

BUILDING CAPABILITIES LEVERAGING ALTERNATE SOLUTION DEPLOYMENTS

STRATEGIC LEVERS FOR COMPETITIVE POSITIONING

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EXECUTIVE SUMMARY

NEED FOR FLEXIBILITY AND SPEED

In today's global economy, enterprises are faced with intense competition. New network-based business models and practices are transforming the way enterprises collaborate and grow. Businesses need to be highly flexible, scalable, and nimble to stay successful. It requires their operations to be able to adapt quickly to market conditions and be responsive to customer demands. However, this is easier said than done; building and maintaining such capabilities the traditional way is laborious and challenging. It is imperative that businesses innovate and seek alternate ways to acquire essential capabilities in a cost-effective manner.

The Need to Go Beyond the Traditional Approach

Business needs are not homogeneous; while some may be short term, others will be longer term. Certain capability requirements may be related to core business aspects, while others may be peripheral. The traditional approach to building capabilities in-house to address every need is time consuming and often capital intensive; sustaining these capabilities at market-comparable levels is even more challenging. Also, businesses may not have the requisite knowledge, competencies, and resources essential to adequately address the needs.

Given the fast-paced business environment, diversity in demand, and challenges associated with the traditional approach, businesses may be well served by looking outside the box,

evaluating alternatives to acquire best-in-class capabilities. This includes building a network of strategic business partners that are able to provide the required capabilities at a competitive price. The concept itself is not new; it is about extending it into operational and IT functions previously considered beyond scope.

Leveraging Alternate Solution Deployment Models

Many large enterprises have taken to outsourcing, while some have established captive shared service centers in resource-rich, low-cost locations to reduce their operating costs. More recently, we have seen a slew of solution and service providers under the banner of "on demand" or "cloud" services, offering to not only reduce

the operating costs but also reduce capital expenditure and provide the flexibility to scale based on business needs. This can be very attractive, as the vendor makes all the investments needed and provides businesses with access to ready-to-use solutions or services through a pay-as-you-go model. This reduces and sometimes even eliminates the need for initial investment on the part of the buyer while providing the ability to scale according to needs.

These options provide businesses with opportunities to build the capabilities they need while reducing capital and operating expenditures. However, like everything in life, there are limitations and downsides with these models as well. Enterprises need to evaluate the implications for their businesses and determine the best combination of deployment models that will suit their needs (see Figure 1).

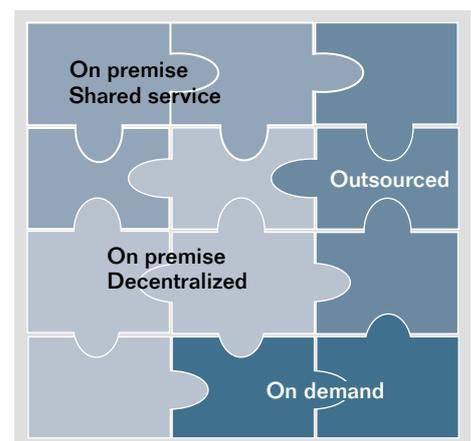


Figure 1: Hybrid Solution Landscape

Constructing a Best-in-Class Solution Landscape and Operating Model

While the new solution deployment options offer businesses opportunities to solve several IT-related issues, they are not yet in a position to address all of the enterprise needs and challenges – for example, what does one do with the complex and often convoluted legacy systems that many businesses have today? These cannot be replaced overnight – there will be considerable risk exposure. The on-demand and cloud services industry is still in its infancy, and there are a limited number of enterprise solutions available today. The products currently available often have smaller functional footprints as compared to their on-premise counterparts, and many of the on-demand vendors are new and small. Even the outsourcing industry, which is more than two decades old, is still evolving and is not in a position to service all of the enterprise needs. These new solution deployment models increase the level of dependency on the service provider; any failure or shortcoming on the part of the service provider will expose the buyer to significant risks. In addition, not all aspects of business functions are conducive to every form of alternate deployment.

Need for Deliberate Design

Every enterprise situation is different. To get to the best solution option, enterprises need to undertake a con-

scientious effort, which we refer to as “deliberate design” (see Figure 2). Deliberate design is about architecting every aspect of the solution landscape to address specific business objectives and goals, without leaving anything to chance. This does not happen naturally and requires deliberate effort on the part of architects and decision makers. Enterprises need to think in terms of enterprise capabilities and not in terms of the functionalities and features of individual technology components. When architecting the solution landscape, businesses must take into consideration existing capabilities and constraints, balancing solution benefits and risks, to get to the best possible outcome.

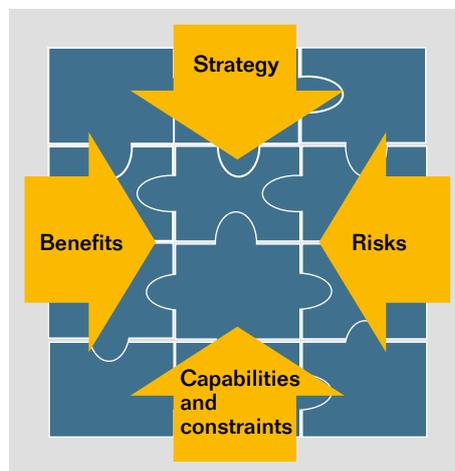


Figure 2: Deliberate Design

Need for Orchestration: Operating as a Singular Unit

Independent of the ultimate solution selected or deployment model used, the enterprise landscape must operate

as a singular unit, provide seamless support for end-to-end businesses process integration, and have the ability to evolve over time according to the business needs. This requires planning and orchestration at the enterprise level. Architecturally, the solution landscape needs to be componentized with a lower level of diversity and a higher level of integration. This will help achieve a higher degree of flexibility and agility.

No Shortcuts: Collaborating for the Best Results

Deliberate design needs to be more than just an approach; it needs to be ingrained into the operating culture. Enterprises must live it, from both a business and an IT perspective, to be successful. Any data and process inconsistencies can destroy gains made on the functional fronts. Despite the pressures to respond to market opportunities and inclinations to bypass enterprise IT, business leaders need to collaborate with their IT colleagues to identify and implement the right solutions. Many of the IT challenges that enterprises are faced with today are often a direct result of a series of non-integrated purchasing decisions. Care needs to be taken to ensure that short-term fixes are aligned with longer-term business interests and that risk levels are acceptable.

This paper aims to discuss the various capability acquisition and IT solution deployment options and provide a perspective on how to evaluate the suitability of those options, given an enterprise's situation, and to get the best outcome.

CAPABILITY NEEDS AND ACQUISITION OPTIONS

THE CHALLENGES

The marketplace has become more complex with globalization – having a good strategy is not enough, the ability to execute is vital, and only the proficient and dexterous will survive. Enterprises need to have market-relevant capabilities to stay competitive, and technology is a key enabler. At the same time, there are limitations on available resources. Enterprises need to build or acquire the right set of IT-enabled business capabilities in a cost-effective manner to remain competitive – and this is easier said than done.

Existing Landscape: Often Convolved

Business executives often feel that their enterprise IT is unable to keep pace with their needs. While there may be several reasons why, typically it is the convolved solution landscape that enterprises

have ended up with – often a direct result of years of a piecemeal approach to building IT-driven capabilities. This incoherent approach has left many enterprises with a plethora of technologies and systems, with varying degrees of antiquity and often with a suboptimal level of integration, creating significant business risks (see Figure 3).

Scarcity of Resources: Increasing the Challenge

With continued pressures to reduce operating costs and an increase in competing demand for capital, many businesses are reducing their IT budgets as a percentage of revenue.

Besides monetary constraints, enterprises also find it difficult to attract and retain the talent essential to build the needed operational capabilities and

to develop innovative solutions required to provide a competitive edge. Even if they are currently able to garner the resources, will they be able to retain the talent on a long-term basis and what will it cost? Businesses also need to determine if internal development is the most cost-effective option to acquiring the necessary capabilities. It is important to ensure that investments made today will remain productive and relevant a few years down the road.

A piecemeal approach to solution selection and deployment has resulted in enterprises having convolved solution landscapes.

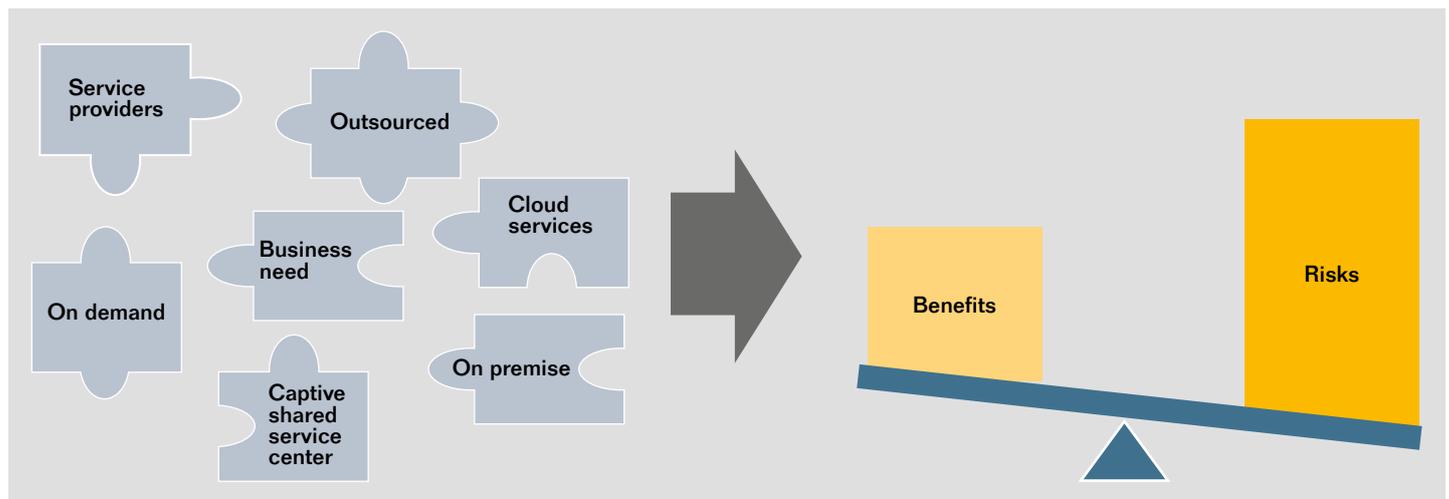


Figure 3: Impact of Piecemeal Architecture Evolution

New Service Delivery Models Offering Possibilities Galore

With increasing competitiveness, enterprises need to make best use of their resources, focusing their own efforts where they can make a difference while leveraging others to provide additional capabilities and solution support. Over the last two decades, many businesses have leveraged outsourcing to address a scarcity of resources and escalating operations costs; some have managed to go beyond cost reduction and improve their operational performance and drive innovation.

However, the industry still has a long way to go before it can be categorized as being mature. Recent advancements in Internet technology, the growth of communication infrastructure, the development of virtualization technologies, and new Internet-based solutions have enabled the provisioning of a new breed of services, commonly referred to as on-demand or cloud services. The vendors make the investments necessary to provide the on-demand or cloud services, thus eliminating the need on the part of the buyer to make major capital investments. Vendors typically charge for the services on a consumption basis. These services are becoming popular

for obvious reasons – low capital expenditure, low deployment costs, faster implementation, better alignment of cash flow, quicker access to innovation, lower internal resource needs, the ability to scale, and the ability to change providers due to no fixed investments.

There are four categories of on-demand services:

1. Infrastructure as a service (IaaS), wherein the vendor delivers computer infrastructure as a service. Rather than purchasing servers, software, data-center space, or network equipment, enterprises instead buy these resources as a fully outsourced service.
2. Platform as a service (PaaS), wherein the vendor provides the computing platform and solution stack as a service, often consuming cloud infrastructure and sustaining cloud applications. It facilitates deployment of applications without the cost and complexity of buying and managing the underlying hardware and software layers.
3. Software as a service (SaaS), wherein the vendor delivers software applications as a service over the Internet, eliminating the need to install and run the application on the enterprise's own computers and simplifying maintenance and support. The applications are hosted on the vendor's premises on a vendor-owned or vendor-leased infrastructure. The users get access to the application via the Internet.

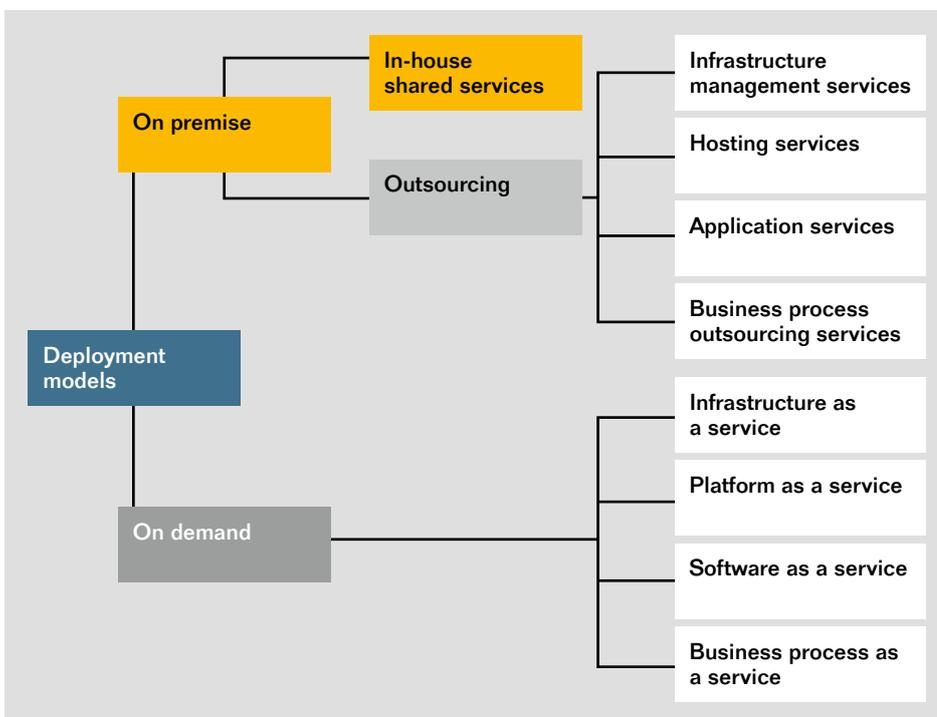


Figure 4: Alternate Deployment Models

- Business process as a service (BPaaS), wherein the vendor provides the business services, (for example, payroll services or travel-expense processing services). The vendor installs all the hardware and software necessary to provide the business services, which frees up the user from having to deal with the entire IT layer.

Prima facie, these solution deployment or capability acquisition models appear to be tailor-made to address the enterprise needs. Industry analysts expect a major portion of the global IT and business services to be provided via these models in the foreseeable future. However, there is the need to exercise caution. Like everything else in life, there are pros and cons with each of these options – a poor selection will have long-term business ramifications.

Challenge: Choosing the Right Solution Deployment Model

Each of the deployment models has distinct attributes; these attributes may

be advantageous for some and not so for others, depending on their situation. Enterprises need to fully understand the benefits and risks associated with each option as well as the longer-term implications for the business.

On-Premise Deployment: The Traditional Workhorse

Enterprises have traditionally deployed solutions on premise primarily because there were not many alternatives. The question is whether it is still the best option now that there are more choices.

The primary advantage with on-premise deployment is the sense of security and control, with the solution being deployed within the enterprise firewall and managed by internal resources. There are other advantages, such as lower vendor dependency, the possibility to customize, a certain level of operational flexibilities, and potential lower cost per unit over the long run based on utilization.

While ownership does provide a sense of independency, it comes with some

downsides – the need to invest up front, longer implementation lead time, operations management, and ongoing access to quality resources (see Figure 5). The inability to attract and retain quality resources can pose a significant risk. With alternate options now being available, enterprises will be well served to evaluate the traditional on-premise solution deployment approach relative to others. On-premise deployments will make sense when system security is paramount, business capabilities supported are strategic, and the enterprise has the core competencies required to perform better than the market in a cost-effective manner.

Outsourcing Services: Leveraging Partner Capabilities

By leveraging global resources and newer technologies and adopting industry best practices, outsourcing service providers are typically able to offer enterprises opportunities to lower their operating costs, improve performance, and provide operational flexibility, to name just a few. There are several different outsourcing options – infrastructure outsourcing, hosting services, application management services, and business process outsourcing (BPO) services – each with its own value proposition. The appropriate option for a buyer enterprise depends on its situation and what it is seeking to achieve (see Figure 6). For example, an enterprise with an underutilized, high-quality data center but limited skilled IT resources may find it cost-effective to host the solution internally while leveraging a third party for operating services; whereas an enterprise

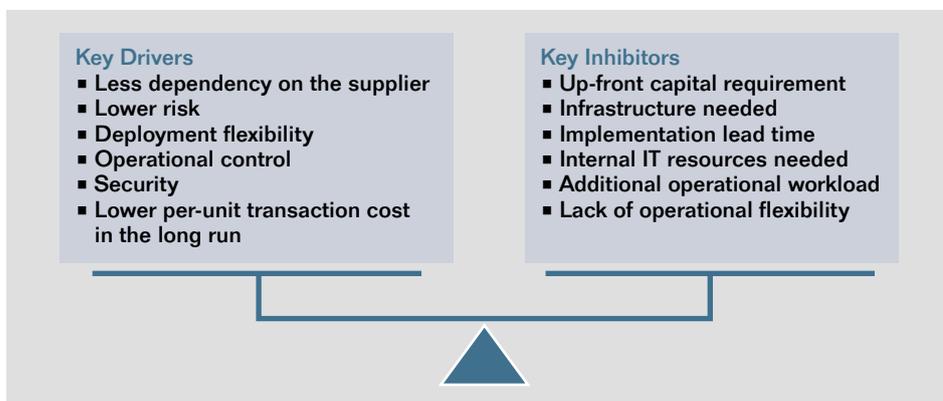


Figure 5: On-Premise Influencers

that does not have a robust IT infrastructure but has cost-competitive internal human resources may benefit by having the solution hosted externally but operated by its own personnel.

While outsourcing provides significant benefits, not all enterprises are satisfied. A Forrester Research survey conducted in November 2009 shows that the key reasons for dissatisfaction are lower cost savings than expected, services not being up to expectations, a lack of innovations, and an inability to respond to changing business needs. In today's competitive business environment, these can be severely debilitating.

The success and failure of outsourcing depends on several factors; however, there are two fundamental aspects that need to be recognized:

- Introduction of a third party into the value chain – Outsourcing is not about throwing things over the wall; on the contrary, it introduces the external party into the company's

Outsourcing does not mean transferring work to an external enterprise; it is really about bringing the external entity into the enterprise's own supply chain.

supply chain. Enterprises are now dependent on the supplier to fulfill its business needs – the supplier's risks become part of the enterprise's risk profile, and any failure on the part of the supplier can directly impact the buyer. Enterprises need to have fall-back plans in place; transitioning back the work will be expensive and, at times, not a viable option.

- Differences in organizational cultures and operating models – No two organizations are alike. There are several aspects that drive differences, including operational processes, organizational culture, priorities, and so on; these can create significant operational issues. For outsourcing to be successful, it requires complete integration of the operating models and the organizations; this requires signif-

icant organizational and operational change management on the part of the buyer. As such, selecting the right service provider is extremely important.

Given the risks, when should one outsource? To get to the answer, the risks associated with outsourcing need to be weighed against the risks of maintaining the solutions in-house. The key questions to consider are:

- Does the enterprise have the resources and competencies to be able to perform comparable to best in class, and are these sustainable?
- Is the intellectual property (IP), function, or process central to the business, and does it need to be rigidly guarded at all cost?
- Is the internal operation more cost-efficient and sustainable?
- What are the longer-term implications in terms of future investment needs?

Enterprises must consider outsourcing when internal capabilities are in short supply and the organization does not have the competencies and resources required to outperform the market.

Typically, functions and processes that are noncore to the business and do not provide distinct marketplace differentiation are ideal candidates for outsourcing. This does not mean that enterprises should not consider other areas for outsourcing. Outsourcing service providers

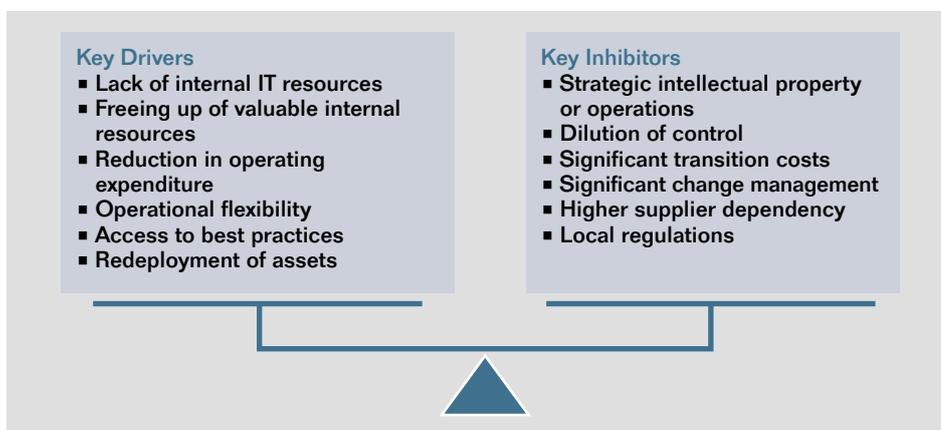


Figure 6: Outsourcing Influencers

are often able to bring in innovation and best practices as well as leverage scale to create value. In addition, outsourcing can help free up key resources to focus on more strategic business aspects.

Shared Service Centers: An Alternative to Outsourcing

Some enterprises opted to establish their own captive shared service centers in low-cost, resource-rich locations as an alternate way to reduce operating costs and improve performance. Establishing captive shared service centers provides certain advantages over outsourcing – it enables retention of full operational control, protects the company’s IP, and avoids third-party

Centralized Versus Localized Service Centers

Centralized	Localized
Back-office functions, transaction processing, analytics and research, non-customer facing activities	Front-office functions, functions requiring customer interactions (like receivable and collections management and sales management)

risks. However, establishing a captive shared service center is not for everyone – it requires considerable investment to set up a world-class shared service center. There are costs related to facilities buildup, recruitment and training, and organizational changes; without the critical mass and market comparable competencies, establishing a captive shared service center is a risky proposition (see Figure 7).

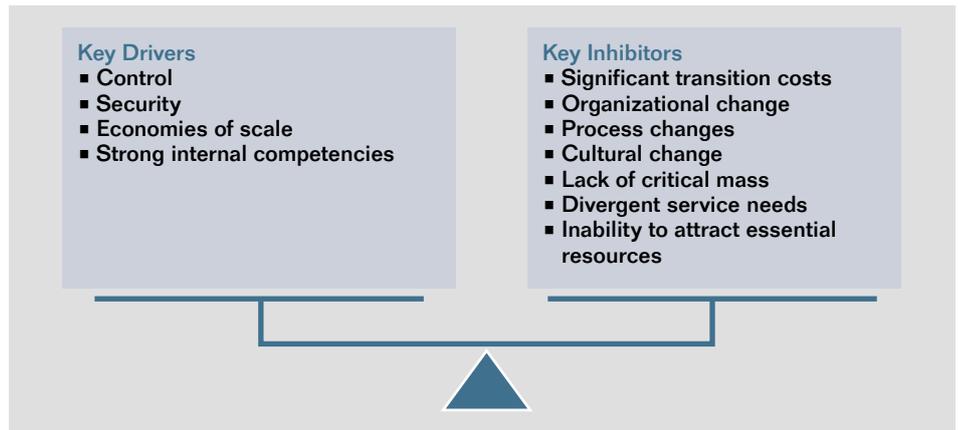


Figure 7: Shared Services Influencers

Enterprises need to ensure the appropriateness of the functions and processes being shifted to shared service centers. Operations that require intimate knowledge of local cultures and those that benefit from face-to-face interactions are not ideal for remote shared service centers.

Moving to a shared services model typically requires redesigning the processes involved and the operating structure, resulting in a need for significant organizational change management. The ability to recruit and retain the right resources on an ongoing basis is vital for any shared service center, a challenge that enterprises often underestimate. Factors like brand recognition, growth opportunity, perception of the job, supply pool, and competitive landscape influence an enterprise’s ability to attract and retain talent.

Location is central to any shared service center operations. Establishing a shared service center in the wrong location can be disastrous. The evaluation needs

to go beyond the selection of the city; it needs to be as granular as possible, down to a specific site within a city (see “Case Example: Shared Service Center Location” sidebar). There are several factors to be considered, like local laws, the quality of infrastructure

Case Example: Shared Service Center Location

A global enterprise set up a regional shared service center in a certain low-cost location. Within a few years, the company had to relocate to a different location with a larger resource pool. The same location attributes that attracted that company to the original location had brought in other businesses competing for the same resources. Recruiting and retaining quality resources became a challenge. It also meant an increase in operating cost due to higher attrition, training costs, and productivity losses. This also impacted its operational performance during the transition period.

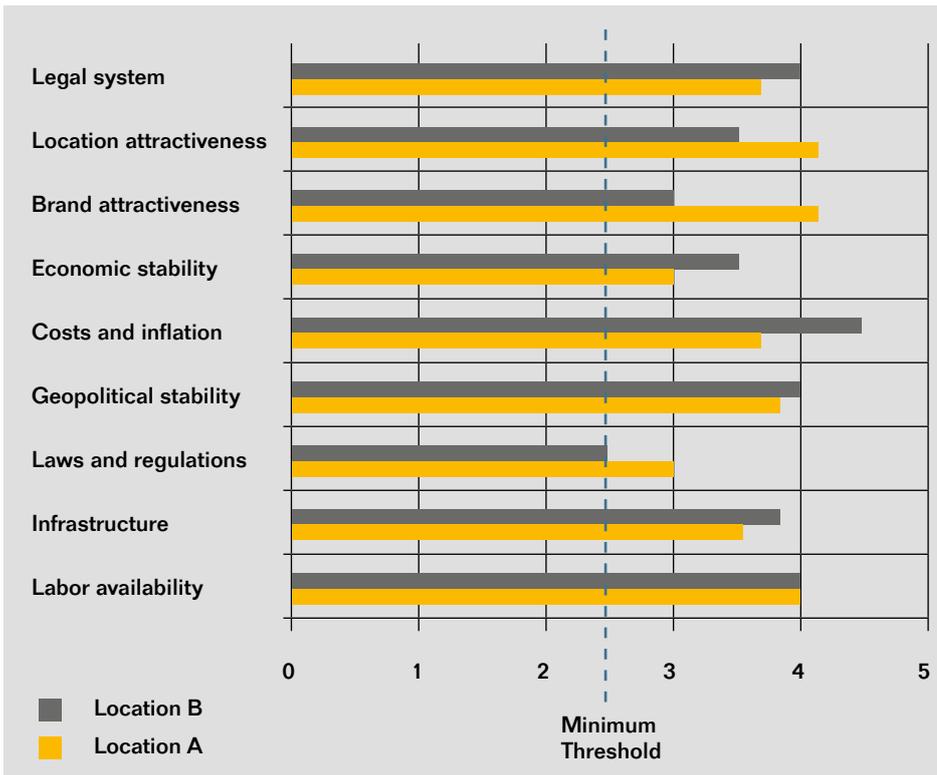


Figure 8: Location Assessment Grid

available, costs, inflation, geopolitical stability, economic stability, location attractiveness, ability to compete, and so forth (see Figure 8).

The ability to maintain competitive advantage over the longer term can be a challenge. Several companies with successful captive shared service centers have exited – some did it to monetize their capabilities, while others did it because it was not as cost-effective as they had anticipated.

On-Demand Deployment: More Flexibility and Reduced Expenditure

The marketplace is becoming increas-

ingly crowded with on-demand solution vendors everyday. While it is imperative that enterprises evaluate a solution offering by comparing it to their needs, having an understanding of the key attributes typically associated with such on-demand offerings will help businesses construct a solution landscape appropriate to their needs.

There are several types of on-demand services available these days. The key attributes associated with software on demand are the following:

- Capital expenditure – The supplier makes all the investment needed to provide the service, which reduces

or entirely eliminates the need for the buyer to acquire assets. This is a major value proposition, especially when businesses are faced with considerable competing demand for investment capital.

- Standardized services – Services are provided on a standardized basis with very limited or no ability to customize. The inability to customize may impair an enterprise's ability to optimally leverage the solution to address its unique needs and gain a market advantage.
- Speed – The other side of standardized services is that businesses do not have to go through a long, drawn-out implementation; for example, businesses can easily procure additional computing resources within minutes by simply swiping their credit card. Similarly, businesses can have access to certain desktop applications and collaboration tools by setting up a subscriber account. Enterprise applications, on the other hand, will be somewhat more complicated but still faster than an on-premise implementation.
- Scalability – Suppliers typically offer buyers the ability to scale up or down based on their need. This is highly valuable for businesses that are in a growth mode or have unpredictable business demand. It also helps businesses better align their cash flow with consumption.
- Flexibility – Having the ability to subscribe to services or have access to resources enables businesses to experiment without having to expend significant capital to build capabilities. It also allows businesses to deploy interim solutions while evaluating longer-term solution options.

- Shared services basis – The on-demand services are typically offered on a shared services basis. The customers share the application and the underlying infrastructure. While this is one of the core value drivers, it is also the biggest source of concern – about system security, performance, extent of operational control, and compliance with the law.
- Supplier dependency – There is a higher level of supplier dependency for everything from fixing simple solution problems to developing more complex solution upgrades. Many of the solutions available today have limited functionalities. While a smaller footprint may serve today’s need, the vendor’s ability to address future needs is crucial. The ability of a vendor to provide timely upgrades will have a direct impact on an enterprise’s ability to respond to market needs. Suppliers are unlikely to build new capabilities unless there is a broader demand for the functionality. Enterprises are also dependent on the

suppliers for all aspects of the operations, including system performance, service quality, and disaster recovery. Any weakness on the part of a supplier creates direct exposure for its customers.

- Emerging industry – The on-demand industry is still in its infancy; the market will invariably consolidate as it grows and matures, and buyers need to evaluate the survivability of their suppliers.
- Integration – The ability to integrate is an important consideration, especially in cases where the application services are part of a process chain.
- Legal protection – While procuring SaaS and on-demand solutions is relatively easy, businesses must not take contracting for these services lightly. A company will be well served by having its legal team review the services contract to ensure adequate protection and avoid situations where it does not have recourse in case the supplier is unable to deliver services. A business can protect its interests

by having rights to the software and other assets that may be essential to operate the system efficiently. In case a supplier uses third-party resources to provide the service, a business must also seek to have access rights to those assets or solutions.

Enterprises need to balance the benefits of low capital requirement, better alignment of costs, and operational flexibility with the risks of failure on the part of the service provider (see Figure 9). As the industry develops and matures, there will be more offerings and further refinement of the service delivery model. Selecting the right service provider is paramount to success.

Business Process as a Service: Ultimate Partner Network

BPaaS, or platform BPO, or business process utility (BPU), as Gartner refers to it, is part of the on-demand services category. BPaaS has existed for decades, common examples being the payroll and benefits administration services provided by companies like ADP. Like other on-demand services, vendors make the investment required to provide the business services; they either have their own underlying infrastructure or use a third-party infrastructure solution to provide the services. This category of services is expected to become more popular, with businesses seeking to move away from fixed costs and reduce investments in noncore functional areas and more service providers entering the market with a wide range of offerings. The

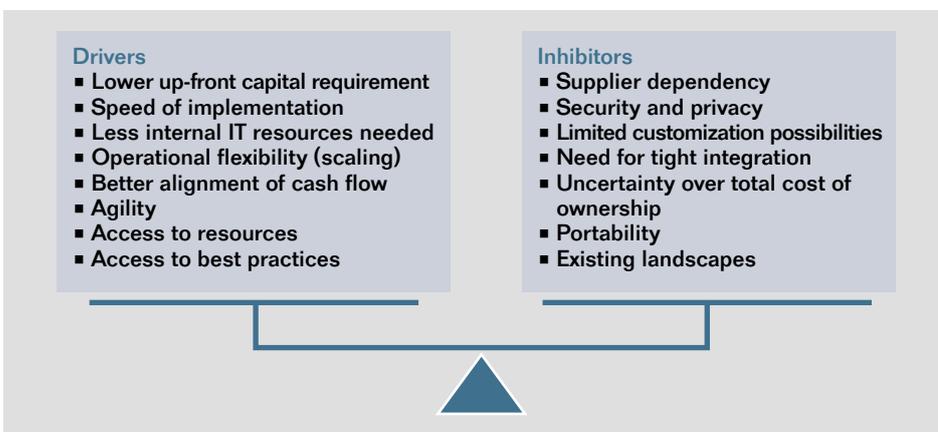


Figure 9: On-Demand Influencers

option is attractive in a number of situations:

- Enterprise does not have market-comparable IT and operational capabilities in-house.
- The need for business services capability is immediate and does not offer adequate lead time to build it in-house.
- The cost of internal operations is significantly higher than the cost of externally sourced business services.
- The business needs are short term.

External providers are better positioned to leverage economies of scale, leverage technology advances, and incorporate best practices, bringing value to their customers. However, opting for BPaaS also means greater supplier dependency; buyers need to protect their investment by having a comprehensive fall-back strategy in case of exigency.

Private Versus Public Cloud: Security Comfort Versus Cost Benefit

The on-demand story is not complete without discussing the private versus public cloud. Simply put, cloud services are dynamically provisioned IT and business services that are delivered over the Internet in a multitenancy mode, leveraging shared IT resources. With virtualization technology, it is possible to perform real-time assignment of technology to consumers on demand. Subscribers to cloud services share the underlying infrastructure, operating environment, applications system, and human resources, as the case may be.

While sharing resources helps reduce cost, it brings up questions about safeguards, data security, IP protection, statutory and regulatory compliance obligations, liabilities, consumers' legal rights in case of breach, backup and recovery, data portability, ability to audit, and system availability and performance.

Public cloud service providers will argue that their infrastructure is safe. Fortunately, there has not been any major incident of breach. However, with increased global competition and increasing industrial espionage via the Internet and attacks on Web sites, it is prudent to be cautious. The very resources that can provide computing power to enterprises on demand are also available to hackers. Whether a cloud is safe or not depends on the quality of the underlying assets and tools and how they are deployed as well as the service provider's operational practices. Many leading cloud infrastructure service providers are deploying best-in-class security solutions and building multilevel redundancies to protect against breach and service failures. However, buyers must not assume that this is always the case and must verify the robustness and security of the service provider's delivery ecosystem. As with any in-house system, weakness at any level of the technology stack can potentially impact service, security, and compliance.

Opting for public cloud is primarily a question of balancing risks with

potential benefits. Enterprises need to consider several aspects:

- Robustness of the supplier's infrastructure – Is it robust enough to deliver the services at the expected performance level? Is it fault tolerant, and does it have built-in redundancies to guard against failures?
- Security – Is the service delivery infrastructure secure, and does it adhere to international standards? Besides the systems, how robust are the supplier's security policies and procedures?
- Ease of integration – Will the enterprise be able to easily integrate the cloud solution with other in-house or third-party systems? With a diversity of business needs, enterprises are likely to end up with a combination of in-house systems, outsourced solutions, and on-demand services. The ability to easily integrate systems will make the difference.
- Ability to audit – Will the enterprise be able to perform system audits at any time?
- Portability – Will the enterprise be able to easily transition the solution back in-house or to a third party, if the need arises?
- Business continuity – Will the enterprise have the rights to the service delivery components in case the supplier defaults or is unable to deliver to contracted service levels?
- Business case – What is the incremental cost savings as compared to other solution deployment options?

Not all enterprises are fully convinced about the safeguards and are opting for what is called a private cloud deployment. A private cloud is nothing but a carving out of physical resources within the public cloud ecosystem for exclusive use. This allows the enterprise to incorporate additional security and other safeguards that it may desire.

The private cloud is not exactly new; enterprises have used virtual private networks for a while. Vendors are using the same concept by offering standardized services via a dedicated infrastructure within the shared ecosystem. Having a private cloud is analogous to having a reserved parking space in a public parking lot for exclusive use, as opposed to using any available parking space in the lot as needed. Under the private cloud, the buyer pays for the dedicated parking spot rather than paying based on actual utilization.

At the end of the day, it is a question of cost versus the ability to operate on your own terms. It is important to understand the potential risks and have a plan in place in case of failure on the part of the service provider.

Key to Success – Getting It Right the First Time

With pressures to respond to the customer, there is often a temptation to opt for quick fixes. History has shown that such short-term fixes have the tendency to have longer-term consequences creating complexity and adding to the challenge rather than reducing it. The “Appendix” section contains a list of factors to consider (see “Deployment Model Selection Consideration” table) when deciding between the deployment models. As enterprises seek to address business needs, it is not the lack of options that is a constraining factor nor is it the extent of potential benefits with the various solutions; it is the associated constraints and risks that makes it a challenge. A comprehensive evaluation of the options will enable the buyer to make informed decisions, guard against potentially avoidable adverse impact, and increase the probability of success.

DELIBERATE DESIGN

MAKING OBJECTIVE-DRIVEN, FACT-BASED DECISIONS

How does one optimally leverage the various deployment options without overly increasing the risks? A purist may say, “Start with a clean slate.” The reality is that enterprises cannot afford to start from scratch and need to be able to leverage their existing investments in the best possible manner. This requires the enterprise to adopt a very systematic and deliberate approach to architecting its solution landscapes, reevaluating existing solutions, and designing every component such that it has a definitive role to play in creating enterprise value. The “deliberate” design approach is based on strategic intent, as opposed to an “accidental” design, which is basically a string of mostly opportunistic, stand-alone decisions without an overarching set of guidelines or road map.

Deliberate design is anchored on business goals and objectives, the operating environment, and constraints. It is based on facts with metrics to measure success in terms of final outcomes. For creating sustained value, the solution landscape needs to have certain qualities.

Best-in-Class Landscape Qualities

There are several qualities that your solution landscape should have in order to best support your business needs.

Evolutionary

Businesses are not static and need to continuously innovate to stay competitive; this requires the solution land-

scape to be flexible and evolutionary as well – without having to expend significant resources. This then requires the solution landscape to be modular in design, with plug-and-play solution components and with each having the ability to evolve independently and according to the needs of the business. To achieve this, the architecture needs to be designed using the concept of “capability units.” Each capability unit is a self-contained solution component consisting of technology and operating resources, with the ability to execute predefined processes, delivering specific outcomes. Being self-contained allows each capability unit to evolve on its own and according to business needs.

These units need to be built using proven technology. Having components developed on proven technology platforms by established firms will help improve the life of the capability units. This is because proven technologies have wider adoption rates, which translates into a higher probability of new solutions being developed on the platform and the likelihood of a large resource pool, thereby extending the useful life of the component. Using appropriate adaptation layers, namely middleware, and loose coupling between the components will

enable the enterprise to take advantage of innovation without adversely impacting the business or losing out on previous investments. Standardizing interfaces and integration points based on open protocols will help enterprises to avoid lock-ins and retain the power of choice. This approach will help minimize the interdependencies and improve the ability to swap components according to needs.

Delightful to Use

Another important attribute is the ability to delight the users. When a solution is delightful to use, there will be a higher adoption rate, reduced errors, and improved productivity, resulting in lower cost and better business outcomes. This requires the solution to be intuitive to use, be easily configurable, and have the ability to tune performance according to the company’s needs. It must support company policies and processes, promote productivity, and enable informed decision making.

Operate as a Singular Unit

The solution landscape needs to operate as one singular unit despite being a collection of disparate components with a diverse set of attributes. The components need to complement each

Deliberate design should be more than just an approach, it should be a sacred tenet; enterprises need to ingrain it into their operating culture to benefit from it.

other to provide seamless support for end-to-end business processes. The underlying technologies, solutions, or deployment models should be imperceptible to the users. Integration needs to occur at all levels – technology, solution, process, and organizational. When multiple service delivery entities are involved, integration needs to occur across these entities.

Simplicity – The Key to Success

As Einstein once put it, “Make everything as simple as possible, not simpler.” Enterprises will be well served to follow Einstein’s advice when designing their solution landscapes. Simplicity helps reduce errors, improve productivity, and deliver better results. Commonality in solution attributes will help reduce the complexity – for example, having a common underlying technology, using design frameworks based on open architecture philosophy, standardizing operational practices – will likely result in a simpler solution landscape. Along these lines, many enterprises have recognized the need to clean up their

existing solution landscape, replace legacy technologies and systems, and implement a more modular architecture.

Deliberate Design Process

Deliberate design is all about designing with an end in mind – the end being a set of business capabilities that the enterprise needs to be successful in the marketplace on an ongoing basis (see Figure 10). It must be able to evolve, be efficient, and be cost-effective.

Clarity of Vision: Enabling Alignment

Knowing your destination increases your chances of getting there. Businesses typically have some sort of strategic objectives and goals; these need to be translated into specific operational metrics, such as capacity, competencies, and capabilities required – and where and when.

For example, an enterprise plans to expand into new markets and expects to double in size over the next five years. It is important to know

where, when, and at what pace the leadership wants to grow; what its go-to-market strategy will be; whether it will go alone or partner with an existing local firm; and so on. Such clarity and granularity will help architects determine the organizational capabilities that need to be built and determine the best approach to get them. Timelines are important, as they have a significant influence on the approach taken to acquiring the required solution support and building the capabilities.

Knowing the Base: Reality Check

This is a self-evident idea but not consistently practiced. To get to the optimal outcome, decisions need to be based on fact. Decision makers need to have a clear understanding of their existing ecosystem and what they can and cannot do with it. They need to know what they have in terms of solution components, organizational capabilities, and supplier capabilities (and the strengths and weaknesses of each); which regulatory and statutory compliance requirements they have to follow; and what contractual obligations they have. This knowledge will help enterprises develop a more pragmatic approach to building up their solution landscape and acquiring business capabilities. Knowing the base will help identify serious risks that may exist within and need to be addressed on a priority

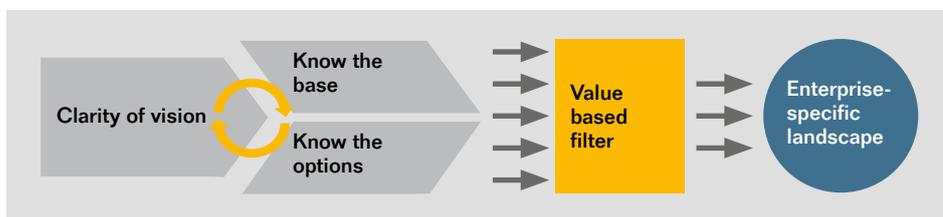


Figure 10: Deliberate Design Framework

basis. To do it right, enterprises will need to do the following:

■ **Benchmark to the marketplace** –

The organizational competencies and operational capabilities need to be evaluated relative to the marketplace, to get a more accurate assessment of strengths and weaknesses. Best-run companies benchmark not just within their industry but across other industries as well. Reality checks can be painful but can help enterprises be successful when appropriate remedial actions are taken. To ensure long-term sustainability of the solution, enterprises must benchmark their ability to attract and retain skilled resources on an ongoing basis.

■ **Technology matters: business**

performance depends on it – Despite the rhetoric that IT should not matter when it comes to business services, the reality is that technology is the single greatest value driver; it helps drive productivity, quality of service, decision-making ability, and overall success. Enterprises must be selective when it comes to technology. Whether the solution is internally deployed or provided by a third party, they must evaluate the underlying technology that is used to deliver the services. It can provide early indication of the quality of service that the enterprise can expect to receive. Having reliable and flexible technology makes it easier for businesses to be responsive to business needs.

■ **Know the shackles: understand the obligations** –

Existing contracts and legal obligations can become stumbling blocks. Enterprises need to know the restrictions and constraints that may exist with respect to software license transfer rights, employee contracts, labor union or work council agreements, labor laws, and regulations prior to changing the deployment models. For example, certain states in the United States insist that health-care insurance claims processing must be handled in-state; while outsourcing is possible, the work still needs to be done in-state. There are similar laws in the United Kingdom and Europe that regulate where data needs to reside and how it must be handled. These can have a significant impact on the business case.

■ **Track suppliers: companies depend on them more than they know** –

Enterprises must periodically assess their suppliers for their ability to provide continued best-in-class services. Suppliers' interests and capabilities change as well. It is important to know their strategic intent, where they plan to invest, and areas they plan to exit. It is also important to know their relative standing in the marketplace. Assess if they continue to be leaders in their space. With alternate deployment models, suppliers become an integral part of an enterprise's supply chain; their ability to deliver will impact the enterprise's ability to perform.

Best-run companies actively manage their supplier relationships, often working closely with their suppliers to understand and influence the suppliers' strategies and plans.

Knowing the Options: Increased Probability of Success

Einstein once said, "We can't solve problems by using the same kind of thinking we used when we created them." Knowing the base helps enterprises to better evaluate the options and avoid the mistakes; understanding the options and their implications will enable an enterprise to better deploy its resources.

Enterprises often look at obvious choices and miss out on nontraditional options. For example, these days there are IT outsourcing service providers that are willing to finance the acquisition of software, provided the buyer is willing to procure other related services (such as implementation and operations) and even provide it as software-as-a-service to their customers via a subscription model. This means an enterprise now has the ability to lower its capital expenditure without having to forego the ability to implement a customized solution. The options need to be evaluated for longer-term impact on the organization and its ability to remain competitive. Keeping the solution landscape simple goes a long way in improving effectiveness and efficiencies. It is often tempting to opt

for the next new technology. But diversity in technology across the solution landscape can become untenable.

Value-Based Decisions: Improved ROI

Saying that all decisions need to be value based is as basic as it can get. As there is no single right answer, each enterprise must determine the combination of solutions and deployment options that will enable it to get to its desired state in the most cost-effective manner. When selecting the solution components, decision makers need to keep both the immediate-term and the long-term value in perspective. Having a well-defined, value-based prioritization framework can help resolve conflicts and enable decision makers to select solutions that are better aligned with the enterprise's value system.

The final choice may well depend on factors outside of the enterprise, such as supply constraints. Business situations often change; what was important yesterday may not be essential tomorrow. Hence, this process needs to be iterative. An enterprise must not hesitate to pull the plug on an initiative if there is a dilution in benefits or if it is no longer required.

Managing the Transformation

Designing is only the first part of the equation; implementing and managing the transformation is key to the ultimate

success. Implementation of any new solution typically involves some form of operational or organizational change. For an alternate deployment to be successful, enterprises must align their processes and organization structure, instill operational discipline, and implement joint governance.

Process Alignment to Drive Efficiency

When enterprises outsource, external entities are introduced into the process chain. External service providers bring their own operating policies, procedures, and standards into the supply chain. There is a need to ensure that processes between the entities dovetail, which may require enterprises to redesign the processes, taking into consideration the strengths and limitations of both parties. Enterprises must involve the suppliers in the redesign process. The transparency will enable both parties to develop a more comprehensive value chain.

Retained Organization – Vital to Success

One common mistake that enterprises often make when outsourcing is that they do not redesign their retained organization for the new operating model. This often leads to the creation of shadow organizations that are nonproductive and potentially disruptive. To avoid the creation of a shadow organization, enterprises must clearly define the roles and responsibilities under the new operating model. Enterprises need to be deliberate in their design. Retaining too

many or too few resources increases risks and can dilute the value. They need to have clarity about what needs to be done internally under the new operating structure and eliminate redundancies. Enterprises must avoid the temptation to shuffle existing resources to these roles and must be open to recruiting from outside the firm to get the right skills essential for success under the new operating model. Enterprises must proactively address the resulting change management requirement. Extensive communication and retraining of resources are vital for enabling smooth organizational transition.

Operational Discipline

Another impact of outsourcing or on-demand deployment is the operational elasticity. Unlike in an on-premise situation, an enterprise will not be able to make operational changes at short notice without having to pay for them. Service providers operate strictly to their contracts. A poor demand management process can lead to increased overall costs, manifesting in additional service provider charges or the inability to meet business needs. Enterprises need to ensure that there is operational discipline to avoid “scope creep” and ensure realization of the business case benefits.

Governance and Orchestration

Having an efficient and effective governance organization is vital for ultimate success. Buyer enterprises must ensure

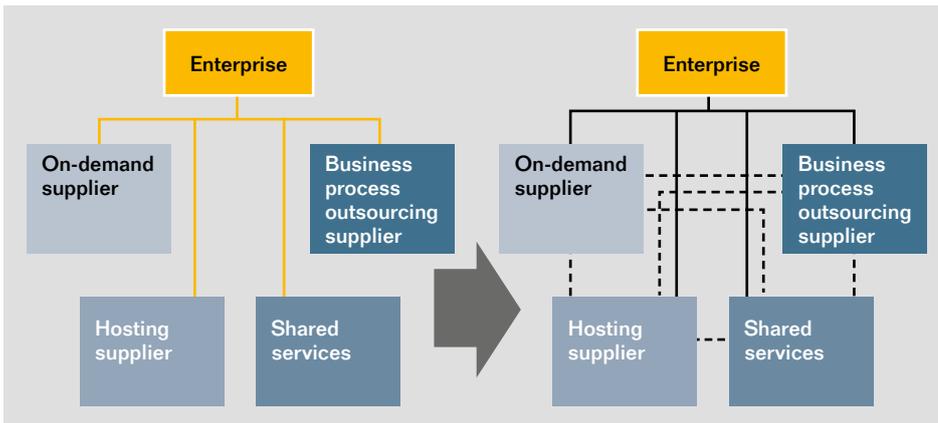


Figure 11: Integrated Service Delivery Management

that they do not become the bottleneck when multiple service providers are involved in the delivery of a service (see Figure 11). They must put in place an operating mechanism that enables the service delivery providers (except, perhaps, standard out-of-the-box SaaS providers) to work collaboratively and resolve any problem that may arise, without having to depend on the buyer enterprise to facilitate the interactions.

The governance organization must be staffed with decision makers and key individuals who are accountable for business outcomes. It must include executive-level representation from the supplier organizations. Internally, the governance organization must have representation from IT, business, and HR. Orchestrating the relationships at the enterprise level will enable it to resolve

issues quickly. There should be a clear set of goals, objectives, guiding principles, and issue resolution processes. Enterprises will be well served by establishing a competency center that defines standards and coordinates activities related to alternate deployment models, sourcing, contracting, administration, and governance.

ARCHITECTING THE SOLUTION LANDSCAPE

FACTORS TO CONSIDER

When buyers do not have choices, decision making is relatively straightforward. With increased choices, buyers have a greater opportunity to choose something that will make a difference. Alternate deployment models can provide significant value as long as the appropriate model is chosen for the given circumstance. It is important to note that no single model is appropriate for every situation; as such, an enterprise must expect to have a combination of solution deployment models within its landscape.

A simplified way of looking at these deployment models is in terms of asset ownership, location of deployment, and operational responsibilities, as shown in Figure 12. Fundamentally, there are three questions that need to be addressed for any solution component:

- Should the enterprise own the technology component?
- Where should it deploy the component – internally on the company’s infrastructure or externally on a third-party infrastructure?
- Who should operate it – internal resources or an external service provider?

The right answers may vary based on component type and the circumstances that the enterprise finds itself in. We see seven of the eight possible combinations in use in the marketplace; the last one, which involves on-premise rental operated by a third party, is rarely seen in practice:

1. **Classical on premise** – The enterprise owns, hosts, and operates the solution itself.

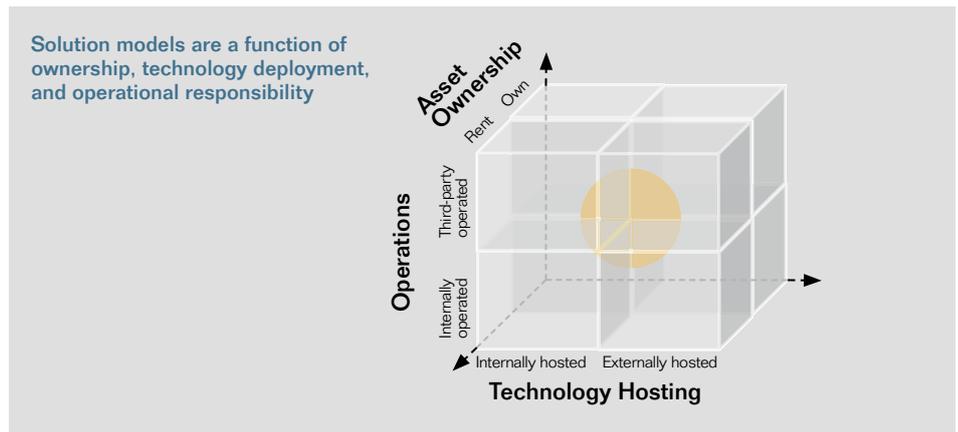


Figure 12: Three Dimensions of the Operating Model

2. **On-premise rental** – Solution is rented from a third party but hosted and operated by internal resources.
3. **Classical hosting** – This is the same as classical on premise, except the solution is hosted externally by a third party on its infrastructure.
4. **On demand or SaaS** – A supplier provides the solution platform or the services using its own solution components for the buyer to use.
5. **Classical BPO** – A supplier provides the business services using the customer’s IT platform (“labor arbitrage BPO”).
6. **Bundled outsourcing** – The supplier operates the customer’s technology and business process – that is, bundling classic BPO and classic hosting (owned, externally hosted, externally operated).
7. **Platform BPO** – The business process provider provides the full process infrastructure, which enables full economies of scale (“full-stack BPO”).

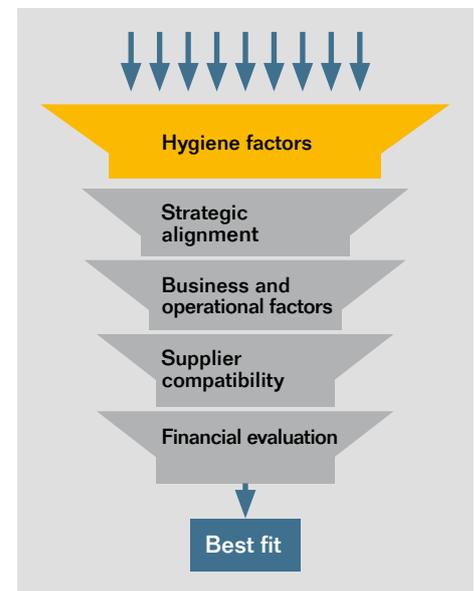


Figure 13: Solution Evaluation Framework

Deciding between the various solutions and deployment options can be challenging. There are several factors to be considered, and they can be grouped into five major categories (see Figure 13):

- Hygiene factors
- Strategic alignment
- Business and operational factors
- Supplier compatibility evaluation
- Financial evaluation

This five-step approach can help businesses conduct a systematic evaluation of the options.

Hygiene Factors

Hygiene factors can also be referred to as show stoppers and can help enterprises quickly narrow down their solution choices (see Figure 14). While each enterprise must come up with its own set of factors, a typical set will include the following:

- **Solution fit** – The solution needs to be good enough – that is, it has the basic functionalities and support for capabilities that the enterprise is seeking in order to address its business needs. Solutions not meeting this threshold get filtered out.

- **Technological alignment** – The solution must be aligned with the enterprise's technology strategy and standards. It is preferable to adopt solutions that adhere to open standards and are based on proven technology; this will enhance the ability of the solution to easily integrate with other components of the solution landscape and enhance the life of the solution. Here again, solutions that do not meet the standards get filtered out.
- **Compliance and security** – Noncompliance to applicable regulations can create significant liabilities for an enterprise. Certain industries (like U.S. healthcare) and certain geographic regions (such as the European Union) have stringent data privacy requirements. There might also be local content rules or political circumstances (for example, local hosting in China) that weigh in favor of staying local with services "production." This does not mean that enterprises must necessarily opt for an in-house solution.

Many mature service providers have built robust service delivery operations with world-class security and have specialized staff to keep track of regulatory changes and compliance requirements. Also, outsourcing and on-demand vendors are better positioned to implement frequent changes that might occur at a lower per-customer cost basis, as compared to in-house operations.

- **Budgetary limits** – All enterprises have budgetary constraints. Considering them up front in the evaluation process can save a lot of time and effort. For example, not having the necessary capital to procure the software license reduces the options available for on-premise deployment. Enterprises must explore financing options prior to eliminating an otherwise good solution. There are a number of finance sources, including service providers who may be willing to make an investment in exchange for additional business.
- **Urgency of business needs** – While every customer would want to have an immediate solution to a problem, it is often not a mandatory condition. Buyers must determine the true urgency of the need; having more time often increases the number of options available to them.

At the end of this exercise, enterprises can expect to have a narrower set of valid options. Now it is the question of finding the best among the viable solutions.

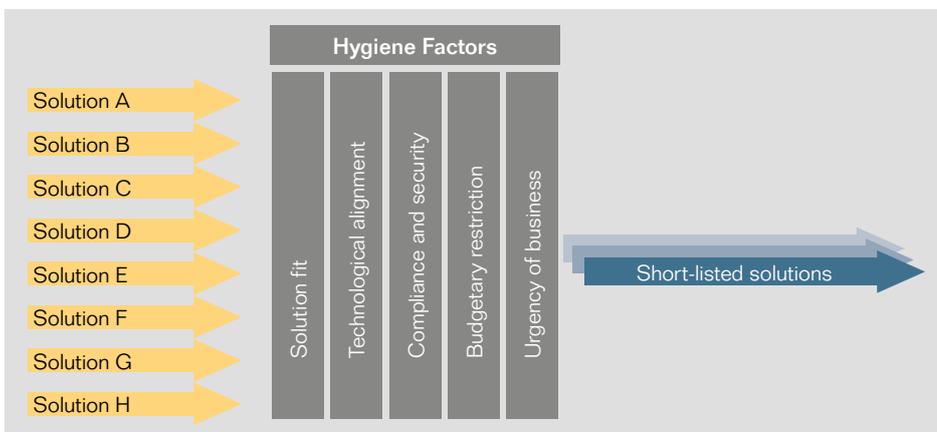


Figure 14: Hygiene Factors

Strategic Alignment

Immediate-term requirements often dominate the decision-making process, however, having alignment with strategic objectives and goals enables better return on investment. Enterprises must deploy solutions that support their strategic objectives and business goals. There are three aspects with which the solution needs to align, as shown in Figure 15:

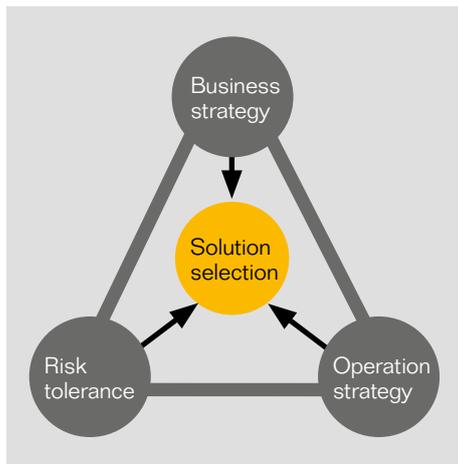


Figure 15: Strategic Alignment

- Business strategy
- Operations strategy
- Risk tolerance

Business Strategy

While the solution may need to address immediate-term objectives, the selection process must also take the long-term business strategy into account. Having alignment with the longer-term business strategies will help reduce total cost of ownership in the long run (see “Case Example: Business Strategy” sidebar).

Operations Strategy

Enterprises use different operational strategies to differentiate themselves in the marketplace; for instance, some may pursue a cost leadership strategy while others may adopt a value leadership strategy. This will have an impact on the selection of the solution. Buyers must also look into the capability-to-cost equation. At the same time, enterprises may choose to keep certain solution components guarded; they may not want to let others have insight into their IP, even if it means higher operating costs.

Enterprises must be truly critical in their evaluation when determining what needs to be retained in-house. This does not mean that every business within an industry will perceive its solution landscape in a similar manner. What is core to an enterprise can differ even within an industry. For example, a large box retailer may consider its supply chain and logistics management as being its strategic value differentiator, whereas a high-end retailer may view its customer intimacy and shopping experience as core to its business. These two firms will have different views of what they need to have direct control over.

An enterprise must reflect on what is core to its business and its ability to build the essential competencies required to gain competitive advantage. Investing to build up competencies in noncore areas can be suboptimal, as it may require diverting scarce resources from activities that are more fundamental to the business. Here again, seeking alignment with strategic objectives can

help determine priority segments for investments. When evaluating solutions and deployment models, having alignment to operations strategy can enable better allocation of resources.

Risk Tolerance

There is risk associated with each deployment model. The question is, what is an acceptable level of risk and what option provides the best value equation? This question is pertinent when enterprises have choices. One way to look at solution choices is to consider the extent of external dependency it creates (see Figure 16). It is preferable to limit external exposure in business-critical areas, as failure on the part of the supplier to provide the necessary services can critically hamper the enterprise. When an enterprise outsources, it is not moving work to an external entity; rather, it is bringing the external entity into the supply chain.

Case Example: Business Strategy

Case example: A U.S. company was in urgent need of a new HR system, as its existing system was not able to address new regulations. The IT department initially identified a solution that was tailor-made for its immediate needs. What the IT department did not know was that the company board had plans in place to expand into Asia within the next few years. Had they known that, they may have selected a different solution, one that provided expanded geographic coverage and avoided future costs. Seeking alignment with longer-term goals can help reduce overall cost and better return on assets.

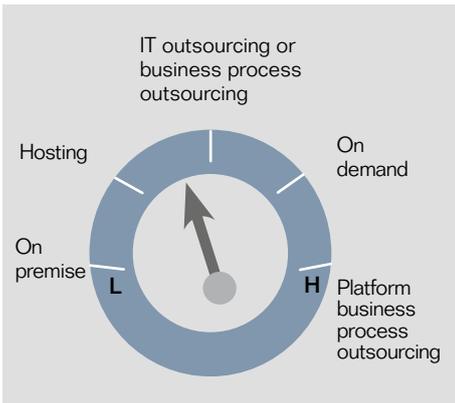


Figure 16: Supplier Dependency Meter

Similarly, when an enterprise implements on-demand solutions, it brings the supplier's service delivery stack into the process chain. There are literally hundreds of things that can cause supply chain disruptions (for example, the avian flu outbreak in 1997 and the tsunami in 2008). Events like labor unrest, geopolitical events, and key supplier employee attrition can cause service disruption. The responsibility for outcomes remains with the enterprise even as it relies on the supplier

for the services, security, compliance, business continuity, and innovation. Weakness on the part of the supplier can have negative implications.

As enterprises move from on-premise solutions to platform BPO, the level of supplier dependency increases. One way to determine the appropriate level of dependency is by mapping the solution options to business criticality. The "corridor of acceptability" (see Figure 17) will depend to a large extent on the internal capabilities of the enterprise – the lesser the in-house capabilities, the lower the slope will be. If the business function is critical and the enterprise does not have the requisite competencies and capabilities in-house, it is self-destructing to keep it in-house. On the other hand, with strong internal capabilities, an enterprise may be able to gain distinct competitive advantage by retaining the solution in-house.

Enterprises must determine when it makes sense to leverage a third party. Smaller companies can often gain

access to world-class capabilities and improve their ability to compete with more-established competitors by leveraging third-party providers. They may also be able to improve their ability to comply with legal requirements (for example, national and multinational tax reporting) and thus reduce business risks by outsourcing. Badly implemented and operated on-premise solutions can be riskier than best practices-based outsourced solutions.

Besides evaluating individual solution-level risks, businesses must also evaluate risks at the enterprise level. Does implementing a specific solution increase the enterprise's exposure to a specific supplier? Often, enterprises conduct risk assessment on a stand-alone basis. Best-run companies also evaluate the enterprise risk when selecting solution or service providers. (see "Case Example: Vendor Selection" sidebar).

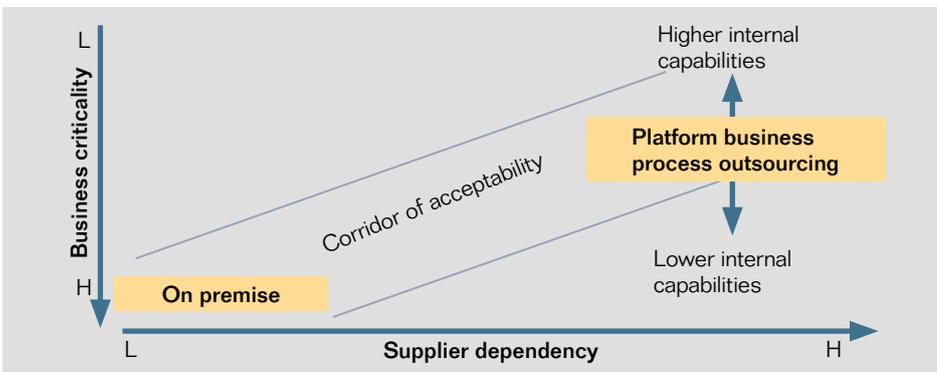


Figure 17: Acceptability of Supplier Dependency

Case Example: Vendor Selection

Case example: A global company decided to outsource a business function. Through a detailed evaluation process, it identified two potential vendors, each capable of providing the requisite services. The company had a strong incumbent relationship with one of them. Despite the relationship, it decided to opt for the second vendor. The company was not comfortable about the increased exposure it would create by awarding the new business to the incumbent.

Business and Operational Factors

This is the third stage in the solution selection process. While alignment with broader, long-term strategies is essential, there are always base realities, such as competing demand on existing operational capabilities (see Figure 18).

Business Situations

Often, enterprises find themselves in situations in which they need to act quickly to address a challenge or leverage a market opportunity; these situations may call for some flexibility in how the solutions are deployed. (see “Case Example: Business Situations” sidebar).

There can be other reasons, such as uncertainty of the business opportunity, lack of capital, and so on, that may influence the selection. Even under these circumstances, the selection

needs to be aligned with the strategic plan. An enterprise implementing a short-term fix must also put in place plans to replace it with longer-term solutions at the earliest possible time.

Operational Factors

We all like to believe that we are really good at what we do – it is only human, and enterprises are no different. Before deciding on on-premise or shared services deployment, an enterprise must ask the tough questions regarding its operational capabilities: Does it have the operational capabilities comparable to its direct peers? Will it be able to sustain any competitive advantage going forward? Will it be able to attract and retain the skilled resources needed? How does its performance compare to a third-party service provider? Are the operations cost-effective, as compared to the market? If the answer to any of these questions is “No,” the enterprise may want to consider an alternative deployment.

Service providers make significant investments to build up their service delivery capabilities to stay competitive in the marketplace. This means that a service provider’s operational capabilities in many noncore business processes will be superior to that of most enterprises, even large ones. For example, while enterprises consider HR as being important, they also consider it to be a support function; this often translates to limited budget being available for improvement in operational capabilities. On the other hand, an HR outsourcing service provider will invest heavily in building up its operational capabilities, as that is its core business. The HR service provider may also be able to attract and hire better talent by offering better career opportunities.

The buyers must not take a service provider’s capabilities for granted. While many have strong capabilities in certain areas, that does not translate into strengths across the board. Enter-

Case Example: Business Situations

Case example: A U.S. healthcare company was about to undertake a comprehensive systems upgrade initiative. Just before it started on its implementations, it received an acquisition offer. This made the management put a hold on all major initiatives. However, the business needed certain additional capabilities to maintain compliance. To address this specific need, the company opted for a niche solution for the interim that it could deploy immediately.

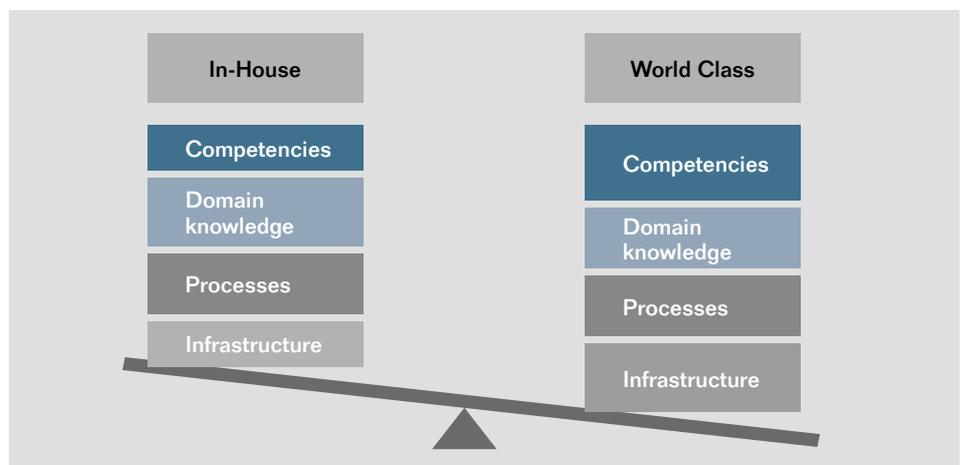


Figure 18: Comparative Assessment of Operational Capabilities

prises must validate their suppliers' abilities to proactively develop innovative solutions. For example, an IT outsourcing service provider may have strong technical knowledge but may not have equally strong domain knowledge across all industries. This may limit its ability to innovate and deploy industry-specific solutions.

A recent Forrester Research survey shows that 41% of those dissatisfied with their outsourcing relationships picked lack of innovation and continuous improvement as causes for dissatisfaction. Benchmarking internal and service provider capabilities will help determine the best combination for maximizing returns while minimizing risks. Enterprises must not compromise on value leadership while trying to get to a lower cost base.

Supplier Compatibility

Suppliers become an integral part of the buyer's enterprise, especially in cases of outsourcing and on-demand services. Businesses must evaluate their suppliers on five aspects besides how well the solution fits their business needs (see Figure 19):

- **Supplier's strategic intent** – Understanding the supplier's strategic intent can provide actionable insight; for example, a supplier that intends to grow through value leadership is likely to invest more in creating value, whereas a supplier focused on cost leadership will help drive down cost but may not necessarily develop innovative solutions. Similarly, a supplier intent on broadening its service offerings will likely dedicate more funds

for new business segments instead of improving current offerings.

- **Financial stability** – Having financial stability allows the supplier to focus on operational aspects and customer needs. It also means a reduced risk of the supplier becoming insolvent. This is vitally important in the on-demand space, as many of the providers are relatively small.
- **Willingness to invest** – Having financial stability is not enough; there needs to be a willingness to invest – in new technologies, tools, and best people. Businesses must seek to understand how the supplier treats and motivates its employees. How does it incorporate best practices on an ongoing basis? Is it investing in areas relevant for the enterprise? Partnering with suppliers willing to make the investments will help the enterprise maintain competitive advantage.
- **Organizational compatibility** – The importance of organizational compatibility is often underestimated. Cultural differences, generation gaps, communication styles, and different value systems contribute greatly to operational incompatibility. While a perfect match may be difficult every time, having similar corporate values and operating principles will help the buyer and the supplier employees to better understand each other and lead to better collaboration and improved results.
- **Commitment to partnership** – At the end of the day, the supplier's commitment to a partnership is what dictates success. This can be gauged by the senior resource commitment they are willing to make with regard to



Figure 19. Key Supplier Evaluation Framework

the relationship. The relevance of the buyer's business to the supplier's goals will partly drive the level of commitment.

Financial Evaluation

When everything else is acceptable, the selection boils down to financials: what will it cost over the productive life of the solution, commonly referred to as the total cost of ownership (TCO)? Enterprises must consider cost over the lifetime – initial cost, ongoing cost, and exit cost. Each category has a number of cost elements and applicability of these elements may differ based on the deployment model (see the “Key TCO Cost Elements” table in the “Appendix” section for a list of key cost elements).

One-Time Costs

The cost elements that get invoiced by the supplier are the obvious ones; estimating internal costs are often the challenge, even in the case of SaaS deployments. A survey by Forrester Research of customers using third-party systems integration support to roll out SaaS solutions found that 36% of the SaaS projects involving enterprise solutions took more than a year to complete, with only 7% completed within three months. The survey also found that the key drivers of these were heavy integration with legacy systems, deeper customization than previously anticipated, and significant process reengineering.

The cost of integration is, of course, dependent on the extent of integration involved. Some of the one-time costs are dependent on the situation – for

example, a data migration cost is incurred if the enterprise is migrating from an old system to a new one. Similarly, the costs associated with transition, reorganization, and change management are applicable only when enterprises transition from an on-premise model to an alternate deployment model. These elements are often missed or underestimated.

The training costs associated with reskilling retained employees for their new roles and responsibilities can be significant, especially in the case of outsourcing or establishing shared service centers. There is a need for extensive people management during the transition process; the risks of operational errors and productivity losses are very high and can be expensive. There are also costs associated with process and behavioral changes, in order to be effective under the new operating model.

Besides internal change management, there is a need to proactively manage external stakeholders, such as customers, suppliers, local governments, and others, as the case may be. These can be onerous at times and must be considered when calculating transition cost. Legal issues are a possibility and can be expensive. When functions and processes are outsourced, there are two types of integration costs – one relates to the technical integration and the second pertains to operational integration. These can be significant.

Ongoing Costs

The ongoing costs are often difficult to gauge. While direct labor costs are

typically straightforward, it is the ongoing support structure cost – including costs related to service delivery management, governance, and contract administration – that can be a challenge.

Scope Creep and Overtime Cost

One aspect of operations cost that often gets overlooked is the cost associated with overtime needs. In an outsourced situation, the service providers will charge additional fees for services beyond the contracted scope of work; the same is the case with on-demand and cloud services. The cost for enterprises with fluctuating workload and absence of operational discipline can be significant. Additionally, scope creeps are easier in the case of outsourced services, as service providers are typically not constrained by resource availability and are more likely to expect requests for additional work – of course, for a fee.

Business Continuity Costs

Enterprises must account for business continuity under the different solution options. In the case of supplier-provided disaster recovery, it is important to determine the level of protection desired and the associated cost. While many enterprises do account for this, they often underestimate the cost associated with coordination and the complementary effort needed on the part of the enterprise to bridge the gap in service levels during a disaster. Enterprises must also account for the probability of failure on the part of the service provider for providing business continuity and have their own fall-back plan in place. There will be a cost element associated with such arrangements.

Exit Cost

The last cost category is the “exit cost.” Depending on the circumstances, this can be very significant. Transitioning work back in-house can be more expensive than outsourcing the first time around. In case of termination midway through the contract, there may be additional cost-related legal matters, including costs related to termination for convenience. The need for termination can occur for reasons other than performance – for example, the supplier gets bought out by a company that the enterprise does not want to do business with, the enterprise decides to sell off its unit that was consuming the outsourced service, or the supplier’s financial situation becomes unstable. For TCO calculations, enterprises must weigh the probability of such events occurring, based on the business situation and assessment of the provider, to estimate a potential cost.

The decision to go for one deployment model or the other must not be based on any presumption that one type of solution deployment will always be cheaper than the other. The real costs will vary by circumstances. Sharing resources

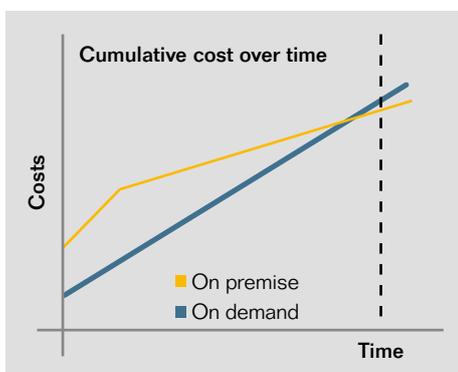


Figure 20: Total Cost of Ownership Projections

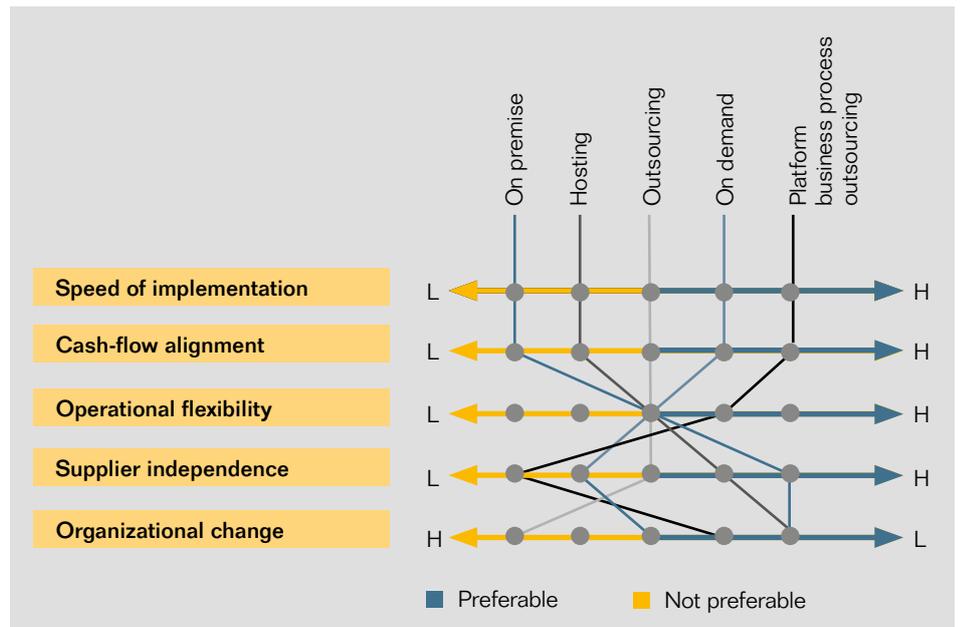


Figure 21: Alternate Deployment Characteristics.

always helps lower the cost, but it always comes with some risk. Enterprises must decide the acceptability of the risk.

TCO must be calculated over the anticipated life of the solution (see Figure 20). The on-demand solutions, with their pay-as-you-go model, will be more cost-effective in the shorter term. The subscription model also helps smooth out the cash flow and improve alignment of cost with consumption. Some enterprises may prefer such flexibility, even if the TCO is higher over the life of the solution.

Typically, solutions vary from one another in terms of functionality footprint, capabilities supported, and potential value. Hence, TCO must be considered with reference to value realizable. It should ideally be the value-to-cost ratio that

must be used to decide on the solution, all other preconditions being fulfilled.

Special-Case Circumstances

There may be other special-case circumstances that may have an influence on the ultimate selection – for example, an enterprise may be planning to divest one of its business units. In the case of IT needs for this business unit, it may want to opt for a third-party solution, as it would be easier at the time of separation.

In summary, each deployment model has its merits and demerits (see Figure 21). The cost-benefit trade-offs need to be evaluated on a case-by-case basis. While immediate pain points need to be resolved, a deliberate design approach can help enterprises achieve a sustainable competitive advantage.

CONCLUSION

HYBRID SOLUTION LANDSCAPE: KEY TO SUCCESS

In conclusion, alternate solution deployment models offer enterprises choices on how to build up their capabilities. These choices can provide significant benefits or introduce undesirable risks, depending on the circumstances. Currently, there is no single deployment option that can address all types of business needs. As such, a business will need to select the solution deployment option based on its circumstances. While there are several aspects to consider when evaluating, there are some key factors (see the “Influencing Factors” table) that will likely influence the choice of the deployment model – these being capability type, short-term versus long-term business requirement, urgency of need, nature of the demand, in-house infrastructure and competencies, internal cost structure compared to the market, and availability of investment capital.

Whatever the deployment model, the solution component needs to be able to operate cohesively with the rest of the solutions in the landscape. The solutions need to be aligned with the enterprise’s longer-term IT and operations strategy. Every component of the solution landscape needs to come together as a singular unit, with the ability to adapt and evolve according to needs (see Figure 22).

To get to the best solution landscape, IT and business leaders need to collaborate. A collaborative approach can help the enterprises develop innovative solutions to address immediate term needs without sacrificing longer-term success.

Influencing Factors	On Premise	Outsourcing	On Demand
Capability type	Core	Noncore	Noncore
Business requirement	Long term	Long term	Short term or unsure
Urgency of business need	Low	Low to medium	High
Demand pattern	Steady	Fluctuating	Fluctuating
In-house infrastructure	Readily available	Not adequate	Not adequate
In-house competencies	Market comparable	Not adequate	Available in-house
Cost of internal operations	Comparable to market	Expensive to the market	Expensive to the market
Up-front investment capital	Available	Available	Not available

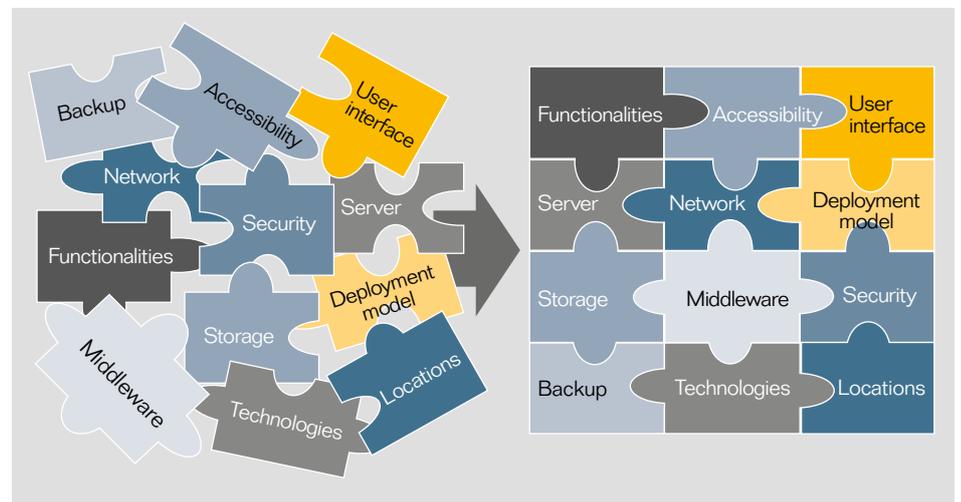


Figure 22: Operating as a Single Unit

Deployment Model Selection Considerations

Areas	On Demand	On Premise	Outsourcing
Capital requirement	Capital requirement is lower, as the vendor invests in the requisite hardware and software to provide the service.	Capital requirement is higher, as the buyer needs to invest in the requisite hardware and software.	Capital requirement is higher, as the buyer needs to invest in the requisite hardware and software. Outsourcing vendors may be willing to finance or subsidize the investment needed in exchange for additional future revenue.
Cash flow	The on-demand vendors charge either on a fixed price subscription basis or on a consumption basis. In either case, it helps enterprises get better alignment of cash flow with consumption.	Cash flow is skewed and front loaded. However, this results in lower ongoing operations costs.	Cash flow is skewed and typically front loaded. Additionally, if the solution is being shifted from an on-premise to an outsourced model, there is an additional transition cost. However, the resulting operating expenditure is expected to be lower.
Functionality match	Solution needs to be a good match, as buyers typically do not have the option to extensively customize the solution. Software as a service (SaaS) is provided via a shared resource that is configurable at the user interface level but not customizable at the database or application levels. At best, businesses can build add-on solutions, outside of the core SaaS application.	Buyer has access to the source code and can build additional functionalities, if required.	Buyer has access to the source code and can either build or have the service provider build additional functionalities, if required.

Areas	On Demand	On Premise	Outsourcing
Implementation effort and lead time	Implementation lead time is minimal; the on-demand offerings are standardized with minimal possibilities for customization. This means buyers do not have choices; however, the positive aspect is quick deployment.	Implementation lead time can be significant, as the solution needs to be configured and deployed. Having the ability to customize the solution often translates into longer deployment time.	Implementation lead time can be significant, but lower than on premise, as outsourcing suppliers can bring in best practices and lower per-unit cost resources to reduce lead time and cost.
Future needs and supplier's product road map	Buyer is dependent on the vendor to build and deploy new functionalities and features to address future needs. The buyer must evaluate the supplier's strategy, future product road map, and ability to address future needs in a timely manner. If the supplier does not have a clear road map, this can be a red flag.	Buyer is not entirely dependent on the vendor to build and deploy new functionalities and features to address future needs. The buyer, while preferring that the vendor provides new functionalities as part of standard software, has the option of building add-ons or making modifications, if required.	Buyer is not entirely dependent on the vendor to build and deploy new functionalities and features to address future needs. The buyer, while preferring that the vendor provides new functionalities as part of standard software, has the option of building add-ons or making modifications, if required.
Shared resources	SaaS vendors typically offer services via the multitenancy model, meaning that the underlying service delivery infrastructure and resources are shared. This can have implications and must be evaluated. SaaS vendors may in turn use third-party services to develop their service delivery platform; this may require the buyer to evaluate the third party as well. Firms should review the vendor's architecture to ensure proper data segregation.	The solution is deployed in-house on buyer's own infrastructure behind the firewall. As such, the security is entirely within the buyer's control.	The solution is deployed either in-house behind the firewall or on the outsourcing service provider's infrastructure. The infrastructure is typically separated out at the outsourcing providers' site, unlike in the case of on-demand services.

Areas	On Demand	On Premise	Outsourcing
Access	SaaS is offered via the public Internet, using standard user interfaces for authorized users. Buyers need to evaluate the implications in terms of enterprise security.	With deployment within the firewalls, enterprises have direct control over who can access the system.	With deployment within the firewalls, enterprises can choose to maintain access within the security of VPN.
Application performance	Buyer is dependent on the supplier to ensure application system performance according to service-level agreements. The buyer must understand the underlying quality of the resources being deployed to ensure system performance in a high-volume, multitenancy environment.	Buyer is dependent on the software design for its performance but is not dependent on the vendor for infrastructure-related performance and operational service levels.	Buyer is dependent on the software design for its performance and is dependent on the outsourcing vendor for infrastructure-related performance and operational service levels.
Scalability	A key value proposition of SaaS is scalability. The buyer must evaluate if the vendor's architecture is designed for true scalability.	Buyer can scale up with additional licenses but may not have the option to scale down and get a refund in case of reduced utilization.	Buyer can scale up with additional licenses but may not have the option to scale down and get a refund. Additional services, such as business processing services, can be procured on a transaction basis with a stepped-scalability option.
Ability to integrate with in-house and partner solutions	This can be an issue and must be evaluated up front. The inability to integrate can dilute any savings due to lower operating cost.	With access to the source code, it is often easier to integrate the solution to other in-house and partner systems.	With access to the source code, it is often easier to integrate the solution to other in-house and partner systems.

Areas	On Demand	On Premise	Outsourcing
Supplier commitment	Supplier's commitment to invest in building up the SaaS solution and service delivery capabilities is vital. Unwillingness or inability to invest will place the buyer in a bind.	Supplier's commitment to the product is important; however, if the supplier fails to deliver, the buyer is less at risk as compared to its on-demand counterparts.	Supplier's commitment to the product is important; however, if the supplier fails to deliver, the buyer is less at risk as compared to its on-demand counterparts.
Financial stability	SaaS is based on a shared-cost model. The sustainability of the model is dependent on the supplier's ability to make continued investments, as the revenue and cost recovery happens over an extended period. Hence, the customer base becomes important. Dependency on a few large customers can be risky, as the vendor will be severely impacted if any of them drop out. If the vendor is unable to attract a large number of customers to its platform, the solution may have a short life. Evaluate the vendor's customer base, financial standing, and investment ability.	Having a strong customer base is always beneficial; however, there is less dependency on the vendor's financial strengths.	Having a strong customer base is always beneficial; however, there is less dependency on the software vendor's financial strengths. But there is dependency on the outsourcing vendor's financial strengths to enable continued investment required for performance improvements and innovations.
Compliance risks	Understanding the supplier's ability to fulfill all of the compliance requirements is paramount. Certain industry and country regulations mandate that the data be domiciled within the territory or region. As such, it is important to understand where the data resides in such situations.	Entirely within the buyer's domain.	Buyer is dependent on the outsourcing service provider to comply with all laws and regulations.

Areas	On Demand	On Premise	Outsourcing
Backup and recovery	Buyer needs to assess the backup and disaster recovery processes and determine if the recovery time and recovery point objectives are acceptable. On the same note, the buyer must determine if it will have access to the software source code if the vendor fails to perform. It must also assess the solution's ability to perform in a single tenancy mode.	Entirely within the buyer's domain.	Buyer is dependent on the outsourcing service provider to ensure backup and provide acceptable disaster recovery capabilities.
Portability	In case of failure on the part of the provider, is it possible to extract and move the data to a different system?	Question does not arise, as the data resides within the enterprise.	The data resides either within the enterprise or can be easily moved back in-house from an outsourcing vendor platform.

Key TCO Cost Elements

Cost Elements	Classic On Premise	Classic Rental	Classic Hosting	SaaS/ On Demand	Classic BPO	Bundled BPO	Platform BPO
Initial cost							
Software license	✓		✓		✓	✓	
Hardware	✓	✓			✓	(✓)	
Facilities	✓	✓			✓	(✓)	
Other software	✓	✓	✓		✓	(✓)	
Configuration and implementation	✓	✓	✓	(✓)	✓	✓	✓
Data migration	✓	✓	✓	✓			✓
Integration	✓	✓	✓	✓	✓	✓	✓
Transition				(✓)	✓	✓	(✓)
Reorganization				(✓)	✓	✓	(✓)
Change management cost				(✓)	✓	✓	(✓)
Business user training	✓	✓	✓	✓			
Ongoing cost							
Service charge		✓	✓	✓	✓	✓	✓
Standard software maintenance support	✓		✓		✓	✓	
Facility costs	✓	✓	✓		✓	(✓)	
IT operations	✓	✓			✓		
Business operations	✓	✓	✓	✓			
Governance			✓	✓	✓	✓	✓
Contract administration			✓	✓	✓	✓	✓
Business continuity	✓	✓	✓	✓	✓	✓	✓
Exit cost							
Alternate solution selection			✓	✓	✓	✓	✓
Migration			✓	✓	✓	✓	✓
Reorganization				✓	✓	✓	✓
User training				✓	✓	✓	✓

Legend: (✓) – Depends on the situation

GLOSSARY OF TERMS

On premise – Solution that is deployed on enterprise-owned infrastructure and operated by internal resources. This includes shared service centers that are fully owned and operated by the company.

On demand – Solution or service that is provided in a fully hosted and ready-to-use mode, either on a subscription basis or a consumption basis. The ownership of the assets resides with the service provider. The on-demand services include infrastructure services, application services, and business services.

Shared service – Centralized service operations that provide services to multiple business or operating units located in multiple geographies

Outsourcing – Any operational activity performed by an external party; these can be either IT related or business related or both.

Platform BPO – Standardized business services using a single technology platform to provide services to many clients

Cloud services – IT-enabled solutions and services (including business services) ubiquitously delivered, over the Internet, to multiple customers and consumers, on demand, using standardized processes and leveraging shared resources – infrastructure, systems, and people

Hybrid landscape – Solution landscape that includes more than one of the deployment models – that is, on premise, outsourcing, and on demand

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