SOLUTION BRIEF

Intelligence Without Interruption: Scaling Containerized Apps Across the Industrial Edge with Avassa and OnLogic

Introduction

Manufacturing enterprises are pushing intelligence closer to the production floor. Edge computing and containerized applications promise improved uptime, real-time insights, and more flexible operations across plants. Yet many manufacturers struggle to deploy and manage these systems consistently at scale.

Avassa and OnLogic address this challenge together. By combining rugged industrial hardware with a centralized edge application management platform, the joint solution enables manufacturers to deploy, operate, and scale edge workloads across factories and production sites with confidence. The result is a practical, production-ready foundation for modern manufacturing environments.



ONLOGIC × avassa

The Challenge

As manufacturers expand digital initiatives across plants, several challenges repeatedly surface.

1. **Harsh industrial environments:** Edge systems operate on the factory floor, exposed to heat, dust, vibration, electrical noise, and limited physical access. Hardware failures or instability directly impact production uptime.
2. **Fragmented operations across sites:** Manufacturing enterprises often run multiple plants with different configurations, vendors, and processes. Inconsistent deployment and management of edge applications increases operational risk and device support costs.
3. **Scaling edge workloads securely:** Deploying containerized applications across dozens or hundreds of sites requires secure, repeatable processes for updates, monitoring, and access control. Manual workflows do not scale.
4. **Pressure to improve efficiency without disruption:** Manufacturers must introduce new capabilities while minimizing downtime, avoiding rework, and maintaining safety and compliance.

Together, these challenges slow adoption and limit the value of edge computing in manufacturing environments.





The Solution: A Full-Stack Industrial Edge Platform

Avassa and OnLogic deliver an integrated edge solution designed for manufacturing enterprises.

OnLogic provides rugged, configurable industrial computers designed for long-term operation on the factory floor. Avassa provides a centralized platform for deploying, managing, and securing containerized applications across plants and production lines.

The solution supports manufacturing use cases including automation, machine vision, quality inspection, predictive maintenance, energy optimization, and edge AI. By aligning reliable hardware with automated software operations, manufacturers gain a standardized edge platform that scales across sites.

The joint solution supports customer choice of Linux operating system, enabling manufacturers to align edge deployments with existing IT and OT standards, security policies, and long-term support models. Avassa operates independently of the underlying operating system, while OnLogic systems provide a flexible hardware foundation that avoids OS lock-in and simplifies integration with established manufacturing software environments.

Use Cases

- Standardized edge platforms across multiple plants
- Machine vision and quality inspection at the edge
- Predictive maintenance and condition monitoring
- Local analytics for production optimization
- Secure remote access and monitoring for OT and IT teams

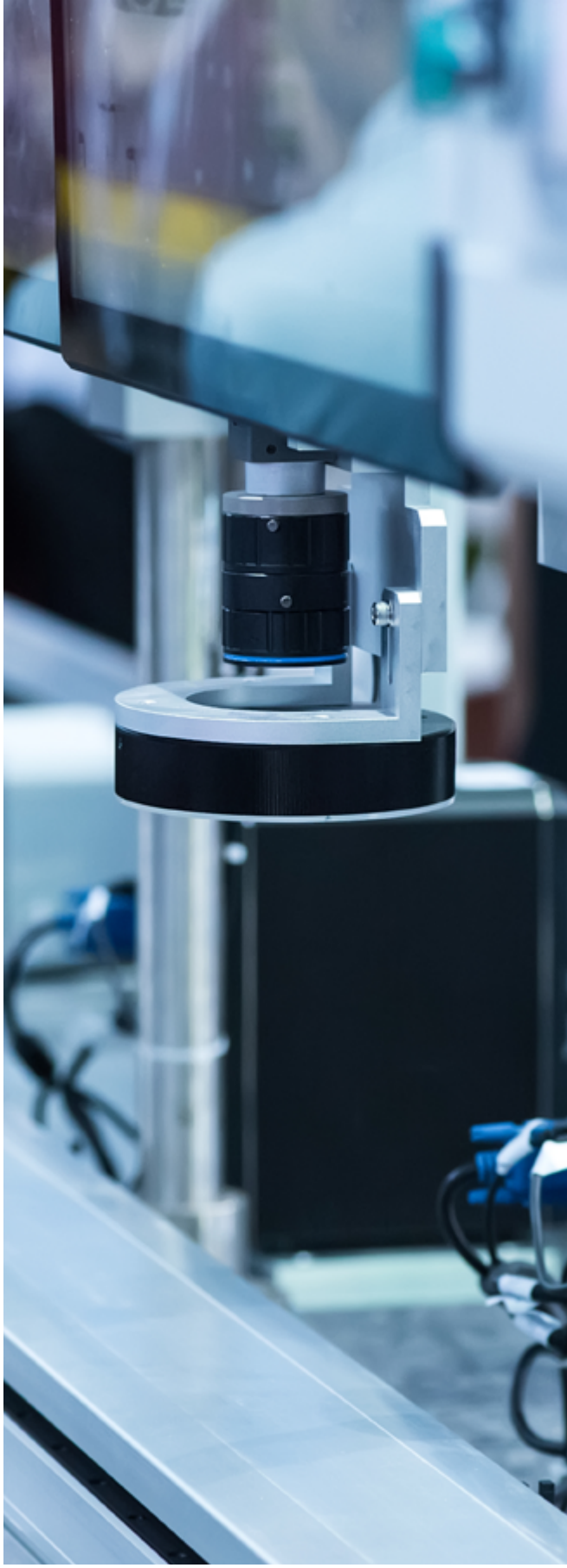
Why OnLogic

In manufacturing, reliability and longevity are critical. OnLogic systems are purpose-built for industrial environments where downtime impacts throughput, safety, and revenue.

- Built-to-order systems tailored to production requirements, including CPU, memory, storage, and I/O
- Industry certifications and application-specific testing for industrial use cases
- Customization options such as custom BIOS, system images, branding and even full custom system development
- Security features including Intel® Platform Trust Technology and optional TPM
- Long lifecycle support aligned with multi-year manufacturing programs

OnLogic Features for the Edge

- Flexible I/O for direct connection to PLCs, sensors, cameras, and industrial equipment
- Fanless designs for enclosed cabinets and particulate-rich factory environments
- Rugged platforms supporting wide temperature ranges and variable power input, and resistant to damage due to shock, vibration, and interference



Why Avassa

Avassa enables manufacturing enterprises to operate edge infrastructure as a managed platform rather than a collection of isolated systems.

The platform simplifies deployment, updates, and monitoring of applications across production sites. It allows manufacturers to roll out new capabilities, respond to issues faster, and maintain visibility across plants without increasing operational complexity.

Key Capabilities

Remote lifecycle management
Automated deployment and updates of applications and operating systems across plants and production sites.

Application resilience
Built-in fault tolerance and self-healing to maintain production during network disruptions or partial failures.

Operations at scale
Designed to manage large fleets of edge systems across multiple factories and regions.

Linux flexibility
Support for customer-selected Linux operating systems, enabling consistent governance, validation, and lifecycle management across plants without changing the edge management model.

Intrinsic security
Secure communication, protected application data, and controlled access between factory floor, data centers, and cloud systems.

Device discovery and observability
Automatic detection of connected industrial devices combined with real-time system insight and remote diagnostics.

Multi-tenancy
Strong isolation between applications, enabling multiple workloads to run safely on shared edge infrastructure.



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Next Steps

Learn how Avassa and OnLogic can help manufacturing enterprises standardize edge deployments, improve operational resilience, and scale digital initiatives across plants with a proven industrial edge

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