opentext™

Understanding the Total Cost of Ownership of Enterprise Integration Solutions

How leveraging Managed Services can help reduce integration costs

opentext™

Contents

opentext™

Executive Summary

Integrating and managing data is critical to supporting business processes within and between organizations, but the constant change of integration requirements and ever-increasing complexity of the integration environment can make managing this effort difficult to do. Managing and maintaining integration environments requires continuous investment in specialized technologies and skilled resources, as modern integration use cases span an increasingly diverse environment of on-premise and cloud integration end-points. These include a growing number of internal applications as well as external systems, such as those belonging to trading partners. All of which can result in escalating costs in areas such as: IT infrastructure and integration support teams; major periodic software upgrades and hardware updates; and annual hardware and software maintenance and support costs.

Proliferation of cloud applications combined with the often-overlooked diversity of trading partner and other external systems can make it challenging to accurately estimate these integration costs. Increasing process automation and business digitalization are not only spanning more systems, but also blurring the boundaries between previously distinct integration use cases which now require a holistic approach for managing the end-to-end processes.

Companies often underestimate the true time and cost involved, as it can be difficult to uncover and quantify all of the cost areas in the process, including any hidden costs. Hobson & Company, a research firm which focuses on Total Cost of Ownership (TCO) studies, worked with OpenText to help quantify the typical areas and magnitude of spend an organization incurs when managing integration requirements in today's complex business ecosystem. The objective was to understand the full breadth of cost areas that should be considered when evaluating whether a managed services approach to some or all integration needs can help organizations reduce their overall integration costs.

The goal of this white paper is to highlight examples of cost saving opportunities that can be realized by leveraging managed services. A key conclusion highlighted by the TCO analysis is that while technology alone can impact costs, primary consideration should be in optimizing costs related to people and processes.

Key Considerations for Integration Management

- Internal infrastructure support and administration team time, and integration support team time, are often significant, including not just the day-to-day management of the current programs but also the capacity needed to support future business growth.

- The annual hardware, software and infrastructure maintenance and support costs incurred when integration solutions are managed on-premises.

- The effort involved in the major periodic software and hardware upgrades that are required every 3–5 years on average, including not only the costs of new hardware components and software licenses, but also significant implementation team time.

- Managing integration operations efficiently while minimizing business disruptions and maximizing business agility to allow organizations to leverage growth opportunities.

Research consisting of in-depth interviews with existing customers found that OpenText's Managed Services could address customers' integration requirements while delivering measurable cost savings. The value of a managed services integration solution is immediate and demonstrable. A typical large enterprise can see cost savings of as much as $15M over seven years, while a mid-sized company could see savings of $9.5M. These savings represent a 65% and 56% reduction in total costs respectively.

opentext™

Key Considerations for Integration Management

Consideration 1:

Internal infrastructure support and administration team time, and integration support team time, are often significant, including not just the day-to-day management of the current programs but also the capacity needed to support future business growth.

When considering total costs of an integration management program one of the most significant annual costs, and one that is often not fully captured in cost analyses, is that of the skilled resources required. In order to manage the complexity and ongoing change in integration environments companies may have multiple teams, such as an infrastructure support & administration team and an integration support team, each with a number of people devoting some or all of their time to supporting the integration effort.

Beyond the day-to-day elements of their roles, these FTEs are often also required to monitor emerging trends in technology, determine what new technologies and upgrades need to be incorporated, test and become experts on those technologies, and then implement them, as these tasks are not always separately staffed. In addition, as organizations plan for future growth it can be expected that some increase in internal FTEs will be required to manage that growth as well. All of these costs can be significant and should be included when doing a TCO analysis of an organization's integration operations.

Customers interviewed noted that optimizing the allocation of internal resources was one of the most compelling reasons for exploring a managed services option. They also agreed that keeping their integration management programs fully in-house would have required the addition of anywhere from 3–5 FTE, including additional Database Administrators, Solution Architects, and full-time Mappers, to support future business growth.

Consideration 2:

The annual hardware, software and infrastructure maintenance and support costs incurred when integration solutions are managed on-premises.

An often-overlooked area of expense includes the annual hardware and software maintenance and support costs of managing integrations on-premises. These costs will typically range from 15%–25% of the original price of the hardware components and software licenses. In addition to these costs there are also key infrastructure costs incurred when remaining on-premises, including rent allocated on a portion of the data center, hosting, utilities, environmental costs, etc. In managed services these costs are included in the service subscription fees.

Customers noted that they incur these costs in a number of ways. Some customers were paying for items such as annual software fees directly, while others were assessed a cross-charge for using a portion of their organization's corporate vendor contracts, or a percentage of the organization's global hardware and data center costs, with costs ranging from $100K–$200K or more each year.

Consideration 3:

The effort involved in the major periodic software and hardware upgrades that are required every 3–5 years on average, including not only the costs of new hardware components and software licenses, but also significant implementation team time.

Managing integration solutions on-premises requires periodic hardware and software upgrades, even if the internal processes are already automated. On top

of updating initial hardware and software, additional components and licenses may need to be purchased to manage the expected growth in the business, and to keep up with changing standards and technology to ensure systems are always current.

When considering periodic upgrade/refresh costs, companies must include not only the costs of the hardware components and software licenses but also the cost of customization, installation, and testing, and the team time required to complete any new implementations. Implementation team time can be substantial when either building or expanding in-house solutions. This applies to both on-premises and cloud integration solutions. All members of the internal team are required to devote a significant amount of time to this effort, and outside resources such as external system integrators and consultants are often required as well, adding to the costs.

Customers interviewed reported that major periodic upgrades are one of the largest on-premise efforts, both in terms of cost and resource time required. They noted that the periodic software upgrades alone cost an average of $1.0M–$2.0M each time, with hardware refresh efforts adding another $50K–$200K every 3–5 years.

Consideration 4:

Managing integration operations efficiently while minimizing business disruptions and maximizing business agility to allow organizations to leverage growth opportunities.

Customers noted that in addition to the potential hardware, software, and technical resource cost savings that would result from moving to managed services, there would also be significant business benefits. These benefits could be seen in a number of areas, including: i) less time spent on tasks such as managing/processing purchase orders; ii) greater ease and speed with which new trading partners could be on-boarded; iii) increased speed to market; and iv) improved customer satisfaction as a result of fewer processing errors.

Especially those integrations that involved external systems—and therefore coordination with external stakeholders—were considered challenging. More than one customer commented that the time needed to on-board trading partners in particular could be extensive when this effort was managed in-house. Challenges included limited resources, customizations required to corporate platforms, and long time frames, six months or more, to add a trading partner. Customers have been able to increase the number of trading partners added per year by 3X–5X since outsourcing this work.

Customers interviewed also spoke of frustrations their customers had experienced when integrations were managed in-house, leading to reduced customer satisfaction levels and the risk of lost customer revenue. These frustrations were the result of issues such as the months it would take to get them set-up in the system, or errors such as orders getting stuck in the system with little visibility into why, or how long it would take to resolve the issue.

opentext™

Key Sources of Costs

Based on interviews with Managers and Directors at some of OpenText's existing customers, the cost savings of moving from in-house integration management to managed services fall into two main categories:

- Major Periodic Investments

- Annual Operating Expenses

Both of these areas can be further broken down into a set of specific costs. A sample of the costs for each are summarized below and will be more fully explained and supported in the following section.

Cost area	Specific costs
Major Periodic Investments	• On-premise Integration Tools—Software Upgrades • On-premise Integration Tools—IT Infrastructure Refresh • Implementation Costs • Internal Migration Efforts • External Integrators/Consultants
Annual Operating Expenses	• On-premise Integration Tools—Annual Software Costs • On-premise Integration Tools—Annual Hardware M&S • Cloud Integration Tools—Annual Subscription Fees • Internal Infrastructure Support and Administration Resources • Internal Integration Resources

Major Periodic Investments

On-Premise Integration Tools—Software Upgrades

Major periodic software upgrades are one of the significant time and cost investments incurred when integration solutions are managed on-premises, often affecting multiple different software types, including:

- Integration Software

- Additional Middleware

- Database Software

- Operating System Software

Moving to managed services results in significant cost savings as the need for these periodic on-premise software upgrades is eliminated. When considering such a move, organizations should include not just the cost of the software upgrades themselves, but also the time and resources needed to complete the work. The scope of this work can consume internal and external resources for 3–5 months or more, and can also impact end users and business processes, potentially risking some disruptions as the upgrades are implemented.

"When integrations were managed in-house the periodic software upgrades cost an average of $1.5M–$2.0M each time."

Solutions Director

opentext™

> **"It used to cost an average of $6K–$10K per server, for a total of about $150K, to complete a hardware refresh every 5 years."**
>
> Solutions Director

On-Premise Integration Tools—IT Infrastructure

While software upgrade costs are normally factored into cost analyses, future hardware refresh needs must be included as well. On average hardware needs to be refreshed every 3–5 years in an on-premises solution, a cost not incurred when outsourcing to a managed services provider as this cost is absorbed in their fees. Costs can include many hardware components:

- Computing Hardware
- Storage and Back-up Hardware
- Network Hardware
- Security Infrastructure

These costs may be incurred directly, or in the form of a cross-charge against the organization's centralized data center costs, but in either case should be considered when assessing a move to managed services.

Cloud Integrations and Increasing Complexity

Staying in-house can also require periodic cloud integration implementation/migration costs and effort as organizations add more cloud-based integration solutions, such as iPaaS integration tools. Rapid adoption of digital technology has led to a proliferation of applications and data sources, both on-premise and in the cloud. This includes legacy applications with mission critical data, industry applications and cloud-based business applications, each with different data storage, extraction and consumption needs. Moving to managed services eliminates the complexity of managing these integrations and future-proofs organizations from the ongoing changes in integration requirements across data and application ecosystems.

Annual Operating Expenses

On-Premise Integration Tools—Annual Software Maintenance and Support (M&S)

When considering software costs organizations should include not just the costs of periodic software upgrades and new licenses, but also the annual support and maintenance fees. These would include not just the integration software but also any additional middleware, database software, operating system software and more. These costs may be incurred directly, or as a percentage of an organization's global contracts, and are costs which would be eliminated with a move to a managed services provider.

On-Premise Integration Tools—Annual IT Infrastructure Maintenance and Support (M&S)

Infrastructure hardware maintenance costs can sometimes be difficult to carve out, as components such as production servers, non-production servers, storage and backup hardware, and security infrastructure can often be housed in centralized data centers. However, this does not mean budgets are not cross-charged for a portion of their use. As such, organizations should consider these charges when assessing the value of a move to managed services, as they would be largely eliminated.

opentext™

Infrastructure Support & Administration

In most organizations there is a core group of IT staff that support the on-premise systems. These resources can include roles such as:

- IT Managers

- Application Managers

- Database Administrators

- Security Teams

- Network Administrators

- Network Operations Center Staff

Migrating to managed services will not eliminate this group, as they may be shared resources. There are also certain tasks such as testing that would not go away, but less of their time would need to be devoted to supporting integration efforts, freeing up their capacity to focus on other priority work. This added organizational capacity is a value that can be quantified and should be factored into any TCO calculations.

"We would easily need another 3–4 FTE in the integration management group without OpenText's Managed Integration Services."

Integration Program Manager

Integration Resources

One of the biggest in-house costs when assessing the total cost of an integration solution, whether on-premises or cloud, is all of the different roles that are part of the ongoing integration management teams internally, namely:

- Program Managers

- Business Analysts

- Integration Developers

- Mappers

- Solution Architects/Application Specialists

- Data Management Teams

- User Support

Moving to managed services would not eliminate all of these roles but the time commitment to support integration efforts would be significantly less. When assessing the cost savings associated with this reduction in internal effort, calculations should include not only current staffing levels but also consider future staffing needs. In a growing organization it would be expected that additional staff would have to be brought on if management of the integration solutions were to remain in-house, added resources that would not be required if the integration management effort is outsourced instead.

opentext™

"Have increased the number of trading partners brought on per year by 5X, and in addition have reduced the risk of losing existing customers due to system issues and dissatisfaction."

IT Director

Strategic Considerations

While not included in the TCO case studies presented in this white paper, it is also important to consider the impact that moving to managed services can have on an organization's business processes, revenues, and level of customer satisfaction. This is particularly true in areas such as new trading partner onboarding, the management/ processing of purchase orders, and being able to integrate new business tools and solutions more quickly. The customers interviewed noted that they've been able to significantly increase the number of trading partners that can be brought on, as many as 3X–5X more per year, with the move to OpenText's Managed Services. They also have more visibility into the system now, allowing them to quickly catch items that get stuck and pro-actively let their customers know of issues, helping improve customer satisfaction levels.
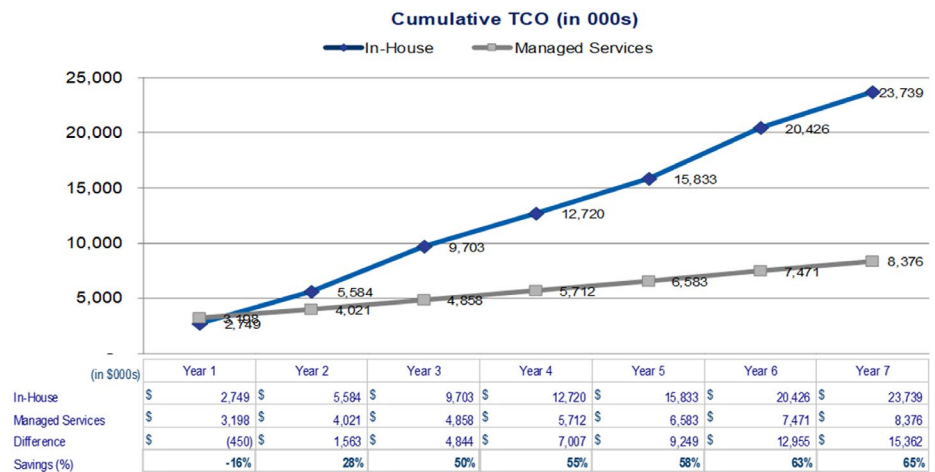
Sample Case Study: Large Enterprise (annual revenue $1B–$2B)

The following TCO example illustrates the potential cost savings for a large enterprise when moving from an in-house integration solution to OpenText's Managed Services, with the following key operational inputs and costs:

| Key cost element	Input
Major Periodic In-House Investment	
On-premise Integration Tools (e.g. ESB, B2B gateway, or other integration middleware)	
• Software Upgrades (every 3 years)	$585,000
• IT Infrastructure (refresh/upgrade every 3 years)	$127,500
• Implementation Costs	$193,600
Cloud Integration Tools (e.g. iPaaS)	
• Cloud Migration—Internal Effort (internal SMEs)	$172,800
• Cloud Migration—External System Integrators/Consultants	$115,200
Annual In-House Operating Expenses	
Software (annual maintenance and support)	$117,000
IT Infrastructure (annual maintenance and support)	$50,500
Cloud Integration Tools (annual subscription fees)	$43,200
Infrastructure Support & Administration (annual FTE costs)	$504,725
Integration Resources (annual FTE costs)	$2,063,200
OpenText Managed Services Costs	
OpenText Implementation (one-time upfront costs)	$500,000
Internal Effort (customer resources needed during transition)	$100,000
Annual OpenText Platform Subscription & Services Contract	$300,000
Infrastructure Support & Administration (annual costs for internal FTE effort post-OpenText)	$296,864
Integration Resources (annual costs for internal FTE effort post-OpenText)	$466,050

opentext™

Overall Costs: Large Enterprise (annual revenue $1B–$2B)

For the sample company, the total costs to remain in-house over seven years were $23.7 million. The total costs to move to the OpenText Managed Services were $8.4 million. The costs were calculated based on the sample company's existing in-house costs, both annual expenditures and periodic upgrades, and assumed a $300K annual investment if they were to move to the managed services integration offering. Cost savings are realized early in the second year, as the initial cost of the OpenText program is offset by savings in areas such as hardware, software, and the reduction in FTE resources needed.

Cumulative TCO (in 000s)

(in $000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
In-House	$ 2,749	$ 5,584	$ 9,703	$ 12,720	$ 15,833	$ 20,426	$ 23,739
Managed Services	$ 3,198	$ 4,021	$ 4,858	$ 5,712	$ 6,583	$ 7,471	$ 8,376
Difference	$ (450)	$ 1,563	$ 4,844	$ 7,007	$ 9,249	$ 12,955	$ 15,362
Savings (%)	-16%	28%	50%	55%	58%	63%	65%

The chart below shows the extent to which each of the key cost areas contributes to the total costs of both the in-house and the OpenText solutions. The savings of moving to managed services are significant, with the cost of the internal integration resources alone to remain in-house ($15.6 million over seven years), exceeding the total costs of the OpenText solution ($8.4 million over seven years).
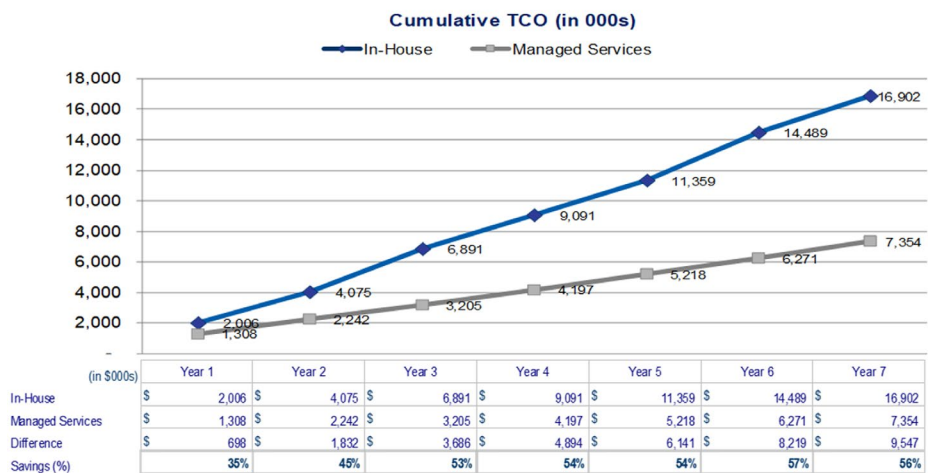
Costs by Category (in 000s)
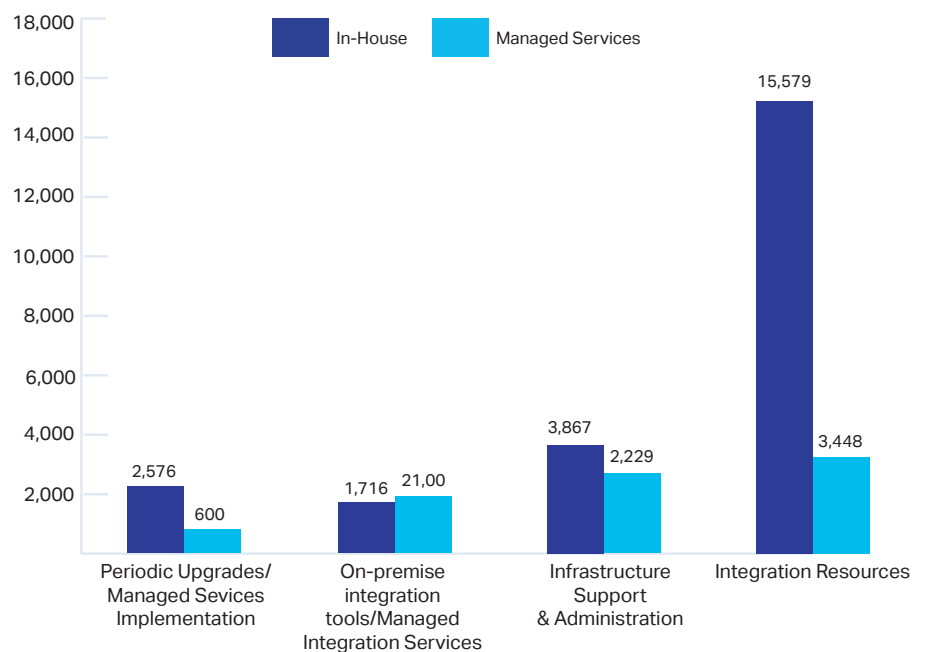
opentext™

Sample Case Study: Mid-Size Company (annual revenue $500M–$1B)

The following TCO example illustrates the potential cost savings for a mid-size organization when moving from an in-house integration solution to OpenText's Managed Services, with the following key operational inputs and costs:

| Key cost element	Input
Major Periodic In-House Investment	
On-premise Integration Tools (e.g. ESB, B2B gateway, or other integration middleware)Software Upgrades (every 3 years)	
• Software Upgrades (every 3 years)	$190,000
• IT Infrastructure (refresh/upgrade every 3 years)	$147,500
• Implementation Costs	$172,800
Cloud Integration Tools (e.g. iPaaS)	
• Cloud Migration—Internal Effort (internal SMEs)	$115,200
• Cloud Migration—External System Integrators/Consultants	$57,600
Annual In-House Operating Expenses	
Software (annual maintenance and support)	$38,000
IT Infrastructure (annual maintenance and support)	$54,500
Cloud Integration Tools (annual subscription fees)	$25,920
Infrastructure Support & Administration (annual FTE costs)	$677,950
Integration Resources (annual FTE costs)	$1,227,650
OpenText Managed Services Costs	
OpenText Implementation (one-time upfront costs)	$300,000
Internal Effort (customer resources needed during transition)	$100,000
Annual OpenText Platform Subscription & Services Contract	$164,200
Infrastructure Support & Administration (annual costs for internal FTE effort post-OpenText)	$403,650
Integration Resources (annual costs for internal FTE effort post-OpenText)	$353,925

opentext™

## Overall Costs: Mid-Size Company (annual revenue $500M–$1B)

For the sample company, the total costs to remain in-house over seven years were $16.9 million. The total costs to move to the OpenText Managed Services were $7.4 million. The costs were calculated based on the sample company's existing in-house costs, both annual expenditures and periodic upgrades, and assumed a $164K annual investment if they were to move to the managed services offering. Cost savings are realized even in the first year, as the initial cost of the OpenText program is already offset by savings in areas such as hardware, software, and the reduction in FTE resources by the end of Year 1.

Cumulative TCO (in 000s)

In-House ◆ Managed Services ▪

(in $000s)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
In-House	$ 2,006	$ 4,075	$ 6,891	$ 9,091	$ 11,359	$ 14,489	$ 16,902
Managed Services	$ 1,308	$ 2,242	$ 3,205	$ 4,197	$ 5,218	$ 6,271	$ 7,354
Difference	$ 698	$ 1,832	$ 3,686	$ 4,894	$ 6,141	$ 8,219	$ 9,547
Savings (%)	35%	45%	53%	54%	54%	57%	56%

The chart below shows the extent to which each of the key cost areas contributes to the total costs of both the in-house and the OpenText solutions. The savings of moving to managed services are significant, with the cost of the internal integration resources alone to remain in-house ($9.3 million over seven years), again exceeding the total costs of the OpenText solution ($7.4 million over seven years).

Costs by Category (in 000s)

In-House ■ Managed Services ■
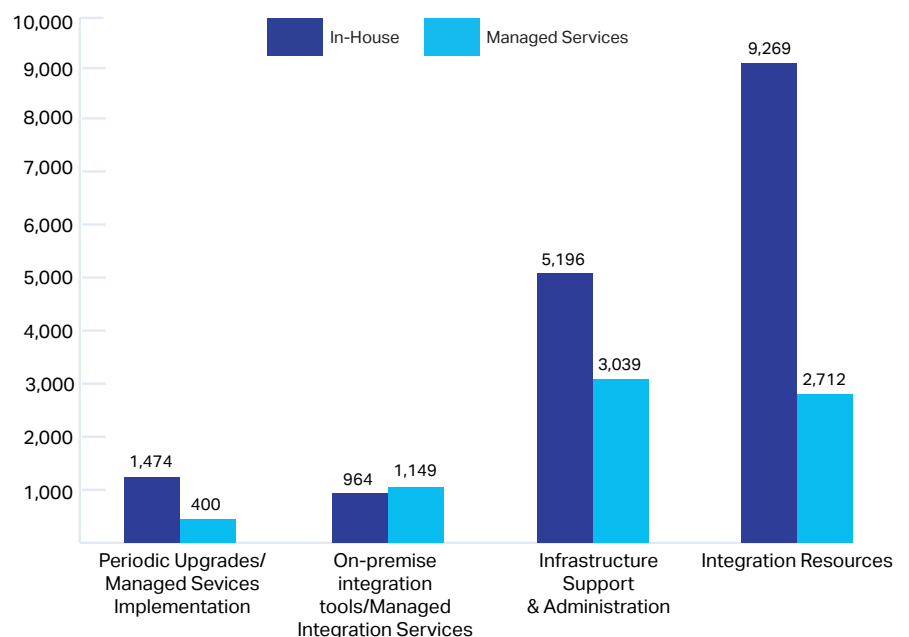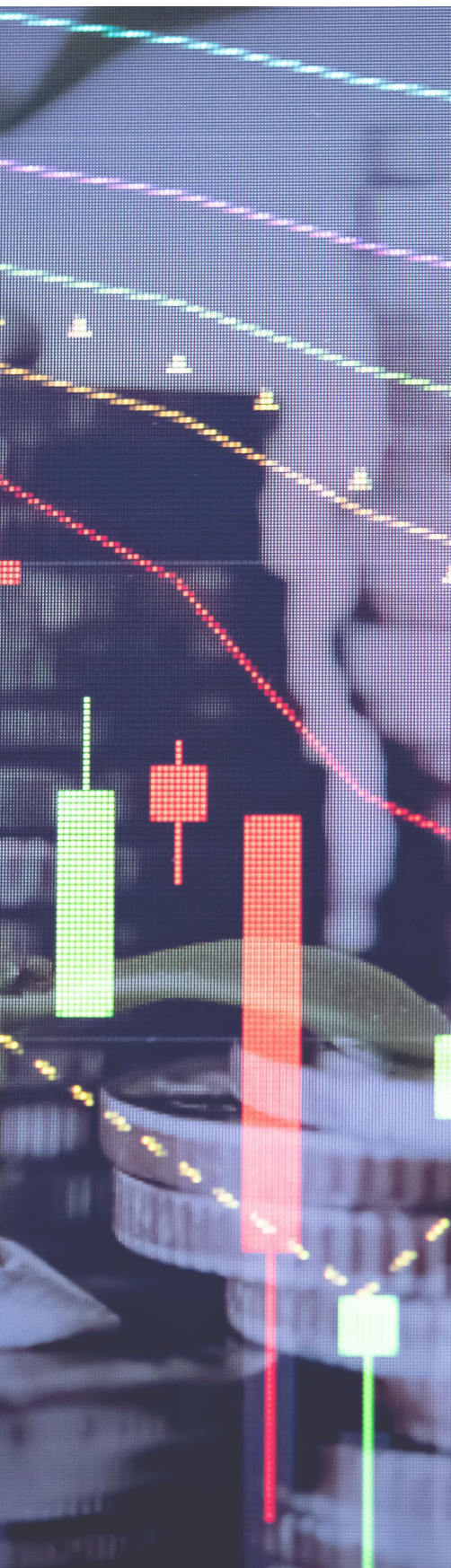
Conclusion

When analyzing the Total Cost of Ownership of their integration solutions, organizations should thoroughly evaluate both apparent and hidden software and hardware costs of their integration tools. Even more importantly, they should also accurately account for the costs related to implementing, supporting, maintaining, updating and growing their integration environments. Based on the findings in this paper, integration resourcing costs represent a majority of overall integration costs, accounting for 65.6% and 54.8%, respectively, of total costs over the seven-year period covered in the two case examples.

Since a majority of costs relate to the different types of integration and support work performed by the various teams involved, optimally utilizing the right skills in the right places has a profound impact on costs—as do the processes defined to govern allocation of resources and collaboration within and across teams. Efficiency can of course be developed in-house but as the two case examples demonstrate, a managed services approach to integration offers an alternative that can potentially deliver immediate and significant cost reductions in integration operations. In the two case examples the economies of scale and on-demand resourcing of managed services amounted to respective savings of 65% and 56% of the overall costs over seven years, when compared to in-house integration delivery.

The findings presented in this paper encourage IT organizations to evaluate their integration costs holistically and consider managed services as a cost-effective option to extend in-house integration capabilities. As developments like proliferation of cloud applications and growing diversity of integration end points are pushing the limits of current integration capabilities, performing a thorough evaluation periodically is becoming increasingly important.

OpenText Managed Services

About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on-premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit: opentext.com.

Connect with us:

- OpenText CEO Mark Barrenechea's blog
- Twitter │ LinkedIn

About Hobson & Company

Hobson & Company helps technology vendors and purchasers uncover, quantify and validate the key sources of value driving the adoption of new and emerging technologies. Our focus on robust validation has helped many technology purchasers more objectively evaluate the underlying business case of a new technology, while better understanding which vendors best deliver against the key value drivers. Our well researched, yet easy to use ROI and TCO tools have also helped many technology companies better position and justify their unique value proposition. For more information, please visit www.hobsonco.com