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VMware Cloud Foundation Operations And VMware Cloud Foundation Automation Reduce Wasteful Spend And Improve Organizational Efficiency For Industrial And Infrastructure Companies

VMware commissioned Forrester Consulting to interview eight representatives of companies using VMware products and conduct two Total Economic Impact™ (TEI) studies to better understand the benefits, costs, and risks associated with VMware Cloud Foundation Operations and VMware Cloud Foundation Automation.[1] This abstract will focus on the use of VMware Cloud Foundation Operations and VMware Cloud Foundation Automation by industrial and infrastructure companies. Forrester Consulting conducted additional interviews to better understand how the combined use of these solutions drove value within organizations. The additional interviewees for this Spotlight were:

- An enterprise architect for a global industrial firm based in the United States with $35 billion in annual revenue and more than 100,000 employees.
- A systems engineer for a multinational infrastructure firm based in the United States with $5 billion in annual revenue and more than 18,000 employees.

Their organizations had desired to implement a self-service internal cloud prior to working with VMware. They struggled with slow manual provisioning processes and overspent due to poor capacity planning and a reliance on outside contractors. Decision-makers at these two organizations focused on:

- VMware Cloud Foundation offers a comprehensive platform for building and managing private or hybrid cloud environments. VMware Cloud Foundation leverages vSphere, vSAN and NSX to create and manage virtual machines and containers providing a workload compute platform.
- VMware Cloud Foundation Operations, which provides organizations with visibility into their private cloud infrastructure from virtual machines (VMs) and containers to applications. This visibility allows organizations to optimize infrastructure through monitoring and alerting for issues for rapid remediation.

- VMware Cloud Foundation Automation, which is a cloud infrastructure automation solution that delivers self-service access, enabling application and platform teams to deliver flexible, scalable solutions for agile application development. The solution empowers users with self-service consumption of Kubernetes and modernized cloud infrastructure-as-a-service (IaaS) capabilities, allowing organizations to harness the power of a private cloud ecosystem. VMware Cloud Foundation Automation supports organizations that are looking to new technologies such as Kubernetes, open-source software, multiple clouds, and different operating models and practices like DevOps and platform engineering.

Annual savings with VMware Cloud Foundation Automation provisioning enforcement

$300,000

Reduced lead time for provisioning by

97%

INVESTMENT DRIVERS FOR INDUSTRIAL AND INFRASTRUCTURE ORGANIZATIONS

The interviewees' organizations adopted VMware Cloud Foundation Operations and VMware Cloud Foundation Automation to create self-service internal clouds. Prior to investing in VMware Cloud Foundation Operations and VMware Cloud Foundation Automation, one organization had made two prior attempts to establish this with other service providers, which resulted in poor outcomes. The

other organization was not able to find a vendor that met its strict compliance needs.

- **Time-consuming provisioning.** The enterprise architect noted that in their prior environment, provisioning additional infrastructure was a slow, time-consuming process that required multiple manual touchpoints. They explained: “It was like a 20-something-plus-day process to obtain a virtual machine. So there’s a lot of interdependencies, a lot of ticketing, and manual ticketing processing back and forth. That was one of our main drivers, improving that speed of provisioning.”
- **Unoptimized hardware and service spend.** The enterprise architect explained that their organization had relied on managed services to provide virtual infrastructure. Not only was this process slow, but their providers charged a per-item cost every time a virtual machine was provisioned. In a dynamic environment, this meant that the organization incurred significant unexpected variable overhead. The enterprise architect detailed, “In the pre-automation state, the service provider and the supplier had an initial upfront cost for that provisioning and then an ongoing monthly support cost.”
- **Lack of visibility.** Interviewees struggled with poor visibility, which made capacity planning, forecasting, and reporting incredibly difficult and often inaccurate. The systems engineer explained: “In the past, it would’ve been a very manual process of going through the center itself looking at every VM, looking at its performance history, and then conducting analysis. Using [VMware Cloud Foundation] Operations actually streamlined that process for us, so we don’t have to look at any of those pieces manually. We just get the report, and we go from there.”

> “Without leasing, we would constantly be purchasing and provisioning new hardware to manage our growth and have somewhere to put things.”
>
> ENTERPRISE ARCHITECT, INDUSTRIAL

KEY RESULTS FOR INDUSTRIAL AND INFRASTRUCTURE

The results of the investment for the interviewees’ organizations include:

- **Enabled self-service provisioning and reduced wait times.** The interviewees explained that by creating a self-service environment for provisioning VMs, users could save weeks of lead time. The enterprise architect said: “Now, users can provision new VMs with [VMware Cloud Foundation Automation] in an hour or so and then spin out their old ones. We’ve got a lot of project teams that are doing that. In the past, they would need to do those requests knowing that they’re going to have probably about a month of lead time before they even get the machine.”

  The infrastructure organization further accelerated delivery times using Operations to inform decisions on infrastructure requests. The systems engineer detailed: “Operations sped up my ability to either approve or disapprove a request that comes in from the different teams. Say Team A needs an additional 300 vCPU. Team B needs an additional 400 gigs of memory. Operations has given me that foresight to be able to look into it and say, ‘I can do this request,’ or ‘I can’t, and I need you to look back at your team’s utilization because of X, Y, Z’ without having to do it all manually like before.”

- **Reduced managed services spend.** The enterprise architect explained that their organization used a managed services provider for provisioning infrastructure prior to building their self-service environment. The providers

would not only charge for the infrastructure but also for the labor associated with executing requests. The enterprise architect explained: “In the before state, manual provisioning would have involved six or more staff members with the ticket going back and forth. … This is now fully automated, [with] no intervention from anybody except for the user putting in their request. So for the labor cost, that’s from six or so personnel to zero.”

- **Built governance into provisioning.** Interviewees’ organizations built governance into their self-service process, with preset compute and storage options. Users could go outside these bounds, but it required an additional approval process to ensure that these requirements were truly necessary to the business. The enterprise architect explained: “[With] the provisioning today, we have set sizes that can be selected for them to provision as far as the compute and storage. For anything else, we have an approval gate where the staff that runs virtualization can review. Having that in a guardrail state, it’s much easier to know what is being provisioned.”

  The systems engineer added: “It’s mostly just the segmentation, being able to keep one team out of another team’s programming. We can demonstrate that nobody has been able to touch things outside their teams, which in this case would be [VMware Cloud Foundation Automation] restricting the access to the different VMs.”

- **Avoided infrastructure spend.** One organization used VMware Cloud Foundation Automation to create leases and eliminate unnecessary spend. The enterprise architect stated: “There are machines out there that get forgotten about and get left. So if their lease comes up and if they are not renewed, those go into a brownout state, and they are decommissioned and removed. We’ve got cost avoidance from not needing to expand the infrastructure quite as often because those things are coming in and coming out.”

  The other organization leveraged Operations to create capacity reports, show teams that they were underutilizing assets, and reallocate resources. This allowed it to save thousands in spend by using resources it was

already paying for. The systems engineer explained: “Within the last year, we’ve been able to work with individual teams and say, ‘Hey, I know you said you need this for your project, but we’re seeing you are way over capacity for these VMs. We need you to scroll it back, or else we’re going to scroll it back for you.’ When we send out oversized reports, [users] have been able to downsize their VMs with no impact, and we reallocate those resources to other teams.

TOTAL ECONOMIC IMPACT ANALYSIS

For more information, download the full study: The Total Economic Impact™ Of VMware Cloud Foundation Operations, a commissioned study conducted by Forrester Consulting on behalf of VMware, April 2024, or The Total Economic Impact™ Of VMware Cloud Foundation Automation, a commissioned study conducted by Forrester Consulting on behalf of VMware, July 2024.

Disclosures

Readers should be aware of the following:

This study is commissioned by VMware and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in VMware Cloud Foundation Operations and VMware Cloud Foundation Automation.

VMware reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

VMware provided the customer names for the interviews but did not participate in the interviews.

Appendix A: Endnotes

[1] Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

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