

Red Hat CloudForms Unifies And Improves Service Delivery And Management

Technology organizations are rapidly seeking ways to automate operations and dedicate more talent to business-enabling and future-thinking projects. Red Hat CloudForms is a cloud management platform that can simplify complex virtualization and hybrid cloud environments across multiple providers.

To better understand the benefits, costs, and risks associated with Red Hat CloudForms, Forrester Consulting conducted a Total Economic Impact™ (TEI) study, based on an interview with a large US software company that has used Red Hat CloudForms for over six months. This summary of the business impact enterprises may realize by deploying Red Hat CloudForms is based on a full TEI study (Forrester Total Economic Impact of Red Hat CloudForms, June 2016), which can be obtained from Red Hat.

Based on the TEI analysis, the interviewed customer has experienced a ROI of 97%, net present value (NPV) of \$5.95 million, and a payback period of 6.8 months. Readers can use this organization's case to understand the economic impact of choosing Red Hat CloudForms and apply or adapt the model to their own situation and experience.

QUANTIFIED BENEFITS OF CLOUDFORMS

Based on the customer interview, benefits of CloudForms include:

- › **Unified service management efficiency.** This benefit focuses on the reduction in labor and effort to develop, maintain, and upgrade the internally built solution. The interviewed customer was able to reduce 45 allocated resources to 10 resources in the first year of deploying Red Hat CloudForms. This 10-person team would be reduced to eight in Year 2 and seven by Year 3. This allowed the customer to reallocate resources to other business enabling and future-thinking projects. This can be interpreted as either an approximately 80% efficiency improvement or that the previous state was 4.5x less efficient.
- › **Unified service delivery efficiency.** This benefit centers on the reduction in labor and effort to provision and answer business user requests during the organization's three-month peak season. In past peak seasons, a group of 100 internal resources from different departments and 30 contractors would be collocated for three months to answer all business unit requests. After the first year of deploying Red Hat CloudForms, the customer was able to provision 50% quicker with the same volume of staff. By the second year, the customer was able to provision 91.7% quicker and did not need any of the 30 contractors.

SUMMARY

Results from the Red Hat-commissioned study, "The Total Economic Impact Of Red Hat CloudForms, June 2016."

METHODOLOGY

Red Hat commissioned Forrester to conduct a Total Economic Impact (TEI) study to provide IT and business leaders an understanding of the potential return on investment (ROI) they may realize by deploying Red Hat CloudForms to their enterprises.

Forrester developed a TEI analysis based on an in-depth interview with a Red Hat CloudForms customer that has been using the platform for more than six months.

INTERVIEWED CUSTOMER

The interviewed customer is a large US software company with over \$4 billion in annual revenue and 7,500 staff. This Red Hat customer sells software to both businesses and consumers. Prior to Red Hat CloudForms, this customer built a "homegrown" solution that required 45 people to develop, maintain, and upgrade. By deploying Red Hat CloudForms, the customer was able to reduce the staff required to maintain the legacy solution and provision new environments.

Financial Summary Of Three-Year Risk-Adjusted Results


ROI
97%


NPV
\$5.95M


Payback Period
6.8 months

TEI Analysis Based On Interview With A Large US Software Company

From the information provided in the interviews, Forrester constructed a TEI framework for those organizations considering implementing Red Hat CloudForms, covered in greater detail in the full study. The TEI methodology includes analysis of benefits and costs with risk-adjustment, as well as consideration of long-term, or “flexibility,” benefits that affect investment decisions, to help organizations understand how to take advantage of specific opportunities, reduce costs, and improve the overall business goals of winning, serving, and retaining customers. Specifically, Forrester:

- › Interviewed Red Hat marketing, sales, and consulting personnel along with Forrester analysts to gather data relative to the Red Hat CloudForms product and marketplace.
- › Interviewed one organization currently using Red Hat CloudForms to obtain data with respect to costs, benefits, risks, and long-term flexibility.
- › Constructed a financial model representative of the interviews.
- › Risk-adjusted the financial model based on issues and concerns from the interviewed organization.

For this study, Forrester interviewed a large, US-based software company with the following characteristics:

- › Over \$4 billion in annual revenue selling software to businesses and consumers.
- › More than 7,500 staff, with 45 on the infrastructure engineering team and 10 specifically allocated to Red Hat CloudForms.

Prior to engaging Red Hat CloudForms, the interviewed customer developed, maintained, and updated an internally built solution. The maintenance and upgrading became a challenge when business unit demands became more complex and frequent. The solution was also maintained by resources from different teams, thus amplifying the negative impacts of staff turnover and resulting effort for knowledge transfer and potential knowledge gaps.

The interviewed customer took a three-step approach to select a suitable solution. In the first step, the customer researched 10 external solutions through publicly available content. The customer narrowed them down to six external vendors that participated in a 4-hour technical assessment to conceptually discuss how each vendor would handle the customer’s environment as compared with the homegrown tool. The customer finally narrowed them down to two vendors for a two-week POC.

The POC consisted of evaluating how each solution performed against the customer’s 140 use cases. While the alternative solution experienced several different issues related to infrastructure and lab environments during an extended POC of six weeks, Red Hat CloudForms was able to successfully complete more than the 140 prescribed use cases in only one and a half weeks.

Each organization should have its own criteria and technology selection process — the following is a sample of example use cases that the interviewed customer mentioned:

- › Due to the company’s heavy security constraints, apply different provisioning restrictions to different groups and adjust them uniquely and under a single tenant.
- › Integrate with Active Directory (AD) to have the same message groups.
- › Apply single sign-on (SSO).

After selecting Red Hat CloudForms, the interviewed customer deployed with the following goals:

- › Deploy without disruption to the company’s peak season.
- › Replace the internally developed solution, and reduce time and effort for service management.

- › Reduce time, effort, and complexity for service delivery, and allow for a shorter time-to-market for business users.

Red Hat CloudForms Improves The Efficiency Of Service Management And Service Delivery

The interviewed customer experienced two primary benefits by deploying Red Hat CloudForms. The first benefit centers on automating operational processes and systems and migrating away from developing and maintaining a homegrown system. This first benefit is a difference between the cost of Red Hat CloudForms versus the cost of developing and maintaining an internal solution. The second benefit focuses on the efficiencies experienced by using Red Hat CloudForms. The second benefit is a difference between the performance and provisioning time of Red Hat CloudForms versus the internal solution.

Over three years, the interviewed customer expects risk-adjusted total benefits to be a present value (PV) of more than \$12 million, as shown in Table 1, based on:

- › **Unified service management efficiency.** The interviewed customer needed 45 internal resources to maintain and update the internally developed solution. After deploying Red Hat CloudForms with 12 resources, the customer only needed 10 for ongoing operations in Year 1. In Year 2, the customer was able to offload two more resources, and it expects to stabilize with seven resources by Year 3. This frees up 35 to 38 resources that can be reallocated for other activities and projects with more value-add.
- › **Employee productivity improvements.** In addition to the offloading time and effort it required to maintain an internal solution, the customer experienced material efficiencies in service delivery and provisioning environments. Prior to deploying Red Hat CloudForms and during its peak season each year, the customer brought together 100 internal resources from different teams and 30 contractors for three months to answer all business unit requests and ensure minimal failure rates during peak season. In the first year of deployment, provisioning time improved by 50% and reliability improved from 65% to 90%. In the second year, the customer was able to provision 1,500 virtual machines in 24 hours, complete the environment in one week, and attain 99.9% reliability, and it did so without contractor support.

Red Hat CloudForms Solution Overview

- › **Accelerate service delivery and reduce operational costs.**
 - Self-service portal and catalog with automatic provisioning.
 - Workload life-cycle management, including reconfiguration and retirement.
 - Resource quota enforcement, cost allocation, and chargeback.
- › **Improve operational visibility and control.**
 - Continuous discovery, monitoring, and tracking.
 - Resource usage, optimization, and capacity planning.
 - Entity relationship planning with timelines and events.
- › **Ensure compliance and governance.**
 - Automated policy enforcement and remediation.
 - Segmented user access with approval workflows.
 - Configuration auditing, change tracking, and drift analysis.

Source: Forrester Research, Inc.

TABLE 1: Total Benefits (Risk-Adjusted)

Benefit Category	Initial	Year 1	Year 2	Year 3	Total	PV
Unified service management efficiency	\$0	\$3,325,000	\$3,492,200	\$3,569,502	\$10,386,702	\$8,590,662
Unified service delivery efficiency	\$0	\$855,000	\$1,710,000	\$1,710,000	\$4,275,000	\$3,475,244
Total benefits (risk-adjusted)	\$0	\$4,180,000	\$5,202,200	\$5,279,502	\$14,661,702	\$12,065,906

Source: Forrester Research, Inc.

CloudForms Costs Include Purchase, Deployment, And Management

The interviewed customer experienced the following risk-adjusted costs:

- › **Red Hat CloudForms software and services solution cost.** The customer highlighted that it had approximately 25,000 virtual machines and 4,000 hosts by Year 2. The customer also provided an estimated investment in licensing that included standard and premium offerings. The summarized cost for software and services is shown in Table 4 for reference and to provide context for this case study's financial summary metrics. As pricing could vary, readers are encouraged to directly reach out to Red Hat for a quote and to determine which offerings are most suitable for their environment.
- › **Internal labor and implementation.** The customer highlighted that deployment took five to six months with 12 resources. The team was then reduced to 10 resources for ongoing operations in Year 1, reduced again to eight in Year 2, and finally reduced to seven in Year 3.

Table 2 shows the total of all risk-adjusted costs as well as associated present values (PVs), discounted at 10%.

TABLE 2: Total Costs (Risk-Adjusted)						
Cost Category	Initial	Year 1	Year 2	Year 3	Total	PV
Red Hat CloudForms solution cost	\$1,436,750	\$0	\$1,436,750	\$1,436,750	\$4,310,250	\$3,703,598
Internal labor and implementation	\$630,000	\$525,000	\$865,200	\$779,762	\$2,799,962	\$2,408,160
Total costs (risk-adjusted)	\$2,205,000	\$525,000	\$2,597,700	\$2,685,512	\$8,013,212	\$6,846,797

Source: Forrester Research, Inc.

Benefit And Cost Results Are Risk Adjusted

Risk adjustment is included in the TEI analysis to allow that a proposed investment in Red Hat CloudForms may deviate from the original or expected requirements, resulting in higher costs than anticipated, or the business or technology needs of the organization may not be met by the investment in Red Hat CloudForms, resulting in lower overall total benefits. Benefit and cost results have been adjusted by a factor based on the likelihood and severity of any deviation from estimated results. Benefit and cost adjustments range from 5% to 10%. Readers are urged to apply their own risk ranges.

Red Hat CloudForms Investment Today Can Help Future Opportunities

Flexibility represents an investment in additional capacity or capability that could be turned into future opportunity or business benefit for some future additional investment. Put another way, it represents the value that can be obtained for some future additional investment. This provides an organization with the ability to engage in future initiatives at a lower incremental cost, but not the obligation to do so.

The interviewed customer identified two areas that they might consider in the future:

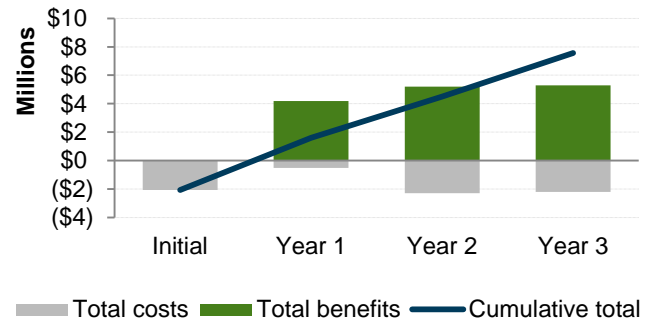
- › The interviewed customer has engaged with Amazon Web Services (AWS) and plans to expand its public cloud footprint. As it determines its public cloud strategy, addresses security concerns, and identifies the best way to leverage public cloud, the customer will fold the public cloud component into CloudForms management.
- › The customer's product infrastructure group also recognizes that it is not categorized as a profit center or revenue-generating group in the accounting system. This designation or nondesignation has made it technically difficult to create a chargeback; thus, the company has operated with cost allocation by business unit instead. An internal chargeback model using Red Hat CloudForms may still be possible in the future.

Financial Summary

The risk-adjusted financial results calculated in the Benefits and Costs sections (including expected growth in client deployment) can be used to determine the ROI, NPV, and payback period for the interviewed customer's investment in Red Hat CloudForms. Table 3 shows the risk-adjusted ROI, NPV, and payback period values.

For more information, visit the Red Hat CloudForms home page, where you can download a full, more-detailed Total Economic Impact (TEI) analysis of the benefits and costs of Red Hat CloudForms.

TABLE 3: Cash Flow and Financial Summary



	Result
Present Value of Costs	(\$6,111,759)
Present Value of Benefits	\$12,065,906
Net Present Value (NPV)	\$5,954,148
ROI	97%
Payback period (months)	6.8

Source: Forrester Research, Inc.

DISCLOSURES

The reader should be aware of the following:

- › The study is commissioned by Red Hat 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 report to determine the appropriateness of an investment in Red Hat CloudForms.
- › Red Hat reviewed and provided feedback to Forrester. 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.
- › Red Hat provided the customer names for the interviews but did not participate in the interviews.

ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit forrester.com/consulting.

ABOUT TEI

Total Economic Impact™ (TEI) 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. The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks, and flexibility. <http://www.forrester.com/marketing/product/consulting/tei.html>

