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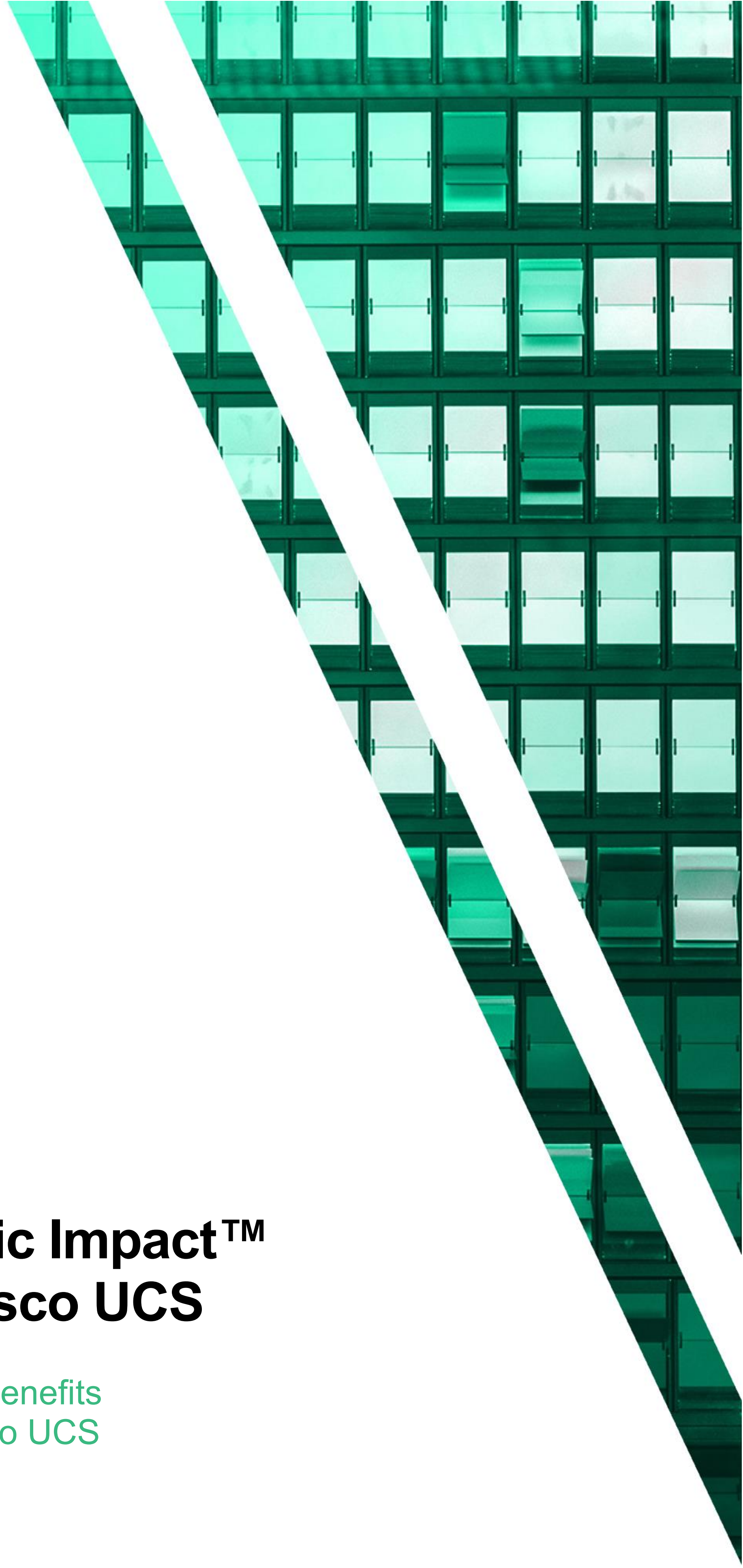

The Total Economic Impact™ Of Cohesity On Cisco UCS

Cost Savings And Business Benefits Enabled By Cohesity On Cisco UCS

NOVEMBER 2020

A FORRESTER TOTAL ECONOMIC IMPACT™ STUDY COMMISSIONED BY CISCO SYSTEMS

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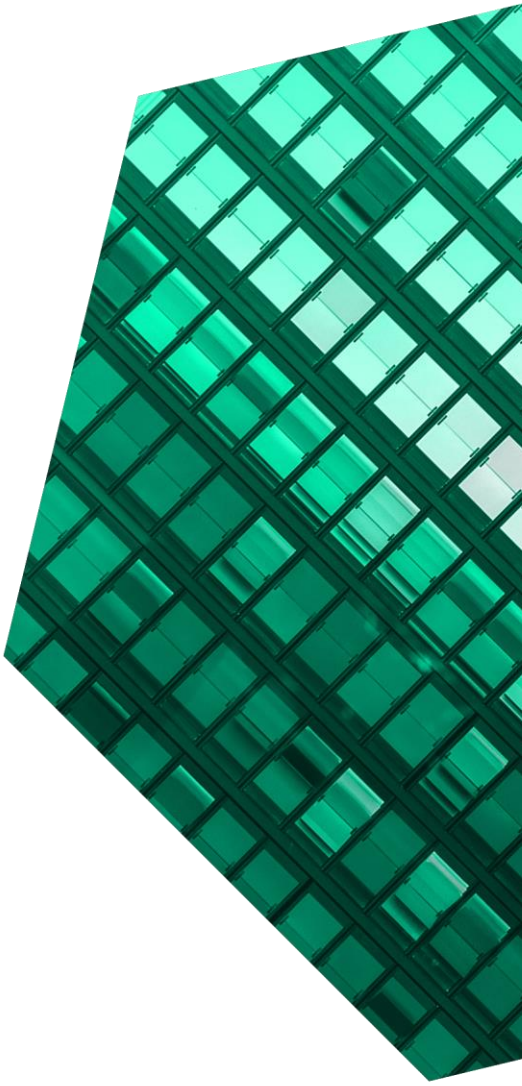


ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. For more information, visit forrester.com/consulting.

Executive Summary

With Cohesity on Cisco UCS, interviewed customers reduced recovery time from backup by between 83% and 99%. This in turn added over 4,000 person-hours per year across the organization. Customers also returned 25% of the workday to data administrators and app developers by boosting efficiency in sharing backup data. Customers were able to reduce their annual storage infrastructure expenditures by 70%. Lastly, customers reported 80%+ less time to install the Cisco UCS servers with Cisco Validated Design.

Cisco Systems commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying Cohesity software on Cisco Unified Computing System (UCS) for backup and data management. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Cohesity on Cisco UCS on their organizations. Cisco UCS is a data center infrastructure and business computing platform that unifies computing, networking, management, virtualization, and storage access into a single integrated architecture. Cisco also offers Intersight — software that gives visibility into UCS-based infrastructure and provides a unified system to open and close support cases and proactive alerts of any failures.

On the other hand, Cohesity provides backup and recovery capabilities for both modern and traditional data sources as well as file and object services for unstructured data on a single software-defined platform. Cohesity presents and manages stored data in a single-pane view through Helios, its software-as-a-service (SaaS) offering, helping to eliminate organizational complexity and data fragmentation. In addition, Cohesity enables customers to do more with backup and unstructured data including application development, testing, and analytics.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four customers with experience using Cohesity on Cisco UCS. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

Prior to using Cohesity on Cisco UCS, the customers mostly used tape-based backup systems that required time-intensive manual recovery processes from the IT department. Additionally, tape-based backups were unreliable and frequently nonfunctional. In addition to being relatively expensive compared to more modern solutions, the

KEY STATISTICS

Return on investment (ROI)

150%

Net benefits present value

$1.57M

Total value of benefits

$2.63 million

systems produced lengthy downtime for recovery and broadly increased employee inefficiency.

After the investment in Cohesity on Cisco UCS, the customers' organizations shifted to modern, hybrid cloud-based backup environments that provided improved visibility into their data holistically. In addition to improving efficiency for backup and recovery professionals, data administrators, application developers, and employees, the organizations' backup environments became more reliable, and the organizations became more resilient to ransomware attacks and were better prepared to handle unpredictable events such as the global COVID-19 pandemic.

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits include:

- **Reduction of backup and recovery processes duration to 5 minutes.** While previous backup and recovery processes varied in length from 30 minutes to 12 hours using tape-based backup solutions, Cohesity on Cisco UCS reduced the technical recovery process to just 5 minutes. Additionally, those processes that required multiple FTEs to complete now only require a single FTE, reducing resources by as much as 75% per process.

- **Reduction of business downtime from backup and recovery processes to 5 minutes.** The interviewed customers reported that shortened backup and recovery times improved broad employee efficiency for their organizations. They were able to regain a total of 4,240 person-hours each year after investing in Cohesity on Cisco UCS.

- **Two hours saved daily providing backups for application development and testing.** The interviewed customers also reported reducing inefficiencies in their organizations' backup-sharing processes by 2 hours daily. This added 504 hours annually for each member of their data administration teams and application development teams affected by the previous lengthy sharing process.

- **Reduced cost of storage infrastructure by 70%.** In shifting away from tape-based

> **“We have found backup sharing for application development a lot more efficient with Cohesity on Cisco UCS.”**
>
> — IT infrastructure lead, professional services

infrastructure to cloud-based storage, customers said their organizations reduced their storage costs by hundreds of thousands of dollars annually. Additionally, they reported being able to lengthen the lifetime of their storage infrastructures, providing approximately $100,000 of value over the course of two years.

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

- **Reduced risk of a successful ransomware attack worth millions of dollars.** Cohesity on Cisco UCS provides an immutable offline copy of backup data to defend against ransomware attacks. Customers reported avoided costs of potential ransomware attacks in the millions of dollars.
- **Improved disaster recovery processes.** Customers reported that Cohesity on Cisco UCS would save them additional time and business costs in the event of a broader natural or human-induced disaster. The benefits of improved disaster recovery might include time savings to IT teams as well as potential revenue benefits from improved business continuity.
- **Reduced compliance and legal risk.** Customers utilized Cohesity on Cisco UCS to shift their legally required seven-year archive of data to more cost-efficient cloud-based storage. This not only saved on direct storage costs, but it also ensured that this data would actually be available if needed, unlike in a tape-based environment.
- **Responsive Cisco support.** Customers also said they received impressive support from Cisco Systems, removing even more work from their day that could be reinvested in more strategic workstreams.

Costs. Risk-adjusted PV costs include:

- **Total cost of solution.** Customers reported total solutions costs composed of Cisco UCS costs, subscription costs, and service fees. Forrester has modeled these costs based on list price. Depending on the actual sales price, these costs could be lower, and the overall ROI could be higher.

Reduction in time to install servers with Cisco Validated Design

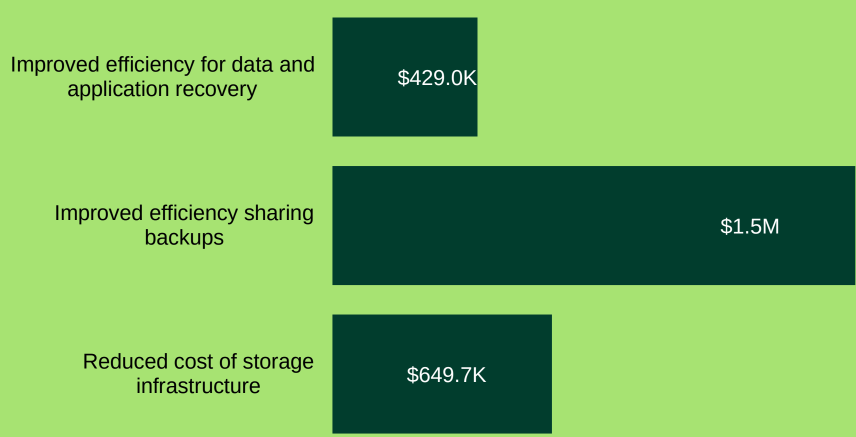
80%+

- **Cost of planning, deployment, and implementation.** Planning, implementation, and deployment required a team of four FTEs to spend 10 hours weekly over the course of two months. Server installation only required one day from one FTE per server compared to one week or more for non-Cisco UCS servers.
- **Cost of ongoing management.** Ongoing management costs amounted to one full day of work weekly for one FTE.

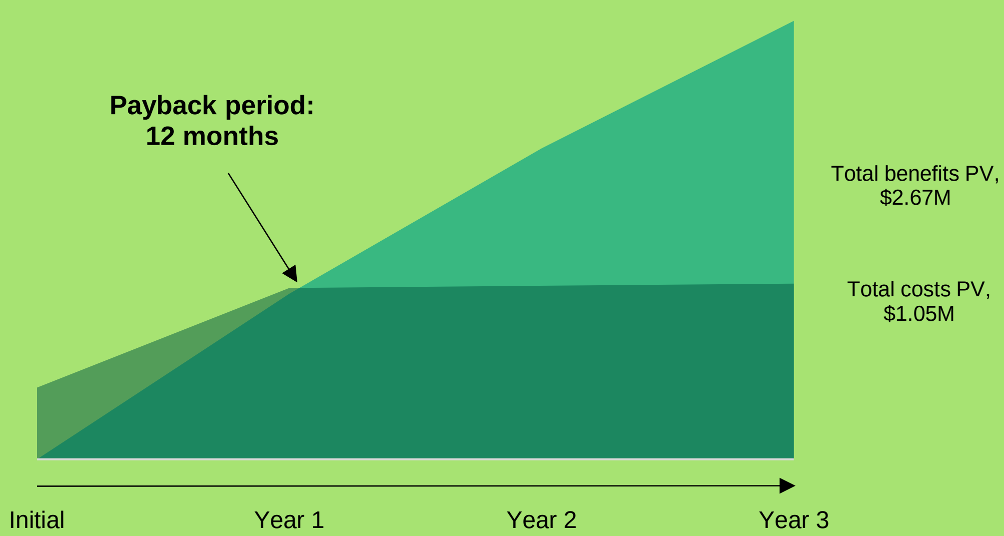
The customer interviews and financial analysis found that a composite organization experiences total benefits of $2.63 million over three years versus costs of $1.05 million, adding up to a net benefits present value of $1.57 million and an ROI of 150%.

ROI	TOTAL BENEFITS PV	TOTAL COSTS PV	NET BENEFITS PV	PAYBACK
150%	**$2.63M**	**$1.05M**	**$1.57M**	**12 months**

Benefits (Three-Year)



Financial Summary



TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Cohesity on Cisco UCS.

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 Cohesity on Cisco UCS can have on an organization.

DUE DILIGENCE

Interviewed Cisco Systems stakeholders, Cohesity stakeholders, and Forrester analysts to gather data relative to the Cohesity on Cisco UCS.

CUSTOMER INTERVIEWS

Interviewed four decision-makers at organizations using Cohesity on Cisco UCS to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed organizations.

FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewed organizations.

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.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Cisco Systems 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 Cohesity on Cisco UCS.

Cisco Systems and Cohesity 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.

Cisco Systems and Cohesity provided the customer names for the interviews but did not participate in the interviews.

The Cohesity On Cisco UCS Customer Journey

Drivers leading to the Cohesity on Cisco UCS investment

Interviewed Organizations			
Industry	**Region**	**Interviewee**	**Total FTEs and data stored on Cohesity**
Professional services	APAC	IT infrastructure lead	800 FTEs and 65 TB
Healthcare	USA	Director of information systems Manager of technology systems IT security administrator Network engineer	1,500 FTEs and 10 PB
Semiconductor	USA	Senior IT engineer	2,500 FTEs and 2.9 PB
Logistics	USA	General manager of IT	15,000 FTEs and 1 PB

KEY CHALLENGES

Before investing in Cohesity on Cisco UCS, the interviewed customers largely relied on tape-based backup systems, with a minority having a mixed environment composed of both tape-based and disk-based systems.

The interviewees said their organizations struggled with common challenges, including:

- **Dysfunctional backup environment.** Interviewees noted that tape-based backup environments typically provide little functional resiliency in terms of data protection. The general manager of IT from the professional services industry noted that: "[Even if the backup is transferred properly,] there's probably not a high likelihood that you could ever restore your data from tape." Additionally, the IT infrastructure lead from the logistics industry said: "We didn't have great redundancy. [Our backup environment] was not spread across several different systems. So, if we had a hardware failure in that system, then we potentially have lost the ability to backup."

- **Time-intensive manual data workstreams.** Adding to the dysfunctionality of backups, tape-based environments require additional time costs on the part of IT professionals. As the senior IT engineer from the semiconductor firm explained: "I don't think that there's any pain worse than using a tape. We had individuals who had to jockey tapes back and forth because the data is stored off-site. You have to work with an off-site data storage provider. We got ROI just by eliminating tape."

"In healthcare, the added cost of downtime isn't just money, it's people's lives."

Manager of technology systems, healthcare

"We often had to sit and babysit our backups in our prior environment. An issue could occur for any hundreds of reasons, and we needed to be close by to solve these issues quickly."

IT security administrator, healthcare

- **Expensive solutions and vendor proliferation.** Interviewees felt that their legacy storage environments were both more expensive and more complex than newer offerings that also enabled vendor consolidation. The senior IT engineer with the semiconductor firm reported saving $5,000 to $10,000 monthly on tapes and off-site storage. The IT security administrator in healthcare shared: “It makes it a lot simpler having one vendor to deal with because there’s no finger-pointing when something goes wrong.”

> **“Our biggest thing was just to get down to one vendor as our primary backup provider, significantly cutting our costs.”**
>
> *General manager of IT, logistics*

SOLUTION REQUIREMENTS

The interviewees said their organizations searched for a solution that could:

- Provide truly functional backups while decreasing IT effort related to backup and recovery processes.
- Cater for data growth and provide easier scale.
- Provide a better fit with newer technologies, such as easily storing backups to the cloud.

> **“We need something that’s simple, easy to use, and flat-out works. [Our team has] so much to do and many projects to just keep up with. We need technology to work for us.”**
>
> *Director of information systems, healthcare*

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

Description of composite. The B2B technology and services company employs 10,000 full-time employees and generates $5 billion in revenue annually. It is looking to modernize its backup environment to improve its resiliency and its confidence in its business continuity processes. Additionally, it is looking to reduce the backup and recovery time burden on its IT group, leveraging it for more strategic work aimed at digital transformation.

Deployment characteristics. The organization is currently storing 5.5 PB of data. The primary use cases it is pursuing with Cohesity on Cisco UCS include backup and recovery, data sharing for application development and testing, and cloud storage for legal and regulatory purposes (among other reasons). For backup, it plans to use Cohesity on Cisco UCS to reduce the cost of backing up this data, requiring only 280 TB of physical storage to do so. For the development/test use case, the organization has a team of 10 data administrators serving a team of 10 applications developers.

Key assumptions

- **10,000 FTEs**
- **$5 billion in annual revenue**
- **10 data admins**
- **10 application developers**

Analysis Of Benefits

Quantified benefit data as applied to the composite

Total Benefits						
Ref.	**Benefit**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Atr	Improved efficiency for data and application recovery	$172,488	$172,488	$172,488	$517,463	$428,951
Btr	Improved efficiency sharing backups	$622,440	$622,440	$622,440	$1,867,320	$1,547,916
Ctr	Reduced cost of storage infrastructure	$296,856	$257,906	$221,806	$776,568	$649,661
	Total benefits (risk-adjusted)	$1,091,784	$1,052,834	$1,016,734	$3,161,351	$2,626,528

IMPROVED EFFICIENCY FOR DATA AND APPLICATION RECOVERY

Evidence and data. Customers reported experiencing time savings to their ordinary data and application recovery processes after investing in Cohesity on Cisco UCS. Prior recovery processes were highly manual and time intensive. As mentioned earlier, these processes required the jockeying of tape-based backup data from off-site storage locations and the babysitting of the recovery process itself to avoid and troubleshoot frequent restoration faults.

> **"When I first saw how quickly Cohesity on Cisco UCS restored data, I thought it was smoke and mirrors. But we really have experienced that speed of restore. Even with an entire VM [virtual machine] being restored, we're back up and running in 5 minutes."**
>
> *Manager of technology systems, healthcare*

With Cohesity on Cisco UCS, the interviewed customers consistently reported being able to restore from backup in "a couple of minutes," regardless of whether it was a simple file restoration or an entire server failure. Customers specifically mentioned the ease of finding specific files needed to be restored thanks to Cohesity on Cisco UCS's global view of organizational data. The manager of technology systems from the healthcare customer said, "If you're looking for an individual file, you can just search for it and find it in minutes, which is crazy considering the petabytes of storage you're actually looking through."

> **"The status quo was our biggest risk. We would not be able to keep up with our growth. We would have had to set up a dedicated cloud backup and run our on-premises solutions at the same time. Then you have increased cost of management from systems that aren't connected. It becomes messy and hard to manage."**
>
> *IT infrastructure lead, professional services*

As mentioned, this benefit is limited to ordinary data and application recovery in event of system failure or data loss. In a disaster recovery event, the reduction in costs could be higher.

The customer interviewees also said that as they streamlined backup and recovery processes, their organization's employees broadly benefited from improved uptime, adding to their efficiency. For example, the senior IT engineer from the semiconductor firm noted: "The cost of downtime for us is productivity loss more than anything else. It would be however many employees can't sign in and do their day-to-day tasks due to the failure." The general manager of IT from the logistics industry shared: "There's an employee cost to downtime, as well. Their time gets consumed as that person can't go do other productive things."

> **"Cohesity on Cisco UCS has greatly reduced the things we have to do… If we have issues, Cisco has people who respond in a very, very timely manner"**
>
> *IT security administrator, healthcare*

Modeling and assumptions. Based on the customer interviews, Forrester estimates:

- For all previous recovery processes, IT labor time accounted for one-third of the total recovery process time.
- For each IT recovery process:
  - A file recovery process that used to take 30 minutes when the backup tape was on-site and 8 hours when off-site. Tapes that needed to be accessed were located on-site two-thirds of the time and off-site one-third of the time, for an average recovery process time of 3 hours. Labor time was therefore 1 hour for a single FTE at $65 per hour, and file recovery processes occur 3 times a week (see A1 in table).
  - A VM recovery process that used to take 5 hours with 1.7 hours of labor time from two FTEs at $65 per hour. VM recovery processes occur once quarterly (see A2 in table).
  - Server recovery processes that used to take 12 hours with 4 hours of labor time from four FTEs at a total of $200 per hour. Server recovery process occurs twice annually (see A3 in table).
- All recovery processes with Cohesity on Cisco UCS now take 5 minutes from one FTE at $65 per hour.
- File recovery processes used to take an average of 3 hours each and affected one end-user employee each. But with file recovery, employee efficiency was only affected by 20% as they could complete other work while the back administrator recovered the specific file.
- VM recovery processes used to take an average of 5 hours each time and affected 50 end-user employees. Employee efficiency is affected 100%.
- Server recovery processes used to take an average of 12 hours each and affected 200 end-user employees. Employee efficiency is again affected 100%.
- The average employee's fully burdened hourly rate is $40 per hour.

Risks. The improvement in data and application recovery process time will vary with:

- The legacy backup environment and time to restore from backup for files, VMs, and servers.
- The labor time and resources used for each recovery process.
- The number of employees affected per outage

- The fully burdened hourly rate of employees.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $428,951.

Improved Efficiency For Data And Application Recovery					
Ref.	**Metric**	**Calculation**	**Year 1**	**Year 2**	**Year 3**
A1	Valued of added IT efficiency from improved file recovery	Interviews	$9,329	$9,329	$9,329
A2	Value of added IT efficiency from improved VM recovery	Interviews	$863	$863	$863
A3	Value of added IT efficiency from improved server recovery	Interviews	$1,790	$1,790	$1,790
A4	Valued of added employee efficiency from improved file recovery	Interviews	$3,504	$3,504	$3,504
A5	Value of added employee efficiency from improved VM recovery	Interviews	$39,360	$39,360	$39,360
A6	Value of added employee efficiency from improved server recovery	Interviews	$126,720	$126,720	$126,720
At	Improved efficiency for data and application recovery	A1+A2+A3+A4+A5 +A6	$181,566	$181,566	$181,566
	Risk adjustment	↓5%			
Atr	Improved efficiency for data and application recovery (risk-adjusted)		$172,488	$172,488	$172,488
	Three-year total: $517,463		**Three-year present value: $428,951**		

IMPROVED EFFICIENCY SHARING BACKUPS

Evidence and data. An additional use case where customers reported efficiency improvements was the use backup data for application testing. As the IT infrastructure lead from the professional services firm explained: “In our prior environment, we would have given our SQL [Structured Query Language] engineers a bunch of scripts, and they would have to run stuff in a certain order and then would have had to wait for LUNs [logical unit numbers] to go offline on a storage array and then do this and then do that. Whereas, with Cohesity, it’s just a single click and that talks to it, clones it, maps it, and presents it.”

Modeling and assumptions. Based on the customer interviews, Forrester estimates for the composite organization:

Time saved from sharing backups

2 hours daily

- The backup sharing process is reduced by 2 hours per data admin daily.
- The efficiency of ten data administrators improved by this time reduction.
- Ten application developers are affected by this time reduction.
- Data administrators and application developers both carry a fully burdened hourly rate of $65 per hour.

Risks. The improvement in the efficiency of sharing backups will vary with:

- The process of backup sharing in the prior environment.
- The number and time cost of the stakeholders affected.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of $1,547,916.

Improved Efficiency Sharing Backups

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Annual hours saved	Interviews (2 hours saved daily)	504	504	504
B2	Number of data admins affected	Composite	10	10	10
B3	Fully burdened hourly rate per data admin	Forrester	$65	$65	$65
B4	Number of app developers affected	Composite	10	10	10
B5	Fully burdened hourly rate per app developer	Forrester	$65	$65	$65
Bt	Improved efficiency sharing backups	B1*B2*B3+B1*B4*B5	$655,200	$655,200	$655,200
	Risk adjustment	↓5%			
Btr	Improved efficiency sharing backups (risk-adjusted)		$622,440	$622,440	$622,440
	Three-year total: $1,867,320		**Three-year present value: $1,547,916**		

REDUCED COST OF STORAGE INFRASTRUCTURE

Evidence and data. Customers said their organizations were able to move away from their legacy backup architectures entirely when implementing Cohesity on Cisco UCS. A reported benefit of decommissioning the legacy system is no longer having to spend between $5,000 and $10,000 per month on tapes and their associated off-site storage. Customers were also able to begin to utilize much cheaper cold cloud storage for their backups. The IT infrastructure lead from professional services said this costs “tens of dollars versus thousands of dollars per month.”

Another benefit customers experienced was increasing the life of storage infrastructure. The professional services firm was able to add an additional two years of life to its storage array using Cohesity on Cisco UCS.

Modeling and assumptions. For the composite organization, Forrester assumes:

- Decommissioned tapes and off-site storage that otherwise cost $230,000 annually.
- Increased annual spending on cloud storage of $74,520 annually.
- A two-year delay in a $500,000 of storage-related expense that provides value equivalent to the remainder of that $500,000 less its present value in the given year.

- Legacy solutions required two FTEs at $65 per hour each to spend 12 hours weekly on management.

Risks. The reduced cost of storage infrastructure will vary with:

- The choice to decommission legacy backup infrastructure.
- The amount of added longevity of storage infrastructure achieved.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of $649,661.

Reduced Cost Of Storage Infrastructure

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Reduced cost of storage tapes	Interviews	$230,000	$230,000	$230,000
C2	Increased cost of cloud storage	$0.023/mo. for first 50TB; $0.022/mo. for next 230 TB	$74,520	$74,520	$74,520
C3	**Total storage optimization savings**	C1-C2	$155,480	$155,480	$155,480
C4	Reduced time from managing legacy solution	Interviews	$78,000	$78,000	$78,000
C5	Additional value from delayed $500,000 storage expense	$500,000 - PV($500,000)	$79,000	$38,000	
Ct	Reduced cost of storage infrastructure	C3+C4+C5	$312,480	$271,480	$233,480
	Risk adjustment	↓5%			
Ctr	Reduced cost of storage infrastructure (risk-adjusted)		$296,856	$257,906	$221,806
	Three-year total: $776,568		**Three-year present value: $649,661**		

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Decreased risk of a successful ransomware attack.** Cohesity on Cisco UCS provides an immutable backup system that prevents malicious actors from accessing backup data and holding it for ransom. The general manager of IT from the logistics firm shared: “We’re currently working with Cisco and Cohesity to prevent against a ransomware attack against our backup data. The offline, immutable copy of our backup data could save us millions of dollars spent on ransom.”
- **Improved disaster recovery processes.** In addition to improving efficiency in organizations’ regular backup and recovery processes, customers reported that Cohesity on Cisco UCS would save them substantial time and business costs in the event of a broader natural or human-induced disaster. The benefits of improved disaster recovery could include time savings to the IT teams responsible for recovery as well as potential revenue benefits associated with improved business continuity.
- **Decreased compliance and legal risk.** Customers also reported that being able to safely store data in the cloud meant that they could

more easily and more cheaply meet regulatory and legal requirements. For example, the general manager of IT from the logistics firm said: “We’re required to hold onto our data for seven years, and something we’re working with Cisco and Cohesity on is pushing this seven-year archive of data out to the cloud, so we save money on these tapes as well and utilize cheaper cloud storage.”

- **Responsive Cisco support.** Interviewees also benefited from Cisco’s responsive support, citing the quick and efficient troubleshooting of complex issues, even when these issues were being reported for the first time.

FLEXIBILTY

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

- **Improved transition to the Cloud.** Cohesity on Cisco UCS comes with integrated native cloud storage, allowing customers to ease their transition to the cloud by providing direct cloud archiving within the solution.
- **Resilience in unpredictable circumstances.** Customers consistently shared that Cohesity on Cisco UCS improved the resiliency of not only their backup environment, but also the resiliency of their business overall.

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

“All of the time savings from Cohesity on Cisco UCS enabled our business to survive [the COVID-19 pandemic] when it hit. It gave us the time to prepare, run Armageddon-like scenarios, and even stand up a telehealth offering overnight. We would literally talk about it on Thursday, look it over on Friday, and have it up and running by Monday.”

Director of information systems, healthcare

“We’ve had excellent experience with Cisco support. Relatively complicated problems get resolved the same day, no problem. Even with novel bugs, they work up a fix for me on the spot. I don’t have to do anything.”

Network engineer, healthcare

“The native cloud integration provided by Cohesity on Cisco UCS was the key to choosing them as our provider. It allows us to archive right to the cloud with incomparable ease of use through their UI. They have the best solution there is.”

General manager of IT, logistics

Analysis Of Costs

Quantified cost data as applied to the composite

Total Costs							
Ref.	**Cost**	**Initial**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Etr	Total cost of solution	$323,500	$640,000	$0	$0	$963,500	$905,318
Ftr	Cost of planning, deployment, and implementation	$105,168	$0	$0	$0	$105,168	$105,168
Gtr	Cost of ongoing management	$0	$16,800	$16,800	$16,800	$50,400	$41,779
	Total costs (risk-adjusted)	$428,668	$656,800	$16,800	$16,800	$1,119,068	$1,052,265

TOTAL COST OF SOLUTION

Evidence and data. Customers reported experiencing total solution costs from their investment composed of Cisco UCS costs, Cohesity costs, and service fees. Forrester has modeled the costs for the composite organization at list price. Depending on the actual sales price, these costs could be lower, and the overall ROI could be higher.

Modeling and assumptions. Forrester estimates for the composite organization:

- A total three-year cost of solution at list price of $963,500.

Risks. The total cost of solution will vary with:

- The amount of data needing to be stored.

Forrester priced the composite organization directly with Cisco Systems and therefore has not adjusted this cost. The three-year, risk-adjusted total PV (discounted at 10%) is $905,318.

Total Cost of Solution						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	Total solution cost		$323,500	$640,000		
Et	Total cost of solution	E1	$323,500	$640,000	$0	$0
	Risk adjustment	0%				
Etr	Total cost solution (risk-adjusted)		$323,500	$640,000	$0	$0
	Three-year total: $963,500			**Three-year present value: $905,318**		

COST OF PLANNING, DEPLOYMENT, AND IMPLEMENTATION

Evidence and data. The interviewed customers reported average planning, deployment, and implementation time of two months. This process required approximately 10 hours weekly from four FTEs. The customers also reported using a vendor-provided success manager at a cost of $80,000 to assist with implementation.

To deploy the Cisco UCS servers, customers reported needing one working day of a single server administrator's time for each server. They also said this is conservatively only 20% of the time cost they would need for server implementation if not for Cisco Validated Design. Cisco Validated Design is Cisco's best practices for systems design based on common use cases and tested by Cisco engineers.

> **"Because of Cisco Validated Design, everything comes in ready to roll. If we were building it, it would usually take weeks or months of 'I need to go get this,' and 'I need to update that,' and 'Then I've got to do this.'"**
>
> *General manager of IT, logistics*

Modeling and assumptions. Forrester estimates for the composite organization:

- A planning, deployment, and implementation team size of four FTEs.
- Ten hours per week over two months for the planning, deployment, and implementation process.
- An average fully burdened hourly rate per team member of $60.
- The deployment of three Cisco UCS servers at 8 hours of time cost for a single server administrator with a fully burdened hourly rate of $40.

Risks. Total cost of planning, deployment, and implementation may vary with:

- Planning, deployment, and implementation team size and time cost.
- The number of Cisco UCS servers needed.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $105,168.

Cost Of Planning, Deployment, And Implementation						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
F1	Planning and implementation team size		4			
F2	Hours spent on planning and implementation	10 hours per week for 2 months	80			
F3	Average fully burdened hourly rate of planning and implementation team members		$60			
F4	Cohesity deployment success manager	Interviews	$80,000			
F5	**Subtotal cost of planning, deployment, and implementation - Cohesity**	F1*F2*F3+F4	$99,200			
F6	Number of Cisco UCS Servers		3			
F7	Number of person-hours to deploy each server with Cisco Validated Design	Interviews	8			
F8	Average fully burdened hourly rate of server admin		$40			
F9	**Subtotal cost of planning, deployment, and implementation - Cisco UCS**	F6*F7*F8	$960			
Ft	Cost of planning, deployment, and implementation	F5+F9	$100,160	$0	$0	$0
	Risk adjustment	↑5%				
Ftr	Cost of planning, deployment, and implementation (risk-adjusted)		$105,168	$0	$0	$0
	Three-year total: $105,168			**Three-year present value: $105,168**		

COST OF ONGOING MANAGEMENT

Evidence and data. Customers reported costs of ongoing management composed of one server administrator managing backups for one day per week.

Modeling and assumptions. Forrester estimates for the composite organization:

- One server administrator spending one day per week in Year 1 on ongoing management.
- A fully burdened hourly rate of $40 for this server administrator.

Risks. The cost of ongoing management will vary with:

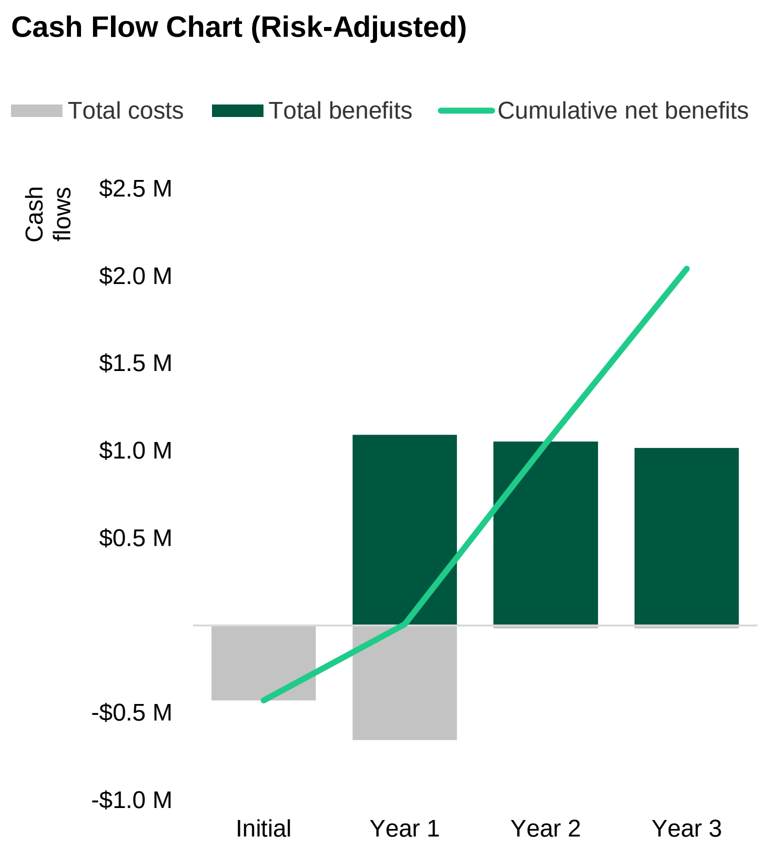
- Server administrators' familiarity with Cohesity.

To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $41,779.

Cost Of Ongoing Management						
Ref.	**Metric**	**Calculation**	**Initial**	**Year 1**	**Year 2**	**Year 3**
G1	Number of server admins tasked with ongoing management of backups	Interviews		1	1	1
G2	Hours spent on ongoing management per year	Interviews; 1 FTE at 1 day per week		400	400	400
G3	Fully burdened hourly rate of server admins			$40	$40	$40
Gt	Cost of ongoing management	G1*G2*G3	$0	$16,000	$16,000	$16,000
	Risk adjustment	↑5%				
Gtr	Cost of ongoing management (risk-adjusted)		$0	$16,800	$16,800	$16,800
	Three-year total: $50,400			**Three-year present value: $41,779**		

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS



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

These risk-adjusted ROI, NPV, and payback period 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	($428,668)	($656,800)	($16,800)	($16,800)	($1,119,068)	($1,052,265)
Total benefits	$0	$1,091,784	$1,052,834	$1,016,734	$3,161,351	$2,626,528
Net benefits	($428,668)	$434,984	$1,036,034	$999,934	$2,042,283	$1,574,263
ROI						150%
Payback period (months)						12.0

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 building 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.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