

WIND RIVER SIMICS BRINGS DEVOPS TO EMBEDDED SOFTWARE

With Simics, organizations can reap the business benefits of progressive development methods to create and deliver better software, faster.

THE CHALLENGE

An agile team requires testing and automation in its DevOps process and hardware availability can be a bottleneck. Further, healthy DevOps requires collaboration for root cause analysis, which can be difficult in an embedded environment.

DevOps practices rely on fast, successive iterations based on collaborative teams using continuous feedback.

By enabling development and operations to work better together, you can frequently deliver and deploy applications and services on demand. This is allowing businesses to rapidly respond to changing customer needs, competitive challenges, and new strategic opportunities. The bottom line: DevOps is proving very good for business.

Hampered by Hardware

Unfortunately, many embedded software development teams have been watching the DevOps revolution from the sidelines. Unlike their counterparts who develop for websites, desktop applications, or other software-based platforms, embedded developers build software directly for hardware. And that has posed a host of challenges. But Wind River® Simics® offers a new virtual hardware development environment that helps embedded software teams embrace the DevOps.

Simics is a virtual software environment that simulates your hardware system. It provides an accessible, flexible, and collaborative development platform for helping your organization adopt DevOps practices.

By freeing embedded software teams from the constraints of physical hardware and providing a common, collaborative development platform, Simics catalyzes operational improvements, product innovations, and bottom-line efficiencies to bring critical competitive advantages to your organization.

43% of embedded software developers report communications and coordination challenges in adopting agile methods.

— Standish Group & VDC Research

HOW SIMICS HELPS

Simics significantly improves the ability of embedded software teams to embrace DevOps by eliminating key barriers to rapid releases, continuous development, and seamless collaboration. It keeps projects on time and under budget to drive substantial business improvements across the three critical dimensions of access, collaboration, and automation.

Access

Create anytime, anywhere virtual hardware availability at a fraction of the cost of physical hardware labs.

With seamless and reliable access to the Simics virtual hardware platform, teams can refine in real time, iterate continuously, and move through design, development, and test challenges to more quickly build on improvements.

- Provide anytime, anywhere access to virtual hardware for anyone within or outside your development team.
- Freely test what you need to test rather than only what physical hardware allows you to test.
- Validate requirements early in the development process.

Automation

Streamline and speed the test, integration, and release processes.

Simics helps shorten development and testing cycles by automating what is impossible to automate with physical hardware.

- Eliminate time-consuming manual tasks by automating any function or configuration variation.
- Inexpensively scale testing capacity and easily run tests in parallel.
- Test the impossible with advanced techniques—such as fault injection—as often as and to any degree required

Collaboration

Break down barriers to simplify and improve team communications.

Simics provides an environment where team members can show each other issues rather than creating requirements and documentation to describe software behavior.

- Easily share a common view of hardware and software system data with any team member.
- Reduce dependencies between hardware and software teams.
- Reduce communication silos and the need for specialized teams.

SIMICS: Key Business Benefits

/ Move Faster

Shorten development times by as much as **50%**

/ Improve Quality

Reduce system defects by up to **80%**

/ Increase Productivity

Speed problem analysis and resolution times by up to **40%**

/ Boost Velocity

Shrink feedback loops from days or hours to **minutes**

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