

VMware Cloud Foundation Edge

Modernize your edge infrastructure at scale

Customer challenges

- Lack of flexible, scalable turnkey solution for edge locations
- Operational overhead and complexity
- Incompatible infrastructure and skill gaps
- Security and compliance
- Infrastructure and operational downtime

Solution:

VMware Cloud Foundation Edge

- VMware Cloud Foundation™ Edge provides a turnkey private cloud platform optimized for edge locations that integrates leading products including VMware vSphere® (compute), VMware vSAN™ (storage), VMware NSX® (networking), VCF Automation and VCF Operations into a single solution and provides you flexibility to choose and deploy either full-stack or individual components as per your needs.
- VMware Cloud Foundation Edge is a scalable platform that allows you to start small and scale later as per your business needs.
- VMware Cloud Foundation Edge removes your burden of lifecycle management so that you can focus on business innovation while VMware takes care of an infrastructure.

A platform for modernizing your edge infrastructure

In today's "Digital First" world, Digital Transformation is essential for every business to stay ahead of the curve. And data is one of the foundational elements of Digital Transformation, serving as the lifeblood that fuels innovation and growth, drives operational efficiency, unlocks new business opportunities, and delivers better customer experiences.

This data originates from myriad sources every second, spanning across devices, sensors, applications, social media platforms, and more. Businesses want to use this data and apply AI/ML algorithms to this data to gain meaningful insights from it. However, they lack the ability to easily apply those insights back into the field. To automate this intelligence and make time-sensitive decisions on site, customers need an IT infrastructure closer to the data source.

And that's where **edge infrastructure** comes into the picture. **Edge computing brings computing resources closer to the data source** (edge site) rather than relying solely on centralized data center or cloud infrastructure. Because of the requirements such as low latency, lower cost of bandwidth, improved sustainability, resiliency, scalability and data sovereignty and compliance restrictions, edge computing has become a critical component for most enterprises' digital transformation initiatives.

VMware Cloud Foundation Edge

VMware Cloud Foundation Edge is an optimized configuration of VMware Cloud Foundation tailored for edge use cases. It provides the industry's first private cloud Infrastructure-as-a-Service solution for edge locations, offering integrated enterprise-class compute, storage, networking, management and security capabilities. VMware Cloud Foundation Edge delivers scalable and flexible edge infrastructure with automated deployment and lifecycle management. It provides a unified platform with consistent infrastructure and operations across data center, public cloud, and edge locations.

Benefits

- **Reduced operational overhead and complexity** – With automated deployment and lifecycle management, VMware Cloud Foundation Edge reduces an operational burden of edge infrastructure. With consistent operations, it streamlines the operations across data center and edge sites.
- **Cost efficiency** – VMware Cloud Foundation Edge decreases the total cost of ownership (TCO) through low-cost optimized VMware Cloud Foundation configuration and automated lifecycle management, reducing both CapEx and OpEx.
- **Enhanced security and reliability** – VMware Cloud Foundation Edge delivers high availability, resiliency and robust security for edge sites, ensuring comprehensive data protection and uninterrupted business operations.

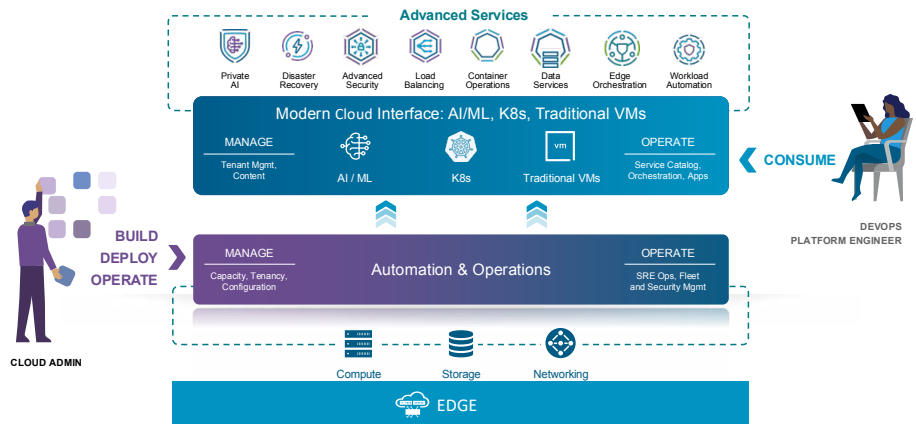


Figure 1: Core platform components.

- **VMware Cloud Foundation Infrastructure Stack** – Includes VMware’s industry-leading solutions—virtualization and compute through vSphere for compute, storage through vSAN, and networking by NSX. Additionally, it provides vSphere with the vSAN Witness Appliance that can be deployed locally, which is useful specifically in scenarios where customers do not want to use VCF Operations fleet management.
- **VCF Operations fleet management** – Automates the installation, operations, and lifecycle management of the SDDC stack, streamlining deployment, configuration, and updating processes.
- **VCF Automation and VCF Operations** – Delivers comprehensive operations, automation, and analysis, across the full-stack infrastructure platform.
- **VCF Operations HCX** – Enables seamless migration, workload rebalancing, and disaster recovery across private and public clouds.

How the platform works

- **Workload Compute Platform** – At its core, VMware Cloud Foundation leverages vSphere to create and manage virtual machines and containers, providing a flexible, secure, and scalable compute platform.
- **Storage Optimization** – By integrating vSAN or external storage into the platform, VMware Cloud Foundation offers integrated, secure, scalable storage solutions that enhance resource efficiency and reduce operational complexity.
- **Network Integration** – Leverages NSX to provide a secure, software-defined networking layer capable of handling the dynamic needs of modern cloud-based applications.
- **Automated Provisioning and Management** – VMware Cloud Foundation automates key operational tasks in a cloud operating model, reducing the time and complexity associated with deploying, managing, and maintaining private cloud environments.

VMware Cloud Foundation Edge delivers a unified and automated platform optimized for edge locations, simplifying the deployment of a fully integrated

Key use cases

VMware Cloud Foundation Edge can be used to modernize edge infrastructure across different industries. Here are some of the key use cases and example scenarios under each of those use cases:

Infrastructure extension

- Remote Office Branch Office/ Fulfillment Centers
- Virtual Desktop Infrastructure
- Offline Locations with intermittent network connectivity

Artificial intelligence

- Augmented Customer Service Agents
- Automated Preventive Maintenance
- Adaptive Learning/Smart City

Real-time analytics

- Fraud Detection
- Autonomous Vehicles
- Financial Trading Apps

Industrial IoT

- Automated Inspection
- Supply Chain Management
- Inventory Management

Content delivery

- Streaming Services
- Online Gaming
- AR and VR Content Delivery

infrastructure-as-a-service (IaaS) stack at the edge. Enabling consistent, secure, and agile operations across private cloud, public cloud and edge environments, VMware Cloud Foundation Edge ensures that organizations can flexibly choose either a full stack or individual infrastructure components and scale their infrastructure as per their evolving business needs.

Why VMware Cloud Foundation Edge?

VMware Cloud Foundation Edge plays a crucial role in modernizing edge infrastructure for the businesses. Let's look at some of the key differentiators that VMware Cloud Foundation Edge offers:

1. Enterprise-ready infrastructure

- Enterprise grade turnkey infrastructure at the edge locations with out-of-the-box enterprise class compute, storage, networking, security, and management.
- Unique, built-in security, performance, availability, supportability, and manageability features to meet enterprise requirements.

2. Automated deployment and lifecycle management

- Fast and easy to deploy infrastructure at new edge sites with automated deployment.
- Shift of IT team's focus from routine infrastructure tasks to strategic initiatives and business innovation with automated lifecycle management.
- No need to maintain technical personnel on site at the edge location.

3. Unmatched flexibility and scalability

- Ability to start small and seamlessly scale up or down later as needed. Support for small "far edge" and large "near edge" sites at scale.
- Ability to choose either full-stack or individual infrastructure components (compute, storage, networking, management) as per the business needs.
- Flexibility to deploy either VCF Operations fleet management or VMware vCenter® on the VMware Cloud Foundation instance in the data center or edge sites for full lifecycle management.

4. Consistent and familiar platform

- Consistent Infrastructure across central data center and edge locations that minimizes risks and complexities while integrating edge sites with data center VMware Cloud Foundation instance.
- Consistent operations across edge, data center and cloud allow you to re-use existing tools, skill-sets and processes with minimal learning curve.

5. Unified operations and management

- A unified operations layer to streamline operations.
- Option to use either VMware vCenter or VCF Operations to manage workload domains across multiple edge sites.

For more information or to purchase VMware products

Call 877-4-VMWARE (outside North America, +1-650-427-5000),

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VMware Cloud Foundation support

The deployment of a full-stack private cloud platform such as VMware Cloud Foundation Edge is enhanced by a suite of support programs, assessment, and professional services for ongoing operations. VMware Cloud Foundation Edge support includes cloud maturity and adoption assessments coupled with digital learning, in addition to Jumpstart Workshops that help customers understand VMware's recommended best practices for cloud maturity. These services provide a tailored implementation and adoption plan to help customers achieve their business outcomes.

How to get started

Getting started with VMware Cloud Foundation Edge is simple. For a quick hands-on experience, try the VMware Cloud Foundation Hands-on Lab. When you are ready to purchase, there are four ways to purchase VMware Cloud Foundation:

1. Directly from VMware
2. From VMware channel partners
3. As part of an integrated system from OEM vendors

Modernize your edge infrastructure at scale with VMware Cloud Foundation Edge

VMware Cloud Foundation Edge provides you a scalable and flexible Infrastructure-as-a-Service platform for the edge locations where you can start small with a low-cost starter configuration and scale later as per your evolving business needs. It delivers a comprehensive suite of compute, storage, networking, management and security capabilities and rich enterprise-grade performance, security, availability, supportability, and manageability features built into an infrastructure. With consistent infrastructure and operations helps you streamline across an entire infrastructure landscape, you can seamlessly integrate edge infrastructure with the data center and cloud while re-using your existing tools, skill sets and processes. And with the unified operations layer, it helps you streamline orchestration and management across multiple edge sites.

For more information on cloud computing and VMware Cloud Foundation Edge, please visit vmware.com/products/cloud-foundation.