



# WIND RIVER HELIX CLOUD

## The Internet of Things, Simplified

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The Wind River® Helix™ Cloud family of products makes it possible for organizations to address the key challenges of building, managing, and securing Internet of Things (IoT) systems throughout their entire lifecycle—from design and testing through deployment and decommissioning.

Helix Cloud provides anytime, anywhere access to tools, labs, and management platforms to streamline and automate how organizations create and run their IoT infrastructure. It helps revolutionize development of IoT devices, machines, gateways, and networks by harnessing the rapidly evolving capabilities of cloud-based tools. Through anytime, anywhere access and virtual development environments, Helix Cloud greatly reduces the traditional complexities of developing software for intelligent, connected embedded systems.

Helix Cloud includes four products: Wind River Helix App Cloud, Wind River Helix Lab Cloud, Wind River Helix Device Cloud, and Wind River Rocket™. Each product helps eliminate key barriers that have limited the ability of software engineers, device manufacturers, systems integrators, and infrastructure operators to easily build new products, devices, and networks for IoT.

### HELIX CLOUD PRODUCTS

#### Wind River Helix App Cloud

App Cloud is a cloud-based software development environment that makes it possible to build applications independent of embedded operating system and hardware complexity. By using App Cloud, software developers without embedded systems expertise can begin building IoT applications in minutes.

With App Cloud, organizations can:

- Reduce the costs of maintaining specialized engineering staff and resources.
- Dynamically build and manage multiple software development kits (SDKs) on a variety of hardware platforms, all from a single cloud-based environment.
- Expand IoT application development to engineers and partners, regardless of location or physical access to the target hardware.
- Ensure uptime with rapid troubleshooting for remote devices.

### **Wind River Helix Lab Cloud**

Lab Cloud is an instantly accessible software lab that improves team collaboration and makes IoT far more accessible. By virtualizing hardware systems and real-world environments, Lab Cloud allows organizations to much more quickly design, develop, and test their IoT deployments—from a single device to a system-of-systems with thousands of components.

With Lab Cloud, organizations can:

- Rapidly design, develop, and test for all the complexities of advanced IoT networks.
- Boost organizational agility by easily sharing test information and tasks across team members and partners.
- Remove the test equipment bottleneck with immediate and unlimited access to virtual hardware.
- Easily explore real-world scenarios and scale development from one device to a system with hundreds of components.

### **Wind River Helix Device Cloud**

Device Cloud is a cloud-based IoT management platform that helps organizations greatly reduce the costs of building and rolling out large-scale device deployments. Device Cloud makes it possible for organizations to securely and efficiently unlock machine data and connect it with their IT systems and analytics environments.

With Device Cloud, organizations can:

- More easily collect, manage, and integrate data from disparate devices, machines, and systems.
- Protect data at rest and in motion with a secure, scalable, and customizable on-demand infrastructure.
- Remotely configure, monitor, and update connected machines with cloud-based services.
- Streamline management of hundreds or thousands of IoT devices for provisioning, configuring, and monitoring.

### **Wind River Rocket**

Rocket is a free, best-in-class, scalable real-time operating system for 32-bit microcontrollers (MCUs), ideal for building sensors, wearables, industrial actuators, wireless gateways, or other resource-constrained smart, connected devices. Rocket is free with App Cloud. Together, Rocket and App Cloud make it possible for developers to start creating IoT devices in minutes.

With Rocket, organizations can:

- Easily begin exploring the possibilities of IoT through low-cost projects.
- Build applications based on a commercially proven operating system.
- Seamlessly transition from prototyping to deployment with a scalable software foundation.
- Effectively manage the highly constrained memory and power limitations of very small IoT devices (less than 4 KB).

## BENEFITS OF HELIX CLOUD

### Conquer the Complexities of Building and Managing Your IoT Infrastructure

The Helix Cloud family of products helps organizations harness IoT technologies to unlock their machine data. Software engineers and development teams can quickly and efficiently create IoT systems that capture and deliver data to enterprise applications and analytical cloud systems in order to drive new business insights.

With the Helix Cloud suite, organizations can address the full range of challenges that have been preventing businesses from taking full advantage of IoT.

Helix Cloud helps organizations:

#### Speed Deployments

- Build applications faster.
- Rapidly iterate through design and testing.
- Bring devices online automatically.
- Remotely update and customize device software.

#### Lower Costs

- Remotely control your IoT infrastructure.
- Reduce system failures and business impacts.
- Streamline device monitoring and updates.
- Efficiently connect device data to cloud-based applications.

#### Reduce Risks

- Thoroughly simulate and test any scenario.
- Quickly troubleshoot issues.
- Secure your devices and networks.
- Protect data at rest and in motion.

**Improve Collaboration**

- More effectively support agile methods.
- Gain a single view of any IoT project.
- Make project information and code instantly accessible to all team members.
- More efficiently drive continuous software development.

**WHY WIND RIVER?**

- We have been building the Internet of Things for more than 30 years. We offer the industry's leading real-time and open source operating systems (VxWorks® and Wind River Linux), and our software is used in more than 2 billion devices worldwide.
- We help organizations develop IoT systems across all major industries, including aerospace, automotive, industrial, medical, energy, telecommunications, and defense.
- Our customers include the world's most successful and innovative organizations, such as Boeing, BMW, Bosch, General Electric, Fujitsu, NASA, Nokia, and Siemens.

