SA Low Level Driver

Release Notes

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Contents

Overview 1
Licensing 1
Delivery Package 1
Installation Instructions 2
Customer Documentation List 3
LLD Dependencies 3
Label and Version Information 3
Resolved Incident Reports (IR) 4
Known Issues/Limitations 4
Migration Information 4
Component Compatibility 4
New/Updated Features and Quality 4

Release Notes

SA Low Level Driver Alpha version 02.00.00.06

Overview

This document provides the release information for the latest Security Accelerator Low Level Driver (SA LLD) which should be used by drivers and application that interface with SA. Although SASS supports 3GPP specific Ciphering and Authentication algorithms such as Kasumi F8/F9 and Snow3G F8, those algorithms are locked out in this standard SA LLD distribution. In order to access 3GPP specific functionalities, one must obtain the SASS 3GPP Enabler as well from TI.

SA LLD module includes:

- Compiled library (Big and Little) Endian of SA Low Level Driver.
- Sources
- Example and unit test code.
- API reference guide
- Software Manifest Documentation

This release notes is for SA LLD version 2.0.0.6(2_0_0_6)
For the rest of the document the keyword *SA_Version* will indicate the SA LLD version of this release.
The SA LLD is usually released with a PDK package; the keyword *PDK_Version* indicates the corresponding PDK version.

Licensing

Please refer to the software Manifest document for the details.

Delivery Package

The delivery package from Texas Instruments will be delivered as follows:

`setupwin32_salld_<device>_<SA_Version>.exe`

`setuplinux_salld_<device>_<SA_Version>.bin`

Installation Instructions

Installation prerequisite

- Install CCSv5
- Install the functional simulator for the device under test if it is not included in CCSv5.
- Install the dependent components as listed in section "LLD Dependencies". The LLD's are expected to be installed as part of PDK for the device.

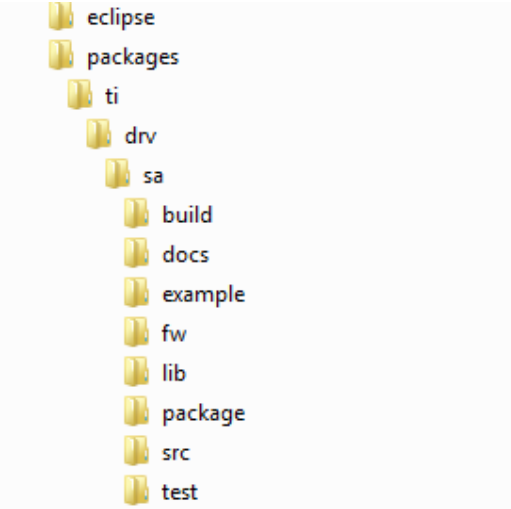
Installation guidelines

The steps to be followed for installation of the SA LLD release are as follows:

1. Download the release executable
2. Run the executable file; follow the instructions and install the SA LLD software.
3. Install the dependent components as listed in section "LLD Dependencies". The LLD's are expected to be installed as part of PDK for the device.

Directory structure

If SA LLD is installed in default location following would be directory structure:



The following table explains each individual directory covered as part of SA LLD installation:

Directory Name	Description
`ti/drv/sa`	The top level directory contains the following:- 1. *Exported Driver header file* Header files which are provided by the SA low level driver and should be used by the application developers for driver customization and usage.

ti/drv/sa/build	The directory contains internal XDC build related files which are used to create the SA low level driver package.
ti/drv/sa/docs	The directory contains the SA low level driver documentation.
ti/drv/sa/example	The "example" directory in the SA low level driver contains the example projects
ti/drv/sa/test	The "test" directory in the SA low level driver contains unit test code and projects
ti/drv/sa/lib	The "lib" folder has pre-built Big and Little Endian libraries for the SA low level driver along with their *code/data size information*.
ti/drv/sa/fw	C data files required to configure the SA hardware sub-system.
ti/drv/sa/package	Internal SA low level driver package files.
eclipse	The directory contains the Eclipse plug-in help files
ti/drv/sa/src	The "src" directory contains the SA LLD source code. This directory is only available in a source release package.

Customer Documentation List

Table 4 lists the documents that are accessible through the **/docs** folder on the product installation CD or in the delivery package.

Table 4 Product Documentation included with this Release

Document #	Document Title	File Name
1	API documentation (generated by Doxygen)	sa\docs\doxygen\html\index.html
2	Release Notes (this document)	sa\docs\ReleaseNotes_SA_LLD.pdf
3	Software Manifest document	sa\docs\SA_LLD_2_0_SoftwareManifest.pdf
4	User Guide	sa\docs\UserGuide_SA_LLD.pdf

LLD Dependencies

- This release of SA LLD requires CSL package released with PDK.

Label and Version Information

Table 1 lists the software label and versions supported by this release.

Table 1 Label and versions supported by this release

Label/Version Information
DEV.SALLD.02.00.00.06

Resolved Incident Reports (IR)

Table 2 provides information on IR resolutions incorporated into this release.

Table 2 Resolved IRs for this Release

IR Parent/Child Number	Severity Level	IR Description
SDOCM00100043	Major	SA LLD RN should indicate the Migration notes for ARM UserSpace LLD build from Keystone1
SDOCM00100931	Minor	ARM SaExample k2k makefile is missing from the SA LLD package
SDOCM00101341	Minor	SA LLD: System statistics not updated at certain scenario

Known Issues/Limitations

Table 3 Known Issue/IRs for this Release

IR Parent/ Child Number	Severity Level	IR Description
SDOCM00101388	Minor	SA LLD examples are not restartable

Migration Information

- SA LLD dependencies on "ti\mas" is removed
- libsalld.a is the only library needed for ARMV7 application located under "*sa/lib/armv7*" folder.

Component Compatibility

The example and unit test have been verified with certain version of PDK package and may need to be modified as per API changes introduced by other components if used with a different version of PDK. Following are the version dependencies.

k2h SoC: PDK package released with MCSDK version 03.00.00.10 and above

New/Updated Features and Quality

Release 2.0.0.6

- Resolved IRs as listed at section "Resolved Incident Reports (IR)"

Beta Release 2.0.0.5

- Resolved IRs as listed below.

IR Parent/ Child Number	Severity Level	IR Description
SDOCM00099200	Major	sa example projects are not released with the bundle

IR Parent/ Child Number	Severity Level	IR Description
SDOCM00100678	Major	Memory overwritten in function Sa_create() - SA LLD 2.00.00.04
SDOCM00099198	Major	SA Project Create does not have a Linux counter part
SDOCM00100410	Minor	Use by LLD makefiles of gcc instead of ld to perform library link fails with certain gcc versions

Alpha Release 2.0.0.4

- This release includes the following feature enhancements
  - Keystone2 support
  - Merged (Sync up) Keystone1 SA LLD 1.0.5.4 features. Refer to Keystone1 SA LLD 1.0.5.4 release notes for details.
- Resolved IRs as listed at section "Resolved Incident Reports (IR)".

NOTE: If you are using PDK Keystone2 1.0.0.7, please manually update the #define for "cslr_device.c" files under "ti\pdk_keystone2_1_00_00_07\packages\ti\csl\device\k2k\src" and "ti\pdk_keystone2_1_00_00_07\packages\ti\csl\device\k2h\src"as below.

#define CSL_NETCP_CFG_SA_CFG_REGS (0x02000000 + 0xC0000)

This is fixed in next Keystone2 PDK releases.

Release 2.0.0.0 through Release 2.0.0.3

- Internal Releases