

A Forrester Total Economic Impact™ Study Prepared For LifeSize , a Division of Logitech

The Total Economic Impact Of: **LifeSize HD Video Conferencing Solutions**

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Executive Summary

In November 2010, LifeSize, a division of Logitech, commissioned Forrester Consulting to examine the total economic impact and potential return on investment (ROI) enterprises may realize by implementing a LifeSize HD video collaboration solution. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of LifeSize solutions on their organizations.

LifeSize offers a full range of open, standards-based HD video conferencing systems designed to make video conferencing truly universal. The solution encompasses core infrastructure, endpoint conference rooms, and management console technologies. The solution has been designed for modular implementation, enabling additional locations to be easily added and integrated within the overall video conferencing solution.

LifeSize Delivers Excellent High Definition Experiences With A Lower TCO

An interview with one existing customer and subsequent financial analysis revealed that the customer, a European division of a Japanese consumer electronics company, was able to quickly implement a high definition video conferencing solution at 47 offices across Europe, the Middle East, Africa, and Russia. The solution provided superior video quality in locations with limited bandwidth compared to other video conferencing solutions being considered. Additionally, the LifeSize HD video collaboration solution had a lower total cost of ownership (TCO).

Table 1 shows the risk-adjusted ROI, internal rate of return (IRR), costs, and benefits realized by the customer.

Table 1

Five-Year Risk-Adjusted ROI¹

ROI	Internal rate of return	Payback period	Total benefits (PV)	Total costs (PV)	Net present value (NPV)
392%	137%	Nine months	\$6,270,936	(\$1,273,780)	\$4,997,156

Source: Forrester Research, Inc.

- **Benefits.** The first three bullet points below could be quantified for the ROI analysis portion of the study. The remainder could not be quantified but may be of equal or greater importance to the reader's organization. All benefits should be taken into consideration when evaluating the potential value of using the LifeSize video conferencing solution. The quantitative and qualitative benefits include:
 - **Lower TCO — ongoing maintenance and support.** Ongoing maintenance and support costs were approximately half the cost of other video conferencing solutions considered by the customer. This resulted in a lower TCO of approximately 24% as compared to other comparable solutions being considered.
 - **Reduced travel costs.** Implementing a high definition video conferencing solution allowed the customer to greatly reduce the number of business trips required.

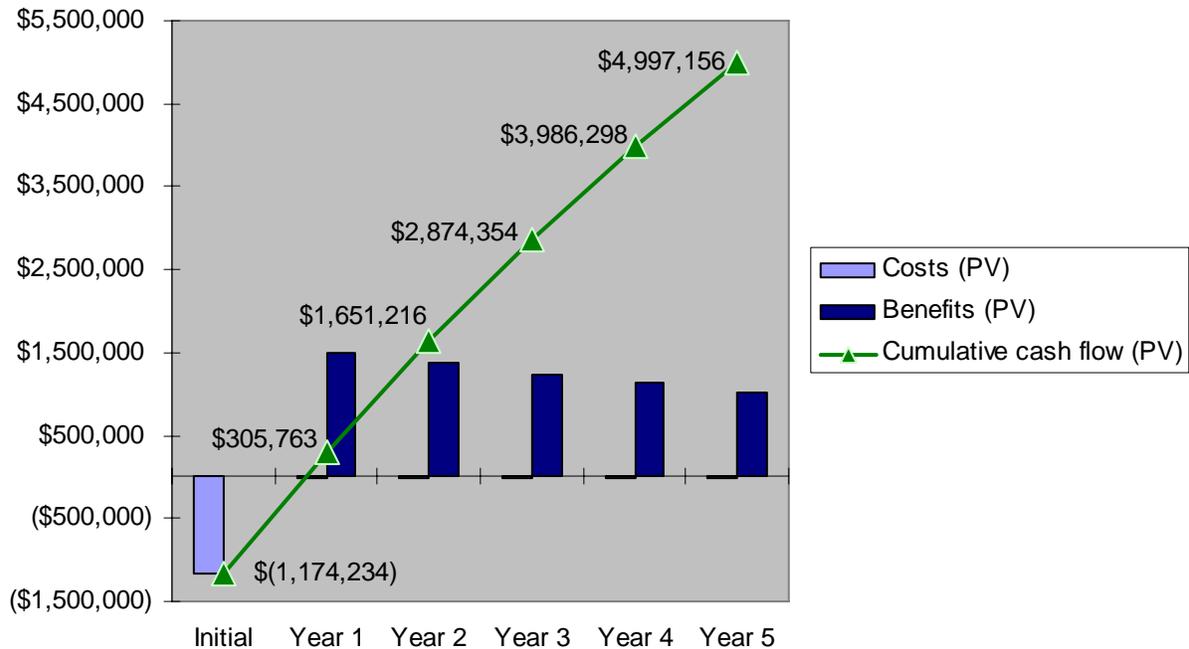
- **Increased productivity — reduced travel.** Fewer travel days meant that employees could remain fully productive instead of losing time while in transit.
- **Higher-resolution video conferencing/lower bandwidth requirements.** At the time the customer began investigating video conferencing solutions, it made a corporate decision that bandwidth would not be added at any office. The organization was able to achieve its collaboration plans by delivering HD video conferencing to all its offices, including smaller ones with limited bandwidth because of LifeSize's lower bandwidth requirements.
- **Improved field selling.** The customer can win more sales opportunities, and do so more easily, by using video conferencing to connect sales managers with the sales force at remote offices and their customers.
- **More efficient and better work experiences.** Video conferencing has made workers generally more efficient through better interaction with peers at different locations. It has also improved the quality of life for employees by allowing them to travel less.
- **Reduced carbon emissions.** The customer was able to meet its aggressive CO₂ emission reduction goals.
- **Costs.** The following costs are included in the TCO analysis:
 - **Initial implementation labor costs.** The effort to initially configure the solution and to roll it out to each location.
 - **Hardware and software costs.** This includes all hardware, software licenses, maintenance, and support costs paid to the LifeSize reseller. The cost of the customer installing its own brand of high definition video projectors is included as well.
 - **Internal training costs.** This only covers travel costs from remote offices, since LifeSize included end user and administrator training as part of its solution package.
 - **Ongoing administration labor costs.** The cost of internal efforts to keep the solution up and running.

It is important to note that there were no additional bandwidth costs incurred. The customer was able to deliver LifeSize HD video conferencing using the bandwidth that was already in place. Readers are encouraged to consider the need for additional bandwidth when applying this study to their own organizations.

Figure 1 shows the benefits, costs, and the quick breakeven point associated with implementing LifeSize. It is important to note that this customer prepaid for five years of support and maintenance, resulting in the large Year 1 cost and very small ongoing costs. The recurring costs in Figure 1 are represented as gradually decreasing because the graph shows the present value of the cost stream. The actual cost incurred was the same in years one through five.

Figure 1

Summary Financial Results — Risk-Adjusted



Source: Forrester Research, Inc.

Factors Affecting Benefits And Costs

Table 1 illustrates the financial results for the customer. The following factors can affect the financial results a reader's organization may experience:

- **Factor 1: Total number of video conference rooms installed.** The largest factor in determining costs and benefits is the size of the implementation. This is both in terms of number of geographic locations and the number of video conference rooms per location. In this case the customer installed 47 rooms in 34 locations.
- **Factor 2: Negotiating/structuring the contract.** The customer had a fairly large initial implementation, allowing it to negotiate volume discounts. Additionally, management decided to pay five years of LifeSize maintenance and support costs upfront. This had an impact on both the total costs and timing of the costs.

Disclosures

The reader should be aware of the following:

- The study is commissioned by LifeSize and delivered by the Forrester Consulting group.

- Forrester makes no assumptions as to the potential return on investment that other organizations will receive. Forrester strongly advises that readers should use their own estimates within the framework provided in the report to determine the appropriateness of an investment in LifeSize.
- LifeSize 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.
- The customer name for the interview was provided by LifeSize.

TEI Framework And Methodology

Introduction

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing the LifeSize HD video collaboration solution. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision.

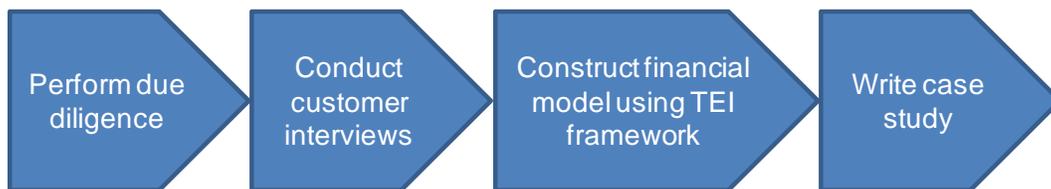
Approach And Methodology

Forrester took a multistep approach to evaluate the impact that LifeSize can have on an organization (see Figure 2). Specifically, we:

- Interviewed LifeSize marketing, sales, and consulting personnel as well as Forrester analysts to gather data relative to LifeSize HD video collaboration and the marketplace for the solution.
- Interviewed one organization currently using LifeSize products to obtain data with respect to costs, benefits, and risks.
- Constructed a financial model representative of the interview using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interview.

Figure 2

TEI Approach



Source: Forrester Research, Inc.

Forrester employed four fundamental elements of TEI in modeling the LifeSize ROI:

1. Costs.
2. Benefits to the entire organization.
3. Flexibility.
4. Risk.

Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves the purpose of providing a complete picture of the total economic impact of purchase decisions. Please see Appendix B for additional information on the TEI methodology.

Analysis

Interview Highlights

The customer interviewed is a division of a Japanese company with responsibility for Europe, the Middle East, Africa, and Russia (EMEAR). The company manufactures printers, scanners, desktop computers, projectors, large home theatre televisions, robots, laptops, and LCD components.

- Headquartered in Amsterdam.
- 50 total offices in the EMEAR region:
 - Six full-service offices with sales, support, and administrative operations.
 - Forty-four sales offices consisting of one office manager and approximately five salespeople.
- 2,500 employees.

The individual interviewed for this study was the senior manager for IT infrastructure and eTechnology. He is responsible for online properties, all IT infrastructure (including data centers), and running Microsoft Office and Exchange. He said, “I am [a] firm believer in video conferencing, having used it extensively when I worked for a previous employer.”

The interview with the customer uncovered a number of salient points that may be of interest to the readers:

- The organization was in great need of a new video conferencing solution by the time it began investigating a replacement in Fall 2008.
 - “We had a myriad of video conferencing systems, some dating back to 1996, that were hardly used. The president would put a piece of paper in front of a camera to share documents.”
 - “Nobody paid attention to the old video conferencing solution. It was used very little, mainly by the European and Japanese headquarters.”
 - “There was a lot of user frustration because of different solutions.”
 - “Quality was really awful. We were using ISDN to connect with Japan.”
 - “We needed to make the switch to HD, which is where everything is going. I used this to raise attention to our needs.”
- The organization did not have the management processes in place for effective operation of its old video conferencing solution.
 - “Video conferencing was being managed by the facilities team instead of IT. They did not have a good knowledge of how to manage it as [an] IT infrastructure rather than another piece of furniture. This meant we could never get the best out of the solution.”

- “If people were screaming, facilities would help. Otherwise, the video conferencing solution was not proactively managed. Now, we remotely make sure that it is working from our headquarters.”
- New travel and CO₂ reduction initiatives could not be met without a new video conferencing solution.
 - Reduce travel by 10%.
 - Reduce CO₂ emissions by 5%.
- The IT organization decided to “own” its video conferencing solution instead of paying for a software-as-a-service (SaaS) solution.
 - “We decided quickly that we should own the solution to avoid additional complexity. With a SaaS solution, we have no control over updates and new feature additions. Unplanned updates confuse users.”
 - “People would use the typical SaaS conferencing solutions just for the phone component. This would undermine full adoption.”
 - “We write equipment off over five years, and we have strong buying power. SaaS vendors do not give me that benefit. Their price will stay the same as long as I’m in contract.”
- The customer makes every conference room a video conference facility instead of having a few, dedicated “telepresence” rooms. This is done to increase usage and showcase its HD projectors.
 - “We did not want the facilities team to have to set up highly specialized video conferencing rooms.”
 - “Making every meeting room a video conferencing room helps with user adoption.”
 - “Using our HD projectors makes for an excellent product demo to our customers.”
- At the time of selecting a vendor in 2008, the customer decided that LifeSize was the solution that best met its needs.
 - “LifeSize technology was better than the competition for HD.”
 - “LifeSize easily supported both Mac and PC installations.”
 - “We needed to be able to put out updates over the wire to our remote offices. The other solutions we looked at were not able to do that.”
- The LifeSize Control management solution is the single interface for managing all video conferencing solutions.
 - “We are still running a couple of video conferencing solutions from other vendors that were bought just prior to deciding on using LifeSize as the single solution. We manage these other installations within LifeSize.”
 - “The dialing plan for video conferencing at all of our offices, regardless of the vendor, is fully integrated into the LifeSize management console.”

- LifeSize is very responsive to the customer’s needs.
 - “LifeSize is very keen to work closely with customers and open to their suggestions. They are very easy to work with and adapt to customers’ requirements.”

Framework Assumptions

All calculations in this study are shown in US dollars. In reality, this project was based out of Europe, and some costs were incurred in Euros and some in US dollars. To simplify the model for the reader, an average exchange rate of €1.00 equal to \$1.30 was used throughout the life of the study. Some dollar values presented in this study have been rounded to the nearest whole cent. Therefore, some of the calculation results in the subsequent tables may not exactly match the results if the reader follows the formulas and values presented.

Table 2 provides the general model assumptions that Forrester used in this analysis.

Table 2

General Model Assumptions

Ref.	Metric	Calculation	Value
A1	Annual fully burdened cost* per full-time equivalent (FTE) resource		\$104,000
A2	Daily fully burdened cost* per FTE resource	A1/220 workdays	\$472.73

*Fully burdened cost includes insurance, paid vacation, and any other cost borne by the organization.

Source: Forrester Research, Inc.

The discount rate used in the financial model to calculate the PV and NPV presented in this study is 10%, and the time horizon used for the financial modeling is five years. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult with their respective company’s finance department to determine the most appropriate discount rate to use within their own organizations.

Costs

This section outlines the costs incurred by the customer for the initial implementation and ongoing management of the LifeSize video conferencing solution.

Initial Implementation Labor Costs

The customer undertook a comprehensive due diligence process in order to select and negotiate the best video conferencing solution. A three-month request-for-quote (RFQ) effort began in late 2008. The decision was taken to use an RFQ instead of a request-for-proposal (RFP) process in order to personally spec out the solution and ensure an apple-to-apple comparison between the responding video conferencing vendors. In December 2008, LifeSize was selected as the vendor to provide the HD video conferencing solution.

The initial implementation to install LifeSize in 47 conference rooms across 34 locations lasted eight weeks. According to the customer, they decided to “take a big-bang approach to avoid the extra complexities associated with a longer rollout that would result in older equipment being used at different locations. All hardware was received and configured at the European headquarters. It was then sent with simple installation instructions to the offices across the region.”

Each office spent approximately 4 hours installing the video conferencing solution. The majority of this time was spent installing the video projectors on ceiling mounts.

A total of 103.5 man-days were spent on this project (20 man-days for the RFQ, 60 man-days for setting up the central infrastructure and configuring the endpoint hardware, and 23.5 man-days for field-office installations). 103.5 man-days times \$472.73 is equal to \$48,927.56.

Table 3
Initial Implementation Labor Costs

Ref.	Metric	Calculation	Initial
B1	RFQ effort — man-days		20
B2	Infrastructure implementation and endpoint configuration effort — man-days	1.5 FTEs for eight weeks	60
B3	Per location installation — man-days	0.5 days × 47 video conference rooms	23.5
B4	Daily fully burdened costs	A2	\$472.73
Bt	Initial implementation labor costs	$(B1+B2+B3) \times B4$	\$48,927.56

Source: Forrester Research, Inc.

Since the initial implementation, approximately one dozen other conference rooms have been fitted out with LifeSize technologies. For simplicity, the associated cost and benefits for these installations have been left out of the ROI analysis. They are discussed in the Flexibility section of this study.

Hardware And Software

For the initial implementation, the customer installed the LifeSize® 200™ series solution in 47 conference rooms spread among 34 locations. In addition to the hardware and software installed at each conference room, the solution also comprised the LifeSize® Multipoint™, LifeSize® Transit™, LifeSize® Gateway™, and LifeSize® Control™ infrastructure and management products. These were purchased through a LifeSize reseller, and the price included several days of consulting and the required training.

The customer negotiated a contract that included paying for five years of maintenance and support at the initial time of purchase. This arrangement is not typical of most video conferencing implementations. The result was a higher initial

cost and a lower ongoing operations cost. The last cost was for the video display hardware. The customer installed its own brand of HD video projectors. Typical installations will either consist of a video projector or a 50-inch HD television. The cost for a display can vary greatly by country and has been coming down in price very quickly.

Table 4

Hardware And Software

Ref.	Metric	Calculation	Initial
C1	LifeSize hardware and software		\$550,000
C2	Five-year LifeSize maintenance and support contract — prepaid		\$275,000
C3	HD projectors	47 video conference rooms × \$5,000	\$235,000
Ct	Hardware and software	C1+C2+C3	\$1,060,000

Source: Forrester Research, Inc.

Internal Training Costs

LifeSize training costs were included in the initial license costs. Therefore, the only training costs incurred by the customer were for participants' travel. Twelve individuals from major offices around the region participated in the training. The average travel cost per employee was \$975.

Table 5

Internal Training Costs

Ref.	Metric	Calculation	Initial
D1	Number of people		12
D2	Travel and other internal costs		\$975
Dt	Internal training costs	D1×D2	\$11,700

Source: Forrester Research, Inc.

Ongoing Administration

The LifeSize solution is very easy to administer. For the central IT team, approximately 0.25 FTE is required for managing software updates, changing the number scheme, and dealing with replacing any faulty hardware. There is

practically no effort required at the local level. Replacing faulty hardware follows the same process as the original setup – configured at a central location and then shipped to the field office for simple installation.

Table 6
Ongoing Administration

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3	Year 4	Year 5
E1	Number of FTEs			0.25	0.25	0.25	0.25	0.25
E2	Annual fully burdened cost	A1		\$104,000	\$104,000	\$104,000	\$104,000	\$104,000
Et	Ongoing administration	E1×E2		\$26,000	\$26,000	\$26,000	\$26,000	\$26,000

Source: Forrester Research, Inc.

Total Costs

Total costs for implementing and administering the LifeSize HD video collaboration solution are shown in Table 7 below.

Table 7
Total Costs (Non-Risk-Adjusted)

Ref.	Costs	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Bt	Initial implementation labor costs	(\$48,928)						(\$48,928)
Ct	Hardware and software	(\$1,060,000)						(\$1,060,000)
Dt	Internal training costs	(\$11,700)						(\$11,700)
Et	Ongoing administration		(\$26,000)	(\$26,000)	(\$26,000)	(\$26,000)	(\$26,000)	(\$130,000)
	Total costs	(\$1,120,628)	(\$26,000)	(\$26,000)	(\$26,000)	(\$26,000)	(\$26,000)	(\$1,250,628)

Source: Forrester Research, Inc.

Benefits

The first half of the Benefits section details the quantitative benefits included in the ROI analysis. The second half describes the qualitative benefits that the customer experienced but cannot be fully described in the financial model. The qualitative benefits are potentially as valuable as the quantitative ones and should be taken into consideration when analyzing the total ROI realized by implementing the LifeSize solution.

Lower TCO — Ongoing Maintenance And Support

The total cost of ownership of any given technology solution varies greatly from organization to organization. This is largely dependent on the best deal that can be negotiated at the time of purchase. Additionally, current market conditions have a heavy influence on negotiated prices. For these reasons, it was not possible to generalize many TCO categories in a way that would be useful to the reader.

One area that the customer could provide clear information on was the price of an ongoing maintenance and support contract. The total cost for a prepaid maintenance and support contract with LifeSize was approximately one half of what other vendors were quoting. This amounted to a lower overall TCO of approximately 24%.

Table 8

Lower TCO — Ongoing Maintenance And Support

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Year 4	Year 5
F1	Maintenance and support contract savings		\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Ft	TCO savings — ongoing maintenance and support	F1	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000

Source: Forrester Research, Inc.

Reduced Travel

When the video conferencing RFQ process was initiated, there was a travel reduction target of 10%. The customer explained that as economic conditions continued to worsen, the division president decided to “put a total freeze on travel. Every trip required his [personal] approval. The only reason we could do this was because we had a new video conferencing solution in place. Travel was reduced by 46% in the first year, and the travel ban is still in place.”

The customer estimated that approximately \$2.6 million per year have been saved in travel expenditures since LifeSize was implemented and the travel ban was put in place. Some of this savings would have been realized even if there was no video conferencing solution by utilizing phones or simply not collaborating as well. It was estimated that only 50% of the total benefit was directly attributable to the LifeSize solution.

Table 9
Reduced Travel

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Year 4	Year 5
G1	Reduced travel expenditure		\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000	\$2,600,000
G2	Percent attributable to LifeSize		50%	50%	50%	50%	50%
Gt	Reduced travel	$G1 \times G2$	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000

Source: Forrester Research, Inc.

Increased Productivity — Reduced Travel

As anyone who travels for work knows, it can be very disruptive to completing normal work activities. Even with smartphones and airplane wireless, someone traveling is much less productive than someone sitting in the office. Therefore, in addition to eliminating the travel costs described above, fewer travel days meant that these workers were more productive. In order to be conservative, it was estimated that only 50% of the reduced travel time would actually result in increased productivity.

Table 10
Increased Productivity — Reduced Travel

Ref.	Metric	Calculation	Year 1	Year 2	Year 3	Year 4	Year 5
H1	Number of travel days eliminated per year (attributable to LifeSize)		2,000	2,000	2,000	2,000	2,000
H2	Percent productivity gain		50%	50%	50%	50%	50%
H3	Daily fully burdened cost	A2	\$472.73	\$472.73	\$472.73	\$472.73	\$472.73
Ht	Increased productivity — reduced travel	$H1 \times H2 \times H3$	\$472,730	\$472,730	\$472,730	\$472,730	\$472,730

Source: Forrester Research, Inc.

Total Quantified Benefits

Table 11 summarizes the total quantified benefits realized by implementing the LifeSize HD video collaboration solution.

Table 11

Total Quantified Benefits (Non-Risk-Adjusted)

Ref.	Benefits	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Ft	TCO savings — ongoing maintenance	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$300,000
Gt	Reduced travel	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$6,500,000
Ht	Increased productivity — reduced travel	\$472,730	\$472,730	\$472,730	\$472,730	\$472,730	\$2,363,650
	Total benefits	\$1,832,730	\$1,832,730	\$1,832,730	\$1,832,730	\$1,832,730	\$9,163,650

Source: Forrester Research, Inc.

Qualitative Benefits

Higher-Resolution Video Conferencing/Lower Bandwidth Requirements

Many field sales offices had less than 2 MB of bandwidth available. This meant that LifeSize was the only solution evaluated that could deliver HD video conferencing without adding bandwidth. “Instead of incurring the cost to increase bandwidth to these offices, we would have only delivered regular-definition video conferencing. LifeSize required 20% less bandwidth than the other companies we evaluated. We were able to deliver high definition service to every office. This was a huge benefit. Since the time of implementation, subsequent LifeSize software releases have further reduced bandwidth requirements.”

Improved Field Sales

HD video conferencing has greatly improved the customer’s ability to coordinate sales efforts in the field and to provide assistance in closing large deals. “Product managers have a better way to bring salespeople up to speed on new products and how to sell at our smaller offices. Sales and finance can now work together with the field sales force to close deals more easily and quickly. Our VP of sales has a LifeSize installation in his office so he can work directly with the sales team. If you see someone, you can strike a deal. If you hear them, you can only inform them.”

More Efficient And Better Work Experiences

The customer makes extensive use of the LifeSize video conferencing facilities — typically, each endpoint is used at least 30 hours per week. This has made employees more productive and efficient. “Overall communication has improved. People are able to accomplish more in less time. Also, it forces international meetings to be run more efficiently, [as] the video conference facility is booked for a set period of time. This is especially important when meeting with the Japanese headquarters.”

Utilizing the LifeSize solution has also improved employees’ work experience. For those who travel, being able to work from their local offices means less disruption to their personal lives. Also, being able to see colleagues from other offices has made the work experience more enjoyable and fostered a greater sense of community.

Reduced Carbon Emissions

The customer has set very aggressive global goals to reduce carbon emissions. Long term, the goal is to reduce carbon emission by 90% by the year 2050. For the first year that LifeSize was being used, the goal was to reduce carbon emissions by 5%. The actual reduction was closer to 12%, eliminating 807,000 tons of CO₂. Reduced travel was a major contributor to achieving this.

Flexibility

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the “right” or the ability to engage in future initiatives but not the obligation to do so. LifeSize creates inherently more flexible organizations by allowing employees from different offices to work more closely together and to respond more effectively to marketplace dynamics.

Since the initial implementation described in the ROI analysis, the customer has installed 11 more video conference facilities across several locations. This has included the installation of lower-end hardware in the private offices of company executives. This allows them to meet at a moment’s notice to effectively discuss critical issues, no matter where they are based. There are plans to install five more locations in the next year.

It was explained that “the employees are always looking for new and creative ways to use the technology. User demand is constantly growing. To meet this need, we are looking at doing more with smartphones and iPads. We are also investigating the possibility of putting in low-cost video phones to provide additional private installations for second- and third-level managers.”

None of the flexibility benefits were included in the ROI analysis.

Risk

Forrester defines two types of risk associated with this analysis: implementation risk and impact risk. “Implementation risk” is the risk that a proposed investment in LifeSize may deviate from the original or expected requirements, resulting in higher costs than anticipated. “Impact risk” refers to the risk that the business or technology needs of the organization may not be met by the investment in LifeSize, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

Quantitatively capturing investment and impact risk by directly adjusting the financial estimates results in more meaningful and accurate estimates and a more accurate projection of the ROI. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates. The risk-adjusted numbers should be taken as “realistic” expectations because they represent the expected values considering risk.

The following implementation risks that affect costs are identified as part of this analysis:

- Initial implementation labor costs could be slightly higher if the hardware is not configured centrally before sending to field offices without an IT staff.
- Hardware and software costs could be higher if comparable volume discounts are not available.

- Internal training costs could be slightly higher if travelling greater distances or if not absorbed by the vendor.
- Ongoing administration of the solution could be slightly higher for a larger, more complex installation.

The reader should also consider the cost of adding bandwidth, if necessary.

The following impact risks that affect benefits are identified as part of the analysis:

- TCO savings associated with an ongoing maintenance and support contract can be lower based on contract negotiations. However, other areas of TCO savings may be found to completely offset this.
- An organization may not save as much in travel if it has fewer offices and/or does not generally engage in substantial business travel.
- An organization will not see a productivity gain related to reduced travel time if the organization does not engage in substantial business travel.

Table 12 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates. The TEI model uses a triangular distribution method to calculate risk-adjusted values. To construct the distribution, it is necessary to first estimate the low, most likely, and high values that could occur within the current environment. The risk-adjusted value is the mean of the distribution of those points. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

Table 12
Cost And Benefit Risk Adjustments

Costs	Low	Most likely	High	Mean
Initial implementation labor costs (low risk)	98%	100%	105%	101%
Hardware and software (medium risk)	100%	100%	115%	105%
Internal training costs (low risk)	98%	100%	105%	101%
Ongoing administration (low risk)	98%	100%	105%	101%
Benefits	Low	Most likely	High	Mean
TCO savings — ongoing maintenance and support (low risk)	90%	100%	105%	98%
Reduced travel (medium risk)	80%	90%	100%	90%
Increased productivity — reduced travel (medium risk)	80%	90%	100%	90%

Source: Forrester Research, Inc.

Financial Summary

The financial results calculated in the Costs and Benefits sections can be used to determine the ROI, IRR, NPV, and payback period for the customer's investment in the LifeSize solution. These are shown in Table 13 below.

Table 13

Cash Flow — Non-Risk-Adjusted

Cash flow — original estimates								Present Value
Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total		
Costs	(\$1,120,628)	(\$26,000)	(\$26,000)	(\$26,000)	(\$26,000)	(\$26,000)	(\$1,250,628)	(\$1,219,188)
Benefits		\$1,832,730	\$1,832,730	\$1,832,730	\$1,832,730	\$1,832,730	\$9,163,650	\$6,947,489
Net benefits	(\$1,120,628)	\$1,806,730	\$1,806,730	\$1,806,730	\$1,806,730	\$1,806,730	\$7,913,022	\$5,728,301
ROI	470%							
IRR	160%							
NPV	\$5,728,301							
Payback period	7 months							

Source: Forrester Research, Inc.

Table 14 shows the risk-adjusted ROI, IRR, NPV, and payback period values. These values are determined by applying the mean risk-adjustment values from Table 12 in the Risk section to the cost and benefits numbers in Table 13.

Table 14

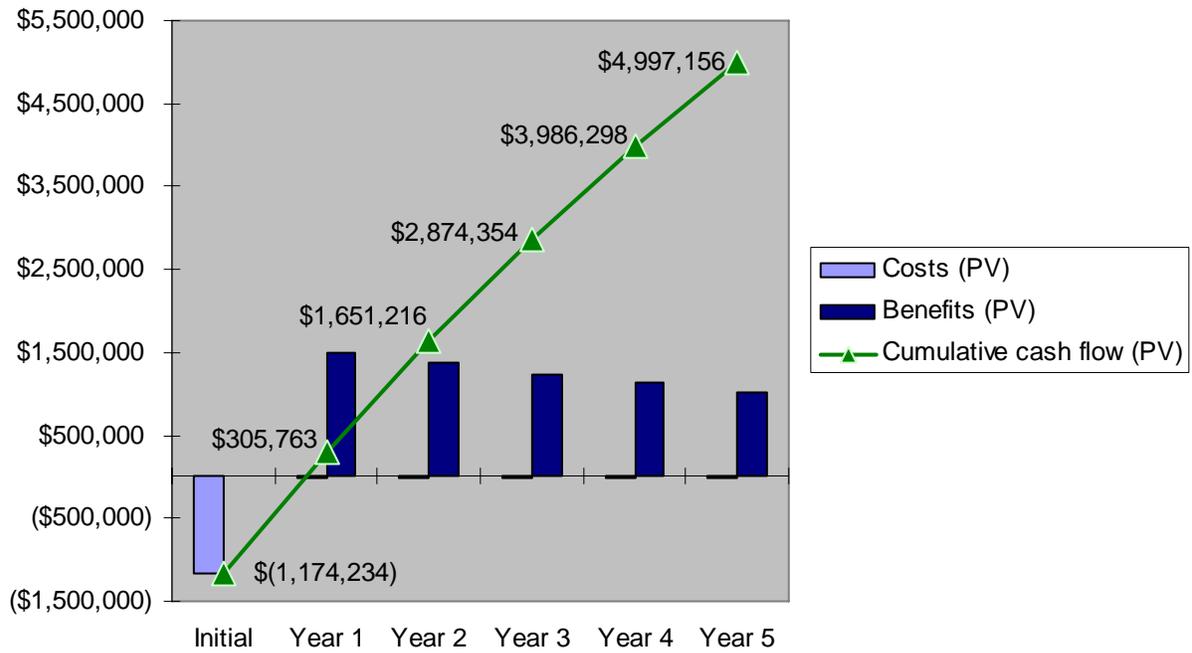
Cash Flow — Risk-Adjusted

Cash flow — risk-adjusted estimates								Present Value
Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Total		
Costs	(\$1,174,234)	(\$26,260)	(\$26,260)	(\$26,260)	(\$26,260)	(\$26,260)	(\$1,305,534)	(\$1,273,780)
Benefits		\$1,654,257	\$1,654,257	\$1,654,257	\$1,654,257	\$1,654,257	\$8,271,285	\$6,270,936
Net benefits	(\$1,174,234)	\$1,627,997	\$1,627,997	\$1,627,997	\$1,627,997	\$1,627,997	\$6,965,751	\$4,997,156
ROI	392%							
IRR	137%							
NPV	\$4,997,156							
Payback period	9 months							

Source: Forrester Research, Inc.

These risk-adjusted results are summarized in Figure 3 below.

Figure 3
Summary Financial Results — Risk-Adjusted



Source: Forrester Research, Inc.

Appendix A: LifeSize Product Portfolio Overview

According to LifeSize, it offers a comprehensive high definition video collaboration product portfolio. It includes a complete range of high definition video communications solutions for organizations ranging from global enterprises, governments, and universities to midmarket companies and small businesses. LifeSize has designed its solution with a modular infrastructure to allow the easy addition and removal of endpoints.

The LifeSize product portfolio is a complete package comprised of:

- **Video.** LifeSize provides personal, room, and conference HD video conferencing systems, HD video software solutions, cameras and accessories designed to enable genuine human interaction over any distance.
- **Infrastructure.** LifeSize infrastructure solutions include NAT/firewall traversal products, multipoint bridging, management and control, multiplatform network integration, video recording and broadcasting as well as API support, all designed to be enterprise class and IT friendly.
- **Services.** LifeSize provides services to enhance the selection, deployment and ongoing management of LifeSize products within the enterprise, including installation, deployment, warranties, leasing, grant application assistance, training and 24/7 support.

Appendix B: Total Economic Impact™ Overview

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.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, risks, and flexibility.

Benefits

Benefits represent the value delivered to the user organization — IT and/or business units — by the proposed product or project. Often product or project justification exercises focus just on IT cost and cost reduction, leaving little room to analyze the effect of the technology on the entire organization. The TEI methodology and the resulting financial model place 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. Calculation of benefit estimates involves a clear dialogue with the user organization to understand the specific value that is created. In addition, Forrester also requires that there be a clear line of accountability established between the measurement and justification of benefit estimates after the project has been completed. This ensures that benefit estimates tie back directly to the bottom line.

Costs

Costs represent the investment necessary to capture the value, or benefits, of the proposed project. IT or the business units may incur costs in the forms of fully burdened labor, subcontractors, or materials. Costs consider all the investments and expenses necessary to deliver the proposed value. In addition, the cost category within TEI captures any incremental costs over the existing environment for ongoing costs associated with the solution. All costs must be tied to the benefits that are created.

Risk

Risk measures the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: 1) the likelihood that the cost and benefit estimates will meet the original projections, and 2) the likelihood that the estimates will be measured and tracked over time. TEI applies a probability density function known as “triangular distribution” to the values entered. At a minimum, three values are calculated to estimate the underlying range around each cost and benefit.

Flexibility

Within the TEI methodology, direct benefits represent one part of the investment value. While direct benefits can typically be the primary way to justify a project, Forrester believes that organizations should be able to measure the strategic value of an investment. Flexibility represents the value that can be obtained for some future additional investment building on top of the initial investment already made. For instance, an investment in an enterprisewide upgrade of an office productivity solution can potentially increase standardization (to increase efficiency) and reduce licensing costs. However, an embedded collaboration feature may translate to greater worker productivity if activated. The collaboration can only be used with additional investment in training at some future point in time. However, having the ability to capture that benefit has a present value that can be estimated. The flexibility component of TEI captures that value.

Appendix C: Glossary

Discount rate: The interest rate used in cash flow analysis to take into account the time value of money. Although the Federal Reserve Bank sets a discount rate, companies often set a discount rate based on their business and investment environment. Forrester assumes a yearly discount rate of 10% for this analysis. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult their respective organizations to determine the most appropriate discount rate to use in their own environments.

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.

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

Payback period: The breakeven point for an investment. The point in time at which net benefits (benefits minus costs) equal initial investment or cost.

Return on investment (ROI): A measure of a project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits minus costs) by costs.

A Note On Cash Flow Tables

The following is a note on the cash flow tables used in this study (see the example table below). The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1. Those costs are not discounted. All other cash flows in Years 1 through 3 are discounted using the discount rate (shown in Framework Assumptions section) at the end of the year. Present value (PV) calculations are calculated for each total cost and benefit estimate. Net present value (NPV) calculations are not calculated until the summary tables and are the sum of the initial investment and the discounted cash flows in each year.

Table [Example]

Example Table

Ref.	Category	Calculation	Initial cost	Year 1	Year 2	Year 3	Total

Source: Forrester Research, Inc.

Appendix D: Endnotes

¹ Forrester risk-adjusts the summary financial metrics to take into account the potential uncertainty of the cost and benefit estimates. For more information on Risk, please see Appendix B.