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

Release Notes rev 1.4

9 July 2015

Version History/Revision History

These are the main releases of Braswell FW:

Date	Revision	Description
9 Feb 2015	1.0	Release Notes for BSW Windows* 8.1 & Windows* 7 **Beta**
24 Mar 2015	1.0	Release Notes for BSW Windows* 8.1 & Linux **PV**
17 Apr 2015	1.1	Release Notes for BSW Windows* 10 **Beta**
21 Apr 2015	1.2	Release Notes for BSW Windows* 7, 8.1 & Linux **PV**
26 Jun 2015	1.3	Release Notes for BSW Windows* 7, 8.1, 10 & Linux **PC**
09 Jul 2015	1.4	Release Notes for BSW Windows* 7, 8.1, 10 & Linux **PV**

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

Contents:

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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 FITC 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

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2 New in This Release

New Features

- The VCN (Version Control Number) value has increased in Intel® TXE FW version 2.0.0.2073 (PV Version) to '3'. As a result downgrades from Intel® TXE FW Version 2.0.0.2073 to earlier Intel® TXE FW versions will not be possible. Full Intel® TXE FW updates from earlier releases to version 2.0.0.2073 are supported.
- Added support for Windows* 10.

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	**Description**: After issuing global reset, Last TXE reset reason shows "Power Up" instead of "Global system reset" **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.
NA	Intel® IPT EPID provisioning affected by MSFT security advisory for **Windows* 7.**	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 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

4 Fixed Issues

Issue #	Title	Description/ Affected Component/ Impact / Status
176019	Field Programmable Fuses - infield programing yield improvement.	**Description:** Running TXEInfo from BSW PC kit returns the following error: Error 460: failed getting FPF "OEM_UNIQUE_DEVICe_ID" entry from FPF Support Table.
155269	HDCP 2.2 Added receiver support for Miracast sink feature	RCR Implementation to add receiver support for Miracast sink feature.
179884 177979 177267	Play Ready 3 - Functional fixes and performance optimizations.	Performance optimizations and functional fixes supporting Play Ready 3.
	Updated: CHT SPI programming guide 1.1.1	FITc implementation of new BSW SPI Programming Guide Rev 1.1.1
217813	TXEInfo returns error: "Error 460: failed getting FPF "OEM_UNIQUE_DEVICe_ID" entry from FPF Support Table"	**Description:** Running TXEInfo from BSW PC kit returns the following error: Error 460: failed getting FPF "OEM_UNIQUE_DEVICe_ID" entry from FPF Support Table. **Workaround**: N/A
5619280	IPT and DAL is not installed on Windows* 7.	**Description:** Intel® IPT and Dynamic Application Loader (DAL) are not installed by the TXESetup.exe installer on Windows* 7. This is related to missing KMDF 1.11 on Windows* 7. When this framework is not present, TXE installer fails to detect platform capabilities and requires a restart prior to installing the DAL/IPT components **Workaround**: Run the TXE installer through Command Prompt with "-nodalchk". After installation reboot the platform.
2342439	TXEInfo and TXEManuf show ISH Status not responding.	**Description**: TXEInfo / TXEManuf return error on ISH not responding **Workaround**: add "-noish" flag when running TXEInfo and TXEManuf.

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 Programing 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

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\	2.0.0.2077
Flash Programing Tool (FPT)	…\System Tools\	2.0.0.2077
TXEInfo	…\System Tools\	2.0.0.2077
TXEManuf	…\System Tools\	2.0.0.2077
FWUpdate	…\System Tools\	2.0.0.2077
Flash Manifest Generation Tool (FLAMinGO)	…\System Tools\	2.0.0.1059
Sample Signer	…\System Tools\	2.0.0.1059
SetupTXE.exe	…\Installers\	2.0.0.1067

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8   Hardware and Software Compatibility

- Intel® Pentium® N3700 Processor
- Intel® Celeron® N3000 Processor
- Intel® Celeron® N3050 Processor
- Intel® Celeron® N3150 Processor

Supported Operating Systems

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

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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
Intel® FPT	Flash Programming Tool
Intel® TXE	Intel® Trusted Execution Engine (Intel® TXE)
Intel® TXEI	Intel® Trusted Execution Environment Interface (Intel® TXEI)

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