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