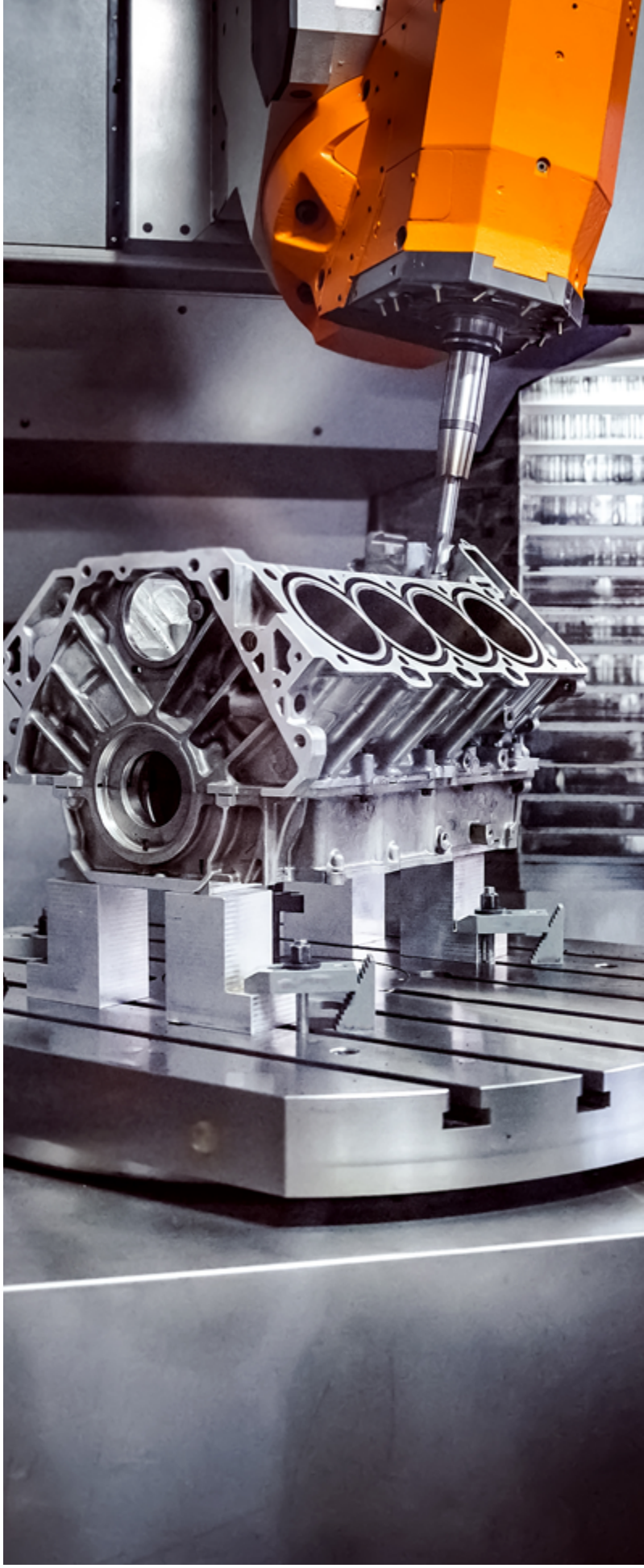
SOLUTION BRIEF

Scaling Innovation: A Repeatable Edge Foundation for Global Machine Fleets

Introduction

Machine builders are under pressure to deliver smarter, more connected machines without increasing engineering effort or long-term support burden. Industrial edge computing and containerized software promise faster innovation, remote serviceability, and new digital revenue streams. Yet many machine builders struggle to operationalize these capabilities across customer sites and machine fleets.

Avassa and OnLogic address this gap together. By combining industrial-grade edge hardware with a purpose-built application management platform, the joint solution enables machine builders to design, deploy, and support connected machines at scale. The result is a repeatable, production-ready edge foundation that shortens time to delivery and simplifies lifecycle management.



ONLOGIC × avassa

The Challenge

As machine builders embed more software and intelligence into their systems, several challenges consistently emerge.

1. **Harsh and embedded operating environments:** Machine controllers and edge systems are deployed directly on equipment, often exposed to heat, vibration, dust, and electrical noise. Hardware failures lead to costly service visits and customer downtime.
2. **Scaling beyond one-off machines:** What works for a single machine or pilot often breaks down when deployed across dozens or hundreds of customer installations. Manual provisioning, updates, and troubleshooting do not scale.
3. **Commissioning, updates, and support over the machine lifecycle:** Machine builders must securely deploy software, update functionality, and support machines long after installation, often with limited or intermittent connectivity at customer sites.
4. **Pressure to deliver faster and differentiate:** Customers expect smarter machines, faster commissioning, and remote service capabilities, without longer lead times or higher system complexity.

Together, these challenges make it difficult for machine builders to standardize platforms while still meeting diverse customer requirements.





The Solution: A Full-Stack Industrial Edge Platform

Avassa and OnLogic deliver an integrated edge solution designed for machine builders.

OnLogic provides rugged, configurable industrial computers suitable for embedding directly into machines or control cabinets. Avassa provides a centralized platform for deploying, managing, and securing containerized machine software across customer installations.

The solution supports common machine-builder use cases including automation systems, robotics, vision systems, mobile machinery, and edge AI workloads. By aligning reliable hardware with automated software operations, machine builders gain a consistent platform they can reuse across product lines and customers.

The joint solution preserves customer choice of Linux operating system. Machine builders can deploy the platform on their preferred Linux variant, aligning with existing engineering practices, customer mandates, and long-term support strategies. 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 existing software environments.

Use Cases

- Standardized machine platforms with configurable software variants
- Remote commissioning and software deployment at customer sites
- Over-the-air updates for features, fixes, and performance impwrovements
- Secure remote access and observability for service teams
- Fleet-wide monitoring across installed machines



Why OnLogic

For machine builders, hardware reliability and long-term availability are critical. OnLogic systems can be installed wherever they're needed, including being embedded directly into machines, and are supported over multi-year product lifecycles.

- Built-to-order systems tailored to machine requirements, including CPU, memory, storage, and I/O
- Industry certifications and application-specific testing for industrial, mobile, and transportation 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 machine product timelines

OnLogic Features for the Edge

- Flexible I/O for direct connection to PLCs, sensors, cameras, and field devices
- Fanless designs for enclosed cabinets and particulate-rich 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 machine builders to manage machine software as a product, not a one-off deployment.

The platform simplifies software packaging, site installation, and ongoing operations across customer machines. It allows builders to roll out new functionality, patch issues, and monitor system health remotely, reducing service costs and improving customer uptime.

Key Capabilities

- **Remote lifecycle management —** Automated deployment and updates of machine applications and operating systems across installed bases.
- **Application resilience —** Built-in fault tolerance and self-healing to maintain operation during network outages or partial system failures.
- **Operations at scale —** Designed to manage fleets of machines deployed across many customers and locations.
- **Linux flexibility —** Support for customer-selected Linux operating systems, enabling alignment with internal validation processes and customer requirements without changing the edge management model.
- **Intrinsic security —** Secure communication, protected application data, and controlled access between machine, cloud, and service teams.
- **Device discovery and observability —** Automatic detection of connected devices combined with real-time system insight and remote diagnostics.
- **Multi-tenancy —** Strong isolation between applications, enabling multiple machine functions or customer-specific workloads on shared hardware.





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Next Steps

Learn how Avassa and OnLogic can help machine builders deliver smarter machines, simplify commissioning and support, and scale connected products with a proven industrial edge platform.

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