Introduction

Managing a complex IT environment with traditional monitoring tools and point solutions from many vendors isn’t sustainable or scalable. Spending unnecessary time manually troubleshooting IT hurts productivity. Yet, you’re under pressure to reduce costs and downtime while improving ROI. There’s a better way.

In this eBook, you’ll learn about the 10 most critical IT operations management pitfalls—and how to avoid them. You’ll see real-world examples of organizations like yours that are gaining business and financial benefits over competitors.

By embracing self-driving operations management powered by VMware vRealize® Operations™, your organization can experience hands-off and hassle-free cloud management to automate and simplify IT operations, accelerating your journey to successful business outcomes.
Cloud Pitfall

Cloud operations complexity

• Every cloud becomes a silo.
• Each cloud (private, public, hybrid) adds to operating complexity.
• Migration is hard and takes extensive planning.
• Multiple clouds with fragmented management reduce overall control, visibility and governance.

Solution

Software-defined data center and cloud operations

• Reduce downtime.
• Simplify and automate IT operations.
• Adopt self-driving operations management from applications to infrastructure for greater IT agility and efficiency.
• Optimize, plan and scale software-defined data center (SDDC) and hybrid cloud deployments.
• Gain multi-cloud observability.
Paradigms

Pitfall

Old paradigms

- Operations are rigid and role-based.
- There’s a separate developer culture.
- It’s challenging to demonstrate value to the business.

Solution

Easy adoption of new models (cloud first, DevOps and more)

- Enable simpler adaptation and leaner operations.
- Increase agility.
- Deliver on and prove business value—measurement, monitoring and dashboards.
Operations

Pitfall

Operational burdens

- The majority of time and budget are spent on maintenance.
- Set it and forget it isn’t that simple.
- Both clouds and on-premises systems need to be monitored and managed.
- All apps and infrastructure still require troubleshooting.

Solution

Operational excellence and AI/ML

- Speed time to value.
- Leverage artificial intelligence (AI) and machine learning (ML) for insights and automated remediation.
- Create placement zones across hosts regardless of cluster boundaries.
- Optimize placement and balancing of workloads based on software license enforcement, tiers and other tags.
- Avoid contention using ML-driven predictive analytics. Automatically apply business intent to VMware vSphere® Distributed Resource Scheduler™ (DRS) and automate DRS management.
- Optimize performance of VMware vSAN™ clusters through workload balancing that is resync, slack space and storage policy aware.
Innovation

Pitfall

Stalled innovation

- There’s no agile way to integrate services from multiple clouds and legacy environments.
- Little IT time is left for innovation.

Solution

Innovation at the speed of business

- Gain a competitive advantage.
- Accelerate decision-making about where to invest.
- Enable cost tracking back to specific departments.
Costs

Pitfall

High costs

- Workloads and services can’t be continuously and more exactly optimized as budgets decline and demands increase.

- It’s costly to spin up new data centers, or to consolidate or modernize data centers.

Solution

Cost optimization

- Reduce costs by reclaiming powered-off virtual machines (VMs), idle VMs and orphaned disks.

- Gain real-time monitoring of vSAN costs, individual server costs and total monthly OpEx costs.

- Evaluate costs for migration to public clouds, such as AWS, Microsoft Azure, Google Cloud, IBM Cloud and more.
Performance

Pitfall

Inconsistent performance

• Performance management is challenging.
• Critical workloads don’t always get the resources they need.
• Connections break, and software or services become unreliable.

Solution

Automated workload placement and balancing

• Reduce costs and risk.
• Automate workload balancing across clusters based on business and operational intent.
• Optimize workload balancing for cost, performance, software license management or consolidation.
• Continuously verify workload performance against intent, applying ML and predictive analytics to project future requirements.
• Integrate vRealize Operations and VMware vRealize Automation™ for initial workload placement and ongoing placement.
Capacity

Pitfall

Overprovisioning

• Just-in-time resources aren’t available to assure application performance.

• Money is wasted on needless infrastructure.

• Service-level agreements (SLAs) and business needs aren’t being met.

Solution

Right-sized capacity

• Lower risk and costs.

• Reclaim overprovisioned, orphaned VMDKs or idle capacity.

• Right-size VMs and increase consolidation while honoring business and operational intent.

• Correlate capacity and cost insights.

• Use flexible capacity modeling to develop resourcing strategies and what-if scenarios across multiple clouds.
Visibility

Pitfall

Unplanned work

• Views are limited.

• Siloed infrastructure and fragmented tools make event correlation and root-cause analysis hard.

• Dynamic environments make proactive response impossible.

Solution

Visibility for actionable insights

• Enjoy quicker time to value.

• Gain unified observability.

• Enable 360-degree troubleshooting.

• Natively integrate with the SDDC.

• View global operations within VMware vCenter®.

• Natively monitor common packaged applications and operating systems.
Compliance

Pitfall

Non-compliance

• Non-compliance with IT and regulatory standards increases risk.
• There are drift concerns.

Solution

Streamlined compliance

• Improve risk management.
• Enable hybrid configuration and compliance for vSphere, VMware NSX-T™, vSAN and VMware Cloud™ on AWS.
• Use out-of-the-box or custom configuration templates.
• Automate configuration management.
• Automate drift remediation.
Skillsets

Pitfall

Mismatched skills

• IT is working but can’t show the cloud’s value.

• There are no 24/7 dashboards for business and DevOps teams.

Solution

Optimized skillsets

• Leverage existing talent and skillsets.

• Manage vSAN, the SDDC and hybrid clouds based on vSphere via one solution.

• Enable an open and extensible platform.
Organizations Driving Innovation

“The work we’ve done with VMware will serve as a model for other states looking to consolidate and streamline their IT operations while improving security.”

MICHAEL ALLISON, CTO, STATE OF LOUISIANA

“In the past, a CTO would focus on the operation and maintenance of services, possibly with a view to tactical services. Today, it’s more about having a vision looking three to five years ahead, and leading teams toward this vision.”

JOSE LUIS ROMANOS, CTO, CAIXABANK

“There’s no question that VMware has reduced our costs and our operational overhead. We’re able to do more with less, provide 24/7 services with no interruption, and grow in a less reactive, more strategic way.”

JOHN LEVAY, CTO, NIAGARA COLLEGE
Return on Investment

A recent Forrester Consulting study¹ documenting the Total Economic Impact™ of vRealize Operations concluded that the solution delivers both business benefits and cost savings. Read the study or calculate your ROI.

FIGURE 1: Value provided by vRealize Operations.

Self-Driving Operations

Self-driving operations provide a simple, yet powerful strategy for automating and simplifying operations management. It incorporates AI and ML to help your IT team be more proactive and agile. As your data center grows in scale and complexity, your team can confidently work hands off and hassle free—from apps to infrastructure, and across hybrid clouds.

Unlike traditional tools, AI- and ML-driven operations management provides:

- Comprehensive data and policy-based control across your entire infrastructure, wherever you choose to run workloads
- A way to optimize observable conditions against business key performance indicators (KPIs)
- Proactive, real-time, reliable optimization, remediation and compliance that leverages advanced analytics with AI/ML intelligence

Self-driving operations powered by vRealize Operations enable your IT staff to continuously assure performance while optimizing for business impact.

For more information, visit vmware.com/products/vrealize-operations.

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