



# Impacts and Improvements: Optimized Sourcing in Hybrid IT Environments

An ISG Research Report

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The research and analysis presented in this report includes research from ongoing ISG research programs, including our global survey and interview work with user enterprise business and IT leaders, briefings with providers, and analysis of publicly available market information from multiple sources.

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## Changing Business, Changing IT, Changing Sources

Where, how, why and from whom enterprises source IT capabilities has changed forever. Unfortunately, too many businesses still manage their IT infrastructure, providers, services and sources as they did in previous generations. Smart companies are rethinking how they source and manage IT to reduce complexity, mitigate risk and manage costs of increasingly hybrid-cloud-plus-traditional IT environments.

“We’re starting at the beginning,” the CIO of a Fortune 1000 investment bank told ISG. “First, we had to realize that most of what we know and believe about cloud and the changing nature of IT and business is probably at least 12 months old, and therefore outdated and likely wrong,” he stated. “We work very hard to catch up and stay abreast [of these changes], but the scale and pace today are beyond almost everyone’s ability, except the providers. So, we’re turning more and more to our services providers to help us manage and optimize our business. They already know how to deal with the scope and pace of change.”

This research paper draws on ISG’s work with hundreds of organizations to explore the following:

- How and why this multiple-sourced, hybrid IT and business reality is developing and accelerating,
- How to recognize critical, often unanticipated IT needs that increase costs and compromise operations, and
- How to harness managed services that optimize these hybrid environments for peak infrastructure demands and business effectiveness.



*We are very rapidly evolving toward [integrative] sourcing for all our business and IT services. Cloud-delivered IT and business services are a prime factor motivating this — we need to get a handle on this hybridized environment, soon — or it’s going to cost us.*

*- CTO, \$5B US-based aerospace systems manufacturer*

## Understanding Hybrid IT and Business Realities

The greatest influence on IT today is cloud computing. Everything from infrastructure to platforms, to software, to business processes are being sourced and delivered as services. The relative affordability, scalability and reach of cloud-based services have catalyzed simultaneous growth and diversity with mobile, social and collaborative IT within and between organizations and markets. The rapidly increasing adoption and use of these capabilities has changed how, why, where, when and from whom companies acquire and manage technology and services.



*“Different groups or departments typically source IT or business services on their own, and have been for decades — hence we now have complex and ungainly hybridized environments for IT and business everywhere in our organization and in our supply chain.”*

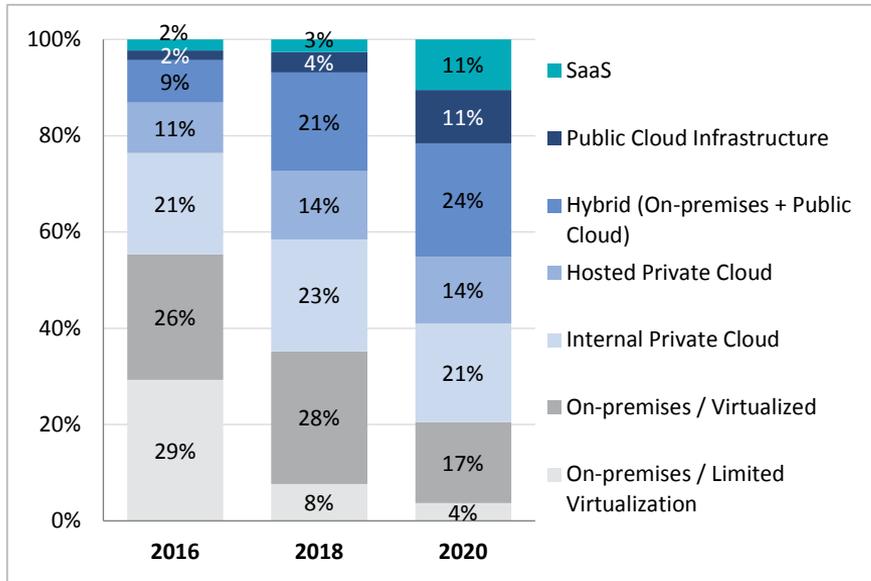
*- COO, multi-national business services and consulting provider*

It also has helped reshape IT and business environments globally into more complex ecosystems of hybrid solutions and services from multiple providers – including services that bridge multiple cloud-based and on-premises technologies, systems and operations. Properly managed, such hybrid environments can optimize IT use and enable significant business advantage. However, the reality is that few such hybrid environments are optimally managed.

Multi-vendor, multi-technology hybrid environments have existed for decades. But widely available, useful and initially inexpensive cloud-based resources have set off a virtual explosion of solutions and sources for all manner of IT and business needs. Now cloud-based infrastructures are increasingly preferred for most business IT. Figure 1 uses data from ISG’s global IT buyer research to show how large-enterprise IT and business executives see their application workload portfolios shifting to cloud.

**Figure 1: Enterprise IT Infrastructure Expectations Through 2020**

**Q** From the following list, please select one profile per year that best describes the operational environment for your company's IT workloads today, and how your environment will evolve by 2018 and 2020.

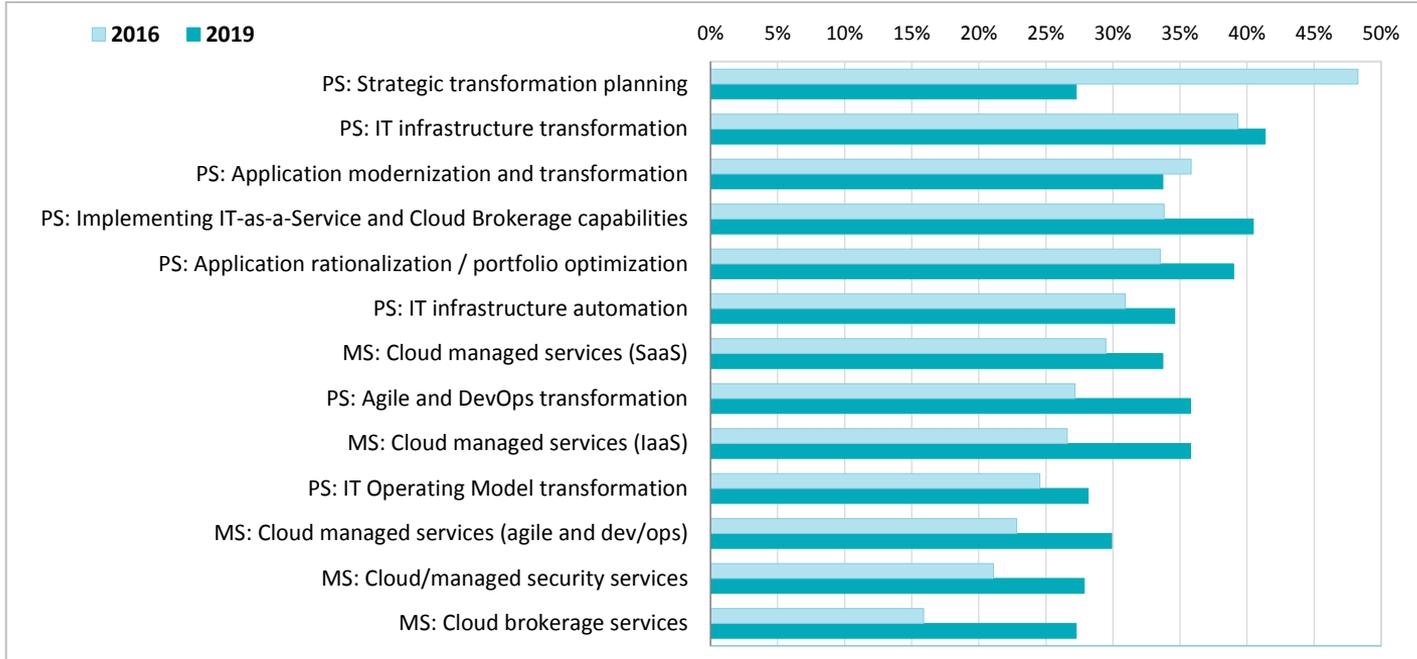


Source: ISG Insights™ Global Digital Platform Survey, July 2016, n=352

Not only is the use of cloud-based IT growing rapidly, its presence and use across swathes of enterprise business and IT portfolios is accelerating. We also see that not everything will be moved to cloud. Given the percentages indicated in Figure 1, hybrid environments will be the norm for many years to come. Workloads that are tightly coupled with legacy databases or those that would require large redevelopment efforts will likely remain on traditional infrastructures. This shapes buyer preferences not only for types of IT and business services, but also for managed services. Figure 2 uses ISG Insights survey research to illustrate the degree to which buyers' appetites for services will grow over the next several years.

**Figure 2: Growth in Consumption of Professional & Managed Services**

**Q** Please identify all the Professional Services (PS) and Managed Services (MS) you are using today and plan to use through 2019.



Source: ISG Insights™ Global Digital Platform Survey, July 2016, n=352

## Why Optimize Sourcing for Hybrid Situations?

Traditionally, the costs of IT and business systems or services have been organized according to departments, business workloads, processes and tasks. Hybrid environments considerably complicate this cost and management model.

*ISG research indicates that the scope of differences inherent in most current hybrid environments can double sourcing or procurement costs.*

Just by considering the number of vendor contracts and contacts in a typical cloud-enabled, mobile-plus-social-plus-collaborative business environment, it is easy to see how the widespread adoption and use of disparate (and often, redundant) solutions and providers can increase the challenges and costs of managing IT.

The potential scope of this increase is substantial. ISG research indicates that the scope of differences inherent in most current hybrid environments can double sourcing or procurement costs.

This is due not only to redundancies and similar inefficiencies, but also to the fact that new types of solutions and providers simply don't fit within most traditional sourcing guidelines, policies and practices.

Consider that most IT organizations have substantial experience evaluating and acquiring servers, storage, networks, software, data integration tools and professional services contracts. A single services-enabled solution today may consist of all of these components and be acquired or used as an integrated solution that spans and blends multiple intra- and inter-group functionalities and responsibilities within an enterprise's IT organization.

- ? How can traditional IT organizations effectively evaluate these offerings, usage and related costs?
- ? How can they take advantage of coordinating all such services into a cohesive working environment?
- ? Just as importantly: how can traditional IT organizations identify, evaluate, select and manage the best-suited providers of such composite solutions?

Enterprise IT is striving to adapt, but it is a laborious process that frustrates users who want things to be done in an agile way at an accelerating pace for faster development or innovation. As the head of one large enterprise IT organization recently explained to ISG, “We evaluate every acquisition with a strategic view, but it takes time – sometimes as long as 18 months.”

This raises the specter of frustration with corporate IT procurement, a prime factor driving cloud adoption outside of established sourcing structures. This approach, often called “shadow IT,” further complicates IT and business planning, forecasting and budgeting, due in no small part to the costs of corralling and managing what necessarily becomes an unplanned, jumbled mix of assets and contracts.

A further area of cost – or potential loss – due to sub-optimized sourcing in hybrid environments is that of business opportunity. Hybrid IT resources and operations enable new ways of doing business, new markets in which to do business and even entirely new businesses. “Business agility” and “innovation” are terms frequently used to describe the benefits of using cloud-based capabilities. But time, money and opportunities are perishable and quickly disappear in the increasingly convoluted environment of under-coordinated and overly-complex solutions that have been sourced from a disparate array of suppliers with inconsistent contractual commitments and support provisions.



## The CFO's Best Interests

Finance leaders need to be intimately involved in efforts that address sourcing and management of enterprise hybrid IT and the business since these have substantial implications on cost and value of finance and sourcing.

For example, when hybrid sourcing management is kept in-house, Finance will need to work directly with providers to establish and improve relationships and to understand, negotiate and manage a diversity of pricing, billing and payment plans and options. These payment plans and options likely differ significantly between traditional and cloud-based solutions and providers. And they will likely affect enterprise accounting and budgeting differently.

When sourcing for hybrid environment is trusted to a reliable and proven partner, the finance leadership and organization remain responsible for these same objectives. However, Finance can delegate and rely on the trusted provider to coordinate and manage these responsibilities – according, of course, to policies and guidelines established and enforced by the Finance organization upon the provider – freeing its own resources to concentrate on enabling business innovation and value.



*Finance can delegate and rely on the trusted provider to coordinate and manage these responsibilities, freeing its own resources to concentrate on enabling business innovation and value.*

## Partnering to Optimize

The hybrid IT and business reality includes balancing the identification, procurement and management of a changing mix of technologies, applications, services and providers with changing business needs, capabilities, newer markets, roles and operations.



*My organization manages all evaluations of vendors and solutions. We do the evaluations with a long-term strategy in mind. We avoid many issues. But each evaluation is lengthy, sometimes as long as 18 months.*  
- CIO/CTO, U.S.-based business services firm

More than 70 percent of the user enterprises ISG works with begin by blazing a “self-serve” path. But almost all of those find within a year that blazing such a trail is an inefficient use of significant resources. This happens because these attempts are often the first comprehensive efforts at identifying, coordinating and consolidating the new mélange of resources and sources. As noted earlier, these efforts require new skills, new organizational structures, new procurement practices, and new finance and compliance models and policies.

A preferred option for most is to outsource the sourcing. In most cases, we suggest this approach as the most time- and cost-effective means of benefiting from hybrid environment. This approach enables IT organizations and leaders to better anticipate and innovate by:

- Optimizing the use and value of in-house staff resources to focus on core business;
- Enabling and realizing economies of scale that otherwise would be difficult or impossible to attain – especially when it comes to the changing and growing skills and systems required, which often must be developed or acquired, and then managed;
- “Future proofing” sourcing in a progressively complex hybrid environment by enabling the use of emergent or future technologies, skills and other capabilities, even as needs change – in effect, enabling long-term flexibility with minimal current investment;
- Mitigating the risks inherent in significant investment in new organizational structures, new or expanded infrastructure and changing roles or processes; and
- Providing coordination between and across services, providers and traditional systems, enabling improved process and data integration, greater efficiencies, process automation and better data sharing and analytics.

The challenge for most enterprises is finding providers that are qualified and effective in all aspects of hybrid-environment sourcing and management. In ISG's experience, the minimum provider requirements to enable effective and efficient management of sourcing in enterprise hybrid IT include the following:

- **Scalable, proven service integration and management.** When the primary and preferred sources of IT and business resources are cloud-based services, the most effective providers must be able to manage and integrate those services with each other, and with potentially varying and jumbled portfolios of existing IT and business solutions. As business shifts over time, based in part on innovative uses of cloud-based capabilities, the pace and scale of integration and management required will vary over time as well.
- **Comprehensive enterprise IT and business vision.** To optimize sourcing, one must have a clear vision of not only what's being acquired and used, but where, by whom and why – and what value it brings. The best providers can develop and implement that type of enterprise-class IT and business vision – including IT organizations, functional business groups (e.g., divisions, LOBs, departments) and administrative business groups (e.g., Finance, Sales, HR).
- **Experience-supported ability to execute.** Enterprise-class business and IT vision is necessary and helpful, but the ability to execute on that vision is equally important. The best-suited providers tend to have decades of experience and expertise – enterprise-class business and IT “DNA” – when it comes to understanding what it takes to build, source and manage the complexities and intricacies of enterprise-class IT.
- **Track record of performance.** A vision and the ability to execute do not guarantee proper or satisfactory performance. The provider must show a track record that clearly demonstrates satisfactory performance in situations similar to what your firm requires.
- **Cloud services provision and management expertise.** In the emergent hybrid reality, cloud-relevant technology, services and knowledge are paramount. Cloud IT and services knowledge and expertise are critical to minimizing problems resulting from changes in provider, sourcing and portfolio management. In response to end-user demand for agility, an enterprise needs a service provider that can on-board quickly using orchestration services.

- **Broad and deep process and service integration and re-engineering.** More and more, business functions and services are indistinguishable from cloud-delivered business software-as-a-service. Providers must be able to see how, where, when and why different services from different sources will need to be integrated with each other, and with existing systems and processes – and be able to streamline and integrate services and providers to reduce redundancies while enabling optimal business operations.
- **Understanding and flexibility.** Finally, the best providers understand and offer a range of adaptable sourcing models and capabilities. This is a key advantage for almost any buyer/user organization, not only because much of its current environment will be somewhat unique, but more importantly because what works best now will have to be adapted as business, providers, technologies and costs change. And we know these will all change quickly.



*“IT services, in particular cloud services, are a challenge to evaluate and then manage. And the problem is growing. We would welcome any help that I feel is competent and objective in helping with sourcing and in managing our sources.”*

*- CIO, North America, large multinational manufacturer*

## The High Cost of Doing Nothing

Doing nothing until confident about market, technology and business changes is a long-term approach by most organizations. And, in most situations, doing nothing – at least for a while – is acceptable business behavior.

In today's dynamic business environment, the timeframe for doing nothing is compressed, often into a few months. The longer a company waits, the more likely its costs and risks are to increase, driven by often unseen yet vast technology and organizational changes underway.

Figure 3 uses ISG Insight's three-stage "role model" framework to illustrate how complex these environments are and will be as cloud drives IT and business change everywhere. We can see orders-of-magnitude increases in complexities, driven in large part by unmanaged or mismanaged sourcing that enables or encourages redundancies and inefficiencies. This changes the roles and value propositions not only of enterprise IT, but also of Finance and other groups.



*The longer a company waits,  
the more likely its costs and risks are to increase,  
driven by often unseen yet vast technology and  
organizational changes underway.*

**Figure 3: IT Change and Complexity in the Average Enterprise**

Period of IT Change	Pre-Cloud ▶	Hybridization ▶	Cloud Future ▶
Primary Architecture	Client / Server; Tightly-coupled paradigm	Cloud On-premise; multiple paradigms	Cloud-centric; Loosely-coupled paradigm
Primary Management Roles	Asset and Cost Control	Asset and Cost Definition	Process, provider & Cost Coordination
Primary Mission	Supporting Business Operations	Enabling Business Improvement	Enabling Business Innovation
Core Control Approach	Standardization of Technologies, Providers, Devices and Uses	Standardization of Providers, Services and Interfaces	Standardization of Interfaces
Standard Approach to IT Development and Delivery	1. Buy 2. Build/Adapt 3. Outsource	1. Buy and Outsource 2. Build/adapt	1. Outsource 2. Acquire/Adapt/Build 3. Buy
Primary Approach to Business Data	Business Data Storage and Protection	Master Data Management	Master Data and Process Integration
Primary Integration Focus	Integration of Things and Data	Integration of Things, Data and Services	Integration of Things, Data, Services and Processes
Scope of Provider, Device, and App Mgmt. Responsibility	Dozens of providers, 10,000x devices, 1,000x programs	1,000x providers, 10,000x devices, 100,000x programs	100x providers, 100,000x devices, 10,000x programs

Source: ISG Insights

This chart suggests that not only will it be difficult, challenging and costly for the typical enterprise to attempt to manage sources and solutions by itself in a hybrid environment, but that it will be even more challenging and costly – and risk-prone – to do nothing.

In such environments, implementing an optimized sourcing strategy with the sourcing and sources managed by qualified providers will save the typical enterprise tens of millions of dollars annually. Much of that will come initially from reducing or eliminating redundancies and inefficiencies; more will come from associated reductions in risk and exposures. The greatest value will be longer-term, in ongoing improvements in the ability to do business. Part of an optimized sourcing strategy is ensuring that providers’ offerings “play well” together and with existing, on-premises systems and solutions.

## Recommended Actions

To achieve the best business outcomes and to get the desired benefits from hybrid IT and business environments, enterprises must integrate, coordinate and orchestrate capabilities being sourced as a service.

What's left is the “to do” list – the key actions that will put in place, or at least in motion, the ability to optimize IT and business sourcing in these increasingly complex and challenging environments.

**1 Look for increased IT and business complexity.** Though they've seen the pace of change, growth and complexity increasing for years, many CIOs and CFOs with whom we speak still seem surprised to find themselves facing what seems to be a suddenly overwhelming hybrid reality. In an age of rampant, user- and-departmentally driven IT acquisition and use, asset and exposure audits should be performed annually to avoid suddenly becoming aware that costly management challenges are growing.

- 2 Understand the role that sourcing plays in creating and preventing these problems.** Most problems with – or emerging from – current hybrid environments arise through a lack of procurement and sourcing control. Knowing where and how previous policies and controls have been ineffective will enable development and refinement of more effective sourcing. *Tip: Even the most experienced Finance and IT leaders and organizations will benefit from the insight and guidance provided by an experienced third party. Look for guidance from trusted providers with extensive, enterprise-class sourcing management experience.*
- 3 Realistically assess the ability to manage.** The first two steps should provide an excellent view into the enterprise's own abilities, and the relevant costs, of managing hybrid-environment IT and business sourcing as they become more complex. As noted earlier, ISG's experience proves that the inherent and increasing complexities of the environment tend to inhibit or prevent most enterprises from doing a good job at this, at least for the next several years.

4

**Assess and engage.** Use peers and third-party research to review and assess providers that offer sourcing services. We offered our take on critical provider attributes earlier in this paper:

- Services integration and management expertise;
- Comprehensive enterprise IT and business vision;
- Experience-supported ability to execute;
- Track record of performance;
- Cloud services provision and management expertise; and
- Broad and deep process integration and re-engineering expertise.

Hybrid environments are the latest, and still-emergent, reality of IT and business coordination and management. We know this reality will become increasingly complex at a rapid pace and that doing nothing (or little) to manage that will cost heavily in terms of direct spending on IT, as well as in lost or reduced abilities to compete. Engaging today enables timely improvements in control and coordination that deliver business improvement tomorrow.



*Our current environment is a combination of legacy, 'function-sourced' IT and current, more 'purposeful' sourcing with both cloud and older technologies. Everything is developed independently, with different business, technology, and security requirements.*

*- CTO, \$5B US-based aerospace systems manufacturer*



## Sponsor Perspective

### IBM Manages Hybrid Environments for Business Value

IBM recognizes that cloud is redefining the business and IT sourcing market as a result of a growing and increasingly hybrid blend of enterprise IT and business resources used to achieve a wide variety of goals. Optimized sourcing and services management is an increasingly critical component of achieving business value.

As recently as two years ago, most of outsourcing service delivery was physically dedicated infrastructure. But today, with virtualization, enterprise infrastructure is an abstract concept. And it's headed toward a combination of Platform-as-a-Service (PaaS), hypervisors and containers.

Today, cloud services account for half of all new IT, and not just infrastructure. This may grow to as much as half or more of a typical outsourcing scope during the next five to seven years. The need to optimize and manage such services-driven environments becomes clearer as they become more critical and integrated with daily business operations while also becoming more complex.

IBM believes that an optimized environment leverages a hybrid approach that takes into account workload characteristics and business value. To get there, IBM has a unique approach:

- It begins by analyzing a client's workloads to understand the best fit for cloud, whether it be public or private.

- Once the client has defined a cloud strategy, IBM can help it build an environment that maximizes return on existing IT investment and matches workloads to the best-fit infrastructure — creating a hybrid environment with the right mix of traditional IT with private and public cloud services.
- And to help clients seamlessly design, build, integrate and manage this hybrid environment across delivery models and providers, IBM provides Integrated Managed Infrastructure services with multi-source cloud brokerage and software-defined capabilities.
- As part of optimizing their own hybrid approach, clients can also tap into IBM Cloud and Cloud Managed Services to achieve additional flexibility.

IBM delivers the entire stack of sourcing needs, from infrastructure to applications to business processes through a spectrum of implementation approaches – including managed services and cloud – selected, tailored and integrated to meet client needs of increased flexibility and scalability, as follows:

- Seamless integration, aggregation and orchestration across hybrid cloud and traditional IT environments utilizing open standards and best practices;
- Flexible and robust cloud and non-cloud managed services options for optimized workload deployment and utility – delivering maximized ROI based on workload characteristics; and
- Managed cloud transformation and governance ensuring the right workloads are migrated to cloud at the right time with reduced risk and complexity to help you accelerate innovation with lower risk.

IBM delivers the right solutions for hybrid business and IT. For more information, we invite you to visit [www.ibm.biz/services-imi](http://www.ibm.biz/services-imi).

## About the Authors

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In his role as leader of ISG Insights' overall research agenda, Bruce coordinates analysts' focus regarding digital disruption, emerging technologies, market shifts and the changing value of enterprise IT for clients' changing business needs. His own analysis and guidance focus on how disruptive technologies enable business innovation and improvement for enterprise clients, and how these, in turn, disrupt and reshape software and IT services providers' business and markets.

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