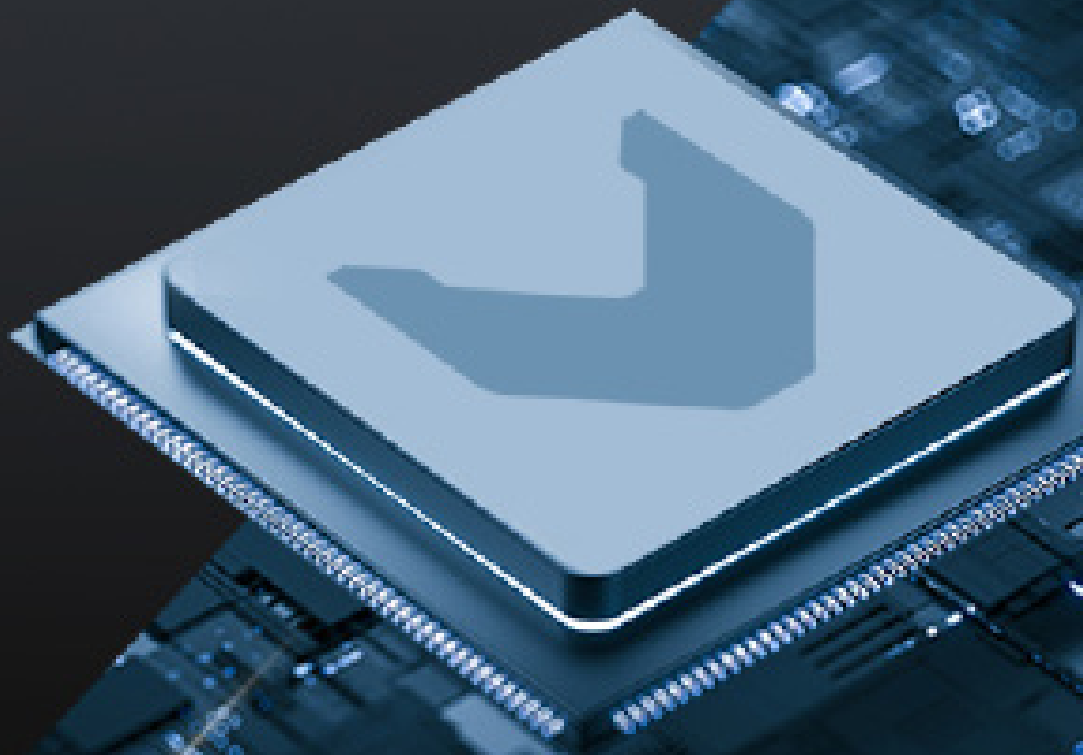




Safe, Secure, Modular Software Platform

Built for edge computing in aerospace, defense,
and industrial mission-critical systems



Enable Secure, Safe, Modular Edge Computing for Mission-Critical Applications

Mission-critical projects are under strain as defense, aerospace, industrial, and autonomous systems must handle diverse workloads with strict safety, security, and performance needs as they prepare for an AI-driven future. Deployed increasingly at the edge, they require real-time, cloud-independent decision-making and architectures that can endure 10–30-year lifecycles.

Traditional monolithic architectures can't meet modern demands. By forcing critical and non-critical functions into a single environment, they cause core interference, performance bottlenecks, security risks, and certification delays. The result is inefficiency, schedule slips, and cost overruns, seen clearly in DoW programs, where major acquisitions now average nearly 12 years with \$49.3B in growth across 30 programs. Similar challenges affect commercial aerospace, industrial, and automotive sectors.

When requirements evolve faster than systems can adapt, these bottlenecks aren't just inefficient, they're dangerous.

Lynx provides a safe, secure, modular software platform for edge computing, purpose-built for multicore and mission-critical systems in defense, aerospace, industrial, and autonomous sectors. The Lynx platform enables CPU and GPU workloads with different security and safety requirements to coexist without interference, allowing these applications to run side by side on a single mission computer.

Lynx Impact

Deliver Projects Securely, On Time, and On Budget



40% Faster Development and Deployment: Lynx Virtual Integration Environment (VIE) enables early software development without waiting for hardware availability, leading to faster development and deployment cycles.



30–40% Savings on Hardware and Integration Expenses: By consolidating multiple Line Replaceable Units into a single platform with MOSA.ic, Lynx reduces Size, Weight, and Power (SWaP) requirements, leading to significant savings in hardware and integration costs.



Up to 95% Reduction in Cybersecurity Vulnerability Triage Labor: Lynx automated Software Bill of Materials (SBOM) and Common Vulnerabilities and Exposures (CVE) management capabilities reduce manual patching and compliance overhead by filtering out irrelevant CVEs.



Up to 50% Reduction in Certification and Recertification Costs: Lynx MOSA.ic enables extreme modular software architecture, reducing the cost of certification and supporting a delta-certification approach.



Long-Term Savings Over 10–30 Year Lifecycles: Proactive lifecycle management and backward compatibility help avoid expensive redesigns, leading to long-term sustainment savings.

LYNX MOSA.ic

LYNX MOSA.ic is a software platform for building robust, deterministic and predictable systems for edge computing environments supporting multicore processing by default. It includes a separation kernel hypervisor, a tiny unikernel-based single-process OS that reduces the attack surface, a specialized DO-178C safety-certifiable RTOS, and toolsets to create a modular, open, and secure foundation for mixed-criticality workloads. MOSA.ic empowers developers to maximize software and toolchain reuse, streamlines integration workflows, and reduces the cost and complexity of system recertification.

- MOSA.ic enables system architects to create multicore, modular, independent stacks tailored to each application's needs.
- Acting as an integration center, MOSA.ic unifies tools and frameworks to simplify software component management and integration.
- These capabilities reduce development cycles and enable faster certification and deployment of secure, mission-critical platforms.
- This architecture cleanly separates safety-critical and non-critical functions, shrinking certification scope, accelerating deployment timelines, and safeguarding system integrity over decades-long lifecycles.



CoreSuite 2.0

Lynx CoreSuite 2.0, a framework of hardware-accelerated visualization and computational libraries and tools, enables a GPU to be integrated into safety-critical platforms and certified to the highest level of safety and reliability. CoreSuite works seamlessly with the MOSA.ic platform, delivering GPU-accelerated graphics and compute capabilities within a secure, partitioned environment.

- Supports demanding edge workloads such as real-time sensor fusion, advanced visualization, high-resolution mapping, and complex signal or image processing.
- Capabilities provide a seamless path to future AI or machine learning workloads, all without cross-interference between applications of different criticality.



Tools and Services

An integrated tools and services ecosystem extends the value of the Lynx platform, enabling customers to plan, develop, deploy, and manage solutions across their full lifecycle.

- Includes MOSA.ic.SCA, which provide SBOM visibility and CVE management for embedded Linux and other applications.
- The Lynx ecosystem of tools ensures continuous security and compliance in the field.
- Lynx also delivers software development services for high-reliability applications, from the initial setup of a secure “DevSecOps” development environment to application development and long-term product lifecycle management.

The result is a software platform and services ecosystem that enables organizations to adapt quickly, integrate new technologies as they emerge, and maintain the uncompromising safety, security, and reliability their missions demand.



A Proven Partner for Secure, Modular Edge Computing

For nearly 50 years, Lynx has delivered secure, certifiable edge solutions for aerospace, defense, industrial, and critical-infrastructure systems. As a key partner in Bell Flight’s FLRAA program and backed by OceanSound Partners, Lynx continues to drive innovation and expand its ecosystem. Its leadership team brings deep expertise in security, formal verification, and embedded systems, making Lynx a trusted choice for secure, modular edge computing in mission-critical environments.

Contact Us

Contact Lynx to learn more about how products in the Lynx family can help your organization *Seize the Edge*.

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