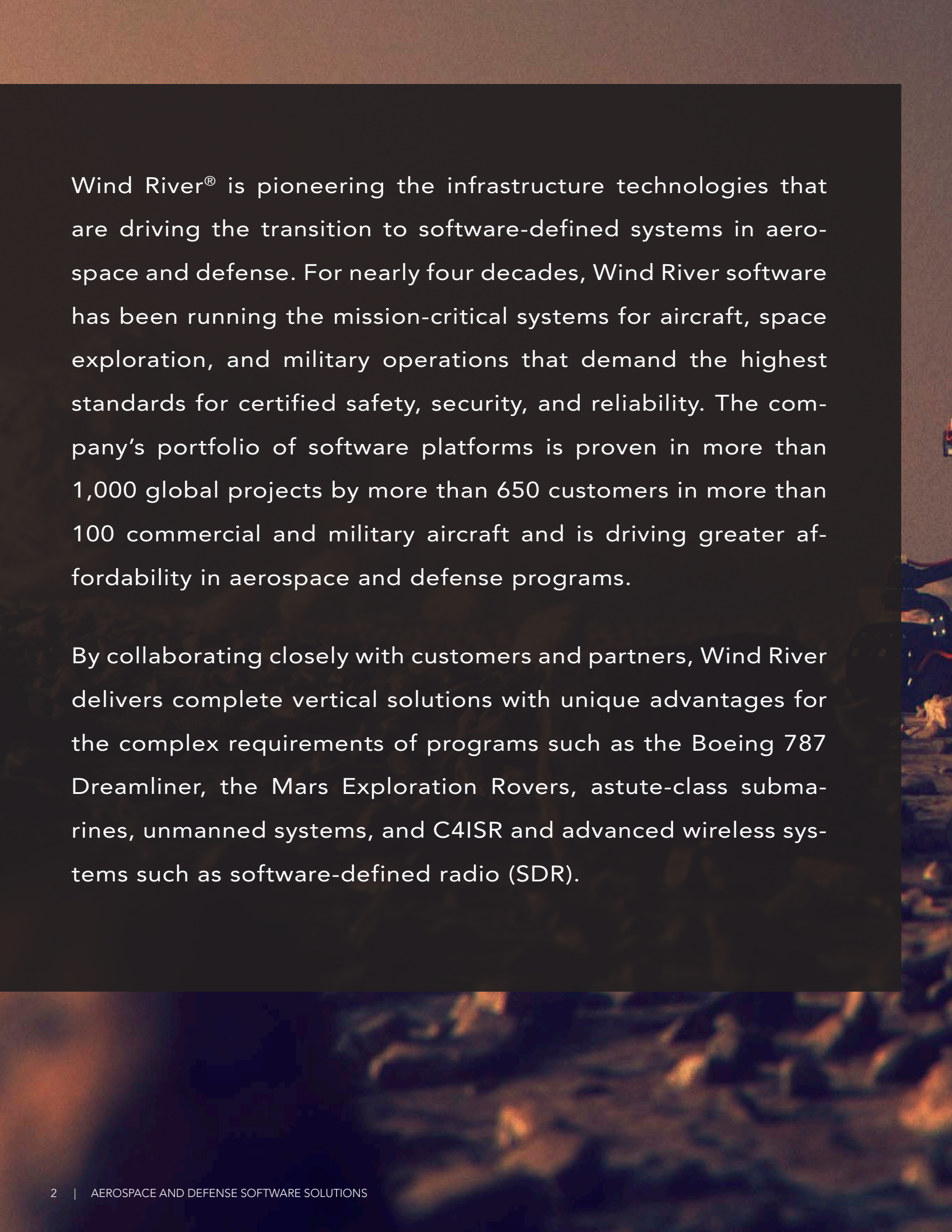


WINDTM

W I N D R I V E R

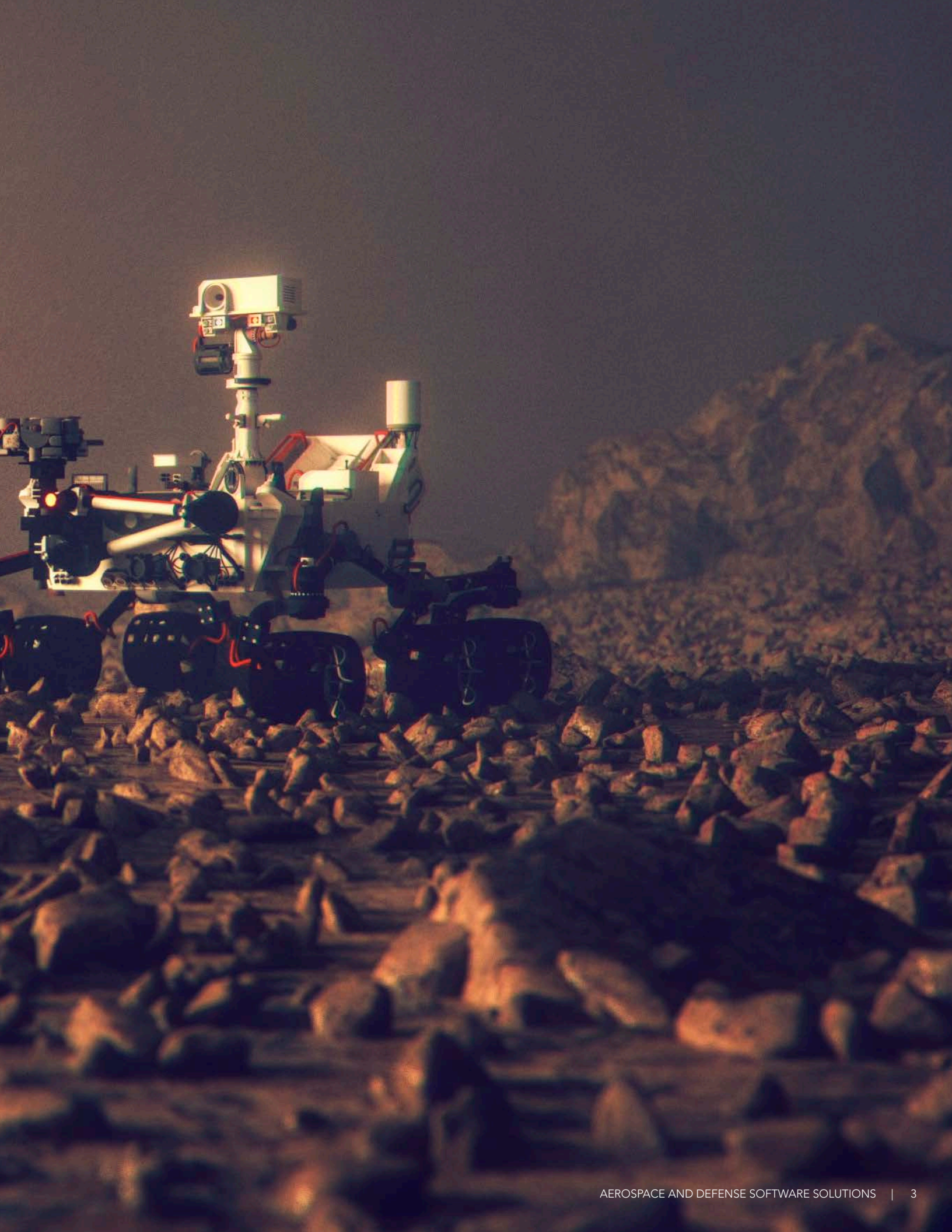
**AEROSPACE AND
DEFENSE SOFTWARE
SOLUTIONS**





Wind River® is pioneering the infrastructure technologies that are driving the transition to software-defined systems in aerospace and defense. For nearly four decades, Wind River software has been running the mission-critical systems for aircraft, space exploration, and military operations that demand the highest standards for certified safety, security, and reliability. The company's portfolio of software platforms is proven in more than 1,000 global projects by more than 650 customers in more than 100 commercial and military aircraft and is driving greater affordability in aerospace and defense programs.

By collaborating closely with customers and partners, Wind River delivers complete vertical solutions with unique advantages for the complex requirements of programs such as the Boeing 787 Dreamliner, the Mars Exploration Rovers, astute-class submarines, unmanned systems, and C4ISR and advanced wireless systems such as software-defined radio (SDR).



OUR DNA

SAFETY, WHEN FAILURE IS NOT AN OPTION

When it comes to compute systems for passenger aircraft, space exploration, and military operations, human lives are at stake. That's why these systems must meet strict safety standards such as RTCA DO-178C and ISO 26262. But how will you overcome the complexity and cost challenges associated with safety certification?

Wind River has a proven track record of success ensuring the development of can't-fail systems, with more than 20 years of experience in safety certification software products.

SECURITY FROM THE GROUND UP

Growing demands for increased connectivity and new services are introducing new security threats and exposing previously isolated embedded systems to new vulnerabilities. To protect against these threats, new standards are evolving that show how to analyze and protect systems while maintaining critical safety requirements.

Wind River follows well-known information security principles, including the Confidentiality, Integrity, and Availability triad, and helps ensure that data is protected at every stage—at boot time and throughout use, in transit, and at rest. Wind River solutions have enhanced real-time features for the Precision Time Protocol (PTP), Time-Sensitive Networking (TSN), and IEEE 1588. Developers can take advantage of secure boot, data encryption, kernel hardening, updated OpenSSL, enhanced Trusted Platform Module (TPM2), TPM Software Stack (TSS), tools for optimizing security, and many other features.

OUT-OF-THIS-WORLD RELIABILITY FOR HIGH-INTEGRITY SYSTEMS

Wind River technology combines highly effective assurance capabilities, such as space and time partitioning, to ensure that subsystems don't interfere with each other or with rigorous testing and validation. This determinism provides peace of mind with the reassurance that systems will behave as intended, both on Earth and in outer space.

Wind River solutions have a rich history in mission-critical, hard real-time use cases requiring uncompromising reliability in the most demanding environments.

INVESTMENT AND EVOLUTION: FOCUS ON MILITARY-GRADE CYBERSECURITY

Wind River acquired Star Lab to combine cyber and anti-tamper security software for Linux in A&D with Wind River solutions that help meet cybersecurity requirements by delivering secure embedded systems, protecting communication between devices and across systems, safeguarding them over time, and responding quickly as new threats emerge.

The combined software technology of Wind River and Star Lab can provide a military-grade cybersecurity platform for military systems and equipment that starts with solution development and continues through implementation and the entire lifecycle.

HOW WIND RIVER CAN HELP

Visionary companies trust Wind River as the foundation for their challenging land, sea, military and commercial aviation, and space programs.

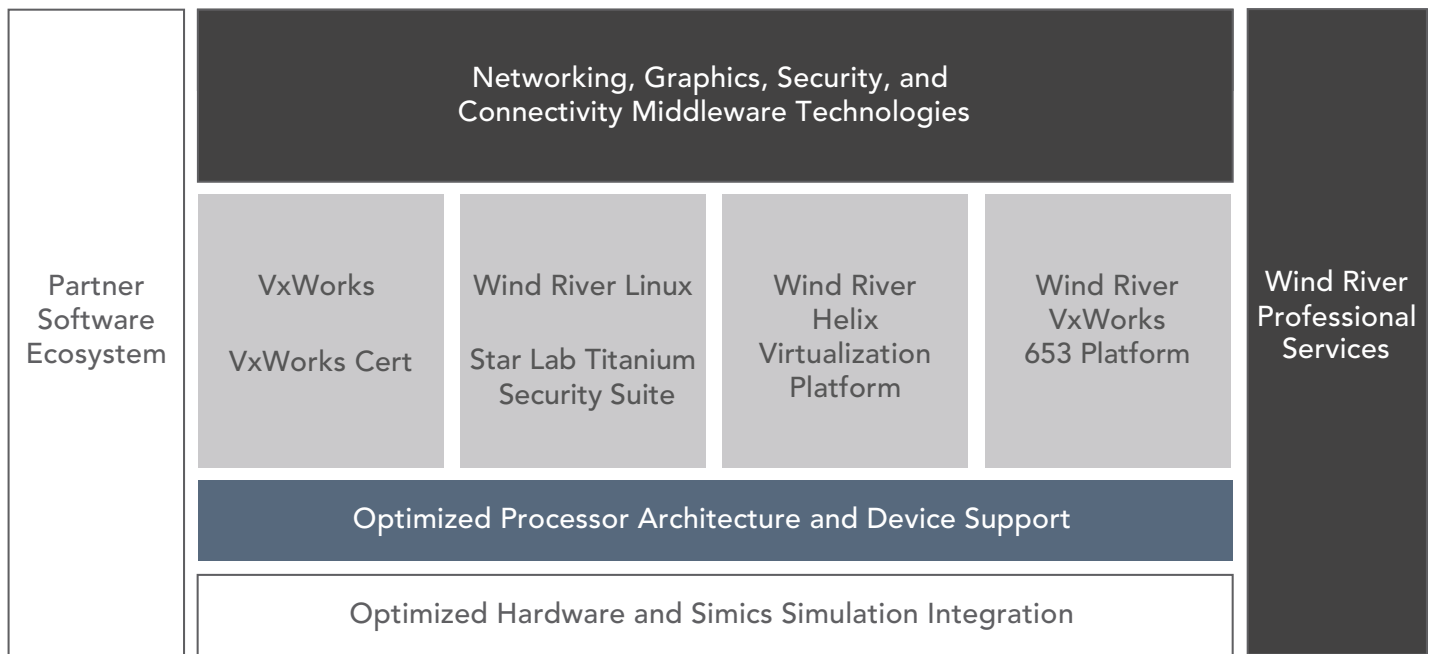


Figure 1. Wind River aerospace and defense solutions portfolio

VXWORKS



The VxWorks® portfolio of products helps manufacturers lower procurement and certification costs while meeting stringent industry standards such as DO-178C, ED-12C, ARINC 653, POSIX®, and FACE™ by using commercial off-the-shelf (COTS) standards conformance and safety certification evidence. VxWorks can also help attract software developers by supporting programming interfaces for current languages and libraries, such as low-level virtual machine (LLVM), Clang, C++17, Rust, Boost libraries, and Python. One can easily write high-performance, safety-critical code in a modern language without knowing the inner workings of VxWorks. Learn more about VxWorks at www.vxworks.com.

WIND RIVER LINUX



Wind River Linux combines systems-level security reinforcements such as access control mechanisms and intrusion detection and prevention tools with long-term security update strategies for deployed devices. Learn more about Wind River Linux at www.windriver.com/products/linux.

STAR LAB TITANIUM SECURITY SUITE



Star Lab Titanium Security Suite offers the most robust Linux system-hardening and security capabilities for operationally deployed Linux systems. Specifically designed to ensure the continued integrity and confidentiality of critical system software, it limits the freedom to maneuver through a compromised system or pivot to other targets in case of a breach.

WIND RIVER SIMICS



Wind River Simics® provides system simulation and automation technologies, enabling agile practices throughout the product lifecycle. Learn more about Simics at www.windriver.com/products/simics.

WIND RIVER HELIX VIRTUALIZATION PLATFORM



Based on the award-winning VxWorks 653 technology foundation, Wind River Helix™ Virtualization Platform helps you consolidate multi-OS and mixed-criticality applications onto a single compute software platform, simplifying, securing, and future-proofing designs in the aerospace and defense markets. Learn more about Helix Platform at www.windriver.com/products/helix-platform.

WIND RIVER PROFESSIONAL SERVICES



Wind River Professional Services offers consultative thought leadership and deep technical capabilities to help overcome your most strategic and pressing development challenges. Learn more about Professional Services at www.windriver.com/services.



BRANDS DELIVERING THE SAFEST, MOST SECURE DEVICES IN THE WORLD TRUST WIND RIVER

- Airbus Group
- BAE Systems
- Boeing
- Elbit Systems
- General Atomics
- General Dynamics
- GE Aviation
- Honeywell
- ITT
- L3 Technologies
- Leonardo
- Lockheed Martin
- NASA
- Northrop Grumman
- Mitsubishi
- Orbital Sciences Corp.
- Raytheon
- Collins Aerospace
- Samsung