VMware Edge Compute Stack

Removing edge complexity so you can focus on your business goals

Edge-optimized to run operational workloads, including real-time applications

- Run real-time and standard runtime apps on the same platform
- Edge-specific services and support offerings to fit edge challenges

Simplified operations reduce management complexity and costs

- Pull-based architecture with zero-touch provisioning and lifecycle management
- Manages apps and infrastructure across thousands of sites with limited IT
- Integrated telemetry provides visibility into applications and traffic at the edge

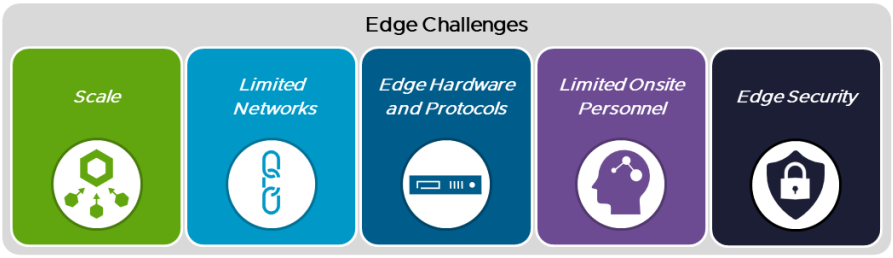
Flexible platform supports ever-changing compute and application needs

- Modernize apps at your own pace with VM and containers on the same platform
- Open, expandable, and changeable to fit apps of the future
- Expanded HCL to cover additional edge hardware

Today's enterprises are discovering how edge computing can improve operational efficiency and enhance customer experiences. By moving compute resources closer to where data is produced and consumed, emerging technologies like AI and computer vision are, enabling faster, smarter decisions. Even traditional operational workloads, such as automation and process controls, are being digitized to reduce support costs, increase agility, and improve sustainability.

Edge operations require a solution built for the edge

The move towards edge presents unique challenges including difficulty in scaling, limited network availability, edge-specific hardware and protocols, lack of onsite technical staff, and unique security needs. This requires different solutions than those used in traditional data center and cloud management.



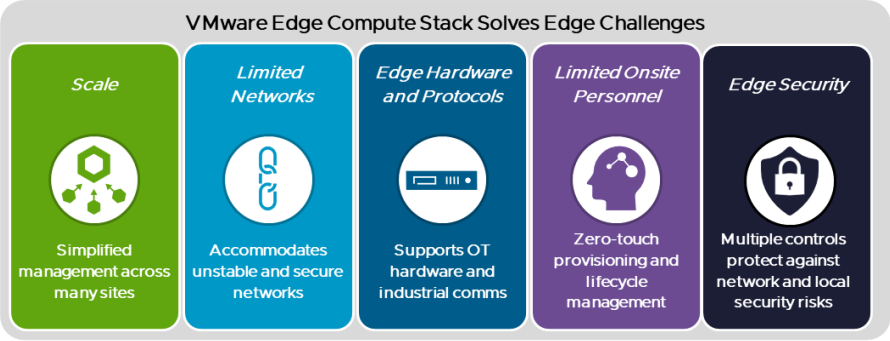
To address edge challenges, customers are seeking a purpose-built OT (operational technology) software infrastructure optimized for managing distributed digital infrastructure and running workloads near data endpoints. It should feature simplified operations and flexibility to support evolving compute and application needs.

VMware Edge Compute Stack

VMware Edge Compute Stack was designed specifically to address edge challenges, while retaining a rich suite of VM and container runtime capabilities.

For organizations that want to build, run, manage, connect, and protect applications across many edge sites with limited compute, network, and IT

resources, VMware Edge Compute Stack is an edge-optimized runtime and orchestration platform for frictionless management of edge apps and infrastructure across many sites with limited resources. It expertly runs operational workloads, including real-time applications, and its simplified operations reduce complexity and cost. The flexible platform supports ever-changing compute and application needs. An estimated 7 million edge workloads are trusted to run on VMware.



VMware Edge Compute Stack addresses the unique technical challenges of edge sites.

- **Scale**: VMware Edge Cloud Orchestrator (VECO) features a pull-based management plane and a decoupled control plane, supporting deployments with thousands of edge locations. The Edge Compute Stack runtime facilitates VM and container deployments with support for single-node and clustered designs.
- **Limited or unreliable network connectivity**: Decoupling VECO management plane functions from the control plane allows edge hosts to operate without depending on VECO for control plane functions. Embedded control plane functions ensure workloads remain functional even with minimal bandwidth and extended periods of no connectivity.
- **Edge-specific hardware and protocols**: Edge Compute Stack supports a wide array of edge-specific hardware and protocols, expanding use cases for ruggedized servers, industrial PCs, and edge-specific networking protocols.
- **Limited onsite IT personnel**: Edge Compute Stack simplifies onsite requirements. The fully scripted installation process minimizes the need for senior IT personnel, enabling zero-touch provisioning and automated deployment of VM and container workloads.
- **Edge security**: VMware Edge Compute Stack enhances security through north-south communication, ephemeral connections to VECO, and integrated VMware Edge Intelligence for anomaly detection. The VMware VeloCloud Edge functionality ensures IT-OT separation and secure network access.

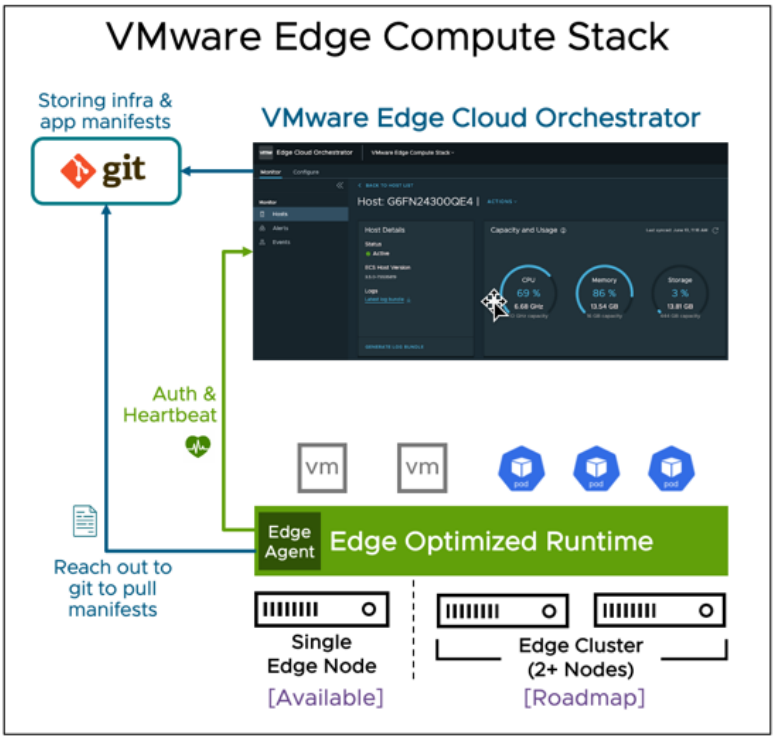
Additionally, our vertical-focused service and support are tailored to specific industry needs, ensuring successful deployment and operation.

Solution components

VMware Edge Compute Stack consists of an edge-optimized runtime and management. Both are tailored to the challenges faced in running and managing workloads at edge sites.

Edge-optimized management is provided by VMware Edge Cloud Orchestrator (VECO). Building upon the existing telemetry capabilities of the VMware Edge Cloud Orchestrator, this release adds zero touch orchestration and scaled management of both infrastructure and applications to Edge Compute Stack.

It features a pull-based architecture which is ideal for customers with many edge sites and varying levels of connectivity. Similar to how an iPhone updates itself, edge sites update their applications and infrastructure when they are available and connected.



Edge optimized runtime uses proven VMware technology to run both virtualized and container applications. It is optimized to fit OT workloads on smaller and diverse hardware common at edge sites. It operates at low latency to run demanding real-time workloads like robotics and computer vision, repeatedly and safely.

Learn more

- VMware Edge Compute Stack, *www.vmware.com/products/edge-compute-stack.html*

VMware Edge Compute Stack editions

VMware Edge Compute Stack is sold as a subscription and license per core. It is available in two editions.

- ADVANCED edition includes edge computing runtime and orchestration.
- ENTERPRISE edition adds shared storage integrated with edge computing.