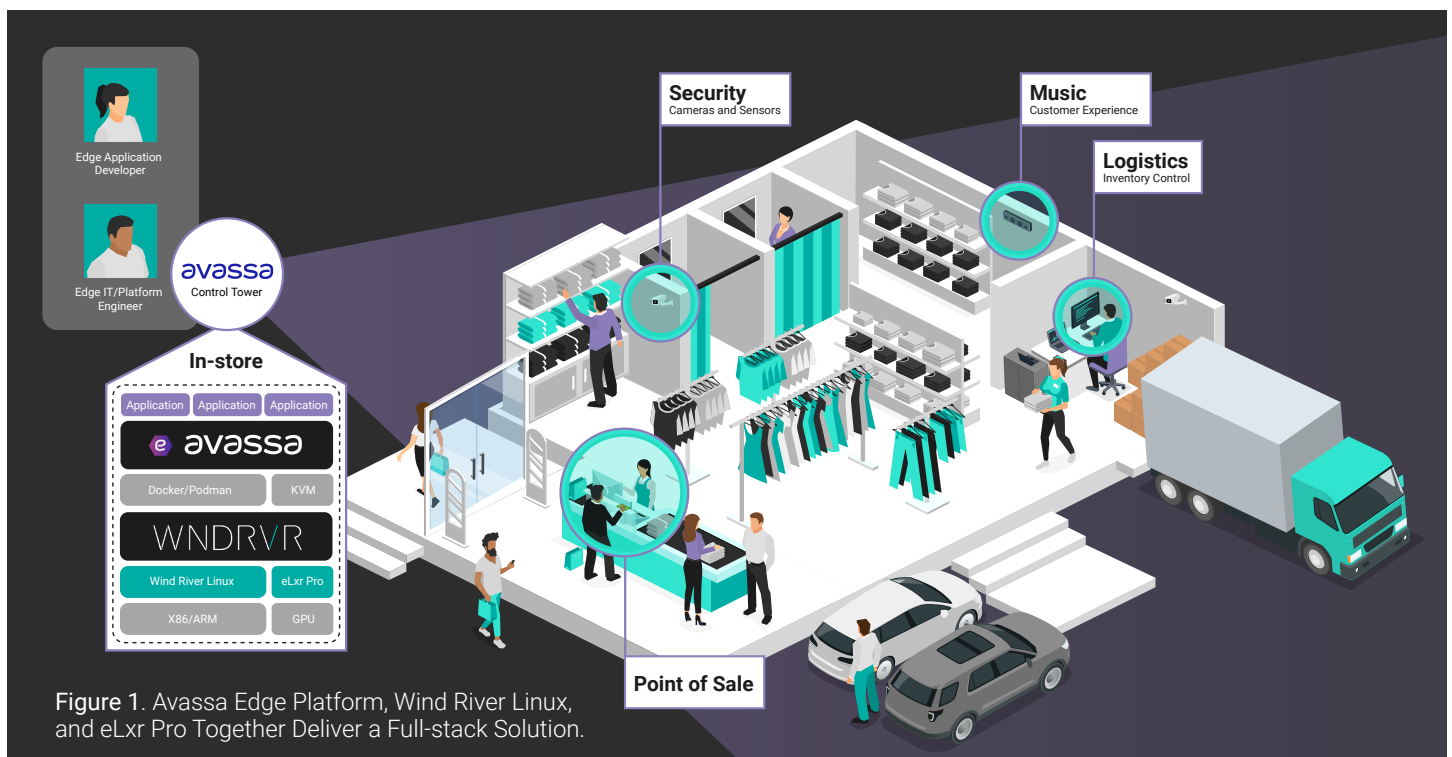# ENHANCE RETAIL EDGE DEPLOYMENTS WITH THE WIND RIVER IN-STORE EDGE STACK

Retailers are striving to modernize the physical in-store environment, bringing it up to parity with the rest of their digital assets. Modern applications are spearheading the transformation. Avassa® Edge Platform seamlessly integrates with Wind River® Linux® and eLxr Pro to enhance edge deployments for retail use cases such as in-store analytics, point-of-sale (POS) systems, inventory management, supply chain management, and customer experiences. The Wind River in-store infrastructure solution enables you to optimize near- and far-edge workload performance, resilience, and security across distributed in-store environments.

Figure 1. Avassa Edge Platform, Wind River Linux, and eLxr Pro Together Deliver a Full-stack Solution.

INDUSTRY: RETAIL

In-store challenges:
- Intermittent in-store connectivity results in downed systems and offline scenarios, potentially leading to major losses from missed sales opportunities.
- Limited onsite IT staff can result in slow data restore times.
- Lack of ultra-low latency can impact the performance of robust checkout systems.
- Lack of real-time visibility can disconnect physical inventory from inventory management systems.
- AI applications can introduce security compliance issues.

Solution components:
- Avassa Edge Platform
- Wind River Linux
- Wind River eLxr Pro

THE RETAIL CHALLENGE: OPTIMIZING BUSINESS OPERATIONS AND CUSTOMER EXPERIENCES AT THE EDGE

Edge deployments decentralize applications and move workloads close to where the data is generated, offering the potential for improved performance, efficiency, and scalability. However, these deployments can present unique challenges when used for retail businesses with distributed physical locations, such as quick service restaurants (QSRs), convenience stores, and POS providers. Each retail store is equipped with its own edge infrastructure, which can complicate the lifecycle management of retail applications. Not all in-store applications will run in every store location at all times. Retailers are looking for an automated, efficient, and secure way to deploy in-store applications only when and where they are needed, in order to create great customer and personnel experiences.

The Wind River in-store edge stack solution includes the Avassa Edge Platform and Wind River Linux or eLxr Pro. This comprehensive infrastructure solution is purpose-built to address the operational and business challenges faced by retail businesses on their path toward store modernization.

Avassa Edge Platform

Designed for retail environments that require localized data processing and resilient operations, Avassa Edge Platform simplifies managing geographically distributed infrastructure and applications. Multi-tenancy support enables secure isolation of workloads across brands, store regions, or operational teams. Avassa Edge Platform empowers retailers to reduce infrastructure complexity and cost while delivering consistent, high-quality digital experiences at the edge—and also during offline scenarios.

Wind River Linux

Wind River Linux is a commercial-grade Linux operating system that delivers high performance, security, and scalability for retail applications deployed at the edge. Wind River Linux supports AI-infused workloads that can help optimize operational efficiency, improve inventory management, and reduce waste. Robust security measures help protect sensitive customer data and maintain compliance with industry regulations.

eLxr Pro

eLxr Pro support packages enhance cloud-to-edge deployments of the publicly available eLxr distribution. eLxr Pro offers commercial-grade support with 24/7 options, migration and customization assistance, and security enhancements.

LEARN MORE

- Avassa Edge Platform
- Wind River Linux
- eLxr Pro

Book a meeting