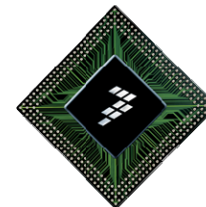


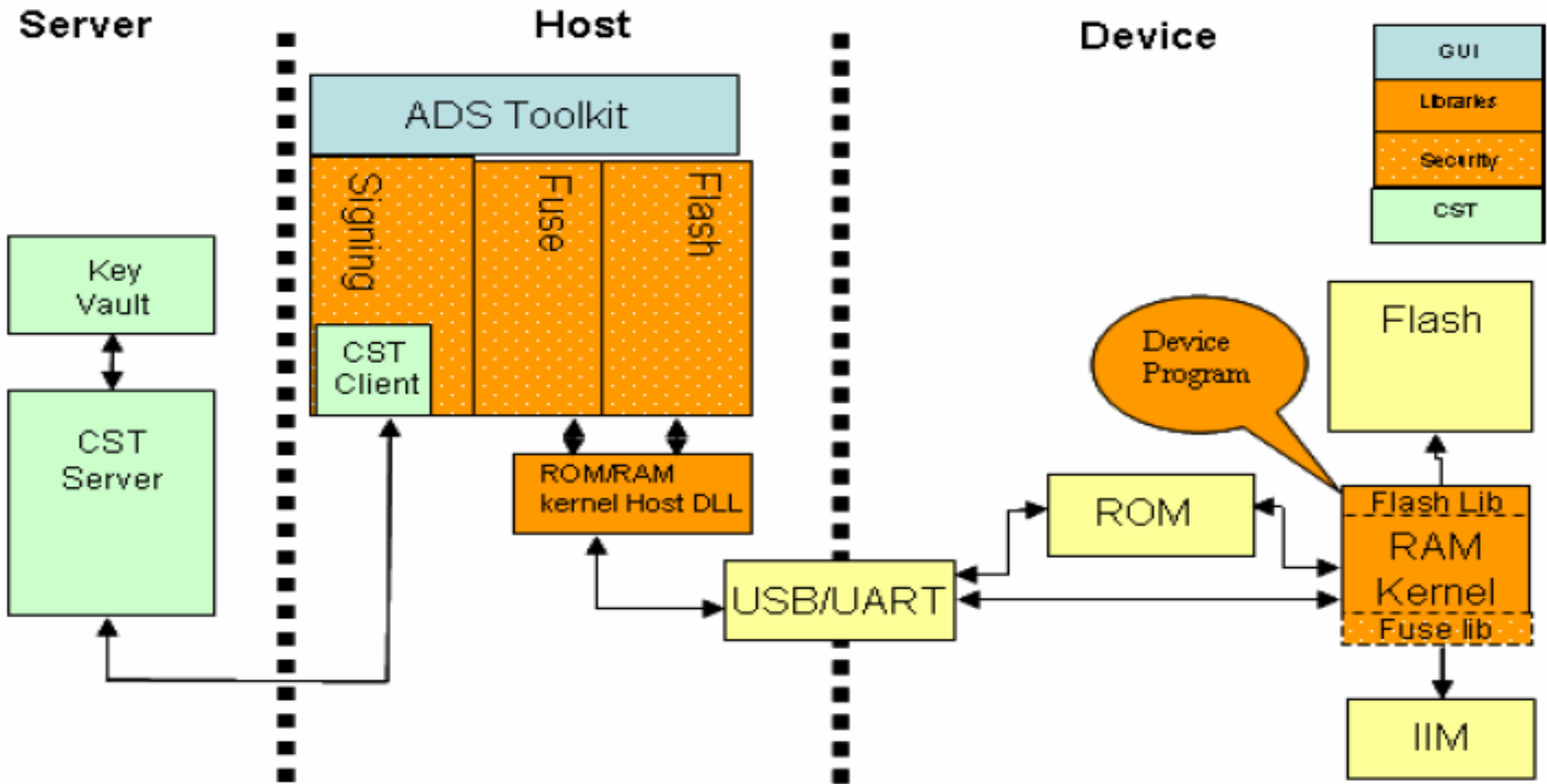
ATK Toolkit Introduction



ATK Toolkit Overview

- ❖ The Advanced Toolkit (ATK) is a graphical user interface application for use in an i.MX platform for development and validation.
- ❖ The ATK provides the following features
 - A flash tool for downloading, programming, dumping, and erasing images in storage memory for i.MX. The storage memory includes NOR Flash, Nand Flash and SD/MMC storage memory.
 - An image conversion tool for converting the following image file formats: binary to S-record, S-record to binary, and ELF to binary.
 - A Fuse tool for programming, sensing and reading fuse element on the i.MX boards.
- ❖ ATK runs on Microsoft Windows platforms
- ❖ ATK Max version and ATK Standard version
 - ATK Max version contains flash tool, image conversion tool and fuse tool
 - ATK Standard version contains flash tool and image conversion tool. Fuse tool is not available for ATK Standard version
- ❖ ATK can establish connection to the i.MX target board by USB or UART. Note that the i.MX target board should be set to bootstrap mode when connecting with ATK.

ATK Toolkit Architecture



ATK Toolkit Components

| Component | Description | Source code location |
|--------------------------------------|--|---|
| GUI Application | UI allowing users' operation Developed by Microsoft VC6++ | ATK Toolkit source code installation path\gui_application |
| Host bootstrap DLL | Windows DLL to support write data to device memory through USB/UART Developed by Microsoft VC6++ | ATK Toolkit source code installation path\host dll |
| RAM kernel with flashing/fuse lib | RAM kernel which supports to program NAND/NOR flash and fuse function Cygwin and arm embedded gcc are necessary to build the code | ATK Toolkit source code installation path\device_program |

RAM Kernel with Flashing Lib

- RAM kernel with flashing lib runs in DDR/SDRAM to support programming NOR/NAND flash or SD/MMC card. It's downloaded to RAM from Host to device through USB/UART. DDR/SDRAM must be initialized before host starts to download RAM kernel.
 - ATK Code for memory init (IOMUX, ESDCTL):
gui_application\platform\MemoryInit.h
- Flash lib source code path:
 - device_program\flash
 - Nand example: nand_ids.c, NAND ID, IO width, Page Size, Spare size per page, bad block position, bad block page, address cycle, blocks, pages per block.

Reference

- ❖ Refer to ATK User's Guide contained in the ATK release package for more detailed information about how to use the tool.