SIIP Scripts for Elkhart Lake Platform

Release Notes

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***Revision History***

|  |  |  |
| --- | --- | --- |
| **Date** | **Revision** | **Description** |
| September 4th 2019 | 0.7.0 | Alpha Release Candidate corresponding to SIIP Scripts version 0.7.0 with the following changes:   1. Overall:    1. Update allow scripts to run from script directory    2. Fixed RTC# 304639, Fix coding style in all scripts    3. Added RTC #300610, Created a complete release package with a single step and reorganize script and shared code into new layout: 2. scripts : entry to all scripts 3. 3rdParty : Third party code 4. common : modules and libraries 5. SIIP Sign Script:    1. Added RTC #305963, Support stitching GOP/PEIM GFX/VBT into IFWI image 6. SIIP Stitch Script:    1. Update stitching Include Gfx PEIM in OBB stitching flow    2. Fixed RTC #304918, Timeout time too short causing the failure of stitching    3. Fixed RTC #305982, Stitching not working on some systems with predefined timeout of 10 seconds    4. Fixed RTC #305321, SIIPStitch tool do not have a check file on IPNAME\_IN file size    5. Fixed RTC #305325, SIIPStitch tool do not have a check on IPNAME\_IN2 file size    6. Update RTC #306596, Update siiipstitch tool to recognize the new IP filenames with PSE instead of OSE    7. Fixed RTC #305389, SIIPStitch tool do not have a check on privatekey file size    8. Fixed RTC#305296, Unable stitch with privatekey full path    9. New feature request RTC #305460, New feature request to support GbE 3 Sub-Regions on BIOS and PSE, HSD-ES RCR: https://hsdes.intel.com/resource/1507303757 7. Sub-Region Capsule:    1. Updated sub-region examples and FV alignment    2. Update RTC #306548, Separate subregion JSON conversion to binary feature from main script    3. Fixed RTC#304497, All data is read from file even if the size set in json is less than file size |
| August 2nd , 2019 | 0.6.1 | Pre-Alpha Release. |
| July 26, 2019 | 0.6.1 | Pre-Alpha Release Candidate2 corresponding to SIIP Scripts version 0.6.1 with the following changes:   1. Overall:    1. Update Readme to match the latest code for all scripts    2. Fixed inconsistent data handling 2. SIIP Sign Script:    1. RTC#304639: Fix coding styles 3. SIIP Stitch Script:    1. Fixed #304887, Readme file is not updated based on ww29.3 Release    2. Fixed #304889, SIIPStitch tools do not have a check on missing GenFv.exe    3. Fixed #304892, Error message for missing required executable file is not updated based on latest directory name    4. Fixed #304893, Misleading error message for privatekey when stitch with invalid private key's name    5. Fixed #304918, Timeout time too short causing the failure of stitching    6. Updated siip\_stitch.py to meet flake8 and pycodestyle 4. Sub-Region Capsule:    1. Fixed #304639, Fixing coding style issues |
| July 16, 2019 | 0.6.0 | Pre-Alpha Release Candidate corresponding to SIIP Scripts version 0.6.0 with the following changes:   1. SIIP Sign Script:    1. Fixed #29951, previous fix was not complete to handle verify subcommand when two keys are provided from command line and removed dead bash script 'test\_me'    2. Update: separated FKM as a separate file    3. Fixed coding style (PEP8 and Flake8)    4. Fix script per security review feedback:       1. SHA1 shall not be allowed as hashing option       2. RSA key size shall not be less than 2048 bits long    5. Fixed signing issue for GOP/GFX/VBT    6. Fixed bug in stitching PEIM GFX driver, PEIM GFX driver should be compressed using PI\_STD flag, instead of PI\_NONE 2. SIIP Stitch Script: 3. Added stitching feature for GOP, PEM GFX and VBT images to BIOS, fixed signing as GOP image required to be signed before stitching 4. Fixed #303203 Stitch passed but temporary working directory unable to remove when we switch the suggested root path to the other path 5. Fixed #302775 Typo in README.md and SIIPStitch.py file for version description |
| June 21, 2019 | 0.2.0 | Engineering Drop Release corresponding to SIIP Scripts version 0.2.0 with the following changes:   1. Overall: 2. Add a top level README as user guide document 3. Sub-Region Capsule: 4. Add Print output message 5. Fixed STDIN input to return bytes array 6. Fixed #299938 STDIN input to return bytes array 7. Fixed #299937 and #299569 Typo in readme file 8. Removed unused files and tools 9. Removed the 2 from IntelOob2Config 10. Updated README.md consistent with the code 11. SIIP Stitch: 12. Updated check valid IP names from a list 13. Removed GUID tool Rsa2048Sah256Sign 14. Removed debug code 15. Fixed #299330 Stitch failed with error "Error using FMMT.exe" when input file in half path 16. Fixed #299322 Stitch failed with error "Error base\_tool is not located: GenSec" when manually set EDK\_TOOLS\_BIN path 17. Fixed #300930 SIIPStitch should return a error when it does not find the firmware volume that match the requirement file to replace. 18. Fixed #300551 Stitch tool hang without error message prompt out when input empty bios 19. Fixed #300553 Stich tool hang without error message prompt out when input random gen binary file as BIOS 20. Fixed #300554 Stitch tool successfully stitch empty OseFw without error 21. Fixed #299943 Wrong Command to check OpenSSL is located in README file 22. Fixed #299945 Wrong Path for siipSupport folder in README file 23. SIIP Sign:     1. Fixed #299515 Sign and verify function not able to completed successfully if input files path consists of semicolon |
| May 24, 2019 | 0.1.0 | Engineering Drop Release corresponding to SIIP Scripts version 0.1.0 with the following changes:   1. This package consists of three scripts:    1. SIIP Stitch Script ( SIIPStitch.py ): Stitch a signed image into a full IFWI image    2. New Release: SIIP Sign Script ( SIIPSign.py ): Sign a payload image according to SIIP specification    3. New Release: Sub-region Capsule Script ( GenerateSubRegionCapsule.py ): Create a UEFI capsule image containing the signed image 2. Update BSD 2 Clause Licenses for release. 3. SIIP Stitch Script:    1. Correct SIIPStitch version control from v0.6.0 to v0.5.2 for engineering drop release.    2. Fixed stitching IFWI error. 4. SIIP Sign Script: New release, version v0.2.0 5. Sub-Region Capsule Script: New release, version 0.1.0 |

# Introduction

## Purpose

This document provides system requirements, installation instructions, issues and limitations, and legal information.

To learn more about this product, see:

* New features listed in the [New in this Release](#_What's_New) section below, or in the help.
* Reference documentation listed in the [Related Documentation](#_Related_Documentation) section below
* Installation instructions can be found at ***README.******docx***

## Audience

The audience for this document is developers and product design teams who are creating system running on the Elkhart Lake platform.

## Acronyms

The following acronyms are used in this document (arranged in alphabetical order).

Table 1 Acronyms Used in Document

| Acronym | Description |
| --- | --- |
| FMMT | Intel(R) Firmware Module Management Tool |
| PSE | Intel® Programmable Services Engine |
| SIIP | SoC Independent IP |

# New in This Release

## New Features

* **New feature request RTC #305460,**
* New feature request to support GbE 3 Sub-Regions on BIOS and PSE**, HSD-ES RCR:**  https://hsdes.intel.com/resource/1507303757

## Changes to Existing Features

* None in this release.

## Unsupported or Discontinued Features

None in this release.

# Fixed Issues

## Overall

* There’s a known issue in Pre-Alpha release and been fixed in this release:

[SIIP Stitch]: It’s required to follow readme file on preparing RSA private key and rename to privkey.pem into the same working directory, or it will cause stitching error and exit the process.

* Update allow scripts to run from script directory
* **Status: Closed**
* Fixed RTC# 304639, Fix coding style in all scripts
* Added RTC #300610, Created a complete release package with a single step and reorganize script and shared code into new layout:
* scripts : entry to all scripts
* 3rdParty : Third party code
* common : modules and libraries

## SIIP Stitch Script

* There’s a known issue in Pre-Alpha release and been fixed in this release:

[SIIP Stitch]: There’s known issue on GOP stitching failure in ER20 environment in simics. System may boot up without display in simics after GOP stitching.

* Update SIIPStitch stitching include Gfx PEIM in OBB stitching flow
* **Status: Closed**
* There’s a known issue in Pre-Alpha release and been fixed in this release:

[SIIP Stitch]: There’s known issue on time out failure when execute siip\_stitch.py to stitch BIOS and PSE FW binaries. This is due to FMMT tool takes longer time parsing input images.

* Fixed RTC #304918, Timeout time too short causing the failure of stitching
* Fixed RTC #305982, Stitching not working on some systems with predefined timeout of 10 seconds
* **Status: Closed**
* Fixed RTC #305321, SIIPStitch tool do not have a check file on IPNAME\_IN file size
* Fixed RTC #305325, SIIPStitch tool do not have a check on IPNAME\_IN2 file size
* Update RTC #306596, Update siiipstitch tool to recognize the new IP filenames with PSE instead of OSE
* Fixed RTC #305389, SIIPStitch tool do not have a check on privatekey file size
* Fixed RTC#305296, Unable stitch with privatekey full path

## SIIP Sign Script

* Added RTC #305963, Support stitching GOP/PEIM GFX/VBT into IFWI image

## Sub-Region Capsule

* Updated sub-region examples and FV alignment
* Update RTC #306548, Separate subregion JSON conversion to binary feature from main script
* Fixed RTC#304497, All data is read from file even if the size set in json is less than file size

# Known Issues

* This is the initial release only supporting Windows environment. Linux support will be added in future releases.
* [SIIP Stitch]: RTC #306596 implemented to recognize the new IP filenames with PSE instead of OSE, testing used pervious IFWI and PSE FW (before ER23 release) will cause stitching error message popup.
  + **Workaround**: Manually rename filenames with PSE (PseFw.bin) instead of OSE (OseFw.bin).

# Related Documentation

README.docx

# Where to Find the Release

Intel® Programmable Services Engine (PSE) , link: TBD

# Release Content

## Component Revision Numbers

Table 2 SIIP Scripts Component Revision Numbers

| Subproject (Component) | Location | Revision |
| --- | --- | --- |
| common | common\ \_\_init\_\_.py  common\firmware\_volume.py  common\ifwi.py  common\siip\_constants.py  common\sub\_region\_descriptor.py  common\sub\_region\_image.py  common\tools\_path.py | N/A |
| scripts | scripts\Examples\oob\_manageability.json  scripts\Examples\pse\_fw.json  scripts\Examples\tsn\_config.json  scripts\Examples\tsn\_ip\_config.json  scripts\Examples\tsn\_mac\_address.json  scripts\\_\_init\_\_.py  scripts\siip\_sign.py  scripts\siip\_stitch.py  scripts\subregion\_capsule.py | 0.7.0 |
| thirdparty | thirdparty\Bin\\*.\*  thirdparty\edk2\_capsule\_tool\\*.\* | N/A |
| Readme Files | README.md  README.docx | N/A |
| Releasenote | Releasenotes.docx | 0.7.0 |

# Hardware and Software Compatibility

Elkhart Lake platform

## BIOS/Firmware Version

* IFWI version: BIOS.bin (EHL ER23)
* GOP version: v1006

## Supported Operating Systems

* Window 10