Solution Brief

Retail, Energy, Banking/Financial Services, Health and Life Sciences, Hospitality, Government, Education, Transportation, Manufacturing, Networking/Telco

Intel, Scale Computing™: Edge Computing for Distributed Enterprises

Retailers and multi-site organizations benefit from lightweight Scale Computing edge platforms that are scalable, easy to manage and powered by Intel® architecture processors

Multi-site operators are rethinking how they deploy and operate IT infrastructure, continuing to move closer to where data is created and decisions are made. Across retail, hospitality, manufacturing, and other multi-site industries, edge computing has become foundational to delivering reliable operations, real-time insights, and consistent customer experiences.

Scale Computing, an Intel® Industry Solutions Builders partner, delivers a modern edge computing portfolio powered by Intel® architecture processors that is designed for both infrastructure efficiency and application delivery at scale. SC//HyperCore™ virtualization suite and SC//Reliant Platform™ Edge Computing as a Service provide options and capabilities that address the full spectrum of edge computing needs—from resilient virtualization to large-scale application orchestration.

Some of the advantages of the Scale Computing approach can be seen in Figure 1.

The Shift to Next-Generation Edge Computing

Legacy virtualization platforms were designed for centralized data centers and uniform environments. As organizations expand to hundreds or thousands of distributed locations, these approaches introduce unnecessary cost, operational complexity, and rigidity.

Modern edge environments demand:

- Lightweight infrastructure that runs reliably in space- and resource-constrained locations
- Centralized management without on-site IT expertise
- Flexible support for both virtualized and containerized workloads
- Consistent application delivery across diverse hardware and connectivity conditions

Scale Computing addresses these requirements through a portfolio approach that aligns infrastructure and application delivery with Intel®-powered edge deployments.

SC//HyperCore™: Autonomous Virtualization at the Edge

SC//HyperCore™ is the integrated virtualization, storage, and automation foundation of Scale Computing Platform™ (SC//Platform™). Built on a lightweight, KVM-based architecture, SC//HyperCore™ consolidates compute, storage, backup, disaster recovery, and high availability into a single, enterprise-grade platform.

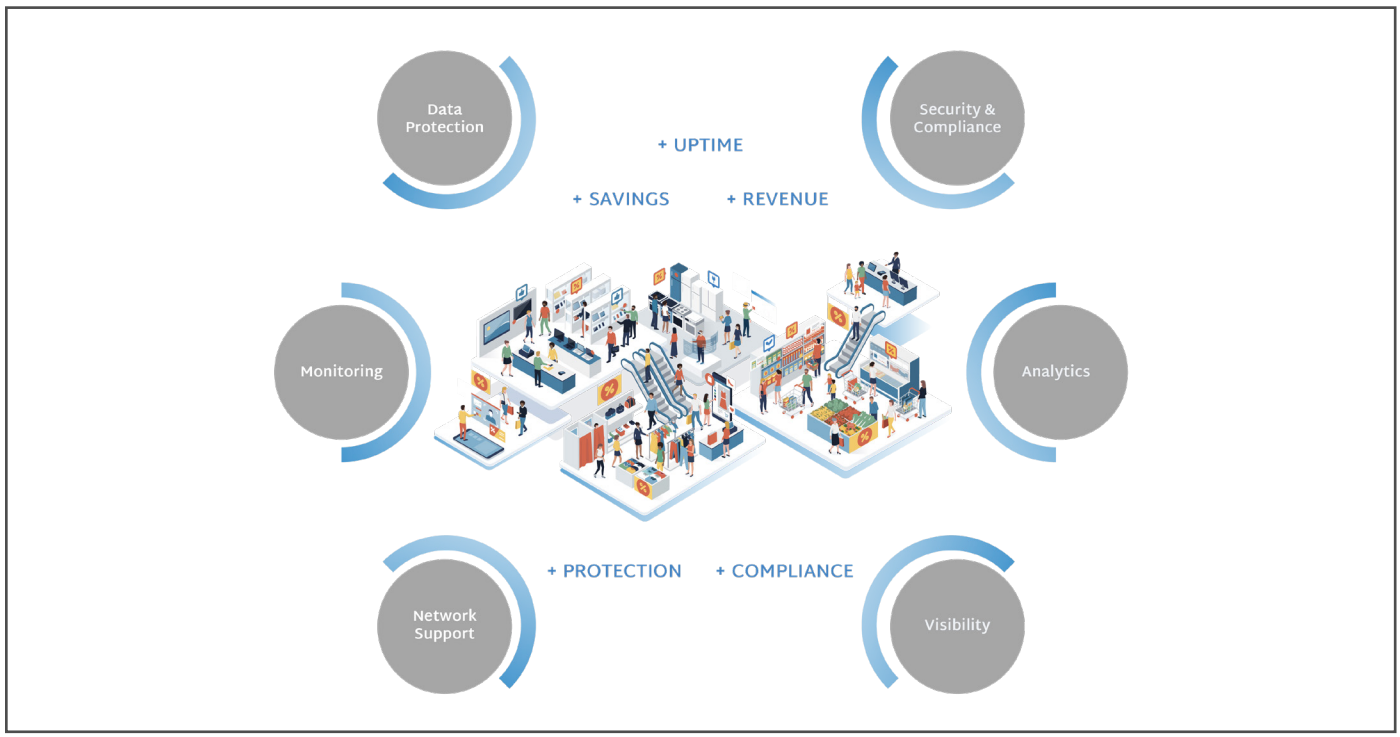

Figure 1. Benefits of cloud-native compute infrastructure offered by Scale Computing.

Powered by Intel architecture processors, SC//HyperCore is designed to operate autonomously in distributed environments where local IT resources may be limited or unavailable. Key capabilities include:

- Integrated virtualization and storage using the Scale Computing Reliable Independent Block Engine (SCRIBE), eliminating the need for external storage systems
- Automated operations and self-healing through the Autonomous Infrastructure Management Engine (AIME), which detects and remediates issues in real time
- High availability and resilience with built-in failover and non-disruptive updates
- Efficient hardware utilization optimized for Intel® processors, supporting deployments from small edge nodes to data center clusters

SC//HyperCore™ provides the reliable infrastructure layer required to run mission-critical virtualized workloads such as point-of-sale systems, in-store analytics, manufacturing control systems, and local databases.

SC//Reliant Platform™: Application Delivery at Scale

While virtualization remains essential, many distributed enterprises are shifting toward application-centric and container-first models to increase agility and standardization across locations. SC//Reliant Platform™ extends Scale Computing's edge capabilities by enabling consistent, automated delivery of applications and content across thousands of sites.

SC//Reliant Platform™ is an Edge Computing as a Service solution powered by Intel architecture processors and designed for large-scale, multi-site environments.

Key capabilities include:

- Hardware-agnostic deployment, allowing organizations to run applications across mixed Intel-powered systems without forced hardware refreshes
- Container-first orchestration for modern, cloud-native application architectures
- Centralized, API-driven automation that standardizes application delivery across diverse locations
- Built-in security and compliance readiness, including support for PCI-aligned environments common in retail and hospitality

SC//Reliant Platform™ is purpose-built for organizations that must maintain consistency, uptime, and compliance while operating at massive scale across geographically dispersed sites. Retailers are great examples of organizations that benefit from Scale Computing edge computing. Some of the retail-specific benefits are shown in Figure 2.

A Complementary Platform Approach

SC//HyperCore™ and SC//Reliant Platform™ offer a cohesive edge computing portfolio, giving organizations clear options based on workload type, site constraints, and operating model:

- **SC//HyperCore™** delivers resilient, autonomous infrastructure—an all-in-one platform for running virtual machines at the edge with integrated virtualization,

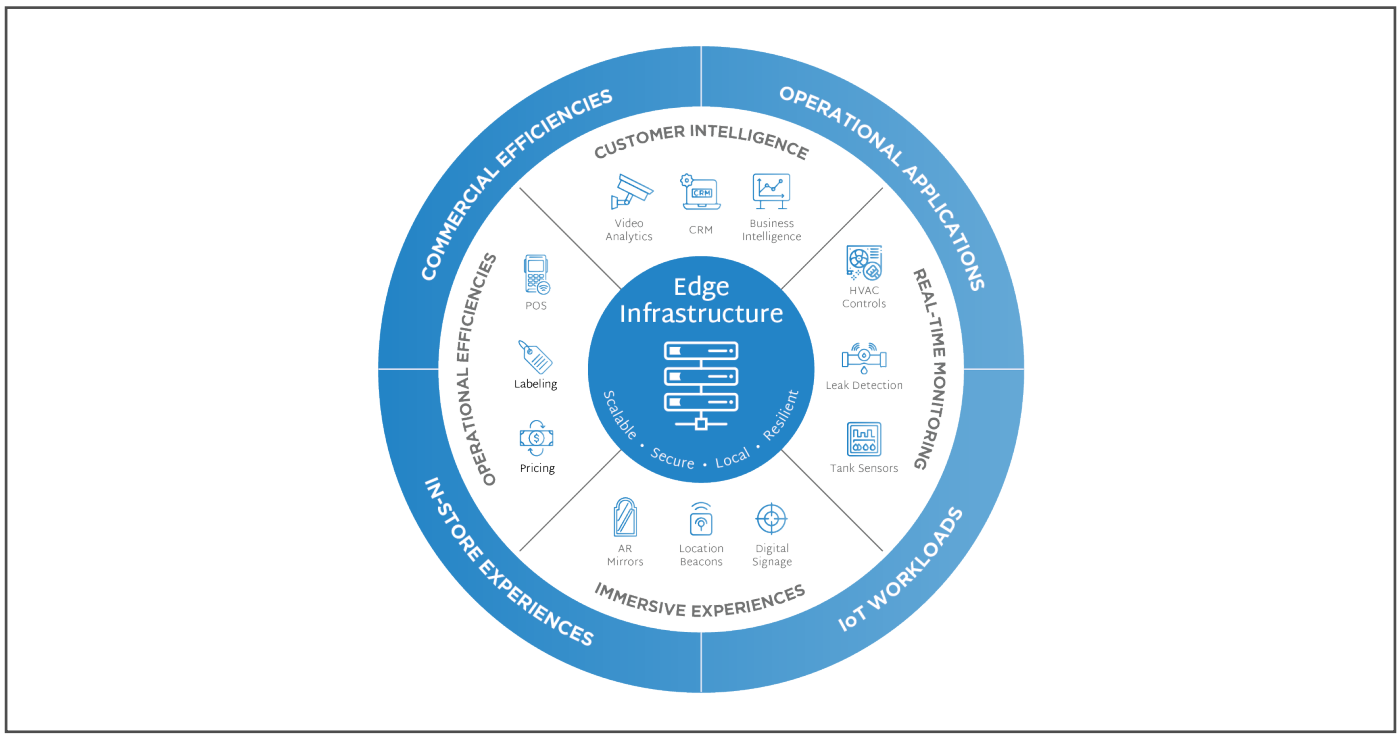

Figure 2. Edge computing benefits for multi-site retail chains.

storage, and high availability, designed to take advantage of modern CPU virtualization capabilities optimized for Intel architecture processors

- **SC//Reliant Platform™** delivers hardware-agnostic, container-first orchestration and application delivery at scale -- built to standardize deployment and lifecycle management across thousands of distributed locations

This portfolio approach allows organizations to support both traditional virtual machines and modern containerized applications, all powered by Intel technologies and managed centrally.

Built for Intel-Powered Edge Environments

Scale Computing solutions are validated to run on a wide range of Intel architecture processors, supporting edge deployments that prioritize performance, efficiency, and long-term flexibility.

This alignment enables organizations to standardize on Intel-powered hardware while choosing the Scale Computing capabilities that best match their infrastructure and application strategies.

Intel Processors Deliver Scalable Compute

Intel architecture processors power Scale Computing virtualization solutions and are a big part of the scalability, as they provide the hardware foundation with a scalable cost/performance range that allows deployments across all applications from the edge to the data center.

Scale Computing offers multiple hardware options, each with multiple processors, RAM, storage, networking, and other options. These families range from very small form factors running on the Intel® Core™ Processor to standard rack units running on 4th Gen Intel® Xeon® Scalable processors.

Intel architecture processors provide the compute performance, efficiency, and scalability needed to run critical workloads, AI applications, and networking services securely and reliably. Intel processors enabled with Intel vPro® add an extra layer of robust hardware management and recovery, complementing the resilience features of the Scale Computing solutions.

The main processors used in the Scale Computing product line include:

Intel® Core™ processors —With up to 16 cores and turbo boost frequencies exceeding 5 GHz, Intel Core processors deliver high single-thread performance and cost-effective virtualization for edge or smaller-site deployments. Supporting Intel® Virtualization Technology (Intel® VT) and Intel® Virtualization Technology (Intel® VT) for Directed I/O (Intel® VT-d), these processors efficiently run multiple VMs in compact servers, enabling responsive, distributed workloads without enterprise-scale costs.

Intel® Xeon® E-2300 processors — With up to eight cores and turbo boost frequencies reaching 5.1 GHz, Intel Xeon E-2300 processors combine server-grade reliability with affordability. Supporting ECC memory, DDR4-3200, and Intel virtualization technologies, these CPUs are ideal for small-to-medium virtualization deployments at distributed locations, offering a balance of performance, manageability, and cost efficiency.

Intel® Xeon® Scalable Processors — Delivering high core counts and high frequencies for demanding workloads, these processors excel in large-scale virtualization and edge deployments. Featuring DDR5 memory, PCIe 5.0, VT-x/VT-d, and Intel® Advanced Matrix Extensions (Intel® AMX) acceleration, they enable secure, high-density VM hosting, AI inference, and modern workload consolidation across enterprise or multi-site infrastructures.

Enabling Scalable, Reliable Edge Operations

By offering autonomous virtualization and application-centric orchestration, Scale Computing and Intel deliver a balanced edge computing solution designed for the realities of distributed enterprises. Organizations gain the flexibility to evolve from traditional virtualization to modern application delivery models—without sacrificing simplicity, availability, or control.

Learn More

Scale Computing Homepage

SC//HyperCore® Platform™

SC//Reliant Platform™

Intel® Xeon® Processors

Intel® Core™ Processors

Intel® Virtualization Technology (Intel® VT) for Directed I/O (Intel® VT-d)

Intel® Industry Solutions Builders

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