



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

Release Notes rev 1.2

30 April 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 |
| 24 Apr 2015 | 1.2 | Release Notes for BSW Windows* 7 & Linux PV |
| 30 Apr 2015 | 1.2 | Release Notes for BSW Windows* 7, 8.1 & 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:

| | | |
|--------------------|---|--------------------|
| 1 | Introduction | 4 |
| 2 | New in This Release | 5 |
| 3 | Fixed Issues | 6 |
| 4 | Known Issues | 7 |
| 5 | Related Documentation | 8 |
| 6 | Where to Find the Release | 9 |
| 7 | Release Content | 10 |
| 8 | Hardware and Software Compatibility | 11 |
| 9 | Acronyms and Terms | 12 |
| 10 | Legal Information | 13 |

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.

Disclaimer: SAMPLE SIGNER REFERENCE CODE DOES NOT OFFER ADEQUATE SECURITY. CUSTOMER NEEDS TO ADD SIGNIFICANT FUNCTIONALITY AND MODIFY THIS SOFTWARE TO PROTECT CUSTOMER PRIVATE KEY. INTEL ASSUMES NO LIABILITY FOR LOST OR STOLEN PRIVATE KEY DATA AND/OR SYSTEMS OR ANY OTHER DAMAGES RESULTING THEREOF.

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
- Installation instructions can be found at: <Put URL to Install Guidance Here>

2 New in This Release

New Features

The VCN (Version Control Number) value has increased in Intel® TXE FW version 2.0.0.2060 (PV Version) to '2'. As a result downgrades from Intel® TXE FW Version 2.0.0.2060 to earlier Intel® TXE FW versions will not be possible. Full Intel® TXE FW updates from earlier releases to version 2.0.0.2060 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 Fixed Issues

| Issue # | Title | Description/ Affected Component/ Impact / Status |
|---------|--|--|
| 217696 | NFC device exposed as Intel® TXEI unknown child device with Yellow Bang. | Issue depending on OS timing, if OS exits S3 before NFC FW was able to process the EOP and unregister the HECI client, the NFC device is exposed and Yellow bang appears in device manager. |
| 5327697 | Intel® PTT is in failure Mode upon FW update. | BitLocker recovery screen is seen after performing FW update from version 2.0.0.1048 (Beta) -> to 2.0.0.2056. |
| 5328168 | Intel TXEI 2.0 Installer's License Agreement in Intel® TXE Firmware PV kit (v2.0.0.2056) is pre-production type and not production type. | Intel TXEI Installer's License Agreement in Intel® TXE PV Firmware 2.0.0.2056 Kit release is pre-production (Alpha / Beta, Organizational Use) and not production (OEM / IHV / ISV Distribution & Single User) type. |

4 Known Issues

| Issue # | Title | Description/ Affected Component/ Impact / Status |
|---------|---|--|
| 5619280 | Intel® IPT and Intel® DAL is not installed on Windows* 7. | <p>Description: Intel® IPT and Intel® Dynamic Application Loader (Intel® 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, Intel TXE installer fails to detect platform capabilities and requires a restart prior to installing the Intel DAL/IPT components</p> <p>Workaround: Run the Intel TXE installer through Command Prompt with "-nodalchk". After installation reboot the platform.</p> |
| 2342439 | TXEInfo and TXEManuf show ISH Status not responding. | <p>Description: TXEInfo / TXEManuf return error on ISH not responding</p> <p>Workaround: add "-noish" flag when running TXEInfo and TXEManuf.</p> |
| 217378 | TXEInfo showing wrong status on last reset reason | <p>Description: After issuing global reset, Last 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> |

5 Related Documentation

- Braswell Intel® TXE FW Bring Up Guide
- Braswell Intel® TXE System Tools User Guide
- Braswell Intel® Braswell TXE FW Application PRD
- Braswell Intel SPI Programing Guide
- Braswell Intel 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”
3. For Windows* 7 users, following an issue related to missing KMDF 1.11 on Windows* 7, customers are requested to install SetupTXE.exe using the Windows Command Prompt option with the addition of the “-nodalchk” flag (please see Known Issues section for further details).

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\ | 2.0.0.2060 |
| Flash Programing Tool (FPT) | ...\System Tools\ | 2.0.0.2060 |
| TXEInfo | ...\System Tools\ | 2.0.0.2060 |
| TXEManuf | ...\System Tools\ | 2.0.0.2060 |
| FWUpdate | ...\System Tools\ | 2.0.0.2060 |
| Flash Manifest Generation Tool (FLAMinGO) | ...\System Tools\ | 2.0.0.1059 |
| Sample Signer | ...\System Tools\ | 2.0.0.1059 |
| SetupTXE.exe | ...\Installers\ | 2.0.0.1057 |

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, 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 |
| 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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