WNDRVR Studio

DEPLOY: DEVICE SOFTWARE

CERTIFYING INDUSTRIAL MISSION-CRITICAL IOT

THE CHALLENGE

The increasing demand for high-speed internet connection for home and office and the increased use of IoT in various industries have contributed to the growth of the smart router industry. A small company building smart routers is trying to expand its market share by building a certified solution with real-time capabilities for guaranteed uptime of at least six nines and the maximum speed possible.

The existing deployed products use a RYO version of Linux with preempt-rt patches to replicate near-real-time performance. But, to achieve six-nines uptime, a true real-time operating system (RTOS) is required to validate the performance and get certification authority approval.

However, the existing user interface, built on Linux, is the company's main differentiator and is a sweet spot for its large user base and app developer community.

THE SOLUTION

Using Wind River® Studio's integrated runtimes, the development team can leverage the Type 1 hypervisor powered by Wind River Helix™ Virtualization Platform with the real-time runtime powered by VxWorks® and default embedded Linux runtime powered by the Yocto Project, running side by side. **The outcome is achieving the desired six-nines uptime, adopting an RTOS, and enabling the device to pass the extensive testing and validation required by the certification authority.**

THE RESULTS

The company's new certified solution allows it to expand its addressable market and demand a premium price — without compromising its existing, well-established, and popular Linux user experience.
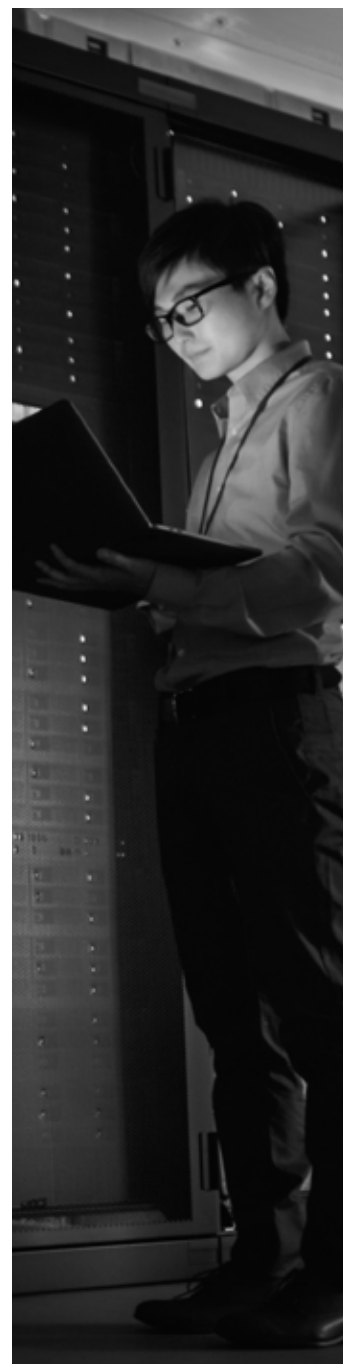
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