

Extend your applications to the far edge

“With the Avassa platform, we are able to deploy and operate our applications at the edge with ease, using the same mechanisms we already have in place for centralized cloud delivery. This delights our engineers since the edge becomes a simple extension of the tooling and patterns they have grown to love in the cloud.”

—
Shayne Claussion
CTO of Extenda Retail

Overview: Discover how to manage and monitor containerized applications at the far edge.

Deploying business-critical, outage-resilient applications at the far edge

Organizations are deploying containerized applications and models to the far edge to use low latency, improved performance, and offline capabilities for business-critical workloads. Far edge deployments are becoming common across a variety of verticals, including industrial environments, retail stores, autonomous vehicles, energy facilities, and multiunit restaurants.

These applications require a different approach to application management as they operate with limited resources, intermittent connectivity, in distant and numerous locations, or in settings with little or no on-site technical expertise. The significantly different operational nature of the far edge causes challenges when attempting to manage these applications using container tooling originally built for the central cloud.

To overcome these challenges, organizations are looking for container management and operations solutions that are purpose-built for far-edge environments, but that provide the same user-friendly format as cloud tooling.

A user-friendly tool for managing containerized applications at the far edge

Avassa Edge Platform helps organizations manage and operate containerized edge applications using well-known tools and cloud practices to observe application performance, health, and security.

The solution bridges the gap between modern DevOps tooling and processes and container applications running at the far edge, so new features can be added and put into production—across large numbers of locations in less time.

Deployment with the Avassa Edge Platform can be customized based on criteria such as location, hardware specifications, or device availability, while smoothly integrating with existing continuous integration and continuous delivery (CI/CD) tools. This ensures that the extension to far-edge environments is efficient, scalable, and uses the cloud-based tooling and processes you already have in place from the central cloud tooling stack.

The Avassa Edge Platform consists of 2 software components: Control Tower and Edge Enforcer. Edge Enforcer uses Red Hat® Enterprise Linux® for edge services, allowing users to manage and monitor far edge applications and infrastructure through the Control Tower and in an automated fashion. Together, they allow users to perform targeted deployments and automate versioning across hundreds, thousands, or even tens of thousands of sites.

Container application deployment, monitoring, and observability

Avassa Edge Platform allows you to manage applications across any number of locations. With it, you can test and release features to the far edge with unprecedented speed. Automation accelerates feature implementation and deployment, helping you to stay ahead in a rapidly evolving technological landscape.

“Before including Avassa as part of our delivery, we had to manually install, version, and troubleshoot our LiDAR devices which quickly became very time-consuming as we began to scale. With Avassa, we are able to deliver our products as-a-service and manage the distributed software in a centralized, remote, and secure fashion. This helps us significantly reduce overhead and instead focus on creative competitive new features for our customers.”

Ida Rehnström
COO of Flasheye

In addition, Avassa’s integration with Red Hat Device Edge amplifies the potential of software applications at the far edge, optimizing performance where it is most impactful (where data is collected and needed).

Manage the life cycle of edge applications efficiently and safely

Avassa provides comprehensive life cycle management for container applications, providing an as-a-service delivery model that supports the dynamic needs of modern far-edge environments.

Avassa’s Edge Platform offers user-friendly installation, deployment, monitoring, and troubleshooting of container applications remotely and also ensures operational resilience through full-application autonomy—in scenarios with unstable or completely disrupted connectivity. Through its integration with Red Hat Hybrid Cloud Console, it provides a single pane of glass for the life cycle management of both containers and Red Hat Enterprise Linux.

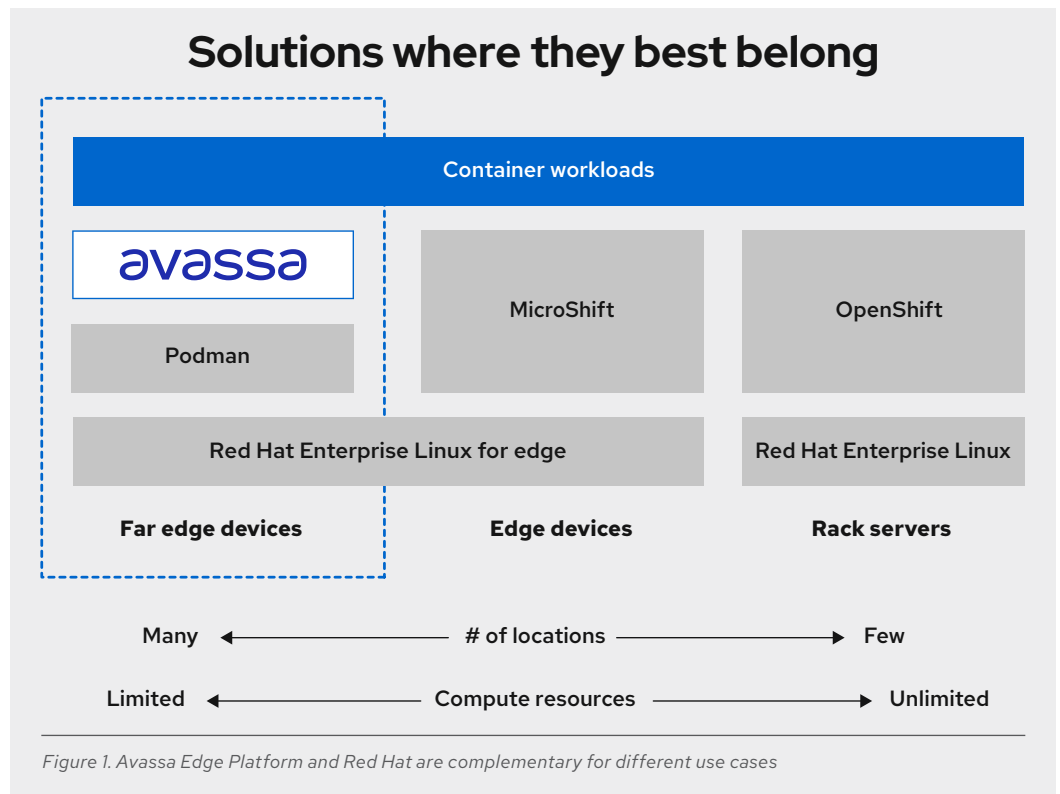
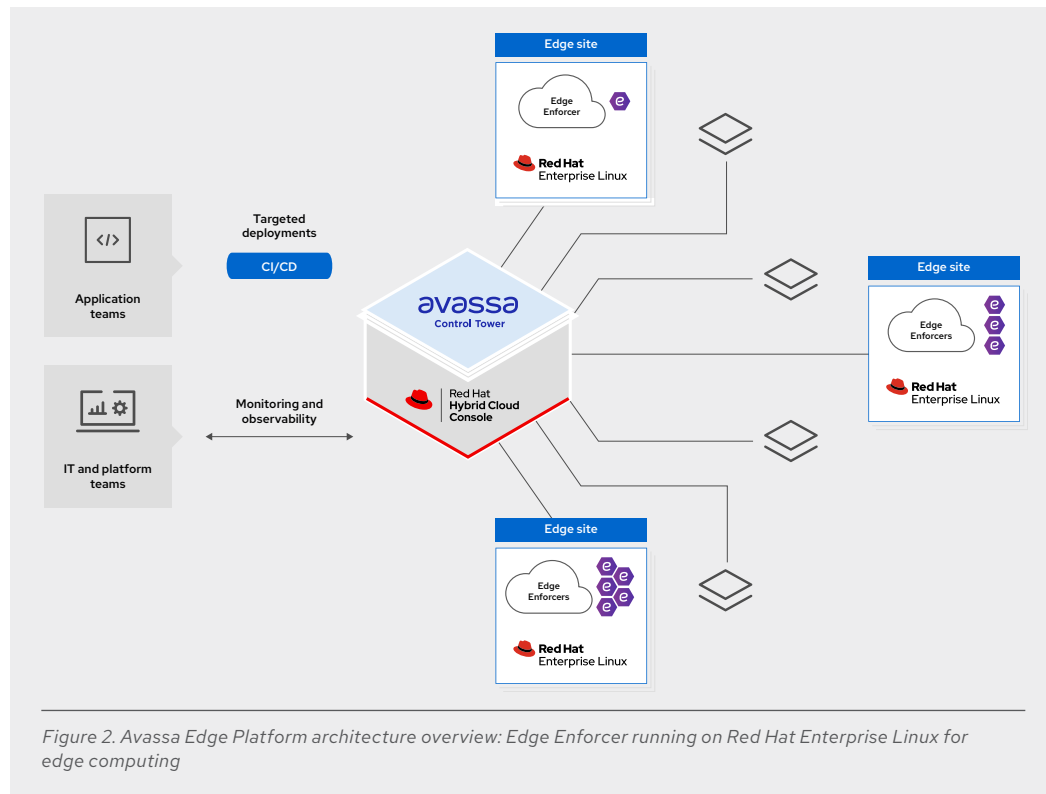


Figure 1. Avassa Edge Platform and Red Hat are complementary for different use cases

Security-focused, multitenancy for distributed applications

Robust security features are provided by the Avassa Edge Platform for data in transit and at rest. It addresses the critical challenges of edge systems, safeguarding against potential breaches through advanced edge and application networking techniques, including microsegmentation. In addition, it manages a central repository of secrets that can be selectively distributed to sites and applications with strong security.



Deploy and operate applications at the edge

Avassa’s expertise in distributed edge computing, backed by 24x7 support, along with the platform’s compatibility with standard container technology and CI/CD tooling, allows organizations to gain competitive advantages and achieve greater scalability in the rapidly-evolving edge landscape.

The capabilities for managing edge applications offered by Avassa’s Edge Platform Control Tower allow organizations to:

- ▶ Deploy container applications across hundreds, thousands, or even tens of thousands of edge locations.
- ▶ Keep applications resilient, available and operational in offline scenarios.
- ▶ Streamline and accelerate the management of existing edge locations and the onboarding of new ones.
- ▶ Observe and monitor applications and infrastructure at the edge for health and performance with precise insights.
- ▶ Avoid duplication of effort and cost by integrating with existing DevOps tooling for application life cycle management and monitoring.
- ▶ Increase security posture across far edge locations.

Advance the dynamic success of your edge

Take advantage of Avassa product resources to learn more about how your business can benefit from a purpose-built edge application and orchestration solution from a team with extensive domain-specific experience and skill.

- ▶ Start a [free trial of Avassa's application management platform](#).
- ▶ Get [access to explainers, tutorials, and how-to guides](#).
- ▶ Learn more about [Avassa](#) and [contact their sales team](#).

About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. A trusted adviser to the Fortune 500, Red Hat provides award-winning support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.



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