

How to Manage, Operate, and Secure Your VMware Private Cloud

Build, deploy, and operate with VMware Cloud
Foundation

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Navigating the complex, fast-changing IT landscape

Managing the hybrid IT landscape has never been more challenging. To meet business-critical needs, your team is continually adding new applications and devices. All this change creates massive operational complexity. How can your IT team keep pace with this complex, fast-moving environment—and even pull ahead?

In a recent IDC survey, IT leaders weighed in on key business objectives for hybrid IT infrastructure success.¹ These objectives came in at the top of the list: improving operational efficiencies, cost reductions, and compliance. To accomplish all this, you must have cloud management tools with the right capabilities.

Read on to learn how VMware can help.



“Enterprises need a solution to the complexity of supporting the digital enterprise with its growing number of new applications spread across multiple public and private clouds. A platform approach to cloud management, monitoring, and automation enables IT teams to more efficiently and effectively support these complex environments.”

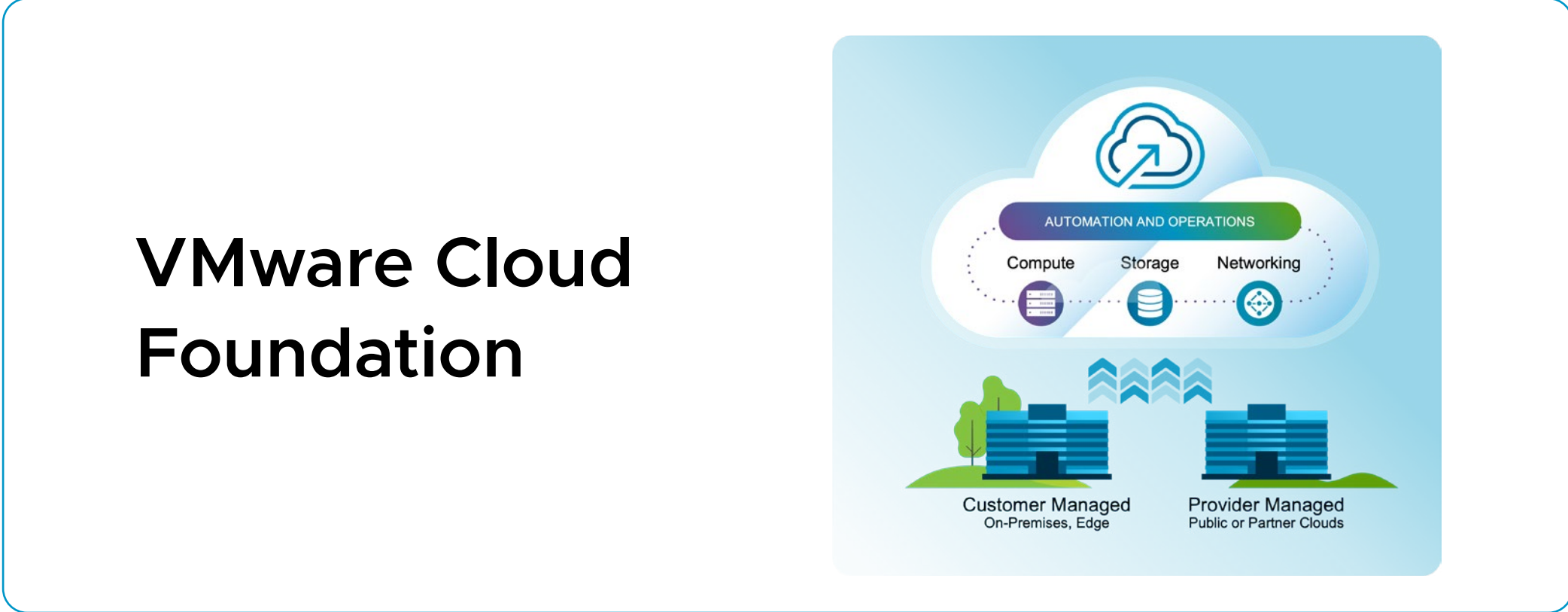
— Jevin Jensen, research VP for Intelligent CloudOps, IDC²

¹IDC. “[IDC MarketScape: Worldwide Hybrid IT Consulting and Integration Services 2023 Vendor Assessment](#),” IDC #US50498923, 2023.

²IDC. “[IDC MarketScape: Worldwide Multicloud and Hybrid Cloud Management with Automation 2024 Vendor Assessment](#),” IDC #US52084624, Jevin Jensen, May 2024.

Two tools designed to meet your operational needs

In the ever-evolving cloud landscape, VMware has consistently been at the forefront, helping businesses modernize their infrastructure and address critical issues with innovative solutions. VMware Cloud Foundation™ continues in that tradition, offering two operational components designed to meet enterprises' pressing goals.



VMware Cloud Foundation Operations		
VMware Cloud Foundation Operations for Networks		
Streamlining cloud infrastructure management	Improving IT operations	Enhancing security
	<ul style="list-style-type: none"> • Cost & capacity • Performance & troubleshooting 	

What is VMware Cloud Foundation?

It's a private cloud that acts like your own public cloud. It integrates compute, storage, networking, and management into a unified software-defined data center platform, pairing the benefits of public cloud with the security and performance of an on-premises private cloud.

At A Glance

VMware Cloud Foundation Operations:

- Provides OS-agnostic visibility into physical, virtual, and cloud infrastructure
- Automates IT operations, centralizes logging, simplifies diagnostics, and improves capacity management
- Enables best-in-class security, intelligent remediation, and integrated compliance

VMware Cloud Foundation Operations for Networks:

- Enhances network visibility, application discovery, and troubleshooting
- Enables mapping of the network technology for VMware Cloud Foundation
- Empowers teams to accelerate network virtualization using VMware NSX
- Provides assurance and verification

Management Streamlining cloud infrastructure management

IT must manage a lot of assets, but VMware makes it easier

80%

increase network mapping efficiency with VMware Cloud Foundation Operations for Networks³

To gain management control, you need visibility across compute, storage, and network, maintaining accurate views of your infrastructure even amidst constant IT changes. How else can your team plan initiatives, optimize processes, or secure systems—all at scale?

With the visibility and near-real-time insights provided by VMware Cloud Foundation’s management tools, IT team members finally have the data and tools they need to drive powerful outcomes, no matter their business functions and geographies.

³ Forrester. “The Total Economic Impact™ of VMware Cloud Foundation Network Operations.” April 2024.

⁴ Ibid.

Goals	Solution	Capabilities	Outcomes
Streamlining cloud infrastructure management	VMware Cloud Foundation Operations	<ul style="list-style-type: none"> Provides full-stack visibility from the physical, virtual, or cloud infrastructure to applications running on it Enables monitoring across operating systems and infrastructure modes Extends monitoring capabilities with out-of-the-box management packs Shows trends and incoming issues via dashboards, alerts, and reports Centralizes certificate visibility, license entitlement, and usage Uses single sign-on to manage access 	<ul style="list-style-type: none"> Empower IT with full-stack visibility Optimize performance Leverage license insights to reduce costs Control and streamline access
	VMware Cloud Foundation Operations for Networks	<ul style="list-style-type: none"> Enables network flow mappings Analyzes traffic flow, creating affinity diagrams 	<ul style="list-style-type: none"> Map application boundaries and dependencies, streamlining migrations Identify and remediate gaps and bottlenecks

“We were looking for a tool that could give everybody the same visibility—not just a network tool. [VMware Cloud Foundation Operations for Networks] is about providing visibility into the entire infrastructure and then letting people add in whatever way that they need—whether it’s through a device, a network switch, a load balancer, or a firewall perspective.”

— Lead IT architecture analyst, healthcare⁴

Operations

Optimizing costs and capacity

No matter the focus of your business, it's vital to have enough capacity to support your applications and services while avoiding overprovisioning, which increases costs for little to no value. This balancing act is not simple, especially considering how quickly things change and how far infrastructure can sprawl. Enter VMware Cloud Foundation's cost and capacity management capabilities.

Goals	Solution	Capabilities	Outcomes
Improving IT operations by optimizing costs and capacity	VMware Cloud Foundation Operations	<ul style="list-style-type: none"> Provides end-to-end infrastructure capacity management tools Enables IT to plan, justify, deploy, and scale capacity to support global business operations Provides a holistic view of the total cost of ownership Identifies unused resources and runs reclamation workflows to optimize costs 	<ul style="list-style-type: none"> Enable data-driven decisions on infrastructure purchases Shift unused capacity to where it's needed Virtualize more workloads to improve efficiency and performance Decommission unneeded resources Understand the costs of running your cloud
	VMware Cloud Foundation Operations for Networks	<ul style="list-style-type: none"> Improves resource optimization and network capacity by automating the discovery and dependency mapping of all devices, applications, and services Uses the VMware NSX dashboard to improve network capacity and review east-west traffic, resource-intensive hair-pinned traffic, and other expensive, inefficient traffic profiles 	<ul style="list-style-type: none"> Enable deeper analysis of traffic flows Provide insights for effective network and service planning

“We shift capacity between teams a lot, even across borders. One time, our Canadian team needed capacity during peak season, and we found a cluster with capacity. No delays, no need to buy more servers, no shipping—we saved \$100,000 to \$200,000.”

—Senior engineer of infrastructure and platforms, retail⁷

⁵ Forrester. “The Total Economic Impact™ of VMware Cloud Foundation Operations.” April 2024.

⁶ Ibid.

⁷ Ibid.

5X

relative downtime reduction by applying what-if scenarios and optimizing capacity with VMware Cloud Foundation Operations.⁵

100%

cost savings in last-minute hardware costs with VMware Cloud Foundation Operations.⁶

Operations

Boosting performance and enhancing troubleshooting

From high expectations around latency for digital experiences to the substantial compute requirements of next-gen applications like AI, demands around performance and uptime are only going to increase. How can you meet these skyrocketing needs?

With the capabilities and actionable insights provided by VMware Cloud Foundation's unified platform, you get tools to boost performance, accelerate issue response, and proactively address potential bottlenecks and gaps.

Goals	Solution	Capabilities	Outcomes
Improving IT operations by boosting performance and enhancing troubleshooting	VMware Cloud Foundation Operations	<ul style="list-style-type: none">Centralizes logging dataImproves IT's ability to identify anomaliesHighlights notifications, events, property changes, and anomalous metrics in the troubleshooting workbenchEases monitoring of infrastructure health with simplified diagnosticsLeverages AI/ML-based analytics to predict, prevent, and troubleshoot across applications and infrastructure	<ul style="list-style-type: none">Conduct rapid troubleshootingProactively make changes that increase operational stabilityReduce unplanned downtimeContinually optimize performance
	VMware Cloud Foundation Operations for Networks	<ul style="list-style-type: none">Provides visibility across hybrid cloud infrastructure and traffic and path analyticsGenerates network assessment for customers who have not yet deployed VMware NSX to determine deployment benefitsUses network segmentation to prioritize critical trafficMaps application dependencies to plan cloud migrations that increase agility	<ul style="list-style-type: none">Identify bottlenecksAllocate workloads efficientlyIdentify and mitigate situations where inefficient network traffic patterns harm application performanceImprove migration planning while minimizing risks

Operations

Boosting performance and enhancing troubleshooting

Benefit from smoother performance management and troubleshooting

What you gain with VMware Cloud Foundation Operations:⁸

20%

mean time to resolution (MTTR) score enhancements

50%

improved team coordination in incident investigations

5X

uptime boost, enabling organizations to achieve 99.9% uptime

The difference you can see with VMware Cloud Foundation Operations for Networks:⁹

90%

decrease in troubleshooting time, speeding issue resolution

50%

reduction in network outages

75%

less time spent monitoring the network to optimize for performance

“With more proactive infrastructure management [enabled by VMware Cloud Foundation Operations], we’ve been able to reduce issues by 10% to 15%, time-to-issue resolution by 20% to 30%, and overall operational workload by 35% to 40%. Managing our virtual and physical environments has become more effective and smoother.”

—Senior IT infrastructure analyst, South American education company¹⁰

⁸ Forrester. “The Total Economic Impact™ of VMware Cloud Foundation Operations.” April 2024.

⁹ Forrester. “The Total Economic Impact™ of VMware Cloud Foundation Network Operations.” April 2024.

¹⁰ Forrester. “The Total Economic Impact™ of VMware Cloud Foundation Operations.” April 2024.

Security

Enhance security

Most enterprises are bound by requirements on how data is collected, used, stored, and transmitted and how systems are secured. IT teams can only meet these ever-evolving requirements if they have visibility into where data, applications, and workloads live and the tools to define and enforce policies and automate remediation. With these insights, IT can enforce data controls, segment networks, and rapidly address anomalies. IT can also work with other stakeholders to improve the sustainability of the IT environment, future-proofing their company’s operational model.

With these VMware Cloud Foundation capabilities, you’re set up for success.

Goals	Solution	Capabilities	Outcomes
Enhancing security	VMware Cloud Foundation Operations	<ul style="list-style-type: none">Enables infrastructure hardening based on VMware best practicesDetects infrastructure deviations from regulatory guidelines, industry benchmarks, and best practice standardsCalculates your company’s VMware Green Score across clouds and data centers	<ul style="list-style-type: none">Harness the power of private cloud for workloads that need enhanced security to meet compliance requirementsEnsure compliance with ISO, PCI, CIS, FISMA, CSA, and HIPAA from Day 1 and enable proactive remediation of issuesHelp your company meet its environmental, social, and governance (ESG) commitments
	VMware Cloud Foundation Operations for Networks	<ul style="list-style-type: none">Works with vDefend Firewall to implement automated firewall policies and harness network segmentation, adhering to compliance requirements	<ul style="list-style-type: none">Proactively improve compliance with segmentation and automationCustomize controls for key use cases, such as PCI compliance

“[VMware Cloud Foundation Operations for Networks] has a very smart app discovery method where it can parse out from the name of the machine what application and what tier it is. So in the places we ran that, we’re now able to tier our applications and, if a new server gets spun up in the web tier for example, it automatically gets brought into that tier in the application discovery consult, and we’re able to classify the traffic and then put that into the firewall rules and NSX.”

—IT infrastructure and security manager, chemical company¹¹

¹¹ Forrester. “The Total Economic Impact™ of VMware Cloud Foundation Network Operations.” April 2024.

Modernizing IT management, operations, and security with VMware Cloud Foundation

To manage an always-changing hybrid IT environment successfully and efficiently, you need the right tools. With VMware Cloud Foundation Operations and VMware Cloud Foundation Operations for Networks, those tools are right at your fingertips.

What you can gain by using VMware Cloud Foundation Operations over 3 years:¹²

5X

relative downtime reduction, leading to greater productivity

20%

decrease in MTTR for issues

50%

improvement in team coordination efficiency

100%

reduction in last-minute hardware costs



What you can achieve with VMware Cloud Foundation Operations for Networks in 6 months:¹³

90%

decrease in troubleshooting time

75%

less time spent monitoring the network for performance optimization

50%

reduction in network outages

80%

network mapping efficiency improvements

¹² Forrester. "The Total Economic Impact™ of VMware Cloud Foundation Operations." April 2024.

¹³ Forrester. "The Total Economic Impact™ of VMware Cloud Foundation Network Operations." April 2024.

Get Started Today

Ready to move from navigating IT complexity to optimizing operations?

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