

Cypherbridge® Systems uLoad XL Secure Boot & Installer

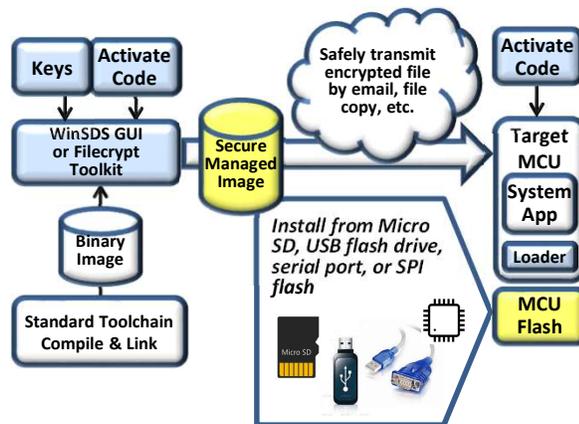
Cypherbridge®
Trusted, safe and secure

Overview

The uLoad XL SDK delivers advanced software update and secure boot loader solutions for embedded platforms. uLoad can manage software updates and distribution, encrypt images, authenticate genuine origin, and block malware.

uLoad XL includes a command line toolkit or Windows GUI for image encryption using multi-level keys and activation code.

Secure images can be transferred by email, file copy, local USB or SD flash drives, serial port or LAN/WAN network.



When a software update is started on the embedded platform, the activation code is supplied to the loader, interactively by a field engineer or user, or securely stored in target.

The uLoad integrated loader authenticates the system image, decrypts it, and saves it to the target program flash.

An incorrect activation code, or a rogue image, is blocked from installing and executing.

Target power on or reset executes system application integrity check.

- ✓ **Platform Kit.** uLoad loader APIs are interfaced to the embedded target via integrated Platform Kit including standalone drivers for internal MCU flash, external SPI flash, removable media and flexible I/O channel including serial port.
- ✓ **Multiple Images.** The uLoad embedded system and APIs can be used to manage multiple images. Workflow can be programmed for primary and factory image, or alternating software images active & rollback
- ✓ **Registry.** Loader maintains image registry information including status and authentication signatures. System application is verified before starting execution to detect corrupt image or rogue install intrusion.
- ✓ **Security Model.** uLoad implements an advanced key system, selectable cipher suite, code sign and verify support including ECC and RSA, and protected embedded key material container.
- ✓ **Robust.** Safety and availability features include primary and backup registry copies, primary and recovery image, automatic rollback, failsafe mode, and power fail recovery.

Features

- ✓ Add product integrity, block hacking & malware, and control optional feature distribution
- ✓ Secure boot root of trust
- ✓ Install software updates for system application, graphic menus, FPGA bitstream files
- ✓ Image file encryption, hash integrity and authentication, code sign and verify. Image cannot be hacked if lost or intercepted
- ✓ Install from serial port, SD or USB file system, SPI flash
- ✓ Integrated loader verifies system application integrity, rollback to recovery image, & executes failsafe boot
- ✓ Use standard toolchain to compile and link software image. Supports IAR, Keil, GCC and all other toolchains
- ✓ WinSDS and Filecrypt toolkits supported on command line, Windows GUI, and MacOSX
- ✓ Install can be integrated in system GUI and command line shell
- ✓ Platform Kits available for off the shelf MCU evaluation kits
- ✓ Customizable for OEM product design

For Pricing and Availability

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