



White Paper Executive Summary

CmDongle with Flash Memory in Practice

The Industry Standard for Protection of Data, Applications and Communication

Concerns for software piracy, code tampering, reverse engineering and counterfeiting remain key issues for ISVs and embedded system developers, particularly with the proliferation of connected devices, PLCs, and other smart industrial components and systems that define the modern world. The ramifications of these concerns go beyond financial loss; they now present significant threats to public health and safety as well.

Wibu-Systems is dedicated to developing solutions that provide the protections necessary to address these threats and guarantee the integrity of data, applications, and communication. The CmDongle with integrated flash memory has been the industry standard-bearer for device protection. With the ability to partition data and availability in a variety of form factors, the CmDongle is ideal for mobile software operators, service technicians, and intelligent device manufacturers.

The CmDongle includes CodeMeter smart card chip with space for more than 1,000 licenses and the full complement of CodeMeter security functions. The built-in flash memory can be partitioned into four areas with different security features: removable drive, private encrypted drive, CD-ROM, secure encrypted disk; these can be customized to the user's needs, enabling new product design strategies.

With integrated flash memory, data is not lost in power outages which is a primary design consideration for

industrial applications in particular. More importantly, data saved in the encrypted partition are truly protected, even when the flash memory blocks are analyzed. CmDongles use high-end Hyperstone industrial flash controllers with pSLC or MLC flash memory and can thus operate in temperatures from -40°C to +85°C; the Hymap technology offers longest life, lower power consumption, memory protection with AES encryption and high availability. The miniature microSD card version fits into virtually any small-scale device and is thus a feasible option for adding security to intelligent Industry 4.0 sensors.

This white paper describes the use of the CmDongle combined with flash memory for protection in various applications, such as gambling machines, service technicians and ATMs, mobile IT forensic software, and embedded systems, controllers, and the myriad of connected devices at the heart of the IoT and Industry 4.0. The document highlights 6 key benefits of the combined product: lower costs, industrial-grade design, space, upgradeability, versatility, and greater security.

For service technicians, the combination of CmDongle and flash storage becomes a fully equipped, mobile test lab with maximum protection against manipulation. Mobile software for highly sensitive applications is protected ideally with a device that is easy to use and cost-efficient in administration, management, and training.

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