

The Total Economic Impact™ Of Veeam with AWS

Cost Savings And Business Benefits Enabled By Veeam with AWS

A Forrester Total Economic Impact™ Study
Commissioned By Veeam and AWS, June 2024

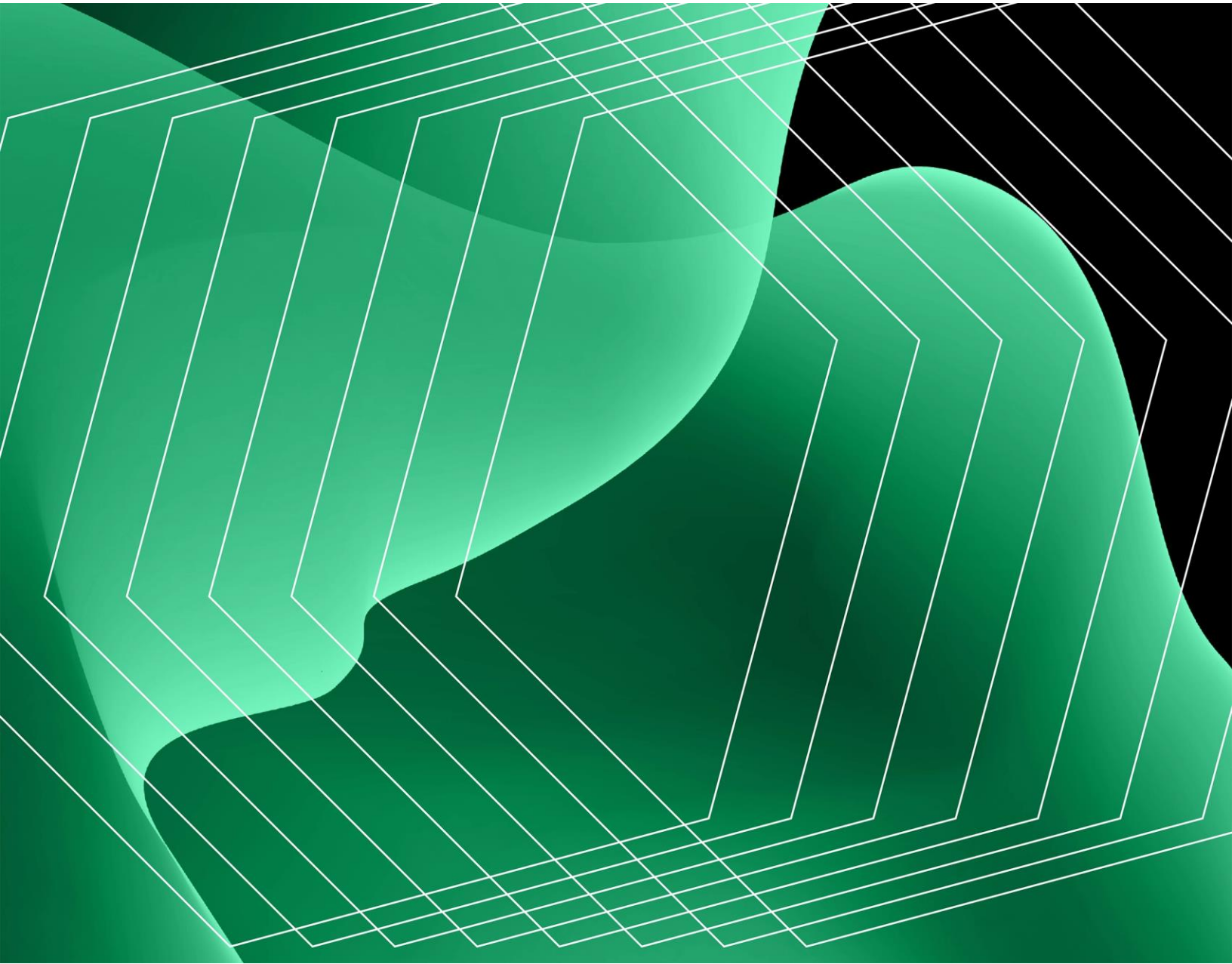


Table Of Contents

| | |
|---------------------------------|----|
| Executive Summary | 3 |
| Veeam with AWS Customer Journey | 8 |
| Analysis Of Benefits | 12 |
| Analysis Of Costs | 19 |
| Financial Summary | 22 |

Consulting Team:

Sanitra Desai

Zahra Azzaoui

ABOUT FORRESTER CONSULTING

Forrester provides independent and objective [research-based consulting](#) to help leaders deliver key outcomes. Fueled by our [customer-obsessed research](#), Forrester's seasoned consultants partner with leaders to execute their specific priorities using a unique engagement model that ensures lasting impact. For more information, visit forrester.com/consulting.

© Forrester Research, Inc. All rights reserved. Unauthorized reproduction is strictly prohibited. Information is based on best available resources. Opinions reflect judgment at the time and are subject to change. Forrester®, Technographics®, Forrester Wave, and Total Economic Impact are trademarks of Forrester Research, Inc. All other trademarks are the property of their respective companies.

Executive Summary

Enterprises today continue to transition into hybrid cloud. To do so, they need a data resilience solution that evolves to support new workloads, protecting and recovering data for swift availability in the face of disaster, regardless of location or hosting model. As such, holistic data resilience solutions can be used to future-proof an organization’s environment to avoid a gap between where its data is and how they are protected.¹

[Veeam](#) delivers a reliable cyber resilience and recovery solution for Amazon Web Services (AWS) that helps organizations protect, manage, and control their data with ease. Veeam offers secure, easy-to-use protection that is also cost-optimized — freeing up time and resources for more strategic IT priorities, regardless if the organization is born-in-the-cloud, already at full speed with hybrid cloud, or just getting started.

Veeam and AWS commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Veeam with AWS.² The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Veeam with AWS on their organizations.



Return on investment (ROI)
185%



Net present value (NPV)
\$2.10M

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed the representative of an enterprise organization who has experience using Veeam with AWS. Forrester used this experience to project a three-year financial analysis.

Prior to using Veeam with AWS, the interviewee noted that their organization was using another backup and recovery solution with AWS, which resulted in high backup storage costs as the primary challenge. The organization was also using Veeam Data Platform

for a subset of its on-premise environment, and housed other backup solutions across their hybrid environment as well. Using multiple point solutions for data protection resulted in significant inefficiencies in managing their backup architecture.

After the investment in Veeam with AWS, the interviewee's organization reduced backup storage costs and further unified data protection management across their hybrid environment. Key results from the investment include ease of use and fast recovery times that helped the organization maintain a strong security and compliance posture.

KEY FINDINGS

Quantified benefits. Three-year, risk-adjusted present value (PV) quantified benefits include:

- **Cloud storage savings of \$2.88 million over three years.** Using Veeam with AWS enables the organization to lower its cloud infrastructure bill by compressing Amazon Elastic Block Store (EBS) snapshots directly into Amazon Simple Storage Service (S3) buckets for cost-optimized, long-term backup storage.
- **Backup tool consolidation management savings of \$349,000 over three years.** As Veeam Data Platform seamlessly integrates with AWS, the organization avoids using an additional engineering headcount to manage the solution and instead reallocate that time to value-added initiatives for the organization.

Unquantified benefits. Benefits that are not quantified for this study include:

- **Maintaining strong security and compliance.** Veeam with AWS ensures robust security and compliance through granular access controls, encryption via AWS Key Management Service (KMS), cross-account and cross-region backup and recovery, and automated report generation for regulatory compliance.
- **Fast recovery times.** Veeam with AWS enables instant restoration of entire instances, volumes, databases, file systems, as well as individual files and folders.

Costs. Three-year, risk-adjusted PV costs for the interviewee's organization include:

- **Software subscription fees.** Subscription fees are based on a per-instance and yearly basis, as well as the subscription package in use.
- **Internal fees.** Internal costs include implementation and ongoing management of Veeam with AWS, as well as training required for the backup team to become proficient with using the solution.

The interview and financial analysis found that the representative's organization experiences benefits of \$3.23 million over three years versus costs of \$1.13 million, adding up to a net present value (NPV) of \$2.10 million and an ROI of 185%.

“Veeam with AWS allows us to recover quickly at a lower cost.”

SENIOR MANAGER, AUTOMATION AND DATA PROTECTION, BIOTECHNOLOGY



Return on investment (ROI)

185%



Benefits PV

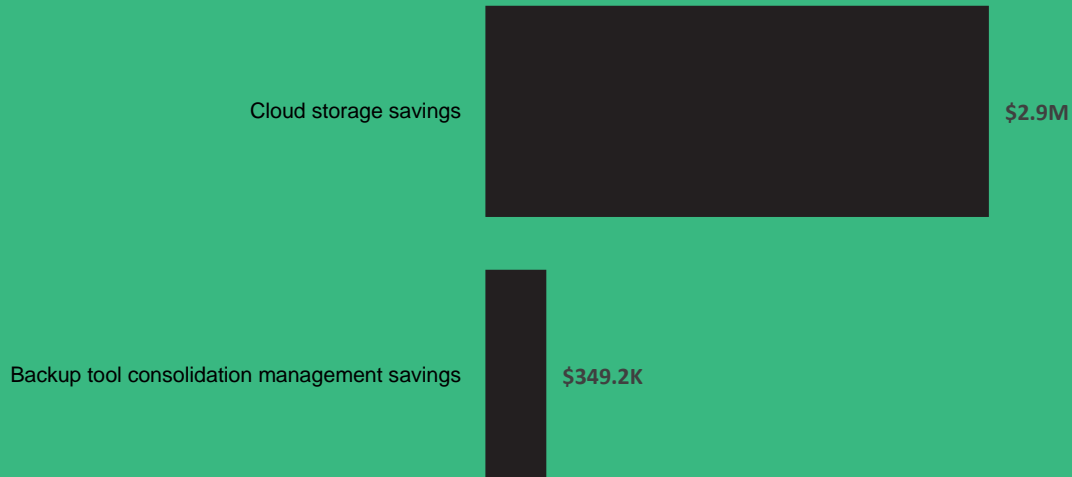
\$3.23M



Net present value (NPV)

\$2.10M

Benefits (Three-Year)



TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interview, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Veeam with AWS.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that Veeam with AWS can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Veeam and AWS 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 Veeam with AWS.

Veeam 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.

Veeam provided the customer name for the interview but did not participate in the interview.

Due Diligence

Interviewed Veeam with AWS stakeholders and Forrester analysts to gather data relative to Veeam with AWS.

Interview

Interviewed the representative of an organization using Veeam with AWS to obtain data with respect to costs, benefits, and risks.

Financial Model Framework

Constructed a financial model representative of the interview using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewee.

Case Study

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see [Appendix A](#) for additional information on the TEI methodology.

Veeam with AWS Customer Journey

Drivers leading to the Veeam with AWS investment

INTERVIEWEE'S ORGANIZATION

Forrester interviewed the senior manager of automation and data protection, at a biotechnology organization who has experience using Veeam with AWS for more than one year. Their organization has the following characteristics:

- It is a multibillion-dollar global organization based in North America, with a highly distributed workforce in over 600 locations — 50% of which house an infrastructure, manufacturing, or distribution environment. The organization also has two large data centers.
- It has more than 30,000 employees.
- It has been using Veeam Backup & Replication for three years and AWS for six years.
- It has multiple backup tools in place across its on-premises and cloud environments.
- There are 10 engineers on the backup team who are responsible for managing and monitoring all backup tools for the organization.
- It is actively managing data to reduce waste as the business grows.

KEY CHALLENGES

Like most enterprises today, the interviewee came from a distributed organization whose business applications — and by extension, their data — was spread across multiple data centers that were on-premises and in the cloud. Prior to its investment in Veeam with AWS, the interviewee's organization used another backup and recovery solution for AWS and had a myriad of other backup solutions in place as well. Meanwhile, the organization was also already using Veeam Data Platform for its on-premises environment.

Overall, the interviewee noted how the organization struggled with common challenges, including:

- **High backup storage costs.** Exorbitant costs were the main pain point experienced by the interviewee's organization with their prior AWS backup tool. When the tool made a backup of an instance, it was only able to leverage native Amazon EBS snapshot technology with AWS, which was unnecessarily expensive for the long-term storage they needed. The organization wanted to optimize costs by using Amazon S3's intelligent tiering for storage, but was unable to do so with the legacy backup tool in place.
- **Vendor sprawl.** Prior to implementing Veeam with AWS, the interviewee's organization had developed a sprawling and disparate backup architecture. The organization's legacy tool for AWS just created an additional backup tool for their backup team to manage, further fragmenting management and exposing gaps that drove efficiencies lower and costs higher. Overall, disparate tools rendered it more difficult than necessary to develop a single version of truth across the on-premises and the cloud environment.

INVESTMENT OBJECTIVES

The interviewee's organization searched for a solution that is:

- Enabled by Amazon S3 storage to reduce backup storage costs.
- Able to unify management across the cloud and on-premises systems.
- Easy to use and requires minimal effort to deploy and manage.
- From a trustworthy vendor familiar to engineers within the organization.

“We went with Veeam because it enabled vendor consolidation and cost savings with AWS.”

SENIOR MANAGER, AUTOMATION AND DATA PROTECTION, BIOTECHNOLOGY

USE CASE DESCRIPTION

The organization required an AWS backup solution that optimized storage costs while improving management efficiencies. Hence, it uses Veeam to protect workloads running on AWS and back up 2 petabytes (PB) of data. In particular, the organization uses Amazon S3 as the storage environment for backups. The organization also continues to use Veeam Data Platform in their on-premises environment. By Year 3, 3,500 instances are expected to be protected using Veeam with AWS.

For these use cases, Forrester has modeled benefits and costs over three years.

Key Assumptions

Hybrid environment

Using Veeam Data Platform on-premises

2 PB of data backed up by Veeam with AWS in Year 1

12% year-over-year data growth rate

3,500 instances protected by Year 3

10 engineers involved in backup tool management

Analysis Of Benefits

Quantified benefit data

| Total Benefits | | | | | | |
|----------------|--|-------------|-------------|-------------|-------------|---------------|
| Ref. | Benefit | Year 1 | Year 2 | Year 3 | Total | Present Value |
| Atr | Cloud storage savings | \$1,037,353 | \$1,161,835 | \$1,301,256 | \$3,500,444 | \$2,880,895 |
| Btr | Backup tool consolidation management savings | \$140,400 | \$140,400 | \$140,400 | \$421,200 | \$349,154 |
| | Total benefits (risk-adjusted) | \$1,177,753 | \$1,302,235 | \$1,441,656 | \$3,921,644 | \$3,230,049 |

CLOUD STORAGE SAVINGS

Evidence and data. Veeam with AWS enabled the interviewee’s organization to create compressed backups of Amazon EBS snapshots and store them in Amazon S3 buckets for cost-effective long-term backup storage. As a result, the organization could achieve its SLAs while lowering its cloud infrastructure bill.

- Intelligent tiering with Amazon S3 storage meant the organization could compress and store backup data in multiple storage tiers to minimize storage consumption; while balancing retention requirements and recovery speed to lower costs.
- Pay-as-you-go pricing with Veeam and AWS also ensured that the organization only paid for the resources it consumed, which eliminated the need to over-provision for peak demand.

“Veeam with AWS saves us around \$2 million annually through lower storage costs. This is money we can reinvest into the business for other initiatives.”

SENIOR MANAGER, AUTOMATION AND DATA PROTECTION, BIOTECHNOLOGY

Modeling and assumptions. To calculate cloud storage savings, Forrester assumes:

- In Year 1, AWS stores 2 PB of data. This increases by 12% year over year.
- Prior to implementing Veeam with AWS, 100% of the data was stored as Amazon EBS snapshots, which cost \$0.60 per GB annually.
- After implementing Veeam with AWS, the organization can take advantage of intelligent tiering with long-term Amazon S3 storage.
- Ten percent of the organization’s data on AWS is stored within the Frequent Access tier, 20% is stored within the Infrequent Access tier, and 70% is stored within the Archive Access/Glacier Flexible Retrieval tier. These tiers cost \$0.252, \$0.15, and \$0.0432 per GB annually, respectively.

Risks. Cloud storage savings may vary depending on the following:

- The amount of data being stored in AWS.
- Previous storage type in use.
- Amazon S3 storage tiers in use, the percentage of data in each tier, and the organization’s long-term data retention requirements.
- Storage type/tier pricing.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$2.88 million.

ANALYSIS OF BENEFITS

| Cloud Storage Savings | | | | | |
|--------------------------------------|---|----------------------|--|--------------------|--------------------|
| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
| A1 | Amount of data being stored in AWS (GB) | Company | 2,240,000 | 2,508,800 | 2,809,856 |
| A2 | Percentage of data in standard snapshots storage | Interview | 100% | 100% | 100% |
| A3 | Subtotal: Storage fees with Amazon EBS snapshots, standard | \$0.60*A1 | \$1,344,000 | \$1,505,280 | \$1,685,914 |
| A4 | Percentage of data in S3 Frequent Access tier storage | Interview | 10% | 10% | 10% |
| A5 | Storage fees with S3 storage, Frequent Access tier | $\$0.252 * A1 * A4$ | \$56,448 | \$63,222 | \$70,808 |
| A6 | Percentage of data in S3 Infrequent Access tier storage | Interview | 20% | 20% | 20% |
| A7 | Storage fees with S3 storage, Infrequent Access tier | $\$0.15 * A1 * A6$ | \$67,200 | \$75,264 | \$84,296 |
| A8 | Percentage of data in S3 Archive Access/Glacier Flexible Retrieval tier storage | Interview | 70% | 70% | 70% |
| A9 | Storage fees with S3 storage, Archive Access/Glacier Flexible Retrieval tier | $\$0.0432 * A1 * A8$ | \$67,738 | \$75,866 | \$84,970 |
| A10 | Subtotal: Storage fees through Veeam enabling S3 storage | A5+A7+A9 | \$191,386 | \$214,352 | \$240,074 |
| At | Cloud storage savings | A3-A10 | \$1,152,614 | \$1,290,928 | \$1,445,840 |
| | Risk adjustment | ↓10% | | | |
| Atr | Cloud storage savings (risk-adjusted) | | \$1,037,353 | \$1,161,835 | \$1,301,256 |
| Three-year total: \$3,500,444 | | | Three-year present value: \$2,880,895 | | |

BACKUP TOOL CONSOLIDATION MANAGEMENT SAVINGS

Evidence and data. Veeam Data Platform seamlessly integrates with AWS, allowing organizations to centrally manage the protection of AWS workloads with on-premises workloads, rather than using another vendor's tool for AWS.

- The organization could manage and monitor a greater proportion of their hybrid environment from a single dashboard with custom views. The organization could also reallocate one full time employee (FTE) away from working on the backup environment by removing another backup tool with a separate console and system to manage and monitor.

- Veeam with AWS also enabled the organization to perform more granular recoveries — focused on individual files and folders — rather than an overall restore to recover entire instances, volumes, or databases unnecessarily. The interviewee stated, “File and folder recovery using Veeam with AWS is much cleaner and faster than with our previous product.”
- The interviewee also noted that the organization’s backup teams benefited from an 80% reduction in time spent to test patches and manage updates in production.
- Lifecycle policies automated the migration of data between storage tiers to remove manual overhead and minimize management complexity related to data storage.

Overall, investing in Veeam with AWS allowed staff to spend more time focused on business-driven projects such as data analytics and developing new APIs for a more seamless technology experience, among other value-added initiatives.

“Another backup tool means [we would need] an additional engineering headcount to manage it. By using Veeam with AWS, we could avoid that.”

SENIOR MANAGER, AUTOMATION AND DATA PROTECTION, BIOTECHNOLOGY

Modeling and assumptions. To calculate backup tool consolidation management savings, Forrester assumes:

- Using Veeam with AWS’s integration with Veeam Data Platform to enable the organization to manage its backup environment more centrally reduces the number of FTEs needed to manage backup tooling by one FTE.
- The fully-burdened hourly salary of an engineering FTE is \$156,000.

One FTE reallocated

Due to increased centralization of backup tooling management

Risks. Backup tool consolidation management savings may vary depending on the following:

- Complexity of existing backup tool environment and time/resources spent managing it.
- The amount of data backed up using Veeam.
- The salaries of affected FTEs.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$349,000.

| Backup Tool Consolidation Management Savings | | | | | |
|--|---|------------|-------------------------------------|-----------|-----------|
| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
| B1 | FTEs needed to manage backup tooling before implementing Veeam for AWS | Interview | 11 | 11 | 11 |
| B2 | FTEs needed to manage backup tooling upon moving toward centralization on Veeam across all environments | Interview | 10 | 10 | 10 |
| B3 | Fully-burdened hourly salary of engineering FTE | Company | \$156,000 | \$156,000 | \$156,000 |
| Bt | Backup tool consolidation management savings | (B1-B2)*B3 | \$156,000 | \$156,000 | \$156,000 |
| | Risk adjustment | ↓10% | | | |
| Btr | Backup tool consolidation management savings (risk-adjusted) | | \$140,400 | \$140,400 | \$140,400 |
| Three-year total: \$421,200 | | | Three-year present value: \$349,154 | | |

UNQUANTIFIED BENEFITS

The interviewee mentioned the following additional benefits that the organization experienced but was not able to quantify.

- **Maintaining strong security and compliance.** Veeam with AWS enabled the interviewee's organization to set granular access permissions for greater security with least-privileged access required. Additionally, the organization can use AWS KMS to encrypt, manage, and provide access to secure backup data. Cross-account and cross-region backup and recovery isolates protection data from production to secure against cyberthreats. Finally, automated generation and delivery of reports on protection status generated evidence for regulatory compliance activities (e.g., audits).
- **Fast recovery times.** Veeam with AWS enabled the interviewees' organization to access an instance's data without having to reboot it, resulting in faster access to the data to be restored. Overall, organizations can recover entire instances, volumes, databases, and file systems, as well as individual files and folders, instantly.

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Veeam with AWS and later realize additional uses and business opportunities, including:

- **Further vendor consolidation.** The interviewees' organization looked to standardize to Veeam for backups in the future, further reducing complexity and cost.
- **Better budgeting capabilities.** With Veeam's reporting technology and projections, organizations can find out at the press of a button how many more instances they can spin up on a given server without affecting performance; or discover the capacity they may need in the future based on their growth rate, ultimately reducing future costs.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in [Appendix A](#)).

“We’re really moving what we can to Veeam. We are a large organization and we grow through acquisition, so we acquire everybody’s technology debt. In the long term, we want to fully centralize our cloud environment to AWS so we just have to leverage Veeam, and eventually back up all our on-premises systems with Veeam as well.”

SENIOR MANAGER, AUTOMATION AND DATA PROTECTION, BIOTECHNOLOGY

Analysis Of Costs

Quantified cost data

| Total Costs | | | | | | | |
|-------------|-----------------------------|----------|-----------|-----------|-----------|-------------|---------------|
| Ref. | Cost | Initial | Year 1 | Year 2 | Year 3 | Total | Present Value |
| Ctr | Software subscription fees | \$0 | \$393,390 | \$440,625 | \$493,500 | \$1,327,515 | \$1,092,554 |
| Dtr | Internal fees | \$31,350 | \$3,960 | \$3,960 | \$3,960 | \$43,230 | \$41,198 |
| | Total costs (risk-adjusted) | \$31,350 | \$397,350 | \$444,585 | \$497,460 | \$1,370,745 | \$1,133,752 |

SOFTWARE SUBSCRIPTION FEES

Evidence and data. The interviewee’s organization incurred software subscription fees for Veeam with AWS based on a per instance and yearly basis, and the subscription package in use (i.e., Veeam offers an AWS standalone subscription, as well as a universal license for organizations using Veeam across on-premises, hybrid, and multicloud environments).

Modeling and assumptions. To calculate software subscription fees, Forrester assumes:

- The organization is using the Veeam Universal License.
- By Year 3, Veeam protects 3,500 instances, and this number grows by 12% year-over-year.
- Pricing may vary. Contact Veeam for additional details.

Risks. Software subscription fees may vary depending on the following:

- Project scope and deployment of Veeam with AWS in terms of the number of instances covered and the subscription package in use.

Results. As the organization was priced directly with Veeam, this cost has not been adjusted for risk, yielding a three-year total PV (discounted at 10%) of \$1.09 million.

| Software Subscription Fees | | | | | | |
|-------------------------------|--|---------|---------------------------------------|-----------|-----------|-----------|
| Ref. | Metric | Source | Initial | Year 1 | Year 2 | Year 3 |
| C1 | Software subscription fees | Company | \$0 | \$393,390 | \$440,625 | \$493,500 |
| Ct | Software subscription fees | C1 | \$0 | \$393,390 | \$440,625 | \$493,500 |
| | Risk adjustment | 0% | | | | |
| Ctr | Software subscription fees (risk-adjusted) | | \$0 | \$393,390 | \$440,625 | \$493,500 |
| Three-year total: \$1,327,515 | | | Three-year present value: \$1,092,554 | | | |

INTERNAL FEES

Evidence and data. The interviewee described the implementation, training, and ongoing management of Veeam with AWS as simple and a relatively minimal time investment that required:

- Initial involvement from engineering staff on the cloud architecture, network, and cybersecurity teams for configuring the AWS environment and designating roles and permissions.
- Engineering FTEs who provided ongoing upkeep of the solution.
- Training for primary users, who were members of the backup team. The interviewee stated: “Veeam had our technical sales representative come in and do some overviews. Training took about six hours.”

Modeling and assumptions. To calculate internal fees, Forrester assumes:

- Four engineering FTEs dedicate 80 hours each during the three-month implementation period.
- After the initial period, members of the backup team dedicate a total of 48 hours a year to manage Veeam with AWS.
- All 10 members of the backup team participate in six hours of training in the initial period to understand how the solution works.
- The fully-burdened hourly salary of an engineering FTE is \$75.

Risks. Internal fees may vary depending on the following:

- The size and scope of Veeam with AWS deployment.
- The skillset of internal FTEs involved in implementation, training, and management, and their associated salaries.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$41,000.

“The solution is very stable and very easy to manage on an ongoing basis.”

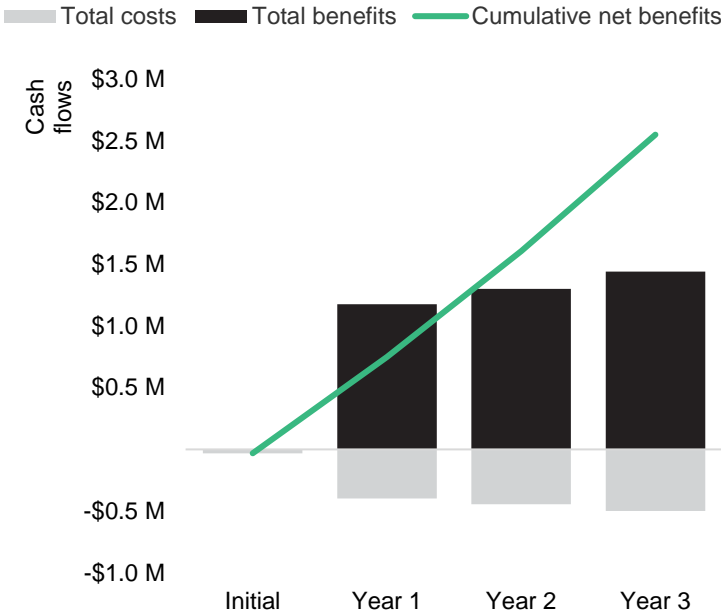
SENIOR MANAGER, AUTOMATION AND DATA PROTECTION, BIOTECHNOLOGY

| Internal Fees | | | | | | |
|-----------------------------------|---|-------------------|---|-----------|-----------|-----------|
| Ref. | Metric | Source | Initial | Year 1 | Year 2 | Year 3 |
| D1 | FTEs involved in implementation | Interview | 4 | 0 | 0 | 0 |
| D2 | Hours devoted to implementation per FTE | Interview | 80 | 0 | 0 | 0 |
| D3 | Hours devoted to maintenance and administration effort by the backup team | Interview | 0 | 48 | 48 | 48 |
| D4 | Subtotal: Hours devoted to implementation and ongoing management | (D1*D2)+D3 | 320 | 48 | 48 | 48 |
| D5 | FTEs trained to use Veeam for AWS | Interview | 10 | 0 | 0 | 0 |
| D6 | Training hours per FTE | Interview | 6 | 0 | 0 | 0 |
| D7 | Fully-burdened hourly salary of engineering FTE | Company | \$75 | \$75 | \$75 | \$75 |
| Dt | Internal fees | $(D4+(D5*D6))*D7$ | \$28,500 | \$3,600 | \$3,600 | \$3,600 |
| | Risk adjustment | ↑10% | | | | |
| Dtr | Internal fees (risk-adjusted) | | \$31,350 | \$3,960 | \$3,960 | \$3,960 |
| Three-year total: \$43,230 | | | Three-year present value: \$41,198 | | | |

Financial Summary

Consolidated Three-Year Risk-Adjusted Metrics

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI and NPV for the organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

These risk-adjusted ROI and NPV values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Cash Flow Analysis (Risk-Adjusted Estimates)

| | Initial | Year 1 | Year 2 | Year 3 | Total | Present Value |
|----------------|------------|-------------|-------------|-------------|---------------|---------------|
| Total costs | (\$31,350) | (\$397,350) | (\$444,585) | (\$497,460) | (\$1,370,745) | (\$1,133,752) |
| Total benefits | \$0 | \$1,177,753 | \$1,302,235 | \$1,441,656 | \$3,921,644 | \$3,230,049 |
| Net benefits | (\$31,350) | \$780,403 | \$857,650 | \$944,196 | \$2,550,899 | \$2,096,297 |
| ROI | | | | | | 185% |

APPENDIX A: TOTAL ECONOMIC IMPACT

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.

Total Economic Impact Approach

Benefits represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

Costs consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

Flexibility represents the strategic value that can be obtained for some future additional investment built on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

Risks measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.

NET PRESENT VALUE (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made unless other projects have higher NPVs.

RETURN ON INVESTMENT (ROI)

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.

DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.

PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

APPENDIX B: ENDNOTES

¹ Source: "[Now Tech: Data Resilience Solutions Suites, Q2 2022](#)," Forrester Research, Inc., June 24, 2022.

² 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.

FORRESTER®