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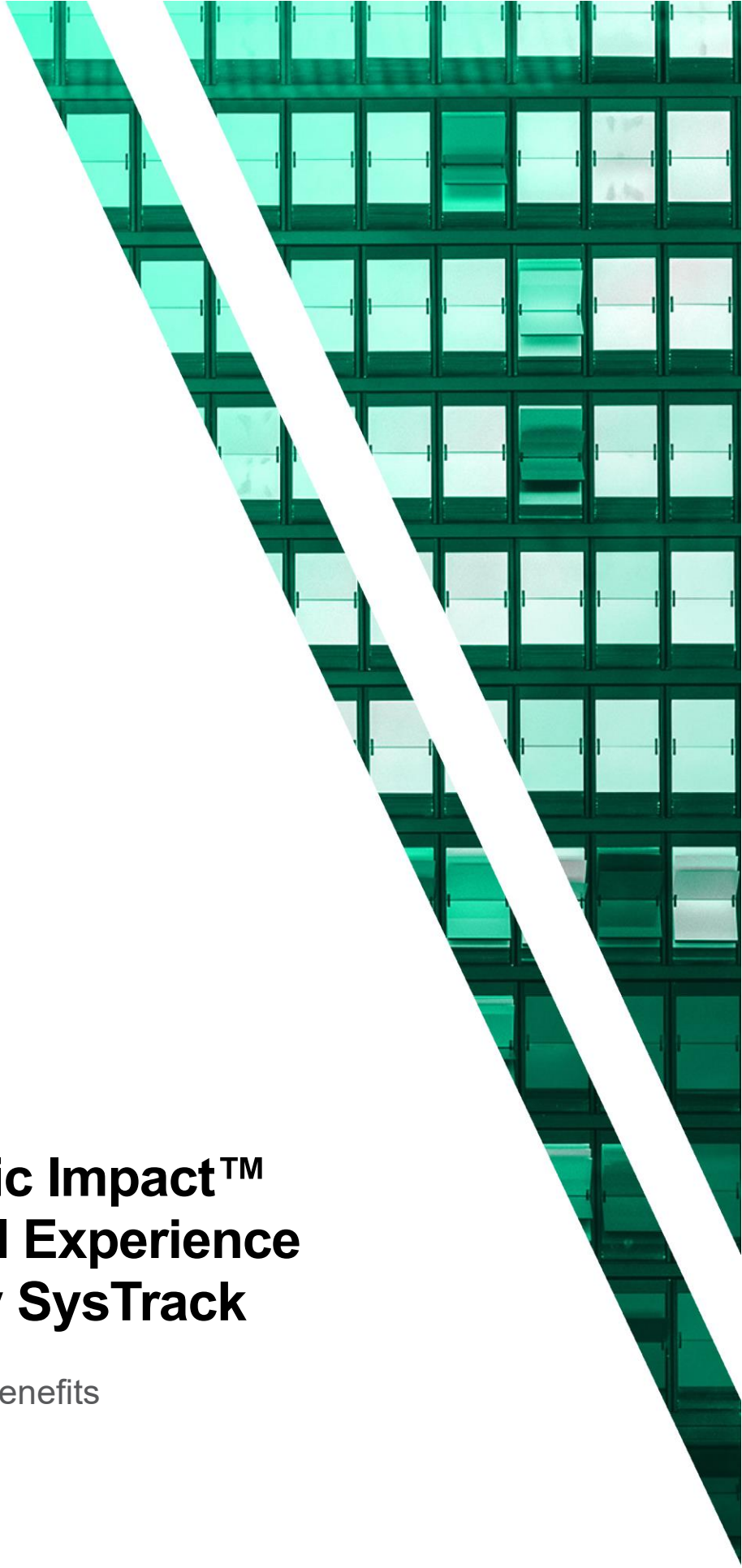

The Total Economic Impact™ Of Lakeside Digital Experience Cloud Powered By SysTrack

Cost Savings And Business Benefits Enabled By SysTrack

JULY 2022

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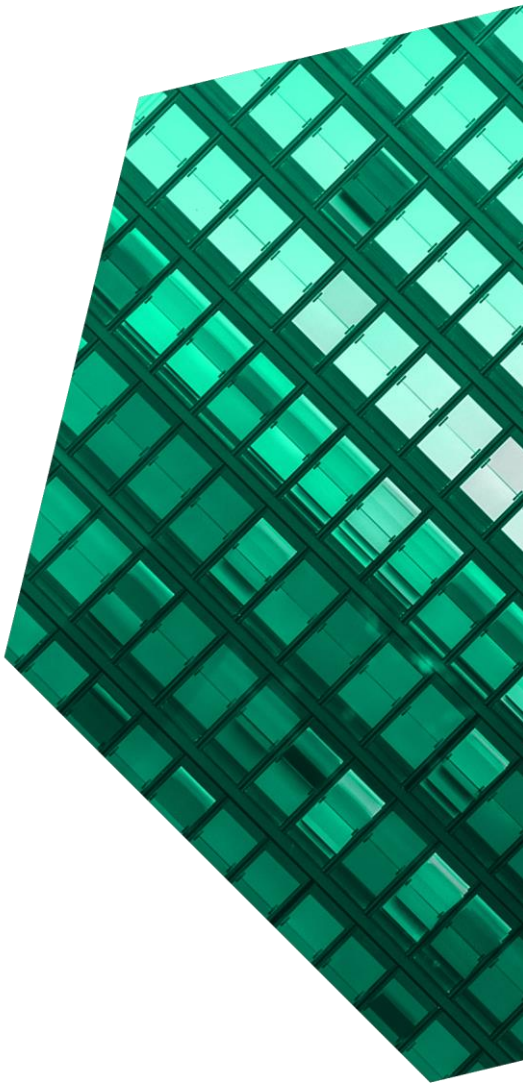
Consulting Team: Jonathan Whaling



ABOUT FORRESTER CONSULTING

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

Executive Summary

End-user experience management has become a critical solution for large organizations looking to optimize digital employee experience. Lakeside Digital Experience Cloud powered by SysTrack enables organizations to monitor and improve end-user performance metrics, leading to overall productivity enhancements of the workforce. The solution helps IT organizations resolve help desk incidents more quickly, reduce total number of incidents, and lower costs associated with hardware replacement.

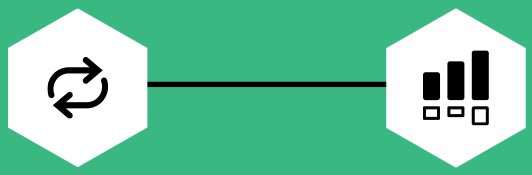
Lakeside Software's Digital Experience Cloud powered by SysTrack (SysTrack) is an end-user experience management (EUEM) solution that gathers and analyzes end-user device data on CPU, disk, memory, connectivity, and many other data points. In addition, SysTrack also collects telemetry on network and application performance. The data is analyzed by SysTrack and used by IT organizations to lower costs associated with asset replacement, end-user software licenses, help desk tickets and time-to-resolution (TTR), thereby improving employee productivity and satisfaction.

Lakeside commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying SysTrack.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of SysTrack on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four representatives with experience using SysTrack. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization that is a financial services organization with $10 billion in annual revenue and 30,000 employees.

Prior to using SysTrack, these interviewees noted that their organizations had little to no visibility into end-user device performance. Some collected data via disparate tools and attempted to analyze it in database or spreadsheet software. Help desk representatives had no real-time data on end-user devices to assist them in resolving tickets, which resulted in long resolution times and unnecessary costs for replacing devices. These issues led the organizations to seek a comprehensive solution that could gather endpoint data and analyze it in real time.

KEY STATISTICS



Return on investment (ROI)
259%

Net present value (NPV)
$10.60M

The interviewees said that after the investment in SysTrack, their organizations generated savings in asset replacement because the lives of some assets were extended. They also were able to reduce costs of end-user software by eliminating licenses that were not in use. More importantly, help desk ticket volume and mean-time-to-resolution (MTTR) was reduced, leading to increased employee satisfaction with IT. SysTrack monitoring led to improved application performance, contributing to greater employee productivity throughout the organizations.

KEY FINDINGS

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

- **Incremental savings in annual device replacement costs by reducing annual replacement from 25% to 23%.** By identifying devices still performing well, the composite organization generates $2.0 million in savings over three years by pushing these devices past their typical refresh periods.
- **Direct end-user software license reduction.** The SysTrack agent identifies unused and underutilized software licenses on devices, enabling the composite organization to reclaim them from end-user devices, resulting in $2.9 million of direct cost savings over three years.
- **Reduction of help desk tickets and faster TTR yielding time savings of more than 22,000 hours each year.** Through a combination of improved insights and automated remediations (i.e. scripts) the composite organization reduces ticket volume by 25% and MTTR by 50%. This results in a benefit of $2.6 million over three years.
- **Increased application efficiency of 4% across the entire estate.** SysTrack's ability to identify and correct memory and other environmental variables enables end-user applications to run more efficiently. For the composite organization, this widespread benefit translates to productivity improvements of $6.9 million over three years.
- **Avoidance of shipping laptops for repair and reimaging.** The composite organization's help desk can identify and resolve local device and connectivity issues more easily with SysTrack, thereby avoiding shipments of devices to/from central repair facilities. For the composite, these direct cost savings amount to more than $365,000 over three years.

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

- **Enhancing endpoint security.** SysTrack generates a lot of telemetry data to help provide insights on malicious attacks and breaches to security teams. It also provides insights into the impact that endpoint security agents have on overall end-user experience.
- **Solving difficult network support problems.** SysTrack data is used to help solve difficult network connectivity issues, saving weeks of investigation time.
- **Improving end-user satisfaction.** Before-and-after comparisons of satisfaction metrics for IT help desks and IT departments gain 15% to 20% improvements in ratings.

Costs. Three-year, risk-adjusted PV costs for the composite organization include:

- **Software license fees of $3.3 million.** Lakeside charges an annual per-device license fee of $33 per device for its software-as-a-service (SaaS) solution. For the composite organization with 40,000 devices, this cost totals $3.3 million.
- **Implementation costs of just more than $87,000.** This cost consists of fully burdened salaries for 1.5 FTEs during six months plus $8,000 in vendor advisory fees.

- **Administrative costs of just more than $728,000 over three years.** These costs include fully burdened salaries for 2.5 FTEs per year.

The representative interviews and financial analysis found that the composite organization experiences benefits of $14.7 million over three years versus costs of $4.1 million, adding up to a net present value (NPV) of $10.6 million, yielding an ROI of 259%.

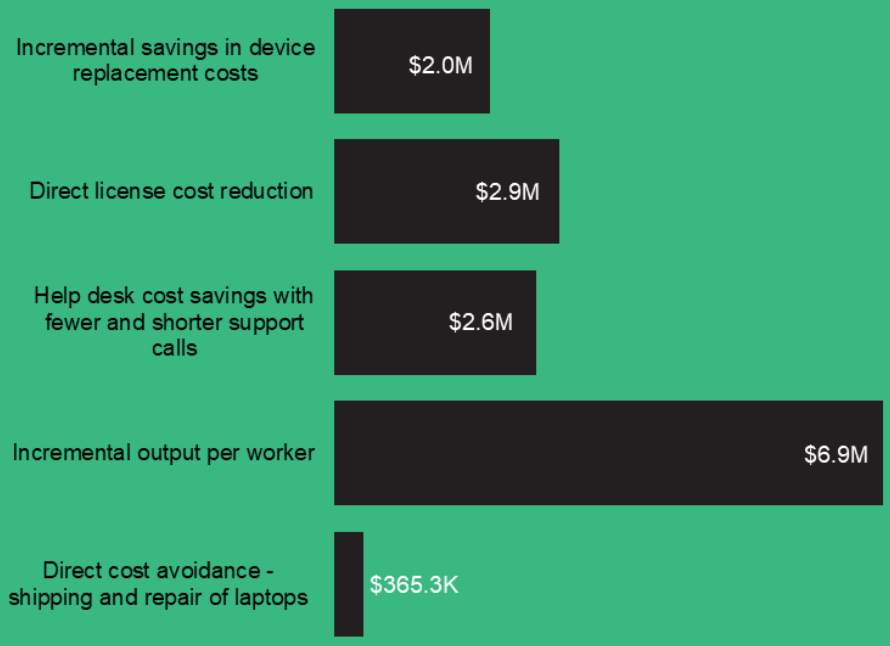
ROI
259%

BENEFITS PV
$14.70M

NPV
$10.60M

PAYBACK
<6 months

Benefits (Three-Year)



“There are very few products that I put my reputation on and say, ‘I 100% believe this is absolutely going to do what you want it to do the way you want it and how well you want it.’ This is one of those products.”

— IT manager, insurance

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 SysTrack.

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 SysTrack can have on an organization.

DUE DILIGENCE

Interviewed Lakeside stakeholders and Forrester analysts to gather data relative to SysTrack.

INTERVIEWS

Interviewed four representatives at organizations using SysTrack to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewees' 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 interviewees.

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.

The Lakeside SysTrack Customer Journey

Drivers leading to the SysTrack investment

Interviews			
Role	**Industry**	**Region**	**Endpoints**
Operations director	Financial services	Asia Pacific	110,000
IT manager	Insurance	United States	16,000
VP of consulting	Consulting services	Worldwide	5,000
CIO	Telecommunications	Worldwide	2,000

KEY CHALLENGES

Prior to implementing SysTrack, the interviewees' organizations lacked an end-user experience management system. Some used disparate software and hardware-monitoring tools from which they would extract log data to analyze and store in database software. Others had no tools at all.

The interviewees noted how their organizations struggled with common challenges, including:

- **Lack of visibility into the end-user environment.** Interviewees noted that prior to SysTrack, they had limited knowledge of software installed on end-user devices and overall performance of those devices. Any analysis of telemetry data was conducted after the fact, using manual methods. There was no real-time view into end-user device metrics.
- **Desire to improve end-user experience.** IT organizations that conducted end-user surveys on their help desks and overall support received subpar ratings. This was sometimes complicated by remote vs. onsite support, which have different views of end-user environments.
- **Difficulty resolving end-user problems.** Without clear visibility into end-user device environments, IT help desks sometimes could not resolve recurring user issues, resulting in frustration for users. A common occurrence of this was remote workers having connectivity issues that were beyond the control of IT departments.
- **Controlling end-user costs for devices and support**. A primary challenge for global organizations was tracking and controlling costs associated with end-user hardware and software. Hardware was often replaced on a standard lifecycle without evaluation of an individual asset's performance. Small, remote offices within large organizations often looked to establish support contracts with local IT suppliers, creating redundancies.

“In the beginning, we had a challenge understanding what was installed [and] getting eyes into the field. Then we went to virtualization. Concurrently, we found we could reduce some licensing costs. Then we wanted to understand how to improve the user experience. More recently, it’s been around the data and security components.”

VP of consulting, consulting services

SOLUTION REQUIREMENTS

The interviewees’ organizations searched for a solution that could:

- Understand end-user device health and collect more operational data on endpoints.
- Reduce service desk time-to-issue-resolution and reduce overall ticket volume through the use of automated scripts for routine device patches and upgrades.
- Reduce overall cost of software licenses and potentially extend the life of hardware assets.
- Improve end-user satisfaction with their PC environments and overall IT support.

The interviewees said that after a request for proposal (RFP) process and proof of concept phase with multiple vendors, their organizations chose SysTrack based on the following criteria:

- SysTrack features a cleaner, cloud-based user interface than competitive products.
- SysTrack collects more data types from endpoints, with more than 10,000 available out of the box.
- SysTrack embeds automation throughout the product to drive mass remediation of experience issues on endpoints and insight into the volume and severity of events.
- SysTrack offers built-in real-time PC health checks that can send out alerts to IT administrators and enable them to immediately conduct efficient root-cause analysis.
- SysTrack integrates well with many third-party software and hardware products, such as service management suites, virtual desktop platforms, and endpoint management tools.

COMPOSITE ORGANIZATION

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

Description of composite. This global financial services organization provides banking, investing, and lending services to a customer base of about 10 million customers and generates annual revenues of $10 billion.

Deployment characteristics. The composite organization has 30,000 employees around the world and monitors 40,000 endpoints using SysTrack. The majority of devices are laptops, but tablets are also deployed at some branches. The organization employs 200 help desk representatives across several regional centers that enable 24/7 support.

Key Assumptions

- **$10 billion revenue**
- **30,000 employees**
- **40,000 devices**
- **200 help desk reps**

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	Incremental savings in device replacement costs	$792,000	$792,000	$792,000	$2,376,000	$1,969,587
Btr	Direct license cost reduction	$1,062,000	$1,152,000	$1,242,000	$3,456,000	$2,850,654
Ctr	Help desk cost savings with fewer and shorter support calls	$982,125	$1,032,750	$1,084,590	$3,099,465	$2,561,222
Dtr	Incremental output per worker	$2,716,875	$2,798,381	$2,883,769	$8,399,025	$6,949,216
Etr	Direct cost avoidance - shipping and repair of laptops	$144,281	$147,060	$149,839	$441,180	$365,278
	Total benefits (risk-adjusted)	$5,697,281	$5,922,191	$6,152,198	$17,771,670	$14,695,957

INCREMENTAL SAVINGS IN DEVICE REPLACEMENT COSTS

Evidence and data. One of the primary benefits interviewees' organizations realized from SysTrack is an extension of asset life among end-user devices. The organizations tracked performance degradation over time to calculate PC health scores, then factored in user feedback on devices to determine the optimal time to replace. They were also able to compare hardware brands against each other to identify those that lasted longer. In some cases, organizations were able to extend the average life of end-user devices by 15% to 25%, thereby reducing total annual replacement costs. The primary end-user device was laptops, but some users were able to extend asset replacement savings to tablets and thin clients as well.

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

- Prior to using SysTrack, the organization replaced end-user devices on a four-year cycle, or 25% of the fleet each year.
- After implementing SysTrack, the organization extends the life of 40% of its fleet to five years. This results in 23% of devices replaced each year.
- The average cost of a new laptop is $1,100.

"There were some assets that we were able to elongate because we were able to tell the performance was still valid and we didn't need to refresh. We could show from a factual perspective that the performance was still sufficient."

VP of consulting, consulting services

Risks. The following factors can affect this benefit:

- Device replacement cycles may be shorter or longer than modeled for the composite.
- The cost of a standard laptop can vary.
- The percent improvement may be higher or lower based on laptop usage, environmental factors, and brand.

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 $2.0 million.

Incremental Savings In Device Replacement Costs

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of devices	Composite	40,000	40,000	40,000
A2	Cost per device	Composite	$1,100	$1,100	$1,100
A3	Prior device replacement each year	Interviews	25%	25%	25%
A4	New device replacement with SysTrack	Interviews	23%	23%	23%
At	Incremental savings in device replacement costs	A1*A2*A3 - A1*A2*A4	$880,000	$880,000	$880,000
	Risk adjustment	↓10%			
Atr	Incremental savings in device replacement costs (risk-adjusted)		$792,000	$792,000	$792,000
	Three-year total: $2,376,000		**Three-year present value: $1,969,587**		

DIRECT LICENSE COST REDUCTION

Evidence and data. Another common benefit realized by most of the interviewees' organizations was a significant reduction in software license expense. The organizations accomplished this by analyzing software usage through SysTrack to find specific users who were not using or underutilizing certain software packages. Once these applications were identified, an IT organization would reach out to managers to confirm employees were not using the software before removing it. The organizations commonly started with expensive, specialized tools and worked their way down to more common, widely used packages. In some cases, organizations were able to reduce overall annual software expense by 5% to 15%.

"Absolutely, we were able to reduce licensing by maybe 15% of our total licensing cost. We also found out some licenses were not in compliance, so we could bring those back into compliance and avoid penalties associated with that."

VP of consulting, consulting services

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

- A small percentage of users (2%) are found to be underutilizing advanced software, such as desktop publishing. The average cost of these packages is $1,100 per seat.
- A larger percentage of users (15%) are found to be not using less-expensive software tools such as project management, document management, and communications tools. The average costs of these packages are $50 per seat.
- Savings from license cost reduction increase each year as more tools are targeted for reduction or elimination.

Risks. The following factors can affect this benefit:

- The variety and costs of end-user software packages can vary widely among organizations.
- Policies and oversight governing user purchases of device software can vary among IT organizations.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $2.9 million.

Direct License Cost Reduction

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Number of assets	Interviews	40,000	40,000	40,000
B2	Percent of users saving $1,100 in licenses	Interviews	2%	2%	2%
B3	Percent of users saving $50 in licenses	Interviews	15%	20%	25%
Bt	Direct license cost reduction	B1*B2*1100+B1*B3*50	$1,180,000	$1,280,000	$1,380,000
	Risk adjustment	↓10%			
Btr	Direct license cost reduction (risk-adjusted)		$1,062,000	$1,152,000	$1,242,000
	Three-year total: $3,456,000		**Three-year present value: $2,850,654**		

HELP DESK COST SAVINGS WITH FEWER AND SHORTER SUPPORT CALLS

Evidence and data. Interviewees said another area their organizations targeted was help desk incidents. SysTrack enabled help desk technicians to observe individual device readings through a dashboard, rather than trying to troubleshoot with the user on the phone, resulting in reduced time to resolve tickets. SysTrack's automated scripts resolved low-priority incidents before they occurred. The organizations also created scripts and sent them out to users to resolve memory problems when they occurred. Interviewees reported 15% to 25% reductions in overall ticket volume and 25% to 75% reductions in MTTR across all help desk tickets.

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

- Of its 40,000 devices, 5% generate one help desk ticket per month (24,000 total per year).

- The composite organization reduces the number of tickets by 25% in Year 1, and this increases by 2.5% each year as more problems are resolved using automated scripts.
- The average time to resolve a help desk ticket is 90 minutes.
- The percent reduction in MTTR is 50%.
- All salary expenses include a 30% overhead burden rate to cover benefits and payroll taxes. Additionally, 3% annual increases are factored into each salary.

Risks. The following factors can affect this benefit:

- Help desk ticket volume can vary based on many factors surrounding the organization's environment, networks, devices, and end users.
- TTR for tickets also may vary based on self-help resources in place, severity of problems, and expertise of help desk technicians.

> **"Our MTTR has improved around 15% to 20%. That [translates to having fewer] help desk employees as well, because now [we] can process more tickets in less time."**
>
> *CIO, telecommunications*

- Salaries and burden rates may vary.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $2.6 million.

Help Desk Cost Savings With Fewer And Shorter Support Calls

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Prior number of support tickets annually	Composite	24,000	24,000	24,000
C2	Percent reduction in support tickets annually	Interviews	25%	28%	30%
C3	Average time per support contact before SysTrack (hours)	Interviews	1.5	1.5	1.5
C4	Percent reduction in time per support contact	Interviews	50%	50%	50%
C5	Total annual hours saved with SysTrack from avoided tickets and reduced TTR	(C1*C2*C3) + C1*(1-C2)*C3*C4	22,500	22,950	23,400
C6	Average fully burdened hourly salary for help desk technician	Composite	$31	$32	$33
C7	Average fully burdened annual salary for general employee	TEI standard	$35	$36	$37
C8	Productivity recapture	Composite	50%	50%	50%
Ct	Help desk cost savings with fewer and shorter support calls	C5*C6 + C5*C7*C8	$1,091,250	$1,147,500	$1,205,100
	Risk adjustment	↓10%			
Ctr	Help desk cost savings with fewer and shorter support calls (risk-adjusted)		$982,125	$1,032,750	$1,084,590
	Three-year total: $3,099,465		**Three-year present value: $2,561,222**		

INCREMENTAL OUTPUT PER WORKER

Evidence and data. SysTrack enables analysis of end-user devices to help with the efficiency of applications. This can be due to freeing up memory, operating in a more stable environment, and resolving incidents before they occur. Some interviewees reported their organizations saw up to 5% efficiency gains in application run times.

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

- SysTrack improves application efficiency primarily on the oldest devices in the fleet.
- The average efficiency gain is 4%.
- End users spend approximately 75% of their working time on their devices.
- Only 25% of the recaptured time is put to productive use.
- All salary expenses include a 30% overhead burden rate to cover benefits and payroll taxes. Additionally, 3% annual increases are factored into each salary.

Risks. The following factors can affect this benefit:

- Efficiency gains depend on the types of software in use along with the parameters of the configuration of devices.
- Average time on devices during the workday and productivity recapture rates may vary widely.
- Salaries and burden rates may vary.

Results. To account for these risks, Forrester adjusted this benefit downward by 25%, yielding a three-year, risk-adjusted total PV of $6.9 million.

> **“You can look at quantifying overall productivity improvement of an organization from a more stable environment and more consistent application experience that’s conservatively around a 5% productivity gain across the organization.”**
>
> *VP of consulting, consulting services*

Incremental Output Per Worker					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
D1	Number of workers	Composite	30,000	30,000	30,000
D2	Average fully burdened annual salary for general employee	C7	$70,000	$72,100	$74,300
D3	Percent of devices impacted	A4	23%	23%	23%
D4	Increase in application efficiency	Interviews	4%	4%	4%
D5	Average percent of time on device	Composite	75%	75%	75%
D6	Percent time recaptured	Composite	25%	25%	25%
Dt	Incremental output per worker	D1*D2*D3* D4*D5*D6	$3,622,500	$3,731,175	$3,845,025
	Risk adjustment	↓25%			
Dtr	Incremental output per worker (risk-adjusted)		$2,716,875	$2,798,381	$2,883,769
	Three-year total: $8,399,025		**Three-year present value: $6,949,216**		

DIRECT COST AVOIDANCE: SHIPPING AND REPAIR OF LAPTOPS

Evidence and data. Some interviewees said a final benefit their organizations realized was cost savings from a reduction in shipping of devices to a central repair facility when they could not be diagnosed and repaired remotely or through end-user interaction. This situation was particularly acute for organizations with remote workers during the COVID-19 pandemic, who often opened support tickets for internet connectivity issues. By using SysTrack, technicians were able to identify and resolve many more problems remotely or attribute internet connectivity issues to home networks, rather than to devices. One interviewee's organization was able to reduce shipments of devices for repair by 75%. This organization was also able to reduce its loaner device inventory by half.

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

- A small percentage of devices (1.5%) are returned each year for repair and reimaging, with 75% of these returns being avoided due to identification and/or resolution of problems remotely using SysTrack.
- The average cost to ship a device is $50 each way ($100 round trip).

> **"One of the biggest problems for [remote] employees, we find that 60% to 70% of the time their home network or home wireless is causing the issue. That stopped a lot of our history of 'We're going to just send you a new machine.'"**
>
> *IT manager, insurance*

- A desktop engineer spends 2.5 hours on average diagnosing and repairing a device (including reimaging time).
- Each end user spends 4 hours of time packaging their device for shipping and reconfiguring it upon return.
- Salary expenses include a 30% overhead burden rate to cover benefits and payroll taxes. Additionally, 3% annual increases are factored into each salary.

Risks. The following factors can affect this benefit:

- The organization's arrangement for PC repair facilities, including number and locations, may vary.
- Average time spent repairing and reimaging devices may vary.
- Salaries and burden rates may vary.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of $365,300.

Direct Cost Avoidance: Shipping And Repair of Laptops

Ref.	Metric	Source	Year 1	Year 2	Year 3
E1	Total devices	Composite	40,000	40,000	40,000
E2	Prior percent shipped for repair/reimage/replace each year	Interviews	1.5%	1.5%	1.5%
E3	Percentage of shipments avoided	Interviews	75%	75%	75%
E4	Average cost per PC shipment	Interviews	$100	$100	$100
E5	**PC shipping cost savings**	**E1*E2*E3*E4**	**$45,000**	**$45,000**	**$45,000**
E6	Time per image (hours)	Interviews	2.5	2.5	2.5
E7	Hours saved with reduced repairs/reimaging	E1*E2*E3*E6	1,125	1,125	1,125
E8	Average hourly salary per desktop engineer (fully burdened)	TEI standard	$39	$40	$41
E9	**PC repair/reimaging time savings**	**E7*E8**	**$43,875**	**$45,000**	**$46,125**
E10	Average hourly salary per average employee (fully burdened)	C7	$35	$36	$37
E11	**End-user setup time avoidance**	**E1*E2*E3*E10*4**	**$63,000**	**$64,800**	**$66,600**
Et	Direct cost avoidance: shipping and repair of laptops	E5+E9+E11	$151,875	$154,800	$157,725
	Risk adjustment	↓5%			
Etr	Direct cost avoidance: shipping and repair of laptops (risk-adjusted)		$144,281	$147,060	$149,839
	Three-year total: $441,180		**Three-year present value: $365,278**		

UNQUANTIFIED BENEFITS

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

- **Enhancing endpoint security.** The consulting organization in the study used SysTrack extensively for preemptively identifying incidents and potential data threats. The interviewee reported:
    - **Getting a clearer picture of security incidents.** Telemetry data gathered through SysTrack helped identify websites for blacklisting and malicious apps that were pulling data from user devices.
    - **Targeting shadow installations.** The organization used SysTrack to identify new software installs outside normal procurement procedures. This helped curtail shadow IT activities throughout the organization and reduced unapproved installs by 50%.
    - **Assisting evaluations of breaches.** When a breach did occur, forensic data gathered through SysTrack helped analysts reduce their forensic analysis from two to three weeks down to a matter of days.
- **Solving difficult network support problems.** Interviewees gave a few examples of how SysTrack helped solve difficult network problems. One was a case where numerous users were randomly disconnected from the organization's email server. By analyzing messaging server response time data from SysTrack, an analyst was able to pinpoint the problem to a specific server, and the network team found a flapping port that was dropping communication packets. This specific problem affected more than 500 devices.
- **Improving end-user satisfaction.** In addition to analyzing device-performance data, some interviewees' organizations also conducted end-user satisfaction surveys on help desk services and IT environments. Interviewees reported 15% to 20% improvements in these employee satisfaction ratings after implementing SysTrack. This helped one organization improve goodwill between IT and users.

"We have our standard security software installed, but [SysTrack telemetry] data adds another layer of visibility so we can detect different security incidents and look into the data to identify the scope and extent of the incident."

VP of consulting, consulting services

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**
Ftr	Software license fees (yearly)	$0	$1,320,000	$1,320,000	$1,320,000	$3,960,000	$3,282,645
Gtr	Implementation costs	$87,071	$0	$0	$0	$87,071	$87,071
Htr	Administrative costs	$0	$284,655	$293,213	$302,033	$879,901	$728,024
	Total costs (risk-adjusted)	$87,071	$1,604,655	$1,613,213	$1,622,033	$4,926,972	$4,097,740

SOFTWARE LICENSE FEES (YEARLY)

Evidence and data. Lakeside charges an annual per-device license fee for its SaaS solution. This fee is $33 per device for the composite, as provided by the vendor.

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

- The organization has 40,000 devices. At $33 per device, total license costs are $1.3 million per year.
- This organization can bring all end-user devices onto SysTrack in Year 1.

Risks. Licensing fees may vary by deal size.

Results. Because Lakeside priced the composite organization directly with Forrester, licensing costs have not been adjusted for risk, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $3.3 million.

Software License Fees (Yearly)						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
F1	Number of devices	Lakeside		40,000	40,000	40,000
F2	Percent of devices with SysTrack deployed	Interviews		100%	100%	100%
F3	Fee per device	Lakeside		$33	$33	$33
Ft	Software license fees (yearly)	F1*F2*F3	$0	$1,320,000	$1,320,000	$1,320,000
	Risk adjustment	0%				
Ftr	Software license fees (yearly) (risk-adjusted)			$1,320,000	$1,320,000	$1,320,000
Three-year total: $3,960,000			**Three-year present value: $3,282,645**			

IMPLEMENTATION COSTS

Evidence and data. The approach and timing of implementing SysTrack varied among the interviewees' organizations. Most assigned individuals or small teams to do the implementation. This consisted of downloading and installing agents on all devices, setting up the infrastructure, and training the IT team on the dashboards and metrics. The length of time ranged from three months to one year. Lakeside provided advisory services, usually for one to two weeks.

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

- The organization assigns two systems engineers (one 50% time and one 100% time) to manage the implementation for a period of six months.
- Lakeside provides the implementation services at a fee of $8,000.
- All salary expenses include a 30% overhead burden rate to cover benefits and payroll taxes. Additionally, 3% annual increases are factored into each salary.

Risks. The following factors can affect these costs:

- Salaries and burden rates may vary.
- Implementation advisory fees may vary by deal size.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $87,000.

Implementation Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
G1	Number of people	Interviews	1.5			
G2	Fully burdened annual rate per person for systems engineer	TEI standard	$99,900			
G3	Months to implement	Interviews	6			
G4	Implementation advisory services	Lakeside	8,000			
Gt	Implementation costs	G1*G2*G3/12 + G4	$82,925	$0	$0	$0
	Risk adjustment	↑5%				
Gtr	Implementation costs (risk-adjusted)		$87,071	$0	$0	$0
	Three-year total: $87,071		**Three-year present value: $87,071**			

ADMINISTRATIVE COSTS

Evidence and data. Interviewees' organizations typically allocated one full-time resource and two to four part-time resources to managing SysTrack. Their responsibilities included:

- Ensuring data is being sent properly to the servers.
- Ensuring servers are patched and that there are no security risks.
- Creating and sharing any data requirements of the endpoints with other support teams.
- Working on the development of use cases with the teams that request them.

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

- The organization assigns two systems engineers (100% time) and one senior systems engineer (50% time) to manage and support SysTrack on an ongoing basis.
- All salary expenses include a 30% overhead burden rate to cover benefits and payroll taxes. Additionally, 3% annual increases are factored into each salary.

Risks. The following factors can affect these costs:

- The number of resources assigned to SysTrack will depend upon the number of use cases and may vary over time.
- Salaries and burden rates may vary.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $728,000.

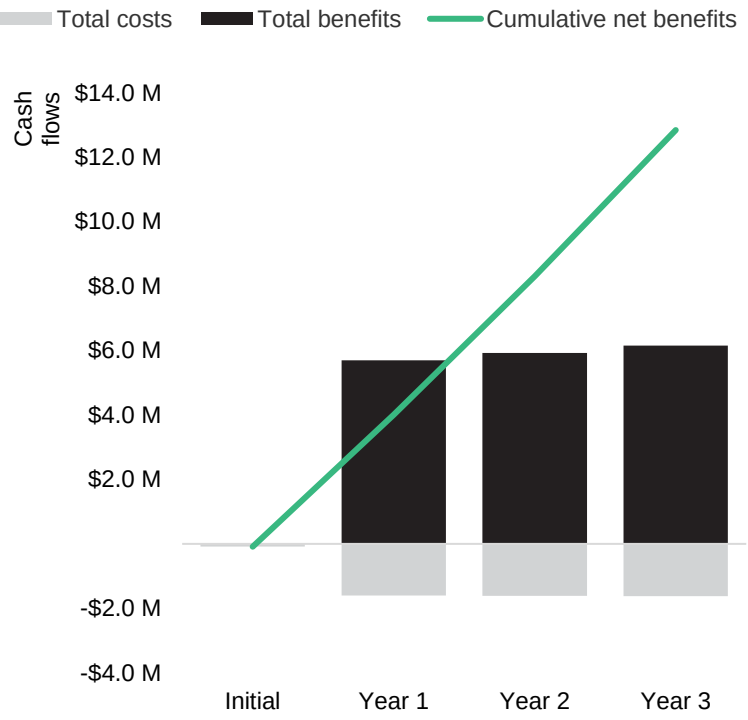
Administrative Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
H1	Number of systems engineers	Interviews		2.0	2.0	2.0
H2	Number of senior systems engineers	Interviews		0.5	0.5	0.5
H3	Fully burdened annual rate per person for systems engineer	TEI standard		$99,900	$102,900	$106,000
H4	Fully burdened annual rate per person for senior systems engineer	TEI standard		$142,600	$146,900	$151,300
Ht	Administrative costs	H1*H3+H2*H4	$0	$271,100	$279,250	$287,650
	Risk adjustment	↑5%				
Htr	Administrative costs (risk-adjusted)		$0	$284,655	$293,213	$302,033
	Three-year total: $879,901			**Three-year present value: $728,024**		

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, 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	($87,071)	($1,604,655)	($1,613,213)	($1,622,033)	($4,926,972)	($4,097,740)
Total benefits	$0	$5,697,281	$5,922,191	$6,152,198	$17,771,670	$14,695,957
Net benefits	($87,071)	$4,092,626	$4,308,978	$4,530,165	$12,844,698	$10,598,217
ROI						259%
Payback						<6 months

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."

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.

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

Appendix B: Supplemental Material

Related Forrester Research

"Now Tech: End-User Experience Management, Q2 2022," Forrester Research, Inc., May 13, 2022

"The Forrester New Wave™: End-User Experience Management, Q4 2020," Forrester Research, Inc., October 27, 2020

Appendix C: Endnotes

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