As devices and technologies continue to evolve and become more intertwined than ever before, the embedded market is experiencing a rebirth. The Internet of Things (IoT) is transforming production facilities into smart factories, utilities into smart grids, constructions into smart buildings. This transformation results in new products and services for consumers and new revenue streams for the companies providing the infrastructure and services. This transformation also results in new threats as infrastructure providers and service providers contend with protecting their system against attacks, securing the privacy of their client’s information, protecting the integrity of the system, and safeguarding their intellectual property (IP).

Leveraging their deep embedded market and security expertise, Wind River® and Wibu-Systems® have partnered to offer manufacturers of embedded systems all-encompassing security capabilities to protect their connected devices. This partnership has resulted in the integration of Wibu-Systems’ technology into Security Profile for VxWorks®. Security Profile extends VxWorks, the Wind River flagship real-time operating system (RTOS), with a full set of software-based security features that can be further enhanced with Wibu-Systems’ CodeMeter® hardware-based security to enable a comprehensive solution for security-sensitive applications. With both software and hardware components as well as activation-based licensing, the solution protects devices, data, and IP in IoT.

Figure 1: Security Profile for VxWorks with Wibu-Systems CodeMeter
PROTECTING THE VALUE OF YOUR IOT BUSINESS

BENEFITS

Benefits of the joint Wibu-Systems–Wind River solution include:

- **IP protection**: Safeguarded by Wibu-Systems’ market-leading security technology, the IP in binaries built for VxWorks 7 can be encrypted before being downloaded to the target, protecting the IP from being reverse-engineered.

- **Integrity protection**: Security Profile combines secure boot, digital signage, and asymmetric encryption to prevent modification and tampering with the code before it is executed on the target system.

- **Comprehensive hardware-and software-based security**: CodeMeter extends the software-based security features enabled by Security Profile with the CmDongle hardware-based licensing system that supports storing encryption keys on several hardware form factors—including standard USB dongles, compact USB dongles, SD cards, µSD card, CFast card, Express card, PCB for internal mounting, and ASIC.

- **Activation-based licensing**: CodeMeter Security offers activation-based licensing where license files can be individually bound to specific devices. CodeMeter supports extended license options, such as unit counters, time-related options, and server-based licenses, to map a great variety of license models. Licenses can then be created, managed, delivered, and monitored with CodeMeter License Central, a web-based framework that streamlines back-office processes and integrates with ERP, CRM, and e-commerce leading solutions.

LEARN MORE

To learn more about the Wind River VxWorks RTOS and Security Profile for VxWorks please visit [www.vxworks.com](http://www.vxworks.com) or call 800-545-WIND (800-545-9463). To learn more about Wibu-Systems CodeMeter please contact [info@wibu.com](mailto:info@wibu.com).

ABOUT WIBU-SYSTEMS

Wibu-Systems AG (WIBU®), a privately held company founded by Oliver Winzenried and Marcellus Buchheit in 1989, is an innovative security technology leader in the global software licensing market. Wibu-Systems’ comprehensive and award-winning solutions offer unique and internationally patented processes for protection, licensing, and security of digital assets and know-how to software publishers and industrial manufacturers who distribute their applications through PC-, embedded-, mobile- and cloud-based models.

Wind River is a world leader in embedded software for intelligent connected systems. The company has been pioneering computing inside embedded devices since 1981, and its technology is found in nearly 2 billion products. To learn more, visit Wind River at [www.windriver.com](http://www.windriver.com).

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